The Young and the Restless: Voter Registration and Youth in the United States

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Introduction.

Much like a corporation ultimately being responsible for meeting the bottom line, a political candidate or office holder is ultimately responsible for gaining public support. Since democracy affords power to those that win popular elections, democratic leaders must be experts in obtaining as many votes as possible. To that end, numerous scholars have conducted studies trying to pinpoint what types of people are more likely to vote than others. Of all the information published in these studies, two pieces are of particular importance to the present discussion: 1) young people are least likely to vote of all citizens, and 2) voter registration laws serve as the biggest obstacle to voter participation in elections. Those two pieces of information when taken together beg the question: Why are some young citizens more likely to register to vote than others?

Voter registration is an integral part of the election process because quite simply, one must be registered in order to vote. Therefore, by definition, 100 percent of the citizens who are not registered to vote are also non-voters. Registration also doubles the effort that one must exert to vote because it requires an individual to give up a block of time for registration thirty days before the election, as well as a block of time for voting on Election Day. Although a voter will experience nominal opportunity costs associated with an added trip to city hall, the real obstacle to registration is not that people cannot afford to do it. The real obstacle appears to be that people cannot remember to do it. Registration laws are problematic because they require a citizen to plan 30 days in advance if they wish to vote. This is particularly important because the information cost 30 days before an election is much higher than it is on the day of an election. That is to say, the media does not give election news nearly as much coverage 30 days before the election as they do during the last few days. Therefore, an average citizen who pays only nominal attention to the media will have a more difficult time remembering to register to vote because registration occurs before the biggest part of the media hype surrounding an election.

Not only do these procedures require a citizen to incur opportunity costs, but they also require her to remember to do both things. Consequently, with the exception of the 1992 election, voter registration and voter turnout has steadily declined since the 1960's (Knack 1995).

The situation became so grave that in 1990, only 35% of eligible voters turned out in Senate elections and only 33% turned out for House elections (Ragsdale and Rusk 1993). In response to an increasingly low voter turnout, and research suggesting that registration laws were the key barrier to voter participation, Congress passed the National Voter Registration Act (NVRA), which is more commonly known as "Motor Voter." This act required all states not

offering election-day registration to give citizens the option of registering to vote as a part of their drivers' license application. Despite this provision, scholars have argued that the public will not see the benefits of the NVRA for several elections to come because drivers' license renewal cycles do not coincide with elections. More importantly, drivers' license renewal is seldom required in less than five-year intervals.

The variation in voter registration data appears to be dichotomous. One is either registered to vote or is not. Additionally, there should be a strong bias towards registration since it requires extremely little maintenance. That is to say registration need not be renewed. In fact, most election commissioners will not throw out a registration unless the individual in question has failed to vote in four to five consecutive elections. Some precincts have no purge policy at all, in which case a person may remain registered for her entire life after having taken just five minutes to fill out a form on her 18th birthday.

The federal government successfully eliminated much of the variation in registration requirements with the motor voter act. This means that all states must offer either election-day registration, or automatic registration with drivers' licenses. Despite this, registration remains problematic for young people because one must re-register every time one moves. This means that even though someone is automatically registered when she receives her drivers' license, that registration becomes invalid when she moves. Since many of the people in the age group of 18 to 30 are enrolled in college or some sort of higher education, the propensity for them to move is slightly higher than that of the rest of the population. This factor will have a tendency to counteract the notion that under normal circumstances, a person's registration will remain valid without maintenance.

Although I have not yet collected evidence to support this assertion, the variation in voter registration seems to fall along the lines of education, income, political partisanship, and efficacy. It makes sense that individuals with higher education are more willing to bear the costs associated with registration and voting. Additionally, those with higher incomes are more able to bear those costs, and those with higher levels of political efficacy feel that bearing those costs is more worthwhile. Therefore, one would expect that generally, citizens who are more able, more willing, and more satisfied with bearing the costs of registration would be more likely to do it in a timely manner.

Another interesting dynamic likely to affect the distribution of voter registration is that all three of the aforementioned variables, income, education, and efficacy are subject to a substantial change during the twelve year window affected by this study. That is to say that an 18-year-old high school graduate has a relatively small amount of education, very little income, and is likely to be rather cynical. On the other hand, that individual might have a law degree, a doctorate or be a medical doctor by the

time he or she turns thirty. That would seem to indicate that more people would likely register to vote towards the latter half of the 12 year window, as it appears to be more and more convenient to do so at that time.

The question of why some young citizens are more likely to register to vote than others is important to actors at almost every level of politics and political science. The answers are relevant for all types of causes, from winning an election to evaluating a system for legitimacy. In particular, the question of factors affecting registration habits of young voters is so important because it has already been established that registration laws are the single-biggest obstacles to voter turnout (Knack 1995).

Information about registration habits of young people will be particularly helpful to candidates and public office holders seeking re-election. This is because the younger portion of the population is a relatively large untapped resource that can easily swing a close election. Bill Clinton demonstrated this in 1992, which was incidentally the only year since 1960 in which voter turnout was not lower than the year before. In 1992, a large portion of Clinton's victory was due to young voter turnout and involvement in his campaign. Therefore, if the goal of a political campaign is to get as many votes as possible, which requires voters, who in turn need to be registered, then finding out ways to help young citizens register to vote is in the best interest of a campaign manager, or an actual candidate.

In a similar fashion to the individual candidates, information about registration habits of young citizens will be useful to political parties as well. Political parties have a tremendous responsibility in helping bridge the gap between the government and the people. They simplify the decision making process and (in theory) are supposed to put issues that are important to the public on the agenda for governments. However, being able to put their issues on the agenda also requires political clout, which in turn requires a large supportive base. In the same fashion as candidates needing to attract votes for themselves, parties need to attract support for themselves in order for their issues to be taken seriously by their own members and by opposing parties. Additionally, information from the results of this study will help parties target their money for the most effective style of campaigning, i.e. if the results show that reasons for non-registration are individual and not systemic, then the parties should spend little money on youth, or visa-versa.

Finally, information on youth registration habits is of use for Political Scientists. When studying elections and public officials, one question that comes to mind is how legitimate their authority is. The way that democracy checks a politician's power is through establishing a mandate and accountability in elections. However, with voter turnout at an all-time low, the legitimacy of election results comes into question. With barely half of the population voting in each election, it is possible for

candidates to win public office with barely a quarter of the vote. From an academician's point of view, that type of democracy is a pathetically weak one, bordering on illegitimacy. Moreover, if entire classes of people are unwilling to assert their rights to vote, the system's legitimacy as far as they are concerned can be drawn into question. Therefore, from an academic perspective, one could find benefit in knowing the reason for these drastically low turnouts.

Literature Review.

The American system of voter registration has gradually evolved into place as the population of cities and towns grew, and the needs of those institutions changed. As it has developed, it initially did not have a measurable effect on the turnout of voters and simply gave city officials a way to ensure that their elections were being run fairly and that individuals were not voting twice. As it grew over the years, it has been used as a political tool to disenfranchise blacks and other minorities with grandfather clauses, literacy tests, and other arbitrary exclusionary mechanisms. Today, despite radical reforms to the process, and despite the elimination of the discriminatory elements of the institution, voter registration remains a significant obstacle to voter participation.

The first registration laws were put into place in the early 1840s during which time the US had very few cities whose populations exceeded 25,000. For that reason, registration laws were only needed in a few places. And in those places, they did not have a measurable impact on voter turnout. However, at this point, they were still not needed by the vast majority of the population. Simply put, in a relatively small town, the election commissioner usually remembered everyone's name, whether or not they were entitled to vote. Over the next 50 years, the number of cities implementing mandatory voter registration rose dramatically. At the beginning of the 1890s, politicians began to manipulate voter turnout for their own personal gain (Phillips and Blackman 1975).

By 1965, Congress was outraged and insisted that it had experienced enough discrimination regarding literacy tests and other procedures designed to eliminate Blacks from the voting pool. After attempting to battle the issue with a series of constitutional amendments, Congress passed the Voting Rights Act of 1965, which officially made registration discrimination illegal. As a result, in some states like Mississippi, Black voter registration increased by about 900%. The act was hailed as a success because it finally allowed minorities equal access to the polls, something extremely important for democracy (Foster 1985).

Despite being hailed as a success by politicians, the 1965 Voting Rights Act did not cause a significant nationally documented increase in voter participation. In fact, with the exception of the 1992 elections, voter participation has gone down every single year since 1960. Although there is a separate discussion underway to explain the 1992 anomaly, the fact is that changes in the way

people live or react to politics has caused them to change the way they think about voting (Weisberg 1995).

This gradual decline since 1960 has been the focus of the remainder of the research on voter participation. In fact, Crotty 1977 argued that Blacks were less likely to participate than Whites, less educated individuals were more likely to participate than more educated, and unemployed workers were less likely to participate than those with steady jobs. He also argued that age also has very much to do with whether or not someone actually registers and votes. He found that 41.9% of those 18-20 years old were not even registered to vote. Neither was 40.5% of the population aged 21-24 and lastly neither was 33.9% of the population aged 25-29. Finally he noted that 42% of the non-voters that he surveyed indicated that they were not even registered.

Although Crotty 1977 had reported that Blacks were more likely to be unregistered than Whites, this conclusion comes into question once socioeconomics are controlled. In fact, a later study by Foster 1985 found that the relationship between race and non-registration was completely spurious. After he found a perceived relationship between race and registration, Foster then controlled for socioeconomic status in a cross-tabulation analysis. He found that within each individual socioeconomic class, the electoral participation of blacks was equal to or in some cases greater than the amount of participation by whites. These results indicate either a validity concern with the Crotty 1977 conclusions, or more simply that at the time of studies, lower income brackets were disproportionately filled with minorities. At this point, the consensus is to look to income, employment status, and age to determine who will register to vote and who will actually vote.

Niemi and Weisberg 1993 take the issue one step beyond simple demographics. They argue that according to the rational actor model, voting is no different than any other choice that a human being must make. Therefore, voters under the assumption that they act rationally to pursue their interest would make the choice about whether or not to vote (and also to register) based on whether or not they see an intrinsic benefit to doing so. Many voters have the attitude that their vote doesn't count, that the politicians will not listen to them, or some other cynical attitude which perceptually renders voting as a lost cause. When they couple that fatalist notion of a worthless ballot with the fact that it takes time and resources to travel to the polls, that doing so incurs an opportunity cost, and that making a good decision incurs an information cost, they calculate that they should not vote. This type of rational self-interested calculus guts out all of the potential voters and leaves only those who either feel that their vote is important or those who have a vested interest in a particular outcome of the election. In other words, since there are opportunity costs to voting, those who actually participate will either 1) think that the vote is important enough to encourage them to bear

those costs or 2) have a stake in the outcome of the election that is so high it trumps the opportunity costs of voting (Niemi and Weisberg 1993).

One particular trait that has successfully encouraged voters to show up is some sort of anger at the government, a political party, an individual, or the system. This means that the more an individual leans towards one party or another, the more likely they will vote. It also means that in election years when lots of hot-button issues are on the table, the public is going to get a lot more interested in politics than they would otherwise be. When voters are angry, they are more willing to bear the costs of voting and will do so in an attempt to calm their anger and attempt to solve a problem. Ironically, it appears that a sense of anger at the status quo, and vicariously the government responsible for it, leads voters to believe that their votes will count for something (Tolchin 1996).

The two aforementioned theories on what drives people to vote are surprisingly reconcilable. People of lower socioeconomic status are less able to bear the opportunity costs of voting. Moreover, they are likely to be less educated and less inclined to think that their vote would make a difference. Finally, they are less likely to be able to make a rational choice and target their 'anger' for their current position at a particular official and vote against them. While socioeconomics are certainly a measurable factor of whether or not someone will vote, they are but one aspect of the cost-benefit analysis that each citizen conducts.

The above discussion provides a clear description of who is likely to vote and who is not, provided that conditions remain relatively constant in the lives of voters. Conditions, unfortunately, do not remain the same especially when dealing with a population of young Americans, as this study does. The vast majority of the members of that age group are moving from place to place either to attend educational institutions, or to get jobs. The problem comes when these people have to re-register in their new location, even if it is just down the street. With these limitations in mind, it is not surprising that Doppelt and Shearer 1996 found that of the non-registered voters that they surveyed, 14% attributed it to a recent move. This changes the perspective a little bit on what the concept of voter registration means. In its most simple form, it means filling out a piece of paper and submitting it at the local courthouse. However, in its more complicated form, and especially for young people, it means constantly keeping up with one's registration, despite a pre-disposition to moving frequently. Therefore, while some people might be more likely to vote than others, the question of whether they will register is also partially dependent on how often they move (Doppelt and Shearer 1996).

Squire, Wolfinger, and Class 1987 further examine the implications of young people having to constantly renew their registration every time they move by pointing out that

remembering to register is extremely problematic. First, people moving are faced with all sorts of other responsibilities associated with a change in housing, employment, or education. Additionally, the process of registration is not hyped nearly as much by the media as that of voting. Since in most states a citizen must register at least 30 days prior to the election, they must remember to go to the election commissioner long before the excitement and publicity surrounding election day starts to build (Squire, Wolfinger, and Class 1987).

Though not specific to young voters, there are some signs that can help us determine if someone who has recently moved will likely become a registered voter again. The most obvious question is whether or not they voted in the last election. Although there are costs associated with registration, in this day and age they are dwarfed by the costs of voting. Voting takes longer, often involves waiting in line, and absolutely must be done on Election Day in a given place. For that reason, it only seems logical that people who have demonstrated a pre-disposition to voting would at a minimum be likely to register again. In fact, the data from Campbell, Converse, Miller, and Stokes 1976 indicates that one of the most likely factors determining whether someone will re-register and vote again is whether or not they voted in the last election.

Though it complicates issues, the aforementioned variables of interest calculation, cynicism, and anger are necessary to completely explain some discrepancies in a model based purely on demographics and more specifically, socioeconomics. Avey 1989 argues that the notion that voter turnout is related to socioeconomic status is empirically denied by almost all of the nations of Western Europe. He points out that while the socioeconomic model would call for blue-collar workers to vote the least than in other countries, their turnout rates exceed those of the upper classes. This information re-enforces arguments about attitudes, and causes us to take them seriously in our model, for without an explanation this model faces empirical denial in the face of the European situation.

Finally, despite plenty of theories about what causes people to register to vote, Piven and Cloward 1988 discovered that prudent researchers should take survey data on voting and registration with a grain of salt. They explain that there are normative problems with people honestly answering surveys on who have either not registered or not voted. Because voting is socially expected of us and because there is no penalty for lying on a survey, many non-voters simply lie and say that they did vote in the last election. In fact, Piven and Cloward suspect that the average exaggeration rate is approximately 9%. Unfortunately, this type of validity concern is among the type that Social Science cannot completely eliminate. We can, however, note that there will be a standardized 9% discrepancy between the reported data and the conditions in the real world. Although not completely

accurate, a standardized 9% deduction for the sake of validity seems to be in order. While not directly relevant to building a theory surrounding why youths register to vote, this information is crucial to insure that the data is not corrupted by an over-representation of registered voters.

Despite a long history of studying voter behavior, the literature leaves a few things not addressed. First, although it does establish that younger people are less likely to vote than others, it goes no further. All the data regarding why people register targets the general population who live under a different set of circumstances than the average young person. Young people move around a lot and care about different things than older people. For that reason, it is important to take all the available data, and while controlling for age, find factors that contribute to youth being more likely to register to vote.

Hypothesis.

The question of *Why are some youth more likely to register to vote than others* can be answered with the hypothesis that *Youth who are more partisan, more efficacious, have higher levels of education, and have higher levels of family income are more likely to be registered voters.*

This hypothesis is empirical because it is a positive political science claim -- it does not rely on the validity of any particular ideology or belief. In that sense it is also political -- the question of voter registration is largely a question of political behavior. Data on whether or not an individual is a registered voter, what level of partisanship they will admit to, what level of efficacy they have, what level of education they have, and what level of income they have can be readily obtained from the 1998 National Election Study. The hypothesis is also relatively generalizable because it rests on the more broad notions that those with higher levels of education are more able and more willing to bear the costs of participating in the political process, those with greater levels of partisanship will be more zealous in doing so, those with greater levels of efficacy will be more content in doing so, and those with higher levels of family income will be more able to participate. This hypothesis can meet all three of the criteria for causality. First, all four of the independent variables precede the dependent variable. Respondents make their educational choices throughout their lives, not after they vote. Additionally, registering to vote does not entitle a person to any more or less education. Nor does it make education any easier to obtain. The family income data in the NES comes from 1997, one year before they vote. Finally, their feelings of partisanship and efficacy are related to their political culture, and although they are subject to change, that change usually takes a substantial amount of time.

The second test for causality is co-variation. It seems logical to argue that youth who have higher levels of education will be more willing to bear the opportunity costs of political participation. This would mean that the percentage of registered youth in a given educational bracket should increase as the level

of the educational bracket increases. The same is true with efficacy. It seems to make sense that people who think their vote doesn't count will be less likely to take the time to cast it. On the other hand, those who feel that their vote does make a difference will be more likely to cast it. Therefore, as one increases values on an efficacy scale, the percentage of youths registered to vote in each value should increase as the value does. Partisanship follows a similar justification to efficacy. As people become more and more partisan, they tend to polarize the issues more. Additionally, since they tend to feel passionately about their issues, they view the stakes of the outcome of a political game to be much higher than people with less partisanship. For that reason, people who consider themselves to be more partisan should register to vote in greater numbers. Finally, those whose families have higher levels of income will probably be better able to bear the costs of participation. As such, their registration numbers should also co-vary with their family's income.

The final test for causality is (lack of) spuriousness. Although proving that the relationship is not spurious without data is problematic, most of the competing phenomena, which could possibly influence the relationship can be explained away relatively easily. Although age is certainly a factor in whether or not any person will register and vote, that is artificially controlled by the scope of the study. We assume that age does impact the likelihood that someone will register, but choose to probe further and find other factors that influence registration after age has been controlled.

Finally, the hypothesis makes sense. I've already outlined several arguments for each prong of the hypothesis in my discussion of how I expect all of them to co-vary with the independent variable. People with higher levels of education are more likely to be informed about the political process. They are more likely to be able to gather information and have opinions on issues and how to exercise their self-interest. They are more likely to be aware of how candidates stand on those issues and how a vote for one candidate will be different from a vote for another candidate. In addition, they will likely be more aware of registration deadlines that occur in most instances about a month before an election. It makes sense that a person with a higher level of education will be more organized, more motivated, and more informed, all of which are necessary for them to participate in the political process.

The claim that individuals with higher levels of efficacy are likely to vote is valid for a similar reason. People who are efficacious might not necessarily be the most educated on issues, but they are by definition of the belief that their vote counts. This means that in an election, if they feel that one candidate is more qualified than another, or that one candidate will take the upper hand on an issue, they are likely to participate. It therefore makes sense to argue that cynics will isolate themselves from the political

process, but those with higher levels of efficacy will at least make a decent effort to participate.

The argument to justify partisanship as an indicator of voter registration also carries a similar warrant. Although people who are more partisan are not necessarily more educated than moderates, like those with high levels of efficacy, they are motivated. Their motivation might not necessarily stem from a high amount of confidence in the system, in fact, it may even stem from a high degree of distrust of one's opponents. The source for one's motivation, however is not an issue here. What matters, is that the motivation exists. If people who are more partisan truly believe that their ideology is correct, they will be more aware of what is necessary to put their agenda into action. More to the point, they will have a tendency to make it a priority to be registered to vote.

The final prong of the hypothesis is that one's family income will affect one's propensity to be a registered voter. This argument is somewhat of an assault on the notion that education has an impact on whether or not one will be a registered voter. As such one of the two is likely to be false. The argument for looking to family income is that despite motivation, efficacy, information, and passion, there is still an opportunity cost to voting and registering to vote. The impact of the assumption that voting carries relatively high opportunity costs is that generally speaking, those with families of higher income will have a greater chance of getting everything right, and showing up for registration and at the voting booth at the proper time. Looking to family income also makes a lot of sense because many people aged 18 to 30 still have not made themselves financially independent of their parents. Therefore, to at least some degree, their own financial capabilities will be a derivative of that of their families.

Methodology.

To test the hypotheses, I chose to analyze data from the 1998 National Election Study. The NES is a good source of data because it is a national study with a relatively large sample, which is representative of the population of the entire country. Also, in a single year of NES data, I was able to isolate 259 individual cases where the respondent reported their age to be 30 years or younger. I used a downloaded data set in SPSS format obtained from the Inter-University Consortium for Political Science Research (ICPSR) at the University of Michigan.

Since the 1998 National Election Study contained over 2,000 cases from respondents of all ages, I first had to delete all of the cases where the respondent's age (v980572) was greater than 30 years. This narrowed the pool down to what I define as a sample of young citizens for the sake of this study. I then had to synthesize a dependent variable out of two separate NES variables. The NES uses two questions to gather information about voting registration behavior. They first ask, "Did you vote in 1998?" and then if the respondent answers "no," they follow up by asking, "Were you registered in 1998?" I

therefore had to merge these two questions into a single variable indicating whether or not the respondent voted. To do this, I ran a “count” query to gain a “sum” for the responses to questions asking if they voted (v980303) and if they were registered, despite not voting (v980304). The rationale here is that if they actually voted, then they are necessarily a registered voter, and would not be asked the follow-up question. This sum query generated another column of data, which is a synthesis of the two questions and a dichotomous variable indicating voter registration.

Having established a dichotomous dependent variable, I had to set up my independent variables. I began with the NES summary education data (v980577). This data is a synthesis of several questions, which gather information on the respondent's education. Unfortunately, the NES data had divided education into seven separate categories. The lowest level of education (8th grade or lower) only contained four respondents after I had eliminated all cases in which the respondent was over 30. Because I could see no meaningful difference between those four respondents whose education was less than an 8th grade level and those respondents whose education was less than a high school level, I merged the fields into one denoting a respondent without a high school diploma. I merged the results at the upper end of the scale too, in effect creating a synthesized value for respondents with some sort of college degree including but not limited to a two-year degree, a four-year degree, a graduate degree, or a professional degree. I had decided to narrow the possible values for education from seven to four because seven possible values is a near-un-ideal number. Seven is too large to run an effective cross-tabulation, but it is too small to generate a meaningful T-test or regression. Additionally, the fact that the education variable is an ordinal variable means that a means comparison such as a T-test would not yield any effective results. After I recoded the education data, the following three categories remained: Respondents without a high school diploma, respondents with a high school diploma but no college degree, and respondents with an associate, bachelors, or advanced degree. Since I had effectively placed respondents into three mutually exclusive groups, and since groups had an order but no common distance between their values, I classified the synthesized education variable is an ordinal variable.

The second variable that I specified in the hypothesis was the political efficacy of respondents. I ran into a problem when I found that NES did not have a generic political efficacy feeling thermometer. As a result, I had to create my own index for political efficacy. To do this, I recoded the responses to six questions about political feelings into new variables with dichotomous values, each displaying whether or not the response is indicative of efficacious behavior. The first question read "Over the years, how much attention do you feel the government pays to what people think when it

decides what to do -- a good deal, some, or not much?" Of the three possible responses, I chose to score only "A good deal," which was the most positive response as efficacious. The second question read "How much do you feel that having elections makes the government pay attention to what people think -- a good deal, some, or not much?" In this question, I also scored only "A good deal" as efficacious. The third question was framed in a negative light. It reads "Public officials don't care much about what people like me think. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with this statement?" Since this question had five possible responses, I chose to include the responses "disagree somewhat" and "disagree strongly" as efficacious behavior. I included the same responses as efficacious for the fourth question, "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with this statement?" In the fifth question, I also chose to score the same responses as efficacious. The question reads "People like me don't have any say about what the government does. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with this statement?" And finally, the sixth question reads "Do you think that quite a few of the people running the government are crooked, not very many are, or do you think hardly any of them are crooked?" For this question, I scored only the third response, "hardly any politicians are crooked" as efficacious.

After I recoded all 6 questions to a simple 1 or 0, I then ran a "Count" function on all 6 and counted occurrences of the value "1." This created a new ordinal variable called efficacy, which ranged from 1 to 6.

I originally had intended to use the respondent's self-placement on the liberal/conservative scale as an ordinal variable (NES v980399), but after I ran a cross-tab, I found the relationship to be non-linear, and shaped more like a parabola, with columns containing more partisan respondents having higher percentages of voter registration. Although this phenomenon was certainly interesting, the relationship was not statistically significant. To solve this problem, I recoded the liberal/conservative scale to reflect degrees of partisanship or extremism. I recoded the "moderate" response as a 1, "Slightly Liberal/Slightly Conservative" as a 2, "Liberal or Conservative" as a 3 and "Extremely Liberal or Extremely Conservative" as a 4. I discarded all of the responses of "Don't know" or "Haven't thought about it much" as system-missing values. Although one could make the case for scoring these as less partisan than a moderate, it is possible for an individual to have strong feelings on an issue, but not operationalize them into a political ideology. For that reason, we cannot be sure that people who are uncertain about their

ideological stance are necessarily less partisan than those who are. The resulting variable for political partisanship is an ordinal variable whose values range from 1 to 4.

The final variable that I prepared for analysis was the respondent's family income in 1997, the year before this NES data was collected (NES v980577). NES categorized income into 24 non-linear groups ranging in size from $1,000 to $15,000. Thus, the data as presented by NES was ordinal because the movement from value X to value Y was not a uniform change. Since the dependent variable in this study is dichotomous, the best way to measure a relationship with money is to run a means comparison such as a T test. Unfortunately, running a T-test on this type of ordinal data with a non-linear change between values would not yield a usable result. In order to make the data more useful for a T-test, I recoded the data to the median dollar amount of the variable's range. That is to say, for a response indicating a respondent's family income ranging from $3,000 to $4,999, this would be recoded to $4,000. Since I changed the value from an ordered response number to a dollar amount, I had effectively transformed the data type to a ratio.

Having re-coded all of the data, I now set out to test the relationships. To test how voter registration is affected by education, extremism, and efficacy, I ran a Cross-Tabulation followed by Chi-Square, Cramer's V, Phi, and Kendall's tau-c. The Chi-Square is to determine whether or not a null hypothesis can be rejected, while Cramer's V and Phi test the strength of a relationship, and Kendall's tau-c tests the strength and direction of a relationship. To test the relationship between family income and registration, I ran an independent sample T-test. This test calculates the means for registered and non-registered respondents and generates a significance value to help the researcher determine the likelihood of whether the two means belong to the same population or different populations.

Data And Analysis.

The first relationship I tested was between the respondent's level of education and their likelihood to be a registered voter. The data that I used for this comparison is displayed below in Table 1. The hypothesis pertaining to this variable was that respondents with greater levels of education are more likely to be registered to vote. Without even turning to the measures of strength, direction, and significance, the data from the cross-tabs appears to support the hypothesis. As you move toward the right-hand side of the (denoting higher levels of education), the percentages of registered voters increase. Turning to the measures of strength and significance, the Chi-Square test proves that we may safely reject the null hypothesis with a 98.7% level of confidence, thus proving that the two variables do have a statistically significant relationship.

Having established the relationship between the two to be statistically significant, I now applied tests of strength and direction using

Phi, Cramer's V, and Kendall's tau-c. Both Phi and Cramer's V indicated that the relationship is a relatively weak relationship, however, since they both range from 0 to 1, they do not provide an indication of the relationship's direction. However, Kendall's tau-c provides a good indication of the strength and direction of the relationship. A value of .159 indicates that the relationship is a weak positive one. That is to say more educated young people are more likely to be registered to vote than less educated people. The specific values of the tests for strength and significance are displayed in Table 1.

Table 1: Cross Tabulation of a respondent's Education versus their likelihood of being a Registered Voter in 1998

	No High School Diploma	High School Diploma but No College	College Degree	Total
R is Not Registered	17 (45.9%)	58 (35.8%)	12 (20.3%)	87 (33.7%)
R is Registered	20 (54.1%)	104 (62.4%)	47 (79.7%)	171 (66.3%)
Total Count	37	162	59	258

Measures of Strength and Direction: Pearson Chi-Square: .023, Phi: .171 (.023 Approximate Sig.), Cramer's V: .171 (.023 Approximate Sig.), Kendall's tau-c: .159 (.005 Approximate Sig.).

The second relationship that I tested was between the respondent's political partisanship and their likelihood to be a registered voter. In this test, I expected to find a positive relationship between partisanship and voter registration. Looking initially to the cross-tabulation displayed below in Table 2, this data also appears to support its respective hypothesis, that as one's partisanship increases, so does the tendency for one to be a registered voter. Although the percentage of most partisans registered is slightly lower than the column immediately to the left, this does not in and of itself invalidate the trend. Additionally, only 13 people out of 192 cases included in this tabulation classified themselves as extremely partisan, so the low percentage may change in a larger sample. Once again, I ran a Chi-Square to test the significance of the relationship and determine whether or not I could reject the null hypothesis. In this case, the Chi-Square test returned a significance level of .256 indicating that there exists a relatively strong probability that a null hypothesis is true. That is to say, there is about a one in four chance that there is absolutely no relationship at all between partisanship and voter registration and that the data we are examining actually comes from the same population.

Initially, it appears as though we are unable to reject a null hypothesis, and must therefore conclude that a relationship does not exist, but when we examine additional tests, that conclusion comes into question. Both the Phi and Cramer's V return the same significance value of .256, but the Kendall's tau-c returns a significance of .042, indicating that we may in fact reject the null hypothesis with a 95.8% level of confidence. That is to say, when looking only to Kendall's tau-c we can be reasonably certain that a relationship of some sort exists. Furthermore, when looking at the value of .146,

since the possible values range from -1 to 1, we may further conclude that the relationship is a weak positive one. That is to say, young people who are more partisan are also more likely to be registered voters.

indicating that there is a strong possibility that the null hypothesis is true and therefore no relationship exists. Unlike the data on partisanship, the tests of strength and direction do not bail us out on efficacy. Although the

Table 2: Respondent's self-reported partisanship versus their likelihood of being a registered voter in 1998

	Moderate	Slightly Lib/Con	Lib/Con	Extremely Lib/Con	Total
R is Not Registered	23 (40.4%)	25 (32.1%)	10 (22.7%)	3 (23.1%)	61
R is Registered	34 (59.6%)	53 (67.9%)	34 (77.3%)	10 (76.9%)	131
Total	57	78	44	13	192

Measures of Strength and Direction: Pearson Chi-Square: .256, Phi: .145 (.256 Approximate Sig.), Cramer's V: .145 (.256 Approximate Sig.), Kendall's tau-c: .146 (.042 Approximate Sig.).

The third relationship I tested was between the efficacy index and the likelihood that a respondent will be a registered voter. The hypothesis pertaining to this variable stated that more efficacious respondents are more likely to be registered voters. As such, I expected to find a trend where the percentage of registered voters increased from left to right in Table 3. An initial observation of the data in table 3 indicates that the hypothesis is probably not true. The directional trend of the data changed three times over the values of an independent variable ranging from 0 to 5. That is to say, moving from left to right, registration percentages began rising, then declined, then rose again, then declined again. However, despite a dismal looking cross-tabulation, I continued to run tests of strength, significance, and direction. Just like the two previous tests, I ran a Chi-Square to determine if we may reject the null hypothesis and thus determine whether or not the relationship is a statistically significant one. The Chi-Square returned an extremely high value of .686, significance value of the Kendall's tau-c is slightly lower, at .447, it still offers an extremely plausible scenario (47%) that the null hypothesis is true. Looking further, the strength and directional measures seem to be in agreement with the significance data. The low value on Kendall's tau-c indicates that even if we ignore the fact that the relationship is insignificant, we still would have trouble finding any notable strength. When we consider the fact that we're measuring self-reported partisanship as the independent variable, a value of .051 does not help us make a meaningful determination of what substantive changes in registration will result from a given change in partisanship. Additionally, when we combine the directional measures with what appears to be a random cross-tabulation, we do not have sufficient data to accept the hypothesis that respondents with higher levels of efficacy are more likely to be registered voters.

Table 3: Respondent's efficacy index versus their likelihood of being a registered voter in 1998

	0	1	2	3	4	5	Total
R is not Registered	24 (41.4%)	23 (28.4%)	16 (35.6%)	12 (36.4%)	8 (29.6%)	4 (28.6%)	87 (33.7%)
R is Registered	34 (58.6%)	58 (71.6%)	29 (64.4%)	21 (63.6%)	19 (70.4%)	10 (71.4%)	171 (66.3%)
Total	58	81	45	33	27	14	258

Measures of Strength and Direction: Pearson Chi-Square: .686, Phi: .109 (.686 Approximate Sig.), Cramer's V: .109 (.686 Approximate Sig.), Kendall's tau-c: .051 (.447 Approximate Sig.).

The final relationship I tested was between a respondent's family income and the likelihood of them being registered voters. Since I had recoded the family income data into a ratio variable, the best way to test for a relationship is an independent samples T-test. The T test calculates the mean of the independent variable for each value of the dependent variable. So, in this instance, the T-test displayed below in Table 4 is the mean family income for young people who are registered and who are not registered. If the hypothesis that respondents with higher family incomes are more likely to be registered voters were true, the T-test would return a set of means whose difference is at least two times the standard error for the sample. Under those circumstances, we could be 95% confident that the two means come from different populations and that the difference is statistically significant. In our case, the difference of the means is $1,800, only a little more than half of the standard error, which is $3,364. While it is encouraging that the mean family income for registered voters is slightly higher than that for non-registered respondents, the difference is still too small to be of any value. Because the difference of the means is less than two standard errors, we can be relatively sure that the two means are in fact from the same population and that there is no statistically significant relationship between family income and voting registration.

Table 4: T-test of respondent's family income in 1997 versus whether or not they were a registered voter in 1998

	Number	Mean	Std. Deviation	Std. Error Mean
R is not Registered	86	30081.40	31197.4603	3364.1087
R is Registered	164	31219.51	2934834563	2291.7294

Having evaluated all of the variables independently, the final test I ran was a regression to evaluate all of the variables together. Based on the results from the previous tests, I expected to find a statistically significant, positive coefficient for the education variable, possibly a statistically significant value for partisanship, and negligible values for the other two variables. The regression results displayed in table 5 do in fact indicate with 95% certainty that the relationship between education and registration is statistically significant. Even though the strength is relatively uncertain, since both the lower and upper bound are greater than zero (.019 and .256, respectively), we can be 95% certain that the slope of a regression equation coefficient for education is not zero, and can therefore reject a null hypothesis. We could

also make a weaker case for the relationship between partisanship and registration. Although zero is technically included between the bounds at the 95% confidence level (-.014 and .138), the lower bound is extremely close to zero, meaning that at a slightly lower confidence level such as 90% to 93%, we could probably be confident of a weak, but nonetheless statistically significant relationship. The situation is not so bright for the other variables, however. We can be 100% certain that there is no relationship between family income and voter registration, since both the upper and lower bounds are .000. This means that the coefficient on any regression equation for family income will be zero, and that income is therefore not a factor that affects whether or not one will be registered to vote. Finally, the efficacy index bounds fall almost equally on both sides of zero (-.033 and .058). With the number of cases in this study, at this point we are unable to determine that a relationship exists, for at the 95% confidence level, there is a chance that the coefficient for efficacy could be zero, thus excluding it as a factor in the regression equation. In summary, the regression re-affirms the Chi-Square, Phi, Crammer's V, and Kendall's tau-c values for education indicating a statistically significant weak positive relationship with registration. The regression provides additional backup for the possibility that a relationship might exist between partisanship and registration, but the fact that zero is included between the bounds at the 95% confidence level also re-affirms our skepticism. Finally, the regression does not allow us to reject the null hypothesis on efficacy or family income.

Table 5: Linear regression of respondent's education, partisanship, family income in 1997, and efficacy as they relate to the respondent's likelihood to be a registered voter in 1998

Model	Lower Bound (95% Conf)	Upper Bound (95% Conf)
Constant	-.041	.565
Summary Education	.019	.256
Partisanship	-.014	.138
Family Income	.000	.000
Efficacy Index	-.033	.058

This regression achieved an R-square value of .05. Therefore, only 5% of the variation in voter registration is explained by this model.

In summation, the statistical tests allow us to accept one hypothesis with confidence, one with caution, and reject the other two. All five tests provide consistent data indicating that there is a weak but statistically significant positive relationship between education and voter registration. Only one test provides support for partisanship's relationship with registration. Further, all of the tests allow us to reject relationships between efficacy and registration, and family income and registration.

Conclusions.

In this study the data and analysis have been extremely clear on only one issue, that there is a weak, but nonetheless statistically significant positive relationship between a respondent's education and the likelihood that a survey respondent will be a registered voter. The data

also suggest that there might be a relationship between one's political partisanship and likelihood to be a registered voter, but we may not be very confident of that conclusion. Of the four components of the hypothesis presented in this paper, we may only accept that education has an impact on voter registration.

Since the results approached a level of statistical significance in the area of partisanship, we may not safely say that no relationship exists, while at the same time, we may not safely say that one exists. It is likely that the relatively small sample size used in this study caused the disparity in the partisanship results. The fact that only 13 respondents out of 192 labeled themselves as either extremely liberal or extremely conservative might mean that there was some sort of negative stigma associated with the labels in which survey respondents toned down their views for the pollsters. It could also mean that the process of narrowing the NES sample from over 2000 cases to 258 cases tampered with the sample's validity. That is to say, the modified sample might not necessarily be accurately representative of the nation's population under age 30. It is also possible that a respondent's conception of extremely liberal or conservative might not be the same for liberal and conservative. In other words, it is possible that people might perceive extreme liberals to be farther from the center than extreme conservatives. This is important in retrospect because if true, it could mean that recoding the respondent's self-placement on the liberal-conservative scale would cause internal validity concerns. Any one of these scenarios could explain why the statistics were sharply divided on the issue of partisanship.

The issue of efficacy also has some potential validity concerns that might have caused a relationship to be hidden in the statistics. First, building an index out of the answers to several questions assumes that each question holds a relatively equal weight on the issue of efficacy. That is to say, it is possible for one of the questions to be far more important in the eyes of a respondent than two or three others combined. Despite this, building a simple index would not take that type of information into account. Additionally, as with political partisanship, very few respondents scored high on the efficacy index. This is probably because the index contained six separate questions, all targeting slightly different aspects of a person's relationship with the government. Given the fact that almost everyone has some type of gripe with the system, it is highly unlikely that many people will think that every aspect of politics is perfect. A scholar could probably mitigate these problems by creating an index with only three or four questions, or by lumping questions together in groups of two or three to create an index on a scale of one to three or four rather than zero to five.

Despite the fact that there are some potential problems in the efficacy index, the results themselves do have some meaning. A lack of a statistically significant relationship

between efficacy and voter registration could mean that efficacy is associated with two competing forces in relation to voters. While the index is an indication of a respondent's trust that their vote will count, it is also somewhat of an indication of their satisfaction with the system. This seems to fall in line with Tolchin 1996 who argued that one of the primary factors contributing to political participation is anger. Therefore, while on the one side of the coin we argue that people who are content that their vote counts will register and vote, on the other hand, those who are content with the system will have less of a reason to vote. This type of tradeoff could be a reasonable explanation for the lack of an apparent relationship within the efficacy data. The mere fact that someone thinks that politicians are good and voting is productive does not necessarily generate an impetus to register to vote.

Finally, the income data also fails to tell a coherent story. One possible explanation for this result is that there is likely to be an even division between respondents in the sample who are financially independent and those living with or dependent on their parents. There are also likely to be a few cases at the top of the age bracket in which the respondent has a family of her own. In the younger cases, looking to a respondent's own income would not likely yield any usable results as many respondents would be perfectly well off with zero or negative income levels as dependants of their parents. That phenomenon provided the justification to use their family income when choosing data from the NES. However, in the case of most respondents, when they declare themselves financially independent of their parents, the value they would report for their 'family income' would most likely drop drastically the first year after such a change, but at the same time, they would probably not be any worse off on their own than with their families -- assuming they were not disowned by their parents or kicked out of their home. Unfortunately, the data is incapable of taking this information into account, and it sheds light on a problem inherent within this age group. The fact that survey respondents in the age group targeted by this study will generally belong to one of those two groups with a skew in the values running right up the middle, means that it is difficult to evaluate the impact of a person's income while they are under 30.

If nothing else, this study finds that it is extremely difficult to study the habits and feelings of those under 30. Since young people in the age group affected by this study are in somewhat a period of change, it is extremely difficult to build a coherent model of their behavior. As a result, the only phenomena we can confidently say affects their propensity to register as voters is their education. These results indicate that while the questions of efficacy, partisanship, and income may be interesting for scholars to study in the future, individuals seeking to run for political office today and wanting to mobilize young voters should not waste their time trying to measure anything but a

respondent's education. In seeking to register as many voters as quickly as possible, political campaign managers should look for those unregistered voters who have the most education, as they will be the most likely to register.

In the future, scholars could expand on this research by adding more factors to the calculus on why some young people are more likely to register to vote than others. Although I was limited to secondary data, a researcher conducting survey should attempt to gather information about how long a respondent has lived at their current address for the sake of determining how significant of an obstacle to registration does a change of locations poses. This model could also be augmented by gathering samples from districts in which a particular election is extremely close, or not so close. Another interesting variable to test would be the effect of negative campaigning on whether or not someone chooses to register to vote.

Specifically, this study leaves unanswered questions of how income, efficacy, and partisanship affect the registration of young people. In the future, we may be able to explain these phenomena by using a larger sample size, and carefully developing a balanced set of questions to determine an effective efficacy index. Additionally, scholars wishing to further examine how one's partisanship affects one's tendency to vote should try to avoid any negative stigma associated with being extremely partisan by asking issue-based questions, rather than asking the respondent to rate themselves on the liberal-conservative scale. Finally, one could further explore the void left by the data on family income. Since there might be a skew running up the middle of the sample, it would be interesting to study the differences between youth that have declared financial independence and those still living off of their parents.

Despite a lack of clarity on three of the variables used in this experiment, the data definitely re-affirms the hypothesis that young people who are more highly educated are more likely to register to vote. As previously mentioned, this conclusion is helpful to aspiring politicians who seek to mobilize young people, but it is also encouraging from a standpoint of determining the legitimacy of the system. Despite low voter turnout, this data can re-assure the academic community that the reason why young people don't register to vote does not appear to be because they are financially incapable of doing so, but because they are not motivated to do so. Although there is somewhat of an educational division, it is by no means despositive, and a system faced with a problem of some people not caring is much more legitimate than one faced with financial barriers to participation.

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