POLITICAL KNOWLEDGE AND POLITICAL ENGAGEMENT IN THE UNITED STATES

by

BRITTANY SHAUL
B.A. University of Central Florida, 2017

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of Political Science
in the College of Sciences
at the University of Central Florida
Orlando, Florida

Spring Term
2019

Major Professor: Jonathan Knuckey

ABSTRACT

This thesis examined the impact of political knowledge on forms of political engagement in the United States. Prior literature has established a relationship between political knowledge and political engagement, where those with higher political knowledge were more likely to engage politically through acts such as voting. This study distinguished between the various forms of political engagement and political knowledge, and seeks to provide relevant data on who is more likely to have political knowledge, and what impact having political knowledge has. This served to reexamine trends found in past literature, in order to see if these trends have persisted or changed over time. This study analyzed data from the American National Election Studies (ANES) from 1988-2016 to explore the relationships between political knowledge and political engagement utilizing various regression models. Consistent with past literature, this study found demographic gaps in the distribution of political knowledge, although these gaps appear to be closing. While political knowledge had a strong and significant relationship with voting, the effects of political knowledge did not hold across all forms of engagement.

ACKNOWLEDGMENTS

I would like to thank my thesis chair, Dr. Jonathan Knuckey, for his advice and assistance in writing this thesis. Your Seminar in American Politics helped spark my interest in political knowledge and engagement, which ultimately made this thesis possible. Your feedback during the course and while writing this thesis helped me consider additional ways to think about issues, which has helped me refine my research and analytical abilities.

I would also like to thank my committee members, Dr. Terri Fine and Dr. Daniel Seigler. To Dr. Fine, I am grateful for the time I have worked with you during my graduate career. You have always given constructive feedback, and have been of great assistance both academically and professionally. I have greatly appreciated the opportunity to work with you and learn from you. To Dr. Seigler, your positivity during your undergraduate courses and this thesis were greatly appreciated. You emphasizing the importance of this topic during my hearing has further motivated my research interests in political knowledge and engagement. You have all helped spur my interest in political knowledge and civic education, and have been of great help during my time at UCF. Thank you all for the help you have provided me, both academically and professionally. You have all made me feel as though my success was important to you, and for that I am grateful.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

With information now available instantaneously, individuals have more options for obtaining political knowledge, and outreach efforts for various forms of political engagement have an ability to reach more people than ever before. In an era of countless options and 'fake news', has this greater ability to obtain and spread information been counterproductive? Despite the increase in available options to obtain information, past research has found there has not been an increase in political knowledge (Prior 2005). There has also been a decline in engagement, where each generation has been less engaged compared to the previous generation (Putnam 1995).

This thesis will seek to assess the effects of political knowledge on forms of political engagement in the United States. This will provide an update to past literature on political knowledge and engagement, to see if previously identified trends persist, or if these variables are largely influenced by contingent factors (if the results show variations between election years, this could suggest that political knowledge and engagement are influenced by contingent factors such as the political climate). Consideration will also be given to who has political knowledge, to determine if there are variations among demographic groups. There is importance in reexamining the previously identified trends, because the assumption should not be made that the trends of who has political knowledge have persisted over time (especially given the increase in the means to obtain political knowledge).

Researchers seeking to study political knowledge can face a plethora of challenges resulting from differing conceptualizations and operationalizations of political knowledge. Survey questions pertaining to political knowledge can be "policy specific" (which deal with

policy concerns) or "general" (which ask respondents about people or institutions of government [Barabas et al. 2014, 842]). While Galston (2001) argues the more political knowledge individuals have, the more likely they will be to participate politically, there are various forms political engagement can take, so the relationship between political knowledge and engagement may not hold across all forms of political engagement.

Carpini and Keeter have conceptualized political knowledge as "the range of factual information about politics that is stored in long-term memory" (Carpini and Keeter 1996, 10), and the information about politics held by individuals (Carpini and Keeter 1993). There is a lack of consensus on the conceptualization of political engagement, as political engagement can take many forms, including participation in organizations, intensive service, and participation in community and political activities (such as voting and advocating for a political party or public policy [Adler and Goggin 2005]). The conceptualization of political engagement proposed by Adler and Goggin (2005) includes how an individual participates in a community to improve the community and the conditions for others. Given the various forms political engagement can take, the relationship between political knowledge and political engagement may not hold across all forms of political engagement, showing the importance of examining specific forms of political engagement when seeking to determine the impact of political knowledge. Since there are various means of conceptualizing and operationalizing political knowledge, there is importance in explicitly stating which forms of political knowledge will be examined. Discussing political knowledge and political engagement in general (as opposed to explicitly stating which forms of political knowledge and engagement will be examined) could potentially lead to misconceptions on how politically knowledgeable and engaged individuals are. This can be seen in past literature

asserting that the more political knowledge individuals have, the more likely they will be to participate politically (Galston 2001). This participation could be limited to specific forms of engagement (such as voting), but may not capture other forms of engagement. This presents a limitation when examining these variables. Since the primary variables in this study are broad, by only examining distinct forms of political knowledge and engagement, there is the potential that individuals may be knowledgeable or engaged in ways that were not examined. If this is the case, the levels of knowledge and engagement in general could be understated. Similarly, certain forms of engagement, taken by themselves, may provide an incomplete explanation of political engagement. More specifically, this may be the case when measuring forms of engagement such as voting. While there is value in examining voting trends, measuring political engagement should not end at voting. Voting excludes a portion of the population (such as non-citizens and felons), but these individuals may be engaged in ways outside of voting (such as volunteering or protesting), showing value in examining forms of engagement beyond voting.

Research Question and Hypotheses

This study will seek to answer questions such as "which demographic groups are more likely to have political knowledge?" and "what impact, if any, does political knowledge have on an individual's propensity to be politically engaged?" Political knowledge will be utilized as a dependent variable, in order to examine trends in who is more likely to hold political knowledge, based predominantly on demographic variables.

H1: *In a comparison of individuals, those who are males are more likely to have higher political knowledge than those who are females.*

H2: *In a comparison of individuals, those who have a higher income are more likely to have higher political knowledge than those who have a lower income.*

H3: *In a comparison of individuals, those who are older are more likely to have higher political knowledge than those who are younger.*

H4: *In a comparison of individuals, those who are strong partisans are more likely to have higher political knowledge than those who are pure independents.*

H5: *In a comparison of individuals, those who are white are more likely to have higher political knowledge than those who are non-whites.*

H6: *In a comparison of individuals, those who have a higher level of education are more likely to have higher political knowledge than those who have a lower level of education.*

Since there may be a question of whether political knowledge increases political interest, or if pre-existing political interest increases knowledge, it is also hypothesized that:

H7: *In a comparison of individuals, those who have a higher interest in politics are more likely to have higher political knowledge than those who have a lower interest in politics.*

The impact of paying attention to news about national politics will also be examined, in an attempt to gauge how effective television news sources are in presenting political knowledge.

H8: *In a comparison of individuals, those who pay more attention to national news about politics are more likely to have higher political knowledge than those who pay less attention to news about national politics.*

This study will seek to assess the impact of political knowledge on various forms of political engagement. While this will not be an exhaustive study of the impact of political knowledge on political engagement (given the broad nature of political knowledge and engagement), the focus

will be on the impact of political knowledge on distinct forms of political engagement by testing the following hypotheses:

H9: *In a comparison of individuals, those who have high political knowledge are more likely to vote in a primary or caucus election than those who have low political knowledge.*

H10: *In a comparison of individuals, those who have high political knowledge are more likely to vote in a general election than those who have low political knowledge.*

H11: *In a comparison of individuals, those who have high political knowledge are more likely to donate to a political party or candidate than those who have low political knowledge.*

H12: *In a comparison of individuals, those who have high political knowledge are more likely to volunteer than those who have low political knowledge.*

H13: *In a comparison of individuals, those who have high political knowledge are more likely to participate in a demonstration or protest than those who have low political knowledge.*

H14: *In a comparison of individuals, those who have high political knowledge are more likely to trust the government than those who have low political knowledge.*

H15: *In a comparison of individuals, those who have high political knowledge are more likely to pay attention to news about national politics than those who have low political knowledge.*

In recent elections, the use of social media has taken a more prominent role, which highlights the importance of scholars considering social media in future political studies. Consideration will be

given to the frequency of social media use to learn about presidential elections, based on levels of political knowledge.

H16: *In a comparison of individuals, those who have high political knowledge are more likely to use social media to learn about presidential elections than those who have low political knowledge.*

Methodology

To examine who has political knowledge, and what impact having political knowledge has on an individual's propensity to engage politically, this study will utilize survey data from the American National Election Studies (ANES) which focus on general political knowledge (political knowledge here will be measured by a respondent's ability to correctly identify the job or office held by political figures). The data will be utilized to examine presidential election years from 1988 through 2016, which will allow for the examination of potential fluctuations in political knowledge and engagement during this period. The data will be run utilizing various regression models based on the dependent variable being examined. This thesis will focus on general political knowledge, rather than policy specific knowledge, and the effects of this knowledge on engagement. The forms of political engagement that will be examined are voting in a primary or caucus election, voting in a general election, volunteering, donating to a political party or candidate, and participating in a demonstration or protest. While this is not a comprehensive list of the ways to engage politically, examining these forms of political engagement is expected to provide a greater understanding of the impacts of political knowledge.

Importance of Topic

Examining the impact of political knowledge can provide researchers and policymakers with relevant data on trends in political engagement. Determining why individuals participate politically can provide relevant information to assist in fostering political engagement. Examining the distribution of political knowledge among various demographic groups can provide relevant information on who is more likely to have political knowledge. Having this understanding of trends for who has political knowledge can assist future researchers in determining why these trends exist. This can also provide relevant data to increase efforts to raise political knowledge and foster political engagement.

Galston (2001) provides a summation of findings on the importance of political knowledge, which includes the claim that the more political knowledge individuals have, the more likely they will be to trust the government and participate politically, as they will have a greater understanding of government processes. Popkin and Dimock (1999) argue there is no relationship between political trust and participation, and instead argue that there is a relationship between political knowledge and participation (those who have a greater understanding of government will be more likely to participate politically compared to those who do not understand government processes, rather than because of a lack of trust in government).

According to previous studies, political knowledge has been found to be unevenly distributed among various groups. Those who are male, white, have a higher income, and older individuals are more likely to have more political knowledge when compared to females, non-whites, those who have a lower income, and younger individuals (Althaus 1998; Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006). Shaker (2012) distinguished between local and

national political knowledge, to determine if there were differences in the demographic knowledge gaps based on the knowledge questions. While the demographic gaps were consistent with past literature when considering national knowledge, "neither black respondents nor women knew less about local politics than their white, male counterparts" (this study surveyed respondents in Philadelphia, and local knowledge questions included naming the job or office held by local political figures [Shaker 2012]). Prior (2013) examined the differences in visual and verbal political knowledge questions, to determine if there were demographic differences based on the form of the knowledge questions. Men and those with a higher education were found to be more knowledgeable when using verbal knowledge questions, which is consistent with past literature. While there were still inequalities in the results for the visual knowledge questions, the gender and education gaps were not as pronounced, which led Prior (2013) to argue the use of visual knowledge may be "a road to political competence" (55) for some demographics.

Given the findings in past literature, if political knowledge is shown to impact whether an individual is politically engaged, an uneven distribution of political knowledge among these demographics could contribute to uneven electoral representation. Individuals with lower levels of political knowledge may have less trust in government (due to a lack of understanding of government processes), and could potentially be less likely to effectively choose a candidate who fits their true preferences. These factors could make individuals with lower levels of political knowledge less likely to vote, which would contribute to uneven representation among various demographic groups. The uneven distribution of political knowledge found in past literature

illustrates the necessity to better understand who has political knowledge, and the implications of political knowledge.

When considering the argument that low political knowledge can be counteracted by elite who are informed, Carpini (1999) notes the necessity for political knowledge inherent in the ability for elites to effectively represent the public: “For elites to represent the general public effectively, they must still be accountable to the public” (36). Individuals with lower political knowledge may not be able to determine when the elite are ineffectively representing the public. Similarly, campaign efforts or media stories that play on the emotions of the public or spread misinformation may go undetected and effectively misinform the public. Flynn, Nyhan, and Reifler (2017) distinguish between those who are uninformed and those who are misinformed, where those who are uninformed do not hold a belief about a factual question, and those who are misinformed hold a belief that is incorrect or unsubstantiated. Misinformation can originate from personal biases or misguided interpretations, or they can originate from sources that are external, such as the mass media (Flynn, Nyhan, and Reifler 2017). The authors provided an example of claims by Democrats that George W. Bush had the power to reduce the price of gas (although presidents do not have the power to do so), but were less likely to claim Barack Obama had the power to reduce gas prices. Republicans also held this misinformation, but in the opposite direction (Flynn, Nyhan, and Reifler 2017, 129). Misinformation can permeate across issue positions, and has the ability to impact debates on public policy. Promoting political knowledge among the masses can potentially help to prevent the spread of misinformation by the media and elite, as the public may have a greater ability to identify and reject this misinformation.

The organization of this study will be as follows: Chapter 2 will review the state of prior literature on political knowledge and political engagement to determine the gaps and limitations in the current state of literature, and will also serve to highlight the importance of political knowledge as determined by past literature. Chapter 3 will outline the data and methods used, including a synopsis of the examined variables, and Chapter 4 will analyze the results of the data. This thesis will conclude with a summation of the results and directions for future research.

CHAPTER 2: LITERATURE REVIEW

Scholars have sought to determine why there has not been a significant increase in political knowledge and why there has been a decline in voter turnout (as well as a decline in other forms of political engagement) in the past 50 years, despite an increase in education (Galston 2001; Popkin and Dimock 1999; Prior 2005; Putnam 1995). Sources identify the 1960s as the start of the decline of political engagement, a decline which only accelerated in the 1970s and 1980s (Galston 2001; Galston 2004; Popkin and Dimock 1999; Putnam 1995). This has led scholars to examine the sources of political knowledge.

Individuals can obtain political knowledge through various sources, including civic education (Owen and Soule 2015), and news and media sources (Chaffee and Frank 1996; Prior 2005). Given the differing forms political knowledge can take, the sources of political knowledge can impact the type of knowledge obtained. Chaffee and Frank (1996) found that print sources provided more information on political parties, whereas television sources provided more information on political candidates. Findings in past literature also suggest that the means of teaching civics courses influences the impact of the course, where the intention of students to vote can be increased through an open classroom climate (Campbell 2008; Feldman et al. 2007).

Despite findings that political knowledge has decreased, Carpini and Keeter (1996) found that while individuals in the United States may not be as politically knowledgeable as some would desire, individuals are also not as uninformed as past research might suggest, as individuals were shown to possess more knowledge of political processes than of foreign affairs and political leaders. This shows importance in distinguishing between the different forms of

political knowledge, and for studies to be explicit in their operationalization, rather than discussing political knowledge more generally.

Political knowledge can be general or policy specific, and Barabas et al. (2014) found that while there is a relationship between education and both forms of political knowledge, the strength of the relationships will vary based on the type of knowledge. While general political knowledge is expected to have a stronger relationship with education (since the topics related to general political knowledge are typically covered in school curriculums), the relationship between education and policy specific knowledge may be weaker, depending on the policy issue (education as a means of obtaining political knowledge will be discussed further in the following section).

In addition to education, motivation impacts the acquisition of general and policy specific knowledge, as policy specific knowledge is considered harder to acquire, so the distribution of this knowledge varies based on motivation (Barabas et al. 2014, 842). Given the forms political knowledge can take, scholars have varying opinions on the effective way of operationalizing political knowledge. Carpini and Keeter (1996) note the importance of having an understanding of the people and institutions of government, whereas Gilens (2001) notes the acquisition of policy specific knowledge impacts policy preferences. However, while policy specific facts were argued to shape policy preferences, Gilens (2001) acknowledges the influence of elites in shaping preferences, where individuals tend to rely more on elites and experts to reason through new information. This reliance on external sources to receive information and shape preferences can be problematic. Kuklinski and Quirk (2000) consider sources such as public officials and the media to be the main "connection" individuals have to information in the political realm, but

they argue the information can be unbalanced, as public officials are likely to avoid taking stances contrary to expressed biases held by the public (160). The influence of the media and public officials was emphasized by Shapiro and Page (1992), who also take into consideration the potential for the elite to deceive and manipulate the public. While they note there are challenges with trying to identify cases of manipulation (356), the potential for the elite to manipulate public opinion should not be ignored, as this poses a hindrance to the ability for individuals to acquire accurate policy specific knowledge.

While people were previously exposed to political knowledge through news programs as a result of fewer viewing options, Prior (2005) explored why there has not been an increase in political knowledge since there has been an increase in available information through the internet and cable television. Prior (2005) argues the widening gap in voter turnout and in political knowledge are a result of more viewing options, as accidental exposure to news becomes less likely when individuals are presented with more viewing options. This supports assertions made by Putnam (1995) that younger people are not reaching the levels of engagement that older levels reached, which he contributes to television. Since the 1940s, each generation reaching adulthood has been less engaged than the previous generation, leading Putnam (1995) to conclude that the decrease in engagement is a generational effect, rather than a life cycle effect (an assertion also supported by Dudley and Gitelson [2002]).

Social media has become more prevalent in the political realm, with the 2008 presidential election being regarded as “the first Facebook election” (Carlisle and Patton 2013, 883). Carlisle and Patton (2013) examined political engagement on Facebook during the 2008 presidential election, and they found low political engagement overall on Facebook (although they note the

general election impacted specific behaviors, such as posting updates on vote choice and candidate support). During the 2008 election, political interest was determined to impact an individual's level of political engagement on Facebook.

While social media platforms have the potential to politically engage individuals, the information spread through these platforms are typically unfiltered, which can lead to the spread of misinformation. This has led scholars to now examine the impact of "fake news" in the 2016 presidential election (Allcott and Gentzkow 2017). Trust in social media was found to be lower compared to "traditional outlets" for news, but a reported 14 percent of adults in the United States considered social media to be their "most important" means of obtaining news about the election (Allcott and Gentzkow 2017, 212). Fake news articles were conceptualized as those "that are intentionally and verifiably false, and could mislead readers" (Allcott and Gentzkow 2017, 213). Social media was a focus in the article, due to the larger number of shares of fake news stories on social media platforms (this is likely due to the unfiltered content on social media, where there is a lack of enforcement to ensure the accuracy of the content being shared). While more fake news stories were favorable toward Donald Trump than Hillary Clinton, the fake news articles in Allcott and Gentzkow's (2017) database were argued to only change the share of votes by "hundredths of a percentage point" if the articles were comparable to campaign ads on the television in their persuasiveness (232).

Civic Education

Dudley and Gitelson (2002) argue there is uncertainty in the impact of education on political knowledge, challenging arguments that education is the solution to increase political

engagement. This is challenged by Hillygus (2005), who argues education has been shown to increase political engagement and political knowledge. Hillygus (2005) notes the relationship between education and political engagement is a result of the curriculum, where political participation is more likely to be influenced by a curriculum developing civic skills (which shows the importance of considering the effects of civic education, rather than education in general). Kahne, Crow, and Lee (2013) conceptualize civic learning as "a collection of diverse approaches ranging from discussion of controversial issues, to service learning, to simulations, to learning how a bill becomes a law," which can produce various outcomes related to political engagement (420).

There has been conflicting evidence on the effects of civic education on political knowledge and engagement. Studies on civic education found that civic education can raise political knowledge (Galston 2001), and "All other things being equal, the more knowledge people have, the more likely they are to participate in civic and political affairs" (Galston 2004, 264). Previously, Langton and Jennings (1968) found that there was not a relationship between years of education (which focused on the number of civics courses taken during high school) and political participation.

High school is argued to be a crucial time for civic education, as high school students are considered old enough to understand the political information being presented to them, and high school civics courses are presented to a greater portion of the population than college courses focusing on civic education (Niemi and Hepburn 1995). However, there has been a decrease in civic education at the high school level over time. Galston (2004) found that civic education in high school tends to consist of one course, whereas it was common for three civics courses to be

taught in high school until the 1960s. This coincides with the decline in political engagement that started in the 1960s (Galston 2001; Galston 2004; Popkin and Dimock 1999; Putnam 1995), suggesting that a decline in civic education could have contributed to the decline in political engagement. (The decline in civic education also helps to explain the paradox of why there has not been a significant increase in political knowledge, despite an increase in education.)

The different means of teaching civic education have been found to impact the effects of civic education. Kahne and Middaugh (2008) compiled the following list of the "best practices" of civic education to promote positive results for political engagement:

> Discuss current events, study issues about which the student cares, have discussions of social and political topics in an open classroom climate, study government, history and related social sciences, interact with civic role models, participate in after-school activities, learn about community problems and ways to respond, work on service learning project, [and] engage in simulations. (4)

Feldman et al. (2007) acknowledge civic education as being effective in increasing political participation, but sought to examine how different means of teaching civics courses impacts political engagement. Rather than examining civic education curriculum in general, Feldman et al. (2007) examined Student Voices, a civic education curriculum implemented in 13 cities in the United States (this study focused on an evaluation of the program in Philadelphia). They found positive effects of the Student Voices program (which included educational internet use, political discussion, and class projects) on political knowledge and the propensity to discuss politics (notably, these effects were similar across races [Feldman et al. 2007, 94]). The results were statistically insignificant for political efficacy when examining individual semesters, but were

statistically significant and positive for the sample examining students who participated in the program for a full year.

While the aforementioned studies focused on the effects of civic education on the intention to participate in the future, Hart et al. (2007) sought to examine the long-term effects of civic education. Their study utilized the National Educational Longitudinal Study to study the impact of extracurricular activities, community service, and civic education on volunteering and voting in young adults (the study examined young adults eight years after high school). The findings showed civic education to only be related to voting (although the effects of civic knowledge gained through high school were small). While there was a relationship between civics courses and civic knowledge, the effect of civics courses on civic knowledge was also found to be small (Hart et al. 2007, 215). Extracurricular activities and community service in high school were found to be related to both voting and volunteering. These findings show the importance of distinguishing between forms of engagement, because while civic education may have an impact on specific forms of civic engagement (such as voting), the relationship may not hold across all forms of civic engagement (as seen with the lack of a relationship found between civic education and the propensity to volunteer).

Pasek et al. (2008) also examined the long-term effects of civic education, but after controlling for political attentiveness, political knowledge was found to not have a direct effect on voting. Similarly, Einfeld and Collins (2008) examined the effects of a long-term service-learning program, AmeriCorps, on civic engagement. The study examined 10 AmeriCorps members who completed 300 to 675 service hours, who all expressed being dedicated to continual civic engagement in their interviews. The study concluded education and service-

learning programs should promote not only civic engagement, but the pursuance of social justice (not all members expressed a commitment to the pursuance of social justice).

Beaumont et al. (2006) note a gap in existing literature surrounding how to increase political engagement among undergraduate students. To address this gap, they conducted a study examining the impacts of 21 undergraduate college courses and programs on political engagement (these courses and programs were implemented in colleges throughout the United States [Beaumont et al. 2006]). The students who participated in the courses and programs differed based on their initial levels of political interest. Those who had higher political interest in the pre-surveys already had higher levels of political competencies compared to those with lower levels of political interest, and experienced smaller gains from the program compared to those with lower interest (although the programs were still shown to increase their political knowledge). The conducted surveys showed the programs did not impact anticipated involvement in politics for those with a higher initial political interest, but upon further examination through interviews with students, some of the students expressed a desire to pursue leadership and activist roles in politics (these forms of engagement were not captured well in the surveys [Beaumont et al. 2006, 264]). The interviews they conducted provided evidence that their examined courses and programs promoted an open class environment, which helped to expose students to diverse political opinions. Similar to findings by Campbell (2008) and Feldman et al. (2007), Beaumont et al. (2006) found an open classroom environment played an integral role in promoting political engagement.

Another recent study that sought to examine how different means of teaching civic education courses promoted political engagement came to similar conclusions concerning the

positive effects of an open classroom environment (Kahne, Crow, and Lee 2013). Kahne, Crow, and Lee (2013) utilized survey data for high school students in Chicago and California (although they note the datasets were not nationally representative). Service-learning was found to promote volunteering, whereas an open class environment promoted interest in electoral engagement.

According to Levy (2011), high school courses do not typically impact political efficacy, but those that require the completion of a civic advocacy project can positively influence political efficacy. Through these projects, students are able to understand potential challenges related to political action, and can see the differences their projects can make in their communities. Through conducting a case study in a class at Elmwood High School (located near a major Midwestern city), Levy (2011) was able to identify important components of the teacher's methods of instruction, including personalizing the assistance to students and teaching civic skills. The argument is made that teachers "must adapt the strategies to suit the needs, challenges, interests, and talents of their students—varying the structure, activities, and content to suit their unique groups" (Levy 2011, 265). The findings from past studies lend support to Levy's argument on the importance of the adaptability of strategies, as the effects of civics courses vary based on the form of instruction. While early literature on civic education found a lack of support for civic education and political socialization (Langton and Jennings 1968), later studies found the mode of instruction impacted the propensity to volunteer (Einfield and Collins 2008; Kahne, Crow, and Lee 2013), and vote (Campbell 2008; Kahne Crow, and Lee 2013).

The argument may be made that civic education is not necessary for individuals to have political knowledge, as individuals have the ability to educate themselves through forms of mass media (given the abundance of information available through the internet and cable networks).

However, consideration should be given to the cognitive ability needed to interpret the political information. Baum and Jamison (2006) argue that even when people choose to watch entertainment over news programs, viewers are still able to be exposed to political knowledge (which challenges Prior's [2005] conclusion). When comparing "hard news" and "soft news" (forms of entertainment which relay political information such as talk shows), viewing soft news is considered better than no news, as this form of news provides information that is easy to understand and entertaining. However, if those with low political knowledge were to view hard news, they may be unable to understand and process the content (Baum and Jamison 2006), which shows the importance of civic education to provide a foundational basis for political information, to give individuals a greater ability to process new information in the future.

Limitations in Past Literature

Past literature on civic education and political engagement are posed with numerous limitations by examining practices in civic education for promoting future civic engagement, as these studies primarily capture the *intention* to participate politically (there may be a divide between the intention to participate, and the respondent actually participating in the future). Past literature primarily focusing on the best practices for civic education in promoting future civic engagement (Feldman et al. 2007; Kahne, Crow, and Lee 2013; Langton and Jennings 1968; Levy 2011; Pasek et al. 2008) may also face validity issues, as many of these studies examine the impact of civic education on students in specific high schools. The use of case studies and experiments in specific high schools can have high internal validity and potentially capture relevant data on the effects of specific teaching approaches in civic education, but there may be

issues of external validity (the ability to generalize about a population from a given sample). Experiments may also suffer from the Hawthorne effect, or behavioral changes when those being studied know they are part of an experiment. While Einfeld and Collins (2008) found the AmeriCorps program had an impact on civic engagement, the small sample size poses external validity concerns, and one could argue those who take part in long-term service programs such as AmeriCorps may already have an established commitment to civic engagement prior to the start of the study.

The lack of racial diversity in the high school examined in Levy's (2011) study poses an external validity issue, as the student population in Elmwood High School was 90% white. The author acknowledged the racial homogeneity of the school to be a limitation, as past literature found racial discrepancies in the quality of education students received, where white students tend to be provided more educational opportunities that promote political engagement compared to non-white students (Kahne and Middaugh 2008). While the results in Levy's (2011) study showed the positive effects of civic advocacy projects, the civic opportunities in the examined high school may not be present in other high schools (consequently, the results of the case study may not hold when examining other high schools).

CHAPTER 3: METHODOLOGY

Survey data from the American National Election Studies (ANES) will be utilized, as the ANES provides nationally representative data on political participation (American National Election Studies n.d.). The ANES collects data through face-to-face interviewing, and since 2012, interviews are also conducted on the internet. The variables will be measured using regression models based on the dependent variable being examined. The regression models will be run with multiple independent variables, which will show the partial effect of political knowledge on the dependent variables, while controlling for the effects of the other independent variables (addressing potential spuriousness). Consideration will be given to potentially confounding variables to address potential spuriousness. By holding the control variables constant, the determination can be made if the relationships between political knowledge and the forms of political engagement are coincidental and largely defined by a confounding variable.

Control variables will include age, race, gender, income, education, partisan strength, and political interest (these variables will be discussed in more detail when discussing the coding for each variable). The demographic variables have been selected because of the findings in past literature of an uneven distribution of political knowledge among various demographic groups. (Whites, males, those who have a higher income, and older individuals tend to have more political knowledge than non-whites, females, those who have a lower income, and younger individuals [Althaus 1998; Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006].) Utilizing age will also provide relevant information on the presence of generational, life-cycle, or period effects. Political interest was selected because prior literature argued political interest has an impact on political knowledge and the effects of political knowledge (Beaumont et al. 2006;

Prior 2005), where those who had higher levels of political interest experienced smaller gains in increased political participation compared to those who had lower levels of political interest (Beaumont et al. 2006). Given these findings, there is the possibility results from this study will show interaction relationships for political knowledge and the examined dependent variables after controlling for political interest, where the strength of the relationships will differ based on the value of political interest.

Since 1986, the ANES has asked respondents to identify the job or office held by political figures. Respondents have regularly been asked about the Speaker of the House of Representatives, the Vice President, Chief Justice of the Supreme Court, and the Prime Minister of the United Kingdom, and in 2016 respondents were also asked about the President of Russia and Chancellor of Germany. The surveys from presidential election years from 1988-2016 will be examined to test the impact of political knowledge on forms of political engagement. Examining multiple election years will provide data on trends existing between election years. If trends vary substantially between election years, this would suggest that contingent factors influence the propensity for people to engage politically.

The bivariate relationships will be examined, and then the regression models will be run with multiple independent variables. The regression model is first utilized with political knowledge and the dependent variables, to examine the uncontrolled effects of political knowledge on the forms of political engagement. Then, the regression model is run with multiple independent variables, which will show the partial effect of political knowledge on the forms of political engagement while controlling for the effects of the other independent variables. This serves to examine the explanatory power of political knowledge on the dependent variables when

taken by itself, which can then be compared to the explanatory power of the multiple regression models by examining the returned Adjusted *R*-square and Pseudo *R*-square values for the models. Consideration is given to the fact that statistical significance does not mean that the results are substantively significant. To help show the substantive significance of the regression results, the predicted probabilities will be calculated for the models examining the impact of political knowledge on voting in a primary or caucus, voting in a general election, volunteering, donating to a political party or campaign, and participating in a demonstration or protest.

Logistic regression is utilized to examine the impact of political knowledge on voting in a primary or caucus election, voting in a general election, volunteering, donating to a political party or campaign during an election, and participating in a demonstration or protest. Logistic regression is utilized to examine these variables, because this regression model is structured to examine relationships with a dichotomous dependent variable. The impact of political knowledge on an individual's trust in government will be tested by utilizing ordered logistic regression, as this regression model is structured to examine relationships containing an ordinal dependent variable. Ordinary Least Squares (OLS) regression will be utilized to examine the relationship between political knowledge and how often a respondent pays attention to national news (as attention to national news is coded as an interval variable). OLS will also be utilized to measure the impact of various demographic variables on political knowledge to provide data on the distribution of political knowledge among demographic groups. Utilizing political knowledge as a dependent variable will address past findings of an uneven distribution of political knowledge among demographic groups. The demographic variables which will be utilized as independent variables are age, race, gender, income, and education. Political interest and days per week the

respondent payed attention to the national news on the television will also be utilized as independent variables.

Variables and Coding

A brief synopsis and the coding for each variable will be provided for each variable being examined. Political knowledge (the primary independent variable) is measured by utilizing between four and seven questions (depending on the available data) asking respondents to identify the job or office held by political figures. The majority of the examined years asked four political knowledge questions, and these responses are coded from 0 to 4 based on the number of correct responses, where 0 indicates no responses were correct, and 4 indicates all responses were correct.[1]

Dependent Variables

The dependent variables that will be examined are whether respondents voted in a general election, whether a respondent voted in a primary or caucus,[2] if an individual has volunteered in the last 12 months,[3] if the individual has donated to a political party or campaign during an election, and if an individual has participated in a demonstration or protest in the last 12 months.[4] These variables are each coded as binary variables coded 0 for "No" and 1 for "Yes."

[1] The 1988 and 1992 datasets asked 7 questions, the 1996, 2000, 2004, 2008, and 2012 datasets asked 4 questions, and the 2016 dataset asked 5 questions.
[2] Data for whether or not a respondent voted in a primary or caucus election were unavailable for 1996-2004.
[3] Data for whether or not a respondent has volunteered in the last 12 months were unavailable for 1988.
[4] Data for whether or not a respondent has participated in a demonstration or protest in the last 12 months were unavailable for 1988-1996 and 2008.

The ANES asks respondents how often they feel they can trust the federal government to do what is right. These responses will be coded 1 for “Just About Always,” coded 2 for “Most of the Time,” coded 3 for “Some of the Time,” and coded 4 for “None of the Time.” Respondents were also asked about their interest in political campaigns, with responses “Very Much Interested,” “Somewhat Interested,” and “Not Much Interested,” which will be utilized to measure an individual’s political interest. Respondents were asked how many days per week they payed attention to national news on the television, with responses ranging from “None” to “Every day,” which are coded from 0 to 7.[5] The 2012 and 2016 ANES datasets ask respondents how many days per week they use social media to learn about presidential elections, with responses ranging from “None” to “Every day,” which are coded from 0 to 7. Political knowledge will also be utilized as a dependent variable (with the same coding previously discussed) to determine if different groups are more likely to have more political knowledge.

Control Variables

The following is a summary of the control variables, which includes the coding for each variable. Age will be examined by using age categories, which will serve to provide data on the differences between the age cohorts. Age will classify respondent age in years, with the categories "18-29" coded 1, "30-39" coded 2, "40-49" coded 3, "50-59" coded 4, "60-69" coded 5, and "70+" coded 6.

The ANES datasets contain a 7-point party identification scale classifying

[5] The 2016 ANES combined the attention to news questions into one variable asking respondents how many days per week they pay attention to national news on television, radio, newspaper, or the Internet, whereas past Time Series Studies asked about these mediums individually.

respondents by their party self-identification, from “Strong Democrats” to “Strong Republicans.” To examine the similarities between partisans, this scale is coded to measure partisan strength, with "pure independents" coded 1, "independent leaners" coded 2, "weak partisans" coded 3, and "strong partisans" coded 4. Respondents were asked to report their level of education, which includes the categories "High School or less" coded 1, "Some College/Associate" coded 2, "Bachelor's" coded 3, and "Graduate" coded 4. The ANES asks respondents to report the annual income for their household (including all sources such as Social Security, pensions, and salaries). Five categories will be utilized to record income: <=$22 (coded 1), $22-$45 (coded 2), $45-$75 (coded 3), $75-$90 (coded 4), and >$90 (coded 5).[6] The gender of the respondent will be coded as a binary variable, with “Male” coded 0 and “Female” coded 1. The race of the respondent will be coded 0 for “Non-White” and 1 for “White.” The political interest respondents hold in presidential campaigns will use the same categories when run as a control variable to determine if the relationships between political knowledge and forms of political engagement are coincidental and largely defined by political interest.

Potential Limitations

The utilized datasets are comprised of survey data, which pose a number of potential shortcomings, including social desirability bias and interviewer bias. Respondents may feel inclined to alter their responses in a way they feel is more acceptable, such as overstating factors

[6] There were variations in the coding for income based on the available data from the ANES. The noted categories were for the 1988-1996 datasets. The categories for 2000 were <=$25 (coded 1), $25-$50 (coded 2), $50-$75 (coded 3), $75-$95 (coded 4), and >$95 (coded 5). The categories were <=$25 (coded 1), $25-$50 (coded 2), $50-$70 (coded 3), $70-$90 (coded 4), and >$90 (coded 5) for 2004, 2012, and 2016. The categories were <=$25 (coded 1), $25-$50 (coded 2), $50-$75 (coded 3), $75-$90 (coded 4), and >$90 (coded 5) for 2008.

such as their income and their political engagement. If respondents were to lie in their responses, the results could be distorted, which would consequently raise issues with internal validity, or the validity of the hypothesis when considering the sample. The potential concerns of low internal validity could raise concerns of external validity, because if calculations of the variables are inaccurate, the calculations may not be representative of the general population. With interviewer bias, the respondent may alter their answers because of factors such as the sex and race of the interviewer, or even because of subtle cues from the interviewer. Since 2012, the ANES collects data through both face-to-face and online interviews. While the online interviews eliminate the concern of interviewer bias, respondents may pay less attention to their responses (as these surveys are self-administered). Given the variables being examined, respondents may be unlikely to alter their answers based on the sex or race of the interviewer, but the potential limitation should not be ignored.

The open-ended questions asking respondents to identify the job or office held by political figures have only been asked since the 1986 ANES. This poses a limitation in collecting data prior to the decline in political knowledge and engagement in the 1960s (as discussed in past literature [Galston 2001; Galston 2004; Popkin and Dimock 1999; Putnam 1995]). Given the broad nature of political knowledge, one may argue that knowledge of political figures does not accurately capture political knowledge. However, past research has identified knowledge of political figures as being "general" political knowledge (Barabas et al. 2014, 842). The major limitation derived from how political knowledge is operationalized here is that the policy specific knowledge will not be examined. However, consideration should be given to the potential shortcomings of examining policy specific knowledge. Compared to general political

knowledge, policy specific knowledge is "more domain-specific," so this form of knowledge may be harder to acquire (Barabas et al. 2014, 842). Consequently, there could be a higher likelihood that variables such as motivation and issue salience, rather than policy specific knowledge, impact political engagement (Barabas et al. [2014] argued motivation was a difference between acquiring policy specific and general political knowledge).

Those who are misinformed were previously defined as holding a belief that is incorrect or unsubstantiated (Flynn, Nyhan, and Reifler 2017). Flynn, Nyhan, and Reifler (2017) note misperceptions and misinformation appear prevalent, as they extend across many policy issues. Since general knowledge questions pertain to the people and institutions of government (Barabas et al. 2014), it would be reasonable to assume this type of information is less susceptible to misperceptions compared to policy specific knowledge. There is less ambiguity with the general knowledge questions typically found in surveys such as the ANES, specifically when considering the job or office held by political figures. Questions pertaining to policy issues can range across numerous policy issues, and this information can potentially be more susceptible to other factors, such as misinformation, biases in media or personal biases, framing effects, and deception by the elite. The argument can also be made that general knowledge is the basis of policy knowledge, as an understanding of the people and institutions of government provides a foundation for policy preferences and debates. Considering the aforementioned example of the policy misunderstanding provided by Flynn, Nyhan, and Reifler (2017) on gas prices, having knowledge of the powers of political figures (which would fall under general political knowledge) could help prevent misunderstandings such as this in policy debates.

Individuals may be knowledgeable or engaged in ways that were not examined, which means that the levels of knowledge and engagement in general could be understated. The idea must be considered that even if respondents were unable to answer all of the political knowledge questions correctly, the assumption still should not be made that they are politically unknowledgeable. (The same idea should be considered in terms of political engagement: even if respondents are not engaged in the specific ways being examined, this does not mean they are unengaged altogether.) However, by examining the aforementioned forms of political engagement, a clearer picture of political knowledge and political engagement can be provided.

Contribution to Knowledge

This study will provide an update to past literature that examined political knowledge to see if previously identified trends persist. There is importance in providing updates to past literature, so that the assumption is not made that the trends still exist. This study will also seek to examine which groups are more likely to have more political knowledge, which will provide data on if the previously identified demographic gaps persist (Althaus 1998; Carpini and Keeter 1996; Putnam 1995). An individual's level of political knowledge and engagement can potentially fluctuate, so the previously identified results (where higher political knowledge is found among whites, males, those who have a higher income, and older individuals [Althaus 1998; Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006]) should not simply be assumed to remain true decades later (which indicates a necessity to examine the relationship between political knowledge and these demographic variables). The potential results from testing the relationship between the demographic variables and political knowledge will likely pose new

questions to be explored, such as “why have these trends persisted?” or “what caused the change in these trends?”

The impact of political knowledge on forms of political engagement will be examined to provide relevant data on whether having political knowledge has an impact on an individual’s propensity to engage in forms of political engagement. Through examining different forms of political engagement, consideration will also be given to whether certain demographic groups are more likely to engage in specific forms of political engagement. Political interest will be used as a control variable to determine if political interest, rather than political knowledge, impacts an individual’s likelihood of engaging politically. In addition, political interest will be utilized as an independent variable, which will provide data on the impact of political interest on political knowledge.

CHAPTER 4: RESEARCH FINDINGS AND ANALYSIS

This chapter begins with an analysis of the regression models testing who has political knowledge, then the results of the regression models testing the effects of political knowledge on political engagement will be analyzed. In each section, the bivariate relationships will be examined, which will allow for the examination of the uncontrolled effects of the independent variables on the dependent variables. The bivariate regression results will then be compared to the results from the multiple regression models, which will show variations between the controlled and uncontrolled effects of the independent variables on the dependent variables. The explanatory power of the independent variables on the dependent variables can be examined through the Adjusted *R*-square and Pseudo *R*-square values. When comparing the bivariate models to the multiple regression models, the explanatory power of the independent variables, when taken by themselves, can be compared to the explanatory power after the additional independent variables are added.

Who has Political Knowledge?

Tables 1 and 9 show that males are more likely to have higher political knowledge compared to females, which support hypothesis one (the results for gender in both models were statistically significant for all election years). The effects declined from 1988 to 1996, but increased again in 2000. While the results have declined again after 2000, they have remained relatively stagnant over the last three elections. The most fluctuation between election years can be seen between from 1988 to 2004. The effects of gender on political knowledge were greatest in 1988 (-1.17*** in Table 1, and -.87*** after controlling for the effects of the other variables

in Table 9), and the results in Tables 1 and 9 suggest the gender gap in political knowledge is closing. The results in Table 9 show the gap increased again in 2016 (-.27***) from 2012 (-.24***), but otherwise the effects of gender have declined. 1996 appears to be an anomaly to this trend, as the effects of gender dropped to one of the lowest levels of all examined years in 1996 (-.25***), and then increased again in 2000 (-.42***).

Consideration should be given to the Adjusted *R*-square values reported in Table 1, which indicate that gender accounts for a small percentage of the variation in political knowledge. Gender had the strongest effect on political knowledge in 1988 (9 percent of the variation in political knowledge was explained by gender), but has steadily declined since, to gender explaining only 2 percent of the variation in political knowledge since 2008.

Table 1: The Uncontrolled Effect of Gender on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Gender	-1.17***	-.77***	-.40***	-.54***	-.44***	-.32***	-.36***	-.38***
	(.09)	(.08)	(.06)	(.06)	(.07)	(.05)	(.03)	(.05)
Constant	3.60***	2.82***	2.43***	1.40***	2.16***	1.46***	1.83***	3.18***
	(.07)	(.06)	(.04)	(.04)	(.05)	(.04)	(.02)	(.04)
Adjusted R^2	.09	.07	.03	.06	.04	.02	.02	.02
N	1769	1355	1522	1547	1066	2077	5510	3607

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Tables 2 and 9 show that as income increases, political knowledge increases. The results for income in the uncontrolled and controlled models are statistically significant for all election years. In the uncontrolled model in shown in Table 2, the relationship was strongest in 1988 (.66***) and decreased until 2000 (.26***). Since 1996, there has not been a considerable amount of fluctuation in the effects of income. Overall, these results support hypothesis two, that those who have a higher income are more likely to have higher political knowledge than those who have a lower income. The returned Pseudo *R*-square values in Table 2 show income accounts for between 8 and 13 percent of the variation in political knowledge.

In Table 9, a trend can be seen where the effects of income decreased until 2000, but have started to increase again, reaching levels in 2016 (.17***) comparable to those in 1992 (.18***). These effects are not as pronounced in the uncontrolled model in Table 2. Future studies examining more election years will allow for researchers to examine if this trend of the effects decreasing, and then increasing again after a few election years persists (this will also provide additional research explorations, such as examining why this trend exists).

Table 2: The Uncontrolled Effect of Income on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Income	.66***	.46***	.29***	.26***	.28***	.21***	.27***	.32***
	(.05)	(.04)	(.02)	(.02)	(.02)	(.02)	(.01)	(.02)
Constant	1.74***	1.50***	1.54***	.43***	1.18***	.77***	.93***	1.98***
	(.10)	(.08)	(.06)	(.06)	(.07)	(.05)	(.03)	(.05)
Adjusted R^2	.11	.12	.10	.10	.13	.08	.12	.11
N	1634	1261	1393	1307	946	1918	5345	3496

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Tables 3 and 9 show that as age increases, political knowledge increases, although these results were statistically insignificant for 1992 and 1996 (Table 3) and 1996 (Table 9). Save for 1992 and 1996, the results in Tables 3 and 9 support hypothesis three: those who are older are more likely to have higher political knowledge than those who are younger. According to the returned Adjusted *R*-square values in Table 3, the uncontrolled effects of age only account for 5 percent or less of the variation in political knowledge, which indicate age provides an incomplete explanation of political knowledge.

The controlled results in Table 9 show there is not a considerable amount of fluctuation in the effects of age on political knowledge, especially since 2004. In the uncontrolled and controlled models in Tables 3 and 9, while there is some fluctuation in the effects of age on political knowledge, there are not any noticeable patterns in these fluctuations. In the uncontrolled model in Table 3, age had the greatest effect on political knowledge in 2016 (.17***). This can also be interpreted using the regression line for the effect of age on political knowledge. Those who are in the youngest age cohort (ages 18-29) are estimated to answer 2.54 of the 5 questions correctly, while the oldest age cohort (ages 70 and older) are estimated to answer 3.39 of the 5 questions correctly.

Table 3: The Uncontrolled Effect of Age on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Age	.14***	.04	.02	.07***	.15***	.13***	.13***	.17***
	(.03)	(.02)	(.02)	(.02)	(.02)	(.01)	(.01)	(.01)
Constant	2.53***	2.26***	2.13***	.86***	1.44***	.86***	1.20***	2.37***
	(.10)	(.09)	(.06)	(.06)	(.08)	(.05)	(.04)	(.06)
Adjusted R^2	.01	.002	.001	.01	.05	.03	.03	.04
N	1760	1355	1520	1539	1066	2039	5452	3553

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

As shown in Table 4, as partisan strength increases, political knowledge increases, which supports hypothesis four (those who are strong partisans are more likely to have higher political knowledge than those who are pure independents). These results are statistically significant for all examined years (except for 1992), although partisan strength only accounts for between .5 and 3 percent of the variation in political knowledge. The effects of partisan strength were highest in 2004, as the results for this year show that for every unit increase in partisan strength, political knowledge increases by .19.

After controlling for the additional variables in Table 9, the results were only significant for 1996, 2000, and 2004. For 1996-2004, the coefficients support the hypothesized direction of the relationship, and the results show that for every unit increase in partisan strength, political knowledge increases by between .06 and .09 (the results for all examined years support the direction of the hypothesized relationship, except for 2008, where partisan strength has a negative effect on political knowledge). After controlling for the effects of the other variables, the determination can be made that the hypothesis is only supported for 1996-2004. In the uncontrolled and controlled models, while there are fluctuations in the effects of partisan strength on political knowledge, there are no noticeable patterns in these fluctuations.

Table 4: The Uncontrolled Effect of Partisan Strength on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Partisan Strength	.17***	.08	.15***	.16***	.19***	.13***	.08***	.16***
	(.05)	(.04)	(.03)	(.03)	(.04)	(.02)	(.01)	(.02)
Constant	2.50***	2.21***	1.78***	.64***	1.39***	.90***	1.42***	2.53***
	(.14)	(.12)	(.09)	(.08)	(.11)	(.07)	(.05)	(.07)
Adjusted R^2	.01	.002	.02	.02	.03	.02	.005	.01
N	1744	1330	1506	1518	1050	2043	5489	3631

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Tables 5 and 9 show that whites are more likely to have higher political knowledge compared to non-whites, which support hypothesis five (those who are white are more likely to have higher political knowledge than those who are non-whites). In the controlled and uncontrolled models, the effects were greatest in 1988 (1.19*** in Table 5 and .73*** in Table 9). In the uncontrolled model shown in Table 5, the effects of race on political knowledge decreased until 2000 (.50***), and then began to increase in 2004 (.60***) and 2008 (.65***). The effects of race increased again in 2016 (.65***), but are still lower than the levels seen in the 1990s. The returned Adjusted *R*-square values in Table 5 show the uncontrolled effects of race account for between 3 and 9 percent of the variation in political knowledge.

The effects of age, income, race, and gender on political knowledge follow the expected patterns established in past literature (Althaus 1998; Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006). Whites, males, those who have a higher income, and older individuals are shown to have more political knowledge compared to non-whites, females, those who have a lower income, and younger individuals, even after controlling for the effects of the additional independent variables in Table 9. While the trends have persisted over the examined years, the decline in the effects of race and gender on political knowledge appear to suggest the racial and gender gaps may be closing (although the gender gap appears to have closed more compared to the racial gap in the controlled and uncontrolled models).

Table 5: The Uncontrolled Effect of Race on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Race	1.19***	.96***	.79***	.50***	.60***	.65***	.57***	.65***
	(.12)	(.11)	(.08)	(.07)	(.08)	(.05)	(.03)	(.05)
Constant	1.93***	1.6***	1.53***	.69***	1.49***	.93***	1.31***	2.50***
	(.11)	(.10)	(.07)	(.06)	(.07)	(.03)	(.02)	(.05)
Adjusted R^2	.05	.06	.06	.03	.05	.09	.06	.04
N	1765	1330	1515	1536	1059	2062	5484	3626

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The uncontrolled results in Table 6 show that as education increases, political knowledge increases, which supports hypothesis six (those who have a higher level of education are more likely to have higher political knowledge than those who have a lower level of education). Of the uncontrolled models examining the effects of demographic variables on political knowledge, the education-political knowledge model in Table 6 consistently returned the highest Adjusted *R*-square values (although the values have decreased over time). Education accounts for between 13 and 21 percent of the variation in political knowledge, which shows education explains a fair amount of the variation in political knowledge when compared to the other examined variables.

As shown in Table 6, education had the greatest effect on political knowledge in 1988 (.92***) and 1992 (.71***), and the effects have remained fairly stagnant from 1996 to 2016 (ranging from .43*** and .53***). These trends, although weaker, are also seen in the controlled model in Table 9, which shows there is not a considerable amount of fluctuation after the 1990s. These results appear to support the trends found in past literature, which established there has not been a significant increase in political knowledge, despite an increase in education over the last fifty years (Galston 2001; Popkin and Dimock 1999; Prior 2005). The findings in past literature suggest education in general does not increase political knowledge, but teaching certain curriculums (such as those focused on civics and civic skills) can potentially impact political knowledge and engagement. While the findings presented in Tables 6 and 9 show there is a relationship between education and political knowledge, the effects of education have weakened since the 1990s.

Table 6: The Uncontrolled Effect of Education on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Education	.92***	.71***	.43***	.48***	.48***	.46***	.43***	.53***
	(.04)	(.04)	(.03)	(.03)	(.03)	(.02)	(.01)	(.02)
Constant	1.36***	1.17***	1.37***	.10	.95***	.44***	.75***	1.76***
	(.09)	(.07)	(.06)	(.06)	(.07)	(.05)	(.03)	(.06)
Adjusted R^2	.20	.21	.16	.19	.18	.16	.14	.13
N	1739	1325	1519	1543	1066	2064	5451	3618

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The uncontrolled effects of political interest on political knowledge in Table 7 show support for hypothesis seven, which claims those who have a higher interest in politics are more likely to have higher political knowledge than those who have a lower interest in politics. An increase in political interest increases political knowledge, and these results are statistically significant for all examined years. The effects of political interest on political knowledge were strongest in 1988 (.96***) and 1992 (.67***), and have fluctuated for the remaining presidential election years (while the effects of political interest on political knowledge have been comparable to 1992 in 2004 and 2016, they have not reached the levels seen in 1988 again). Political interest accounts for between 6 and 15 percent of the variation in political knowledge, which shows political interest explains a fair amount of the variation in political knowledge when compared to the other models examining the effects of the demographic variables on political knowledge.

The controlled results in Table 9 also support hypothesis seven, as political interest has a positive effect on political knowledge, and these results are statistically significant for all examined years. The effects of political interest weakened from .96*** to .55*** in 1988 after controlling for the effects of the additional variables, and there is less fluctuation between election years in the controlled model. The partial effect of political interest on political knowledge is very similar in the election years since 2000, with most of the fluctuation occurring in the 1990s.

Table 7: The Uncontrolled Effect of Political Interest on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Interest	.96***	.67***	.39***	.57***	.65***	.50***	.54***	.66***
	(.06)	(.05)	(.04)	(.04)	(.05)	(.04)	(.02)	(.03)
Constant	.97***	.93***	1.40***	-.10	.46***	.12	.42***	1.38***
	(.13)	(.13)	(.08)	(.08)	(.11)	(.11)	(.05)	(.09)
Adjusted R^2	.13	.10	.06	.13	.15	.11	.10	.09
N	1765	1351	1522	1547	1066	1053	5505	3649

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The results in Table 8 support hypothesis eight, which claims those who pay more attention to national news about politics are more likely to have higher political knowledge than those who pay less attention to news about national politics. A unit-increase in attention to news increases political knowledge by between .4 and .21, and these results are statistically significant for all examined years. The returned Adjusted *R*-square values show paying attention to news accounts for between 1 and 7 percent of the variation in political knowledge. Adding the additional variables in Table 9 increase the model's explanatory power, as the independent variables, when taken together, account for between 26 and 38 percent of the variation in political knowledge (although this still leaves between 62 and 74 percent of the variation unexplained by the independent variables).

After controlling for the additional variables in Table 9, attention to news is only statistically significant for 2000, 2004, and 2016. While the direction of the relationship for the remaining years is as predicted, the null hypothesis cannot be safely be rejected, and consequently the hypothesis is unsupported for the majority of the examined years. Interestingly, the results of the attention to news and social media models were contrary to the expected findings, which raise questions on how individuals with political knowledge obtain their information, and the means for individuals to acquire political knowledge.

Table 8: The Uncontrolled Effect of Attention to News on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Attention to News	.11***	.05***	.05***	.07***	.08***	.04**	.05***	.21***
	(.02)	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
Constant	2.37***	2.16***	2.04***	.85***	1.63***	1.10***	1.44***	1.83***
	(.10)	(.09)	(.05)	(.04)	(.06)	(.08)	(.03)	(.07)
Adjusted R^2	.02	.01	.01	.03	.04	.01	.01	.07
N	1766	1192	1520	1544	1064	1041	5504	3646

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Table 9: The Controlled Effects of all Demographic Variables on Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Partisan Strength	.06	.005	.09**	.06*	.08**	-.02	.01	.04
	(.04)	(.04)	(.03)	(.03)	(.03)	(.04)	(.01)	(.02)
Age	.15***	.06*	.02	.05*	.10***	.12***	.06***	.08***
	(.02)	(.02)	(.02)	(.02)	(.02)	(.03)	(.01)	(.01)
Income	.23***	.18***	.12***	.10***	.11***	.10**	.14***	.17***
	(.04)	(.04)	(.02)	(.02)	(.02)	(.03)	(.01)	(.02)
Education	.65***	.54***	.30***	.34***	.31***	.39***	.27***	.33***
	(.04)	(.04)	(.03)	(.03)	(.03)	(.05)	(.02)	(.02)
Race (White)	.73***	.67***	.66***	.34***	.40***	.44***	.34***	.34***
	(.11)	(.11)	(.08)	(.07)	(.07)	(.09)	(.03)	(.05)
Gender (Female)	-.87***	-.58***	-.25***	-.42***	-.36***	-.27**	-.24***	-.27***
	(.08)	(.08)	(.05)	(.05)	(.06)	(.09)	(.03)	(.04)
Political Interest	.55***	.37***	.23***	.33***	.35***	.36***	.37***	.33***
	(.06)	(.06)	(.04)	(.04)	(.05)	(.07)	(.02)	(.04)
Attention to News	.03	.03	.02	.03*	.03*	.01	.01	.07***
	(.02)	(.02)	(.01)	(.01)	(.01)	(.02)	(.01)	(.01)
Constant	-.61**	-.29	.06	-.98***	-.54***	-.87***	-.48***	.00
	(.20)	(.20)	(.14)	(.13)	(.14)	(.19)	(.07)	(.11)
Adjusted R^2	.37	.35	.27	.33	.37	.38	.28	.26
N	1,572	1065	1371	1277	929	475	5212	3381

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.00*

Political Knowledge and Political Engagement

Table 10 shows the uncontrolled effects of political knowledge on voting in a primary or caucus election. The logged odds of voting in a primary election increase for each unit increase in political knowledge, and these results are statistically significant for all examined years (the null hypothesis represents an unlikely occurrence, and can be safely rejected). When controlling for the effects of the added independent variables in Table 11, political knowledge loses statistical significance in 1988 and 1992, but the remaining years are statistically significant. Overall, the results show support for hypothesis nine (save for 1988 and 1992), that those who have high political knowledge will be more likely to vote in a primary or caucus election than those who have low political knowledge. While the direction of the relationship between political knowledge and voting in a primary or caucus remains positive, the logged odds weaken between the controlled and uncontrolled models for each examined year. The effects of political knowledge on voting in a primary or caucus election were strongest in 2008, and while they have since decreased, the effects are still stronger than in 1988 and 1992 (these trends are consistent in the uncontrolled and controlled models).

In the controlled model in Table 11, gender and race were the only variables that consistently produced statistically insignificant results (race was only significant for 1988). Consideration should also be given to the Pseudo *R*-square values in Table 10, which indicate that about 5 percent or less of the variation in voting in a primary or caucus election can be explained by political knowledge. While the explanatory power increases when the additional independent variables are added (these values increase to about 11 percent to 18 percent of the

variation in the dependent variable being explained by the independent variables), the independent variables do not appear to provide a complete explanation of voting in a primary or caucus election.

Table 10: The Uncontrolled Effect of Political Knowledge on Primary Election Vote

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.21***	.22***	—	—	—	.50***	.32***	.33***
	(.03)	(.04)				(.04)	(.02)	(.02)
Constant	-1.15***	-1.21***	—	—	—	-.97***	-1.09***	-1.22***
	(.10)	(.12)				(.08)	(.05)	(.08)
Log Likelihood	-1,124.75	-738.32	—	—	—	-1327.28	-3506.16	-2404.68
Pseudo R^2	.03	.02	—	—	—	.05	.03	.04
N	1751	1175	—	—	—	2049	5469	3644

Source: ANES
Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 11: The Controlled Effect of Political Knowledge on Primary Election Vote

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.06	.08	—	—	—	.25**	.09**	.15***
	(.04)	(.06)				(.08)	(.03)	(.03)
Partisan Strength	.30***	.25***	—	—	—	.42***	.37***	.49***
	(.06)	(.07)				(.08)	(.03)	(.04)
Age	.23***	.34***	—	—	—	.29***	.31***	.22***
	(.04)	(.04)				(.05)	(.02)	(.02)
Income	.11	.25***	—	—	—	.01	.08**	.07*
	(.06)	(.07)				(.06)	(.02)	(.03)
Education	.27***	.11	—	—	—	.40***	.12***	.19***
	(.07)	(.08)				(.09)	(.03)	(.04)
Race (White)	-.39*	-.25	—	—	—	-.32	.04	-.03
	(.16)	(.20)				(.16)	(.07)	(.09)
Gender (Female)	.22	.02	—	—	—	.31	-.01	.11
	(.12)	(.15)				(.16)	(.06)	(.08)
Political Interest	.65***	.40***	—	—	—	.61***	.54***	.60***
	(.09)	(.11)				(.12)	(.05)	(.06)
Log Likelihood	-914.48	-606.71	—	—	—	-516.03	-2995.03	-1974.82
Constant	-4.12***	-4.11***	—	—	—	-5.10***	-4.66***	-5.03***
	(.32)	(.41)				(.43)	(.18)	(.23)
Pseudo R^2	.12	.11	—	—	—	.18	.12	.15
N	1561	1053	—	—	—	928	5186	3379

Source: ANES

Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Table 12 shows the predicted probabilities of voting in a primary or caucus election, based on the number of correct responses to the political knowledge questions. The probability of voting in a primary or caucus is between .23 and .27 when none of the political knowledge questions were correctly answered. When all questions were correctly answered, the probability of voting is between .55 and .73, which shows there is a moderate to high likelihood of turning out to vote in a primary election. 2008 has the largest marginal increases in the data, and the probabilities increase at a faster marginal rate compared to the other election years. The probability of voting was highest in 2008, with the probability of voting .73 when all questions were correctly answered. Voting becomes more likely than not voting at a lower number of correct answers in 2008, where between 1 (.38) and 2 (.51) correct answers, the probability shifts in favor of voting. In 2012, this shift does not occur until between 3 and 4 correct answers (which is at the higher end of political knowledge for this year). When comparing 1988 and 1992, there is almost no fluctuation in the probability of voting, whereas there is more fluctuation between 2008 and 2016. In 2008 and 2016, the probability of voting in a primary at the highest level of political knowledge increased compared to the probabilities in 1988 and 1992.

Table 12: Predicted Probabilities of Voting in a Primary Election by Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
0	.24***	.23***	—	—	—	.27***	.25***	.23***
	(.02)	(.02)				(.01)	(.01)	(.01)
1	.28***	.27***	—	—	—	.38***	.32***	.29***
	(.02)	(.02)				(.01)	(.01)	(.01)
2	.32***	.32***	—	—	—	.51***	.39***	.36***
	(.01)	(.01)				(.01)	(.01)	(.01)
3	.37***	.36***	—	—	—	.63***	.47***	.44***
	(.01)	(.02)				(.02)	(.01)	(.01)
4	.42***	.42***	—	—	—	.73***	.55***	.53***
	(.01)	(.02)				(.02)	(.02)	(.01)
5	.47***	.47***	—	—	—	—	—	.61***
	(.02)	(.03)						(.01)
6	.52***	.52***	—	—	—	—	—	—
	(.02)	(.04)						
7	.58***	.58***	—	—	—	—	—	—
	(.03)	(.05)						
N	1751	1175	—	—	—	2049	5469	3644

Source: ANES

Note: Cell entries are the probabilities of voting in a primary election based on the number of correct responses to the knowledge questions. Entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The results in Tables 13 and 14 support hypothesis ten, that those who have high political knowledge will be more likely to vote in a general election than those who have low political knowledge. The uncontrolled results in Table 13 show the logged odds of voting in a general election increase for each unit increase in political knowledge, and these results are statistically significant. The controlled results in Table 14 also show the logged odds increase for each unit increase in political knowledge. The returned Pseudo *R*-square values in Table 13 indicate political knowledge accounts for between 5 and 13 percent of the variation in voting in a general election. Adding the additional independent variables in Table 14 increase the model's explanatory power, as the independent variables, when taken together, account for between 13 and 27 percent of the variation in voting in a general election. Interestingly, the effects of political knowledge on voting in a general election and the explanatory power of the regression models (both the uncontrolled and controlled models) were the weakest in 2016. The effects of political knowledge on voting in a general election were strongest in 2000 in the uncontrolled (.93***) and controlled (.50***) models, and while the effects decreased after 2000, they remained higher than in the 1990s (except for 2016). When controlling for the additional independent variables in Table 14, the examined variables had positive effects on voting in a general election, and most of the effects of the control variables were statistically significant almost every examined year, except for race (which was statistically insignificant every year), and gender (which was only statistically significant in 1988, 2004, and 2008).

Table 13: The Uncontrolled Effect of Political Knowledge on General Election Vote

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.50***	.59***	.67***	.93***	.70***	.73***	.75***	.40***
	(.03)	(.05)	(.06)	(.08)	(.07)	(.06)	(.04)	(.04)
Constant	-.46***	-.19	-.16	.40***	.12	.39***	.36***	.76***
	(.09)	(.12)	(.12)	(.08)	(.13)	(.08)	(.06)	(.10)
Log Likelihood	-942.95	-633.85	-755.03	-757.56	-504.09	-1050.52	-2520.10	-1238.94
Pseudo R^2	.13	.11	.09	.11	.09	.08	.09	.05
N	1767	1246	1522	1546	1066	2077	5488	3306

Source: ANES
Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 14: The Controlled Effect of Political Knowledge on General Election Vote

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.25***	.28***	.31***	.50***	.34**	.40***	.36***	.19***
	(.04)	(.07)	(.08)	(.10)	(.10)	(.11)	(.04)	(.04)
Partisan Strength	.45***	.33***	.41***	.38***	.49***	.52***	.50***	.35***
	(.07)	(.09)	(.08)	(.08)	(.10)	(.09)	(.04)	(.05)
Age	.23***	.27***	.28***	.14**	.05	.19**	.23***	.22***
	(.04)	(.05)	(.05)	(.05)	(.06)	(.06)	(.03)	(.04)
Income	.43***	.50***	.37***	.24***	.20**	.12	.16***	.16***
	(.09)	(.11)	(.08)	(.07)	(.08)	(.07)	(.03)	(.04)
Education	.56***	.61***	.50***	.43***	.38**	.46***	.37***	.21**
	(.10)	(.14)	(.10)	(.10)	(.12)	(.13)	(.05)	(.07)
Race (White)	.32	.16	.06	.03	.26	-.04	-.01	.17
	(.18)	(.23)	(.21)	(.19)	(.21)	(.19)	(.08)	(.12)
Gender (Female)	.38**	.29	.26	.13	.41*	.53**	.16	.22
	(.14)	(.17)	(.15)	(.16)	(.19)	(.18)	(.08)	(.12)
Political Interest	.90***	.87***	.99***	.77***	.83***	.62***	.74***	.46***
	(.10)	(.13)	(.12)	(.12)	(.14)	(.13)	(.06)	(.08)
Log Likelihood	-702.69	-461.17	-564.98	-550.14	-368.66	-411.28	-2028.84	-1059.30
Constant	-5.52***	-5.11***	-5.15***	-3.68***	-4.08***	-3.89***	-3.96***	-2.60***
	(.40)	(.50)	(.45)	(.40)	(.47)	(.44)	(.20)	(.28)
Pseudo R^2	.27	.24	.24	.22	.22	.21	.22	.13
N	1573	1099	1373	1279	931	939	5203	3063

Source: ANES

Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 15 shows the predicted probabilities of voting in a general election based on political knowledge. When all questions were answered correctly, the probability of voting is between .93 and .98, showing those who have more political knowledge have a very high likelihood of turning out to vote in a general election. There is more fluctuation between election years in the probability of voting when no questions were correctly answered, with the probability of voting between .39 in 1988 and .68 in 2016. Starting in 2000, the probabilities of voting in a general election are in favor of voting, even when no questions were correctly answered (the lowest probability of voting at 0 correct answers between 2000 and 2016 is .53 in 2004). Between 1988 and 1996, the probability shifts in favor of voting between 0 and 1 correct answers. This shows the probability of voting in a general election are higher than voting in a primary election, even at the lowest levels of political knowledge. At the two highest levels of political knowledge (when only one question was incorrectly answered and all questions were correctly answered), the probability of voting is above .90 for all examined years, except for 1996 (.86), showing the probability of voting is very high for the highest levels of political knowledge. Since the probability of voting in a general election is above .50 for most levels of political knowledge, the inference can be made that individuals are more likely to vote than not in a general election, regardless of levels of political knowledge (although this probability does substantially increase as knowledge increases, reaching as high as .98 at the highest levels of knowledge in 1992 and 2000).

Table 15: Predicted Probabilities of Voting in a General Election by Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
0	.39***	.45***	.46***	.60***	.53***	.60***	.59***	.68***
	(.02)	(.03)	(.03)	(.02)	(.03)	(.02)	(.01)	(.02)
1	.51***	.60***	.63***	.79***	.69***	.75***	.75***	.76***
	(.02)	(.02)	(.02)	(.01)	(.02)	(.01)	(.01)	(.01)
2	.63***	.73***	.77***	.91***	.82***	.86***	.86***	.83***
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
3	.74***	.83***	.86***	.96***	.90***	.93***	.93***	.88***
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
4	.82***	.90***	.93***	.98***	.95***	.96***	.97***	.91***
	(.01)	(.01)	(.01)	(.00)	(.01)	(.01)	(.00)	(.01)
5	.88***	.94***	—	—	—	—	—	.94***
	(.01)	(.01)						(.01)
6	.93***	.97***	—	—	—	—	—	—
	(.01)	(.01)						
7	.95***	.98***	—	—	—	—	—	—
	(.01)	(.01)						
N	1767	1246	1522	1546	1066	2077	5488	3306

Source: ANES

Note: Cell entries are the probabilities of voting in a general election based on the number of correct responses to the knowledge questions. Entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The results in Tables 16 and 17 support hypothesis eleven, that those who have high political knowledge will be more likely to donate to a political party or candidate than those who have low political knowledge. The returned Pseudo *R*-square values in Table 16 indicate political knowledge accounts for between 3 and 13 percent of the variation in donating to a political party or campaign during an election. The explanatory power of the model increases to between 15 and 23 percent when controlling for the effects of the additional variables in Table 17. The uncontrolled effects of political knowledge were strongest for 2004 and 2008, where the logged odds of donating increase by .92 and .91 respectively for each unit increase in political knowledge. However, after controlling for the effects of the additional independent variables in Table 17, the results for 1992-2000 are no longer statistically significant. While the direction of the relationship remains as predicted, the null hypothesis cannot be safely rejected. There was also more fluctuation between election years after controlling for the effects of the other variables, which indicate there may be contingent factors causing this variation. Most of the effects of the control variables on donating were statistically significant for most election years, except for race and gender, which were consistently insignificant (race was only significant in 2012). Aside from race and gender (where the direction of the relationship fluctuated between election years), the examined variables all had positive effects on donating.

Table 16: The Uncontrolled Effect of Political Knowledge on Donating

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.43***	.41***	.51***	.57***	.92***	.91***	.56***	.46***
	(.05)	(.07)	(.10)	(.07)	(.10)	(.07)	(.03)	(.04)
Constant	-3.88***	-3.68***	-3.57***	-3.07***	-3.99***	-3.61***	-2.94***	-3.41***
	(.23)	(.26)	(.27)	(.15)	(.28)	(.16)	(.08)	(.15)
Log Likelihood	-480.82	-307.63	-438.03	-446.14	-366.91	-621.36	-2035.10	-1346.00
Pseudo R^2	.08	.05	.03	.06	.13	.13	.07	.05
N	1764	1243	1520	1545	1064	2073	5506	3645

Source: ANES
Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 17: The Controlled Effect of Political Knowledge on Donating

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.21**	.16	.03	.16	.55***	.54***	.32***	.28***
	(.07)	(.10)	(.12)	(.10)	(.13)	(.12)	(.04)	(.05)
Partisan Strength	.30**	.20	.37**	.12	.46***	.28*	.27***	.28***
	(.11)	(.13)	(.12)	(.11)	(.12)	(.13)	(.05)	(.06)
Age	.34***	.35***	.32***	.31***	.34***	.20*	.32***	.19***
	(.07)	(.08)	(.07)	(.08)	(.07)	(.08)	(.03)	(.04)
Income	.51***	.28*	.46***	.37***	.27**	.22*	.19***	.04
	(.09)	(.11)	(.09)	(.09)	(.08)	(.09)	(.03)	(.04)
Education	.43***	.40**	.27*	.16	.15	.41**	.28***	.28***
	(.10)	(.13)	(.11)	(.12)	(.11)	(.12)	(.05)	(.06)
Race (White)	-.39	.33	.35	.23	.03	-.32	-.52***	-.24
	(.31)	(.43)	(.38)	(.32)	(.29)	(.25)	(.10)	(.13)
Gender (Female)	.08	.13	-.30	-.25	.34	.14	-.11	-.13
	(.20)	(.26)	(.21)	(.22)	(.23)	(.24)	(.09)	(.11)
Political Interest	.65***	.72***	1.00***	.95***	.58**	.90***	.93***	1.13***
	(.16)	(.22)	(.18)	(.19)	(.20)	(.24)	(.09)	(.13)
Log Likelihood	-382.76	-242.35	-329.23	-320.45	-292.93	-255.00	-1690.66	-1116.21
Constant	-8.28***	-8.35***	-8.96***	-7.76***	-8.55***	-8.21***	-7.67***	-7.93***
	(.66)	(.89)	(.77)	(.71)	(.75)	(.82)	(.31)	(.43)
Pseudo R^2	.21	.15	.20	.17	.23	.22	.19	.15
N	1573	1097	1372	1277	929	938	5213	3380

Source: ANES

Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 18 shows the predicted probabilities of donating to a political party or campaign based on political knowledge. The predicted probabilities overall are low, as the probability is only greater than .50 in 2008 (.51) when all questions were correctly answered (the greatest marginal increase in the data for all election years is also in 2008 between 3 and 4 correct answers, which has an instantaneous effect of .22). This shows that regardless of levels of knowledge, individuals are more likely not to donate. For 0 and 3 correct responses, the predicted probabilities are between .02 and .29 when comparing the results for all election years, which show a rather low probability of donating to a political party or candidate. These results indicate the substantive effects of political knowledge on donating are low (especially at the lowest levels of knowledge). There was also not a considerable amount of fluctuation between election years at the lowest levels of knowledge. There was a fair amount of fluctuation between election years at the highest levels of knowledge, with the probability of donating being the lowest in 1996 (.18), and was highest in 2008 (.51). Overall, the substantive effects of political knowledge on donating are moderate at best, and in conjunction with the fluctuation exhibited between election years at the highest levels of knowledge, these results indicate donating to a political party or candidate may be influenced by other variables that were not examined.

Table 18: Predicted Probabilities of Donating to a Political Party or Campaign by Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
0	.02***	.02***	.03***	.04***	.02***	.03***	.05***	.03***
	(.00)	(.01)	(.01)	(.01)	(.00)	(.00)	(.00)	(.00)
1	.03***	.04***	.04***	.08***	.04***	.06***	.09***	.05***
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.01)
2	.05***	.05***	.07***	.13***	.10***	.14***	.14***	.08***
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.01)
3	.07***	.08***	.11***	.20***	.22***	.29***	.22***	.12***
	(.01)	(.01)	(.01)	(.02)	(.02)	(.02)	(.01)	(.01)
4	.10***	.11***	.18***	.31***	.42***	.51***	.33***	.17***
	(.01)	(.01)	(.02)	(.04)	(.04)	(.04)	(.02)	(.01)
5	.15***	.16***	—	—	—	—	—	.25***
	(.01)	(.02)						(.01)
6	.21***	.22***	—	—	—	—	—	—
	(.02)	(.04)						
7	.29***	.30***	—	—	—	—	—	—
	(.04)	(.06)						
N	1764	1243	1520	1545	1064	2073	5506	3645

Source: ANES

Note: Cell entries are the probabilities of donating to a political party or campaign based on the number of correct responses to the knowledge questions. Entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

While the results in Table 19 support hypothesis twelve (those who have high political knowledge will be more likely to volunteer than those who have low political knowledge), most of the results were statistically insignificant after controlling for the additional independent variables in Table 20 (political knowledge was only statistically significant for 2000, 2004, and 2016). There was some fluctuation between election years in the uncontrolled model, with the logged odds of volunteering being the lowest in 2016 (.20***). While there was more fluctuation between election years after controlling for the effects of the other variables, the p-values of greater than .05 indicate the null hypothesis (which states there is no relationship between political knowledge and volunteering) cannot be safely rejected.

The returned Pseudo *R*-square values in Table 19 show political knowledge accounts for between 1 and 3 percent of the variation in volunteering, which indicate political knowledge provides an incomplete explanation of volunteering. Even after controlling for the additional variables in Table 20, these variables only explain between 5 and 11 percent of the variation in volunteering. Volunteering appears to be influenced by other variables that were not examined, given the low explanatory power of the uncontrolled and controlled models. The only control variable that has a statistically significant effect on volunteering for all examined years is education. The effects of political knowledge, partisan strength, age, and race were statistically insignificant for most of the examined years. All of the examined variables in Table 20 have a positive effect on volunteering, except for partisan strength in 1992 (-.10), race in 2008 (-.12), and age, which had a negative effect on volunteering for all years except for 1996.

Table 19: The Uncontrolled Effect of Political Knowledge on Volunteering

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	—	.25***	.27***	.32***	.35***	.27***	.23***	.20***
		(.04)	(.05)	(.05)	(.06)	(.04)	(.02)	(.02)
Constant	—	-1.26***	-.93***	-.66***	-1.02***	-.89***	-.60***	-.81***
		(.12)	(.12)	(.07)	(.13)	(.07)	(.05)	(.08)
Log Likelihood	—	-779.22	-1016.66	-1031.48	-704.25	-1348.13	-3732.96	-2461.60
Pseudo R^2	—	.02	.02	.02	.03	.02	.01	.01
N	—	1238	1517	1547	1066	2077	5504	3637

Source: ANES
Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 20: The Controlled Effect of Political Knowledge on Volunteering

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	—	.73	.05	.13*	.17*	.02	.04	.07**
		(.06)	(.06)	(.06)	(.08)	(.08)	(.03)	(.03)
Partisan Strength	—	-.10	.01	.11	.05	.07	.01	.08*
		(.07)	(.06)	(.06)	(.08)	(.08)	(.03)	(.04)
Age	—	-.03	.06	-.02	-.04	-.04	-.06**	-.07**
		(.04)	(.04)	(.04)	(.05)	(.05)	(.02)	(.02)
Income	—	.12	.16**	.14**	.13*	.16**	.01	.07*
		(.07)	(.05)	(.05)	(.05)	(.06)	(.02)	(.03)
Education	—	.42***	.32***	.30***	.34***	.56***	.42***	.38***
		(.08)	(.07)	(.07)	(.08)	(.09)	(.03)	(.04)
Race (White)	—	.34	.35	.07	.29	-.12	.13*	.09
		(.20)	(.18)	(.15)	(.17)	(.16)	(.06)	(.08)
Gender (Female)	—	.17	.29*	.12	.56***	.64***	.27***	.21**
		(.14)	(.12)	(.12)	(.15)	(.15)	(.06)	(.07)
Political Interest	—	.11	.32***	.09	.25*	.44***	.36***	.19**
		(.10)	(.09)	(.09)	(.12)	(.12)	(.05)	(.06)
Log Likelihood	—	-668.19	-880.53	-826.21	-578.97	-554.90	-3387.79	-2197.62
Constant	—	-2.07***	-2.79***	-2.02***	-2.91***	-3.38***	-2.06***	-2.18***
		(.37)	(.33)	(.31)	(.37)	(.37)	(.14)	(.18)
Pseudo R^2	—	.06	.06	.05	.08	.11	.05	.05
N	—	1092	1370	1279	931	939	5211	3377

Source: ANES

Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 21 shows the predicted probabilities of volunteering based on political knowledge. The highest probability of volunteering was in 2000 (.65) for those who had the highest levels of knowledge, showing the effects of political knowledge on volunteering are moderate. The probability of volunteering has remained relatively consistent between election years, and most of these probabilities increase by about .05 for each increase in political knowledge (except for 2000, where the probabilities increase in increments of about .08). Between the variables where respondents got about half of the knowledge questions correct is the point where the probabilities shift in favor of volunteering (where the probability becomes greater than .50) for 2000, 2004, 2012. The shift in favor of volunteering occurs at the earliest point in 2000, where the probability shifts in favor of volunteering between 1 (.42) and 2 (.50) correct responses. This shift does not occur until the higher values of political knowledge (between one incorrect response and all correct responses) for 1996, 2008, and 2016.

Table 21: Predicted Probabilities of Volunteering by Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
0	—	.22***	.28***	.34***	.26***	.29***	.35***	.31***
		(.02)	(.03)	(.02)	(.03)	(.02)	(.01)	(.02)
1	—	.27***	.34***	.42***	.34***	.35***	.41***	.35***
		(.02)	(.02)	(.01)	(.02)	(.01)	(.01)	(.01)
2	—	.32***	.40***	.50***	.42***	.42***	.46***	.40***
		(.01)	(.01)	(.02)	(.02)	(.01)	(.01)	(.01)
3	—	.37***	.47***	.58***	.51***	.48***	.52***	.44***
		(.01)	(.02)	(.03)	(.02)	(.02)	(.01)	(.01)
4	—	.43***	.54***	.65***	.59***	.55***	.58***	.49***
		(.02)	(.02)	(.03)	(.03)	(.03)	(.01)	(.01)
5	—	.50***	—	—	—	—	—	.54***
		(.03)						(.01)
6	—	.56***	—	—	—	—	—	—
		(.04)						
7	—	.62***	—	—	—	—	—	—
		(.05)						
N	—	1238	1517	1547	1066	2077	5504	3637

Source: ANES

Note: Cell entries are the probabilities of volunteering based on the number of correct responses to the knowledge questions. Entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The results in Table 22 support hypothesis thirteen, that those who have high political knowledge are more likely to participate in a demonstration or protest than those who have low political knowledge (although the results were statistically insignificant for 2016). The results in Table 23 also lend support to hypothesis thirteen, except for 2004, which produced statistically insignificant results for political knowledge. When controlling for the effects of the other variables, partisan strength, income, race, and gender, were statistically insignificant for most of the examined years. Political knowledge, education, and political interest had positive effects on protesting for all examined years, age and race had negative effects on protesting for all examined years, and partisan strength, income, and gender had mixed effects on protesting. The results in Tables 22 and 23 show fluctuation in the propensity to participate in a demonstration or protest between election years, which raises the question: what caused this fluctuation? Given this fluctuation between election years, it is reasonable to assume participation in a demonstration or protest may be impacted by contingent factors, such as the political climate for that election year.

The returned Pseudo *R*-square values in Table 22 indicate political knowledge accounts for between 0 and 4 percent of the variation in participating in a demonstration or protest, which show the explanatory power of the uncontrolled model is very low. Even after controlling for the additional variables in Table 23, these variables, when taken together, only account for between 7 and 11 percent of the variation in participating in a demonstration or protest. The explanatory power of the uncontrolled and controlled models is very low, which indicates the variation in participating in a protest is explained by other variables.

Table 22: The Uncontrolled Effect of Political Knowledge on Protesting

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	—	—	—	.40**	.27*	—	.50***	.12
				(.12)	(.11)		(.07)	(.07)
Constant	—	—	—	-3.98***	-3.22***	—	-4.27***	-3.77***
				(.24)	(.28)		(.20)	(.23)
Log Likelihood	—	—	—	-208.39	-255.20	—	-586.08	-515.91
Pseudo R^2	—	—	—	.03	.01	—	.04	.003
N	—	—	—	1547	1066	—	3512	3648

Source: ANES
Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 23: The Controlled Effect of Political Knowledge on Protesting

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	—	—	—	.35*	.09	—	.37***	.18*
				(.16)	(.15)		(.08)	(.08)
Partisan Strength	—	—	—	-.01	-.09	—	.04	.21*
				(.17)	(.14)		(.09)	(.11)
Age	—	—	—	-.28*	-.24**	—	-.00	-.39***
				(.12)	(.09)		(.06)	(.07)
Income	—	—	—	.02	-.18	—	-.16*	-.12
				(.13)	(.10)		(.06)	(.07)
Education	—	—	—	.32	.61***	—	.27**	.24*
				(.19)	(.15)		(.09)	(.11)
Race (White)	—	—	—	-.28	-.30	—	-.08	-.54*
				(.40)	(.30)		(.19)	(.21)
Gender (Female)	—	—	—	.49	.25	—	-.07	.27
				(.35)	(.28)		(.18)	(.21)
Political Interest	—	—	—	.41	1.02***	—	1.11***	.67***
				(.28)	(.26)		(.20)	(.19)
Log Likelihood	—	—	—	-168.02	-211.33	—	-530.43	-435.22
Constant	—	—	—	-4.76***	-5.14***	—	-7.06***	-5.13***
				(.88)	(.80)		(.62)	(.58)
Pseudo R^2	—	—	—	.07	.11	—	.10	.08
N	—	—	—	1279	931	—	3392	3382

Source: ANES

Note: Cell entries are logit coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Table 24 shows the predicted probabilities of participating in a demonstration or protest based on political knowledge. The probabilities of participating in a demonstration or protest are very low, and the probabilities primarily increase in small increments (.01 and .02) for each increase in political knowledge. The largest marginal increase in the data is .04 between 3 and 4 correct answers in 2012, which shows that overall, the probabilities increase at a low marginal rate. The probability of participating in a demonstration or protest is between .01 and .11 for all increments of political knowledge, which show substantively, the effects of political knowledge on participating in a demonstration or protest are low. In 2016, the probabilities of participating in a protest are between .02 and .04, which is only a .02 marginal increase for all values of political knowledge. The probability of participating in a protest were lowest in 2016 (.04) when all questions were correctly answered, compared to the probability of participating in a protest in 2004 (.11) when all questions were correctly answered. While the results in the regression models and the probabilities show there is a relationship between political knowledge and participating in a demonstration or protest (save for the insignificant results in 2004 in Table 23), the relationship appears very weak.

Table 24: Predicted Probabilities of Participating in a Demonstration or Protest by Political Knowledge

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
0	—	—	—	.02***	.04***	—	.01***	.02***
				(.00)	(.01)		(.00)	(.01)
1	—	—	—	.03***	.05***	—	.02***	.03***
				(.00)	(.01)		(.00)	(.00)
2	—	—	—	.04***	.06***	—	.04***	.03***
				(.01)	(.01)		(.00)	(.00)
3	—	—	—	.06***	.08***	—	.06***	.03***
				(.01)	(.01)		(.00)	(.00)
4	—	—	—	.08**	.11***	—	.10***	.04***
				(.02)	(.02)		(.01)	(.00)
5	—	—	—	—	—	—	—	.04***
								(.00)
N	—	—	—	1547	1066	—	3512	3648

Source: ANES

Note: Cell entries are the probabilities of participating in a demonstration or protest, based on the number of correct responses to the knowledge questions. Entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

The results in Tables 25 and 26 show mixed results for hypothesis fourteen (those who have high political knowledge are more likely to trust the government than those who have low political knowledge). As shown in Table 25, for each unit increase in political knowledge, the ordered log-odds of being in a higher government trust category increases for 1988 and 2000, but decreases for the remaining examined years. While 1988 and 2000 support the direction of the relationship asserted in hypothesis fourteen, the results were statistically insignificant for 2000. When controlling for the additional independent variables in Table 26, as political knowledge increases, government trust decreases, except for 1992, which shows that for each unit increase in political knowledge, the ordered log-odds of being in a higher government trust category would increase by .03 (this shows the effects of political knowledge on government trust are weak), but these results are statistically insignificant.

The relationship between political knowledge and government trust is weak, as shown by the Pseudo *R*-square values in Table 25. At most, political knowledge accounts for 1 percent of the variation in government trust. Even after controlling for the additional independent variables in Table 26, these variables, taken together, only account for 1 to 2 percent of the variation in government trust (except for 2012, where these variables accounted for 5 percent of the variation in government trust). Tables 25 and 26 show that the examined variables provide an incomplete explanation of government trust. The mixed results for government trust are contrary to the findings in past literature, where individuals were expected to have more trust in government as a result of greater political knowledge (Galston 2001).

Table 25: The Uncontrolled Effect of Political Knowledge on Government Trust

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.05*	-.04	-.15**	.002	-.05	-.23***	-.25***	-.03
	(.02)	(.04)	(.05)	(.04)	(.05)	(.06)	(.04)	(.03)
Log Likelihood	-1593.29	-973.55	-1117.78	-1342.65	-927.93	-875.62	-2000.10	-2758.90
Pseudo R^2	.002	.0004	.004	.00	.001	.01	.01	.00
N	1741	1224	1513	1537	1062	1032	2797	3632

Source: ANES

Note: Cell entries are ordered logit coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Table 26: The Controlled Effect of Political Knowledge on Government Trust

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	-.05	.03	-.15*	-.10	-.11	-.36**	-.16**	-.06
	(.03)	(.06)	(.06)	(.06)	(.07)	(.11)	(.05)	(.03)
Partisan Strength	.11*	.23***	.19**	.04	.12	.19	.28***	.24***
	(.05)	(.07)	(.07)	(.06)	(.07)	(.11)	(.05)	(.04)
Age	-.01	-.06	.04	.16***	.05	.04	-.04	.03
	(.03)	(.04)	(.04)	(.04)	(.04)	(.06)	(.03)	(.03)
Income	.12*	.03	-.11	.06	.00	.02	-.07	.04
	(.06)	(.07)	(.06)	(.05)	(.05)	(.08)	(.03)	(.03)
Education	.03	-.20*	.05	.09	-.13	-.04	-.04	.13**
	(.06)	(.08)	(.07)	(.07)	(.07)	(.12)	(.05)	(.04)
Race (White)	.92***	-.02	.03	.17	.57***	.49*	-.80***	-.72***
	(.16)	(.19)	(.18)	(.15)	(.16)	(.22)	(.10)	(.10)
Gender (Female)	-.10	-.02	-.11	-.03	-.05	.03	-.02	.16*
	(.11)	(.14)	(.12)	(.12)	(.14)	(.21)	(.09)	(.08)
Political Interest	.14	.07	-.01	.002	-.07	.20	.10	.02
	(.08)	(.10)	(.09)	(.09)	(.10)	(.16)	(.07)	(.06)
Log Likelihood	-1380.32	-856.95	-994.26	-1101.26	-799.05	-378.96	-1812.93	-2506.00
Pseudo R^2	.02	.01	.01	.01	.02	.02	.05	.02
N	1559	1090	1367	1275	929	464	2659	3375

Source: ANES

*Note: Cell entries are ordered logit coefficients and entries in parentheses denote corresponding standard errors. *P<0.05, **P<0.01, ***P<0.001*

Table 27 supports hypothesis fifteen, which asserts that those who have high political knowledge are more likely to pay attention to news about national politics than those who have low political knowledge. The results in Table 27 indicate that as political knowledge increases, the number of days individuals payed attention to national news increases, and these results are statistically significant. While political knowledge appeared to have a moderate effect on paying attention to national news prior to 2000, the effects increased in 2000 and 2004, but then decreased again in 2008. Based on these results, there appears to be a fair amount of fluctuation in the results between election years. The relationship weakens when controlling for the additional independent variables (shown in Table 28), and the results are no longer statistically significant (except for 2000, 2004, and 2016). The only variables in the multiple regression model that are statistically significant for all examined years are age and political interest. While the hypothesis is supported when running the bivariate regression model, the null hypothesis cannot safely be rejected for most election years after controlling for the additional independent variables, and thus the hypothesis is unsupported (except for in 2000, 2004, and 2016).

The returned Adjusted *R*-square values in Table 27 show political knowledge accounts for between 1 and 7 percent of the variation in paying attention to national news. Controlling for the effects of the added variables in Table 28 improves the explanatory power of the model (between 11 and 28 percent of the variation in paying attention to national news can be explained by the variables in this model), although these variables still appear to provide an incomplete explanation of paying attention to news.

Table 27: The Uncontrolled Effect of Political Knowledge on Attention to News

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.21***	.16***	.29***	.46***	.48***	.18**	.25***	.35***
	(.03)	(.05)	(.06)	(.06)	(.07)	(.07)	(.03)	(.02)
Constant	4.37***	4.22***	2.95***	2.83***	2.68***	4.87***	3.63***	4.53***
	(.11)	(.14)	(.16)	(.10)	(.16)	(.11)	(.06)	(.07)
Adjusted R^2	.02	.01	.01	.03	.04	.01	.01	.07
N	1766	1192	1520	1544	1064	1041	5504	3646

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.

**P<0.05, **P<0.01, ***P<0.001*

Table 28: The Controlled Effect of Political Knowledge on Attention to News

	NES 1988	***NES 1992***	***NES 1996***	***NES 2000***	***NES 2004***	***NES 2008***	***NES 2012***	***NES 2016***
Political Knowledge	.08	.12	.12	.19*	.20*	.07	.03	.13***
	(.04)	(.06)	(.07)	(.08)	(.09)	(.12)	(.03)	(.02)
Partisan Strength	.01	.08	-.02	.05	-.02	-.02	-.00	.04
	(.07)	(.07)	(.07)	(.07)	(.09)	(.11)	(.03)	(.03)
Age	.31***	.41***	.60***	.49***	.42***	.39***	.56***	.27***
	(.04)	(.04)	(.04)	(.05)	(.05)	(.07)	(.02)	(.02)
Income	.02	.03	-.04	.02	-.02	.06	-.01	.03
	(.07)	(.08)	(.06)	(.06)	(.06)	(.09)	(.02)	(.02)
Education	-.20**	-.34***	-.01	-.10	-.14	-.46**	-.28***	.06
	(.08)	(.09)	(.08)	(.08)	(.09)	(.14)	(.03)	(.03)
Race (White)	-.50**	-.50*	-.38	-.14	-.57**	-.29	-.52***	.02
	(.18)	(.21)	(.20)	(.18)	(.19)	(.23)	(.07)	(.07)
Gender (Female)	-.18	.42**	.16	-.01	.32	.19	.17**	-.14*
	(.13)	(.15)	(.13)	(.14)	(.17)	(.22)	(.06)	(.06)
Political Interest	.83***	1.06***	.94***	1.13***	1.22***	.76***	1.20***	.96***
	(.10)	(.11)	(.10)	(.11)	(.13)	(.17)	(.05)	(.05)
Constant	2.93***	1.18**	-.18	-.79*	-.31	2.65***	.11	1.73***
	(.32)	(.38)	(.35)	(.35)	(.39)	(.48)	(.15)	(.14)
Adjusted R^2	.11	.20	.21	.21	.20	.13	.28	.27
N	1572	1065	1371	1277	929	475	5212	3381

Source: ANES

Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 29 shows that as political knowledge increases, the number of days social media is used to learn about presidential elections decreases, and these results are statistically significant. Interestingly, after controlling for the additional independent variables in Table 30, as political knowledge increases, the number of days social media was used to learn about Presidential elections increases (although the results for 2012 and 2016 are no longer statistically significant after controlling for the additional variables). This finding is contrary to hypothesis sixteen, which claims that those who have high political knowledge are more likely to use social media to learn about presidential elections than those who have low political knowledge. The Adjusted *R*-square values in Table 29 show that political knowledge accounts for less than 1 percent of the variation in the number of days in a given week social media was utilized to learn about presidential elections. While adding the additional independent variables in Table 30 increased the model's explanatory power to 8 percent in 2012 and 16 percent in 2016, these variables still appear to provide an incomplete explanation of the use of social media.

Table 29: The Uncontrolled Effect of Political Knowledge on Obtaining News from Social Media

	NES 2012	***NES 2016***
Political Knowledge	-.15***	-.08*
	(.03)	(.03)
Constant	1.73***	4.14***
	(.06)	(.11)
Adjusted R^2	.005	.001
N	5380	3600

Source: ANES
Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

Table 30: The Controlled Effect of Political Knowledge on Obtaining News from Social Media

	NES 2012	***NES 2016***
Political Knowledge	-.06	.04
	(.03)	(.04)
Partisan Strength	.07*	.04
	(.03)	(.05)
Age	-.39***	-.70***
	(.02)	(.03)
Income	-.04	.06
	(.03)	(.04)
Education	-.05	.02
	(.04)	(.05)
Race (White)	-.23**	.53***
	(.07)	(.11)
Gender (Female)	.36***	1.12***
	(.07)	(.10)
Political Interest	.37***	.22**
	(.05)	(.08)
Constant	2.07***	4.39***
	(.16)	(.24)
Adjusted R^2	.08	.16
N	5108	3370

Source: ANES
Note: Cell entries are OLS coefficients and entries in parentheses denote corresponding standard errors.
**P<0.05, **P<0.01, ***P<0.001*

In the controlled model shown in Table 30, the effects of age, race, gender, and political interest are statistically significant, while the effects of income and education are insignificant. The effects of partisan strength were significant in 2012 (.07*) and insignificant in 2016 (.04). Partisan strength, gender, and political interest have positive effects on social media usage to learn about presidential elections, whereas the effects of age are negative. The effects of political knowledge, income, education, and race were negative in 2012, and positive in 2016, showing fluctuations in the effects of these variables between 2012 and 2016.

CHAPTER 5: CONCLUSION

This thesis found mixed results for the hypotheses examining the impact of political knowledge on volunteering, government trust, and attention to news (hypotheses twelve, fourteen, and fifteen respectively). While hypotheses twelve and fifteen were supported when examining the bivariate relationships, these variables lost significance for most examined years after controlling for the additional variables. Hypothesis sixteen (which examined the impact of political knowledge on the use of social media to gain information on presidential elections) was unsupported, both in terms of the direction of the relationship, and the statistical insignificance in the controlled model. This thesis found mixed results for the hypotheses examining the impact of partisan strength[7] and attention to news on political knowledge. While the hypotheses were supported when examining the bivariate relationships, these variables lost significance for most years after controlling for the effects of the additional variables. The remaining hypotheses were generally supported across most or all election years (save for anomalous election years where the results were statistically insignificant).

The mixed results for hypothesis fourteen (those who have high political knowledge are more likely to trust the government than those who have low political knowledge) were contrary to findings by Galston (2001), who argued the more political knowledge individuals have, the more likely they will be to trust the government, because of a greater understanding of

[7] Russell Dalton (2013) utilized ANES data to distinguish between types of partisans (cognitive partisans and ritual partisans) and types of independents (apartisans and apolitical independents). Dalton (2013) acknowledged past literature's tendency to view independents as politically unaware, and while apolitical independents tend to conform to this view, apartisans were found to be engaged and politically aware. These differences in the types of independents could potentially contribute to the mixed results for the effects of partisan strength on political knowledge.

government processes. The examined variables were also shown to provide an incomplete explanation of government trust, and the fluctuation between election years suggests government trust may be influenced by other factors such as the political climate.

This thesis found those who are male, white, have a higher income, and older individuals are more likely to have more political knowledge when compared to females, non-whites, those who have a lower income, and younger individuals, which is consistent with findings in past literature (Althaus 1998; Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006). When examining the uncontrolled models, the effects of gender, race, and income on political knowledge have decreased since 1988, while the effects of age were weaker and have remained relatively constant compared to the other demographic variables. The question should be raised as to why these trends have remained over the years. Since the effects of these variables have weakened over time, there may be the possibility that in future election years, the distribution of political knowledge will become more equal between demographic groups. However, the effects of gender and income increased again in 2012 and 2016. The effects of age were highest in 2016, where a unit increase in age increases political knowledge by .17 (although this is not substantially different than 1988, which had a regression coefficient of .14). The fluctuation between election years raises the questions of what causes this fluctuation, and why have the effects increased again in recent presidential elections?

The low Adjusted *R*-square and Pseudo *R*-square values returned by the regression models also indicate the strength of many of the relationships was weak. The highest returned value was .38 in 2008 in Table 30 (which reported the results of the multiple regression model on the effects of the demographic variables on political knowledge), which indicated 38 percent of

the variation in political knowledge was explained by the independent variables. This means 62 percent of the variation in political knowledge is explained by variables that were not examined.

Directions for Future Research

Crucial areas of research for future scholars pertain to the *why* questions raised in this thesis. This thesis substantiates claims in past research on the expected trends of *who* holds political knowledge, but further examination of *why* these trends remain is of utmost importance. The examined demographic groups (specifically females, non-whites, and those with a lower income) have historically been excluded from the political realm, so while the existence of these trends is not surprising, the endurance of these trends should be examined further. Consideration should also be given to the educational practices discussed in Chapter 2. Contrary to past evidence of the racial divide in political knowledge, Feldman et al. (2007) found the gains from the Student Voices program were equal across racial groups. Seeking further examination and implementation of civic education programs such as this could potentially help to close the racial gaps that persist in political knowledge and engagement.

Perhaps more concerning than the enduring gaps in political knowledge is the ongoing debate on whether voting should be restricted to the knowledgeable. One suggestion promoted in this debate is a "voter qualification exam," where individuals could obtain a "voting license if an only if one could reliably indicate which parties and major candidates matched which ideology" (Brennan 2014, 44). Based on the results discussed by Brennan (2014), 25 percent of voters would answer incorrectly, and even more nonvoters would fail to correctly answer the questions. Given the demographic gaps in political knowledge, if implemented, suggestions such as this

would disenfranchise these demographic groups. Rather than focus on the restriction of voting to those who have more knowledge, the focus should shift to further examine how to increase political knowledge, and how to shrink the demographic gaps.

The aforementioned discussion of government trust provides an area for future researchers to examine, as political knowledge was found to not have a strong impact on government trust. Future researchers could seek to examine what impacts levels of government trust, and what the impact of having this trust is. As social media continues to become more prevalent in the political realm, the effects of social media usage should also be explored further by future researchers. This thesis found evidence contrary to the proposed hypothesis that those who have more political knowledge will be more likely to use social media to learn about presidential elections (the relationship between political knowledge and social media was also shown to be very weak according to the returned Adjusted *R*-square values). While examining the impact of social media is outside the scope of this study, this would provide an interesting area for future researchers to explore. It would be reasonable to assume social media could potentially play an influential role in outreach efforts related to political engagement, as social media provides a platform to reach out to a large number of people. Utilizing social media as an independent variable in future studies to examine the potential impact of social media on political engagement can provide interesting information on the future trajectory of outreach efforts and political engagement.

While this thesis focused on political knowledge and engagement in the United States, conducting a comparative study would provide interesting data on potential trends and fluctuations across nations, to see if the examined trends are specific to the United States, or if

they are present in other nations. Additionally, examining the impact of both policy specific and general political knowledge would allow for the examination of how each form of knowledge impacts political engagement, and how demographic groups vary in the type of knowledge held. General political knowledge was found to have the strongest substantive effects on voting in a general election and voting in a primary election, whereas the substantive effects of political knowledge were moderate for volunteering, and low for donating and participating in a protest. This provides an area for future researchers to explore, because while there appears to be a strong relationship between political knowledge and voting, determining what impacts other forms of engagement would be beneficial for efforts to promote engagement.

Considering the study by Flynn, Nyhan, and Reifler (2017) which distinguished between those who are uninformed and those who are misinformed, future research could also focus on political knowledge, but attempt to distinguish between those who are uninformed and those who are misinformed. The effects of social media usage on the levels of misinformation and lack of knowledge could then be examined. After distinguishing between those who are uninformed and those who are misinformed, there would also be value in examining if these have different effects on political engagement. This also raises questions on how valid the measures of political knowledge are. While the questions pertaining to the jobs or offices held by political figures arguably provides a valid means of capturing general political knowledge, there may be benefit in also utilizing an index containing these questions, as well as questions pertaining to the roles of the institutions and people of government. Knowledge of the jobs or offices held by political figures requires respondents to seek out more information (as these change over time), whereas the roles of the institutions and people of government remain more constant over time.

Consequently, it may be reasonable to assume these different means of measuring political knowledge may produce different results.

LIST OF REFERENCES

Adler, Richard P., and Judy Goggin. 2005. "What do we mean by “civic engagement”?." *Journal of transformative education* 3, no. 3 (July): 236-253.

Allcott, Hunt, and Matthew Gentzkow. 2017. "Social media and fake news in the 2016 election." *Journal of economic perspectives* 31, no. 2 (May): 211-36.

Althaus, Scott L. 1998. "Information effects in collective preferences." *American Political Science Review* 92, no. 3 (September): 545-558.

American National Election Studies. n.d. “ANES American National Election Study.” http://www.electionstudies.org/

Barabas, Jason, Jennifer Jerit, William Pollock, and Carlisle Rainey. 2014. "The question (s) of political knowledge." *American Political Science Review* 108, no. 4 (November): 840-855.

Baum, Matthew. A., and Angela. S. Jamison. 2006. "The Oprah Effect: How Soft News Helps Inattentive Citizens Vote Consistently." Journal of Politics 68 (4):946-959.

Beaumont, Elizabeth, Anne Colby, Thomas Ehrlich, and Judith Torney-Purta. 2006. "Promoting political competence and engagement in college students: An empirical study." *Journal of political science education* 2, no. 3 (December): 249-270.

Brennan, Jason. 2014. “How Smart Is Democracy? You Can’t Answer That Question A Priori.” *Critical Review: An Interdisciplinary Journal of Politics and Society* 26 (January): 33–58.

Campbell, David E. 2008. "Voice in the classroom: How an open classroom climate fosters political engagement among adolescents." *Political Behavior* 30, no. 4 (December): 437-454.

Carlisle, Juliet E., and Robert C. Patton. 2013. "Is social media changing how we understand political engagement? An analysis of Facebook and the 2008 presidential election." *Political Research Quarterly* 66, no. 4 (December): 883-895.

Carpini, Michael X. Delli. 1999. "In Search of the Information Citizen: What Americans Know About Politics and Why It Matters." *Departmental Papers (ASC)* (November): 1-39.

Carpini, Michael X. Delli, and Scott Keeter. 1993. "Measuring political knowledge: Putting first things first." *American Journal of Political Science* (November): 1179-1206.

Carpini, Michael X. Delli, and Scott Keeter. 1996. *What Americans know about politics and why it matters*. Yale University Press.

Chaffee, Steven, and Stacey Frank. 1996. "How Americans get political information: Print versus broadcast news." *The Annals of the American Academy of Political and Social Science* 546, no. 1 (July): 48-58.

Dalton, Russell J. 2013. *The apartisan American: dealignment and changing electoral politics*. CQ Press.

Dudley, Robert L., and Alan R. Gitelson. 2002. "Political literacy, civic education, and civic engagement: A return to political socialization?." *Applied Developmental Science* 6, no. 4 (October): 175-182.

Einfeld, Aaron, and Denise Collins. 2008. "The relationships between service-learning, social justice, multicultural competence, and civic engagement." *Journal of College Student Development* 49, no. 2 (April): 95-109.

Feldman, Lauren, Josh Pasek, Daniel Romer, and Kathleen Hall Jamieson. 2007. "Identifying best practices in civic education: Lessons from the student voices program." *American Journal of Education* 114, no. 1 (August): 75-100.

Flynn, D. J., Brendan Nyhan, and Jason Reifler. 2017. "The nature and origins of misperceptions: Understanding false and unsupported beliefs about politics." *Political Psychology* 38 (February): 127-150.

Galston, William A. 2001. "Political knowledge, political engagement, and civic education." *Annual review of political science* 4, no. 1 (June): 217-234.

Galston, William A. 2004. "Civic education and political participation." *PS: Political Science & Politics* 37, no. 2 (April): 263-266.

Gilens, Martin. 2001. "Political ignorance and collective policy preferences." *American Political Science Review* 95, no. 2 (June): 379-396.

Hart, Daniel, Thomas M. Donnelly, James Youniss, and Robert Atkins. 2007. "High school community service as a predictor of adult voting and volunteering." *American Educational Research Journal* 44, no. 1 (March): 197-219.

Hillygus, D. Sunshine. 2005. "The missing link: Exploring the relationship between higher education and political engagement." *Political behavior* 27, no. 1 (March): 25-47.

Jerit, Jennifer, Jason Barabas, and Toby Bolsen. 2006. "Citizens, knowledge, and the information environment." *American Journal of Political Science* 50, no. 2 (April): 266-282.

Kahne, Joseph, David Crow, and Nam-Jin Lee. 2013. "Different pedagogy, different politics: High school learning opportunities and youth political engagement." *Political Psychology* 34, no. 3 (June): 419-441.

Kahne, Joseph, and Ellen Middaugh. 2008. "Democracy for Some: The Civic Opportunity Gap in High School. Circle Working Paper 59." *Center for Information and Research on Civic Learning and Engagement (CIRCLE)*.

Kuklinski, James H., and Paul J. Quirk. 2000. "Reconsidering the rational public: Cognition, heuristics, and mass opinion." In *Elements of Reason: Cognition, Choice, and the Bounds of Rationality*, ed. Arthur Lupia, Mathew D. McCubbins, and Samuel L. Popkin. New York, NY: Cambridge University Press.

Langton, Kenneth P., and M. Kent Jennings. 1968. "Political socialization and the high school civics curriculum in the United States." *American political science review* 62, no. 3 (September): 852-867.

Levy, Brett LM. 2011. "Fostering cautious political efficacy through civic advocacy projects: A mixed methods case study of an innovative high school class." *Theory & Research in Social Education* 39, no. 2 (April): 238-277.

Niemi, Richard G., and Mary A. Hepburn. 1995. "The rebirth of political socialization." *Perspectives on Political Science* 24, no. 1 (January): 7-16.

Owen, Diana, and Suzanne Soule. 2015. "Political knowledge and dimensions of political engagement." Paper prepared for presentation at the Annual Meeting of the American Political Science Association, San Francisco, California, September 3-6.

Pasek, Josh, Lauren Feldman, Daniel Romer, and Kathleen Hall Jamieson. 2008. "Schools as incubators of democratic participation: Building long-term political efficacy with civic education." *Applied Development Science* 12, no. 1 (March): 26-37.

Popkin, Samuel L., and Michael A. Dimock. 1999. "Political knowledge and citizen competence." *Citizen competence and democratic institutions*: 117-146.

Prior, Markus. 2005. "News vs. entertainment: How increasing media choice widens gaps in political knowledge and turnout." *American Journal of Political Science* 49, no. 3 (July): 577-592.

Prior, Markus. 2013. "Visual political knowledge: A different road to competence?." *The Journal of Politics* 76, no. 1 (October): 41-57.

Putnam, Robert D. 1995. "Tuning in, tuning out: The strange disappearance of social capital in America." *PS: Political science & politics* 28, no. 4 (December): 664-683.

Shaker, Lee. 2012. "Local political knowledge and assessments of citizen competence." *Public Opinion Quarterly* 76, no. 3 (January): 525-537.

Shapiro, Robert Y., and Benjamin Page. 1992. *The rational public: fifty years of trends in Americans' policy preferences*. Chicago: University of Chicago Press.