The Relationships Between Age and Party Affiliation With Opinions on Public Spending

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Abstract

Political campaigns rely on targeted advertising and policy proposals that can attract their key voter demographics. In each election, a hot button topic on debate stages and in policy platforms is the question of how the candidate will spend taxpayer money on different budgetary sectors. Thus far, a significant amount of research has been done regarding the ways spending priorities differ between age groups or party lines. My work expands on previous research in the field by asking, "How do age and party affiliation correlate to spending opinions on the federal budget?" I specifically looked at the areas of national defense, Social Security, and education. This paper employed Stata to analyze data over the last four decades from the General Social Survey (GSS) and controlled for factors like income, education, race, and sex. I isolated and assessed the trends associated with a person's age and their political affiliation in relation to their opinion on federal spending in different areas of the budget, as well as considering these relationships in the context of changes in time period and other demographic variables. My research contributes to existing political science and policy research by assessing these factors in relation to each other, giving campaigns and others a better understanding of how to best target campaign policies and spending proposals to their strongest supporters.

Introduction

Political campaigns rely on targeted advertising and policy proposals that will attract their key voter demographics. Campaigns may work to target a specific age group of voters or voters that already identify with their political party. A guide written by the National Democratic Institute for International Affairs explains that there are two ways to target voters for campaigning: geographically and demographically. Through these two ways, campaigns can identify what groups of people are already highly likely to vote for them and in what ways they need to spend resources to retain those votes. However, the guide also explains that most resources in a campaign

need to be spent on the highly persuadable populations – voters who shift their voting alignment between elections or those who vote for different types of candidates in the same election cycle (O'Day).

In each election, a hot button topic on debate stages and in policy platforms is how the candidate will spend taxpayer money on different budgetary sectors. A significant amount of research has been done regarding the ways spending priorities differ between age groups or party lines. I expand on previous research in the field by asking, "How do age and party affiliation affect spending opinions on the federal budget?" I specifically looked at the areas of national defense, Social Security, and education. In the era of social media, targeted marketing is the norm rather than a novel idea. Nonetheless, campaigns need to know their voter profiles to best issue their messages on the best platforms and to the right groups, ensuring a high return on investment.

Concepts like the age war over resources, as cited by Hamil-Luker (2001), and the divisions in defense spending opinions between partisans, as illustrated by the Pew Research Center in 2019, speak to the greater division of Americans when comparing opinions on federal spending. With a multitrillion dollar American debt at its highest point in history, many policymakers are looking at how to connect with constituents and create a sustainable budget that reflects voter views and reforms, if necessary, the national spending agenda. Whether Americans actually care about the increasing debt is also a concept in question with competing research. Pew Research found in April 2019, that fewer Americans cared about the debt than did in the last 40 years. This stands despite the rise in the actual fiscal value of the debt.

For campaigns to more easily identify policy proposals to discuss at different debate and campaign events, it is critical to know what their audience wants. When looking to attract new voters away from the support of other tickets, candidates must know what policy stances they have

in common with outside voters. By getting a better sense of how specific spending areas are supported or rejected, candidates can best represent their base while choosing whether or not to maintain an amenable stance with outside voters by looking at demographic-differentiated support for policies. Candidates may then choose to move their own campaign's stance on spending if they want to gain a certain voter group's support.

The literature expanded upon in the next section shows what has already been studied surrounding spending opinions and how different sectors of the population view different spending categories. However, in my research, I contribute two new elements: I have analyzed the impacts of age and political party affiliation in the same regressions, making it easier to compare the strengths of correlation between these two variables and spending opinions. I have also compared these impacts using two different models, to look at the correlations with age and party affiliation in contexts of changes in decade and other variables, such as gender or race. Through these more in-depth analyses, I provide a new lens through which campaigns can target their messaging to certain groups of the population for more effective messaging.

Literature Review

Measuring Party Affiliation

Individuals self-report party affiliation, but some studies have attempted to verify one's party response with their opinions on policy issues. One study, published by Zell and Bernstein in 2014, found an interesting delineation between these two concepts. They determined that younger respondents self-reported as being more conservative than their policy opinions aligned with. For my research preparation, that raised a question as to whether or not one's self-responded party affiliation should be checked against their policy views, since that is the basis for my research question. However, the GSS database, which is used in my analysis, collects respondent's views

following a standard party affiliation questioning. I ultimately just used the political party affiliation variable that is reported in the survey for my analysis.

Party affiliation is oftentimes measured through a series of three questions, as summarized by an article by Brooker and Schaefer. These questions first sort out self-identifying Democrats and Republicans, which are the main party lines in the US. From there, the second question gauges the extent that individual identifies with that party. Answers to this question include "Moderate Democrat" or "Strong Republican." The third question addresses individuals that do not initially align with either the Democratic or Republican party, or report that they are Independent. These individuals are asked if they tend to lean more Republican or Democratic. This approach is relatively standard for modern research studies inquiring about people's party affiliations, and there is reaffirmation that this set of three explicit questions with defined answer choices is the best way to ask about party affiliation. This is especially true when compared to some common methods of measuring opinions about public policy.

Measuring Policy Opinions Among Individuals

Within the different parties and an individual's tendency to lean toward one party (Republican or Democrat) or the other, there are some distinctions based on their opinions of specific issues. Pew Research Center in 2014 surveyed 10,013 Americans between January and March 2014, and measured their opinions on larger areas of policy, such as social issues or welfare preferences. They identified seven different ideological bases, which do not all necessarily have a predictable partisan voting tendency (DeSilver, 2014). Three of the seven had a reliably partisan voting track record, with the groups "Steadfast Conservatives" and "Business Conservatives" voting Republican, and "Solid Liberals" voting Democratic (DeSilver, 2014). These three groups only constitute 36% of the American public and 43% of American voters (DeSilver, 2014). The four groups remaining may lean a partisan direction, but it is important to note that not all partisans

even in the same party conform to the same issue stances, further contributing to the importance of this research and a dissection of what spending areas different sectors of the population actually care about.

A 1993 study published by Krosnick and Berent found that the ways in which party affiliation is surveyed, through the three-question process listed above, is much more comprehensive than asking multiple questions without laid-out responses to select from. Explicit answer choices also produce more consistent results over time, which may be tied to decreased coding errors. Policy opinions may be asked in a variety of ways depending on the issue. However, this study concludes that scales with defined measures or branching questions can be most valuable in collecting public opinion on policy that is more consistent between respondents and in different question-asking modes, such as phone or in-person.

Through this finding, the study concluded that branching questions, questions that ask follow-ups to the respondent based on their response, are best for collecting and coding data for large surveys. Additionally, this can have a positive effect on people's ability to make good judgement. This is known as the decomposition principle, and it is discussed in a 1975 article by Armstrong, Denniston, and Gordon. Connecting to the way in which party affiliation and policy opinions are measured, this article demonstrates that asking both party affiliation and public opinion questions in individual steps can produce greater clarity in survey responses and help improve the accuracy of the survey. Due to limited survey response rates for other policy questions, I have only used party affiliation to identify voters' alignment in my research, but I look at the correlations with spending opinions, which is a policy opinion.

Collectively, these documents set the stage for defining one's party affiliation and creating a method to measure this as well as opinions about different public policies. In the context of my

research, they lay a framework for what types of questions might be sufficient to gather results from and what types of questions done in past research that may not yield the same level of accuracy. In my own analyses, I have considered the findings of these documents to create a more accurate model in my coding of the data.

Party Affiliation and Spending

There have been many articles published that cover the relationship between party affiliation and general spending opinions, both on specified areas of the budget and the budget in general at the federal level. Pew Research conducted a survey in April of 2019 that analyzed the spending preferences of both Democrats and Republicans in a variety of policy areas. While raw data was not accessible, the survey lists that it was a survey of American adults, and it shows differences between the parties in whether they would "increase, decrease or keep spending the same for…" tied to different policy areas.

Additionally, an article by Mian and Khoshkhou in 2017, demonstrated that there may be more at play than just party affiliation when looking at factors that shape an individual's policy opinions. They concluded that a change in the presidential administration could change the positive or negative view that an individual had toward government spending under the federal control. Additionally, party platforms may shift in response to the new president, leading to further dissonance between the parties when advocating for spending compromise.

With partisanship staying a prominent theme in political spending debates and acknowledging that different candidates have different spending platforms when running for office, it is important to assess how political affiliation may alter how this issue is dealt with. Though I did not consider opinions about the debt, I was able to gather some models showing correlations between party affiliation, age, and other demographic factors with spending opinions.

Age and Partisanship

In a 2014, online report published by the Pew Research Center, the concepts and relationships between age and party affiliation were studied, showing that "political typologies shift with age" (DeSilver, 2014). This essentially means that different generations and age groups have varying percentages of their age cohort that align with different sects of ideological breakdowns. Interestingly, the percentage of "Solid Liberals," or those identifying as the farthest left on the Pew Political Typology Report and holding liberal social and economic views, is fairly consistent between age groups. This percentage ranges from 13% in the 65+ year age group to 16% in the 18-29 year age group. On the opposite end, the percentage of "Steadfast Conservatives" appeared to increase with age, with only 6% of the 18-29 year age group, and 21% of the 65+ year age group falling into this category (DeSilver). I applied the same age breakdown to group ages in my research to mirror this report and other political ideology reports that divide results by age.

A working paper by Ghitza and Gelman in 2014, concludes that there are many formative influences that can impact a person's political affiliation or opinions early in life, but one's partisan alignment typically stays consistent for the majority of their life after that. This conclusion, paired with a second report by the Pew Research Center by DeSilver in 2014, gives critical insight into how different generations may have a majority of their voters align with a certain ideology, but how this majority in one age group might have radically different views than a generation older or younger than them, who grew up in a different time and political culture.

These two documents, by DeSilver and Ghitza and Gelman, show that age and political ideology may not necessarily be independent variables from each other. Having access to the raw data, it was possible to identify the effects of the variables on spending opinions in isolation, but

it must be noted that there are external variables that can shape an individual's ideology that have been accounted for in the second model for each outcome variable.

Age and Spending

Age is a valuable factor when gauging policy opinions. An article from 2001 published by Hamil-Luker analyzes the splits between age groups and their opinions on old age spending policy. Surprisingly, the researcher came back with the claim that opinion did not drastically change between the age groups. This study is very tailored to the specific policy area, but it fits with my work because this is one element of my own research. It also connects well with another recurring theme in the spending expanse: the national debt. When many are in favor of maintaining or increasing spending for welfare programs at that point, there will be many financial deficits as well. The uneven distribution of society in terms of population may also require more care, sparking what Hamil-Luker coins as the "age war" for resources between generational boundaries.

By looking at opinions from the same age cohorts from 15 or even 30 years ago, I was able to assess the differences in spending preferences between the past and now. By evaluating spending preference differences between older and younger cohorts all in the last year, I was also able to see what current age divides there are when it comes to spending opinions. Reviewing the literature, I was able to formulate my hypotheses about trends and see if these conclusions of the past hold true with newer data.

Data Collection

For my research, I did not collect my own data, but instead used pre-collected data from the General Social Survey (GSS), which is an annually collected survey that gathers answers to a wide scope of questions. These survey questions address public issues, opinions, and behaviors of American adults across the country.

For my work, I compared opinions between different sectors of the American electorate about federal spending policies. The General Social Survey is run by the National Opinion Research Center at the University of Chicago. The scope of its research is large, and the survey covers a variety of traditional and unconventional survey topics. Some of its questions speak to drug use, sexual behaviors, astrological sign, and employment.

The GSS also asks branching questions, where one's responses will lead to other questions for clarification and coding purposes. They also used closed questions, where respondents answer by aligning their own views or experiences with one of a few preselected choices. This alleviates the issue of trying to clarify people's answers and corresponding them to a coded answer after the fact. The GSS survey has been run since 1972. Even though there are some lapses in data collection for different variables or specific variables that have only recently been measured, this data provides a valuable element of time to my analysis.

For the first twenty years of its administration, it was given out annually. Now, it is given out on the even years (biennially). Household addresses are randomly selected, and one adult from each household completes an interview. The GSS sample size is about 1500 people for each administration of the survey. There is no personally identifiable information in the survey responses, but demographic information and different traits are collected through the survey questions, which make the analysis by these characteristics possible.

In 1994, the structure of the survey changed greatly with the introduction of two new surveying techniques for the GSS. The number of core questions to be asked on each survey was reduced significantly at this time, and there were many "modules" added to the survey to help supplement the needs of social scientists researching specific topic areas for research. In 1994, researchers introduced a two-form survey, where forms A and B had identical core questions

asked from the old survey design conducted in 1993, and prior, but A and B both offered distinct module questions that covered different topics entirely. These forms A and B were used before the introduction of the forms with versions X, Y, and Z that were utilized in subsequent years and denoted on variables by the addition of a "y" or "z" to the end of the variable name (eg. nateduc would be renamed nateducy or nateducz for versions Y and Z, respectively). Because these two forms cover entirely different questions, and as noted by the codebook, can be interpreted as surveying years 1994 and 1995 for the traditional GSS, there is no need to distinguish variables or versions for this research thesis with no affected variables. However, this is why the number of surveyed respondents nearly doubles in the year 1994 to 2,986, compared to previous years' surveying of the GSS.

Different versions (X, Y, and Z) were used in following years to denote the different forms given to participants. Version Z only had responses during the period 1983-1987 between different forms and styles of the survey given out over time.

Since 2006, they have begun using some rotating panels of respondents to get a much more accurate and targeted cross-sectional response because some of the same respondents from a previous survey administration are re-interviewed. However, this process was discontinued in 2014, and it has not been used in any more recent administration of the survey (Schapiro 2015). The survey also has integrated responses from previous surveys, such as the International Social Survey Program (ISSP), which is also run by NORC. Through this incorporation, the GSS is able to build a much longer record of public opinions and behaviors that the NORC group has tracked for decades. The GSS data has many strengths, ranging from its scope to its longevity. It covers many basic demographic questions that make work like mine much easier in being able to easily sort and dissect different sectors of the population for these demographic analyses.

Methodology

My analyses cover two meaningful observations: overall support for cutting spending on a budgetary area over time with breakdowns by party affiliation and age, and regressions to show the strength of correlation between these variables. I used a cross-tabulation for summary statistics and to produce trends over time. I used linear regression analyses for meaningful interpretation of correlations between these variables and spending opinions, as well as these relationships as changes over time and other demographic factors were accounted for.

I specifically looked at the outcome variables of National Education Spending Opinions, coded "nateduc," Social Security Spending Opinions, coded "natsoc," and National Defense Spending Opinions, coded "natarms" for my question. However, I also included two other spending areas with their trends and regressions for comparison. These two are Healthcare Spending Opinions, "natheal," and Foreign Aid Spending Opinions, "nataid." These are all included in question 23 of the GSS. Besides this, I considered at the independent variables of Respondent's Age, coded "age," and Political Party Affiliation, coded "partyid," that correlate to a respondent's age in years and party affiliation, respectively.

For independent variables, I looked at year of each response, coded "year," age of respondent, "age," party affiliation, "partyid," highest year of education received, "educ," racial identity, "race," sex, "sex," and family income adjusted for inflation to year 2000 dollars, "coninc." I was interested to see if there was data on opinions of the national debt, but this variable, "cutdebt" has only been issued on ballots for the GSS once in the last 32 years.

I have done two different types of regressions in three models to capture the trends between my independent and dependent variables. These are the pooled regression, which is applied to all data in the set in all years, and the fixed regression, which was used to model data in the second model for each spending opinion, where time period and right inside variables are

accounted for. It is possible that there are things about people I cannot observe that do affect the spending opinions and correlate to the right inside variables. They may affect both the spending attitudes and the political ideologies, and the fixed effect model accounts for these impacts. Accounting for these external hidden factors has only bettered the accuracy and reduced error of the models.

The pooled regression follows a standard regression model. It "pools" all respondents together and builds coefficients based on the correlation for the focused independent variables of age and party affiliation and all responses through the years. The model stands as:

$$y_1 = \alpha + \beta_{1age} + \beta 2_{partyid} + \varepsilon_1$$

Where y is the resulting change in spending support (or does it equal spending support), α is regression coefficient, βage is the impact of the treatment (age) on spending opinion, βpartyid is the impact of the treatment (party affiliation) on spending opinion, and ε is error. In the model, y_1 is a binary variable that shows the likelihood of supporting cutting spending for a person of a particular set of demographics that are outlined in the other independent variables. y_1 equals 1 if the respondent believes spending is too much, and y_1 is 0 if the respondent believes spending is the right amount or too little. For the purposes of the research, a "1" for y_1 correlates to support for cutting spending, whereas the "0" corresponds to spending increase or preservation.

For the other variables, βage refers to age, which is a continuous variable recorded in integers by year, but it is grouped into a new variable called "agegrp" by ages 18-29, 30-39, 40-49, 50-64, and 65+. Party affiliation is categorical, and I have coded this into four newly generated variables. For codes 0-2 that correlate to Democrats, these are joined in "partyidd." Code 3 is uniquely Independent identifiers, and this is coded as "partyidi." Codes 4-6 correspond to Republican, and these are joined as "partyidr." Lastly, the code 7, which was excluded from

all regressions and analysis due to its small size, corresponded to the response Other Party Affiliation, and this is coded as "partyido."

The other type of regression model I completed was a fixed regression. Essentially, this model attempts to capture any remaining unmeasurable influences on a person's spending opinion as explained above, while also including other demographic characteristics in the model for a stronger correlation. The model is:

$$y_1 = \alpha + \beta_{1age} + \beta 2_{partyid} + \delta X_1 + \gamma + \tau + \varepsilon_1$$

Where all other variables' meanings are the same as in the pooled regression model, but γ is the variable to account for the impacts of all other unmeasurable variables on spending opinion. Also, δX is the combined effects of all other measurable variables that may have an effect on spending opinion, such as income, race, sex, or level of education, and τ are year fixed effects that account for factors that are fixed across individuals but change over time.

Year of response was also grouped into a newly formed "period" variable to more easily show how strengths of correlations changed over time in the regressions. Period 1 was years up until 1980, 2 was years 1980-89, 3 was 90-99, 4 was 2000-2009, and 5 was years 2010 through 2018, the last year for which data is available. Sex is only representative of males and females in this collection, but it is coded as "sex" where 0 = female and 1 = male to make it a binary variable of 0 and 1. This is a slight alteration of the original coding, where female was coded as 2 instead of 0.

All of the other demographic variables stayed as they were originally coded. "Coninc" stands for Family Income in Constant Dollars, and this is a continuous variable. It is adjusted for inflation, so there was no need to edit the raw data. Education is coded as "educ," and it is the highest year that a respondent completed in school in ordinal variable form. Race is "race" and is a categorical variable.

The GSS survey also has some sampling weights applied to it, coded as "p-weights." These weights have been applied to the regressions of both the fixed and pooled regression. The weights cover discrepancies in survey demographic response rates over the different issuances of the survey. To account for these in the regression, it was easy to insert a phrase in the Stata coding that reads [pweight = WEIGHTVARIABLENAME] where the weight variable will be WTSSALL. This weighting works to give an adult weighting all responses before 2004.

Because the GSS is a survey, it needed to be entered as such when doing analysis via Stata. This is considered in all tabulation models by running in Stata with the code "svy" before each command to indicate how this data should be processed.

Overall, I wanted to distinguish two different values of significance in my data analysis. The first is significant figures, found by interpreting the numbers at face value and seeing what is statistically significant. The next is economic significance, found by interpreting the magnitude of each value through standardization of the coefficient and using context of the scale of each variable. The economic significance looks at what values are actually meaningful to our results in this context.

Results

In analyzing my results through the Stata program, I ran a variety of different tabulations and regressions as previously explained. The results helped set context for the surveyed population, giving key information about its demographics, while also aiding in answering the questions of whether changes in age or political party affiliation are correlated to changes in opinions on federal spending.

Summary Statistics

Overall, there were 64,586 observations collected over a 46-year period. However, not every year had a survey conducted in it, as previously explained. In the years 1972 – 1993, there were 1,468 to 1,860 respondents per year. In the year 1994, the number of responses nearly doubled to 2,986 respondents, as explained in the Data Collection section. In 2006, at the introduction of the panel studies to be conducted on a biannually basis began with 4,492 responses. The panel series, which continued from 2006 to 2014, ranged in its response rate from 1,974 to 4,492 responses and showed a decreasing response rate over the eight-year time period. Now, the survey is still conducted biannually, and the 2018 survey that represents the most recently collected data, had 2,348 responses.

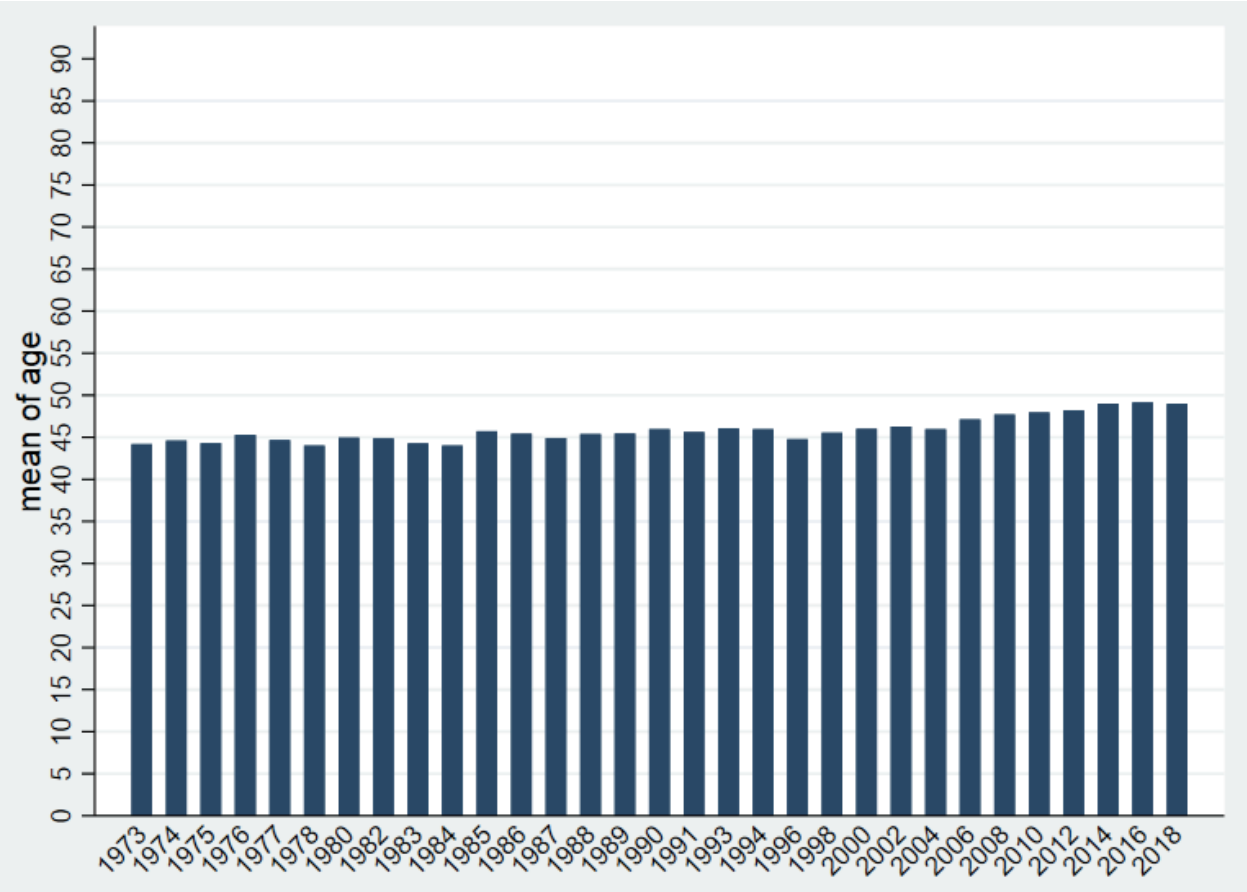
To gain summary statistics about age, a tabulation was run to sort all of the responses over all years and calculate the average percent of respondents over all years that fell within the following age ranges, shown in Table 1:

	Age Group					
Period	18-29	30-39	40-49	50-64	65+	Total
1972-1979	2,731	2,058	1,699	2,409	1,715	10,612
1980-1989	3,441	3,197	2,193	2,729	2,610	14,170
1990-1999	2,531	3,237	2,691	2,416	2,324	13,199
2010-2018	2,722	3,020	3,131	3,463	2,532	14,868
2000-2010	1,973	2,197	1,950	3,156	2,461	11,737
Total	13,398	13,709	11,664	14,173	11,642	64,586

Table 1 shows a tabulation of age in years, by age group, and year broken into period. Over all surveys issued, slightly more people (14,173) in age group 50-64 were surveyed than any other age group.

The highest age reported in any GSS survey was 89 years, and the youngest was 18 years. These ranges, coupled with the breakdown by age range shown above, are valuable to understand the full picture of how the surveyed sample is broken up by age. The mean age over all respondents and all years for the issuing of the GSS is 46.1 years. From all of the information gathered through

doing tabulations of the age mean per year, it became evident that this average age stayed fairly consistent throughout the entire duration of the GSS's issuance, with the range of average ages by each year only at 5 years, ranging from a minimum of 44.2 in 1973 to a maximum of 49.2 in the 2016 survey, though this subtle increase is apparent over time and should be noted as a potential influence when looking at the effects of age on spending opinion. Graph 1 shows the trend in average age over time:



Graph 1 shows the mean age of respondent over every year since 1973. While the average age has stayed between 44 and 50 for all years, there has been a slight increase in mean age over time.

Also, to align with standard political research broken down by age (see "Age and Partisanship"), I grouped the ages in the data into five groups, 18-29, 30-39, 40-49, 50-64, and 65+. 20.74% of respondents fell into the 18-29 year old group, 21.23% were ages 30-39, 18.06%

were ages 40-49, 21.94% were between 50-64 years old, and 18.03% fell into the 65+ age range. The sizes of each group are relatively equal, and there are between 11,664 and 14,173 respondents in each age group.

I also considered how support for federal spending may change over time. These changes could be impacted by times of war, changes in presidential policy, overall national attitudes about debt and spending, or current events. To look at the effects of time, I broke the years that the GSS was issued from into five different periods. The first period covered all administrations before 1980, so between 1972 and 1979. The second period covered years between 1980, to 1989. The third period covered 1990, to 1999. The fourth period covered years 2000 to 2009. The fifth and final period looks at 2010 until the most recent survey administration at 2018.

When looking at other external variables that may also affect one's spending opinions, it might be important to consider the effects of income, education, sex, or race. When looking at the breakdown of recipients by degree over all years of the survey's distribution, over half (51.35%) of the respondents' highest degree was a high school degree. 21.02% had not obtained a high school degree. 14.66% of those surveyed had gotten their bachelor's degree, and 5.67% had gotten a junior college degree. 7.3% had earned a graduate degree. Over time, the proportion of people with no degree has decreased significantly, from 39.94% of respondents having no degree in 1972, to 11.16% in 2018. This has been a fairly negative consistent trend over time. On the other hand, the proportion of surveyed respondents with either bachelor's or graduate degrees have both increased gradually over time. The percentage of respondents whose highest degree earned was a bachelor's degree has grown from 7.8% in 1972, to 19.8% in 2018. The percentage of those whose highest degree was a graduate degree has risen from 3.27% in 1972 to 10.52% in 2018. Alongside the other variables, level of education could affect one's opinion on spending, and it is important

to recognize that the proportions of the population that have earned these different degrees has also changed over time.

The breakdown of respondents by sex showed that there were actually more female respondents over the entire pool of respondents, with 55.85% female and 44.15% male. The GSS survey does not have any data for transgender, non-binary, gender-fluid or gender-queer respondents.

Race is addressed in the GSS codebook for how different numbers of over- or under-samples would need to be accounted for if doing the tabulations by hand. However, these analyses were conducted with the weights applied, and running a tabulation as "svy: tab" in Stata ensures that these weights are taken into account and that the responses are counted as a survey. Over all the distributions of the survey, 80.28% of respondents were white, and 14.17% of respondents were black. 5.55% identified as another race.

Income was measured through an inflation-adjusted, or real, variable to represent family income adjusted to year 2000 dollars. This variable is named "coninc," and it is a continuous variable that did not require any alteration. The mean family income for all time periods is $45,028 in year 2000 dollars. Converted to 2020 dollars, this is approximately $67,493. There was a wide spread of the responses for family income, ranging from $350.50 to $180,386, all reported in 2000 dollars. They are shown here in Table 2:

Variable	Obs	Mean	Std. Dev.	Min	Max
coninc	58,294	45,028	36790.84	350.5	180,386

Table 2 shows summary statistics of the coninc, inflation adjusted family income, over all issuances of the GSS and adjusted to 2000 dollars. The data has a wide spread, and the mean is $45,028.

When looking at the summary statistics for party affiliation, there were eight total responses one could have given to the question that were built by the branching questions described in the Methodology section. They are shown in Table 3:

Political Party Affiliation	Frequency	Percent	Cumulative Percent
Strong Democrat	10,378	16.12	16.12
Not Strong Democrat	13,294	20.64	36.76
Independent, Near Dem	7,792	12.1	48.86
Independent	9,888	15.35	64.22
Ind, Near Rep	5,721	8.88	73.1
Not Strong Republican	9,933	15.42	88.52
Strong Republican	6,318	9.81	98.34
Other Party	1,072	1.66	100
Total	64,396	100	

Table 3 shows a tabulation of political affiliation, with all response options. "Other" party was removed from analyses due to its low response rate (1.66% of all responses). The group with the highest response rate was Not Strong Democrat, with 20.64% of the responses. The lowest response rate, besides other, was Independent, Near Republican with 8.88% of the responses.

Outside the range of Strong Democratic to Independent to Strong Republican, there was also the option to identify with an Other Party. I recoded this breakdown into separate variables for "partyidd" for those who identified as either a Strong Democrat, a Not Strong Democrat, or an Independent, Near Democrat, and doing the same recoding for Republicans with "partyidr." 48.55% of respondents were a Democrat of some sort, and 33.9% of respondents were Republican of some sort. 15.26% of respondents identified as Independent. Only 1.66% of respondents reported to identify with another unlisted party.

When looking at the age breakdown of those different party affiliates, both the Democratic and Republican party affiliation had fairly consistent support percentages throughout each of the different age group ranges. Identification as Democrat stayed between 46.16% (for 18-29 year olds) and 50.40% (for ages 65+) for all age groups. For Republicans, a similar consistency

emerged. The support ranged between 31.83% (for 18-29 year olds) to 37.50% (for ages 65+) for all age groups. For both Democrats and Republicans, there was a slight increase in the party support percentages as age increased. Independents' percentage of the population who affiliated had an opposite correlation with age. The support proportion was highest in the 18-29 year age group, where 19.71% of respondents reported identifying as Independent. The support gradually decreased as age increased to 10.14% of respondents in the 65+ age group identifying as Independent.

Overall Support over Time

The focus of my thesis is to ask what areas of the federal budget voters think money should be cut from. Therefore, I then conducted tabulations on each of the interested spending areas for this research, which are national defense, Social Security, and education. For every federal spending question in the GSS, the question was asked whether respondents felt that the amount spent was too little, too much, or the right amount. Respondents who felt that the amount currently spent was too little or the right amount would likely be advocating to keep the money in those spending areas or even increase it. Since my focus is to determine what areas of the budget people wanted to cut, I grouped the responses for "too little" and "right amount" together and compared this proportion of the population with the proportion of those who responded that too much was being spent.

For all graphs showing attitudes over time, and graphs in the Appendix that show these attitudes broken down by age or party affiliation, an important distinction should be made. The graphs all display support for *cutting* spending to that budgetary area. They should be interpreted whereas higher points on the figure show increased support to cut spending, not as increased favorability to the spending area overall.

In looking at the variable natarms, which stands for spending on federal defense programs and is depicted at right, 67.21% of all respondents over all issuances of the GSS responded that there was too little or the right amount spent on national defense. About one-third, or 32.79% of all respondents felt that the current spending was too much. When looking at this breakdown over time, I was interested by the influxes in support. In 1973, the first time this question was asked, 40.3% of respondents felt that this spending was too much. However, this number continued to decrease gradually over time until 1980, standing at 24.86% in 1977, and falling to its lowest rate of 12.26% in 1980.

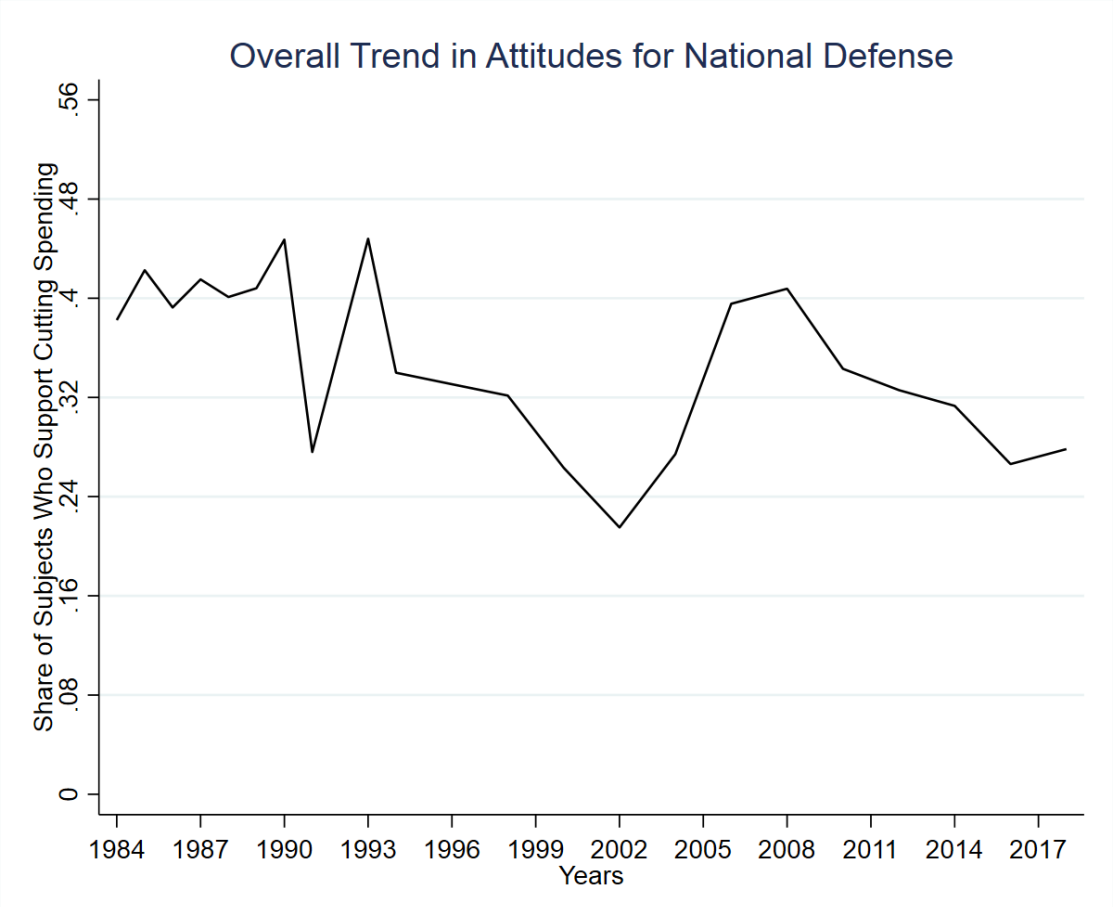


Figure 1 shows the overall trend in support for cutting National Defense spending over time since 1984. Over all surveys issued, slightly more people (14,173) in age group 50-64 were surveyed than any other age group. The highest support for cutting spending came in 1990 and 1993. The lowest support for cutting spending came in 2002.

In the 1982 survey, that value increased sharply, with 34.64% of respondents saying that too much was being spent on national defense. This number hovered between 34.4% and 44.73% until 1991, and then the number of those advocating for a funding cut decreased to 27.61%. Comparing this to historical context, this peak in 1991 and subsequent drop right after in the number of people who thought spending on national defense was "too much" may have been in response to Dick Cheney's announcement to cut defense spending. His plan hoped to cut up to $167 billion dollars from the military over the period of 1990 to 1994 (Gordon, 1990). In 1993, the number spiked again to 44.8%. Between 2000 and 2002, I expected the rate of support for increasing spending to increase in the wake of the September 11, 2001, attacks, which would pair with a decrease in those advocating for a spending cut in this area. This time period did result in this trend (shown on the figure above as a drop in support for cutting spending). However, the rate of those who said spending was too much fell only from 26.33% to 21.52%, and I expected this decline to be greater. In the most recent collection, 27.84% of respondents felt that the national defense spending was too much, and this is relatively low compared to the trend over time. Breakdowns by age and party, as well as change, are shown in Figure 2 in the Appendix and are detailed in the next section. See Figure 1 above.

National spending on foreign aid was another area of interest to me. Although the dollar amount is much smaller for federal commitments on foreign aid (39.2 billion for 2019) and makes up less than 1% of the budget (Ingram, 2019), I was interested to see if there was a distinction in the population sectors that supported foreign aid spending and defense that would presumably be spent on defending the United States almost unilaterally. This is shown below in Figure 3. When looking at the nataid variable that represented national foreign aid commitments, I was surprised to see a much lower rate of support than I expected. Only 29.8% of respondents felt that the money

spent was either too little or the right amount. 70.2% believed it was too much and are shown in the figure 3 as that they would support cutting spending. This proportion stayed between 70% and 76% between 1984 and 1996. That proportion has stayed below 70% since 1996, and a steep drop

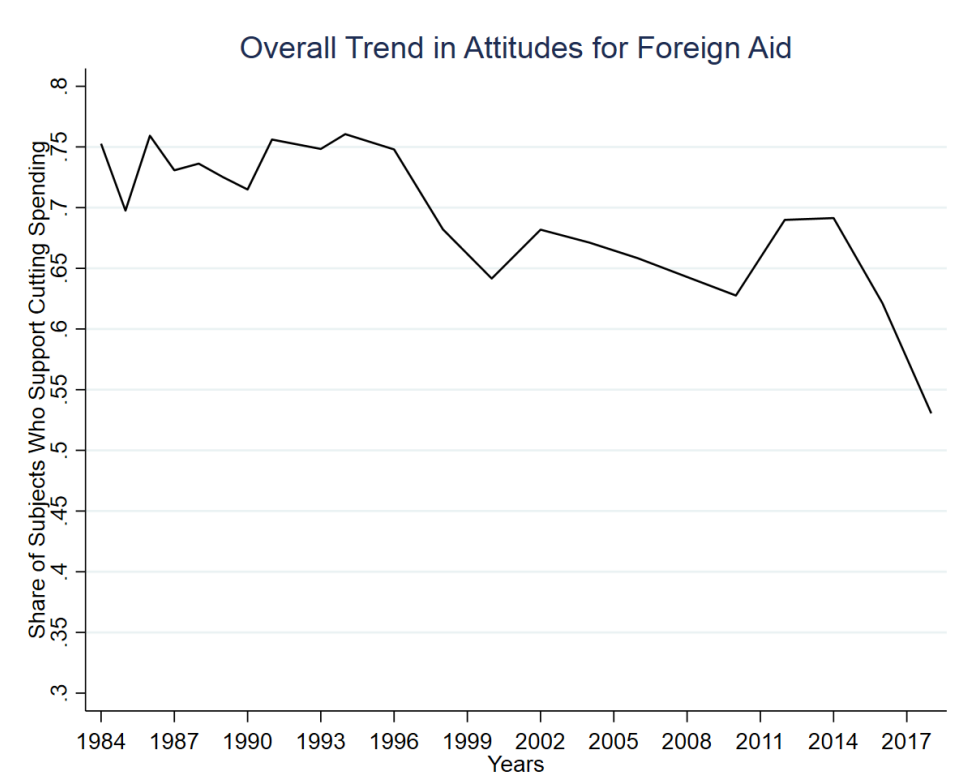


Figure 3 shows the overall trend in support for cutting Foreign Aid spending over time. Support stayed relatively constant from 1984 to 1996. Since 1996, there have been fairly consistent drops in support for cutting spending to this budget area. From 2014-18, the support to cut foreign aid dropped steeply.

was experienced between 2014 and 2018. Breakdowns by age and party, as well as change, are shown in Figure 4 in the Appendix.

Education spending is a bit different than other areas of the federal budget. Education is a small area of the discretionary budget. However, it is mostly funded through state and local tax dollars, meaning that the federal government is not intaking or redistributing the majority of money that is actually spent on this area. I wanted to compare this sector of the federal budget to national healthcare funding. Education had a budget of $69.98 billion at the federal level in 2015. Medicare and Health had an allocation of $66.03 billion in 2015 (National Priorities). However, national healthcare is spent and managed primarily at the federal level, whereas a majority of education

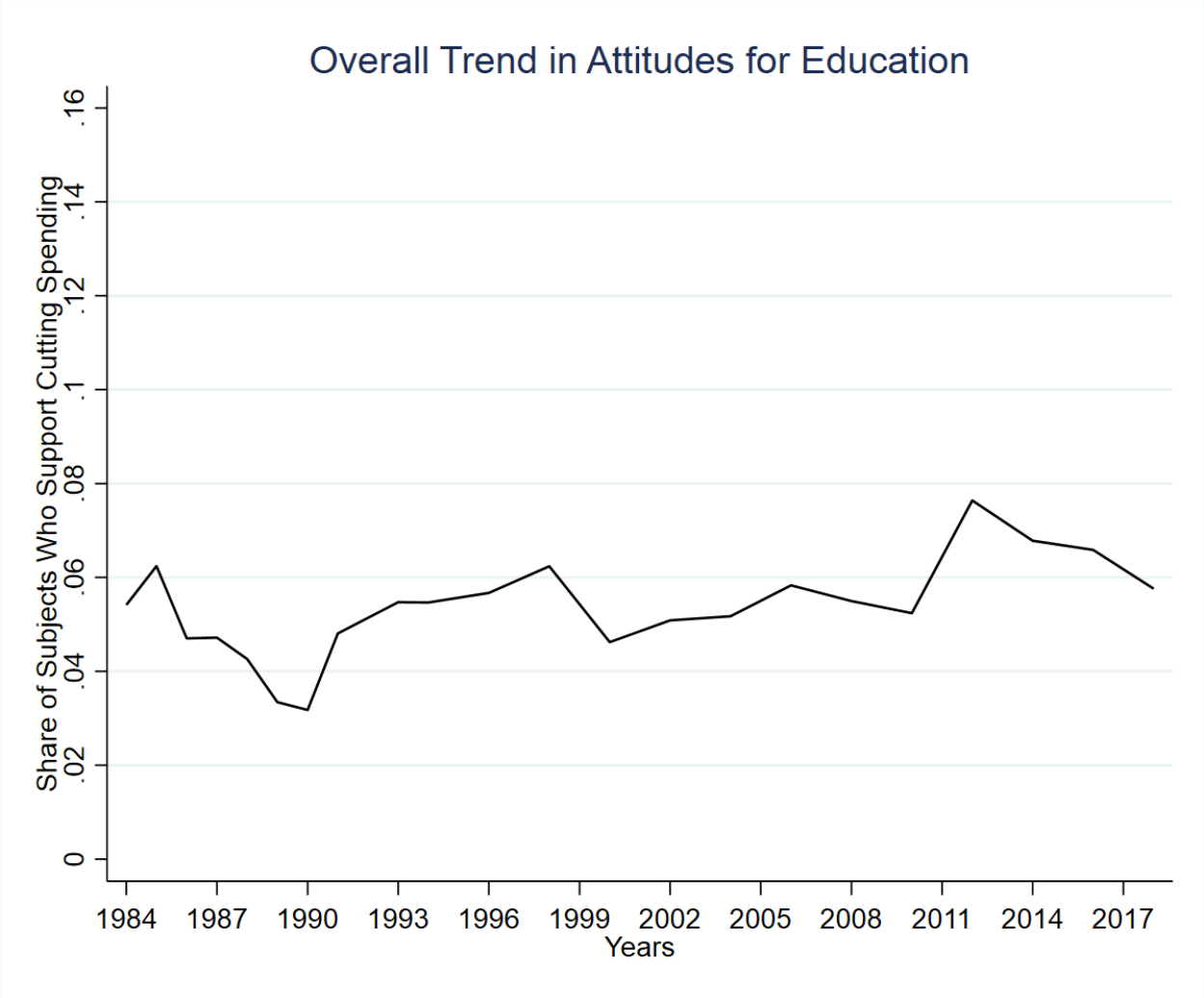


Figure 5 shows the overall trend in support for cutting Education spending over time. Support stayed relatively low, below 8%, for the whole time period. There was a period of decline for cut support from 1984 to 1990 (minimum hit at 3.2%), and other declines during 1998-2000, and 2012-18. The peak was reached in 2012 at just below 8%.

funding comes from the state and local levels. According to Pew Research in April 2019, education has the highest bipartisan support of any spending area. Figure 5 shows attitude trends over time and the share of people who support cutting for this area of the budget. 93.65% of respondents on the nateduc variable said that the spending was too little or the right amount. Only 6.35% reported that they felt it was too much. Over time, education spending has stayed relatively constant. In 1973, 9.41% said too much was being spent on education federally, and this rate peaked at 11.76% in 1975. In 1980, this value fell below 10%, with only 7.48% supporting a cut to education spending, and it hit a minimum in 1990, when only 3.18% of respondents felt that too much was being spent on education. This proportion has stayed between 4% and 8.36% since then, and only 4.53% of respondents said they thought too much was being spent on education at the federal level.

I wanted to see if a difference in support for healthcare and education spending at the federal levels could speak to a greater preference in what level of government Americans are comfortable trusting their tax money being spent under. While there are surely some differences in personal preferences of who may support education or healthcare funding but not the other, the GSS results over all survey distributions showed a similar level of support overall for these two areas. However, the support for cutting spending for healthcare spending was nearly 10% higher than it was for education in 2010 and 2014. This could be reflective of larger national attitude differences about whether nationalized healthcare is in the purview of the federal government. The trend for healthcare spending is in Figure 7 below:

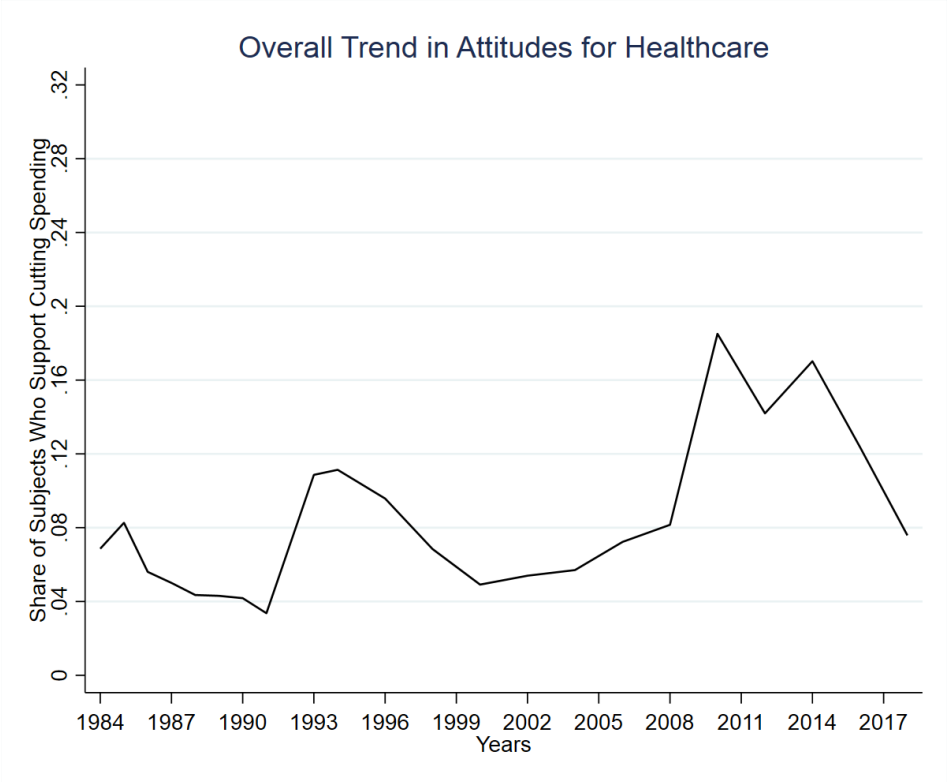


Figure 7 shows the overall trend in support for cutting Healthcare spending over time. Support fluctuated over time, with support for cutting spending highs in 1993, 1996, 2012, and lows in 1991, 2000. The peak was 18% overall supporting cuts in 2010. The minimum came in 1991, at about 3.5% supporting cuts.

When breaking the support down into different areas, by age or party affiliation, it may become evident that the different areas of the population have different levels of support for these different sectors. One aspect of these differences is the question of whether a certain population sector feels more comfortable with national control or state and local control of their money spent. In looking at the results overall, the national health variable, natheal, had 92.02% of respondents who believed the spending was too little or the right amount, with only 7.98% of respondents believing that the money spent was too much.

Comparing these percentages to that which were found in the education variable, nateduc, they were quite similar.

National spending on Social Security is one of the single largest areas of the budget. Social Security, as previously discussed, primarily serves those of older ages, with benefits being opened to those ages 65+, those unable to work due to a disability, or family members of a deceased person receiving benefits. In the GSS, this was asked as the variable natsoc, which resulted in strong overall support for its continued funding. 93.91% of all respondents over all times reported that Social Security spending was too little or the right amount, and only 6.09% said the spending was too much. The overwhelming support for this sector came as a surprise to me, but I was interested to see then how it would break down by age and party affiliation. This is displayed in Figure 9 here:

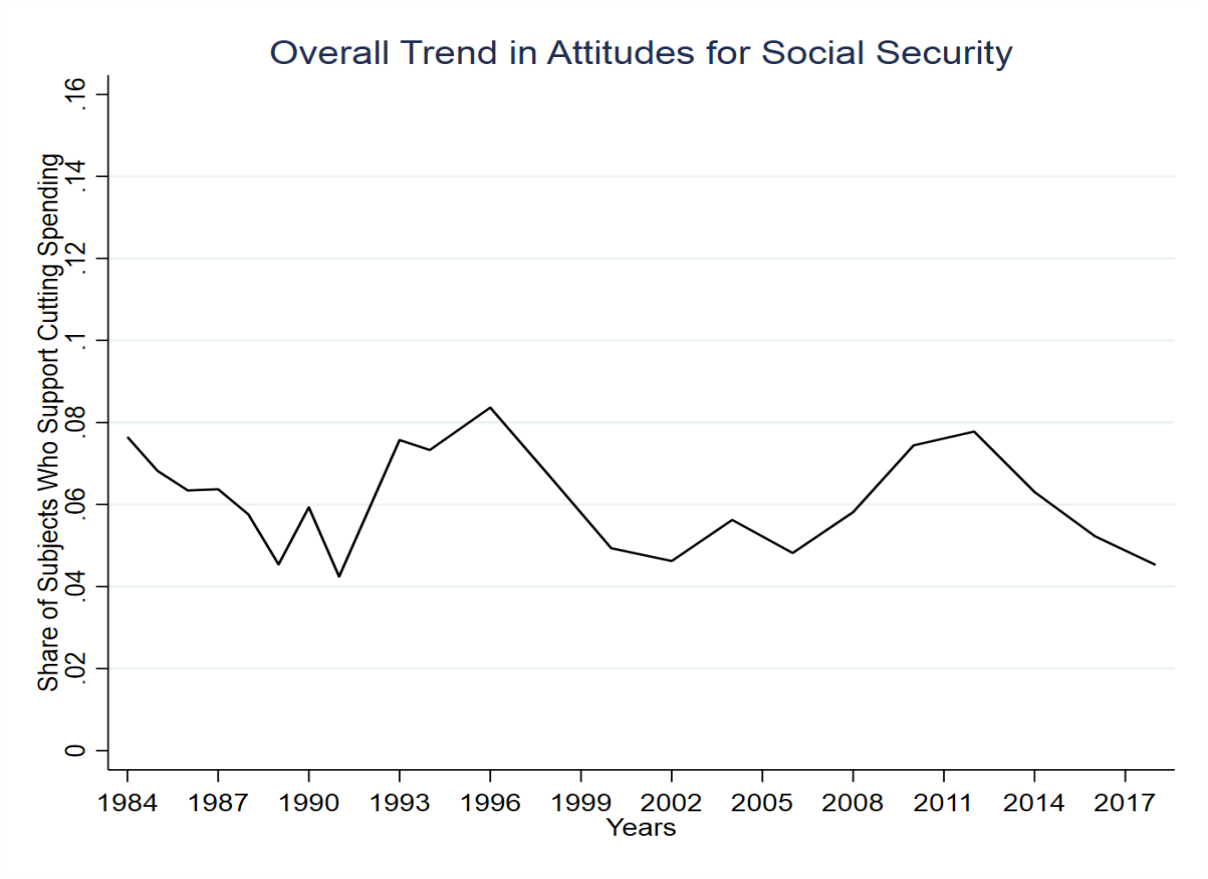


Figure 9 shows the overall trend in support for cutting Social Security spending over time. Support fluctuated over time, with support for cutting spending reaching high points in 1996 and 2012, and lows in 1989, 1991, 2000, and 2006. The peak was 8.4% overall supporting cuts in 1996. The minimum came in 1991, at about 4.2% supporting cuts.

Some of the proportions of support did come as a surprise to me, but I still wanted to know whether or not the rates of support differed significantly by age and party affiliation.

Comparing Sectors of the Population by Age

I began comparing different sectors of population that supported different funding areas by age group. When considering the overall relationship between age and a spending area, I used the regressions to find coefficients between different variables and changes in support.

In regard to natarms, support for retaining or increasing defense spending increased with age. In other words, the older someone was, the less likely they were to want to cut federal defense spending. In the 18-29 year old group, 39.29% of respondents felt that we were spending too much on national defense. This was the highest rate of any of the age groups. Both the 50-64 and 65+ age groups reported less than 30% who would want to cut national defense spending. The regression also revealed that age has a statistically significant relationship with support for national defense spending, with support for cutting defense spending This value is both statistically and economically significant. By age, trends have stayed mostly consistent for each age group with the total trend over time. Since 1984, support for spending cuts has stayed lower than original rates among all groups but 18-29 except in years 1991, 1993, and 2008. The age group 18-29 has had higher proportions of respondents that said spending was “too high” each year except 2000-04. These trends and changes can be seen in Figure 2 in the Appendix.

Support for foreign aid had a nearly opposite correlation with age. 61.45% of those in the youngest age group, 18-29, felt that too much was being spent on foreign aid. This proportion of the population increased with each age group, though there was a sharp increase between the 18-29 year age group and the 30-39 age group, that had 69.6% of people saying too much was being spent on this area. Nearly three-fourths (74.28%) of those age 65 and older said that too much was being spent in this area. 4a shows consistent trends among all age groups over time, but younger

groups have had consistently lower support for cutting spending than older groups, and younger groups now have much lower support for spending cuts than older counterparts. All age groups are seeing support for spending cuts at lower rates than in 1986. See Figure 4 in the Appendix.

When looking at national education spending, age had a nearly opposite correlation than it did with national defense for support of cutting spending in education. Only 2.96% of respondents in the 18-29 year old age group said that too much was spent on education at the federal level. This number increased by age group, with 11.38% of those 65 and older saying that too much was being spent on education. Over time, there have been widely changing levels of support among each group over time, but the two youngest groups are consistently at the bottom of spending cut support. 65+ has held the highest support for spending cuts every year but 2018, where 50-64 barely surpassed it. Since 1984, support for spending cuts has stayed fairly consistent among all groups except age group 40-49 with each groups' respective 1986 rate. Each group shows increased spending cut support from 2012 to now for all groups but 50-64. 40-49 has seen much higher spending cut support in all years except 1990. These trends can be seen in Figure 6 in the Appendix.

The correlation between age and education spending support became even more interesting to me when I compared this with national healthcare spending results. While there was still a positive correlation between age and national healthcare spending support, just as there was for education, the change by age was less significant. The lowest proportion of people who said too much was being spent on national healthcare were in the 18-29 year age group, only 5.74%. With that proportion increasing only 3.54% over the spread, 9.25% of those age 65+ said too much was being spent on national healthcare. Healthcare's highest support for cuts came from age groups 40-49 and 50-64. Over time, support has fluctuated greatly from 1986 rates between increased

support of cutting spending to 1986-consistent rates. Peaks for all groups came in 1994, 2010, and 2014. The largest fluctuations, with spikes of up to 400% original 1986 rates for spending cut support, came from the 65+ age group. shows closely consistent trends among all age groups over time, but 18-29 group has had lower support for cutting spending than older groups since 2008. These trends are displayed in Figure 8 in the Appendix.

National Social Security spending had a similar correlation with age as defense did. Younger people were more likely to support its spending cut than older people. 8.23% of those in the 18-29 year age group said that Social Security was receiving too much money. This decreased gradually over each of the age groups, with the oldest group, 65+, only having 3.53% that would support a cut in spending for Social Security. The regression did not show a statistically significant correlation between age and support for Social Security funding. As age increased, the proportion of people willing to cut Social Security funds decreased, but this shift in opinion appeared to depend more on other demographic factors.

Comparing Sectors of the Population by Party Affiliation

To set up the regressions to compare the strength of the correlation between party affiliation and the opinions on spending in different areas of the federal budget, I used the Stata option to exclude one respondent choice from the regression and compared two different responses to the Independent Party variable. I excluded the response for Other Party, since this response rate was incredibly small, only having 1.66% of the surveyed population identifying with this group. Therefore, I set the Independent party affiliation as the constant, and I compared the Democrats (which included Strong Democrat, Not Strong Democrat, Independent, Near Democrat) and the Republicans (which included Strong Republican, Not Strong Republican, Independent, Near Republican) both respectively to the Independent respondents' opinions on spending.

When looking at support of Democrats and Republicans for national defense, natarms2, there was a clear difference in support between the two when compared to Independents. Democrats were more likely to support spending cuts for national defense than Republicans. A greater proportion of Democrats (39.79%) said too much was being spent on defense over all non-Democrats (26.19%). Republicans supported keeping defense spending more than Independents and Democrats. Democrats having highest support to cut spending over all years, standing at about 40% in 2018. In regards to change over time since rates of support for 1986 for each group, there was a consistent period of lower spending cut support among all groups until 2002. Between 2002-06, all groups experienced increases, but only Democrats went higher than original 1986 rates. All groups have lower support for cutting than 1986 levels now. These changes, trends and support over time can be viewed in Figure 2 in the Appendix.

Support of Democrats and Republicans for foreign aid, nataid2, was opposite when compared to support of Independents. Democrats were less likely to support spending cuts for foreign monetary aid than Independents, with a coefficient of .5429. Republicans were more likely than Independents to support spending cuts for foreign aid. The coefficient for Republicans was .5697. Republicans having highest support to cut spending since 2004. Before this time, Republicans, Democrats, and Independents had similar rates of support. The gap widened in 1994. According to the Brookings Institute, foreign aid spending has been initiated by bipartisan efforts over the last 50 years. The Millenium Challenge Corporation, a foreign aid investment by President Bush in 2000, coincided with a near flatlining of Republicans' spending cut support before it spiked higher than other parties in 2008.

Democrats have had the lowest support for foreign aid cutting from 1994-2004 and since 2006. Republicans have the highest. Since 1984, Republicans and Democrats widening gaps in

support changes, where Republicans seen fluctuating rates above and below the 1986 rate of support. Their support was higher than ’86 rates between 2010 and 2016 but now sit about 10% below ’86 rates. Democrats and Independents have seen quickly decreasing changes since 2014. Democrats now have about 70% lower cut support rates than 1986. These trends can be seen in Figure 4 in the Appendix.

Support of Democrats and Republicans for national education spending, nateduc2, was slightly different by party, but both parties were more likely to support a spending cut for education than Independents were. This would also support the 2019 findings by Pew Research Center cited in the Methodology that Republicans and Democrats shared very similar sentiments on education funding. Pew found that education was the area of spending most supported by bipartisan interests to preserve spending on, so it is interesting that Independents may want to preserve that spending even more than Republicans or Democrats. One speculation is whether people may still support education funding at the federal level more with consideration that most of the spending on education is actually spent at the state and local levels. Only about eight percent of education funding nationwide comes from the federal government, and a majority comes from state and local governments (US Department of Education).

Looking at the trends of partisan support over time, the graphs showed Republicans having highest support to cut education spending since 1994. Before this time, Independents had slightly higher rates between ’90-’94. Democrats have had the lowest support for all years. Since 1984, there have been extremely different trends in change by party. Republicans have increased support to cut compared to 1986 rates since 1993, and they now sit at about 140% of the 1986 rate. Democrats have seen a consistent drop in cut support rates and now sit at about 55% their 1986

rates. Independents had a sharp spike in their change in support compared to 1986 rates between 1990 and 1996. These can be seen in Figure 6 in the Appendix.

Support of Democrats and Republicans for national healthcare spending, natheal2, differed when compared to Independents' support for healthcare spending. Democrats were less likely to support spending cuts for healthcare than Independents, meaning they were more likely to prefer preserving spending in this area. Republicans have had the highest support to cut spending over all years, except 1985 where Independents surpassed them in spending cut support slightly, with much higher support in 2010-18. In 2010, Republicans had a much higher rate of support to cut spending (about 33%) over the other party identities (12% for Independents and 10% for Democrats). Democrats have had consistently lowest support to cut spending in defense. This further confirms that education spending is more closely tied with age than party affiliation compared to healthcare spending. Since 1984, Republicans and Democrats have experienced nearly identical trends and rates of change in cutting support since 1986. However, Independents have consistently seen the highest peaks in changes increasing spending cuts opinions. Now, both Republicans and Democrats have nearly identical spending cut support rates as they did in 1986, but Independents' rate of support is about 65% higher than in 1986. These trends are viewable in Figure 8 in the Appendix.

Support of Democrats and Republicans for national Social Security spending, natsoc2, had differing results when the two were compared to Independents. Democrats were more likely to say spending was "too little" or "the right amount" (rather than "too much") for Social Security spending than Independents. Democrats might therefore support keeping spending for Social Security more than Independents. Republicans, on the other hand, were more likely than Independents to suggest spending on Social Security was "too much," and Republicans may

therefore support a spending cut in this area. Broken down by party, Figure 10 (Appendix) shows Republicans having highest support to cut spending over all years but 1990, where Independents were higher. Democrats have consistently stayed the lowest, except year 1996, where Ind. were lower. Independents' support for cuts has grown over time, hitting 280% of 1986 rates in 2012.

Table 4

	National Defense		Foreign Aid		Education		Healthcare		Social Security	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Ages 30-39	-0.025***	-0.031***	0.094***	0.097***	0.011***	0.013***	0.022***	0.020***	-0.006	-0.010**
	(0.009)	(0.008)	(0.009)	(0.009)	(0.003)	(0.003)	(0.005)	(0.005)	(0.005)	(0.005)
Ages 40-49	-0.081***	-0.078***	0.123***	0.128***	0.025***	0.027***	0.026***	0.022***	-0.012**	-0.016***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.003)	(0.003)	(0.005)	(0.005)	(0.005)	(0.005)
Ages 50-64	-0.125***	-0.108***	0.132***	0.138***	0.047***	0.048***	0.031***	0.022***	-0.037***	-0.040***
	(0.008)	(0.009)	(0.009)	(0.009)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)
Ages 65+	-0.148***	-0.115***	0.142***	0.129***	0.076***	0.074***	0.031***	0.028***	-0.044***	-0.038***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Democrats	0.067***	0.042***	-0.027***	-0.029***	-0.027***	-0.023***	-0.021***	-0.016***	-0.017***	-0.020***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)
Republicans	-0.146***	-0.174***	0.036***	0.025***	0.032***	0.033***	0.050***	0.049***	0.028***	0.018***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Constant	0.428***	0.242***	0.587***	0.761***	0.022***	0.018**	0.053***	-0.005	0.078***	0.019**
	(0.009)	(0.016)	(0.009)	(0.016)	(0.004)	(0.007)	(0.005)	(0.009)	(0.005)	(0.008)
F	334.749	204.819	74.253	77.872	111.841	55.037	66.815	52.968	62.158	41.197
R Squared	0.057	0.079	0.016	0.039	0.028	0.031	0.016	0.034	0.012	0.022
# of observations	36,808	36,808	36,808	36,808	36,808	36,808	36,808	36,808	36,808	36,808
Covariates	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Table 4 shows all of the regression results for each of the five spending areas considered. As previously mentioned, two models are used for each spending area, and the second model in each spending area accounts for both time variables and additional demographic variables as sex, race, family income, and level of education.

To analyze the different correlations of age and political affiliation with spending opinions of different areas of the federal budget, I was able to create two different models to look at each of the spending areas' relations with age and party affiliation while adding in controls for different variables that could also have external impacts on one's spending opinion. To begin, I compared the correlations of age and party affiliation with federal spending to observe which of these two characteristics had a stronger correlation. Looking at age groups, the first age group (18-29) was set as the constant, and the independent party was set as the constant for party. Other party was excluded. From there, I was able to move into accounting for the year of that respondent to account for overall changes over time. The second model I used was one to look at age, party affiliation, time over period, and including other demographic variables that might impact the spending opinions. For my models, I used the statistical significance measure of .05, so P>|t| values had to be at or below .05 to be statistically significant for this research. Table 4 above shows all of the regression results.

National Defense

When looking at the first model, I wanted to simply look at the effects of age and party affiliation. After standardizing the coefficients with the Beta feature on Stata, I was able to tell both the correlations of the different variables with the outcome variable, spending opinion, as well as the impact of the correlations. Looking at each of the age groups, all of them showed that as age increased, support for cutting spending for national defense also fell. The constant age group had a coefficient of .4105 for supported cutting spending, and each age group following had a negative coefficient, signaling that each age group had a lesser rate of support for cutting spending than the last. When considering party affiliation, Democrats supported cutting spending for national defense more than Independents. Their coefficient sat at .4662, compared to .4106 for Independents (standardized). On the other hand, Republicans preferred keeping spending for

national defense more than Independents did, with their coefficient sitting at .2830. In grouping these results together from both the summary statistics and this regression analysis, it becomes clear that the demographic most likely to support national defense spending over cutting it would be older Republicans, especially those age 65+.

When taking into account time period in the second model, the overall trends for age group support and party affiliation-based support stayed the same, but it was interesting to see that support for cutting defense spending actually increased over time. When looking at the second model with variables accounting for demographic factors sex, race, education, and income, this model was the strongest, as it had a higher R-squared value of .0583 than any other of the three models. However, this is still a very low correlation, and this statistic shows that there are a lot of other variables that contribute to one's spending opinion about national defense rather than just the variables we accounted for here.

Foreign Aid

When looking at the national spending on foreign aid, the models yielded different and nearly opposite results for demographic trends than the national defense spending analysis did. When looking at the first model with just age and party affiliation, I was able to see how support for cutting spending actually rose alongside age. This trend was also confirmed in the summary statistics. Compared to the lowest age group, all of the higher age groups had an increased support for cutting foreign aid spending than the last, and all were statistically significant. Looking at party affiliation, Democrats were more likely to support spending preservation for foreign aid than Republicans or Democrats. Republicans were most likely to support spending cuts for foreign aid out of any political affiliation. However, this model was not very strong, with an r-squared value of only .0147.

When bringing in time as a factor, these trends of age and party affiliation remained the same, but it appears that support for cutting spending on foreign aid has fallen over time. In other words, support for preserving or increasing this spending has increased over time. When considering the other variables, some other interesting trends were seen. Females were more likely than men, and minorities more likely than whites, to support foreign aid spending. Overall, this model was not very strong, having an R-squared value of .0439. Looking at foreign aid, it appears that those who identify as young white Democrat women would be most likely to support this spending based on the variables we have observed.

Education

Looking at the first model in national education spending, younger people were more likely to support this, with each age group in the regression showing a higher rate of support for spending cuts. The rate of spending cuts was highest in the 65+ age group with a .074 coefficient difference from the constant. Between parties, Democrats were least likely to support spending cuts of the three parties, and Republicans were most likely to support it. Only the coefficient for Republicans was significantly significant. This held true for the second model as well. Seeing the strong correlation that age had with this spending area, it is plausible that age shapes a person's opinion on education spending more than their party affiliation.

Healthcare

The regressions for healthcare yielded interesting results in that they showed that each age group had a statistically significant correlation with higher support for cutting healthcare spending than the 18-29 year old group. This is reflected in the graph in the Appendix: Figure 8a. The regression is helpful to show that each of the other age groups had similar rates of support, while it seemed the 18-29 group was much lower in support for spending cuts, with coefficients for the other age groups ranging only .008 on Model 2. For party affiliation, it is yet again

reflected that Democrats were least likely to support spending cuts in the Healthcare category, while Republicans were much more likely to support spending cuts than Independents or Democrats, with a coefficient of .049 difference from the constant for Independent. Men were also more likely to support spending cuts in this area, with a coefficient of .024 difference from the constant for women. Overall, the model are both very weak, and Model 2 has the highest strength with only a .034 R^2 value.

Social Security

In analyzing the first model on the Social Security and considering the standardized coefficients, there was a trend among all age groups that as age increased, support for Social Security spending increased with age, but this change compared to the youngest age group (18-29) was only statistically significant for age groups 40-49. 50-64, and 65+. Compared to Independents, Democrats were more likely to support Social Security spending, and Republicans were the least likely to support Social Security spending. Bringing in the second model, these trends remained true, but the correlation of the factors age and party affiliation decreased. Other demographic factors, including sex, income, and education, had greater impact than age on opinion than party or age when comparing the Beta coefficients. Support for this spending has oscillated with time. This regression showed very weak models still, with the highest R^2=.0127 in model two.

Conclusion

Campaigns that are hoping to attract different areas of the public may take a stance on retaining or cutting funding for some of these different areas. It is clear that age does have a correlation with each of the funding areas I chose to study, but there are different rates of support depending on the funding area.

In the end, some of my hypotheses were true. Age had a strong correlation with education spending preferences and Social Security spending preferences, whereas political party affiliation was more strongly tied to preference differences in defense spending and

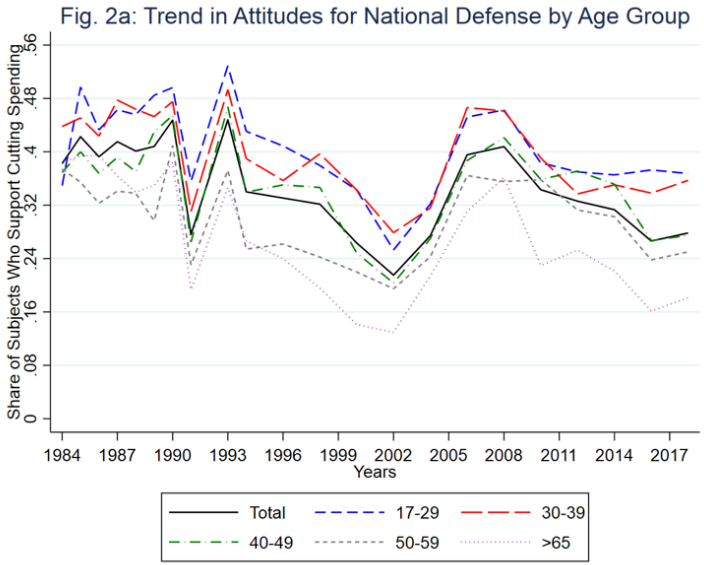
In looking at the outside demographic variables that I considered in the third models for each of my spending area analyses, I was surprised by a few key observations. Level of education was not a significantly significant variable for relationships with spending opinions on national defense, foreign aid, and national education spending.

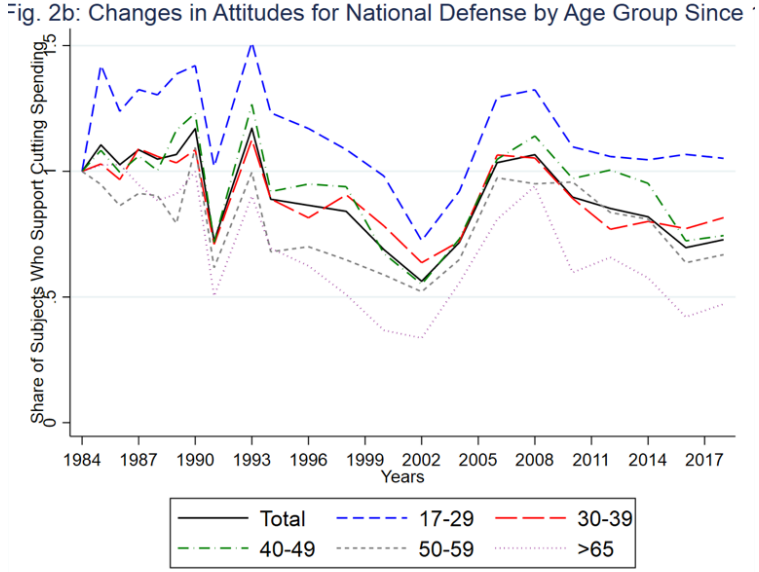
Acknowledging that education and healthcare spending are both relatively small portions of federal spending in the discretionary category, I was intrigued by how education had a stronger correlation with age than did healthcare funding. Even though education had high overall funding support, the support for this funding was strongest with the youngest people in the surveyed group. Healthcare, on the other hand, had highest funding retention support from the oldest age group and followed by the second youngest age group. The relationship here may be more connected to the services provided to these groups of people over their preference for a federally, state, or locally controlled budgetary area.

Interestingly, income had an extremely weak correlation with any spending area, with each outcome variable showing a 0.00 for the income (coninc) coefficient. Also, changes in sex correlated with changes in outcome variables more than changes in race did for four of the five spending areas, excluding foreign aid.

Candidates can take a great deal of information by learning the spending and federal budgetary preferences of their voting constituencies. Whether they are looking to market to a certain age group through a form of technology or build new support by looking at sway voters of a certain set of demographics, identifying trends in spending support can help campaigns build

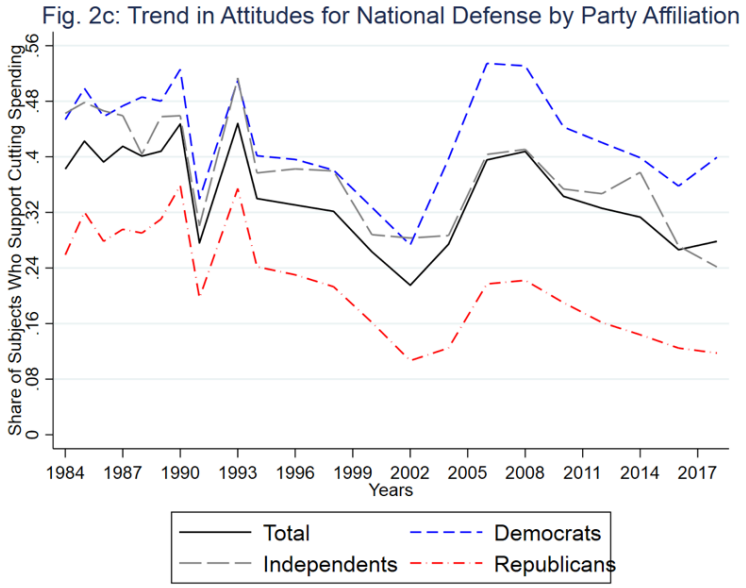
support for victory. It is critical to look beyond these demographics though, as all of these regression models were weak and would need to account for more external variables that are unlisted here to be maximally beneficial. Nonetheless, trends in age and party affiliation and support levels over time can be used to propose policy ideas and attract new voters to any campaign's voting base.

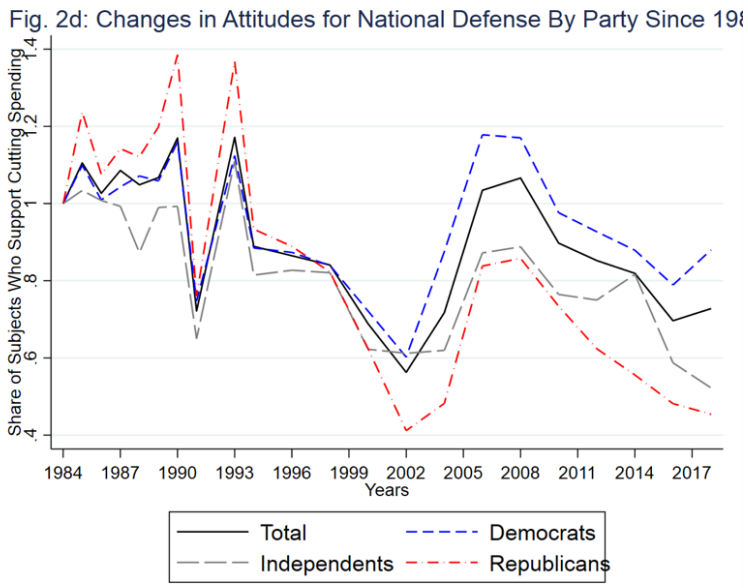




Figures 2a and 2b show trends in attitudes for cutting National Defense spending broken down by age group, with 2b showing the trends as a change since 1984. 10a shows consistent trends among all age groups over time, but younger groups have had consistently higher support for cutting spending than older groups.

Since 1984, support for spending cuts has stayed lower than original rates among all groups but 18-29 except in years 1991, 1993, and 2008. 18-29 has had higher support that spending was "too high" each year except 2000-04.

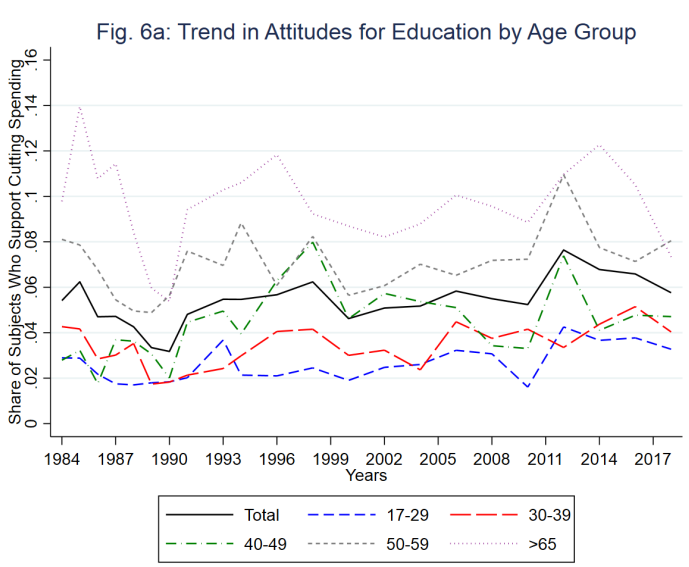


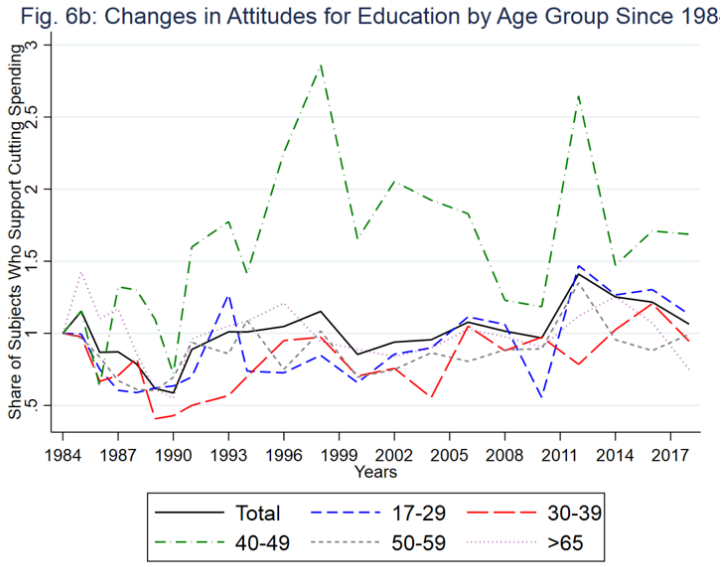


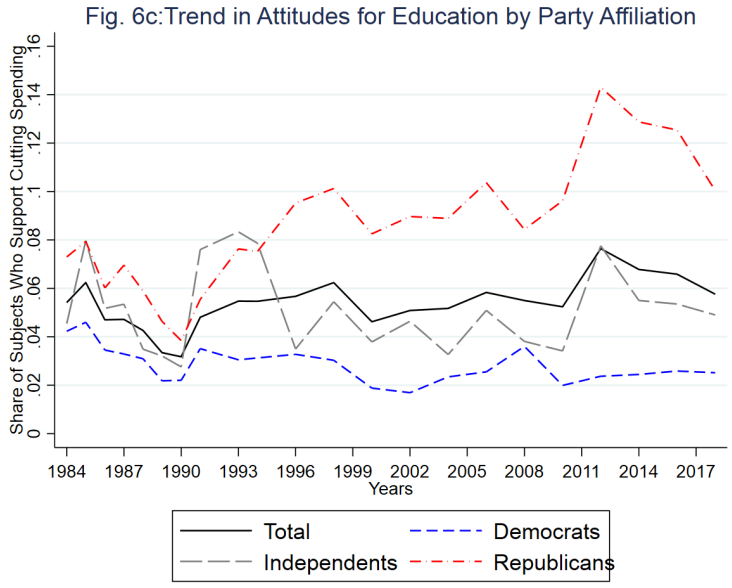
Figures 2c and 2d show trends in attitudes for cutting Nat'l Defense spending broken down by party affiliation, with 2d showing the trends as a change since 1984. 2c shows Democrats having highest support to cut spending over all years. Republicans have had consistently lowest support to cut spending in defense.

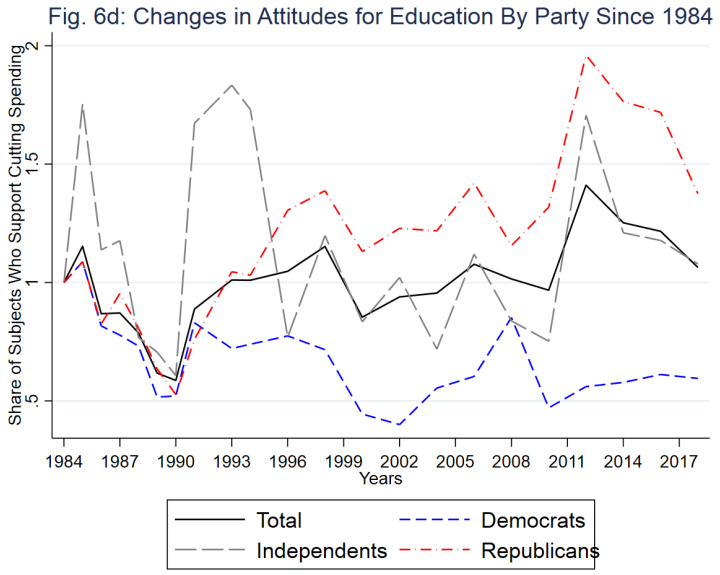
Since 1984, all party groups experienced highly fluctuating changes between 1988-1994. All groups have lower support now than they did in 1986.

Appendix







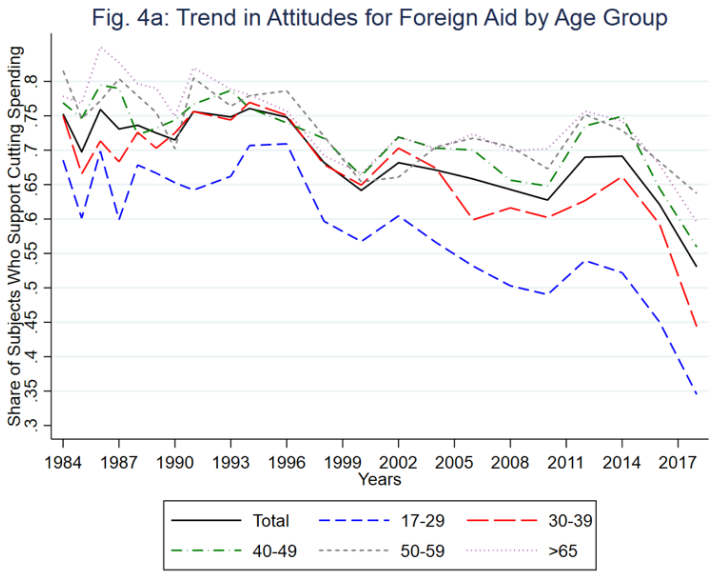


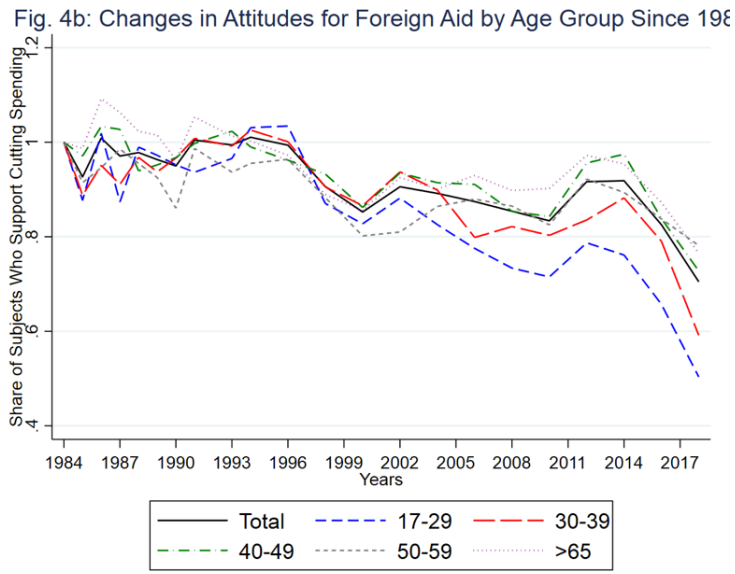
Figures 6a and 6b show trends in attitudes for cutting Education spending broken down by age group, with 6b showing the trends as a change since 1984. 6a shows widely changing levels of support among each group over time, but the two youngest groups are consistently at the bottom of spending cut support.

Since 1984, support for spending cuts has stayed fairly consistent among all groups except 40-49 with the 1986 rate, with increased cut support from 2012 to now for all groups but 50-64. 40-49 has seen much higher spending cut support in all years except 1990.

Figures 6c and 6d show trends in attitudes for cutting Education spending broken down by party affiliation, with 6d showing the trends as a change since 1984. 6c shows Republicans having highest support to cut spending since 1994. Before this time, Independents had slightly higher rates between ’90-’94. Democrats have had the lowest support for all years.

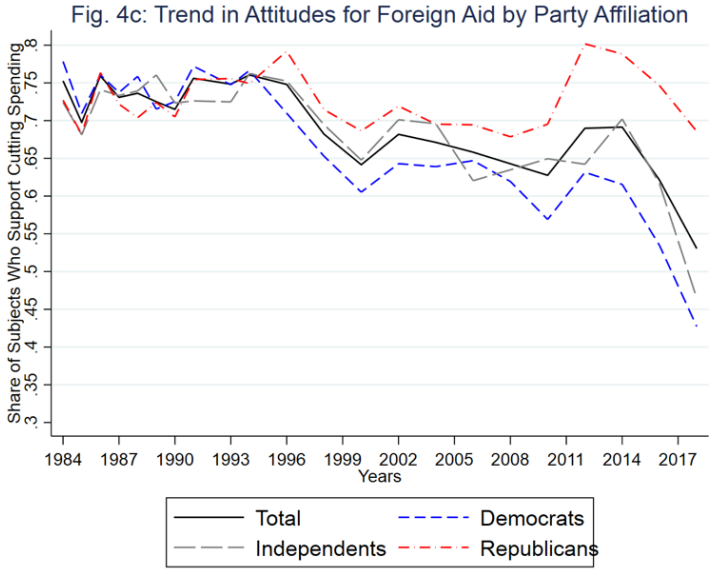
Since 1984, there have been extremely different trends in change by party. Republicans have increased support to cut compared to 1986 rates since 1993, and they now sit at about 140% of the 1986 rate. Democrats have seen a consistent drop in cut support rates and now sit at about 55% their 1986 rates.

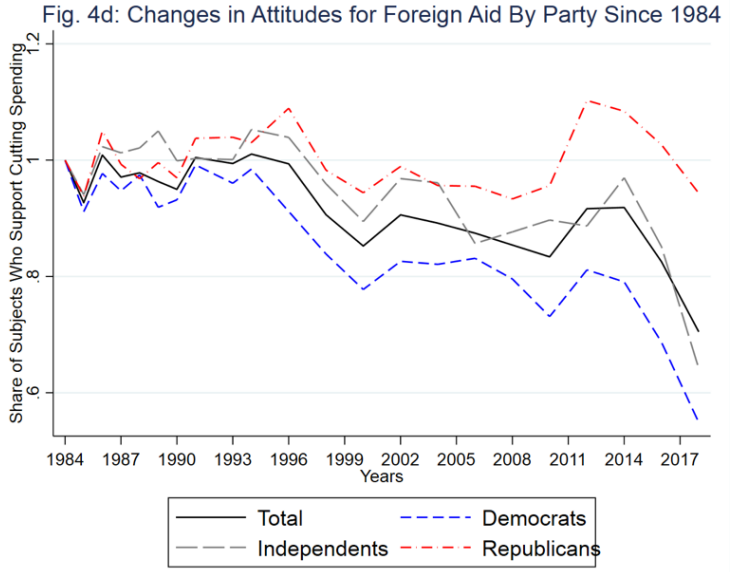




Figures 4a and 4b show trends in attitudes for cutting Foreign Aid spending broken down by age group, with 4b showing the trends as a change since 1984. 4a shows consistent trends among all age groups over time, but younger groups have had consistently lower support for cutting spending than older groups, and younger groups now have much lower support for spending cuts than older counterparts.

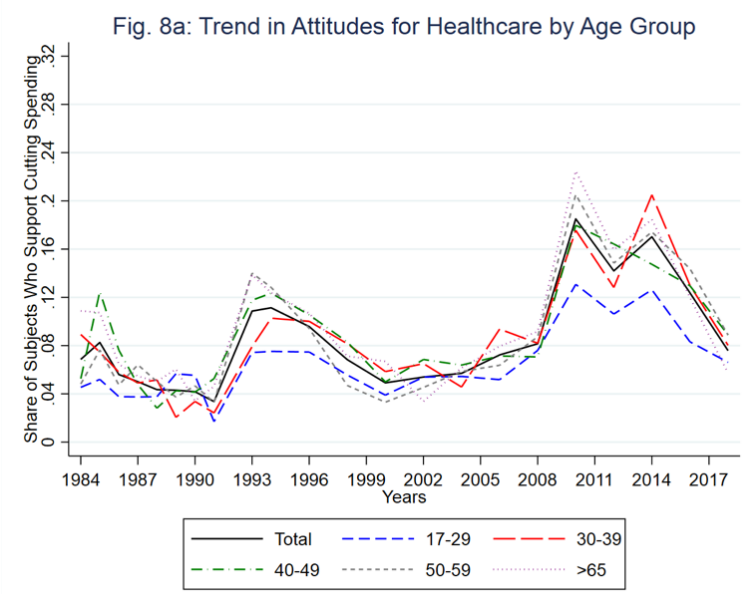
Since 1984, support for spending cuts has stayed lower than original rates among all groups, and the change has fallen further for all groups since 2014.

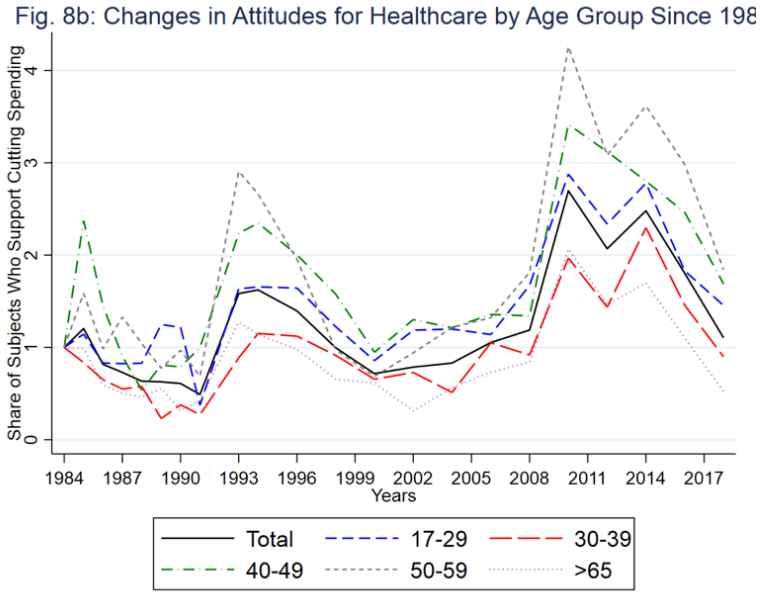


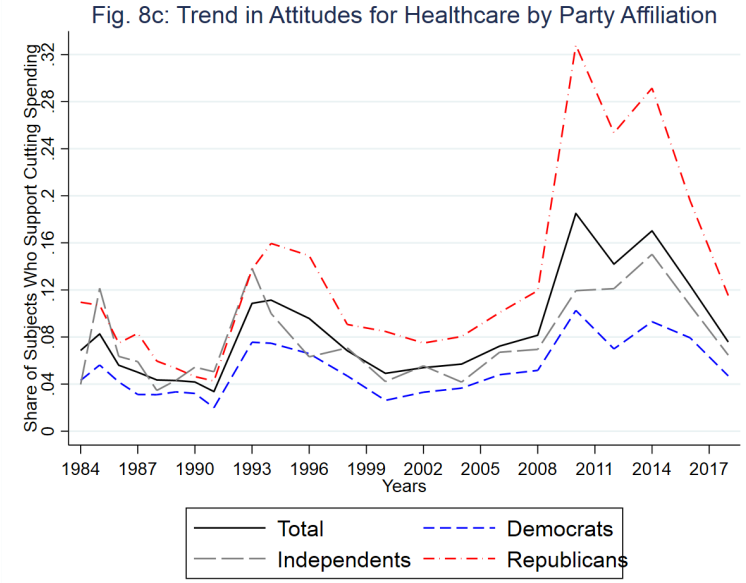


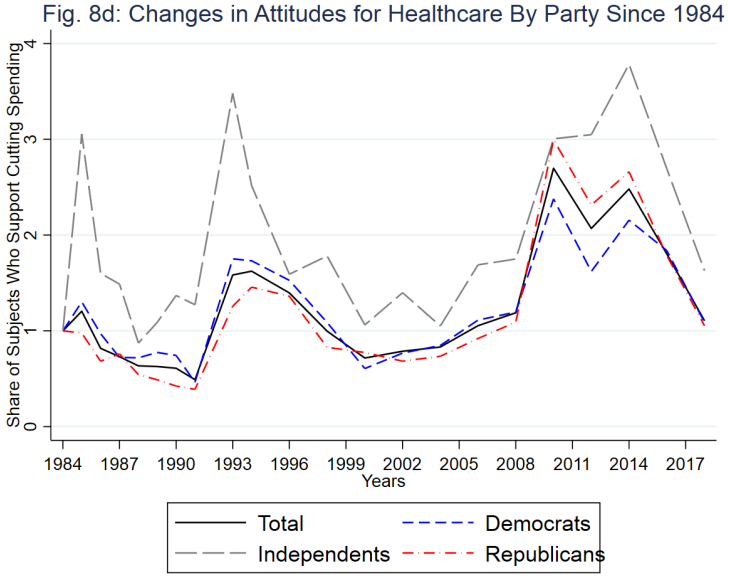
Figures 4c and 4d show trends in attitudes for cutting Foreign Aid spending broken down by party affiliation, with 4d showing the trends as a change since 1984. 4c shows Republicans having highest support to cut spending since 2004. Before this time, Rep., Dem., and Ind. had similar rates of support. Democrats have had the lowest support for cutting since 2006. Republicans have had the highest.

Since 1984, Republicans and Democrats widening gaps in support changes, where Republicans seen fluctuating rates above and below 1986 but now sit about 10% below '86 rates. Democrats and Independents have seen quickly decreasing changes since 2014.







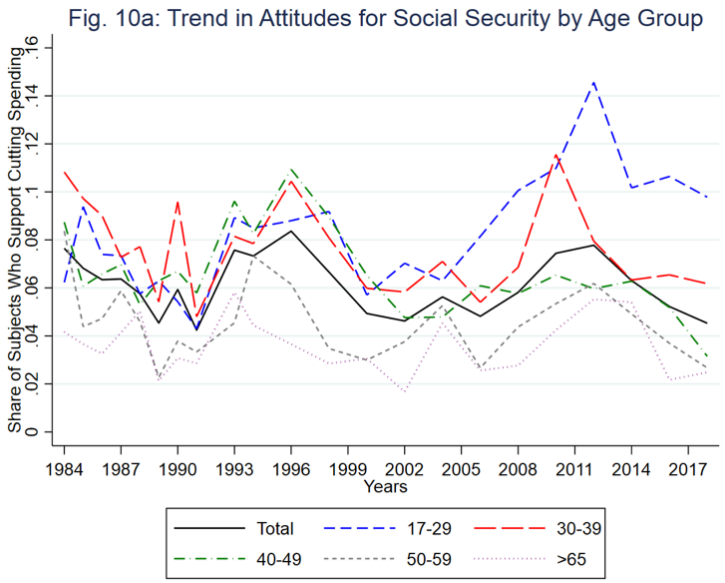


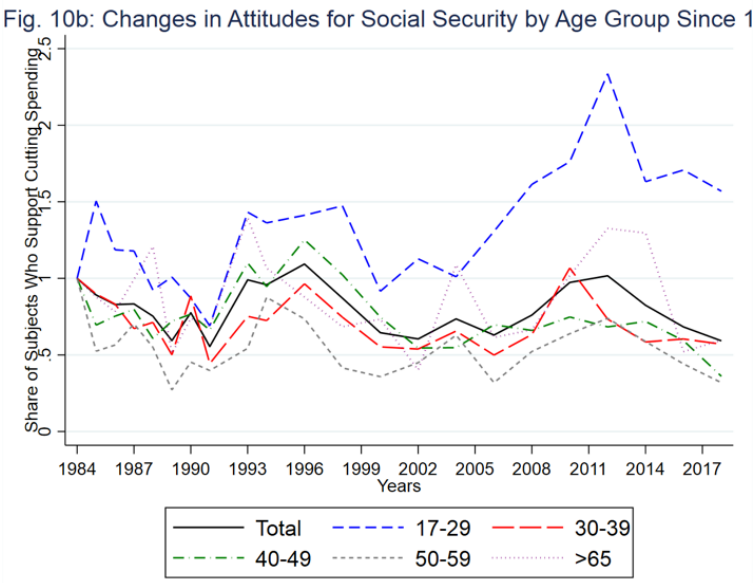
Figures 8a and 8b show trends in attitudes for cutting Healthcare spending broken down by age group, with 8b showing the trends as a change since 1984. 8a shows closely consistent trends among all age groups over time, but 18-29 group has had lower support for cutting spending than older groups since 2008.

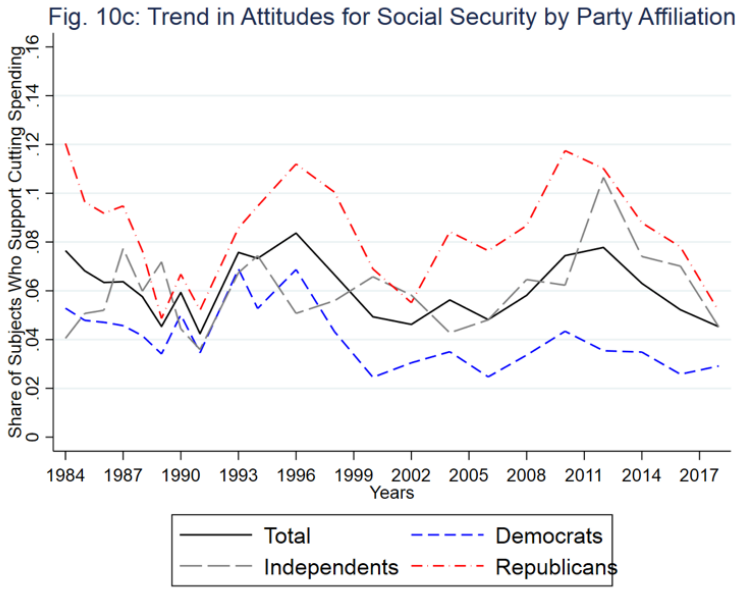
Since 1984, support for spending cuts has fluctuated greatly. Group 50-64 has seen the highest spikes that reflect overall fluctuations by all groups. Overall, all groups have seen decline in cut support since 2014, but all groups' rates are higher than 1986 except 65+ and a barely lower 30-39.

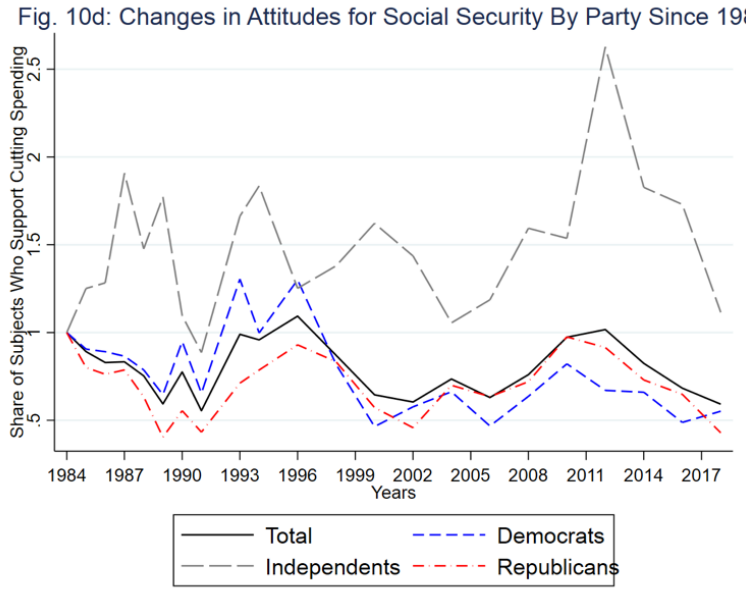
Figures 8c and 8d show trends in attitudes for cutting Healthcare spending broken down by party affiliation, with 8d showing the trends as a change since 1984. 8c shows Republicans having highest support to cut spending over most years, with much higher support in 2010-18. Democrats have had consistently lowest support to cut spending in defense.

Since 1984, Republicans and Democrats have experienced nearly identical trends and rates of change in cutting support since 1986. However, Independents have consistently seen the highest peaks in changes increasing spending cuts opinions.









Figures 10a and 10b show trends in attitudes for cutting Social Security spending broken down by age group, with 10b showing the trends as a change since 1984. 10a shows close support rates in years 1984-94. Oldest groups have consistently had lower support for cutting spending, and the youngest group has had highest support since 2004.

Since 1984, support for spending cuts has stayed lower than original rates among all groups but 18-29 and 65+. 65+ has fluctuated greatly over time, but 18-29 has seen higher rates of support for cutting all years except 1988-92 and 2000.

Figures 10c and 10d show trends in attitudes for cutting Social Security spending broken down by party affiliation, with 10d showing the trends as a change since 1984. 10c shows Republicans having highest support to cut spending over all years but 1990, where Independents were higher. Democrats have consistently stayed the lowest, except year 1996, where Ind. were lower.

Since 1984, only Independents have consistently higher support for cutting spending on SS. Democrats had a brief increase in 1992 and 1996, but otherwise have seen lower levels of support. Republicans have seen lower support for cutting SS every year since 1984.

Bibliography

About the GSS. (n.d.). Retrieved November 18, 2019, from https://gss.norc.org/About-The-GSS.

Access and Analyze GSS Data. (n.d.). Retrieved from https://gssdataexplorer.norc.org/.

Armstrong, J. S., Denniston, W. B., & Gordon, M. M. (1975). The Use of the Decomposition Principle in Making Judgments. Retrieved from https://repository.upenn.edu/marketing_papers/95

Brooker, R. G., & Schaefer, T. (n.d.). PUBLIC OPINION IN THE 21ST CENTURY: Methods of Measuring Public Opinion, Working Draft. Retrieved from http://www.uky.edu/AS/PoliSci/Peffley/pdf/473Measuring Public Opinion.pdf.

CRFB. Analysis of the 2019 Social Security Trustees' Report. (2019, October 30). Retrieved November 25, 2019, from http://www.crfb.org/papers/analysis-2019-social securitytrustees-report?gclid=CjwKCAiAlO7uBRANEiwA_vXQ2vNj_zEdd8Rttd GINCKqhNdGjyzAd0E8N71Tu8youR470FDUwg4jxoCNPkQAvD_BE.

DeSilver, D. (2014, July 1). A closer look at who identifies as Democrat and Republican. Retrieved from https://www.pewresearch.org/fact-tank/2014/07/01/a-closer-look-at-who identifies-as-democrat-and-republican/

DeSilver, D. (2014, July 9). The politics of American generations: How age affects attitudes and voting behavior. Retrieved from https://www.pewresearch.org/fact-tank/2014/07/09/the politics-of-american-generations-how-age-affects-attitudes-and-voting-behavior/

Federal Reserve Bank of St. Louis and U.S. Office of Management and Budget, Federal Debt: Total Public Debt as Percent of Gross Domestic Product [GFDEGDQ188S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GFDEGDQ188S, December 1, 2019.

Federal Role in Education. (2017, May 25). US Department of Education. Retrieved from https://www2.ed.gov/about/overview/fed/role.html

Federal Spending: Where Does the Money Go. (n.d.). Retrieved from https://www.nationalpriorities.org/budget-basics/federal-budget-101/spending/

Ghitza, Y., & Gelman, A. (2014, June 5). The Great Generation, Reagan's Revolution, and Generations of Presidential Voting. PDF. New York City.

Gordon, M. R. (1990, January 30). The 1991 Budget: Armed Forces; CHENEY WOULD CUT DIVISIONS IN ARMY BUT MAINTAIN B-2. Retrieved from https://www.nytimes.com/1990/01/30/us/the-1991-budget-armed-forces-cheney-would cut-divisions-in-army-but-maintain-b-2.html

Hamil-Luker, J. (2001). The Prospects of Age War: Inequality between (and within) Age Groups. Social Science Research, 30(3), 386–400. doi: 10.1006/ssre.2001.0703

Hansen, J. M. (1998). Individuals, Institutions, and Public Preferences over Public Finance. American Political Science Review, 92(3), 513–531. doi: 10.2307/2585478

Ingram, G. (2019, October 3). What every American should know about US foreign aid. Retrieved from https://www.brookings.edu/opinions/what-every-american-should-know about-u-s-foreign-aid/

Jacoby, W. G. (1994). Public Attitudes toward Government Spending. American Journal of Political Science, 38(2), 336. doi: 10.2307/2111407

Krosnick, J., & Berent, M. (1993). Comparisons of Party Identification and Policy Preferences: The Impact of Survey Question Format. American Journal of Political Science, 37(3), 941-964. doi:10.2307/2111580

Little Public Support for Reductions in Federal Spending. (2019, April 11). Pew Research Center for the People and the Press. Retrieved from https://www.people press.org/2019/04/11/little-public-support-for-reductions-in-federalspending/.

Mian, A., Sufi, A., & Khoshkhou, N. (2017). Partisan Bias, Economic Expectations, and Household Spending. Retrieved from=https://faculty.chicagobooth.edu/amir.sufi/research/papers/miansufikhoshkhou partianas.pdf

O'Day, J. B. (n.d.). Political Campaign Planning Manual. PDF. Washington, D.C.

Schapiro, B. (2015, September 19). gssFAQs. Retrieved November 18, 2019, from http://gss.norc.org/Lists/gssFAQs/DispForm.aspx?ID=10.

Thompson, L. B. (2013, November 14). The Role Of Party Politics In Shaping Defense Priorities. Retrieved November 22, 2019, from https://www.lexingtoninstitute.org/the role-of-party-politics-in-shaping-defense-priorities/.

Tyson, A. (2018, November 8). The 2018 midterm vote: Divisions by race, gender, education. Retrieved November 10, 2019, from https://www.pewresearch.org/fact tank/2018/11/08/the-2018-midterm-vote-divisions-by-race-gender-education/.

Zell, E., & Bernstein, M. J. (2013). You May Think You're Right … Young Adults Are More Liberal Than They Realize. Social Psychological and Personality Science, 5(3), 326–333. doi: 10.1177/1948550613492825