Thanks Obama: An Econometric Analysis of Party, Economic Perceptions, and Presidential Approval

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1 Questions and Motivations

We are interested in examining the relationship between household financial circumstances and attitudes towards the government. It is almost a truism that people's political attitudes are affected by their own financial situations and that they will vote in their best interest. However, does where you stand depend on where you sit– or where you think you sit? Are objective measures of economic well-being–income and unemployment–still important when you control for how you feel about your finances and the economy? Additionally, political polarization is increasing throughout the United States. As people become more encamped into their political parties, does anything besides which team they play for really matter in whether they like the executive?

The question is important as presidential approval is cited often by political campaigns, news agencies in their assessments of the president, and by the executives themselves. By identifying the determinants of presidential approval, politicians can focus on changing what really matters to people, and better endear themselves politically. For example, if people just want to feel better about their financial status rather than actually be in a better place, more rhetoric and certain PR campaigns might be successful policy. Additionally, if presidential approval is only correlated with party affiliation, is it even a useful metric to look at? By analyzing the data and answering these questions, we can provide valuable insights for politicians, pollsters and anyone concerned with the state of the polity.

The assumption is that a household's own financial situation solely determines individuals' attitudes towards the government. However, we believe that the correlation can be weaker than we expected. It's sometimes hard for people to attribute their new-earned success to the policies of the government. Meanwhile, sex, education, party ID and other factors may have a larger effect on the view of the government. Therefore, a household's attitudes towards the government may be more a combination of all these factors.

Through our research, we are trying to explore the possibility of a correlation between a household's view of the government and its personal financial situation. To study this causation, we will look at one's personal financial situation, how they regard the country's economic conditions, and various other demographic questions. We hope to compare the relative contributions to how one views the president. In particular, we wish to compare such economic concerns to ones of identity and political affiliation. We will be using the data from June 2009 Pew Research Center political survey. We will measure political attitudes by looking at presidential approvals and personal finance by income brackets.

2 Linear Regression Models

2.1 Model 1: Estimating PA with Objective Economic Factors

$$\begin{aligned} presidentialapproval = \beta_0 + \beta_1 sex + \beta_2 black + \beta_3 asian + \beta_4 other + \beta_5 midwest \\ + \beta_6 south + \beta_7 west + \beta_8 middleincome + \beta_9 highincome + \beta_{10} employed \\ + \beta_{11} highschoolincomplete + \beta_{12} highschoolgrad + \beta_{13} technicaltrade \\ + \beta_{14} associatesdeg + \beta_{15} collegegrad + \beta_{16} postgrad + \beta_{17} children + \beta_{18} familysize + \epsilon \end{aligned}$$

In the first model, we looked at the objective measures of personal financial circumstances, like income and employment, to estimate their correlation with presidential approval. We included other potential demographic confounders including sex, age, education, family size, race and region. We use this model to evaluate if people can accurately relate their objective financial situation to the governmental policies.

Column (1) in the table in Appendix A represents this linear regression model. Based on our results, we find that some of the demographic controls contribute significantly to the presidential approval. For example, race, age, and being from the South have marked effects on the presidential approval. The main independent variables in this model are income and employment status. The model predicts that holding everything constant, people with middle income, on average, have 6.8% lower approval of the president than people with low income. Further, holding everything else constant, people in the high income bracket, on average, have 4.7% lower presidential approval than people in the low income group. We see that, while objective income appears to be negatively correlated to presidential approval, both these coefficients are not significant at 5% significance level. The model also finds that employment is negatively correlated with presidential approval. Holding everything constant, people who are fully or partly employed, on average, have 10.8% lower approval of the president compared to people who are unemployed. This result is significant at the 5% significance level. These interesting correlations can be due to the fact that people had a lower ability to connect the dots between their income and the performance of the president given other confounding factors like party or national economy, which we have to estimate in the following models.

2.2 Model 2 Estimating PA with Subjective Views

$$\begin{aligned} presidentialapproval = \beta_0 + \beta_1 sex + \beta_2 black + \beta_3 asian + \beta_4 other + \beta_5 midwest + \beta_6 south + \beta_7 west \\ + \beta_8 middleincome + \beta_9 highincome + \beta_{10} employed + \beta_{11} highschoolincomplete + \beta_{12} highschoolgrad \\ + \beta_{13} technicaltrade + \beta_{14} associatesdeg + \beta_{15} collegegrad + \beta_{16} postgrad + \beta_{17} children \\ + \beta_{18} familysize + \beta_{19} poseconcountry + \beta_{20} futureeconworse + \beta_{21} futureeconsame \\ + \beta_{22} pospersfin + \beta_{23} futurepersfinworse + \beta_{24} futurepersfinsame + \epsilon \end{aligned}$$

In the second model, we included subjective views of economic circumstances in order to see if we can produce a better model at predicting presidential approvals and if personal attitudes have larger effects on presidential approvals than subjective measurements of personal finance.. Building on the first model, we added attitudes towards personal financial situation at present and in the future, as well as attitudes towards national economy at present and in the future.

Column (2) in the table in Appendix A represents this linear regression model. Based on our results, we find that some demographic controls are significant, and the significant results are mostly the same first

model. As for objective economic measurements, we see that holding other variables constant, the middle income group was expected to have a 8.9% lower approval of the president than the low income group had, and it was statistically significant. The higher income group was expected to have a 7% lower approval of the president than the low income group had, but the result was not statistically significant. Furthermore, holding other variables constant, people who were employed were expected to have a 6.6% higher approval of the president than people who were not employed, and the result was significant.

For the subjective economic measurements we included, we see that holding other variables constant, people who viewed the economic status of the country positively was expected to approve the president 10.3% more than the people who view it negatively. The result was significant. Holding other things constant, people who viewed the future of the economy worse were expected to have a 54.6% less approval of the economy than the people who viewed the future of the economy positively. People who viewed the future of the economy the same as the present were expected to approve the president 26.3% less than the people who viewed the future of the economy positively and the result was significant. People who viewed their personal finance positively were expected to approve the president 9.1% less than people who viewed it negatively and the result was significant. People who viewed the future of their personal finance better were expected to have a 11.3% lower approval of the president than people who viewed it not better and the result was significant. People who viewed the future of their personal finance worse were expected to have a 2.1% lower approval of the president than people who viewed it not worse but the result was not significant.

From the second model we saw that the attitude towards national economy was positively correlated with presidential approval while attitude towards personal finance was not. Given the analysis, we postulate that party can be confounding variables as people may view the status of their personal finance in a partisan way. So we need to include party in the following model.

2.3 Model 3: Estimating PA with Party

$$\begin{aligned} presidentialapproval = \beta_0 + \beta_1 sex + \beta_2 black + \beta_3 asian + \beta_4 other + \beta_5 midwest + \beta_6 south + \beta_7 west \\ + \beta_8 middleincome + \beta_9 highincome + \beta_{10} employed + \beta_{11} highschoolincomplete + \beta_{12} highschoolgrad \\ + \beta_{13} technicaltrade + \beta_{14} associatesdeg + \beta_{15} collegegrad + \beta_{16} postgrad + \beta_{17} children \\ + \beta_{18} familysize + \beta_{19} poseconcountry + \beta_{20} futureeconworse + \beta_{21} futureeconsame \\ + \beta_{22} pospersfin + \beta_{23} futurepersfinworse + \beta_{24} futurepersfinsame + \beta_{25} party + \epsilon \end{aligned}$$

In the third model, we included a dummy variable for whether the respondent identified as a democrat. It seemed reasonable to expect that one's party affiliation would be strongly correlated with whether they supported Barack Obama, a democratic president. By controlling for party affiliation, we can see if attitudes about the economy still correlate with presidential approval, independent of party.

Column (3) in the table in Appendix A represents this linear regression model. The most important variables to consider are level of income, level of employment, positive views of the current economy, views of the economy in the future, positive views of an individual's personal income, views of personal income in the future, and whether an individual is a Democrat.

According to the model, it terms of objective measurements, it was found that, on average, people with medium levels of income on average held a lower approval of the president by 8.3% relative to people with low levels of income, holding all other variables constant; this variable is statistically significant, but finds that the coefficient has less impact overall than the second model. People with high levels of income on average on average also held negatively lower approval of the president by 5.95%, holding other variables constant, though it wasn't statistically significant. People who were employed on average held a statistically significant lower approval of the president relative to people who were unemployed by 7.31%, holding all other variables constant; this variable has a stronger impact on approval overall relative to the second model.

In terms of subjective measurements, people who held positive views on the current economy had a 8.51% higher view of the president on average relative to people who did not hold positive views of the current economy, holding all other variables constant; the coefficient was not statistically significant, however. People who had a negative outlook on the future economy on average had a decreased approval of the president by 44.5% relative to people who had a positive outlook on the future economy; this is statistically significant. People who had the same outlook on the future economy as current on average had a decreased approval of the president by 20.3% relative to people who had a positive outlook on the future economy, holding all other variables constant; this is statistically significant. People who held positive views of current personal finances on average held a 7.86% lower approval of the president relative to people who don't have positive views of current personal finances, holding all other variables constant; this is statistically significant. People who held negative views of future personal finances on average held a 11.3% lower approval of the president relative to people who have positive views of future personal finances, holding all other variables constant; this is statistically significant. People who held the same views of future personal finances as current on average held a 3.79% lower approval of the president relative to people who have positive views of future personal finances, holding all other variables constant; this is statistically significant.

In terms of party affiliation, people who were Democrats on average had a 29.2% higher approval of the president relative to people who were not Democrats, holding all other variables constant; this is statistically significant.

2.4 Model 4: Estimating PA with Interactions

$$\begin{aligned} presidentialapproval = \beta_0 + \beta_1 sex + \beta_2 black + \beta_3 asian + \beta_4 other + \beta_5 midwest + \beta_6 south + \beta_7 west \\ + \beta_8 middleincome + \beta_9 highincome + \beta_{10} employed + \beta_{11} highschoolincomplete + \beta_{12} highschoolgrad \\ + \beta_{13} technicaltrade + \beta_{14} associatesdeg + \beta_{15} collegegrad + \beta_{16} postgrad + \beta_{17} children \\ + \beta_{18} familysize + \beta_{19} poseconcountry + \beta_{20} futureeconworse + \beta_{21} futureeconsame \\ + \beta_{22} pospersfin + \beta_{23} futurepersfinworse + \beta_{24} futurepersfinsame + \beta_{25} party \\ \beta_{26} party * pospersfin + \beta_{27} party * futurepersfinworse \\ + \beta_{28} party * futurepersfinesame + \epsilon \end{aligned}$$

In the fourth model, we included two interactions to see if the effect of attitude towards personal finance on presidential approval differed by party affiliations. We interacted the dummy variable of attitudes towards current personal finance with the dummy variable of party identification. We also interacted with the categorical variable of attitudes towards future personal finance with the dummy variable of party identification.

Most of the coefficients on the demographic controls remained the same as the third model. Feeling positively about your personal finances was correlated with a 13.0% decrease in presidential approval, compared to a 7.86% drop in model 3. Since we interacted this variable with party, the effect of feeling positively about the economy is 14.9% greater if you're a democrat. In other words, democrats who feel positively about their personal finances have 14.9% more positive views about the president than republicans who feel positively about their personal finances. This means that the coefficient on the interaction variable is larger in magnitude than the coefficient on the positive economic feelings. For democrats, feeling positively about their personal finances has a net 1.9% increase in presidential approval, while positive feelings for republicans has a 13.0% decrease. An explanation of this could be that democrats all feel similarly about the economy, or that they credit Bush with the state of the economy and not Obama. Republicans who feel positively about their personal finances might worry that Obama is going to make things worse.

Feeling negatively about your future personal finances was correlated with a 16.7% decrease with presidential approval. However, the coefficient on the interaction between democrats and people who think their future finances are going to get worse is positive. Holding everything else constant, democrats who think

their personal finances are going to get worse were expected to have 19.9% higher compared to republicans who think their personal finances are going to get better or stay the same in the future. This coefficient is significant at 5% significance level. An explanation for this could be that Democrats were still in the middle of a financial crisis, so they were not expecting their finances to get better any time soon. On the other hand, Democrats did have confidence in President Obama's ability to govern the country; thus, the positive presidential approval.

Democrats who felt that their personal finances were going to be the same, on average, approved the president 2.33% less than people who thought their personal finances were going to get better or worse. When we interacted this variable with party, we found that Democrats who felt that their personal financial situation was going to be the same, on average, had a 4.9% lower presidential approval than republicans who felt that their finances were going to get better or stay the same. However, this coefficient was not significant at the 5% significance level. Therefore, there is a possibility that Democrats who think that their personal finances were going to be the same had the same presidential approval as Republicans who felt that their personal financial situation was going to get better or worse in the future.

Hopefully, by including controls for most demographic features we eliminated many confounding variables. Party affiliation, objective economic factors like employment and income, attitudes about the economy, were our primary variables of interest. Any other confounders will affect both our variables of interest and the dependent variable of presidential approval. Change in financial status, i.e. if one recently got or lost a job, received a lower salary, etc. might be a potential confounder. If one has recently started doing better than before, one might feel better about their personal finances or the economy (independent variables) and might also feel as though the president is having a positive impact, increasing their approval (dependent variable). Thus financial improvement might positively bias our estimates.

3 Advanced Models

Building on model 4, we decided that we should use the probit and logit model because the dependent variable presidential approval was a dummy variable. A linear model would lead to different variances for the error terms and it was unable to limit the predicted presidential approval to a value between 0 and 1. So we chose to use probit and logit models to get a more accurate regression

3.1 Probit Model with Marginal Effects

In the fifth model, we used the same variables and interactions as in the fourth model. But instead of a linear probability model, we used the probit model. The dependent variable here is log(odds ratio) instead of probability itself, which ensures that we always get a probability between 0 and 1. To help interpret the model, we then used the "margins" command to get marginal values at the means.

All the coefficients in the marginal effects of the probit model have the same signs as those in the fourth linear probability model and have similar levels of significance (except the ones of the interactions). However, the magnitudes are quite different. Specifically, in the probit model, feeling positively about your personal finances was correlated with a 15.1% decrease in presidential approval, compared to a 13.0% drop in model 4. Since we interacted this variable with party, the effect of feeling positively about the economy is 17.4% extra if you're a democrat. In other words, democrats who feel positively about their personal finances have 17.4% more positive views about the president than republicans who feel positively about their personal finances. This means that the coefficient on the interaction variable is larger in magnitude than the coefficient on the positive economic feelings. For democrats, feeling positively about their personal finances has a net 2.3% increase in presidential approval, while positive feelings for republicans has a 15.1% decrease. An explanation of this is similar to the linear probability model, that democrats all have similar feelings about the economy,

or that they attribute the state of the economy to Bush and not Obama. Republicans who feel positively about their personal finances might worry about the changes Obama may bring.

Feeling negatively about your future personal finances was correlated with a 16.8% decrease with presidential approval. This is almost the same as the result in the linear probability model. However, the coefficient on the interaction between democrats and people who think their future finances are going to get worse is positive. Holding everything else constant, democrats who think their personal finances are going to get worse were expected to have 14.6% higher compared to republicans who think their personal finances are going to get better or stay the same in the future. This coefficient is not significant in this model though. Democrats who felt that their personal finances were going to be the same, on average, approved the president 0.28% less than people who thought their personal finances were going to get better or worse. When we interacted this variable with party, we found that Democrats who felt that their personal financial situation was going to be the same, on average, had a 17.5% lower presidential approval than republicans who felt that their finances were going to get better or stay the same. However, this coefficient was not significant at the 5% significance level. Therefore, there is a possibility that Democrats who think that their personal finances were going to be the same had the same presidential approval as Republicans who felt that their personal financial situation was going to get better or worse in the future.

3.2 Logit Model

In the sixth model, we used the same variables and interactions as in the fifth model. But instead of a probit model, we used the logic model. Similar to the probit model, the logic model avoids the problems brought up by linear probability models as discussed above. Besides, coefficients in logic model is easier to interpret than those in the probit model. Column (3) in the table in Appendix B represents this regression model. Based on our results, we find that some demographic controls are significant, and the significant results are mostly the same as the first model. As for objective economic measurements, we see that holding other variables constant, the odds of approving the president for the middle income group was expected to be 0.59 times as large as the odds for the low income group, and it was statistically significant. The odds of approving the president for higher income group was expected to be 0.72 times as large as the odds for the low income group, but the result was not statistically significant. Furthermore, holding other variables constant, the odds of approving the president for people who were employed were expected to be 0.95 times as large as the odds for people who were not employed, and the result was significant.

We also analyzed the subjective measurements on presidential approval. For national economy, holding other variables constant, the odds of approving the president for people who felt positively about the current economy of the country was expected to be 0.48 times as large as the odds for people who felt negatively about the current economy of the country, and the result was significant. The odds of approving the president for people who felt worse about the future of the national economy was expected to be 0.08 times as large as the odds for people who felt better about it while the odds of approving the president for people who felt the future of the national economy would be the same was expected to be 0.28 times as large as the odds for people who felt better about it, and the result was significant.

As for feelings about personal finance, holding other variables constant, the odds of approving the president for people who felt positively about their personal finances was expected to be 0.48 times as large as the odds for people who felt negatively about their personal finances, and the result was significant. For future projections, holding other variables constant, the odds of approving the president for people who felt negatively about their personal finances was expected to be 0.45 times as large as the odds for people who felt not negatively about it, and the result was significant. The odds of approving the president for people who felt the same about their personal finances was expected to be 1.04 times as large as the odds for people who felt not the same about it, and the result was significant.

Also, holding other variables constant, the odds of approving the president for people who identified as

Democrats was expected to be 1.20 as large as the odds for people who did not identify as Democrats. As for interactions, holding other variables constant, the odds of approving the president for people who identified as Democrats and felt better about their personal finance was expected to be 1.16 times as large as the odds for people who identified as Republicans and felt not positive about their personal finance and the result was not significant. Holding other variables constant, the people who identified as Democrats and felt bad about their personal finance was expected to have an odds of approving the president that was 1.82 times as well as the people who identified as Republicans and felt not bad about their personal finance had. The result was not significant. Holding other variables constant, the odds of approving the president for people who identified as Democrats and felt the same about their future personal finance was 1.04 times as well as the odds for people who identified as Republicans and felt their personal finances was not the same, the result was also not significant.

Given the analysis we see that the logit model produced similar results and significance level as the probit model. And interestingly, both models had non-significant results for interactions. Since the probit and logit model produce a better evaluation of the binary dependent variable, we conclude that the differences in attitudes in different parties did not seem to produce a significant effect on presidential approval.

4 Discussion

4.1 Synthesis

The main takeaway from our project, is that objective economic factors do not significantly correlate with presidential approval, but subjective perceptions about the economy almost all produce significant results, even after controlling for party. In other words, how you're actually doing is less important for how you feel about the president than how you feel about your personal financial state and the state of the economy.

The most surprising result was that feeling positively about one's own personal finances actually correlated with lower presidential approval than feeling negatively. Since this data was taken towards the beginning of Obama's term, those who feel negatively about their personal financial status might blame George W. Bush for their plight and not Obama. Since the belief that one's finances would worsen in the future correlated with a .168 decrease in presidential approval versus those who felt that they would improve, this interpretation could hold.

From the 6 models we analyzed, we found that the advanced models were probably the best way to predict presidential approvals and it seemed that the difference in attitudes in different party identifications did not have a significant influence on the presidential approval. Our analysis indicates that party alone is not the only thing that predicts presidential approval. How you feel about the economy and personal finances, holding party affiliation constant, are correlated with changes in approval of the president.

4.2 Limitations

1. It seems misguided to alter or enact policies based on what will gain the most approval for the current president. We should hope that our government, especially the president, acts in the interest of the people they serve, not in the interest of their own popularity. However, it is foolish to not acknowledge the reality that many policies are driven by political concerns. Increasing one's popularity can help with reelection or that essential political capital necessary to negotiate with Congress.

2. Our model may be proven hard to be applied to other years or presidents without further analyzing data from other periods of time. 2009 is in the midst of the great recession, a time of great economic turmoil for the country. The effects of financial situation on presidential approval may be different

during times of relative economic stability. Since it is hard to measure the contexts of the economy or other background factors, we will only be able to establish a trend rather than to quantify the effects of economic factors.

3. We also can't reliably assert the exact relation between our independent variables and the dependent variables. We could tell a story for causality: feeling better about the economy makes you feel better about the President and his impact on the economy. We could tell a story for reverse causality: if you feel better about the President, you might be more inclined to view the economy or your own finances more sympathetically. I think the best story is probably one of limited simultaneity: that our IV and DV both impact each other; however, I would imagine that feelings about the economy are more likely to causally impact presidential approval than vice-versa. Party affiliation also likely causes higher presidential approval rating.

4. Although some of the results are interesting, none of the R-squared values rose above .5. This means none of our models explain more than 50% of the variation in presidential approval. There are clearly a lot of other factors that come into play that were not included, even if we included the ones that seemed the most salient.

5. We also need to acknowledge the existence of some intervening variables. Instead of directly causing a change in the dependent variable, our independent variables might affect another factor that actually causes the change in presidential approval. It seems like financial attitude itself may be considered an intervening variable between economic factors like income and presidential approval. You must assess your own income and then also assess the president: it doesn't just directly translate. Intervening variables we might have failed to include were unemployment benefits. If you're unemployed, it may affect your interactions with the executive branch via aid programs like food stamps, thus changing your opinions of the President.

4.3 Policy Relevance

It seems misguided to alter or enact policies based on what will gain the most approval for the current president. We should hope that our government, especially the president, acts in the interest of the people they serve, not in the interest of their own popularity. However, it is foolish to not acknowledge the reality that many policies are driven by political concerns. Increasing one's popularity can help with reelection or that essential political capital necessary to negotiate with Congress.

Our findings might be better suited for those working on the president's campaign team. Our results show that those who believe the economy will get better approve more of the president, so he should focus his message optimistically, bolstering the public confidence in the future. If you make people believe they are doing better, it might improve presidential approval, more than if they actually do.

This project only scratches the surface of what could be done with econometric analysis of presidential approval. Due to the lack of identical questions between years of Pew's Political Survey, we could only analyze one year. Future studies might look at a range of years to track changes and see what holds throughout time. While not included in our project, doing separate analyses of republicans and democrats could yield interesting insights as to how they grow to like a president differently, and how exactly polarization and tribalism affects other factors.

5 Appendix

Table 1: Appendix A: Linear Regression Models

	objective presatt	subjective presatt	party presatt	interaction presatt
sex	0.0389	0.0233	-0.00856	-0.00874
	(1.28)	(0.88)	(-0.34)	(-0.35)
age	-0.00415***	-0.00348***	-0.00361***	-0.00356***
	(-3.69)	(-3.53)	(-3.87)	(-3.83)
White	0	0	0	0
	(.)	(.)	(.)	(.)
African-American/Black	0.388***	0.208***	0.0941*	0.118*
	(7.13)	(4.27)	(1.98)	(2.47)
Asian American/Asian	0.216***	0.0919	0.0869	0.0854
	(3.98)	(1.93)	(1.92)	(1.90)
Other	0.143*	0.111*	0.0784	0.0907
	(2.25)	(2.02)	(1.50)	(1.74)
Northeast	0	0	0	0
	(.)	(.)	(.)	(.)
Midwest	-0.0542	-0.0431	-0.0604	-0.0635
	(-1.17)	(-1.07)	(-1.58)	(-1.67)
South	-0.162***	-0.136***	-0.145***	-0.145***
	(-3.72)	(-3.57)	(-4.03)	(-4.07)
West	-0.0636	-0.0465	-0.0542	-0.0513
	(-1.31)	(-1.10)	(-1.36)	(-1.29)
low income	0	0	0	0
	(.)	(.)	(.)	(.)
middle income	-0.0684	-0.0889*	-0.0830*	-0.0770*
	(-1.63)	(-2.42)	(-2.39)	(-2.21)
high income	-0.0468	-0.0721	-0.0595	-0.0518
	(-1.01)	(-1.72)	(-1.50)	(-1.31)
employed	-0.108**	-0.0658*	-0.0731*	-0.0707*
	(-3.08)	(-2.15)	(-2.52)	(-2.45)
None/Grade1-8	0	0	0	0
	(.)	(.)	(.)	(.)
high school incomplete	0.0334	-0.0557	-0.0397	-0.0439
	(0.26)	(-0.49)	(-0.37)	(-0.41)
high school graduate	-0.0438	-0.0816	-0.0755	-0.0704
	(-0.39)	(-0.83)	(-0.81)	(-0.76)
technical trade	-0.0208	-0.0445	-0.0536	-0.0566
	(-0.15)	(-0.37)	(-0.47)	(-0.50)
associates degree	-0.0968	-0.123	-0.115	-0.110
	(-0.84)	(-1.22)	(-1.21)	(-1.17)
college graduate	0.0388	-0.0249	-0.0303	-0.0250
	(0.33)	(-0.24)	(-0.31)	(-0.26)
postgraduate	0.0789	0.0121	-0.00271	-0.00408
	(0.66)	(0.12)	(-0.03)	(-0.04)

Table 2: Appendix B Advanced Binary DV Models

	objective presatt	subjective presatt	party presatt	interaction presatt
children	-0.0215	-0.0170	-0.0119	-0.0152
	(-1.08)	(-0.98)	(-0.72)	(-0.92)
family size	0.0152	-0.000490	0.00542	0.00677
	(0.91)	(-0.03)	(0.39)	(0.49)
positive view current econ		0.103*	0.0851	0.0906
		(2.08)	(1.82)	(1.95)
future econ better		0	0	0
		(.)	(.)	(.)
future econ worse		-0.546***	-0.445***	-0.437***
		(-13.18)	(-11.01)	(-10.80)
future econ same		-0.263***	-0.203***	-0.205***
		(-8.70)	(-6.94)	(-7.06)
positive view personal finance		-0.0911**	-0.0786**	-0.130***
		(-3.14)	(-2.85)	(-3.97)
future personal finance worse		-0.113**	-0.113***	-0.167***
		(-3.29)	(-3.48)	(-4.48)
future personal finance same		-0.0207	-0.0379	-0.0233
		(-0.42)	(-0.82)	(-0.40)
democrats			0.292***	0.188***
			(10.27)	(4.64)
party*positive personal finance				0.149**
				(2.82)
party*worse future personal finance				0.199**
				(3.02)
party*same future personal finance				-0.0489
				(-0.52)
_cons	0.931***	1.249***	1.123***	1.145***
	(6.44)	(9.78)	(9.25)	(9.47)
N	930	930	930	930

t statistics in parentheses

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

Table 3: Appendix B

	linear presatt	probit margins	logit presatt
main			
sex	-0.00874	-0.0104	-0.0905
	(-0.35)	(-0.28)	(-0.47)
age	-0.00356***	-0.00462**	-0.0236**
	(-3.83)	(-3.28)	(-3.24)
White	0	0	0
	(.)	(.)	(.))
African-American/Black	0.118*	0.258***	1.912**
	(2.47)	(4.53)	(2.80)
Asian American/Asian	0.0854	0.117	0.632
	(1.90)	(1.89)	(1.77)
Other	0.0907	0.150*	0.771
	(1.74)	(2.25)	(1.89)
Northeast	0	0	0
	(.)	(.)	(.)
Midwest	-0.0635	-0.0743	-0.431
	(-1.67)	(-1.50)	(-1.48)
South	-0.145***	-0.201***	-1.060***
	(-4.07)	(-4.15)	(-3.87)
West	-0.0513	-0.0747	-0.419
	(-1.29)	(-1.47)	(-1.39)
low income	0	0	0
	(.)	(.)	(.)
middle income	-0.0770*	-0.0934	-0.525*
	(-2.21)	(-1.90)	(-1.96)
high income	-0.0518	-0.0505	-0.326
	(-1.31)	(-0.94)	(-1.11)
employed	-0.0707*	-0.106*	-0.541*
	(-2.45)	(-2.45)	(-2.46)
None/Grade 1-8	0	0	0
	(.)	(.)	(.)
high school incomplete	-0.0439	-0.0902	-0.427
	(-0.41)	(-0.61)	(-0.47)
high school graduate	-0.0704	-0.150	-0.716
	(-0.76)	(-1.23)	(-0.91)
technical trade	-0.0566	-0.132	-0.799
	(-0.50)	(-0.85)	(-0.85)
associates degree	-0.110	-0.185	-0.871
	(-1.17)	(-1.48)	(-1.09)
college graduate	-0.0250	-0.0644	-0.297
	(-0.26)	(-0.52)	(-0.37)
postgraduate	-0.00408	-0.0515	-0.225
	(-0.04)	(-0.40)	(-0.27)

Table 4: Appendix B

	linear presatt	probit margins	logit presatt	
children	-0.0152	-0.0294	-0.148	
	(-0.92)	(-1.13)	(-1.09)	
family size	0.00677	0.0164	0.0765	
	(0.49)	(0.74)	(0.67)	
positive view current econ	0.0906	0.166*	0.790*	
	(1.95)	(2.11)	(1.99)	
future econ better	0	0	0	
	(.)	(.)	(.)	
future econ worse	-0.437***	-0.526***	-2.562***	
	(-10.80)	(-9.60)	(-8.69)	
future econ same	-0.205***	-0.225***	-1.269***	
	(-7.06)	(-6.03)	(-6.10)	
positive view current personal finance	-0.130***	-0.151***	-0.743***	
	(-3.97)	(-3.36)	(-3.31)	
future personal finance worse	-0.167***	-0.168***	-0.804**	
	(-4.48)	(-3.38)	(-3.24)	
future personal finance same	-0.0233	-0.00280	0.0418	
	(-0.40)	(-0.04)	(0.11)	
democrats	0.188***	0.315***	1.722***	
	(4.64)	(4.54)	(4.22)	
party*positive personal finance	0.149**	0.174	0.974	
	(2.82)	(1.87)	(1.85)	
party*worse future personal finance	0.199**	0.146	0.598	
	(3.02)	(1.39)	(1.05)	
party*same future personal finance	-0.0489	-0.175	-1.149	
	(-0.52)	(-1.25)	(-1.55)	
_cons	1.145***		4.188***	
	(9.47)		(4.19)	
N	930	930	930	930

t statistics in parentheses

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