



**INVESTIGATING REGIONAL DIFFERENCES IN SUICIDE  
ACCEPTABILITY ATTITUDES IN THE U.S.**

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## TABLE OF CONTENTS

ABSTRACT .....	3
ACKNOWLEDGEMENTS.....	4
INTRODUCTION .....	5
THEORETICAL BACKGROUND.....	7
DURKHEIM.....	7
A CULTURAL-STRUCTURAL THEORY OF SUICIDE .....	9
INDIVIDUAL ATTITUDINAL FORMATION .....	10
I. The Theory of Planned Behavior .....	10
II. Social Cognitive Theory.....	12
III. Ecological Systems Theory .....	13
GROUP-LEVEL ATTITUDINAL FORMATION.....	15
LITERATURE REVIEW .....	16
DIFFERENCES IN SUICIDE ACCEPTABILITY, MORALITY, OR RATE BY RELIGION, RACE, AND/OR GENDER .....	16
SUICIDE ACCEPTABILITY AND ITS OUTCOMES .....	17
RELIGION, CULTURE, AND SUICIDE ACCEPTABILITY.....	21
URBAN VS. RURAL REGIONS AND SUICIDE ACCEPTABILITY .....	22
PRESENT STUDY.....	24
METHODS.....	25
RESULTS.....	33
REGION AND ONE’S SUICIDE ATTITUDES.....	33
POLITICAL VIEWS AND SUICIDE ATTITUDES.....	36
I. Political View: Degree of Liberalism/Conservatism .....	37
II. Party Affiliation.....	40
III. Degree of Fundamentalism .....	42
RELIGIOUS BELIEFS AND SUICIDE ATTITUDES.....	43
I. Confidence in the Existence of God.....	44
II. Degree of Religiosity .....	45
III. Belief in Life After Death .....	47
THE REGIONAL EFFECT ON INDIVIDUAL SUICIDE ACCEPTABILITY ATTITUDES: A LIMITATION .....	48
DISCUSSION.....	49
IMPLICATIONS, LIMITATIONS, AND FUTURE DIRECTIONS.....	52
CONCLUSION.....	56
APPENDIX A.....	57
REFERENCES .....	64

**ABSTRACT**

In this thesis, I investigate if there are regional differences in suicide acceptability attitudes in the United States and what might explain these differences, namely political views or religious beliefs. I examine four suicide attitudes from the 2018 General Social Survey: whether a person has the right to die by suicide due to an incurable disease; bankruptcy; dishonoring one's family; or being tired of living and ready to die. I draw upon a number of theories that discuss how one's environment can influence their attitudes and how individuals form their attitudes in general. An individual from New England was found to be more accepting of suicide than someone from another region, and individual-level political and religious views were somewhat able to explain one's suicide acceptability attitudes. Overall, regional differences in suicide attitudes do exist, perhaps helpful for future research to better understand differences in suicide rates around the country.

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## INTRODUCTION

In the United States, the suicide rate increased every year between 1999 to 2018, with the total age-adjusted suicide rate having increased over 35% (U.S. Department of Health and Human Services, 2021). Suicide is currently the 12th leading cause of the death in the country and in 2020, it was the second leading cause of death for those aged 10–34 years old (American Foundation for Suicide Prevention [AFSP], 2022b; CDC, 2022). There is much research on what causes suicide, though there is no known single cause; its warning signs and risk factors; and what might prevent it. However, there is not much research into how one’s perception of suicide may have an impact on the result of the act itself. This research project is a statistical analysis that hopes to uncover regional differences in the United States regarding attitudes of suicide acceptability. It is well known that mental illness, such as depression, other forms of psychological pain known as “psychache” as proposed by psychologist Edwin Shneidman (1993), feelings of burdensomeness, and social isolation have all been associated with those who are suicidal and those who have died by suicide and that there are often multiple factors in one’s individual circumstances which lead a person to take their own life (AFSP, 2022a). But there is little research on how the attitudes towards suicide acceptability in the region in which they live may impact on their attitudes and then in turn, influence the act itself. Amidst the ongoing Covid-19 pandemic (Chatterjee, 2021) and the recent opioid crisis in which overdose is sometimes linked to suicide (Juergens, 2022), as well as the overall rise in the suicide rate over the last couple decades, there certainly needs to be more research on suicide, specifically attitudes on suicide acceptability.

There are known differences in suicide rates in the United States by region and state. In general, regions that are predominantly politically conservative, religious, and rural tend to

experience higher rates of suicide (CDC, 2022b; Rakich, 2020; Kegler et al., 2017; Norman, 2018). For example, the region West South Central is composed of Oklahoma, Arkansas, Louisiana, Texas, which are all in the top 50% of states with the highest suicide rates in the country. These states are also all conservative-leaning and also tend to be less urban than most states in the country. Hence, the politics of the states in West South Central may be correlated to their tendency to have higher suicide rates than more liberal-leaning states or rather in more liberal-leaning regions of the country. More conservative states like those in West South Central, likely have laxer gun laws, and since over 50 percent of suicide deaths are carried out with firearms, this could be another example of how politics may influence state or regional suicide rates (AFSP, 2022b). Geographically, various studies have found that areas with lower levels of urbanization see higher rates of suicide, too (Kegler et al., 2017). Thus, there are clear social and environmental factors that may make suicide more likely to occur in a region compared to others.

Because there are regional variations in suicide rates, it is possible that there may also be similar variations when it comes to suicide permissibility. Using data from the 2018 General Social Survey (GSS), I intend to see if there are regional differences in the U.S. regarding suicide permissibility. The GSS asks four questions about suicide permissibility. They are whether the respondent believes a person has the right to end his/her own life under each of the following four circumstances: has an incurable disease (*suicide1*); has gone bankrupt (*suicide2*); has dishonored his or her family (*suicide3*); and is tired of living and ready to die (*suicide4*). The predictor variables I will look at are generally political or religious in nature to see if these attitudes are influential when it comes to forming one's opinion on suicide permissibility.

## THEORETICAL BACKGROUND

### Durkheim

Émile Durkheim, one of the fathers of sociology, viewed suicide as a social phenomenon, rather than an individual one. He observed the rising rates of suicide in various European countries in the 1800s and posited that suicide was a social fact that said something about society. In other words, he believed suicide emerged from the social structure having observed correlations of suicide with respect to religion, family structures, and laws within the societies he studied (Durkheim, 2003, p. 32–49). From this he came up with two overarching themes, social integration and moral regulation. Social integration is the extent to which a person's social relations keep them bound to their social group, exposing them to the moral demands of that group (Durkheim, 2003, p. 38–48). Moral regulation constitutes the ethical and normative demands placed on a person that derive from their social group. Durkheim looked at how too little or too much of each influences a person to take their life (Durkheim, 2003, p. 38–48). Not only is Durkheim's work on suicide a sociological classic, but also it was relevant for my research as it directly spoke to how he observed social factors influencing individuals. In my research I attempted to look at how an individual may or may not be influenced by the suicide acceptability attitudes of the region they live, particularly if it is characterized by dominant political or religious views.

In his seminal work *Suicide* (1897), Durkheim discussed the role of social integration and moral regulation, which produce four types of suicide: egoistic, altruistic, fatalistic, and anomic. Egoistic and altruistic suicide describe a person's lack and abundance of social integration, respectively (Durkheim, 2003, p. 38–41). An egoistic suicide is often the stereotypical type of suicide we view in society today in which a person may experience social isolation and thus is

inadequately integrated with society. In contrast, an example of altruistic suicide could be Kamikaze pilots who are too integrated into their social group and follow norms to their detriment. Fatalistic and anomic suicide describe a person's abundance and lack of moral or social regulation, respectively (Durkheim, 2003, p. 43–44). Individuals of fatalistic suicide may experience extreme oppression due to excessive regulation, whereas anomic suicide is the result of normlessness such as the celebrity who feels invincible, free from any social regulation. It may not be possible to describe every suicide occurrence in one of four concepts, but Durkheim clearly describes how society may have an influence on the suicidal individual.

Religion and political affiliation may be part of how an individual relates to the region in which they live, thus impacting their integration into the region and how the region does or does not regulate the individual's attitudes, beliefs, and behavior. A region's dominant religion or political perspective could also be a part of its collective consciousness—the shared way of understanding the world—a Durkheimian term from his work *The Division of Labor in Society* (1893) that may be equivalent to what is more commonly considered culture (Durkheim, 2003, p. 60). The culture of a region may therefore have shared attitudes toward suicide acceptability, depending on if suicide is permissible under each of the four circumstances from the 2018 GSS: if a person has an incurable disease (*suicide1*), has dishonored their family (*suicide2*), has gone bankrupt (*suicide3*), or is tired of living and ready to die (*suicide4*). Each circumstance may not fit neatly into Durkheim's over-simplified suicide typology due to the complicated and individual nature of suicide. For example, a person contemplating suicide due to an incurable disease is probably doing so more because of their illness rather than a lack/excessive amount of integration/regulation from society. Similarly, individual circumstances that lead to the other three suicide scenarios are not accounted for in Durkheim's typology. That being said, his

typology can be a starting point for understanding how one's environment can influence an individual's attitudes and behavior.

### **A Cultural-Structural Theory of Suicide**

Building upon Durkheim's theory of suicide, Abrutyn and Mueller suggest a new cultural-structural theory of suicide that focuses on the individual and their environment. The authors' framework considers whether or not a person's environment provides too much or too little regulation, where the former results in fatalistic suicide and the latter anomic suicide (Abrutyn and Mueller, 2018, p. 48–49). In particular, it considers the influence of culture on regulation of the individual that can result in suicide, which Durkheim does not consider. The authors define culture as “the material (e.g., physical objects, buildings) and symbolic (e.g., values, ideologies, beliefs, and norms) elements a group shares such that they intersubjectively believe in a collective origin, rely on a collective memory, and have a sense of collective destiny” (Abrutyn and Mueller, 2018, p. 50). In short, culture can be thought of as collective ways of thinking and acting.

Abrutyn and Mueller's proposed theory includes four ingredients that affect regulation: cultural coherence, cultural directives, identity dynamics, and the social structure. Cultural coherence is the clarifying of beliefs, norms, and values; monitoring that people follow them; and the informal and formal sanctioning of those that stray from them (Abrutyn and Mueller, 2018, p. 53). Cultural directives are the concrete ways culture manifests so that people obey the agreed-upon beliefs, norms, and values; they guide people's behavior in accordance with the beliefs, norms, and values of the group (Abrutyn and Mueller, 2018, p. 53–54). Identity dynamics involve cultural directives and how they inform individual emotions, attitudes, and

behavior. They speak to how culture can affect the individual and transmit psychological vulnerabilities when cultures are highly regulated, as the authors argue (Abrutyn and Mueller, 2018, p. 54–55).

Relatedly, the broad culture of a region—considered via political and religious factors—regarding attitudes toward suicide acceptability, may also be transmitted to individuals. For example, in a culture that disapproves of suicide in any of the four circumstances presented in the 2018 GSS, disapproval could be relayed to the individual through cultural directives that stigmatize talk about suicide or mental health in general. A person’s attitude toward suicide may consequently be disapproving of it. Therefore, Abrutyn and Mueller’s new cultural-structural theory of suicide shows how culture can be transmitted to and influence individual-level attitudinal formation regarding the permissibility of suicide.

### **Individual Attitudinal Formation**

One limitation of Durkheim’s work on suicide, namely his suicide typology, is that it is mostly focused on how society impacts the individual. His lack of focus on individual circumstances takes away from understanding how the individual relates to society. The Theory of Planned Behavior, Social Cognitive Theory, and Ecological Systems Theory each give greater attention to the individual, including how one may formulate their perspective which often draws from the environment they are in.

#### **I. The Theory of Planned Behavior**

The Theory of Planned Behavior (TPB), an expansion of Icek Ajzen’s Theory of Reasoned Action, was created to attempt to explain and predict human behavior. It suggests that

“behavior is a function of salient information, or beliefs, relevant to the behavior” (Ajzen, 1991, p. 189). In other words, the relevant beliefs that the person holds regarding the behavior may explain the likelihood that the behavior will take place. There are three kinds of salient beliefs: behavioral, normative, and control beliefs. Behavioral beliefs are the views that can influence one’s attitude toward the behavior (Ajzen, 1985, p. 14). Normative beliefs are those held as subjective norms, or the individual’s perception of the social pressure to perform or not perform the behavior (i.e., beliefs about what other people think about the behavior) (Ajzen, 1985, 14; Ajzen, 1991, 195). Lastly, control beliefs are the perceptions of behavioral control one holds, since external factors can change a person’s intentions to perform a behavior (Ajzen, 1991, p. 189, 196–198). These salient beliefs, along with weighing the potential success or failure of the behavior, are determinants for the behavior being attempted. In essence, the TPB reasons that intentions—influenced by attitudes, subjective norms, and perceived behavioral control—can be used to understand behavior and the likelihood that it will take place.

The TPB deals with individual-level attitudinal formation and how this translates to or even predicts behavior. This is relevant to my research because it theorizes how an individual’s beliefs and attitudes are influenced by external factors, specifically when it comes to normative beliefs. Normative beliefs demonstrate that individuals take into account what the people important to them think about a certain behavior, which likely contributes to how they form their attitude about the behavior. Even though normative beliefs, and the TPB overall, are primarily used to explain and predict behavior, they still speak to individual attitudinal formation about behavior, in particular. In predicting behavior, the TPB is useful because if a suicidal person is more accepting of suicide, they may be more likely to engage in this action, whereas a person in the same psychological state but less accepting of suicide may be less likely to attempt to take

their life as other research has suggested. Therefore, the TPB is informative in terms of individual-level attitudinal formation about a behavior and is related to some of the current literature on suicide permissibility and resulting suicidal behavior.

## **II. Social Cognitive Theory**

Constructed in the 1960s by Albert Bandura, Social Cognitive Theory (SCT) argues that people form their beliefs and behaviors through a dynamic process that involves the person, the social environment, and behavior (Giguère et al., 2019, p. 189). Each part can inform the other two via reciprocal determinism. For instance, a person's environment can inform the opinions and thus the behavior of the individual. Self-efficacy, or a person's belief that they will execute a certain behavior is a key part of the SCT that can be socially reinforced internally or externally, and is not unlike Ajzen's concept of perceived behavioral control (Giguère et al., 2019, p. 189–191). This is important because some research on suicide acceptability has found that those who are more approving of it are more likely to engage in the act, again assuming their psychological state and other factors make them vulnerable to this. On the other hand, those who are less approving of suicide are less likely to engage in the act and disapproving of suicide can even be a counteragent to it. This speaks to an individual's self-efficacy of suicide that is perhaps first thought about through one's attitude toward suicide permissibility. In other words, just as the SCT theorizes that thoughts can be turned into action, so too may the attitudes toward suicide permissibility be translated into the action of taking one's life. In turn, this may be externally reinforced by one's social environment, such as if the environment shares a similar accepting attitude towards suicide as the individual.

Collective efficacy, or the perceptions and beliefs of a group that can elicit a desired

outcome, is also part of the Social Cognitive Theory and used to regulate an individual's behavior (Giguère et al., 2019, p. 190). Shared religion and political beliefs could be institutions that work as forms of collective efficacy. For example, if Christianity does not approve of suicide, and the group is predominantly Christian, this may translate to people being deterred from suicide if in a suicidal state, whether or not this is intentional. Not discussing suicide or mental health in general is likely due in part to the continued stigma attached to these topics, but speaks to the overall disapproval of these things which may work to deter the former phenomenon. While the SCT suggests that the beliefs of the group can inform individual behavior, it does not explain how group beliefs can inform the actions of the group to act as a collective (i.e., group-level behavior). Perhaps this is the case because Social Cognitive Theory has more to do with psychology rather than sociology.

### **III. Ecological Systems Theory**

One influence on an individual's attitudes could be the region in which the person is located due to its proximity. This regional effect would be important in my research if there are regional differences in suicide attitudes, or differences in political or religious views that could explain these former regional attitudinal differences. Of course, especially in a digital age, there are other factors that could shape a person's attitudes, such as who they identify with most on social media or what content they are most exposed to. Proximity, or the effect of one's regional location, is simply one factor that an individual can form their attitudes from.

Urie Bronfenbrenner's Ecological Systems Theory is useful to understanding this potential regional effect. Similar to Bandura's Social Cognitive Theory, the Ecological Systems Theory helps to explain how the individual is influenced by their environment. Bronfenbrenner's

theory includes five ecological systems that make up the environment and they move from the individual at the center outwards to the following: microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Guy-Evans, 2020). The closer the system is located to the individual, the more immediate environments it includes. For example, the microsystem may include an individual's family and work/school environment, while the macrosystem may include the broader cultural norms and beliefs of society. Regardless of where the system is located in relation to the individual, each system has some influence on the individual, directly or indirectly (Guy-Evans, 2020).

The Ecological Systems Theory could help explain how one's religion or political affiliation might have an influence on their opinion towards the acceptability of suicide. If an individual is deeply religious, and their religion is not accepting of suicide, this could influence their viewpoint on this issue. Religion would be a microsystem that has a direct influence on the individual. Similarly, one's political affiliation, perhaps a macrosystem, may also influence their suicide acceptability attitude, even if to a lesser degree. Unlike Bandura's theory though, Bronfenbrenner's model has multiple layers—the five ecological systems—where the systems that are next to each other are bi-directional, meaning the two systems can influence each other (Guy-Evans, 2020). Systems that are not next to each other may have an indirect effect on each other. The individual can influence the microsystem and vice versa, whereas the exosystem may simply indirectly influence the individual. Thus, Bronfenbrenner's theory illustrates how various social, cultural, political, economic, etc. factors influence an individual's beliefs and behavior, but to different degrees, depending on where these factors are situated in the ecological model in relation to the individual.

### **Group-level Attitudinal Formation**

There is very little to no literature on how groups form their collective attitudes, or rather, how attitudes are formed at the regional level. From what I have found related to group formation, individuals tend to be attracted to similar individuals so that multiple individuals end up forming a group with similar attitudes, beliefs, values, etc. Cultural transmission in general occurs through imitation, though some behavior may be imitated more than others (Prinz, 2011). This would suggest that any regional effect regarding beliefs, attitudes, or viewpoints is really just dependent on proximity to such things. In other words, the likelihood that one would adopt the beliefs, attitudes, or viewpoints of the region they are in is simply based on how often they come in contact to these things. There is also a context bias in which individuals tend to acquire socially transmitted characteristics based on who is transmitting them rather than what is being transmitted. In other words, the cultural cohesion of a group comes from imitating a behavior or attitude that is transmitted from more dominant individuals so that it becomes the dominant perspective (Prinz, 2011). Nevertheless, attitudinal formation on the group level is more about how the individual relates to the group, becoming integrated into it, rather than how the group does or does not shape the individual's attitudes. This would relate to my research as I am attempting to see how a region may influence an individual's suicide acceptability attitudes.

## LITERATURE REVIEW

### **Differences in Suicide Acceptability, Morality, or Rate by Religion, Race, and/or Gender**

While I have not encountered any studies examining U.S. regional differences regarding suicide acceptability, there is some literature on various personal factors that has been shown to impact suicide acceptability or morality. One such study looks at people's views on the morality of end-of-life treatments or outcomes, including suicide (Pew Research Center, 2013). In the section about the morality of suicide, it asks U.S. adult respondents about four scenarios in which they believe a person has a moral right to suicide: is suffering great pain with no hope of improvement (62%); has an incurable disease (56%); is ready to die, living has become a burden (38%); and is an extremely heavy burden on his or her family (32%). Generally speaking, there has been a slight increase in the belief that suicide is morally justified since previous surveys were conducted, and this is because fewer people are saying "I don't know," rather than there being a decline in people saying that suicide is not morally justified (Pew Research Center, 2013). That being said, compared to 1990, there is an increase in people believing that suicide is not morally justified when a person has become "an extremely heavy burden on his or her family." This study also looks at the morality of suicide and how it varies by religious affiliation and race, together (Pew Research Center, 2013). For example, in response to the first scenario—that a person has a moral right to suicide when he or she is in a great deal of pain with no hope of improvement—of the White Catholics, 67 percent agreed compared to 56 percent of Hispanic Catholics and 42 percent of Black Protestants (though this is a different religious sect) (Pew Research Center, 2013). Hence, there may be differences in religion and/or race with respect to suicide acceptability across regions in the U.S., as there were variations in the morality of suicide in this study.

Another study looked at trends in suicide attempts among U.S. adolescents by race and gender. Specifically, it compared suicidal behavior data among African-American and European-American male and female adolescents, using the 1991–2001 Youth Risk Behavior Survey (YRBS) (Joe and Marcus, 2003). From the Centers for Disease Control and Prevention, the YRBS is a nationally representative survey taken by students in high school. The researchers found that the rate of suicide attempts increased over the decade studied for African-American males, while little change occurred for African-American females. There was little increase or decrease among European-American males and females in the decade observed (Joe and Marcus, 2003). This study showed that there are differences in suicidal behavior between various intersectional identities, in addition to a temporal component. Similarly, I included race and gender as potential demographic factors that could explain U.S. regional differences in suicide attitudes, even though my focus was on seeing how political and/or religious views were influential.

### **Suicide Acceptability and Its Outcomes**

From the literature I found discussing people's opinions on the acceptability of suicide, the general conclusion is that those who are more accepting of suicide are more likely to follow through with the action, assuming one's social, psychological, personal, etc. circumstances have also contributed to this outcome. On the other hand, those who do not approve of suicide, may be less inclined to follow through on it even in similar circumstances as those who are more approving of it. Following a similar logic, those who are around more people who are suicidal will be more accepting of it compared to those who do not have such models. Several studies have discovered these trends in suicide acceptability and their subsequent outcomes.

Joe et al. (2010) observed how suicide acceptability relates to suicide planning in U.S. adolescents and young adults, particularly across gender and race. Data from the National Annenberg Risk Survey of Youth (NARSY) was used, which asked respondents specific questions about suicide planning, attempting suicide, and feelings of hopelessness and depression. Suicide acceptability was measured via items from the General Social Survey from 2003, which asked respondents to respond to two prompts via a 4-point Likert scale (“strongly agree”; “somewhat agree”; “somewhat disagree”; or “strongly disagree”). The two prompts were “I think it’s ok to end your life if you don’t see any reason to keep on living” and “I think it’s ok to end your life if you are suffering from an incurable disease” (Joe et al., 2010). Their findings suggest that acceptance of anomic suicide is strongly related to suicide planning in young people. Adolescents and young adults who believe that it is okay to end one’s life were more than 14 times more likely to think about killing themselves than those who were not as accepting of it (Joe et al., 2010). This was applicable to all the major racial-ethnic categories they observed.

Stack and Kposowa (2008) looked at the relationship between national suicide rates and individual suicide acceptability attitudes. It used social learning theory to explain how individuals rationalize suicide. For instance, if one was more exposed to models of suicide, they became more accepting of it as a whole, a possible precondition for engaging in this socially deviant behavior (Stack and Kposowa, 2008, p. 41). The authors described a few attitudes they investigated to see if these attitudes influenced suicide acceptability: religion, liberalism, control theory (social attachments), marriage, life satisfaction, and social status. They used data on 31 countries from the World Values Survey (WVS). Their findings suggest that people who live in countries with higher suicide rates were significantly more likely than their counterparts to approve of suicide (Stack and Kposowa, 2008, p. 55). This also applied to gender, with female

and male suicide rates being predictive of female and male levels of suicide acceptability (Stack and Kposowa, 2008, p. 55). Greater religious exposure via attendance at religious services resulted in lower suicide acceptability. Greater political liberalism resulted in greater suicide acceptability (Stack and Kposowa, 2008, p. 56). These factors were more influential in predicting suicide attitudes, though the researchers also found that national suicide rates did influence individual-level suicidality attitudes (Stack and Kposowa, 2008, p. 55). This study was very similar to mine, though it compared countries and incorporated suicide rates as a predictive factor for suicide attitudes. It showed that demographic and political factors were influential in predicting suicide attitudes, something I hoped to uncover in my research.

One study that discusses suicide acceptability and its effect on suicide mortality among the U.S. adult population, 33 years of age and older, is from Phillips and Luth (2018). This study also uses GSS data from 1978–2010 and includes the same four scenarios as I will be looking at: if one has the right to die by suicide in the case of an incurable disease; bankruptcy; familial dishonor; or if the person is tired of living and ready to die. Cultural and social factors (e.g., religion, employment) were researched as well as cultural scripts, such as hegemonic masculinity particularly for older White men (Phillips and Luth, 2018). Most importantly, the study found that the link between suicide acceptability and suicide mortality strengthens with age: “attitudes appear to elevate the suicide hazard among older (>55 years) adults but not among younger (ages 33–54 years) adults” (Phillips and Luth, 2018). Though this study was more focused on an age comparison of suicide acceptability and mortality, it found that the former is predictive of the latter (i.e., suicide acceptability is predictive of subsequent death by suicide, or suicide mortality). The researchers, however, did not look at regional differences in suicide acceptability and excludes other social, economic, and political or religious factors. It does lead me to believe

that there could be regional suicide acceptability differences with respect to age. Again, this study uncovered how suicide acceptability can be a predictor for suicide mortality, but at the individual-level, not necessarily at a regional one.

Another outcome of suicide attitudes that has been researched besides suicide mortality is help-seeking behavior. Reynders et al. examined how attitudes and stigma influence intentions for help-seeking for psychological problems, specifically looking at high and low suicide rate regions (Reynders et al., 2014, p. 231). Positive and negative attitudes, prejudice, perceived stigma, and self-stigma are examined. Dutch and Flemish people were compared, with the former experiencing more positive attitudes and less stigma for help-seeking than the latter (Reynders et al., 2014, p. 234). Positive attitudes toward help-seeking were positively related to the intention to seek mental health support, while self-stigma and shame were negatively related to the intention to seek help (Reynders et al., 2014, p. 234–235). Considering these findings and because seeking help is a protective factor for suicide, it is clear that reducing negative attitudes and stigma towards help-seeking are necessary factors for helping to reduce suicide and other mental health problems (AFSP, 2022a). This study is relevant to my research because it too connects attitudes with actionable intentions; negative attitudes towards help-seeking influence one's likelihood of seeking help. Moreover, it shows how a group of people can have a shared general attitude or perception which can in turn influence individual intentions. A region in the U.S. may similarly have a shared attitude about the acceptability of suicide in my research which may or may not act as a protective factor for suicide—or at least influence an individual's attitudes toward suicide acceptability. Reynders et al. conclude by saying that attitudes toward help-seeking may be influential for things like suicide prevention because they shape behavior. While attitudes toward suicide acceptability may influence one's likelihood to carry through with

the act if they are suicidal—with a negative attitude being a protective factor as some research has shown—they may also impact how likely they are to engage in suicide prevention (Reynders et al., 2014, p. 236–238). Thus, understanding suicide acceptability attitudes is important for suicide prevention as certain attitudes could be risk factors for suicide mortality.

### **Religion, Culture, and Suicide Acceptability**

Though there has not been a study on regional suicidal attitudinal effects on individual within the U.S., there have cross-national studies looking at cultural and religious effects on individuals, regarding suicide. Boyd and Chung investigated religious and cultural attitudes, as well as societal characteristics at the individual- and country-levels and how they influence individuals' opinions toward suicide (Boyd and Chung, 2012, p. 1565–1566). They used the World Values Survey for their cross-national study, drawing data from a total sample of 43 countries (Boyd and Chung, 2012, p. 1570). Boyd and Chung found that individuals who have a stronger association with religion are less accepting of suicide—a negative correlation between strength in religious association and one's attitudes of suicide acceptability. However, there is variation in suicide acceptability depending on one's religion (Boyd and Chung, 2012, p. 1575). On a country-level, those who live in more religious places—measured by the percentage of people who identify as a certain religion—are more disapproving of suicide (Boyd and Chung, 2012, p. 1575). The authors also looked at survivalist vs. self-expression values. Those living in more unstable societies have a more survivalist culture, which would be less tolerable of suicide. In contrast, those living in more stable societies, with their needs having been met, have a self-expression culture, where suicide might be viewed as more of an individual choice (Boyd and Chung, 2012, p. 1569). The results suggested that those who have stronger survivalist values are

less likely to accept suicide (Boyd and Chung, 2012, p. 1576).

Overall, this study showed how regional beliefs and attitudes can have an effect on the individual and their attitudes and beliefs. Religion was one attitudinal measure which I also employ in my research. Moreover, the comparison between survivalist and self-expression values shows that some regions may be more or less accepting of suicide, which could make them more or less willing to discuss suicide in general—a necessary aspect towards suicide prevention, if considering Reynders et al. 2014. I also hope to show how regions in the U.S. may be more or less accepting of suicide in comparison to each other.

### **Urban vs. Rural Regions and Suicide Acceptability**

Although I am not directly looking at urban vs. rural regional differences with respect to suicide acceptability attitudes, Hirsch reviewed the literature on this topic and possible reasons for such differences. He found that suicide rates tend to be higher in rural areas compared to urban ones in the U.S. and this could be due to numerous cultural, geographic, economic, and sociopolitical factors unique to the rural environment (Hirsch, 2006, p. 191–192). The review notes that independence/individualism, religiosity, patriotism, and community-oriented life of rural areas in the U.S. could create stigmatization of mental health, preventing people from seeking treatment (Hirsch, 2006, p. 191). In addition, access to mental health services may be more of a barrier in a rural environment and/or people might choose to seek help from a religious leader or some other non-mental health professional (Hirsch, 2006, p. 192–193). A third explanation for increased suicide rates in rural areas is that there can be easier access to more lethal methods of suicide, namely firearms and pesticides (Hirsch, 2006, p. 191). This review also includes information about rural vs. urban suicide from various other countries. Despite

being a literature review, its findings suggest that things like individualism and religiosity—stronger in rural environments—could stigmatize mental health, leading to a lack of social prevention for suicide. Therefore, factors like religion could add to the stigmatization of suicide and mental health in general that could be detrimental to individuals and act as a protective as some previous studies have found. This adds variability to religion's influence on suicide acceptability attitudes in particular—being both positive and negative—which is something to keep in mind when observing religion's potential effect on suicide permissibility attitudes in my research.

## **PRESENT STUDY**

Previous research has shown that various demographic, cultural, and religious factors influence both suicide outcomes and suicide acceptability attitudes. Studies have compared individuals of different backgrounds or countries to observe what factors may affect suicide acceptability attitudes and subsequently, suicide mortality or help-seeking behavior. However, I have yet to come across research comparing regions in the U.S. with respect to attitudes towards suicide permissibility. Considering the prior literature and what influential factors have been researched regarding suicide acceptability attitudes, I focus on four research questions:

1. What are the relationships between a region of the United States in which one lives and one's individual suicide acceptability attitudes?
2. Does one's political views explain one's suicide attitudes?
3. Does one's religious beliefs explain one's suicide attitudes?
4. Do regional differences in political views and religious beliefs explain the effect of geographic region on one's suicide attitudes?

## METHODS

This research project was a multiple regression analysis conducted using data from the 2018 General Social Survey (GSS). The GSS has been conducted for more than four decades, beginning in 1972, by NORC at the University of Chicago, every other year. It asks a wide range of questions to understand the population of the United States, including their opinions, attitudes, and behaviors, and the topics have been expanded over time. Participants are nationally representative of adults 18 years and older in the U.S. Most of the data was collected via face-to-face interviews, but computer-assisted personal interviewing (CAPI) and telephone interviews have also been used. Questions are split into three ballots—A, B, and C—where participants were only asked questions from one of the ballots, though the “GSS core” questions, such as demographic ones, are asked of all participants. The questions regarding suicide acceptability were asked in ballots A and B, so data is only from these two ballots.

The 2018 GSS was chosen as the primary data source for this research for a few reasons. First, the data from this source is very accessible as it is available to the public and participants are all de-identified. Second, data from 2018 was chosen as it is the most recent available data. Third, the questions asked about suicide are specifically regarding the permissibility or acceptability of suicide. There were four variables investigated to gauge suicide permissibility. They asked respondents if they believed a person had the right to end his or her own life under each of the following conditions: if the person has an incurable disease (*suicide1*); has gone bankrupt (*suicide2*); has dishonored his or her family (*suicide3*); and was tired of living and ready to die (*suicide4*). To each of these four questions, respondents could respond “yes”; “no”; “don’t know”; or “no answer.” It is helpful that these options can be collapsed into a binary variable in order to run a logistic regression analysis. There were 789 participants from ballot C

for whom these questions were not applicable. In total, there were 1,559 participants asked these four questions about suicide acceptability between ballots A and B. The results of these four questions about suicide permissibility are summarized in the following table (Table 1):

**Table 1**

	suicide1 (incurable disease)	suicide2 (bankruptcy)	suicide3 (familial dishonor)	suicide4 (tired of living and ready to die)
Yes	976	202	194	330
No	521	1330	1345	1192
Don't know	49	19	16	26
No answer	13	8	4	11
Ballot A	785			
Ballot B	774			
Ballot C/ Not applicable	789			

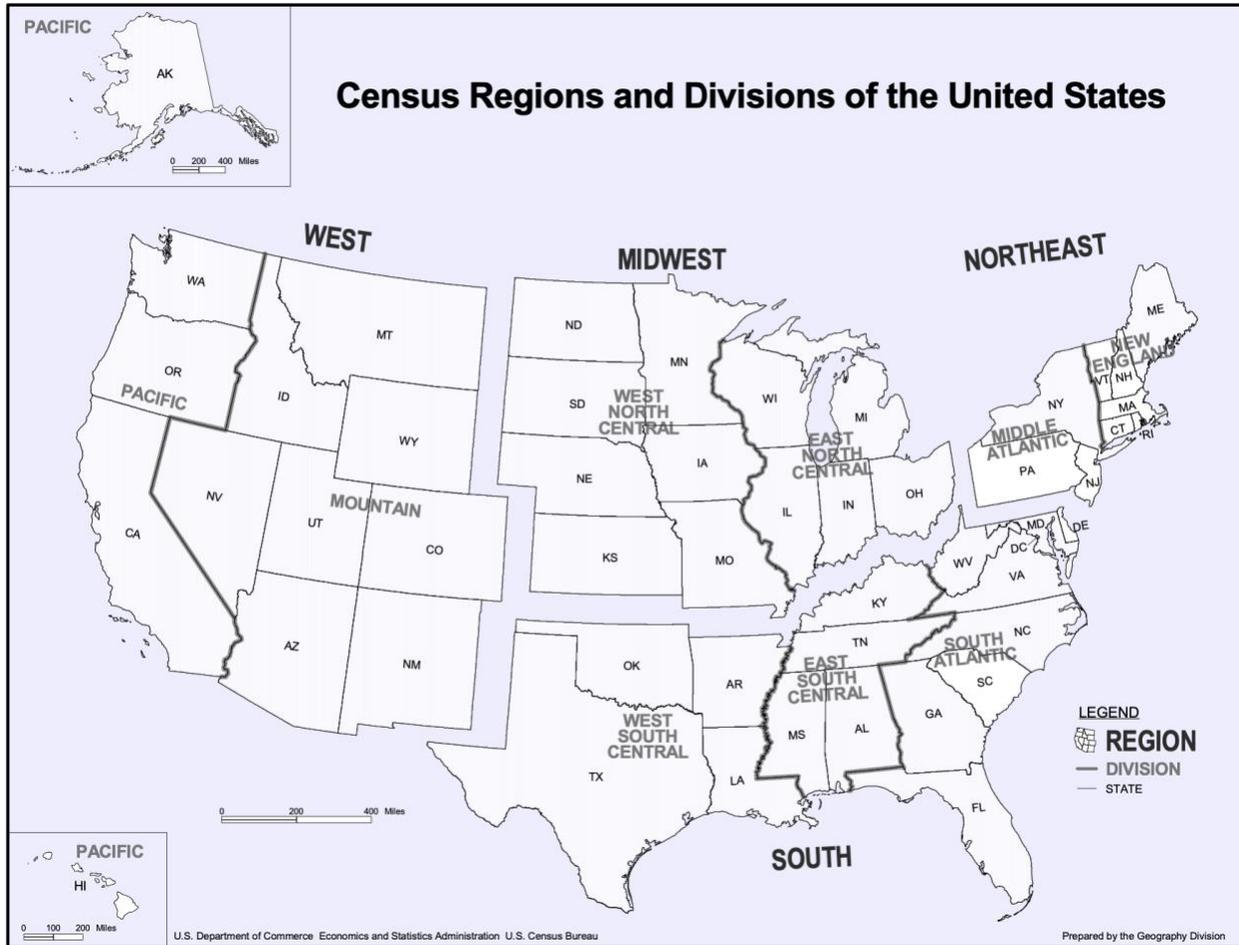
Third, the GSS is a very broad survey, asking a range of demographic and qualitative questions. Its scope allowed me to run a regression analysis on many different variables to investigate if there are regional differences in suicide acceptability and/or if there are other factors that could contribute to these differences. The demographic variables used asked respondents about their sex, race, age, socio-economic status, work status, highest year of school completed, income, and their household size. The variable *class* asked respondents what socioeconomic class they most self-identify with: “lower class,” “working class,” “middle class,” “upper class,” “no class,” “don’t know,” “no answer,” or “not applicable.” *Wkrstat* asked what respondents’ labor force status is: “working full-time”; “working part-time”; “temporarily not working”; “unemployed, laid off”; “retired”; “school”; “keeping house”; “other”; and “no

answer.” *Educ* asked respondents what their highest year of school completed is, with answers ranging from 0–20 (98 indicates “don’t know” and 99 indicates “no answer”). *Income* asked what their total family income is: lt \$1000; \$1000 to 2999; \$3000 to 3999; \$4000 to 4999; \$5000 to 5999; \$6000 to 6999; \$7000 to 7999; \$8000 to 9999; \$10000 - 14999; \$15000 - 19999; \$20000 - 24999; \$25000 or more; refused; don’t know; no answer; and not applicable. Lastly, *hompop* asked respondents how many people live in their household.

The two perspectives that may have an influence on regional attitudes toward suicide acceptability are politics and religion. Variables used to gauge political views are *polviews*, *partyid*, and *fund*. *Polviews* asked respondents to rate how liberal or conservative they are on a seven-point scale, with 1 being “extremely liberal” and 7 being “extremely conservative.” *Partyid* asked respondents how they identified, politically from the following choices: “strong democrat”; “not strong democrat”; “independent, near democrat”; “independent”; “independent, near republican”; “not strong republican”; “strong republican”; and “other party.” The variable *fund* asked respondents how fundamentalist they are: “fundamentalist,” “moderate,” or “liberal.” Variables used to gauge religious views are *god*, *relpersn*, and *afterlif*. The variable *god* asked respondents which of the following statements is closest to expressing what they believe: “don’t believe”; “no way to find out”; “some higher power”; “believe sometimes”; “believe but doubts”; and “know god exists.” *Relpersn* asked respondents if they consider themselves to be religious (i.e., how religious they are): “very religious”; “moderately religious”; “slightly religious”; and “not religious.” *Afterlif* asked respondents if they believe in an afterlife, or life after death: “yes, definitely”; “yes, probably”; “no, probably not”; and “no, definitely not.” (See Table 2 below for full summary of variables used).

Lastly, the GSS provides the variable *region*, which notes in what region the interviews

took place—the critical piece for investigating regional differences in the U.S. regarding attitudes toward suicide acceptability. There are nine regions to choose from in the region code: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific. These regions in the data set are based on the nine census divisions in the country, determined by the U.S. Census Bureau. New England includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The Middle Atlantic region includes New Jersey, New York, Pennsylvania. The East North Central region includes Illinois, Indiana, Michigan, Ohio, and Wisconsin. The West North Central region includes Iowa, Minnesota, Missouri, Kansas, Nebraska, North Dakota, and South Dakota. The South Atlantic region includes West Virginia, Maryland, Delaware, Virginia, North Carolina, South Carolina, Georgia, and Florida. The East South Central region includes Kentucky, Tennessee, Mississippi, and Alabama. The West South Central region includes Oklahoma, Arkansas, Louisiana, and Texas. The Mountain region includes Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico. Lastly, the Pacific region includes Washington, Oregon, California, Alaska, and Hawaii. Because there are quite a few regions, I may find some similarities between these regions, which could show larger regional differences. Below is a map of the nine regions taken from the U.S. Census Bureau (2021):



Among the variables tested, one or more may explain regional differences in suicide acceptability of only a single condition. For example, respondents may be more accepting of a person who wishes to die because of an incurable disease (*suicide1*), regardless of the region. In contrast, respondents may not be accepting of a person who wishes to die because they have dishonored their family (*suicide3*), but this could vary with regards to their political or religious views, the dominant attitude of the region they live in, and/or some other variable. Therefore, there are several ways in which regional differences in suicide attitudes may or may not appear, explained by one or more variables.

This research was conducted using the STATA software to analyze data from the 2018

GSS. The probability and log-odds of each region was calculated for each condition of suicide acceptability (*suicide1*, *suicide2*, *suicide3*, and *suicide4*), using the region New England as the reference group. This was done to see if each of the nine regions were more or less accepting of suicide under the four suicide scenarios in comparison to the reference region, New England. Next, three sets of four additional logistic regressions were run for each suicide scenario. The first set included just the demographic variables (*region*, *sex*, *race*, *class*, *wrkstat*, *educ*, *income*, *hompop*, and *age*). The second set added the political variables (*polviews*, *partyid*, and *fund*) to the suicide scenario and demographic variables, while the third set added the religious variables (*god*, *relpersn*, *afterlif*) and removed the political ones.

Lastly, eight multilevel model regressions were run that combined variables at the individual and regional levels to see if regional differences in political views and religious beliefs could explain the effect of a geographic region on one's suicide attitudes. First the political then the religious variables were inputted along with the four variables for the suicide scenarios and the demographic ones. Unfortunately, no conclusions were able to be made from these regressions, further elaborated below, and a limitation of this research project.

## Table 2

Descriptive Statistics, 2018 General Social Survey, N = 1,559

	<u>Mean (SD) or %</u>
<i>Suicide Attitudes</i>	
Suicide1 (incurable disease)	
No	34.80
Yes	65.20
Suicide2 (bankruptcy)	
No	86.81
Yes	13.19
Suicide3 (dishonoring one's family)	

No	87.39
Yes	12.61
Suicide4 (tired of living and ready to die)	
No	78.32
Yes	21.68
<hr/>	
<i>Sociodemographic Characteristics</i>	
Age (years)	50.12 (17.91)
Sex	
Male	44.32
Female	55.68
Race	
White	71.84
Black	16.16
Other	11.99
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<i>Socioeconomic Status</i>	
Class (1 = lower class; 4 = upper class)	2.42 (0.71)
Labor force status	
Working full time	49.26
Working part time	10.53
Temporarily not working	2.31
Unemployed, laid off	3.28
Retired	19.08
In school	2.76
Keeping house	10.85
Other	1.93
Highest year of school completed	13.65 (3.01)
Income (1 = less than \$1000; 12 = \$25000 or more)	10.95 (2.38)
Number of persons in household	2.36 (1.36)
<hr/>	
<i>Political Views</i>	
Political view	
Extremely liberal	5.48
Liberal	11.51
Slightly liberal	11.17
Moderate	37.26
Slightly conservative	13.91
Conservative	15.79
Extremely conservative	4.88
Political party affiliation	
Strong democrat	15.84
Not strong democrat	15.71

Independent, near democrat	12.58
Independent	18.84
Independent, near republican	11.08
Not strong republican	12.19
Strong republican	10.69
Other party	3.06
Fundamentalism	
Fundamentalist	24.54
Moderate	40.77
Liberal	34.69
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<i>Religious Beliefs</i>	
Confidence in the existence of God	
Don't believe	4.77
No way to find out	6.01
Belief in some higher power	12.66
Believe sometimes	3.92
Believe but have doubts	18.41
Know God exists	54.24
Religiosity	
Very religious	16.31
Moderately religious	37.54
Slightly religious	25.31
Not religious	20.84
Belief in life after death	
Yes, definitely	58.64
Yes, probably	21.43
No, probably not	11.16
No, definitely not	8.77
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## RESULTS

### Region and One's Suicide Attitudes

In the logit regressions, New England was used as the region of reference, where the Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific regions were all more or less accepting of suicide in each of the four scenarios compared to New England. For the first scenario (*suicide1*), in which one believes a person has the right to take their own life if they have an incurable disease, all eight regions were less accepting of suicide than New England, but five were statistically significantly different: the Middle Atlantic, West North Central, South Atlantic, East South Central, and West South Central. The predicted probability that an individual believes a person has the right to take their own life in the first scenario ranged from about 52 percent to 83 percent, with someone from East South Central being the least accepting and someone from New England being the most accepting. A New Englander was found to be more accepting of *suicide1* than someone from another region by at least 10 percent (with someone from the Mountain region being the next most accepting of *suicide1*, at a predicted probability of about 73 percent).

Like the first case, all the regions were less accepting of *suicide2*—in which one believes a person has the right to take their own life if they have gone bankrupt—than the reference region New England. However, only four regions were statistically significantly different: East North Central, East South Central, West South Central, and the Pacific in the logit regression. The predicted probability that an individual believes a person has the right to take their own life in the second scenario ranged from about 8 percent in East South Central to 21 percent in New England. Overall, each region was less accepting of suicide in this scenario compared to the incurable disease scenario (*suicide1*) by about 44 percent (with East South Central seeing the

least amount of difference between the two scenarios) to 62 percent (with New England seeing the greatest difference).

Regions in the third scenario, *suicide3*—in which one believes a person has the right to take their own life if they have dishonored their family—were also less accepting of suicide than New England. East North Central, East South Central, West South Central, and the Pacific regions were statistically significantly different. The predicted probability that an individual believes in the third scenario ranged from about 7 percent in West South Central to 22 percent in New England. A New Englander was found to be more accepting of suicide in the case of familial dishonor than someone from another region by at least 7 percent (with someone from the Mountain region being the next most accepting of *suicide3*, at 15 percent). Similar to suicide in the case of bankruptcy (*suicide2*), the predicted probability that a person from any region was accepting of suicide in the case of familiar dishonor (*suicide3*) was much lower than suicide in the case of an incurable disease (*suicide1*). East South Central saw the least amount of change between *suicide1* and *suicide3*, with a 44 percent decrease in the predicted probability of suicide acceptability. In contrast, East North Central was the region that saw the greatest change between the two suicide scenarios, with a 62 percent decrease in the predicted probability of suicide acceptability from the first to the third scenario. Nevertheless, regardless of the amount of change, regions were certainly less accepting of suicide in the case of dishonoring one's family than in the case of an incurable disease.

Lastly, all regions were less accepting of the fourth scenario, *suicide4*—in which one believes a person has the right to take their own life if they are tired of living and ready to die—than New England, except for the Mountain region (though this was not statistically significant). The regions that were statistically significantly different from New England were East North

Central, South Atlantic, East South Central, and West South Central. The predicted probability that an individual believes in the fourth scenario ranged from about 13 percent in East North Central to 32 percent in the Mountain region. Unlike the previous three scenarios where New England was more accepting of suicide than the other regions, *suicide4* shows that New England and the Mountain region share similar levels of acceptance of suicide in this instance, with a New Englander being about 31 percent likely to believe a person has the right to die by suicide in which the individual is tired of living and ready to die, and someone from the Mountain region being 32 percent likely. An individual from either of these regions was found to be at least 7 percent more accepting of *suicide4* than someone from one of the other seven regions. Again, regardless of region, people were less accepting of suicide in the fourth scenario than in the first, but were more accepting of it compared to suicide in the case of bankruptcy or familial dishonor. The difference between the first and fourth scenarios ranged from about 38 percent (with East South Central again seeing the least change) to 59 percent (with East North Central again seeing the greatest change).

Overall, all regions tended to be less accepting of suicide in each of the four scenarios compared to the reference region New England, and sometimes by a significant margin. An individual from any region also tended to be less accepting of suicide in the second, third, and fourth scenarios compared to the first scenario, in which one believes a person has the right to die if they have an incurable disease. The region and scenario in which an individual would have the greatest acceptance of suicide came from New England and accepted it in the first scenario (about 83 percent acceptance). The region and scenario in which an individual would have the least acceptance of suicide came from West South Central in the case of dishonoring one's family (about 7 percent acceptance). Thus, roughly 83–7 percent was the range in suicide

acceptance across all nine regions and all four scenarios. The results for this section can be found in Table 3 below:

**Table 3**

Region	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
New England	0.83	0.21	0.22	0.31
Middle Atlantic	0.68	0.12	0.12	0.24
East North Central	0.72	0.11	0.09	0.13
West North Central	0.59	0.12	0.15	0.18
Southern Atlantic	0.63	0.14	0.13	0.19
East South Central	0.52	0.08	0.08	0.14
West South Central	0.60	0.08	0.07	0.17
Mountain	0.73	0.17	0.15	0.32
Pacific	0.71	0.10	0.09	0.19

(To see results for binary logistic regressions, see Appendix A).

### Political Views and Suicide Attitudes

To measure one's political attitudes and their predicted probability of being accepting of each of the four suicide scenarios, three variables were used: *polviews*, *partyid*, and *fund*. The variable *polviews* asked respondents how liberal or conservative they were on a seven-point Likert scale, from "extremely liberal" to "extremely conservative." *Partyid* asked respondents what political party they associated themselves with the most and how they would describe their

affiliated strength. *Fund* asked respondents how fundamentalist they were. The regression included all three variables measuring political views simultaneously. When the political variables were added to assess the predicted probabilities of the U.S. regions, these probabilities did not change much, nor were all regions statistically significant in the four suicide scenarios (Table 4, below).

**Table 4**

Region	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
New England	0.82	0.13	0.17	0.26
Middle Atlantic	0.67	0.08	0.07	0.18
East North Central	0.74	0.09	0.08	0.12
West North Central	0.62	0.09	0.11	0.18
Southern Atlantic	0.66	0.13	0.12	0.20
East South Central	0.58	0.08	0.07	0.15
West South Central	0.65	0.08	0.06	0.18
Mountain	0.75	0.15	0.14	0.32
Pacific	0.72	0.07	0.06	0.15

### I. Political View: Degree of Liberalism/Conservatism

For the variable *polviews*—which measured one’s degree of liberalism or conservatism—respondents could identify themselves as “extremely liberal,” “liberal,” “slightly liberal,” “moderate,” “slightly conservative,” “conservative,” or “extremely conservative.” The

identification “extremely liberal” was used as the reference group across all four suicide scenarios. The predicted probability that a person would be accepting of suicide in the case of an incurable disease (*suicide1*) with respect to *polviews* ranged from about 50 percent to 83 percent, where an individual who identified as “extremely conservative” was least accepting and someone who identified as “liberal,” the most accepting. However, only “extremely conservative” was statistically significantly different from the reference group “extremely liberal,” and so only these extremes could be at all useful in predicting one’s suicide acceptability attitude in the case of an incurable disease. Otherwise, one’s political view was not good at explaining their suicide attitude in the first scenario.

In the case of bankruptcy (*suicide2*), “slightly liberal”; “moderate”; “slightly conservative”; and “conservative” were all statistically significantly different from the reference group “extremely liberal.” The predicted probability that a person would be accepting of suicide in this scenario ranged from about 4 percent to 24 percent. Someone who identified as “conservative” would be least accepting of suicide in this case, while an “extremely liberal” person would be the most accepting and this trend was statistically significantly for the “slightly liberal”; “moderate”; “slightly conservative”; and “conservative” groups (i.e., they were statistically significantly different from the reference group). Hence, one’s political view was partially able to explain their attitude towards suicide in the case of bankruptcy.

Suicide in the case of familial dishonor (*suicide3*) followed the same pattern as in the case of bankruptcy, where the predicted probability that a person was accepting of suicide in this instance was the least for a “conservative” individual (about 4 percent) and greatest for the “extremely liberal” (about 24 percent). This was the trend for those that identified with any of the groups between “conservative” and “extremely liberal” (i.e., they did not identify with the

group “extremely conservative”). Four groups were statistically significantly different from the reference group “extremely liberal”: “moderate”; “slightly conservative”; “conservative”; and “extremely conservative.” Therefore, one’s political view again was only able to partially explain their attitude towards suicide in the case of familial dishonor.

The predicted probability that a person would be accepting of suicide in which an individual is tired of living and ready to die (*suicide4*) ranged from about 12 percent to 31 percent, where a conservative was the least accepting and a liberal the most, but this trend was not consistent across the political views. The groups “moderate,” “slightly conservative,” and “conservative” were the only ones that were statistically significantly different from the reference group “extremely liberal.” Consequently, one’s political view was not a good predictor of their attitude towards the fourth suicide scenario, in which a person is tired of living and ready to die.

Across the board, the predicted probabilities that a person was accepting of suicide tended to be highest for the case of an incurable disease (*suicide1*), regardless of political viewpoint and even though not every view was statistically significantly different from the reference group “extremely liberal” in each suicide scenario. People who identified as being more liberal also generally had higher predicted probabilities of being accepting of suicide in any of the four scenarios compared to the more conservative-leaning people, but again statistical significance was not always present. Because of the variability in statistical significance for the four suicide scenarios, one’s degree of liberalism/conservatism was an inconsistent predictor of their suicide attitudes. The predicted probabilities for political views (*polviews*) are summarized in Table 5 below.

### **Table 5**

polviews	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
Extremely liberal	0.73	0.24	0.24	0.30
Liberal	0.83	0.16	0.17	0.31
Slightly liberal	0.73	0.10	0.13	0.21
Moderate	0.70	0.11	0.10	0.18
Slightly conservative	0.66	0.07	0.06	0.12
Conservative	0.60	0.04	0.04	0.12
Extremely conservative	0.50	0.10	0.07	0.16

## II. Party Affiliation

The variable *partyid* gave respondents eight options for how strongly they associated themselves with a certain political party. They could identify as a “strong democrat”; “not strong democrat”; “independent, near democrat”; “independent”; “independent, near republican”; “not strong republican”; “strong republican”; or “other party.” No suicide scenario with respect to party affiliation saw a statistical significance in the predicted probabilities, controlling for political views and degree of fundamentalism, so political party affiliation was not a good predictor for one’s attitudes towards suicide acceptability.

In the case of an incurable disease (*suicide1*), the predicted probability that a person would be accepting of suicide ranged from about 63 percent to 68 percent, where an “other party” respondent was the least accepting and a “strong democrat” respondent, the most accepting. The predicted probability gradually increased from an individual who selected “other

party” to one who chose to identify as a “strong democrat” in the acceptance of *suicide1*, the case of an incurable disease. The predicted probability for *suicide2*, suicide in the case of bankruptcy, was about 13 percent, regardless of party affiliation. Unlike the first suicide scenario, suicide in the case of familial dishonor (*suicide3*) saw a decrease in the predicted probability of a person accepting of suicide from someone who selected “other party” at about 15 percent to someone who identified as a “strong democrat” at about 11 percent. *Suicide4*, suicide in the case of being tired of living and ready to die, followed the same pattern as the first scenario. The predicted probability of a person accepting *suicide4* ranged from about 20 percent for the person who selected “other party” to about 22 percent for the “strong democrat.” Thus, suicide in the case of an incurable disease and in the case of a person being tired of living and ready to die had predicted probabilities that increased in acceptance from one who chose “other party” to one who chose “strong democrat.” The predicted probabilities of accepting suicide for each *partyid* were generally highest for *suicide1*, the case of an incurable disease. Despite these results, though, political party affiliation was unable to predict one’s suicide acceptability attitudes. The predicted probabilities for *partyid* are summarized in Table 6.

**Table 6**

<b>partyid</b>	<b>p, probability for suicide1 (incurable disease)</b>	<b>p for suicide2 (bankruptcy)</b>	<b>p for suicide3 (familial dishonor)</b>	<b>p for suicide4 (tired of living and ready to die)</b>
Strong democrat	0.68	0.13	0.11	0.22
Not strong democrat	0.67	0.13	0.12	0.22
Independent, near democrat	0.67	0.13	0.12	0.22
Independent	0.66	0.13	0.13	0.21

Independent, near republican	0.65	0.13	0.13	0.21
Not strong republican	0.65	0.13	0.14	0.21
Strong republican	0.64	0.13	0.14	0.20
Other party	0.63	0.13	0.15	0.20

### III. Degree of Fundamentalism

Respondents were given three choices to describe how fundamentalist they were: “fundamentalist,” “moderate,” or “liberal.” The predicted probability of a person accepting of suicide increased from someone who identified as “fundamentalist” to one who identified as “liberal” in all four scenarios. *Suicide1*, suicide in the case of an incurable disease, increased from about 57 percent to 74 percent; *suicide2*, suicide in the case of bankruptcy, increased from about 8 to 17 percent; *suicide3*, suicide in the case of dishonoring one’s family, increased from about 7 to 17 percent; and *suicide4*, suicide in the case of a person being tired of living and ready to die, increased from about 15 to 26 percent. Overall, the predicted probability of accepting suicide across all four scenarios and all three options for the *fund* variable was greatest in the case of an incurable disease (*suicide1*) for someone who identified as “liberal” at about 74 percent. It was lowest in the case of familial dishonor (*suicide3*) for someone who identified as “fundamentalist” at about 7 percent. The predicted probabilities of accepting suicide in each scenario for the *fund* variable was highest for *suicide1*, suicide in the case of an incurable disease. Importantly, the degree of fundamentalism was able to explain variance among suicide acceptability attitudes across all four scenarios as summarized in Table 7.

**Table 7**

fund	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
Fundamentalist	0.57	0.08	0.07	0.15
Moderate	0.66	0.11	0.11	0.20
Liberal	0.74	0.17	0.17	0.26

### Religious Beliefs and Suicide Attitudes

The variables *god*, *relpersn*, and *afterlif* were used to measure one's religious attitudes and their predicted probability of being accepting of each of the four suicide scenarios. The variable *god* asked respondents how much they believed in God on a six-point Likert scale, from "don't believe" to "know god exists." *Relpersn* asked respondents to describe how religious they were on a four-point Likert scale, from "very religious" to "not religious." The *afterlif* variable asked respondents if they believed in an afterlife on a four-point Likert scale, from "yes, definitely" they believe in an afterlife to "no, definitely not." The regression included all three variables measuring religious views simultaneously. Similar to when the political variables were added to the regions, the predicted probabilities of the regions did not change much when the religious variables were added, nor were they all statistically significant in the four suicide scenarios (Table 8).

**Table 8**

Region	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
New England	0.86	0.17	0.18	0.27

Middle Atlantic	0.72	0.13	0.15	0.28
East North Central	0.73	0.10	0.09	0.11
West North Central	0.62	0.12	0.16	0.20
Southern Atlantic	0.71	0.16	0.16	0.21
East South Central	0.61	0.10	0.11	0.15
West South Central	0.63	0.09	0.07	0.15
Mountain	0.70	0.15	0.13	0.29
Pacific	0.75	0.09	0.08	0.17

### I. Confidence in the Existence of God

For the variable *god*, respondents were given six options to describe to what degree they do or do not believe in God or some higher power: “don’t believe”; “no way to find out”; “some higher power”; “believe sometimes”; “believe but doubts”; and “know god exists.” The predicted probability that a person would be accepting of suicide in the case of an incurable disease (*suicide1*) with respect to the *god* variable ranged from about 57 percent to 93 percent, where someone who said they “know god exists” was least accepting and someone who said they “don’t believe” was most accepting. The predicted probabilities for the following three scenarios followed the same pattern in which they gradually increased in acceptance of the suicide scenario from the response “know god exists” to “don’t believe.” For suicide in the case of bankruptcy (*suicide2*), the predicted probability ranged from about 10 to 31 percent; suicide in the case of familial dishonor (*suicide3*), ranged from about 10 to 29 percent; and suicide in the case where an individual is tired of living and ready to die (*suicide4*), about 18 to 37 percent. People were

generally more accepting of *suicide1*, the case of an incurable disease, regardless of whether they said they “don’t believe” in God or “know god exists.” Confidence in the existence of God was able to explain the variance among suicide acceptability attitudes for all four scenarios.

**Table 9**

god	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
Don’t believe	0.93	0.31	0.29	0.37
No way to find out	0.89	0.25	0.24	0.32
Some higher power	0.84	0.20	0.20	0.28
Believe sometimes	0.77	0.16	0.16	0.24
Believe but doubts	0.67	0.13	0.13	0.21
Know god exists	0.57	0.10	0.10	0.18

## II. Degree of Religiosity

The variable *relpersn* asked respondents how religious they were on a four-point Likert scale: “very religious,” “moderately religious,” “slightly religious,” and “not religious.” Overall, respondents were more accepting of suicide in the first scenario, the case of an incurable disease, despite how religious they described themselves. Similar to the *god* variable, those who identified as “not religious” tended to be more accepting of suicide than those said they were “very religious” for each of the four scenarios. The predicted probability that a person would be accepting of suicide in the case of an incurable disease (*suicide1*) ranged from about 56 percent to about 76 percent, with someone who described themselves as being “very religious” as least

accepting of *suicide1* and someone who described themselves as being “not religious” as most accepting. This gradual trend—with “very religious” being the least accepting of suicide and “not religious” being the most accepting—was present across the other three suicide scenarios. However, the degree of religiosity was only able to explain the variance of suicide acceptability attitudes for suicide in the case of an incurable disease and in the case of an individual being tired of living and ready to die. For suicide in the case of bankruptcy (*suicide2*), the predicted probability ranged from about 12 to 16 percent; for familial dishonor (*suicide3*), it ranged from about 13 to 16 percent, but again these two suicide scenarios were not explainable by degree of religiosity. For suicide in the case where a person was tired of living and ready to die (*suicide4*), it ranged from about 16 to 28 percent. Nonetheless, degree of religiosity was not found to be a good predictor of differences in suicide acceptability attitudes since only some of the predicted probabilities were statistically significant. Table 10 summarizes the predicted probabilities for *relpersn*, measuring respondents’ degree of religiosity.

**Table 10**

<i>relpersn</i>	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
Very religious	0.56	0.12	0.13	0.16
Moderate religious	0.63	0.14	0.14	0.19
Slight religious	0.70	0.15	0.15	0.24
Not religious	0.76	0.16	0.16	0.28

### III. Belief in Life After Death

*Afterlif* was the third variable used to measure religious attitudes and it asked respondents whether or not they believed in an afterlife. There were four options: “yes, definitely”; “yes, probably”; “no, probably not”; and “no, definitely not.” The predicted probability of suicide permissibility in the case of incurable disease (*suicide1*) ranged from about 59 percent to about 66 percent, with the response “no, definitely not” to believing in an afterlife being the least accepting of suicide and the response “yes, definitely” being the most accepting.

The following three suicide scenarios followed an opposite pattern, where there was a gradual decrease in acceptance of suicide under the condition from the response “no, definitely not” being the most accepting to “yes, definitely” being the least accepting. For suicide in the case of bankruptcy (*suicide2*) and in the case of dishonoring one’s family (*suicide3*), the predicted probabilities ranged from about 16 percent to about 14. For suicide in the case in which a person is tired of living and ready to die (*suicide4*), the predicted probability ranged from about 27 to about 20 percent. Thus, the predicted probabilities of one’s acceptance of suicide for the last three scenarios was inversely related to one’s belief in an afterlife—the exact opposite in the case of an incurable disease (*suicide1*). This is interesting since it would mean that those who are less likely to believe in life after death are more likely to be accepting of suicide in the case of bankruptcy, familial dishonor, or if one is tired of living and ready to die. Perhaps one’s attitudes towards suicide acceptability could be related to their beliefs on what happens after death. That being said, belief in life after death could not explain variance among suicide acceptability attitudes in any of the four scenarios, and the predicted probabilities are summarized below (Table 11).

**Table 11**

afterlif	p, probability for suicide1 (incurable disease)	p for suicide2 (bankruptcy)	p for suicide3 (familial dishonor)	p for suicide4 (tired of living and ready to die)
Yes, definitely	0.66	0.14	0.14	0.20
Yes, probably	0.64	0.15	0.14	0.22
No, probably not	0.61	0.15	0.15	0.25
No, definitely not	0.59	0.16	0.16	0.27

### **The Regional Effect on Individual Suicide Acceptability Attitudes: A Limitation**

Using the 2018 GSS data set, it was not possible to observe if a geographic region's political and religious views had an effect on one's individual suicide attitudes. This is because there were too few regions (nine) to differentiate between their effects on an individual's attitudes in the data set. Future research, using a different data set, could investigate this further by dividing political and religious views by state and then aggregating the states by region to see if a geographic region's views influence one's suicide attitudes. The 2018 GSS data does not divide responses by state and so this was unable to be done.

## DISCUSSION

This study used data from the 2018 General Social Survey to investigate if there were regional differences with respect to suicide attitudes in the United States. The four questions asking about suicide permissibility under four scenarios—if a person has the right to die due to an incurable disease (*suicide1*); dishonoring one's family (*suicide2*); bankruptcy (*suicide3*); or is tired of living and ready to die (*suicide4*)—were first used in logit regressions to see if there were attitudinal differences across nine regions in the U.S., with New England as the reference group. It was found that all regions were less accepting of suicide in each of the four scenarios compared to New England and that in any of the nine regions, a person would be most accepting of suicide in the first scenario compared to the other three. Variables were then chosen to see if political and/or religious beliefs could explain these regional differences in suicide permissibility.

There were several key findings of this study. First, all regions were less accepting of suicide than the reference region New England in the first three suicide scenarios—in the case of an incurable disease, bankruptcy, and dishonoring one's family—though not all regions were statistically significant. This means that the predicted probability that an individual is accepting of suicide was higher if they were from New England in any of the four suicide scenarios compared to an individual from any of the other eight regions. An individual from any region also tended to be less accepting of suicide in the case of bankruptcy, familial dishonor, and if the person is tired of living and ready to die compared to if they have an incurable disease—the first suicide scenario.

One's political views were partially able to explain their suicide attitudes, since not all categories for the three variables and across the four suicide scenarios was statistically

significant, except for respondents' degree of fundamentalism. People who were more liberal/democratic-leaning generally had a higher predicted probability of being accepting of suicide in comparison to the more conservative/republican-leaning people. How fundamentalist one was influenced how accepting they were of suicide, but it depended much more on the suicide scenario. Regardless of political viewpoint, party affiliation, or degree of fundamentalism, the predicted probability that a person was accepting of suicide was highest in the case of an incurable disease compared to the other three suicide scenarios. In essence, political views were only partially able to explain the predicted probability that one was accepting of suicide for each instance, since not every scenario was statistically significant.

One's religious beliefs were also only partially able to explain their suicide attitudes. Those who had a stronger belief in God tended to have lower predicted probabilities in being accepting of suicide in the four scenarios—suicide in the case of an incurable disease, bankruptcy, dishonoring one's family, or if the person is tired of living and ready to die—and these probabilities were always statistically significant. This trend was also present for those with a higher degree of religiosity and again was found across all four suicide scenarios. Regardless of belief in God or degree of religiosity, respondents tended to be more accepting of suicide in the case of an incurable disease. None of the predicted probabilities for belief in life after death were statistically significant, so this belief did not explain one's suicide acceptability attitudes. Therefore, due to the variability in statistical significance, only certain religious beliefs and degrees of religiosity could explain one's suicide attitudes, depending what suicide scenario is considered.

In the end, the region in which one is located in is influential in predicting one's individual suicide acceptability attitudes. Individual-level political and religious perspectives

were somewhat able to explain one's suicide attitudes, but they did not explain regional attitudinal differences. In other words, political views and religious beliefs were unable to explain one's suicide permissibility attitudes across the board. This research was unable to determine if regional political and religious perspectives were able to explain regional attitudes towards suicide acceptability because of the limited number of regions in the 2018 GSS data set.

From the current literature it is clear that demographic differences—such as age and race—can result in differences in suicidal behavior and suicide acceptability (Joe and Marcus, 2003; Phillips and Luth, 2018; Pew Research Center, 2013). One's environment can also impact the individual's opinions, beliefs, and attitudes—including those regarding suicide and its outcomes (Boyd and Chung, 2012; Hirsch, 2006; Kegler et al., 2017; Reynders et al., 2014; Stack and Kposowa, 2008). Religious beliefs, in particular, can have a double-effect in that those with a stronger religious association are less accepting of suicide and therefore less likely to engage in suicidal behavior (Boyd and Chung, 2012), but may stigmatize suicide and mental health more which could prevent help-seeking behavior (Hirsch, 2006). There is also some evidence of urban vs. rural differences in suicide attitudes with the latter tending to experience higher rates of suicide, especially if they are also conservative-leaning (Hirsch, 2006). Consequently, certain political views may also share similar suicide acceptability attitudes. Much of the literature thus demonstrates how cultural values, religious beliefs, and opinions may be more or less accepting of suicide and some connect these to suicide outcomes—either suicide mortality or help-seeking behavior. In addition, cross-national analyses have shown regional as well as individual differences regarding suicide (Boyd and Chung, 2012; Stack and Kposowa, 2008). Both individual demographics and beliefs, as well as the dominant trends in a region, have been shown to affect individual suicidal and help-seeking behaviors (Boyd and Chung,

2012; Reynders et al., 2014; Stack and Kposowa, 2008).

Joe et al. (2010) described how suicide acceptability could correlate with an increased suicide rate. If applicable to the political viewpoint of U.S. states or regions, this would mean that those states which are less approving of suicide would likely have lower suicide rates. However, this was not found to be the case in my research, as was noted in the results: regions that were less approving of suicide tended to be composed of states with higher suicide rates. Therefore, one's individual opinions on suicide acceptability and its related outcome might follow the opposite pattern from that of a region. This is important when thinking about regional/state-wide suicide prevention since a necessary component of prevention is being able to talk about suicide, which one would assume is more acceptable in those places that have a higher rate of suicide acceptability, in general.

### **Implications, Limitations, and Future Directions**

This statistical analysis observed U.S. regional differences in suicide acceptability. It has been well-documented that there are disparities in the suicide rate across states in the United States. There has also been research investigating why these disparities exist and many reasons or hypotheses are provided, such as the theory that social media may be a major contributor to the every-steadily increasing rate of suicide among young people ages 10–14 (Ducharme, 2019). Even research on the influence of suicide acceptability in the U.S. and its effect on suicide mortality outcomes has been conducted. However, to my knowledge, the literature lacks comparisons of suicide attitudes between regions or states within the U.S. This study sought to fill this gap, though in a limited capacity, by drawing from GSS data from 2018 that asks respondents about their suicide attitudes in four scenarios: whether or not a person has the right

to die due to an incurable disease; bankruptcy; having dishonored their family; or because they are tired of living and ready to die.

Similar to previous research, this study also looked at whether or not political and religious views influenced one's suicide attitudes, using three variables for each category. The findings suggest that political views and religious beliefs can have some influence over one's suicide acceptability attitudes and suicide attitudes do differ by region in the U.S. Those who were generally more conservative were less accepting of suicide and those who were generally more religious were also less accepting of suicide. All regions tended to be less accepting of suicide compared to the reference group New England to some degree. This could be because states in New England are generally liberal-leaning, with the exception of New Hampshire (Rakich, 2020), and/or not very religious. In a Pew Research Center study, that asked adults how religious they were, all six states were in the bottom 40 percent of states that measured the percentage of adults who identified as "highly religious," with five out of the six (Connecticut, Maine, Vermont, Massachusetts, and New Hampshire; Rhode Island was 35th) being listed last as having the least amount of "highly religious"-identifying adults (Lipka and Wormald, 2016). In essence, the general political attitude and degree of religiosity of New England could explain why it tended to be more accepting of suicide compared to other regions. Overwhelmingly, an individual was most accepting of suicide due to an incurable disease—regardless of the region they were from or their political or religious perspective—even though statistical significance was inconsistent.

As previous research has found, attitudes towards suicide and individual factors can influence suicide mortality, particularly for the suicidal person. By examining if one's beliefs, namely their political and religious ones, and suicide attitudes differ across regions in the U.S.,

we could gain another explanation for why suicide rates differ as well. This research could also shed light on whether certain political and/or religious beliefs are more or less likely to approve or disapprove of suicide and how they differ across regions. Considering the research on how suicide attitudes and stigma can influence suicide mortality and help-seeking, understanding one's political or religious views could help predict who is more at risk for engaging in suicide behavior. Future research could investigate this idea further. Hence, this research could be a starting point into understanding regional differences regarding suicide attitudes and how they relate to suicide outcomes to possibly predict what opinions and viewpoints may be more accepting and thus more likely to engage in suicidal behavior—a new step towards suicide prevention. On an individual level, this research was able to observe how one's political and religious beliefs were related to their views on the acceptability of suicide in a limited capacity. Future research could further find out how one's beliefs relate to their views of suicide acceptability beyond the four attitudinal scenarios and why.

This study had a few significant limitations. First, by using data from the 2018 GSS, there were only four suicide scenarios to measure suicide acceptability. Future research might be able to incorporate other scenarios. Second, only data from 2018 was used as it was the most recent available data, but both past and more recent data once it becomes available could be used to investigate change in suicide attitudes over time, across regions, and political and religious viewpoints. Only three variables were used to measure political and then religious perspectives. However, more extensive research could include a larger number of variables to provide additional insight into these perspective types. Lastly, as aforementioned, it was not possible to observe if a geographic region's political and religious views had an effect on one's individual suicide attitudes. A greater number of regions or a state-level analysis could lead to fruitful

research on if regional-level political and religious perspectives can explain regional suicide acceptability attitudes.

Ultimately, the goal of any research on suicide should be to better understand it in order to prevent its occurrence and continued increase over the last few decades. Future research would seek to do this and finding out more about how political and religious beliefs influence suicide mortality outcomes could be a significant step forward.

## CONCLUSION

This project set out to find if regional differences in suicide acceptability attitudes exist in the United States and what might explain those differences. Research has shown that certain attitudes towards suicide acceptability can lead to various outcomes of suicidal or help-seeking behavior. Understanding regional attitudinal differences could be one step towards discerning disparities in suicide rates between regions of the country. What kinds of political and religious views a person holds may also support this endeavor as this research sought out to investigate which perspectives were more or less accepting of suicide. Looking forward, we may be able to determine if an individual who holds certain viewpoints, located in a specific region, not only has specific suicide acceptability attitudes, but is also more likely to engage in suicidal or help-seeking behavior in comparison to someone with differing views and from another region. In other words, understanding differences in suicide attitudes on the regional- and individual-level could contribute to the work on suicide prevention.

## APPENDIX A

**Table 1**

*Binary Logistic Regression, Odds of Recognizing a Right to Suicide in the Case of an Incurable Disease*

	Odds Ratio (95% C.I.)
<i>Region (Reference = New England)</i>	
Middle Atlantic	0.44 (0.20–0.97)
East North Central	0.52 (0.25–1.11)
West North Central	0.30 (0.13–0.69)
South Atlantic	0.35 (0.17–0.73)
East South Central	0.22 (0.10–0.50)
West South Central	0.30 (0.14–0.66)
Mountain	0.54 (0.24–1.25)
Pacific	0.49 (0.23–1.06)
<i>Sociodemographic Characteristics</i>	
Age	0.99 (0.98–1.00)
Sex (Reference = male)	
Female	0.82 (0.64–1.07)
Race (Reference = white)	
Black	0.37 (0.27–0.51)
Other	0.76 (0.51–1.14)
<i>Socioeconomic Status</i>	
Class	1.13 (0.93–1.36)

Labor force status (Reference = working full time)	
Working part time	0.72 (0.48–1.09)
Temporarily not working	0.66 (0.29–1.48)
Unemployed, laid off	1.08 (0.53–2.19)
Retired	0.91 (0.59–1.40)
In school	4.63 (1.32–16.20)
Keeping house	0.85 (0.56–1.31)
Other	0.78 (0.30–2.04)
Highest year of school completed	1.09 (1.04–1.15)
Income	1.01 (0.95–1.07)
Number of persons in household	0.86 (0.78–0.95)
<hr/>	
<i>N</i>	1,266
<hr/>	
* $p < .05$ , ** $p < .01$ , *** $p < .001$	

**Table 2**

*Binary Logistic Regression, Odds of Recognizing a Right to Suicide in the Case of Bankruptcy*

	Odds Ratio (95% C.I.)
<hr/>	
<i>Region</i> (Reference = New England)	
Middle Atlantic	0.51 (0.23–1.13)
East North Central	0.45 (0.22–0.94)
West North Central	0.51 (0.21–1.26)
South Atlantic	0.63 (0.31–1.26)
East South Central	0.34 (0.13–0.91)

West South Central	0.35 (0.15–0.83)
Mountain	0.77 (0.35–1.69)
Pacific	0.42 (0.19–0.92)

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*Sociodemographic Characteristics*

Age	0.99 (0.98–1.00)
Sex (Reference = male)	
Female	0.76 (0.54–1.07)
Race (Reference = white)	
Black	0.57 (0.34–0.95)
Other	1.30 (0.25–0.95)

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*Socioeconomic Status*

Class	1.30 (0.99–1.71)
Labor force status (Reference = working full time)	
Working part time	0.72 (0.40–1.33)
Temporarily not working	2.16 (0.90–5.14)
Unemployed, laid off	1.46 (0.61–3.54)
Retired	0.76 (0.41–1.39)
In school	1.42 (0.57–3.53)
Keeping house	0.90 (0.47–1.72)
Other	1.00 (n/a)
Highest year of school completed	1.08 (1.01–1.16)
Income	0.96 (0.89–1.03)
Number of persons in household	0.92

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(0.80–1.06)

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*N*1,273

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\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ **Table 3***Binary Logistic Regression, Odds of Recognizing a Right to Suicide in the Case of Dishonoring One's Family*

	Odds Ratio (95% C.I.)
<hr/> <i>Region</i> (Reference = New England)	
Middle Atlantic	0.46 (0.21–1.01)
East North Central	0.37 (0.18–0.75)
West North Central	0.61 (0.26–1.40)
South Atlantic	0.52 (0.26–1.02)
East South Central	0.33 (0.13–0.84)
West South Central	0.25 (0.10–0.60)
Mountain	0.64 (0.29–1.38)
Pacific	0.36 (0.17–0.76)
<hr/> <i>Sociodemographic Characteristics</i>	
Age	0.99 (0.97–1.00)
Sex (Reference = male)	
Female	0.82 (0.58–1.16)
Race (Reference = white)	
Black	0.54 (0.32–0.92)
Other	0.55 (0.29–1.06)

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*Socioeconomic Status*

Class	1.50 (1.14–1.98)
Labor force status (Reference = working full time)	
Working part time	0.71 (0.38–1.31)
Temporarily not working	2.18 (0.91–5.23)
Unemployed, laid off	1.90 (0.84–4.32)
Retired	0.77 (0.41–1.43)
In school	0.85 (0.31–2.35)
Keeping house	0.63 (0.31–1.27)
Other	0.39 (0.05–3.03)
Highest year of school completed	1.06 (1.00–1.14)
Income	0.93 (0.86–1.00)
Number of persons in household	0.94 (0.82–1.08)
<i>N</i>	1,295

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 4**

*Binary Logistic Regression, Odds of Recognizing a Right to Suicide in the Case of Being Tired of Living and Ready to Die*

	Odds Ratio (95% C.I.)
<i>Region</i> (Reference = New England)	
Middle Atlantic	0.70 (0.36–1.36)
East North Central	0.33 (0.17–0.64)
West North Central	0.47

	(0.21–1.02)
South Atlantic	0.53
	(0.29–0.97)
East South Central	0.36
	(0.16–0.83)
West South Central	0.45
	(0.23–0.90)
Mountain	1.01
	(0.52–1.99)
Pacific	0.53
	(0.28–1.01)

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*Sociodemographic Characteristics*

Age	0.99
	(0.98–1.00)
Sex (Reference = male)	
Female	0.72
	(0.54–0.96)
Race (Reference = white)	
Black	0.39
	(0.24–0.62)
Other	0.66
	(0.41–1.07)

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*Socioeconomic Status*

Class	1.27
	(1.02–1.59)
Labor force status	
(Reference = working full time)	
Working part time	1.05
	(0.65–1.70)
Temporarily not working	1.78
	(0.76–4.18)
Unemployed, laid off	1.21
	(0.52–2.80)
Retired	1.48
	(0.91–2.40)
In school	2.34
	(1.04–5.24)
Keeping house	1.24
	(0.74–2.09)
Other	0.96
	(0.26–3.49)

Highest year of school completed	1.05 (1.00–1.11)
Income	0.98 (0.92–1.05)
Number of persons in household	0.82 (0.72–0.93)

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<i>N</i>	1,282
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\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

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