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THE MILLENNIAL GENERATION AND ALTERNATIVE POLITICAL BEHAVIORS: AN EXAMINATION OF POLITICAL PARTICIPATION AMONG MODERN YOUNG AMERICANS

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THE MILLENNIAL GENERATION AND ALTERNATIVE POLITICAL BEHAVIORS: AN EXAMINATION OF POLITICAL PARTICIPATION AMONG MODERN YOUNG AMERICANS

A THESIS APPROVED FOR THE
DEPARTMENT OF POLITICAL SCIENCE

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Contents

1 Abstract **viii**

2 Introduction **1**

3 Background **3**

3.1 Rational Choice and Political Participation 4

3.2 Demographics and Political Participation 6

3.3 American Political Participation 7

3.4 Youth & Politics 8

4 Theory **10**

4.1 Political Participation 10

4.2 Roots of Youth Political Behavior 11

4.3 Youth Disengagement 12

5 Hypotheses **14**

6 Methods **15**

6.1 Data Selection 16

6.2 Concepts & Variables 18

6.2.1 Dependent Variables: Voting Behavior 18

6.2.2 Independent Variables: Alternative Political Behaviors . . . 20

6.2.3 Additional Independent Variables: Political Attitudes . . . 21

6.2.4 Model Testing Variables: Other Formal Political Behaviors 21

6.2.5 Controls 22

6.3 Model Selection & Methods 22

7 Model 1A: Logit Model 23

7.1 Logit Model 24

7.2 Discussion 25

8 Model 2: Ordinal Logit Model 28

8.1 Discussion 28

9 Model 3: Confirmatory Factor Analysis 30

9.1 Results 31

9.2 Discussion 32

10 Conclusion 33

10.1 Impact on the Theory 34

10.2 Limitations and Threats to Validity 35

10.3 Future Research 37

A Variables 44

A.1 Descriptive Statistics 44

B Additional Graphics and Tables 45

B.1 Additional Model Details 45

List of Tables

1 Dependent Variables 19

2 Factor Loadings of Formal and Informal Behaviors 31

3 Model Variable Descriptive Statistics 44

4 Logit of Voting in 2010 46

5 Ordered Logit of Likely Voting 47

6 Relative Risk Ratios of Ordered Logit Model 48

List of Figures

1 Millennial Voting, 2010 Election & Chance of Voting Once 18 Years Old 19

2 Logged Odds of Voting in the 2010 Election 24

3 Predicted Effects of 'Alternative' Behaviors 25

4 Ordinal Logged Odds of Self-Assessed Likelihood of Voting Once 18 28

5 Logged Odds of Model Variables and Voting in the 2010 Election, With Intercept 45

6 Scree Plot of Formal and Informal Political Behaviors 49

1 Abstract

This thesis tests the prevailing theory in political behavior that Millennial citizens in the United States substitute alternative political behaviors for voting in order to fill their need for civic engagement. Using 2011 Youth and Participatory Politics Survey Project Wave 1 data [n=2920] of people in America aged 15-25, analysis of youth behaviors and attitudes is conducted via Logistic Regression and Ordinal Logistic Regression. Among older respondents, findings are surprising: most concepts tested are either neutral, in the case of boycotts, protests, online groups, and web-based petitions, or demonstrate relationships in the opposite of the direction theory suggests, in the case of paper petition signing and social media activism. Only a catch-all 'other event' behaves as expected based on the theory and is significantly negative. Among younger respondents, online political groups are positively associated with likelihood of voting, but no other results are significant. This provides support for the idea that formal and informal political behaviors, at least among the younger members of the Millennial Generation, are more likely to occur together than to substitute for one another. Additionally, a confirmatory factor analysis is conducted to determine how valid the formal-informal divide among political behaviors is, with mixed and inconclusive results that suggest the concept needs further development.

Keywords: United States, Millennials, Political Behavior, Participatory Politics, Voting Behavior, Parents, Logistic Regression, Ordinal Logistic Regression, Factor Analysis, Confirmatory Factor Analysis

2 Introduction

Young people in America are a source of great interest and study in the social sciences and beyond. At times, America's youth are condemned, praised, and pitied in equal measure. Whatever the case may be, they represent a massive and meaningful portion of the American public. Case in point, the Millennial Generation—those "aged 18 to 34 in 2015"—now constitute the largest living bloc of voting-age citizens in the United States (Fry 2016). As a result, they have a tremendous amount of potential to affect political outcomes and systems in the United States. They must be taken seriously and examined to consider how they interact with politics and, importantly, how they might *not* interact with politics.

Political participation among young people has always been a source of criticism and analysis. In 1996, youth voter turnout was 20 percent below the general voter turnout (Strama 1998). Recently, the youth (18-29) vote increased from 40% in 2004 to 51% in 2008 (Wicks et al. 2014). The spike in youth participation in 2008 was impacted largely by the active campaign efforts of Barack Obama, whose youth outreach was well documented, but the gains quickly plateaued. In the 2012 and 2016 Presidential elections, turnout was 50%, stalled since the high of 2008 and still not up to the 58% value for the general population (CIRCLE 2016). Midterm turnout among the 18-29 year old demographic, as follows a historical trend, is even worse in recent years—24% in 2010, and 19.9% in 2014, the lowest in 40 years.

These numbers paint a picture of politics in which fewer youth participate in politics than older citizens. 60% of Millennials surveyed by the *Associated Press* claimed to consume news frequently, with half of those respondents doing so multiple times a day (AP 2015). In-depth study of modern younger generations has revealed they have a strong desire for civic engagement (Dalton 2009). The generation of the information age has embraced the wealth of stories they are awash with, and political news is no different. Youth discuss politics on social media constantly (Cohen and Kahne 2011). The disconnect between a seemingly active, engaged young generation and their lack of measurable, formalized political participation is worthy of discussion and examination.

Healthy, active, representative democratic systems of government depend on citizen participation. When a major part of the population participates less than the national average, voting outcomes and policy outcomes are likely to poorly reflect the actual population of citizens. It is imperative to understand the roots of the phenomenon to accurately define the nature of participation among modern American youth. A sharper definition of the bounds of Millennial participation could enhance not only the study of politics, but efforts on the part of politicians and activist networks to capture and engage the younger generations of Americans and preserve the practice of democracy in the United States. This research will attempt to examine what relationship exists between different political and civic behaviors among Millennial youth in the United States.

Emerging study suggests that young Americans' definition of political en-

gagement is changing (Dalton 2009), and they they substitute newer behaviors for 'formal' behaviors like voting and running for office. Meanwhile, a competing body of literature sees political behaviors, formal or otherwise, as mostly harmonious, building on one another and creating individuals who are more engaged generally.

Within this thesis, I take data of Millennial political behaviors, both formal and informal, and examine the effect their presence has on voting behavior. Pursuant to a theory in the literature that suggests Millennials substitute activism and civic activity for formal political behaviors, I use logistic regression and ordinal logistic regression to test the likelihood of formal and informal behaviors coexisting, and find that in many cases the two are not meaningfully connected, and where they are, the two coexist rather than crowd each other out. Additionally, I attempt a confirmatory factor analysis to examine the idea of the formal/informal divide itself, with inconclusive results.

3 Background

Political participation is a complex topic in its own right, and many in the discipline have made efforts to define it over time. Perhaps the most enduring is "those activities by private citizens that are more or less aimed at influencing the selection of government personnel and/or the actions they take," as presented by Milbrath and expanded on by Verba (Verba and Nie 1972; Milbrath 1965). This

definition has been explored and expanded upon over time, such as by the efforts of Van Deth et al. (2007), who expanded this definition to include political efforts beyond simply those targeting government personnel, such as "corporate actors within the non-profit or private sector" to pursue political ends (Deth, Montero, and Westholm 2007).

Dalton (2009) has recently pushed a definition of political participation among modern youth that extends beyond the traditional. Building on the classic construction of 'duty-based citizenship,' where citizens engage in their participatory duty and stress loyalty, and 'engaged citizenship,' which "includes direct-action and elite challenging activities" to "express policy preferences," Dalton suggests that "Americans are changing the way they choose to participate" (Dalton 2009). He explains that "changing skills and norms encourage Americans to engage in more demanding and more assertive means of political participation." This includes voting, like the old perspective, but expands to include group participation and social activities related to politics as well. Study of political participation extends far beyond simply defining it, however, and a number of different approaches have tackled the subject over time.

3.1 Rational Choice and Political Participation

Another well-explored corpus of literature in the study of political participation is that of the rational choice perspective, whose authors attempt to construct

logical, clear models in order to break down the seemingly illogical imbalance of effort to reward inherent to voting in large-scale elections. Among them was Anthony Downs, among the first to introduce the rational choice approach to the study of political participation and turnout (Downs 1957). From this starting point, the study branched out and evolved through the work of scholars like John Aldrich, who expanded the rational perspective and addressed the paradoxical irrationality of individual voting, whose small tangible rewards might at first glance discount the rational choice model (Aldrich 1993). More recently, authors like Brady and McNulty have examined the real, logistical barriers to voting, such as inconvenient polling place locations and troubles of getting away from work to vote, all as a part of a rational-choice calculus of voting (Brady and McNulty 2011).

The rational choice literature is not without its limitations, however. Especially limiting among rational choice conceptions of behavior are assumptions about the completeness of participant information and the ability of participants to efficiently pursue their exact best interests. Beyond the rational choice perspective, however, is a trove of literature more interested in who people are than their potential internal thought process.

3.2 Demographics and Political Participation

In 1980, Wolfinger and Rosenstone laid a groundwork of what types of people voted more or less–generally, older and better educated people vote more often (Wolfinger and Rosenstone 1980). Later efforts with access to better data would help to confirm their findings and expand the concept of 'life transitions' that drive these age differences in voting (Highton and Wolfinger 2001). These life transitions drove the narrative of a citizen that grows more participatory in politics as they age, gather life experiences, and lock down other life priorities, such as finding a partner and a reliable source of income. "Politics," they claim, is "rarely a top priority for anyone" (Leighly and Naegler 2014). The Millennial generation seems to buck this trend, showing high levels of political attention and previously unprecedented levels of political information (Lawless and Fox 2014). Dalton (2009) likewise rebukes this, describing how political behavior in the United States has long been active and engaged, and has changed over time to keep up with modern technology and social conventions (Dalton 2009). Millennials care about politics and have strong opinions, yet their lack of participation through voting remains evident.

A rich literature exists which has considered the effects of gender (Karp and Banducci 2008) and race (Fraga 2016) in electoral politics, considering not only the effects of candidates belonging to underrepresented groups, but also of the various unique social and economic forces which affect citizens belonging to

those groups. Women tend to vote slightly more often than men, and respond well to information and recruitment, while racial minorities vote less on average but are extremely receptive to efforts which reach out to them.

Much emphasis in the discipline has also examined the significance of education (Sondheimer and Green 2010; Berinski and Lenz 2011) and income (Rosenstone 1982; Leighley and Nagler 1992), discovering them to be powerful components of electoral behavior and general political engagement.

3.3 American Political Participation

The study of political engagement among Americans is a long-standing tradition in political science. Hibbing and Theiss-Morse examined political attitudes and found that Americans largely want to be uninvolved in the running of government as much as possible, only becoming committed when they do not trust specific politicians (Hibbing and Theiss-Morse 2002). Sydney Verba and Kay Schlozman, meanwhile, proposed an America of civic-minded people who engage in politics just as they engage in their local communities, homes, and congregations (Verba, Schlozman, and Brady 1995). Their America, in the tradition of Tocqueville, is filled with concerned citizens, but those same citizens' ideas of what participation is extends beyond the most structured paradigms of political engagement to more communal and social activities. Verba, Schlozman, and Brady expand on these ideas more recently, developing the idea of how social and

civic groups build a set of "civic skills" among citizens (Schlozman, Verba, and Brady 2014).

The study of American politics will forever be a tug of war between different conceptions of how Americans structure their lives, values, and ideals, and the literature reflects that. Beyond the broad study of America, however, is a tight, detail-rich contingent of study focused on America's youth.

3.4 Youth & Politics

Historically, participation among young people has never been outstanding. Census data shows that youth voter turnout has hovered between 30% and 50%, consistently much lower than each older age group. (U.S. 2014) Nevertheless, typical participation literature paid little mind to youth at first. Instead, much of the earliest work done on youth and politics came from the psychology and sociology literature on socialization and development. Herbert Hyman and Constance Flanagan both examined the process of political socialization from a young age, determining a theory of how people learn political behaviors throughout the development process, from parents, educators, and general societal observation (Hyman 1959; Flanagan 2003). Much of the rest of the literature about youth and politics examines distinctly modern influences and factors, from the 24-hour news cycle (Kahne and Middaugh 2012) to social media and beyond (Auskalinien 2012). Another growing contingent of youth research examines youth behaviors

generally, such as school extracurricular activities (McNeal 2001; Hayes 2014) and volunteerism (Fisher 2012) in a political context. The findings, expanded upon in depth by Dalton (2009), suggest that youth in the modern day may not follow historical trends and become more involved as they age. Instead, cynicism may rule the day (Dalton 2009).

Putnam (1995) described an American public slowly isolating themselves from one another, disengaging from politics alongside social groups (Putnam 1995).Putnam's core thesis is that close, personal associations between citizens are on the decline, even as larger "tertiary" civic activist groups are on the rise. Putnam valued close, neighborly citizen associations, and saw their decline as closely linked to declining political participation. These effects were strongest among younger generations.

A final recent pursuit in the study of youth and politics examines what appears to be a declining trend in youth candidate emergence, which is leading to a slowly aging pool of elected officials (Lawless and Fox 2014). Their work links traditional candidate emergence literature with the findings of much of the other youth and politics literature: politics leaves a bad taste in the mouths of young people, and they have largely withdrawn from it.

4 Theory

The theory at work in this thesis focuses primarily on the topics of political participation and the study of young people, both their attitudes and their actions.

4.1 Political Participation

Broadly, political engagement, or political participation, can be understood as idea of 'any action' to try and influence government, either through elected officials or more directly as a citizen (Verba and Nie 1972; Deth, Montero, and Westholm 2007). Political participation is most obvious in its most visible formal construction–voting. However, it can be understood to also include "any action oriented to influence the formal political system," from "writing to political representatives, working for political parties or candidates, attending public debates or meetings over policy or issues" to "involvement in social movements or protests" (Wicks et al. 2014). Calareso (2008) supports this idea, adding a clearer distinction between "formal" and "informal" political behaviors, delineating a divide between them (Calareso 2015). Formal participation is composed of voting, attending official political rallies, and any direct interaction with a political campaign, from working on it to donating to running for office itself. Informal participation, meanwhile, includes volunteerism, social group activity, protests, and other activities well separated from the 'official' workings of political systems. These divisions have much basis within the specific body of this literature,

but few studies directly test these concepts and whether they align in actual fact the way theory suggests they do. There is an opportunity within this uncertainty for additional research.

The divide between formal and informal political engagement is especially important in the discussion of Millennial voters. A prevailing theory about youth engagement in politics is that modern youth have eschewed formal political behaviors *in favor* of these alternatives.

4.2 Roots of Youth Political Behavior

There is no clear understanding of who or what most strongly influences to youth political behavior. Instead, the literature examines a number of different potential influential factors individually. From a logistical standpoint, young people often change residences more often than do older citizens, limiting their interaction with local issues and hurting their opportunities to develop political habits (Strama 1998). Voting is largely habitual, and those habits are harder to form among youth when they are frequently displaced (Fowler 2006). Additionally, "structural barriers" within the registration and voting apparatus particularly affect young people, such as inconvenient polling places and archaic, paper-based registration processes that are designed with older generations in mind (Strama 1998). These issues compound on each other: "politicians ignore young people because they dont vote, and young people dont vote because politicians ignore

them" (Strama 1998).

A number of other influential factors emerge in the literature about youth political participation. The parents of Millennials have a significant impact on their political development (Serek and Macek 2014). Interaction with parents in early adulthood also seems to inspire political thought and action that goes beyond socialization (Fitzgerald and Curtis 2012). Moreover, if voting literature is to be believed, even simple reminders to vote that draw attention to the election can have the potential to improve voting behavior (Dale and Strauss 2009). Ethnicity also seems to have as much or more of an effect on youth behavior as it does on adult political behavior, with reduced participation generally but strong positive effects when they are directly appealed to by campaigns and representative candidates (McNeal 2001).

4.3 Youth Disengagement

Young people do not hold politics in high regard. They feel "apathetic, uninformed, distrustful, and disempowered" in the world of politics (Snell 2010). These attitudes reflect a fundamental disconnect between our current political systems and the values, ideals, and paradigms of thought that Millennials hold.

Distrust and powerlessness specifically are characteristics of citizens who "actually seem to be more informed and interested in politics" but who "do not think it is possible to rely on others in the political realm" or who "do not believe that

they as an individual can affect change in the broader political system," respectively (Snell 2010). Millennials withdraw from politics, considering the entire enterprise more trouble than any benefit they could gain in it (Lawless and Fox 2014).

There is dispute within the literature about Millennials and formal political behavior. Much of the literature suggests a world in which Millennials are not uninterested or uninvolved in politics, but instead engage with it differently. This literature posits that young people engage in alternative political behaviors–activism and civic activities–that supplant the role of formal political behaviors like voting and running for office (Lawless and Fox 2014). Civic engagement, like "volunteer and service activities geared to helping others and creating a good society," are distinct from political behaviors and activism, such as protests, boycotts, and social media efforts, but both can act as "substitute[s] for voting and other forms of political participation" among young citizens (Wicks et al. 2014, Strama 1998). And, while youth engage in their informal efforts, formalized politics continues without them, often to their detriment (Fisher 2012, Harris, Wyn, and Younes 2010).

However, a body of sociological research suggests that civic participation might have valuable educating and socializing influences which contribute to greater formalized political behavior (Flanagan 2003). This research, born of the developmental literature, presents a narrative where engagement in informal behavior—through social groups and civic activities—helps to slowly build young people

towards formal behavior, with the two working in tandem among engaged individuals, rather than the idea that individuals have a set amount of engagement to spend on either formal or informal behaviors.

This conflict represents and opportunity for additional research to develop study of Millennial behavior and provide support for one side or the other. This thesis will examine data about youth political behavior and provide support for one side of this argument or the other, situating it within the literature of youth participation and political behavior. Additionally, this thesis will test the credibility of the claim that there are theoretical divisions between 'formal' and 'informal' political behaviors.

5 Hypotheses

Based on the sometimes divisive but substantial body of theory in the literature, a few core expectations, mostly intuitive in their own right, appear and will drive investigation in this study.

Hypothesis 1a *Voting behavior among Millennials will have a negative relationship with instances of 'alternative' political behavior. Alternative behaviors will reduce the likelihood of voting.*

Based on the theory, this hypothesis follows the dominant narrative that young people actively substitute the 'alternative' behaviors for formal ones. Importantly, the theory suggests that the relationship is directional: when one increases, it should crowd out the other, reducing it. Alternatively, the competing

sociological literature suggests that the two contribute to one another, inspiring an alternative hypothesis:

Hypothesis 1b *Voting behavior among Millennials will be positively related to all or at least most other political behaviors. Individuals who are more involved and active share their attention rather than selecting on formal or informal behaviors.*

Additionally, in order to test the validity of the conceptual divide between 'formal' and 'informal' political behaviors, I produce another hypothesis to test:

Hypothesis 2 *When examined, the set of political attitudes will divide into two distinct latent factors, one for formal behaviors and one for informal behaviors.*

This hypothesis is born of the theory's prevailing division in types of political behavior. The division is commonly accepted, but few works attempt to fully justify how and why the distinction between them is as described, beyond a logical thought exercise. Ideally, the data analysis will support the body of the theory and produce a model with two reasonably distinct factors which the set of variables neatly divide into.

6 Methods

Any model testing the theory of formal versus informal political engagement among youth requires a focus on the target demographic, a slew of variables for behavior, as many attitudes as possible to supplement the behavioral data, and a statistical process that can assign directional correlations between formal and

informal behaviors. To this end, I selected a dataset of Millennials which focused on behavior, had a good mix of theoretically 'formal' and 'informal' behaviors, and I applied a statistical method which would hopefully examine the direction and intensity of their relationship.

6.1 Data Selection

To properly test whether alternative political behaviors seem to be substituting for formalized ones among Millennials required a dataset with a few key components. It needed to suitably measure a wide range of political behaviors, at least a few of them formal and several informal. It also needed to survey my specific age group of interest. Fortunately, the Youth and Participatory Politics 2012 poll suited my needs. Conducted under the supervision of researchers Cathy Cohen (University of Chicago) and Joseph Kahne (University of California, Riverside), YPP surveyed individuals belonging to the correct age range and, importantly, asked a wide swath of behavioral questions, including both formal and informal political behaviors. The data was provided to me upon request via their website.[1]

The survey was conducted via computer in the early months of 2011. Laptops were provided for respondents who did not have access to a suitable computer themselves. Respondents were all aged between 15 and 25, putting them in the younger side of the Millennial generation, but still within the bound of my in-

[1] Cohen and Kahne 2012, https://ypp.dmlcentral.net/projects/youth-participatory-politics-survey-project

terest. The final count of respondents was 2,920 for the first wave of data, which has been made publicly available upon request. Two more waves were conducted in 2013 and 2015, but their data has yet to be released. The survey oversampled minority groups to establish a solid demographic baseline. In the case of the underage respondents, detailed consent forms and parent permission were applied in order to avoid any mishandling of humans subjects. While not perfect, the survey provided the right data to approach this topic and test my hypotheses.

The primary drawbacks of the survey for this study do not fundamentally compromise the data, but should not go unmentioned. First of all, the survey was designed in such a way that the questions which involved an answer scale did not include a middle, neutral option. This forces respondents to pick a side even if they do not feel strongly about their answer. While most of the variables significant to the study are simple 0-1 dummy variables, the few that are scaled, including the version of my dependent variable for the youngest respondents, suffer from this potentially confounding weakness. Secondly, the group of respondents, while all within the Millennial population, represent the younger side of the total population, those aged 15-25 in 2011, and thus prevents generalization to the generally accepted definition of Millennial Generation within this study, those who would at the time be aged 15-30. Finally, the data is drawn from the 2010 election, a midterm election, which are already characterized by poor voter turnout among younger voters, and which are known to show other distinctions from Presidential elections. This issue does not prevent the data from

being descriptively useful, but should be understood to reduce generalizability to Presidential election years.

6.2 Concepts & Variables

This dataset is useful for the core concepts of this research because it has a large amount of political behaviors. A combined descriptive table of all model variables is available in Appendix A-1.

6.2.1 Dependent Variables: Voting Behavior

The dependent variable is split in half based on the age of respondents. Respondents old enough to have voted in the 2010 election were asked to report whether or not they voted. If a respondent was too young, they were asked to rate on a scale of 1-4 how likely they are to vote often once they are able to. These two variables act as the core dependent variables of formal political participation around which I construct my models.

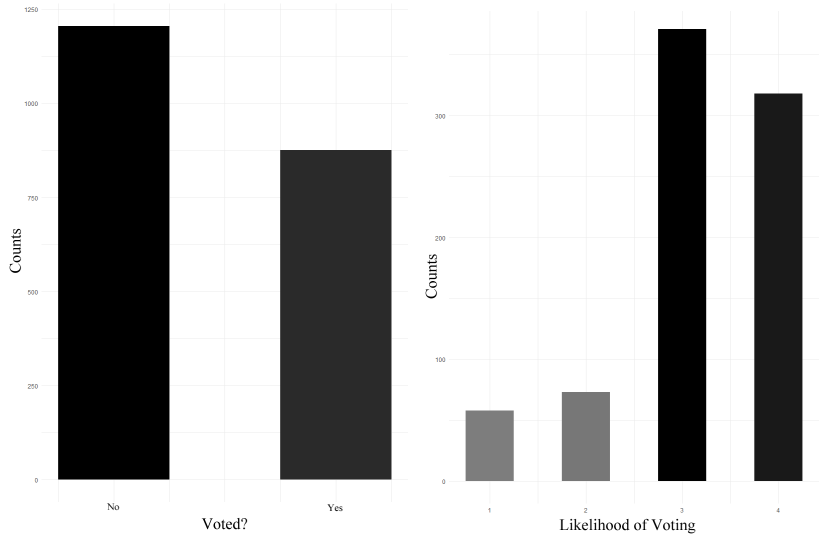


Figure 1: Millennial Voting, 2010 Election & Chance of Voting Once 18 Years Old

Displayed are two barplots representing counts of responses to the two dependent variables, voting in 2010 and likelihood of voting once coming of age. N = 2,081 & 820, respectively.

Table 1: Dependent Variables

	N	Mean	SD	Min	Max	Skew	Kurtosis	SE
2010 Vote	2081	0.42	0.49	0	1	0.32	-1.9	0.01
Vote When 18	820	3.16	0.86	1	4	-0.98	0.49	0.03

The difference between the purported likelihood to vote and actual voting behavior is worthy of note here. A possible explanation is a 'social desirability bias' in voting, where respondents, no matter their age, are more likely to claim they are going to vote out of a perception of civic responsibility than to actually vote (Holbrook and Krosnick 2010, Karp and Brockington 2005). Yet another explanation could be that, as 2010 was a midterm election, historically associated with lower youth turnout, that the younger respondents are prepared to vote in

a Presidential election, but older respondents were not especially motivated to vote in the 2010 midterm specifically (CIRCLE 2015). Additionally, the disparity could be due to simple optimism on the part of younger people who have not yet encountered the actual physical hurdles associated with voting, which are by no means insignificant (Strama 1998). This uncertainty, as well as the distance between purported voting behavior and actual voting behavior, should temper expectations of this variable.

6.2.2 Independent Variables: Alternative Political Behaviors

The theoretically important 'alternative' informal political behaviors and the core independent variables of this study are represented by the following behaviors–signing paper petitions, signing web petitions, political discussion on social media, participation in a boycott, participation in a protest, participation in a specifically political online group, and participation in any 'other' kind of political event–that is an event where people express their political views. Examples of such an 'other' political event given within the questionnaire included "concert" and "poetry slam" (Cohen and Kahne 2012). Respondents were asked to answer all of these questions based on their behavior in the past 12 months, during the 2010 election cycle's climax.

6.2.3 Additional Independent Variables: Political Attitudes

I also included three attitudinal variables–perceived political self-competence[2], interest in politics[3], and political optimism[4]. These variables are unique in that they are measured via a 1-4 scale and are not a direct account of behavior. Instead, they test several theoretically important conceptual attitudes. Each of these is coded so that higher values equate to higher levels of competence, interest, and optimism, respectively.

6.2.4 Model Testing Variables: Other Formal Political Behaviors

A number of different variables act as additional stand-ins for formal political behavior according to the theory–attending political rallies, working on political campaigns, and wearing political buttons or posting political signs. Respondents were asked to report their participation in these events within the past 12 months at time of asking. These concepts are mostly included in the model to add validity to the measure and attempt to distinguish a difference in effect between 'formal' and 'informal' behaviors. It is unreasonable to expect these behaviors to occur too frequently among Millennials, but their relationship to voting behavior should provide diagnostic power to the model.

[2]Measured via agreement/disagreement to the statement "I consider myself well qualified to participate in politics," coded as normal.
[3]Measured via their stated frequency of face-to-face poltiical discussion.
[4]Measured via agreement/disagreement to the statement "Public officials dont care very much about what people like me think," coding reversed.

6.2.5 Controls

Finally, I added a set of control variables–gender, ethnicity (broken down into White, Black, and Hispanic), respondent perception of parental political involvement, education, and income.

6.3 Model Selection & Methods

Because of the nature of the dependent variables, I selected logistic regression, or logit, as the primary statistical method to examine the relationship between formal and 'alternative' political behavior. For the first dependent variable, the binary 0-1 voting behavior measurement, basic logit was ideal. I estimated the model and produced a dot-whisker plot of log-likelihoods for each variable, divided into categories for ease of reading. Following this, I simulated predicted probabilities for the 'alternative' behaviors 10,000 times and graphed them to improve comprehension of results.

For the second, ordinal dependent variable, I applied ordinal logistic regression, which applies a different mechanism in order to predict behavior for multilevel ordinal variables. I produced another dot-whisker plot for the results of this model.

Based on the structure of the dependent variables, I estimate logit and ordinal logit of the respective dependent variables against the arrays of behaviors,

attitudes, and controls previously outlined. From these models, I extract logged odds of voting outcomes and the effects each other attitude's presence has on those odds. To ease readability, I organized the results into dot-whisker plots showing the coefficients and standard errors for each concept, divided into conceptual categories.

Finally, as an additional diagnostic to examine the concepts of 'formal' and 'informal' political behavior, as they appear in the literature, I needed a method that could take variables within data and arrange them along latent factors, enabling them to be examined as belonging more or less to some grouped concepts. To test the idea that there is a stark distinction between formal and informal political behaviors, I selected confirmatory factor analysis for its ability to recognize distinct loadings on multiple different latent factors within groups of concepts. Factor analysis permits the arrangement of a collection of variables along latent factors which stand in for deeper concepts the variables share among one another. I tested for eigenvalues and, in line with the model's specifications and with theory, performed the analysis.

7 Model 1A: Logit Model

The results for the first of two logit models are shown below. For this, the standard logit model, there is both a dot-whisker plot and a predicted probability graphic for the primary independent variables of interest. This model tested the

various concepts against actual self-reported voting behavior among the respondents who were old enough to vote in the 2010 election.

7.1 Logit Model

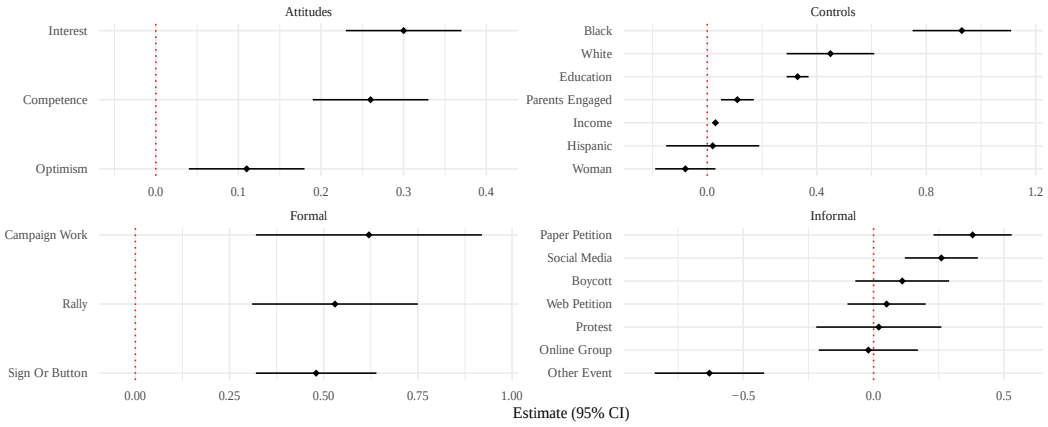


Figure 2: Logged Odds of Voting in the 2010 Election

(N = 2,081, AIC = 2152, BIC 2268.2, Log-likelihood -1055.1) This graphic displays the results of a logistic regression model predicting voting behavior among respondents aged 18-25 at the time of the 2010 election. The 'whiskers' represent confidence intervals at the 95% margin. A dotted vertical line marks zero, or the point at which the concept has no impact on voting probability. The variables are divided based on their theoretical groupings. The intercept has been omitted to improve readability, but a version with it is available in Appendix B, as is a table showing model coefficients, standard errors, and other fit statistics.

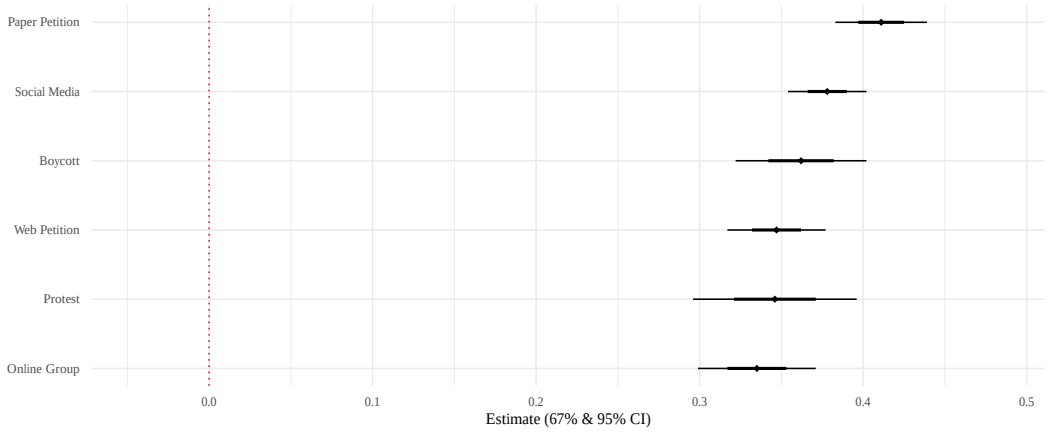


Figure 3: Predicted Effects of 'Alternative' Behaviors

Pictured above are 10,000 times simulated predicted probabilities for the five major 'alternative' political behaviors. Each point is the predicted effect on the likelihood of voting of the various behaviors. The whiskers are the confidence intervals at the 95% and 66% mark. 'Other event' participation is excluded here due to the vagueness of its question wording and dubious conceptual meaning.

7.2 Discussion

Among the informal political behaviors, paper petition signing and social media discussion of politics both significantly, positively increased the likelihood of voting. Meanwhile, participating in boycotts, protests, and signing web-based petitions were all positively likely, but not enough that they escaped the bounds of uncertainty. Meanwhile, 'other' political event participation had the greatest magnitude of all, and was the only statistically significant negative result, it's presence drastically reducing the likelihood of voting. These results were unex-

pected based on the assumptions set by theory, to say the least. Among the core concepts of interest, only 'other' event participation behaved as anticipated by theory, and the vague, open nature of its question wording makes interpretation challenging. Meanwhile, active political discussion on social media and signing physical petitions both increased the likelihood of voting, despite supposedly being factors which should crowd voting behavior out.

The additional formal behaviors I included were all significant and, largely, had greater magnitudes of log-likelihood than did the informal behaviors, though their error terms were larger due to fewer respondents engaging in them.

Likewise, each of the attitudinal variables was positive and significant, with the measure of political optimism being noticeably less likely to increase voting than interest or competence. Nevertheless, all the positive attitudes had a positive impact on voting, as expected.

Among the control variables, far and away the most actuating (and, indeed, the single most impactful concept in the model) factor for young voters aged 18-25 in the 2010 election was whether or not they were African-American. This is doubtless a strong residual 'Obama effect,' as both young and African-American voters were core demographics Barack Obama's campaign was able to draw into the electorate and motivate to turn out and vote. Being white is also positively and significantly probable with voting behavior, likely due to various socioeconomic factors well-trod by previous work on voter turnout. Additionally, as

demonstrated within the literature, education and income are both significant and positively related to voting, with education in particular greatly increasing the likelihood of voting. Meanwhile, gender and Hispanic ethnicity both were insignificant, with gender being narrowly insignificantly negatively related to voting. Both of these are likely artifacts of the sample or simply do not have a large impact on voting among this age group. More than half of respondents were women, so the issue with significance is not due to a lack of respondents.

Ultimately, these results constitute a cautious support for the less expected Hypothesis 1B, challenging the predominant body of the literature, and at minimum fail to reject the null hypothesis for Hypothesis 1A, as only a single, potentially invalid measure of informal political engagement behaved as 1A predicted and reduced the chances of voting.

8 Model 2: Ordinal Logit Model

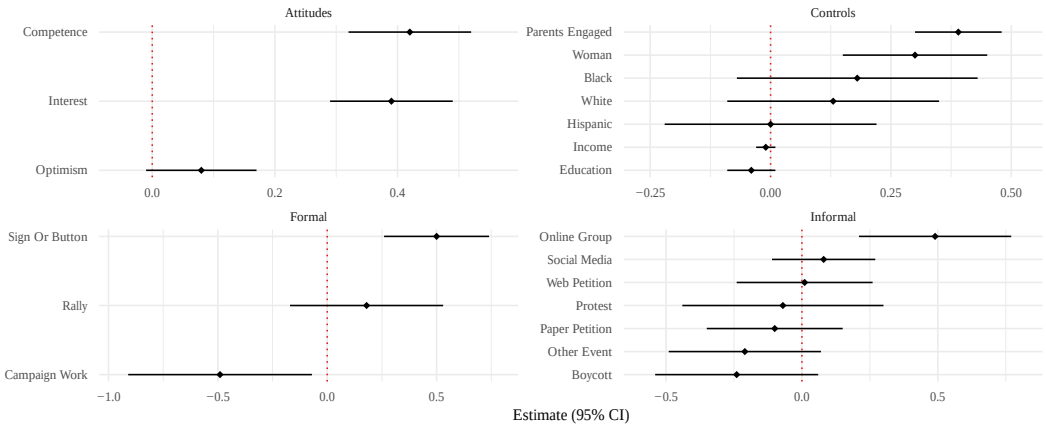


Figure 4: Ordinal Logged Odds of Self-Assessed Likelihood of Voting Once 18

N = 704, AIC = 1521.4, BIC 1626.2, Log-likelihood -737.7.

This graph displays the results of an ordinal logistic regression model predicting underage respondents' self-assessed likelihood to vote in the future. A table showing model coefficients and standard errors, as well as the intercept values, is available in Appendix B. Additionally, a relative risk ratio table of this model is also available in Appendix B.

8.1 Discussion

Among the core independent variables, this model had only one that was positively significant, and it was participation in online political groups. Meanwhile, social media and signing web petitions were both positive but insignificant, and protest attendance, paper petitions, boycott participation, and 'other' event participation were all negatively related to voting likelihood, but failed to meet the standards of significance.

The results for the supplemental formal political behaviors are interesting in the case of Model 2. While political merchandise-signs and buttons-increased chances of reporting likelihood to vote, just as before in Model 1, the other two concepts did not align so neatly with expectations. Rally attendance had an insignificant positive effect on likelihood and, more interestingly, working on political campaigns significantly reduced the chances of young Americans' voting. The possibility that working on political campaigns at a non-voting age could potentially suppress later voting behavior is a fascinating concept that additional research should make an effort to explore.

Finally, among the attitudinal variables, all three were positive, with optimism just missing the margin for significance while competence and interest both met it convincingly. These results most strongly mirror the findings of Model 1, and likewise align with expectations.

Among the controls, parental engagement had the greatest likelihood and significance, followed by gender, which was not significant at all in Model 1. The remaining controls, including the theoretically massive income and education, had an insignificant effect on the younger respondents' likelihood of voting. Less fully through their academic lives and less financially independent, these differences make sense among the underage respondents.

Interestingly, among both older and younger respondents, though to a greater extent among the younger respondents, the perception of their parents as polit-

ically engaged had a significant, positive effect on the chances of voting and expressing a likelihood of voting. The literature rarely focuses on the relationships between Millennials and their parents, but these results suggest that parental involvement might represent a potential inroad to improving Millennial voting behavior. There are also potentially powerful demographic conditions, such as socioeconomic status, that could have strong effects on the relationship between children and their parents, and potentially influence the effectiveness of this concept, for better or worse. Future study could investigate this result with a more intricate survey process focused on both respondents' and their parents' political attitudes, perceptions, and behaviors, and how the two might interact.

As before with the older respondents, the null hypothesis for Hypothesis 1A cannot be rejected, and what significant evidence there is provides support for Hypothesis 1B, though to a lesser extent in this case compared to the Model 1. This again runs against the body of theory suggesting young people pursue alternative behaviors in place of voting behavior, albeit with the caveat that many of the concepts in this model were negatively related to voting, but lacked the necessary significance.

9 Model 3: Confirmatory Factor Analysis

I ran a 1000 times simulation of eigenvalues on a model composed of the theoretically formal and informal political behaviors from the Youth and Participatory

Politics dataset, the same as used in the logit models but with the behavioral and control variables excluded. The results suggested that the ideal configuration for the factor analysis would be to use two factors, in line with expectations. A scree plot of the eigenvalues is available in Appendix B. From there, I conducted a confirmatory factor analysis on the concepts along two factors, and produced a table of the loadings.

9.1 Results

Table 2: Factor Loadings of Formal and Informal Behaviors

	Factor 1	Factor 2
2010 Vote	0.29	
Campaign Work	0.49	-0.36
Rally	0.58	0.26
Sign or Button	0.58	-0.19
Paper Petition	0.53	0.27
Web Petition	0.54	0.40
Social Media	0.56	
Online Group	0.55	
Boycott	0.39	0.16
Protest	0.44	
Other Event	0.49	
SS Loadings	2.78	0.50
Proportional Variance	0.25	0.05
Cumulative Variance	0.25	0.30

Table 2 shows the factor loadings of the formal and informal behaviors in the model. No values are excluded due to loading size in part to more clearly examine which direction everything loads regardless of magnitude. Model stats are as

follows: (BIC = 267.2, Tucker-Lewiss Index = 0.855, Adjusted R-Squared = 0.06)

9.2 Discussion

The results of the factor model were, as with the previous model, not what I anticipated. Based on the literature, the variables should have divided if not into 'formal' and 'informal,' at least into two exclusive mutual alternatives. Instead, the results demonstrate a substantive lack of substance, failing entirely to support the relationship that holds so much weight in the literature.

I refrained from labeling the factors in the table as 'Formal Behavior' and 'Informal Behavior' in no small part because voting in the 2010 election rated no higher than 0.29, and every single other concept in the model had a higher loading than voting on Factor 1. Likely, Factor 1 does represent some sort of political participation, but the specifics are difficult to discern based on the uniformly high loadings from all concepts and it is almost certainly not a pure 'formal voting' factor based on the lower loading of voting behavior. Factor 2 is equally difficult to analyze, as it loads negatively on two of the 'formal' behaviors–campaign work and campaign merchandise–and positively on one more of them–rally attendance–alongside boycotts and the two petition varieties. Ideas similar to the theory are present, but they are not quite clearly defined enough with these measures and this model to confidently report a conclusion.

Examining the model statistics helps to explain the problems within the factor

model–Factor 1 explains 25% of the variance, but Factor 2 only adds another 5%. Additionally, the Tucker-Lewiss Index score falls markedly short of the ideal 0.95 value for good model fit, at 0.86. Finally, the R-squared value of 0.06 suggests that only 6% of the behavior of these variables is captured by the factor model, severely limiting its descriptive power within the larger context of these concepts.

This model, rife with issues and difficult to properly interpret, resoundingly fails to reject the null hypothesis of Hypothesis 5. No clear division between formal and informal emerges, and what loadings do appear are sometimes counter-intuitive, especially in the case of voting behavior. This does not mean it supports the opposite idea–that there is no division between formal and informal–but instead that the model, as it stands, cannot adequately prove any conclusive descriptive hypothesis about the case, and if anything suggests that there is not a divide. Serious additional effort needs to be conducted to try and confirm whether or not there is any true validity to this construction, among young people or otherwise.

10 Conclusion

The results of this study are equal parts surprising and somewhat inconclusive, leading to as many questions as answers. Ultimately, these findings do not support the theoretical idea that Millennials engage in alternative political behaviors in lieu of voting, but instead that, if anything, most political behaviors occur

alongside one another. Moreover, it remains unclear whether the theoretically based division between formal and informal behaviors is as clear and simple as the literature would suggest. Additional study is vital to expand understanding of this phenomenon and clarify the mechanisms and specifics of what informal behaviors substitute or coexist with certain formal behaviors, and how formal and informal behaviors are defined and measured.

10.1 Impact on the Theory

The political behavior of the Millennial generation has a great deal of room left for study, and the results of this exercise, while small, serve to demonstrate as much. The topic is complex and will require a great deal more study to fully grasp. Ultimately, while the prevailing body of current theory suggests that Millennials substitute alternative behaviors such as those tested here, the results this study seem to call that idea into question. Additional tests and more data will be necessary to truly make a strong case against the theory, however.

The narrative which emerges based on these findings, while somewhat muddy, appears to be that, at least with some of these behaviors and among some Millennials, greater political engagement is not selectively applied but instead distributed broadly, where signing petitions and engaging on social media coexist with voting behavior, campaigning, and other political activities. Meanwhile, among other alternatives, the results suggest that there is little strong relation-

ship between voting behavior and these so-called 'alternatives,' and where relationships do appear, they often seem more likely to be positive than negative. Within this narrative, the Millennials who are politically distant and disengaged are just that, while others engage seemingly with everything at once.

These results are noteworthy for what they suggest, but this study is hardly a final judgment on the ideas I have attempted to broach, and the limitations of this study should encourage careful, methodical research in the future to attempt to clarify these theoretical relationships and truly root out how formal and informal behaviors interact. For my part, I will list this study's methodological limitations and weaknesses.

10.2 Limitations and Threats to Validity

This study suggests interesting findings, but it does so from a position which necessitates those findings be considered cautiously. A number of weaknesses, from the available data to the methods applied, are considered here.

Firstly, there are the limitations of the data I have used for this study. Important theoretical concepts are absent from this dataset, making it fall somewhat short of the ideal for this study, as is the tendency of secondary data analyses. Notably, this dataset lacked a variable representing volunteer work, an important part of the literature on 'alternative' behaviors that replace formal ones. The inclusion of a measure of volunteer efforts alongside these measures would ex-

pand understanding of the substitution narrative, and offer a broader, more valid perspective on Millennial political participation. Additionally, while the dataset measured a wealth of behaviors, it was light on attitudes, leaving an incomplete picture of the political feelings of the respondents, a valuable component of the theory on *why* young people disengage from politics.

Just as important as what was asked is who was asked, and while the dataset was a treasure trove of Millennial-aged respondents, it did not survey anyone outside the Millennial generation, and no comparable study exists to try and examine the results in direct contrast to other generations or even the broader United States. For examining youth behavior directly, the data is great. However, having subjects from outside the target demographic could provide valuable perspective on how and where Millennials differ as well as where they are similar to older citizens.

An ideal dataset for this study would doubtless be daunting to gather. It would need to strongly oversample Millennials, but still have a decent sample of non-Millennials for comparison. It would need to gather an in-depth slew of information about political behavior, preferably over several election cycles, as well as political attitudes. Additionally, it would benefit from an added qualitative component, either in the pilot stage or after surveying, to attempt to clarify the sorts of behaviors which fall under the 'other' category, and which ones might be the most significant in affecting voting behavior.

10.3 Future Research

Future study of this topic should take a few lessons from the shortcomings of this study. First and foremost, a dataset specifically collected to test this body of theory and to examine the real nature of the formal-informal conceptualization is sorely needed. Efforts to collect that would greatly advance understanding of Millennial political behaviors and enhance the validity of the current theoretical landscape. Particularly worthwhile would be to break down that 'other event' participation concept, and determine what elements of that question produced a result so well-aligned with the theory. Unpacking the behaviors caught up in that question could open new doors for study of what behaviors young people consider to be 'political' at all, and greatly advance the theory.

Political participation is more than just the momentary acts of voting, protesting, or signing a petition, however. Among the most meaningful ways to engage with politics is to enter into it as a politician, and to this end Millennials and other youth are sorely lacking. An ideal path for study to advance, for me, would be into a deep consideration of candidate emergence among Millennials. Recent studies show that many of the same attitudes and much of the same aversion to politics are magnified when it comes to candidate emergence (Lawless and Fox 2014). Substantial differences in recruitment of younger candidates only serves to exacerbate the problem (Kanthak and Woon 2015). and there is a profound danger in a young generation that does not enter politics and is left behind.

Millennials are not incurably indisposed to politics, they just have not been drawn into it in with the same old strategies that worked on previous generations. Their experiences with politics are fundamentally different, shaping how they connect with politics. Moreover, Millennials acquire information with different methods and at much greater speeds than previous generations and process the information they get differently (Kahne and Middaugh 2012). Understanding how and for what reasons Millennials engage with politics is and should remain a priority of social scientists.

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Appendix A Variables

A.1 Descriptive Statistics

Table 3: Model Variable Descriptive Statistics

	N	Mean	SD	Min	Max	Skew	Kurtosis	SE
Dependent Variables								
2010 Vote	2081	0.42	0.49	0	1	0.32	-1.9	0.01
Voting Likelihood	820	3.16	0.86	1	4	-0.98	0.49	0.03
Formal Behaviors								
Rally Attendence	2901	0.1	0.3	0	1	2.69	5.25	0.01
Campaign Work	2881	0.05	0.23	0	1	3.95	13.63	0.00
Sign Or Button	2898	0.19	0.39	0	1	1.56	0.45	0.01
Informal Behaviors								
Paper Petition	2888	0.19	0.39	0	1	1.59	0.54	0.01
Web Petition	2891	0.18	0.39	0	1	1.64	0.69	0.01
Social Media	2899	0.32	0.47	0	1	0.75	-1.43	0.01
Boycott	2886	0.11	0.31	0	1	2.56	4.54	0.01
Protest	2888	0.06	0.24	0	1	3.58	10.84	0.01
Online Group	2897	0.13	0.34	0	1	2.20	2.83	0.01
Other Event	2895	0.11	0.31	0	1	2.57	4.60	0.01
Attitudes								
Competence	2890	2.23	0.85	1	4	0.18	-0.66	0.02
Political Interest	2912	2.29	0.85	1	4	0.19	-0.59	0.02
Optimism	2872	2.34	0.81	1	4	0.03	-0.57	0.02
Controls								
Woman	2911	0.56	0.50	0	1	-0.24	-1.94	0.01
White	2920	0.30	0.46	0	1	0.87	-1.25	0.01
Black	2920	0.23	0.42	0	1	1.28	-0.37	0.01
Hispanic	2920	0.27	0.44	0	1	1.03	-0.94	0.01
Political Parents	2886	2.25	0.99	1	4	0.18	-1.08	0.02
Education	2906	5.68	2.30	1	11	-0.31	-0.66	0.04
Income	2737	10.07	4.91	1	19	-0.22	-0.89	0.09

Appendix B Additional Graphics and Tables

B.1 Additional Model Details

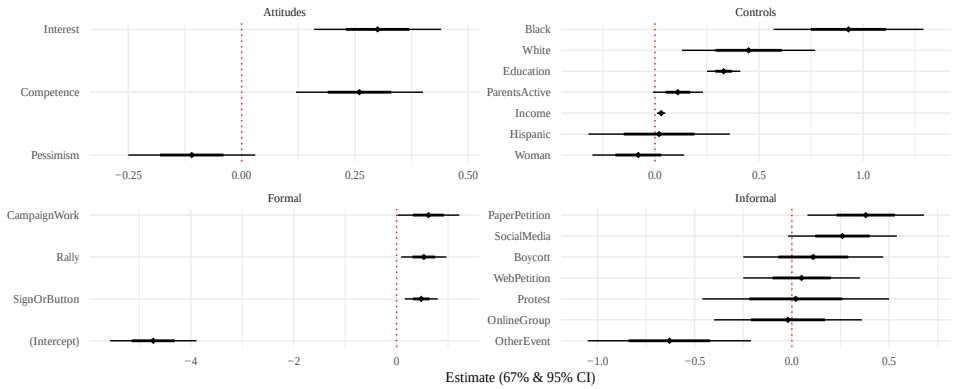


Figure 5: Logged Odds of Model Variables and Voting in the 2010 Election, With Intercept

N = 2,081. The Logged odds ratios of each variable compared to 2010 voting behavior are represented, with tails showing their confidence intervals at the 95% and 65% margin. A vertical line demarcates zero. The variables are divided based on their theoretical groupings.

Table 4: Logit of Voting in 2010

	Coefficient	SE
(Intercept)	-4.73*	0.42
CampaignWork	0.62*	0.30
SignOrButton	0.48*	0.16
Rally	0.53*	0.22
PaperPetition	0.38*	0.15
WebPetition	0.05	0.15
SocialMedia	0.26	0.14
OnlineGroup	-0.02	0.19
Protest	0.02	0.24
Boycott	0.11	0.18
OtherEvent	-0.63*	0.21
Optimism	0.11	0.07
Competence	0.26*	0.07
Interest	0.30*	0.07
Woman	-0.08	0.11
White	0.45*	0.16
Black	0.93*	0.18
Hispanic	0.02	0.17
Education	0.33*	0.04
Income	0.03*	0.01
ParentsActive	0.11	0.06
N		1851
AIC		2152.16
BIC		2616.14
$\log L$		-992.08

Standard errors in parentheses

* indicates significance at $p < 0.05$

Table 5: Ordered Logit of Likely Voting

	Coefficient	SE
(Intercept 1)	-0.23	0.49
(Intercept 2)	0.66	0.48
(Intercept 3)	3.10*	0.50
CampaignWork	-0.50	0.42
SignOrButton	0.50*	0.24
Rally	0.18	0.35
PaperPetition	-0.11	0.25
WebPetition	0.01	0.25
SocialMedia	0.08	0.19
OnlineGroup	0.49	0.28
Protest	-0.07	0.37
Boycott	-0.24	0.30
OtherEvent	-0.21	0.28
Optimism	0.08	0.09
Competence	0.42*	0.10
Interest	0.39*	0.10
Woman	0.30*	0.15
White	0.45	0.16
Black	0.18	0.25
Hispanic	0.01	0.22
Education	-0.04	0.05
Income	-0.01	0.02
ParentsActive	0.39*	0.09
N		704
AIC		1521.4
BIC		1626.2
$\log L$		-737.7

Standard errors in parentheses

* indicates significance at $p < 0.05$

Table 6: Relative Risk Ratios of Ordered Logit Model

	Dependent Variable:
	PlanToVote
CampaignWork	0.614(0.417)
SignOrButton	1.648*(0.244)
Rally	1.193(0.347)
PaperPetition	0.900(0.253)
WebPetition	1.010(0.252)
SocialMedia	1.080(0.188)
OnlineGroup	1.637*(0.284)
Protest	0.937(0.367)
Boycott	0.783(0.303)
OtherEvent	0.808(0.276)
Pessimism	0.925(0.093)
Competence	1.521*(0.104)
Interest	1.479*(0.104)
Woman	1.347*(0.149)
White	1.136(0.221)
Black	1.199(0.247)
Hispanic	1.004(0.224)
Education	0.958(0.048)
Income	0.987(0.017)
ParentsActive	1.471*(0.086)
Observations	704

*p<0.1;

Calculated relative risk ratios of voting and the other variables in the model. A one unit increase in each coefficient is an multiplicative increase in voting behavior relative to the listed coefficient. For example, a score of 2 means the chances of voting would be 2 times more likely under the condition listed.

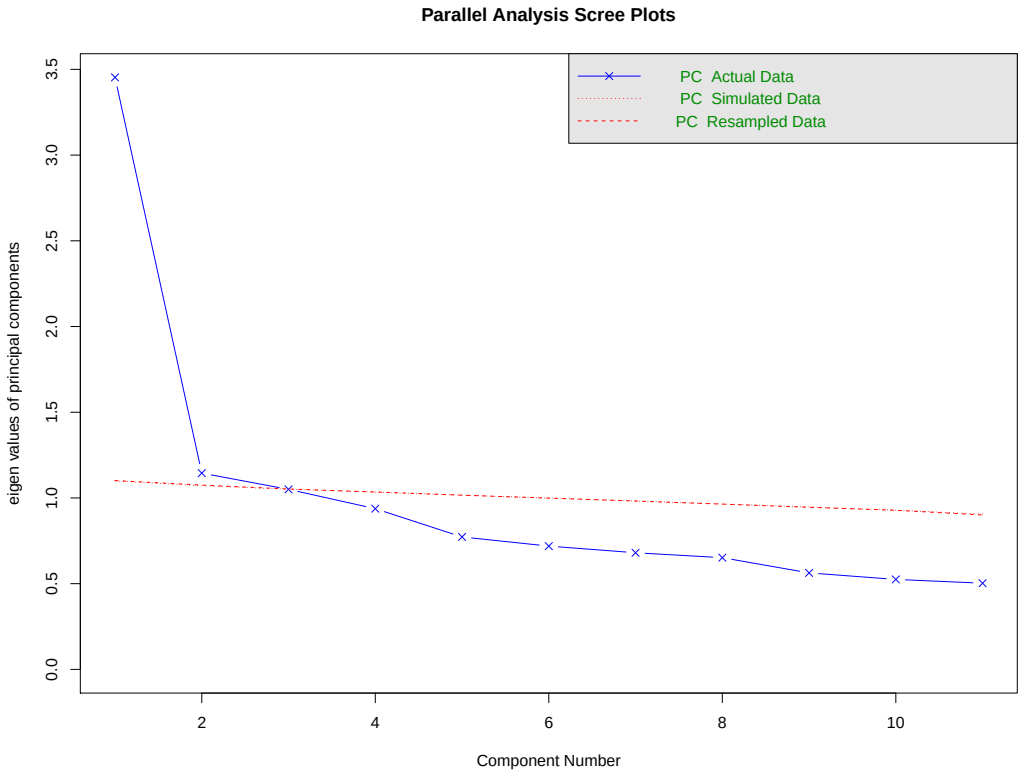


Figure 6: Scree Plot of Formal and Informal Political Behaviors

Scree plot of the factor model. The eigenvalues demonstrate that, as anticipated, a 2-factor model was ideal for the variables selected. As can be seen both here and in the resulting factor model's proportional variance values, however, the eigenvalue takes an absolute nosedive after the 1 factor point, only barely remaining above 1 for the 2 factor margin.