Effect of the Perception of the Economy on Voting Behavior:

An Analysis of Recent U.S. Presidential Elections

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September 2021

Abstract

In the United States, the economy in general is often cited as an important factor in presidential electoral decisions. Decades of literature have supported the theory that citizens vote retrospectively, punishing incumbents when the economy underperforms. Others have proposed that voters are forward-looking, and vote based on expectations of future economic performance. I use data from the Cooperative Congressional Election Study (CCES) to examine the relationship between voters' perceptions of past and future economic performance and whether or not the voter chose the incumbent in the 2008, 2012, and 2016 elections, controlling for socioeconomic factors. In line with previous findings, across all 3 elections, voters consistently voted retrospectively; that is, as the perception of the economy improved, so too did the odds of voting for the incumbent party. The case for prospective voting was less consistent. Though it often met the criteria for statistical significance, it was a consistently smaller effect than that of retrospective voting. Several interaction variables, looking at partisanship-perception and retrospective-prospective relationships, were also statistically significant in several models, but were inconsistent in direction across the elections. My findings indicate that one’s perception of the economy is an important determinant in presidential vote choice.

1 Introduction

Elections are of significant consequence, and their outcomes can determine American policy for years or even decades. Oftentimes, especially in presidential elections, individuals cite the economy to explain their voting decisions; this past presidential election, 79% of voters rated the economy as very important, according to Pew Research (2020). The economy is a broad concept, however, and there are many facets of it which can be explored. For example, are individuals more interested in the performance of the stock market or the unemployment rate? Are the inflation rate and consumer price index more influential than one's own salary? Does the national economy matter more or less than that of the state or local economy? Despite such a high percentage of voters citing the economy as very important, it is unclear exactly *what part* of the economy is important, and to what extent it impacts voting behavior.

In this paper, I will examine the impact of the economy on presidential elections in the United States. More specifically, I will look at the impact of the *perception* of the state of the economy on whether an individual voted for the incumbent or opposition party in three recent U.S. presidential elections: 2008, 2012, and 2016. I have chosen this specific question because it: (1) focuses on how individuals perceive the economy, rather than concrete or objective measurements of economic performance, to which individuals may or may not be attuned; (2) limits the scope of analysis to recent elections in the ever-changing landscape of politics, and (3) reframes the issue in an incumbent-opposition framework. These features make both the analysis and practical application of this topic simpler, while still retaining the required degree of relevance.

Understanding individual voting behavior is a key element of predicting the election as a whole. This design allows for economic voting to be investigated on that micro-level. As Lewis-Beck and Stegmaier (2000) address in "Economic Determinants of Electoral Outcomes," traditional studies of economic voting tend to focus on the aggregate level, then generalize to the individual (2000:191). This opens such research to the ecological fallacy (Lewis-Beck and Stegmaier 2000, 191). By investigating the individual level through directly surveying the individual's perception, the data can be aggregated to the population, should the sample be determined to be representative of the population.

2 Existing Theories

Theories connecting economic conditions and voting behavior have long been proposed. Kramer (1971) is credited with one of the earliest such analyses, in which he proposed that voters vote with retrospection; that is, voters will punish incumbents when the economy does poorly under their administration, and reward them when it does well (Kramer 1971, 134). The conclusion of this analysis was that "election outcomes are … responsive to objective changes occurring under the incumbent party" (Kramer 1971, 140). Kramer's results have subsequently been reinforced, notably in Michael S. Lewis-Beck's (1985) "Pocketbook Voting in U.S. National Election Studies: Fact or Artifact?," which found that, "...previous research which has found that economic self-interest affects political attitudes cannot be dismissed…" (1985:355) despite some challenges from other academics.

Prospective economic voting, the inverse of retrospective economic voting, has also been proposed. Under this theory, voters vote not based on how the economy *has* performed, but instead based on their individual predictions of how the economy *will* perform. This theory poses

an obvious problem: the future is inherently uncertain. As a more "cognitively burdensome" method of economic evaluation, some authors have proposed that better-informed voters are more likely to vote prospectively, and are able to do so based on the informed-most-likely outcome of the election (Lacy and Christenson 2017, 347-375).

Though the general phenomena of retrospective and prospective voting have been well documented, there are differing theories on what the underlying cause of economic voting is: "pocketbook voting" (Elinder et al., 2015) and "sociotropic voting" (Kinder and Kiewiet 1981). Elinder et al. (2015) define "pocketbook voting" as "voting for the political candidate or party that benefits the voter the most financially" (2015:178). It is a form of rational self-interest in that the voter puts his or her personal experience first. Feldman (1982) specifically found that, where there was a clear and direct link between financial well-being and politics, individuals acted rationally and voted in their interest (1982:463). This is a greater form of rationality than is usually attributed to voters, as Feldman (1982) argues that voters will not factor in positive or negative shocks which are plainly unrelated to political processes (1982:463). Feldman's (1982) analysis of the 1972 election confirmed this, as individuals who attributed societal causes to personal financial stagnation or deterioration were more likely to vote against the incumbent Republican president (1982:453-454).

An alternative theory of economic voting is proposed by Kinder and Kiewiet (1981): "Sociotropic voting" (1981:132). According to this line of thinking, the "... voter is influenced most of all by the nation's economic condition" (Kinder and Kiewiet 1981, 132), in contrast to the personal basis of pocketbook voting (Elinder et al., 2015). Sociotropic voting's attention to the national, state, or local economy as a whole does not generate the information requirement it

may at first seem to; rather, it is linked to the voter's perception of how the economy is performing, and which signs indicate a strong or weak economy (Kinder and Kiewiet 1981, 132). Furthermore, sociotropic voting is not inherently altruistic nor removed from rational self-interest; instead, it may be the case that an individual sees the actions of an administration that bolster the national economy as eventually beneficial to one's own well-being (Kinder and Kiewiet 1981, 132).

These theories have been widely applied throughout the political science field. For example, Gomez and Hansford's (2015) "Economic Retrospection and the Calculus of Voting" applied to retrospective, sociotropic economic voting to explain voter turnout. Though outside the scope of this paper, Gomez and Hansford (2015) found that economic perceptions impact voter turnout in a curvilinear manner, but only when there is not an incumbent president running for reelection (2015:309). Others have explored the linkage between economic voting and the size of the welfare state. Park et al. (2019) found that those with lower levels of welfare are more likely to vote retrospectively to punish an incumbent when the economy performs poorly (2019:121-122). Furthermore, Park et al. (2019) found that there must a "clarity of responsibility" for the economic performance to impact retrospective voting; that is, it must be clearly the fault of the incumbent in order for the incumbent to be punished (2019:122). This paper is building off of a half-century of research into the topic of economic voting, with the express goal of examining its impact in recent U.S. presidential elections.

It is often expected that partisanship will color beliefs on how the economy is doing, but that that is not consistently held in the existing literature. A 2007 analysis by Fuller and Geide-Stevenson of several studies, including their own, found that Republicans and Democrats on the

whole agreed with each other on economic propositions far more than either group agreed with economists (Fuller rand Geide-Stevenson 2007, 89). These findings were reaffirmed in a 2013 paper by Sapienza and Zingales. In this study, the greatest difference was once again between economists and the average American, with Democrats, Republicans, and Independents alike in the FTI group reaching consensus on many issues (Sapienza and Zingales 2013, 636-642). The tide may, however, be turning towards the aforementioned commonly-held belief. In more recent research, Ellis and Ura (2021) found that increasing political polarization, "should reduce individuals' propensity to practice economic voting," through different interpretations of economic conditions (2021:87). This paper, however, implicitly accounts for partisan interpretations of economic conditions by examining the end result of those factors: the perception of the economy.

Another recent focus of debate is the use of opinion polling for presidential elections in general. A significant amount of campaign time, money, and effort is put into finding voters who are on the fence. Yet selecting these individuals is based on responses to opinion polls, directly asking them their level of support for a particular candidate or who they intend to vote for, which is considered to be increasingly inaccurate. Brownback and Novotny (2018:38) found that explicit statements of agreement in 2016 overrepresented support for Hillary Clinton, considered to be the more socially desirable candidate. Implicit elicitation, extracting opinions indirectly by probing related beliefs, did not have such a drawback (Brownback and Novotny 2018, 38). Similarly, in the modern political climate, "facts" are often the subject of significant scrutiny and disagreement. Barrera et al. (2020) conducted an analysis of "alternative facts" and their impact on candidate popularity and policy conclusions (2020:1). They found that "alternative facts are

highly persuasive" and that fact checking and exposure to facts do not decrease support for an alternative-facts candidate or change conclusions on policies that were founded on alternative facts (Barrera et al. 2020, 1). This paper once again is designed to take into account these issues of the current political climate; ultimately, this implicit elicitation of the perception of the economy bypasses both social desirability bias and the irrelevance of facts to the opinions of some individuals.

3 Data and Methodology

I am using the Cooperative Congressional Election Survey survey data, provided by Harvard University (Schaffner et al. 2019a). I chose the CCES set due to its reputation (based upon the organizations it is affiliated with, namely Harvard and YouGov), and because it is among the largest survey dataset that has a publicly available raw data. For the sake of analysis, summaries alone are insufficient; my intention is to find a relationship between economic perception and voting behavior on the individual, not aggregate, level. Furthermore, the CCES data set is available to the public for dating back several election cycles. In this paper, I am examining the 2008, 2012, and 2016 elections because the data is among the latest available.

The CCES survey data is not from a true random sample, as it was conducted over the internet from a known pool of individuals (Schaffner et al. 2019b, 12). Schaffner et al. (2019b) address this in their "Guide to the 2016 Cooperative Congressional Election Survey," and found that, with proper matching and weighting, as well as the large sample size, the sample represented the population within a 95% confidence interval in terms of presidential voting (2019b:16-17). I have incorporated the CCES post weighting for each data set into each

regression to maximize the representation of the population of interest: the national electorate. Therefore, I have no concerns of validity issues stemming from the research design.

Looking through the data sets, I identified three variables of interest. The first is the post-election presidential vote, found in the regression under "vote_incumbent_party," which is based on the question, "For whom did you vote for President of the United States?" (Schaffner et al. 2019b, 103; Ansolabehere and Schaffner 2013b, 79; Ansolabehere 2011, 70). This question is the same across all three election data sets. I only considered votes cast for the Democratic and Republican candidates for president; all other votes were disregarded. Further, I recoded these votes to 0, representing the opposition, and 1, representing the incumbent party. To simplify the model, I considered the party which controlled the White House at the time of the election to be the incumbent. In 2008, that was the Republican Party under outgoing-President George W. Bush; in 2012 and 2016, I coded the Democratic Party as the incumbent party under President Obama. After much deliberation, I added the 2008 election because it removes the potential issue of always having one party as the incumbent, which would have been the case if I only examined the 2012 and 2016 elections. Had the Democratic Party been the incumbent across each investigated election, I would not be able to draw the conclusion that incumbency is the determining factor, rather than choosing the Democratic Party.

The next variable of interest is denoted as "Retrospective" in the regression, and represents the first independent variable. This variable is coded on a scale of 1 to 5, with 1 representing the most negative view and 5 representing the most positive view; this is inverted from the CCES data set for a more natural interpretation. YouGov asked respondents, "OVER THE PAST YEAR the nation's economy has ... " with minimal variations in wording over the 3

election cycles (Schaffner et al. 2019b, 64; Ansolabehere and Schaffner 2013b, 52; Ansolabehere 2011, 39). This question is in line with Kramer's (1971) theory that voters will reward or punish an incumbent based on the performance of the economy under his administration (1971:140), and as such, I expect there to be a positive coefficient. A positive coefficient would mean that, as the perception of the economy improves (scoring higher on the scale), the voter is more likely to vote for the incumbent (coded as 1).

The final variable of interest is denoted as "Prospective" in the regression. This variable, in the 2012 and 2016 elections, is coded on a scale of 1 to 5, with 1 representing the most negative view and 5 representing the most positive view. In these election cycles, the CCES asked respondents, "OVER THE NEXT YEAR, do you think the nation's economy will …" (Schaffner et al. 2019b, 65; Ansolabehere and Schaffner 2013b, 53). In the 2008 election cycle, the CCES did not ask this question to respondents, but instead, three consumer confidence questions. These questions were on a scale of 1 (negative) to 3 (positive) and gauged expectations of general business conditions, general employment conditions, and personal income over the following six months (Ansolabehere 2011, 39-40). This difference poses a methodological problem. To compensate for this, I created a combined scale using three consumer confidence questions posed in the 2008 CCES. To gain a wholistic view of an individual's prospective economic outlook, I defined the 2008 "Prospective" variable as the rounded row average of responses to those three questions, maintaining the 1 to 3 scale; a greater score continues to represent a more positive outlook. When put into the multi-election model, I scaled the 2012 and 2016 responses to a range of 1 to 3 to maintain comparability. As with the

"Retrospective" variable, I expect a positive coefficient, meaning that as the outlook of the respondents become increasingly positive, they are more likely to vote for the incumbent.

It is important to note the various benefits and pitfalls of these questions of interest. The CCES has focused both the retrospective and the prospective questions on a six-month to 1-year time period. Lewis-Beck (1988) found that, in a comparison of 1-year and 5-year timespans for economic voting, both retrospective and prospective had greater correlation with electoral behavior under the 1-year focus (1988:11); Lewis-Beck (1988) subsequently found only 1-year, prospective economic voting to be statistically significant for the 1984 election (1988:10).

Though the timespan seems likely to maximize the relationship between economic perception and voting behavior, others, as in Michelitch et al. (2012), dispute the efficacy of single-question surveys of prospective outlook (2012:839). That is, the authors question whether or not a single question can adequately capture the complex calculations that an individual makes in the assessment of the economy, and whether such questions are methodologically valid—even claiming such questions are, "noisy, and, ultimately, not interpretable" (Michelitch et al. 2012, 839). The root of this concern is that a single question fails to incorporate the conditionality of predictions, and the variation in which individuals interpret the question, which yields poor quality results. For example, some individuals could interpret the CCES prospective economic question as how the economy will perform if their preferred candidates win, while others may consider economic performance should the poll-leading candidate win (Michelitch et al. 2012, 840). These are only two of dozens of potential interpretations, but it is clear that a mismatch in interpretation *could* lead to uninterpretable results. That said, there is little other literature on the

subject. As such, though Michelitch et al. (2012) raise valid concerns, for this paper I will defer to historically accepted methodology and proceed with the analysis using the CCES data.

To isolate the impact of these two independent variables, I have selected a number of control variables. My focus was on controlling for general socio-economic variables that are commonly thought to influence one's political views. The variables I chose are present in all three CCES data sets in largely the same format. The first control I chose is a respondent's 7-point party identification measure. This control is measured on a scale of 1 (Strong Democrat) to 7 (Strong Republican), and is likely highly correlated with voting behavior, particularly with rising political polarization (Schaffner et al. 2019b, 39). As such, I would expect a positive correlation with a Republican incumbent, and vice versa with a Democratic incumbent. Next, I incorporated controls for family income and education, with 1 representing the lowest values (Schaffner et al. 2019b, 27+). I also included age, using a variety of metrics: age, quadratic age, and quartiles of age. Ultimately, the relationship appeared to be linear, and thus I reverted to a direct measure of age as years since birth year (the related variable included in the CCES). I then factored in religious salience, that is, how important religion is to one's life. This control is on a scale of 1 to 4, with 4 representing "very important" (Schaffner et al. 2019b, 40). Finally, I incorporated dummy variables for gender and race; for the sake of differentiation, dummy variables are denoted in all lowercase in the regression. The CCES only includes the options "male" and "female" for gender and, as "male" is coded as 1 in the data set, I used that coding for the dummy variable (Schaffner et al. 2019b, 26). The CCES question on race provided several options (Schaffner et al. 2019b, 28). Originally, I intended to create k-1 dummy variables to incorporate each possible response. This method, however, seemed to over-specify the

question of race, skewing the focus of the regression. When specifying to that degree, none of the variables were significant. As such, I refactored the race control to cover whether or not the voter was white, which was the most staunch difference in voting behavior. As such, the variable is labeled “white” in the regression.

In later models shown below, I included several interaction variables. The “(Retro * Party)” and “(Pro * Party)” represent the 3-point party identification multiplied by the retrospective and prospective scores, respectively. In this case, the 3-point party identification was used as opposed to the 7-point because the 7-point scale seemed to over specify the variable; the purpose of the interaction was to see how partisanship and economic perspective interacted as a whole, rather than each degree of partisanship. Similarly, I included the “(Retro * Pro)” variable in some models. This was a simple multiplication of the retrospective and prospective perceptions used elsewhere in the regression to determine a combined interaction.

With these variables of interest, I chose to use a probit model regression. This model is used for dichotomous dependent variables, as in this situation, where I have coded the “vote_incumbent_party” variable as 0 or 1. I ran the regression in STATA using the svy command to apply the aforementioned survey weights, and disregarded entries for which 1 or more of the variables of interest or control variables were missing. I underwent an iterative process for model specification, running one specification then adjusting the variables for the next. For this study, I chose a 0.05 significance level, as is the standard of the social sciences.

4 Results

The 2016 probit models, based on the data from Schaffner et al. (2019a), had between 29,000 and 33,659 observations that met the necessary criteria depending on the model specified. As hypothesized, when statistically significant, both the "Retrospective" and "Prospective" variables had positive coefficients, meaning that as the perception of the economy improved, so too did the likelihood of a voter voting for the incumbent. Both of these variables are statistically significant at the $\alpha = 0.05$ significance level in all models tested, except for models four and seven. In these instances, it appears the competition between Party_ID_7 and the interactions of party and economic perceptions crowded out the stock perception variables; when tested against the 7-point party identification or party-perception interaction terms alone, both variables remained above the significance threshold. Whenever included, interaction variables were statistically significant. All control variables were highly statistically significant, except the age variable, which was not statistically significant in each model.

Table 1: 2016 Election

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se	Model 8 b/se	Model 9 b/se
vote_incumbent_party									
Retrospective	0.713*** (0.017)	0.484*** (0.023)	0.474*** (0.027)	0.007 (0.068)	0.734*** (0.057)		-0.042 (0.045)	0.766*** (0.080)	
Prospective	0.183*** (0.016)	0.067** (0.021)	0.062** (0.023)	-0.067 (0.065)	0.553*** (0.052)			0.325*** (0.063)	
Party_ID_7		-0.543*** (0.010)	-0.510*** (0.010)	-0.877*** (0.030)		-0.846*** (0.020)	-0.867*** (0.029)	-0.517*** (0.010)	-0.515*** (0.010)
Income			-0.023*** (0.006)	-0.018** (0.006)	-0.032*** (0.005)	-0.019** (0.006)	-0.018** (0.006)	-0.022*** (0.006)	-0.019** (0.006)
Education			0.094*** (0.012)	0.099*** (0.012)	0.084*** (0.012)	0.099*** (0.012)	0.099*** (0.012)	0.095*** (0.012)	0.100*** (0.012)
Age			-0.002 (0.001)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.001)	-0.002 (0.001)
Religious_Salience			-0.223*** (0.017)	-0.209*** (0.017)	-0.259*** (0.016)	-0.211*** (0.018)	-0.210*** (0.018)	-0.215*** (0.017)	-0.236*** (0.016)
male			-0.380*** (0.035)	-0.348*** (0.036)	-0.430*** (0.032)	-0.354*** (0.037)	-0.350*** (0.036)	-0.366*** (0.035)	-0.366*** (0.034)
white			-0.570*** (0.051)	-0.564*** (0.052)	-0.675*** (0.047)	-0.563*** (0.052)	-0.564*** (0.052)	-0.575*** (0.050)	-0.559*** (0.049)
(Retro * Party)				0.243*** (0.033)	-0.096*** (0.024)	0.249*** (0.013)	0.267*** (0.023)		
(Pro * Party)				0.073* (0.031)	-0.247*** (0.023)	0.043*** (0.011)	0.042*** (0.011)		
(Retro * Pro)								-0.094*** (0.024)	0.081*** (0.005)
constant	-2.558*** (0.058)	0.454*** (0.073)	1.556*** (0.114)	2.784*** (0.144)	-0.350** (0.108)	2.637*** (0.099)	2.739*** (0.134)	0.791*** (0.207)	2.364*** (0.096)
Observations	33659	33298	30122	29000	29131	29000	29000	30122	30122
F-stat	1200.208	1102.231	376.545	288.130	318.977	338.085	316.920	353.453	461.268
p<0.05, ** p<0.01, *** p<0.001									

The results of the 2012 probit models, based on the data from Ansolabehere and Schaffner (2013a), generally resembles those of the 2016 models. In this instance, there are between 27,558 and 33,423 observations depending on the specification. As in the 2016 election, the retrospective and prospective variables always had the hypothesized positive coefficients. This once again indicates that, as the perception of the economy increases, both in the past and in the future, the likelihood of an individual to vote for the incumbent also increases. In contrast to the 2016 data set, in model four, the stock retrospective variable retains its statistical significance even when introducing the interaction variables; the prospective variable, however, drops below the significance threshold. This seems to indicate that in 2012, as compared to 2016, partisanship had a weaker overall influence on the retrospective perception of the economy, which resulted in the stock retrospective variable not being crowded out. Similarly, in model seven, the stock retrospective variable retains its significance, lending further credence to the idea that partisanship and perception had a weaker relationship this election. However, whenever included, all interaction variables were statistically significant. In this data set, age remained not statistically significant, as was education in models three, five, eight, and nine; all other control variables remained statistically significant.

Table 2: 2012 Election

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se	Model 8 b/se	Model 9 b/se
vote_incumbent_party									
Retrospective	0.872*** (0.022)	0.631*** (0.031)	0.616*** (0.034)	0.380*** (0.100)	0.988*** (0.096)		0.327*** (0.062)	0.226** (0.077)	
Prospective	0.330*** (0.020)	0.241*** (0.026)	0.239*** (0.028)	-0.062 (0.083)	0.778*** (0.076)			-0.065 (0.067)	
Party_ID_7		-0.628*** (0.014)	-0.592*** (0.015)	-0.883*** (0.035)		-1.020*** (0.024)	-0.875*** (0.035)	-0.588*** (0.015)	-0.590*** (0.015)
Income			-0.037*** (0.007)	-0.033*** (0.008)	-0.045*** (0.007)	-0.029*** (0.007)	-0.033*** (0.008)	-0.036*** (0.007)	-0.034*** (0.007)
Education			0.029 (0.016)	0.039* (0.017)	0.011 (0.016)	0.047** (0.017)	0.039* (0.017)	0.025 (0.016)	0.027 (0.016)
Age			-0.002 (0.002)	-0.001 (0.002)	-0.002 (0.001)	-0.001 (0.002)	-0.001 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Religious_Salience			-0.283*** (0.021)	-0.261*** (0.022)	-0.319*** (0.020)	-0.257*** (0.022)	-0.261*** (0.022)	-0.284*** (0.021)	-0.289*** (0.021)
male			-0.170*** (0.046)	-0.151** (0.047)	-0.227*** (0.043)	-0.136** (0.047)	-0.150** (0.047)	-0.180*** (0.046)	-0.173*** (0.046)
white			-0.475*** (0.063)	-0.471*** (0.066)	-0.542*** (0.063)	-0.480*** (0.065)	-0.469*** (0.066)	-0.459*** (0.063)	-0.446*** (0.063)
(Retro * Party)				0.103* (0.046)	-0.147*** (0.038)	0.263*** (0.018)	0.127*** (0.030)		
(Pro * Party)				0.157*** (0.037)	-0.253*** (0.031)	0.120*** (0.014)	0.130*** (0.014)		
(Retro * Pro)								0.125*** (0.024)	0.153*** (0.005)
constant	-3.321*** (0.073)	0.079 (0.091)	1.513*** (0.153)	2.497*** (0.193)	-0.793*** (0.148)	3.186*** (0.136)	2.459*** (0.192)	2.388*** (0.242)	2.549*** (0.139)
Observations	33423	32584	28827	27558	28122	27558	27558	28827	28827
F-stat	1442.300	850.615	271.567	229.238	208.502	268.658	246.118	234.794	290.919

p<0.05, ** p<0.01, *** p<0.001

The 2008 data set, from Ansolabehere (2010), has similar overall conclusions as the 2012 and 2016 data sets, but has several notable divergences. First, this data set contains the fewest observations, ranging from 19,034 to 25,805 depending on the model specification. In all but one model in which it was included, the retrospective variable is statistically significance and positive; the prospective variable, however, is only statistically significant in models one and five. In those models, the 7-point party identification variable is excluded. This indicates that the prospective outlook on the economy was substantially explained by a partisan lens; that is, partisan identity determined how voters believed the economy would perform. This is supported by the divergence in significance compared to the 2012 and 2016 elections, but this theory has the caveat that the prospective questions vary between 2008 and those elections. As such, it is difficult to isolate the exact cause, but poses a foundation for further analysis. In both models where the prospective variable is statistically significant, it has a positive coefficient, as hypothesized. The retrospective variable is also positive in all statistically significant models, and its one deviation from significance in model five may have been caused by omitted variable bias stemming from the absence of the 7-point party identification variable. Unlike the 2012 and 2016 elections, age and education were statistically significant in all models; gender, however, was only significant in model five. The interaction variables were also less consistently significant compared to the previously-examined elections. These results, on the whole, may speak to weakened economic or partisan voting in this election, despite some models indicating their presence.

Table 3: 2008 Election

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se	Model 8 b/se	Model 9 b/se
vote_incumbent_party									
Retrospective	0.754*** (0.024)	0.457*** (0.030)	0.464*** (0.033)	0.435*** (0.071)	-0.029 (0.066)		0.435*** (0.063)	0.488*** (0.106)	
Prospective	0.096*** (0.016)	-0.023 (0.025)	0.032 (0.027)	-0.001 (0.064)	-0.761*** (0.057)			0.050 (0.074)	
Party_ID_7		0.640*** (0.009)	0.616*** (0.009)	0.594*** (0.020)		0.536*** (0.014)	0.594*** (0.018)	0.616*** (0.009)	0.620*** (0.009)
Income			0.019*** (0.006)	0.015* (0.006)	0.022*** (0.005)	0.014* (0.006)	0.015* (0.006)	0.019*** (0.006)	0.016** (0.006)
Education			-0.087*** (0.013)	-0.089*** (0.013)	-0.081*** (0.011)	-0.091*** (0.013)	-0.089*** (0.013)	-0.087*** (0.013)	-0.089*** (0.013)
Age			0.010*** (0.001)	0.010*** (0.001)	0.009*** (0.001)	0.009*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)
Religious_Salience			0.243*** (0.017)	0.244*** (0.018)	0.282*** (0.014)	0.249*** (0.018)	0.244*** (0.018)	0.243*** (0.017)	0.248*** (0.017)
male			0.037 (0.036)	0.031 (0.037)	0.127*** (0.030)	0.043 (0.036)	0.031 (0.037)	0.037 (0.036)	0.030 (0.036)
white			0.734*** (0.046)	0.724*** (0.048)	0.781*** (0.040)	0.687*** (0.048)	0.724*** (0.048)	0.734*** (0.046)	0.725*** (0.045)
(Retro * Party)				0.020 (0.036)	0.326*** (0.039)	0.202*** (0.018)	0.021 (0.031)		
(Pro * Party)				0.014 (0.029)	0.437*** (0.027)	-0.022 (0.012)	0.014 (0.013)		
(Retro * Pro)								-0.012 (0.051)	0.146*** (0.011)
constant	-1.461*** (0.041)	-3.143*** (0.070)	-4.833*** (0.133)	-4.693*** (0.159)	-3.063*** (0.102)	-4.181*** (0.115)	-4.694*** (0.145)	-4.868*** (0.188)	-4.513*** (0.121)
Observations	25805	21151	19944	19034	22965	19034	19034	19944	19944
F-stat	571.802	1859.333	593.965	495.451	436.730	591.837	524.243	536.966	647.139
p<0.05, ** p<0.01, *** p<0.001									

Finally, I combined the data from the three elections into one data set. In order to not pit the various election years against each other, I flipped the 7- and 3-point party identification scales for the 2008 election; they now represents how strongly the voter is inclined towards the incumbent party. As with the individual elections, the retrospective and prospective variables were statistically significant and positive in almost every model. In model four, however, the retrospective variable did not reach the significance threshold. However, the "(Retro * Party)" interaction term was statistically significant and positive, and as the terms necessarily have high multicollinearity, it may have drawn too much from the stock retrospective variable. High multicollinearity may also have caused the "(Pro * Party)" interaction term to have a negative coefficient in that model. This is supported by the return to positive significance of both variables when the 7-point party identification variable is removed in model five, though that has the potential to introduce omitted variable bias itself as the stock prospective and "(Retro * Party)" variables become negative. That said, the party-perception terms are generally positive and significant, as is the retrospective-prospective interaction, in line with the results from the individual election cycles. Thus, there appears to be an overarching theme that spans the circumstances of individual elections.

Table 4: Combined Models

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se	Model 8 b/se	Model 9 b/se
vote_incumbent_party									
Retrospective	0.539*** (0.007)	0.317*** (0.012)	0.300*** (0.012)	-0.052 (0.036)	1.338*** (0.031)		0.216*** (0.022)	0.228*** (0.033)	
Prospective	0.404*** (0.010)	0.293*** (0.014)	0.278*** (0.015)	0.392*** (0.039)	-0.192*** (0.031)			0.196*** (0.040)	
Party_ID_7		-0.591*** (0.006)	-0.583*** (0.006)	-0.677*** (0.009)		-0.735*** (0.007)	-0.669*** (0.008)	-0.582*** (0.006)	-0.582*** (0.006)
Income			0.012*** (0.003)	0.008* (0.003)	0.028*** (0.002)	0.008* (0.003)	0.009** (0.003)	0.012*** (0.003)	0.011*** (0.003)
Education			0.011 (0.008)	0.015 (0.008)	-0.018** (0.006)	0.020** (0.008)	0.015 (0.008)	0.011 (0.008)	0.012 (0.008)
Age			-0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Religious_Salience			-0.109*** (0.010)	-0.123*** (0.010)	-0.034*** (0.008)	-0.131*** (0.010)	-0.124*** (0.010)	-0.109*** (0.010)	-0.113*** (0.010)
male			-0.218*** (0.021)	-0.224*** (0.022)	-0.162*** (0.016)	-0.207*** (0.021)	-0.218*** (0.022)	-0.219*** (0.021)	-0.220*** (0.021)
white			-0.176*** (0.029)	-0.242*** (0.030)	-0.034 (0.022)	-0.281*** (0.029)	-0.248*** (0.030)	-0.176*** (0.029)	-0.178*** (0.029)
(Retro * Party)				0.177*** (0.016)	-0.430*** (0.012)	0.137*** (0.005)	0.052*** (0.009)		
(Pro * Party)				-0.057*** (0.017)	0.241*** (0.013)	0.083*** (0.007)	0.106*** (0.007)		
(Retro * Pro)								0.034* (0.016)	0.124*** (0.004)
constant	-2.110*** (0.022)	0.954*** (0.037)	1.475*** (0.068)	1.941*** (0.076)	-1.672*** (0.053)	2.536*** (0.061)	2.005*** (0.076)	1.640*** (0.100)	2.130*** (0.062)
Observations	92887	87033	78893	75592	80218	75592	75592	78893	78893
F-stat	5214.320	3209.385	1097.971	958.338	775.098	1209.782	1094.060	1007.234	1215.259
p<0.05, ** p<0.01, *** p<0.001									

5 Discussion and Conclusion

From the results, it appears that the way that a voter perceives the economy as performing over the past year is influential in voting decisions; the better the voter believes the economy to have done, the more likely he or she votes for the candidate of the incumbent party. Across all three election cycles, the retrospective variable is consistently statistically significant. This finding is consistent with the existing literature on the topic of economic voting. Voters do appear to punish or reward the incumbent based on how the economy has done, as Kramer (1971) found some 50 years ago (1971:134).

It is noteworthy that, while statistically significant in 2012 and 2016, how the voter expects the economy to perform appears to be less influential than the retrospective outlook. Measured on the same 3- or 5-point scale, in every instance in which both variables are significant, the coefficient of the retrospective variable is larger than that of the prospective variable. This, in effect, means that a one point increase in the retrospective outlook makes a voter relatively more likely to vote for the incumbent than a one point increase in the prospective outlook. I offer two theories to explain this: uncertainty and optimism. It is harder to predict the future than it is to judge the past. Based on that uncertainty, voters may pick the incumbent while having little faith in the economic future; furthermore, they may believe that the incumbent is the *least bad* candidate for the economy—not good, but better than the opposition. Alternatively, the voter may have a sense of optimism, and believe that, while the economy did well under the incumbent's administration, it may perform even better under the opposition. Perhaps the voter

recognizes that non-political processes outside the control of a given administration will effect the economy positively or negatively, as Feldman (1982) proposed (1982:463).

In 2008, the prospective measure fell below the significance threshold in several models. This could be due to the aforementioned uncertainty being exacerbated by the Great Recession; it is possible that a voter anticipated the next year to be hard, but nonetheless believed that the Democratic opposition candidate, Barack Obama, would serve the economy better in that time. Voters may have seen a direct link between Republican business-friendly policies and the extraordinary financial mismanagement that culminated in the Great Recession, and subsequently chose to punish the incumbent, in line with Park et al.'s (2019) findings. This would deemphasize the prospective outlook, potentially to the point of it falling below the significance threshold.

The measure may also have fallen below statistical significance due to my methodology. As previously discussed, the CCES data for 2008 does not directly survey how the respondent believes the economy will perform over the next year, instead asking three consumer confidence questions. When taken separately, one of the three questions, the question pertaining to expectations of personal income, was statistically significant. However, in hopes of better capturing the expectations for the economy as a whole, I combined the responses to all three questions. This combined effect was not statistically significant, but, nonetheless, I believe this decision made the variable as analogous to the other surveys as possible. Had the 2008 CCES contained the direct question, perhaps the variable would have been consistently significant.

The two aforementioned results, the relative weakness of prospective voting in 2012 and 2016, and the statistical insignificance of the measure in 2008, are in line with the critiques of this methodology made by Michelitch et al (2012). It is worth further consideration whether the effect of prospective economic voting is truly less powerful than the retrospective effect. In future polling, particularly on the scale of the CCES, it would be immensely useful to ask both conditional questions as well as the unconditional prospective question in order to directly compare the impact.

Though it may seem to be the case at first glance, these results are not entirely in contrast with Ellis and Ura's (2021) findings that economic voting has decreased as a result of greater political polarization. Ellis and Ura (2021) examined objective measures of economic performance, and subsequently suggested that partisanship acts as a "perceptual screen," influencing the way that individuals perceive those measures (2021:84). It is precisely that dispute over what objectivity is in the modern political era that led to my decision to focus on perception. Even when looking at perception, my analysis controlled for political affiliation on the standard 7-point scale and, though partisanship was a significant factor in voting behavior, the pattern of economic voting existed across party lines. Regardless of partisanship, those who perceived the economy as performing poorly, or expected it to perform poorly, were less likely to vote for the incumbent party. The influence of perception did vary across election cycles, as previously discussed, but nonlinearly; that is, there was no continual increase or decrease in economic voting across the years, which could potentially be explained by rising partisanship year-by-year. Some of that variation was captured by the interaction variables "(Retro * Party)" and "(Pro * Party)." 2008 did have particularly weak party-perception interactions compared to

2012 and 2016, likely due to the previously-discussed anomalies in that election year. When comparing 2012 and 2016, depending on the model, one or the other had greater coefficients on those interaction variables. In all data sets, model five consisted of negative coefficients, though this seems to be nothing more than an effect of omitted variable bias as model five drops the 7-point party identification variable. The consistently-positive coefficient indicates that partisanship does increase the effect of economic perception, but the year-to-year differences do not necessarily imply a time effect. Thus, any variation is perhaps due to other, uncontrolled influences like policy platforms that were not entirely captured under the partisanship measure.

The other interaction variable, "(Retro * Pro)," is somewhat variable in its direction across the elections and models. In the 2016 election, for example, the interaction is statistically significant and negative in model eight, but significant and positive in model nine; in contrast, in 2012, the interaction is positive and significant in both instances. This means that, in 2016, the retrospective and prospective variables tended to skew the likelihood of voting for the incumbent positively when combined, and thus, the likelihood had to be reduced by a factor relative to both variables. In 2012, the opposite issue appears to occur: the retrospective and prospective variables skew negatively when combined, and thus the likelihood had to be increased by a factor relative to both variables. Without more information, it is difficult to determine exactly what caused the difference between these elections and between other elections.

While this analysis indicates a strong relationship between a voter's perception of the economy and his or her choice between the incumbent and opposition parties, and some of the most significant factors were controlled, I am cautious not to overstate this relationship. Many

variables, such as the charismatic appeal of a given candidate, were not controlled for and thus may exert influence over the outcome of a voter's decision. Furthermore, the combination of multiple election years wherein the controls of race, gender, income, etc. may be pitted against each other may damage the reliability of the combined model. Perhaps future research should isolate elections in which there is a democratic incumbent compared to a republican incumbent to align the controls better. However, the combined model does strongly indicate that there is a continued relationship between the perception of the economy and electoral behavior.

There is also the contention that research in economic voting is skewed by endogenous factors, in particular, that one's vote choice impacts the way one perceives the economy. While it is an important factor to consider, it has been found that strong partisans—those whose partisanship heavily tints their economic outlook in favor of a particular party—generally do not participate in economic voting (Lacy and Christenson 2017, 349-350). As such, it is not of particular concern in this paper, but may be grounds for future research.

It is apparent that the economy does, in fact, play a role in voting behavior. Voters, on average, are more likely to support the incumbent when they perceive the economy as doing well, in the past or moving forward. As James Carville said in 1992: "The economy, stupid."

6 Acknowledgement

I am incredibly grateful for the help from the Department of Political Science's Dr. Jeffrey Ladewig in, among other things, finding relevant data sets and learning STATA.

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