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Isolated from the Vote: The Relationship Between the Mental Effects of the COVID-19
Pandemic and Voter Turnout in the 2020 Presidential Election

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ABSTRACT

This thesis examined the impact of COVID-19 related mental health on voter turnout in the 2020 presidential election. Using the Bradburn Scale of Psychological Well-being and an altered version of the UCLA Three Factor Loneliness Scale, the Covid Response Tracking Survey data collected by NORC at the University of Chicago was analyzed. It was found that mental health had a significant impact on voter turnout when studied in isolation. Increased levels of psychological well-being were found to correlate with increased voter turnout, and increased levels of loneliness were found to correlate with decreased voter turnout. The addition of control variables caused mental health's effect on turnout to cease statistical significance. This thesis theorizes that this relationship is due to the cross-cutting nature of age and COVID-19 related mental health.

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Chapter 1

Introduction

The 2020 presidential election was a distinctly unprecedented event in American history. The backdrop of a global pandemic set the scene for an election that saw record youth turnout (*Half of Youth Voted in 2020, an 11-Point Increase from 2016*) and was met with claims of election fraud, prompting an attack on the United States Capitol. To better understand the 2020 presidential election, it is important to understand what factors may have affected individuals' decisions to show up to the polls. This thesis will examine the effect of mental health, in light of the COVID-19 pandemic, on voter turnout in the 2020 election. The thesis will study the hypothesis that individuals who experienced worse mental and emotional health during the COVID-19 pandemic were less likely to vote compared to their peers who experienced better mental and emotional health.

While many studies have recently emerged studying various aspects of both the COVID-19 pandemic and the 2020 presidential election, few directly examine the relationship between COVID-19 related mental health and voter turnout. This thesis seeks to contribute to existing literature and fill that hole.

Chapter 2

Literature Review

Factors Affecting Voter Turnout

In democracies, voting is one of the most powerful tools citizens can use to convey their thoughts on political candidates, policies, and events. Due to this, an extraordinarily large volume of political science research is dedicated to understanding what factors influence why some people turn out on election day while others stay home. Throughout this wide swath of literature, a variety of theories and findings present different arguments for the influences that dictate voter turnout. Within the academic community, there is debate on how voter turnout should be measured. Some scholars argue in favor of measuring turnout as a percentage of all individuals who are registered, while others prefer to measure turnout as a percentage of all individuals who are eligible to vote based on their age. Regardless of method used, studies have found that the average worldwide voter turnout peaked in 1980 and has decreased approximately 11-12% in recent decades (Vowles 58).

In an attempt to find causal explanations for voter turnout, social science researchers often turn to a variety of demographic factors, either as direct causes or as control variables. There are longstanding studies that show demographic factors such as young age, low income, and low education are correlated with lower levels of voter turnout in the United States (Vowles 60). Plutzer cautions political scientists from adopting beliefs that these demographic factors affect voter turnout through simple causal relationships, however (70). Many commonly used demographic factors are unstable and may not paint the full picture of a situation. For example, it is difficult to claim that marital status will have the same effect on an individual who has been

married for only a few months as it will on an individual who has been married for several decades. Likewise, is it fair to categorize these individuals under one demographic label and expect it to have robust predictive power over voter turnout as a whole (Plutzer 70)? Other key demographic factors, such as age and income, have murky causal relationships to voter turnout. While numerous studies have shown positive relationships between age and voter turnout, the direct route by which getting older makes someone more likely to vote is unclear. It is possible that getting older decreases the costs associated with political participation, increases individuals' exposure to the political process, or embeds individuals into social circles where voting is more encouraged (Dinas 108). It is also possible, however, that as individuals become more mature, they increase their voter turnout simply because they believe it is one item in a laundry list of tasks mature adults ought to do and not due to any profound change in their beliefs or social situation (Plutzer 72). While it is important to control for demographic factors that have been shown to impact voter turnout, as this thesis will, Plutzer's piece serves as a warning against assuming that all the causal relationships of such control variables can be easily ascertained (79).

Despite the difficulties of determining an exact causal link between age and voter turnout, scholars also believe age plays a role in the adoption of an individual's political beliefs and voting habits. The impressionable years hypothesis theorizes that individuals are more likely to change their political beliefs and voting behavior during their teenage and early adulthood years due to changes in their social environments and their susceptibility to new information due to a lack of fully crystallized belief systems (Dinas 112). Building off of the impressionable years hypothesis is the theory that key historical events, such as Watergate or September 11th, 2001, occurring before an individual's political beliefs have been fully crystallized can have profound

effects on their political behavior later in life (Dinas 112, Putnam 1). In attempting to study patterns in voter turnout, this thesis will examine the effect of COVID-19 related mental health on voter turnout in the 2020 United States presidential election.

COVID-19 Effect on Mental Health

Before explaining how COVID-19 mental health effects influence voter turnout, it is important to provide background for the impact COVID-19 had on mental health. Psychological distress, which includes depression and anxiety, peaked during the early months of the pandemic, with American adults experiencing levels of distress in April 2020 that were four times higher than reported levels of distress in 2018 (Ankin et al. 920). Americans experienced more negative emotions during the pandemic and had lower levels of life satisfaction than prior to the pandemic. Reported feelings of loneliness also peaked during March and April of 2020 (Ankin et al. 922). Increased feelings of psychological distress were more common in respondents who were young, female, and parents of children under the age of five (Ankin et al. 927). Compared to other disease outbreaks, COVID-19 had a larger impact on mental health, with mental health issues being reported more during COVID-19 than during the 2003 SARS outbreak. Researchers believe this may be in part due to the worries caused by the spread of false information during the COVID-19 pandemic (Liu et al. 7).

Mental Health and Voting

Mental health and mental illnesses can have a large impact on the lives of people who suffer from them. Through lasting effects, mental health can impact not just an individual's life outlook and day-to-day activities, but also their political behavior. Research has found that individuals who suffer from mental health conditions have different political behavior than the general population. A 2011 study in Ireland found that only 11% of mental health inpatients in the country voted in the election that year, compared to the 70% voter turnout rate for the country as a whole (Kelly 225). Interestingly, when people suffering from mental health conditions do vote, their vote choice may differ from the general population. A 2004 study conducted in Germany found that mental health outpatients were more likely to vote for left-wing parties compared to the general population (Kelly 225). To better understand the impact of mental health on voting behavior, the next section focuses on the impact of specific aspects of mental health: depression, loneliness, and life satisfaction.

Depression and Voting

Affecting over 300 million people worldwide, depression is one of the most common mental health conditions and is expected to become the world's "most burdensome disease" in coming decades (Bernardi et al. 1). Recently, more attention has been paid to not only understanding depression as a psychological and a social phenomenon but also as a political phenomenon (Ojeda 1226).

Previous studies have found that depression lowers affected individuals' motivation to participate in politics by reducing their political trust and their internal political efficacy – their

belief that they are capable of understanding politics (Ojeda 1228; Bernardi et al. 1).

Additionally, depression lowers an individual's somatic capacity, reducing their ability to obtain the resources necessary for political participation, such as time, money, and civic knowledge (Ojeda 1229). Furthermore, individuals affected by depression when they are young may face increased challenges. If depression prevents individuals from voting in the first elections for which they are eligible, they are more likely to become habitual nonvoters (Ojeda 1229). Ojeda found that depression in adolescents had a negative effect on both turnout and other forms of political participation, whereas depression in adults only negatively affected turnout and not other forms of participation (1235). Studies also find that individuals suffering from depression report lower levels of belief that their government is responsive to their wants and needs (external political efficacy). Researchers believe this is a natural result of the negative lens individuals suffering with depression view the world (Bernardi et al. 13).

It is also important to remember that life does not exist in a vacuum; individuals are influenced by multiple factors for every decision they make. In the case of mental health and voting, many of these factors compound each other, and understanding the intersectionality of these issues is important when studying this topic (Ojeda and Slaughter 485). Gender, education level, and employment status, factors known to have an effect on voter turnout, are also linked to depression (Bernardi et al. 6). Historically marginalized groups, including people of color and women, have been found to face more severe consequences of depression on voter turnout (Ojeda and Slaughter 486). The effect of depression on political institutions also does not stop at the polling place. Rather, depression can have a cyclical effect on politics. If individuals affected by depression have lower voting rates, politicians are less likely to be attentive to the policy needs of individuals with depression. This lack of effective policies aimed at helping individuals

with depression can then in turn prevent them from better coping with their depression, which will further decrease their voter turnout, and so on (Ojeda 1240).

Loneliness and Voting

Relatively few studies have been published on the relationship between loneliness and political behavior. The American Psychological Association defines loneliness as “affective and cognitive discomfort or uneasiness from being or perceiving oneself to be alone or otherwise solitary” (“Loneliness”). In his 2021 article, Langenkamp sought to explore whether loneliness could be treated as a political phenomenon by examining representative data out of Germany and the Netherlands. Prior to his research, the impact of loneliness on political behavior had not been well-studied in the general population but had been analyzed among war veterans and marginalized groups (Langenkamp 1242). In their 2007 study of undergraduate students at Washington State University, for example, Pearl and Anderson found a negative relationship between a student’s loneliness and their voter turnout (95). Langenkamp found that individuals who experienced higher levels of loneliness had lower perceived senses of civic duty to vote. Likely based on this lowered perceived sense of voting duty, higher levels of loneliness were also correlated with decreased levels of voter turnout (Langenkamp 1248).

Life Satisfaction and Voting

Similar to loneliness, there are few studies that examine the impact of life satisfaction on political participation. This may be due to the tendency of political surveys to negate questions regarding mental health and life satisfaction (Flavin and Keane 64). In their study of American

adults, however, Flavin and Keane found that higher life satisfaction was correlated with higher voter turnout and other forms of political participation (73). This trend did not apply to all forms of political participation equally, however – they found no correlation between life satisfaction and willingness to engage in political protest (73). The authors also raised concerns over their study's ability to correctly measure the causality between life satisfaction and political participation, conceding that participation in political institutions may in fact increase life satisfaction, rather than high life satisfaction increasing political participation.

Chapter 3

Hypotheses

This thesis will investigate the impact of mental health on voter turnout in the 2020 presidential election. In doing so, it will test two main hypotheses. Pulling from existing literature, the first hypothesis is that individuals with increased psychological well-being will have higher rates of voter turnout.

H1: Increased psychological well-being will be associated with increased voter turnout.

This hypothesis pulls from the literature on mental health, depression, and life satisfaction, which has found that individuals who are more impacted by mental health conditions are less likely to vote. In this thesis, psychological well-being will be measured according to the Bradburn Scale of Psychological Well-being. The Bradburn Scale is a ten-point scale, consisting of five questions regarding positive affect and five questions regarding negative affect. Past research has found this scale to have advantages over other scales measuring psychological well-being (McDowell and Praught 949).

The second hypothesis that this thesis will examine is the relationship between loneliness and voter turnout. It is hypothesized that individuals who experience higher levels of loneliness will be less likely to vote compared to individuals who experience lower levels of loneliness.

H2: Increased loneliness will be associated with decreased voter turnout.

This hypothesis seeks to replicate the results found by Langenkamp using a more modern sample from the United States and help fill holes in the existing literature surrounding loneliness and voting. To measure loneliness, this thesis will utilize an amended version of the UCLA

Three Item Loneliness Scale. The amended scale will include the three questions found in the original three item scale, as well as questions asking participants to rate their social interactions as a whole. The UCLA scale was amended to provide a more robust study of the sensation of loneliness as a political concept.

Chapter 4

Research Design

This thesis utilizes data from the COVID Response Tracking Survey collected by NORC at the University of Chicago using funding from the National Science Foundation. This survey has been conducted in three waves via over-the-phone interviews (“Covid Response Tracking Study”). The first wave of the study interviewed 2,279 individuals between May 21, 2020 and May 29, 2020 (“NSF_COVID_Toplevel”). The second wave interviewed 2,012 individuals from June 22, 2020 to July 6, 2020 (“topline_nsf_wave2”). The third wave interviewed 2,007 individuals from July 22, 2020 to August 10, 2020 (“topline_nsf_wave3”). Additionally, information on individuals’ voting behavior from other Ameri-Speak surveys was provided by NORC at the University of Chicago and appended to the data.

Data Overview:

Dependent Variables

When asked if they voted in the 2020 presidential election, 76.7% responded that they had voted, 13.3% responded that they had not, and 9.9% of the original wave 1 respondents did not participate in the later round of surveys asking about turnout. When asked which candidate they voted for, 36.7% of respondents reported voting for Donald Trump, 39.4% reported voting for Joseph Biden, 11.8% reported not voting for a presidential candidate, and 3.3% reported casting a ballot for a candidate other than Trump or Biden (these results are close to Biden’s

actual popular vote margin of victory of 4.5 percentage points). Additionally, 8.6% of respondents declined to answer who they voted for. Inconsistencies in the number of respondents who reported not voting were due to respondents who initially reported not voting later identifying a candidate they claimed to have voted for. Such inconsistencies were eliminated from further analysis.

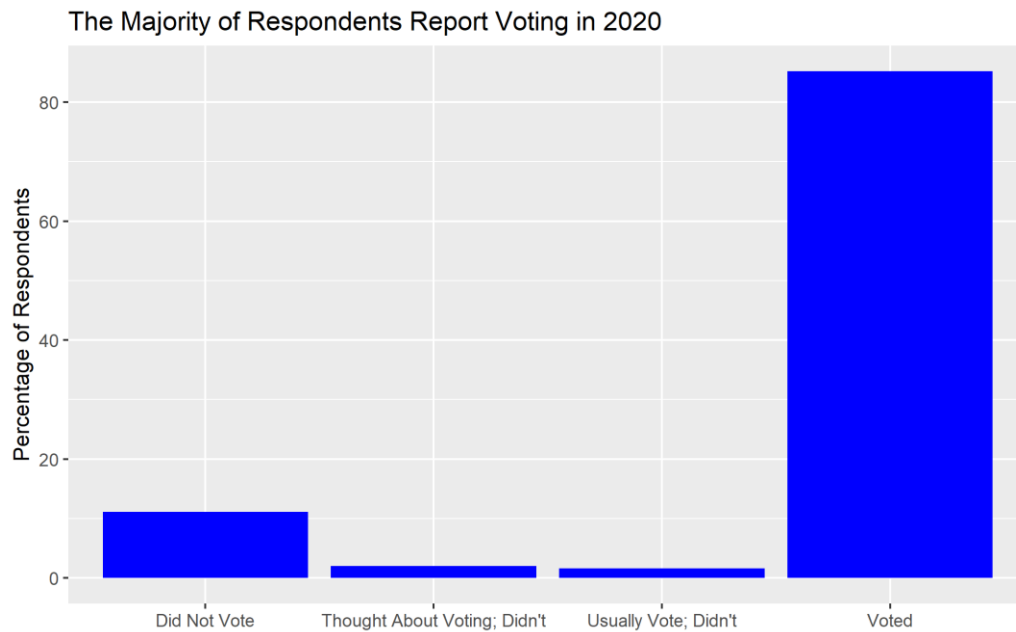


Figure 1: Self reports on voting in the 2020 general election. This graph excludes respondents who did not wish to respond to this question.

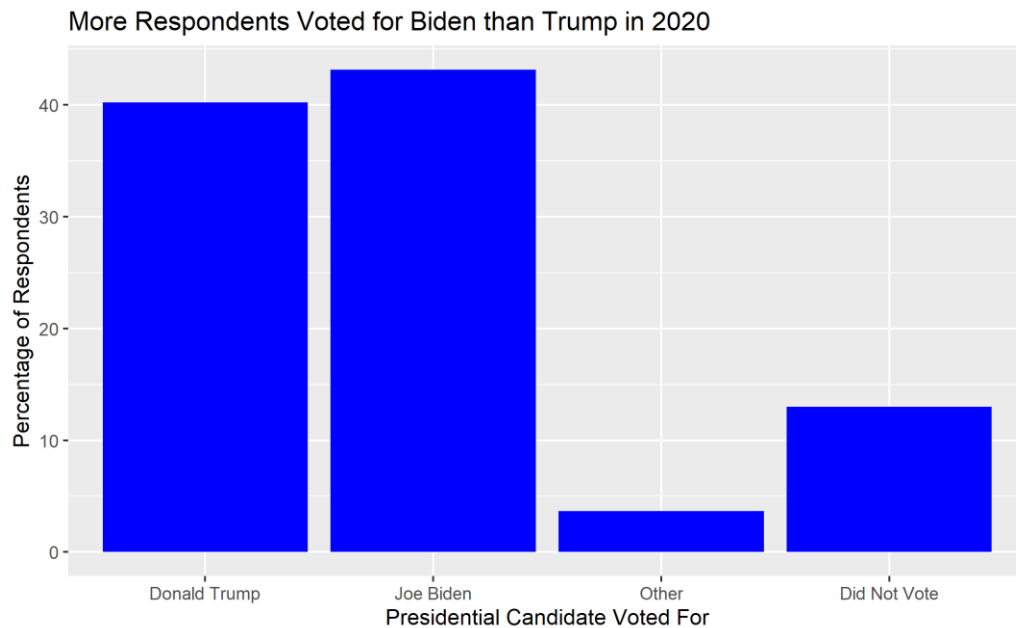


Figure 2: Presidential Candidate Vote Choice

Independent Variables

The independent variables used in this thesis are the Bradburn Scale of Psychological Well-being and an altered version of the UCLA Loneliness Scale. Each question used to create these scales was asked in each of the three waves of the NORC survey. For the purposes of this thesis, the responses for the first wave of the survey were used to allow for the largest pool of respondents possible as some respondents dropped out in later waves.

To create the Bradburn Scale, respondents were asked a series of 10 questions, five measuring positive affect and five measuring negative affect. Prior to creating the Bradburn Scale, independent scales were created to measure a respondent's positive and negative affect scores. Then, to create the full Bradburn Scale, a respondent's negative affect score was multiplied by negative one to create a negative scale with -5 being the lowest possible score and 0 being the highest possible score. The negative and positive affect variables were then added

together to create the full Bradburn scale variable. Positive and negative question wording can be found in Table 1 below.

Here are a few questions we have been asking people regularly during the last few years, and we'd like to get your answers now. During the past few weeks did you ever feel...	
<i>Positive</i>	<i>Negative</i>
A. Particularly excited or interested in something	B. So restless that you couldn't sit long in a chair
C. Proud because someone complimented you on something you had done	D. Very lonely or remote from other people
E. Pleased about having accomplished something	F. Bored
G. On top of the world	H. Depressed or very unhappy
I. That things were going your way	J. Upset because someone criticized you

Table 1: Bradburn Scale Questions

This resulted in each participant receiving a Bradburn Score between -5 and +5. The average score was 1.3 and the most common score was 2. The average positive affect score was 3.1 and the most common positive affect score was 4. The average negative affect score was -1.8 and the most common negative affect score was -1. The full Bradburn Scale distribution can be found in Figure 1 below. As participants were free to decline to answer any questions they wished, 59 respondents did not receive Bradburn Scores and were excluded from the analysis.

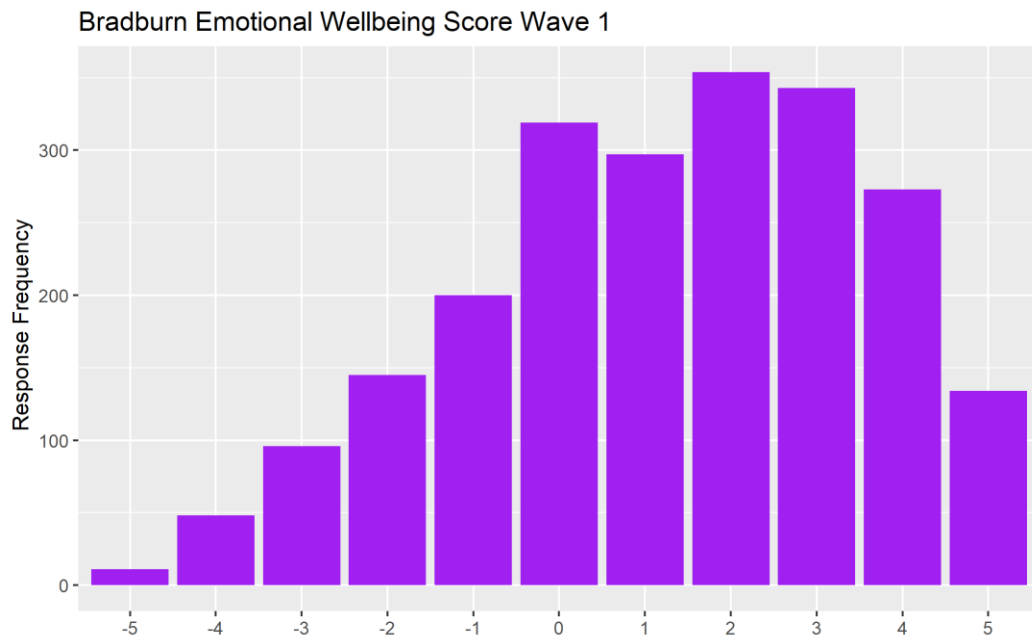


Figure 3: Bradburn Scale Distribution

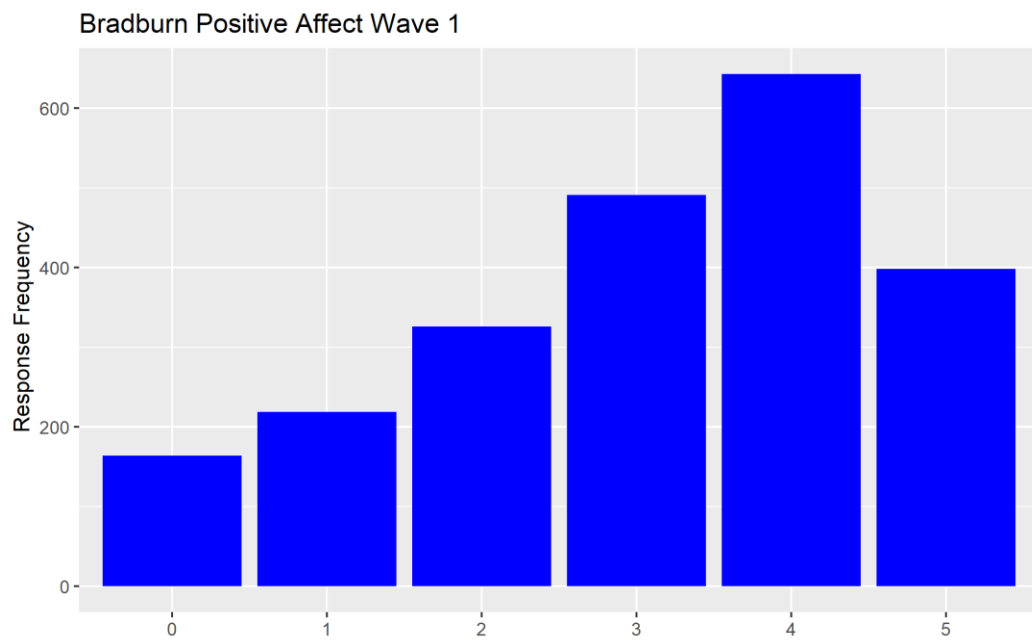


Figure 4: Bradburn Positive Affect Distribution

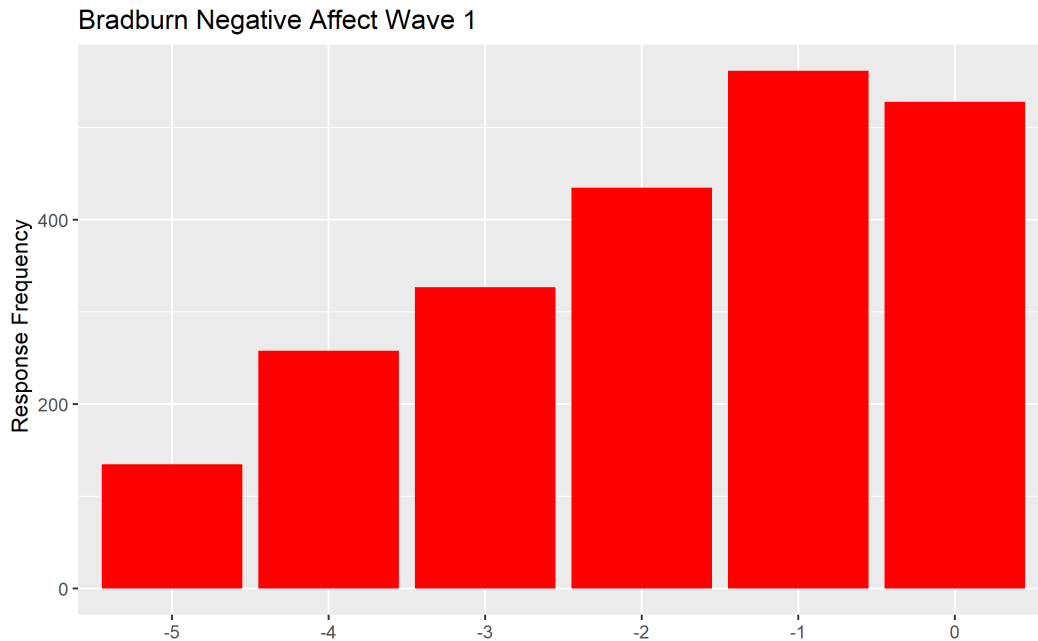


Figure 5: Bradburn Negative Affect Distribution

To create the loneliness scale, an altered version of the UCLA Loneliness Scale was created. First, the standard UCLA Loneliness Scale was created by combining the results of three loneliness variables. These variables measured the respondents answers to three questions: “How often in the past 4 weeks have you felt that you lack companionship?” “How often in the past 4 weeks have you felt that you are isolated from others?” and “How often in the past 4 weeks have you felt that you are left out?” For each question, respondents had the option to respond with “never,” “rarely,” “sometimes,” “often,” or “very often.” To increase the robustness of the measure, a variable measuring satisfaction of social interactions was also added. This question asked, “In general, how would you rate your satisfaction with your social activities and relationships?” and individuals had the opportunity to respond with “poor,” “fair,” “good,” “very good,” or “excellent.”

This created a loneliness scale ranging from 4 to 20. The average score was 10.3 and the most common score 10. As participants were free to decline to answer any questions they wished, 28 respondents did not receive Bradburn Scores and were excluded from the analysis. The full UCLA score distribution can be found in Figure 2 below.

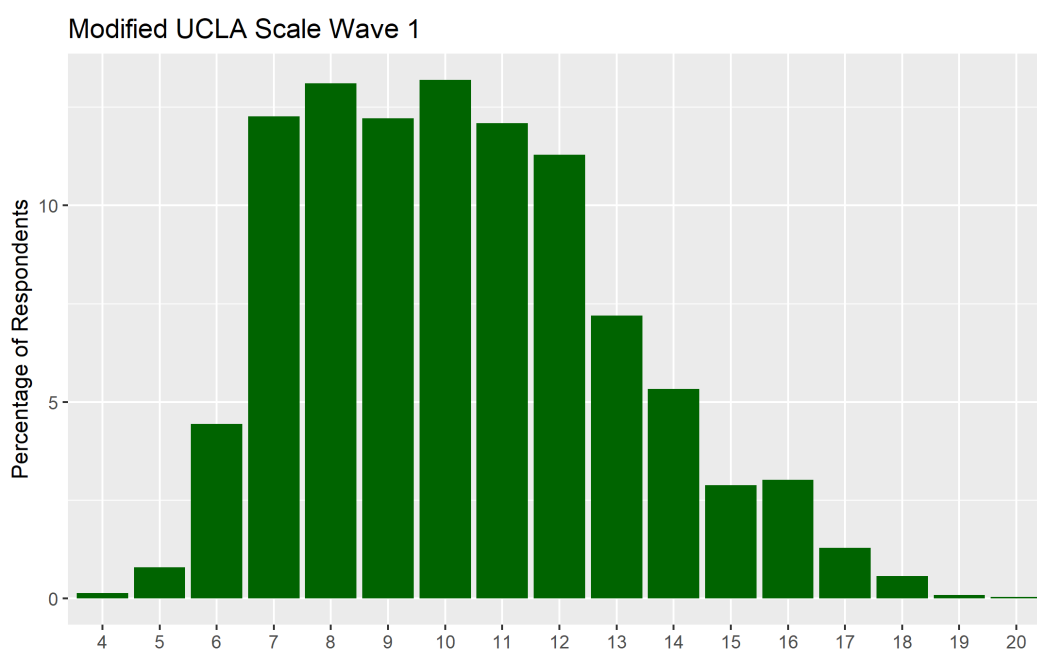


Figure 6: UCLA Loneliness Scale Score Distribution

Control Variables:

This thesis utilizes several control variables in its examination of the effect of mental health on voting. These control variables include age, gender, race, education, and marriage status. These demographic control variables are summarized in Table 2 below. The median age range was 25 -34, with 526 respondents falling within this category, closely followed by ages 55 – 64, with 449 respondents. Only 73 respondents were aged 18 – 24, the smallest group in the sample. In addition, 50.5% of respondents self-identified as female and 49.5% self-identified as

male. The majority of respondents (65.8%) identified as White, non-Hispanic, 16.2% identified as Hispanic, and 10.4% identified as African American, non-Hispanic. Most respondents had either a bachelor's degree or higher (35.8%) or had completed some college (41.0%). Finally, 60.3% of respondents are either married or co-habituating.

Demographics		Frequency	Percentage
Marital Status	Married/Co-Habituating	1375	60.3
	Not Married	904	39.7
Race/Ethnicity	African American	237	10.4
	Hispanic	370	16.2
	White, non-Hispanic	1500	65.8
	Other	172	7.6
Age	18-24	73	3.2
	25-34	526	23.1
	35-44	376	16.5
	45-54	334	14.7
	55-64	449	19.7
	65-74	333	14.6
	75+	188	8.3
Gender	Female	1152	50.6
	Male	1127	49.5
Highest Level of Education	Bachelor's Degree or Higher	73	3.2
	Some College	526	23.1
	High School Graduate or Equivalent	376	16.5
	No High School Degree	334	14.7

Table 2: Demographics

Chapter 5

Results and Discussion

To begin the data analysis, linear regression models were run to measure the correlation between each of the independent mental health variables and voter turnout. The results of each of these bivariate regression models are summarized in Table 3.

Bivariate Regression of Turnout on Mental Health Variables				
	B	Std. Error	t	P>t
Bradburn Scale of Emotional Wellbeing	0.008	0.003	2.222	0.026
Bradburn Positive Affect Score	0.009	0.005	1.742	0.082
Bradburn Negative Affect Score	0.009	0.005	1.805	0.071
UCLA Loneliness Score	-0.005	0.003	-1.720	0.086
Lacking companionship	-0.014	0.006	-2.220	0.027
Felt isolated	-0.003	0.006	-0.511	0.610
Felt left out	-0.024	0.007	-3.555	0.000
Satisfaction with social interactions	0.021	0.008	2.742	0.006

Table 3: Results of bivariate regression analyses of turnout on Mental Health Variables (linear probability models estimated by ordinary least squares).

As shown in the table, several of the mental health explanatory variables show significant bivariate relationships with voter turnout. The Bradburn Scale of Emotional Well-being showed a statistically significant, positive relationship with voter turnout, indicating that for each increase in an individual's emotional well-being, as measured by the scale, their likelihood to vote would increase by 0.7%. Similarly, positive and negative affect, as measured by the Bradburn Scale, had statistically significant and positive relationships to voter turnout. When looking at loneliness as measured by the altered version of the UCLA Loneliness Scale, a statistically significant negative relationship emerged. This relationship indicates that as individuals became less lonely, their voter turnout likelihood increased.

These initial findings are consistent with the logic presented in the hypotheses of this thesis. As individuals become less impacted by mental health challenges, either shown by their Bradburn score increasing or their UCLA score decreasing, they become a more likely voter. To better see the association of loneliness and turnout, Table 4 shows the reported turnout levels for each answer to the three loneliness questions. In all three instances, turnout falls slightly as the feelings of loneliness increase in frequency.

Turnout by Lonliness		
How often in the past 4 weeks have you felt that you...		Turnout
Lack companionship?	Never	0.88
	Rarely	0.85
	Sometimes	0.84
	Often	0.82
	Very often	0.84
Are isolated from others?	Never	0.88
	Rarely	0.82
	Sometimes	0.85
	Often	0.87
	Very often	0.85
Are left out?	Never	0.89
	Rarely	0.85
	Sometimes	0.82
	Often	0.82
	Very often	0.81

Table 4: Voter Turnout by Loneliness

To examine the robustness of the effect of mental health on voter turnout, the independent variables were combined in a multiple linear regression model with voter turnout. The results of this regression model are summarized in Table 5 below. As shown in the table, when combined into one model with each other, neither positive affect, negative affect, or UCLA scale maintain a significant correlation with voter turnout. It is possible that these variables drop

out of significance when combined together because they measure different facets of the same root causes, identifying the same pool of people. Indeed, the Bradburn negative affect score and the UCLA loneliness score are highly correlated ($r = -0.52$). It is plausible that an individual who feels they lead an isolated, lonely life may also score themselves low on a scale of emotional well-being. Additionally, taking into consideration the context in which this survey was administered – the COVID-19 pandemic that forced the majority of Americans into conditions that were far more isolating than their normal, pre-pandemic experiences – it is highly plausible that individuals who struggled with their emotional well-being may be experiencing increased negative affect due to the forced isolation and loneliness they were experiencing.

	B	Std. Error	t	P>t
Bradburn Positive Affect Score	0.007	0.006	1.250	0.211
Bradburn Negative Affect Score	0.006	0.006	0.996	0.319
UCLA Loneliness Score	-0.002	0.003	-0.607	0.544
Intercept	0.868	0.039	22.343	0.000

Table 5: Multiple Regression Results

From the initial multiple regression, it appeared that the Bradburn Negative Affect Score and the UCLA Loneliness Score were highly intertwined. In order to further explore this relation and its affect on other variables in the regression model, the negative affect and loneliness scores were combined into one measure of mental stress. To do this, the UCLA Loneliness Score was divided by four to create a scale running from one to five. Additionally, the Bradburn Negative Affect Score was multiplied by negative one to create a scale that ran from zero to five, in same direction as the UCLA scale – more positive numbers representing

more negative affect. Then, these two measures were added together to create the new mental stress variable. Regression models were then run to examine the effect of this new variable.

In the first new regression model, the effect of mental stress and Bradburn Positive Affect score on voter turnout was examined. These results are summarized in Table 6 below.

Multiple Regression of Mental Health Variables and Voter Turnout				
	B	Std. Error	t	P>t
Bradburn Positive Affect Score	0.007	0.005	1.268	0.205
Mental Stress	-0.007	0.004	-1.623	0.105
Intercept	0.865	0.028	30.393	0.000

Table 6: Multiple Regression of Mental Stress, Positive Affect and Voter Turnout

As shown in Table 6, the combination of Bradburn Negative Score and the UCLA Loneliness Score into one mental stress variable did not maintain the significance of either mental stress or positive affect on voter turnout when combined into a multiple regression model. In order to more fully understand the relationship between mental health and voter turnout, several control variables were then identified and added into the regression models.

The control variables utilized in this study were also found to have a significant impact on voter turnout when analyzed independently using cross tabulation models. The results of these models are presented in Table 7 below.

Control Variables Effect on Turnout

		Turnout
Age	18-24	0.75
	25-34	0.79
	35-44	0.83
	45-54	0.84
	55-64	0.86
	65-74	0.95
	75+	0.97
Education	No HS diploma	0.60
	HS graduate or equivalent	0.79
	Some college	0.86
	BA or above	0.90
Marital Status	Married/co-habiting	0.85
	Not married	0.86
Gender	Female	0.84
	Male	0.87
Race/Ethnicity	White, non-Hispanic	0.90
	African American, non-Hispanic	0.82
	Hispanic	0.72
	Other	0.78

Table 7: Effect of Turnout Variables on Voter Turnout

Of the control variables analyzed, age and education level had the most noticeable effect on voter turnout. The effects of these variables on voter turnout, and political engagement broadly, has been well established in the literature (Vowles). In this analysis, individuals in the youngest age group, those aged 18 to 24, were 22% less likely to vote than their counterparts in the eldest age group, aged 75 and older. Even more noticeable was the effect of education. In this analysis, it was found that individuals without a high school diploma were 30% less likely to vote their counterparts who had obtained the bachelor's degree or higher.

To further examine the relationship presented here, positive affect, negative affect, and loneliness were independently combined with the control variables in a multiple regression model to explore their correlation with voter turnout. In these regression models, it was found

that the mental health variables dropped out of statistical significance, while age maintained a strong statistically significant relationship with voter turnout. To better understand this phenomenon, each of the variables was then studied with age.

Effect of Age on Mental Health:

Turnout and Bradburn Score by Age			
Age	Turnout	Bradburn Positive Score	Bradburn Negative Score
18-24	0.75	3.30	2.47
25-34	0.79	3.23	2.42
35-44	0.83	3.07	2.14
45-54	0.84	2.93	1.82
55-64	0.86	3.01	1.58
65-74	0.95	3.00	1.28
75+	0.97	3.19	0.92
Total	0.85	3.08	1.84

Table 8: Turnout and Bradburn Score by Age

When examining the relationship between age and Bradburn score, it was found that negative affect was the most affected by the respondent's age, as shown in Table 8 above. Older participants had much lower negative affect score than younger participants, with the average negative affect score being 1.55 points lower for the 75 and older age group than the 18 to 24 age group. Again, the context of the pandemic may provide key insight into this trend. While the pandemic affected all Americans, it may be that younger individuals were more likely to experience the negative emotional toll of the pandemic. Individuals in the 18 to 24 age group likely had their collegiate experience or early professional career disrupted, were separated from friends, or forced to isolate in cities they had just recently moved to, with no established support

system. Additionally, as new adults, this was likely one of the first major life disruptions individuals of this age group may have experienced, causing them to feel its toll more strongly.

Alternatively, while certainly impacted by the pandemic and its implications, individuals 75 and older may have been less susceptible to the negative mental effects of COVID-19. Many of these individuals were likely retired from their careers and did not have to transition all of their daily activities onto virtual platforms with little training or support as working age individuals would have had to. Additionally, it is possible that these older respondents found themselves isolating in communities where they had been residing for longer periods of time and had established support systems within their community to help alleviate the negative mental health impact of the pandemic.

Additionally, when positive affect and negative affect were combined with age and regressed with voter turnout, positive affect maintained a statistically significant relationship with voter turnout despite the inclusion of age, when negative affect dropped out of statistical significance when age was included, indicating the cross-cutting nature of age and negative affect. The results from these regression models are shown in Tables 9 and 10 below.

Regression of voter turnout on age and bradburn positive score				
	B	Std. err.	t	P>t
Intercept	0.680	0.026	25.965	0.000
Bradburn Positive Score	0.011	0.005	2.045	0.041
Age category	0.035	0.005	7.647	0.000
Adjusted R2	0.029			
N	2025			

Table 9: Regression of Turnout, Positive Affect and Age

Regression of voter turnout on age and bradburn negative score

	B	Std. err.	t	P>t
Intercept	0.703	0.026	27.515	0.000
Bradburn Negative Score	-0.003	0.005	-0.616	0.538
Age category	0.036	0.005	7.462	0.000
Adjusted R2	0.027			
N	2026			

Table 10: Regression of Turnout, Negative Affect and Age

Next, a multiple regression model was run with mental stress, positive affect, and the identified control variables. The results of this multiple regression are presented in Table 11 below.

Multiple Regression Results with Control Variables

	B	Std. Error	t	P>t
Mental Stress	0.000	0.004	0.035	0.972
Bradburn Positive Affect Score	0.007	0.005	1.337	0.181
Age	0.035	0.005	7.167	0.000
Marital Status	-0.021	0.016	-1.332	0.183
Race/Ethnicity	-0.047	0.008	-6.070	0.000
Gender	-0.007	0.015	-0.454	0.650
Education	-0.077	0.009	8.387	0.000
Intercept	0.549	0.053	10.292	0.000

Table 11: Multiple Regression of Mental Stress, Positive Affect, and Control Variables

As shown in the table, the consolidation of negative affect and loneliness into one measure did not prevent them from dropping out of significance and being overshadowed by age, education level, and race/ethnicity. This is likely for the same reasons discussed above regarding the cross-cutting nature of age, negative affect, and loneliness.

Chapter 6

Conclusion

Throughout this thesis, the effect of mental health on voter turnout was examined in the context of the 2020 presidential election. It was found that when studied in isolation, emotional well-being and loneliness had a significant impact on voter turnout. Poor mental health, as measured by either high Bradburn Negative Affect scores or high UCLA Loneliness scores, was found to correlate with decreased voter turnout. Additionally, mental well-being, as measured by high Bradburn Positive Affect scores, was found to correlate with increased voter turnout.

However, it was found that the impact of individual mental health measures on voter turnout did not maintain significance when combined with both other mental health measures and control variables, especially age, education level, and race/ethnicity. When the mental health measures were combined together, it was found that individuals who scored highly on the negative affect score also scored highly on the loneliness score. This resulted in negative affect and loneliness being combined to create a single measure of mental stress. It was also found that younger respondents, namely those under the age of 25, were found to have increased reporting of negative affect and loneliness. Due to the overlap between age and mental stress, it was not possible for this thesis to identify which variable had the true impact on voter turnout.

The main limitation in this thesis' inability to determine the causal relationship between age and mental stress was the small number of young people surveyed for the data set. With only 73 respondents falling within the 18 to 24 age category, compared to the hundreds of respondents falling within each of the other categories, there was simply not enough data to draw meaningful conclusions on the relationship between age and mental stress.

In order to pick up where this thesis leaves off, future research should focus on determining the causal relationship between age, mental stress, and voter turnout. An ideal follow-up study would focus predominantly on young people with a representative range of mental health challenges. By limiting the scope to only the youngest age group, researchers will be able to examine the true effect of mental health in this population. If mental health is more impactful than age, within the same age group, individuals with higher levels of mental stress should report lower voter turnout than their peers with lower levels of mental stress.

Alternatively, future researchers can opt to approach this research question by instead controlling for mental stress level and examining the effect of age. If a large pool of individuals with the same mental stress rate are identified, the effect of their age on their voter turnout can be better understood. In this case, if age is a more important predictor of voter turnout than mental health, older individuals should report higher voter turnout levels than their younger peers who are dealing with the same levels of mental stress.

Additionally, to increase the generalizability of this research, future researchers can examine the impact of mental health on voter turnout outside of the context of the COVID-19 pandemic. It is possible that COVID-19 had a unique effect of mental health, and caused mental health to be more or less predicative of voter turnout than it would normally be. To conduct this research, future studies could choose to conduct a similar analysis to the one presented in this thesis using data collected during the 2016 presidential election and comparing their results to those presented here.

An individual's decision to vote or stay home on election day is one that may be influenced by countless factors. Overall, there does seem to be some impact on voter turnout by mental health, although more research is needed to better understand all of the factors at play.

Ultimately, it is this researcher's hope that the research presented in this thesis will prompt more exploration into the impact of possible determinants of voter turnout that have previously been neglected by the political science community.

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**POLITICAL
EXPERIENCE**

Intern

Penn State Office of Government and Community Relations, University Park, PA January 2023 – Present

- Track legislative priorities and committee assignments for 118th Congress and Pennsylvania state houses
- Evaluate effectiveness and areas of improvement for federal communication strategies
- Craft outreach campaigns to on-campus stakeholders to build support for office priorities
- Assist in the planning, logistical coordination, and marketing of the annual major advocacy event

Legislative Intern

U.S. House of Representatives, Office of Matt Cartwright, Washington, D.C. May 2022 – July 2022

- Drafted and edited legislative research, policy briefs, and constituent correspondence
- Maintained records of office activities and constituent contact using Fireside21
- Served as the first point of contact for constituents and effectively relayed information to staff
- Monitored legislative priorities and provided updates to staff
- Managed multiple tasks with concurrent deadlines while staying organized and focused on priorities

Volunteer Engagement Lead

Alexandra Hunt for Congress, Remote June – August 2021

- Served as direct liaison between congressional candidate and volunteer base of more than 100 members
- Oversaw, engaged, and organized more than 70 volunteers to ensure campaign ran efficiently
- Coordinated volunteer attendance at events to properly represent campaign and support candidate

Political Affairs Intern

The Borgen Project, Remote January – March 2021

- Attended trainings on lobbying Congress, mobilizing constituents, and fundraising
- Assembled teams of constituents to advocate on behalf of global poverty funding
- Lobbied and met with key congressional leaders to co-sponsor and support various legislation
- Composed outreach messages to public figures, activists, and news outlets in support of bills
- Raised more than \$1,000 to support the organization

**RESEARCH
EXPERIENCE**

Honors Thesis Research

August 2021 – Present

Political Science Department, Penn State University

- Evaluate trends between mental health during the COVID-19 pandemic and voter turnout in 2020
- Conduct statistical analysis utilizing R Studio to analyze important trends in the data
- Compile existing peer reviewed literature into succinct summaries of key theories and findings
- Produce graphs and other charts displaying key data in a clear, easy to comprehend manner

**LEADERSHIP
EXPERIENCE**

Vice President for Programming

January 2022 – December 2022

Panhellenic Council Executive Board, Penn State University

- Organized and executed multiple events for thousands of Greek Life members and tracked participation
- Collaborated with university staff and other student leaders to create engaging programming
- Oversaw and managed 60+ chairs, each responsible to their own sororities of more than 100 members
- Raised over \$600 for hazing prevention philanthropies supported by the Council and Penn State

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