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Economic performance and presidential trait evaluations: A longitudinal analysis

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ABSTRACT

Presidential traits (i.e. morality, intelligence, leadership) have generally been assumed to be idiosyncratic personal characteristics of the individual and are treated as exogenous from other political and economic factors. Prior literature has shown that presidential characteristics and economic performance are important elements of vote choice and approval. Using ANES data from 1984 to 2008, we demonstrate an important link between these factors, showing that objective and subjective indicators of economic performance are significant predictors of trait evaluations. Specifically, evaluations of the incumbent president at election time are directly related to changes in economic performance earlier in the year. The effects of economic performance are not isolated to retrospective policy evaluations, but also influence the overall evaluation of the president as a person.

1. Introduction

Since 1980, the American National Election Studies (ANES) surveys have been asking a series of questions about the traits of incumbent presidents and presidential candidates, which have been used in numerous studies of presidential voting. It has been repeatedly demonstrated that Americans are more likely to vote for individuals who they believe have characters worthy of holding high public office (Bishin et al., 2006). However, these studies usually assume that character assessment is influenced by party identification or ideology, but is otherwise exogenous (Goren, 2002; Funk, 1999). The implicit assumption is that party identification impacts people's assessments of the politicians, but otherwise people utilize news, campaign ads, and a variety of other sources to decide whether office-holders are intelligent, moral, or good leaders, and, ultimately, which mix of these character traits are important factors in their vote choice. Determining which factors influence candidate trait assessments remains underdeveloped in the literature on candidate perceptions and vote choice. The goal of this paper is to explore the economic determinants of candidate character traits.

The paper is organized as follows. We begin by reviewing literature on how the state of the economy and candidates' character traits influence voting behavior. Then, we discuss previous research on the mediating effect of partisanship on voters' assessments of candidates' character traits. Next, we propose an alternative economic performance-based theory of candidate trait evaluation. We posit that people attribute strong economic performance to proficient presidential decision-making. Subsequently, people view the president in a positive light and evaluate him or her as intelligent, compassionate, etc. The reverse is true during poor economic conditions.

We test this argument with a variety of subjective and objective indicators that measure the state of the economy. For our dependent variables, we utilize candidate trait evaluations from the American National Election Studies (ANES) surveys from 1984 to 2008, which allow us to analyze respondents' assessments of incumbent president's intelligence, moral character, knowledge, leadership, and caring (empathy). Using ordered logistic regression, we find support for our hypothesis that economic conditions influence the evaluation of the sitting president's traits. Whether the state of the economy is assessed objectively or subjectively, the

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economic situation conditions respondents' assessment of the candidates' character traits. The results point to an alternative path by which subjective and objective assessments of the state of the economy can ultimately influence presidential election outcomes. We conclude by discussing the limitations of the present study as well as future directions of research on candidate trait assessment, economic performance and vote choice.

Numerous studies show that aggregate measures of the economy can predict presidential election outcomes. Scholars seeking to explain the individual-level connection between objective aggregate economic indicators and election outcomes have focused on personal assessments of people's financial situations and business conditions, or "pocket book" evaluations. We show another, indirect path of influence through people's assessments of the incumbent presidents' characters. In particular, we are interested in how voters use national economic indicators as well as subjective assessments of economic performance in evaluating character traits of incumbent presidents such as morality, intelligence, empathy, and leadership.

2. Background and theory

It has long been demonstrated that economic factors weigh heavily in voters' minds during an election (Pew Research Center For The People and The Press, 2012). For many voters, relying on economic indicators to assess the state of the economy is a form of low-information rationality (Popkin, 1991). As Sanders observes, "voters do not need to know precise 'economic facts' in order to make reasonably well-informed judgments about the state of the economy" (2000, 276). In essence, voters need "only a hazy factual knowledge about the economy" to have a general sense of economic improvement or decline (Sanders, 2000). Many economic voting studies have been dedicated to explaining what kind of economic heuristics voters rely on in assessing the state of the economy.

There are several varieties of economic indicators that have been used in previous research to test the impact of economic considerations on electoral outcomes. We know that the timing of the economic indicators can be quite important. Fiorina (1981) pioneered research on retrospective voting, which assumes that voters evaluate recent economic conditions in choosing between parties and the performance of incumbents. Other scholars have examined prospective voting, in which voters are assessing what they think the economy will be like in the future, under the leadership of different candidates or parties (Downs, 1957:39; Lewis-Beck, 1988:121). We therefore independently test both retrospective and prospective evaluations of the economy.

Another dimension of economic voting concerns the target of evaluation. Many studies have observed evidence of voters relying on both objective and subjective assessments of the economy in making voting decisions, but few studies verify the results using both kinds of measures. For example, voters judging objective national economic conditions are known as sociotropic voters (Lewis-Beck and Stegmaier, 2000; Kinder and Kiewiet, 1981); whereas voters who subjectively assess their own personal financial situation are known as pocketbook voters. In general, sociotropic voting is found to be a more significant influence on presidential election outcomes (Kinder and Kiewiet, 1979, 1981).

Similarly, studies have looked at when voters rely on national and subnational economic indicators in presidential elections. Limited evidence suggests that national economic indicators play a more important role in voters' evaluations of presidential candidates, but that state economic conditions matter if the president can be held responsible for "regional idiosyncracies" (Strumpf and Phillippe, 1999). President Obama's decision to bailout the auto industry is one illustration of a scenario in which voters from Michigan or Ohio might consider state economic indicators in holding the president responsible for their particular region's economic situation.

Overall, economic indicators, subjective and objective, retrospective and prospective, national and subnational, have long been used to forecast election outcome models. At the aggregate level, scholars developed models showing that presidential election outcomes can be predicted with a reasonable degree of accuracy by including aggregate economic indicators from early in the election year. In a series of papers over the last forty years, researchers have used change in GDP per capita, inflation, unemployment, "leading economic indicators," the National Business Index, and other specifications to predict presidential and congressional election results (Brody and Sigelman, 1983; Campbell, 2000; Lewis-Beck and Rice, 1992; Nadeau and Lewis-Beck, 2001; Norpoth, 1996; Tufte, 1978; Wlezien and Erikson, 1996).

2.1. Presidential character traits and voting behavior

Like economic indicators, candidates' character traits can also serve as a useful information shortcut for voters in assessing the performance of incumbent officials and in choosing between candidates. Although it is unlikely that perceptions of candidate character provide the decisive difference in a presidential election, in part because no candidate has a clear advantage in all aspects of their character (Holian and Prysby, 2015), they are still an undeniably important element of media coverage and public opinion. Accordingly, individual models of voting in presidential elections have long utilized candidate character traits to predict electoral outcomes. As an early illustration, *The American Voter* (Campbell et al., 1960) introduced a model in which party identification, candidate characteristics, and the issue positions of the voters and candidates explained voting decisions. A host of studies retaining the basic tripartite structure followed in its wake (e.g., Abramson et al., 2011; Nie et al., 1979; Markus and Converse, 1979; Miller and Shanks, 1996). In 1980, the American National Election Studies began asking about character traits as measures of voters' impressions of the personal attributes of candidates and incumbent politicians. Those survey questions became the candidate characteristics in many studies of both presidential voting and presidential approval (Bartels, 2002; Funk, 1999; Greene, 2001; Goren, 2002; Hayes, 2005; Kenney and Rice, 1988; Kilburn, 2005; Markus, 1982; Miller and Shanks, 1996; Newman, 2003; Holian and Prysby, 2015). Traits have also recently been used in studies of U.S. Senate Elections (Fridkin and Kenney, 2011; Hayes, 2010).

2.2. An economic performance-based theory of character trait assessment

Despite the common use of character traits in voting studies, there is little research about what influences character trait assessments. Recently, Holian and Prysby (2015) provided an in-depth analysis of the formation and influence of presidential character trait evaluations. They find that party identification, ideology, the respondent's specific issue positions, and evaluations of the president's performance on the job are all directly correlated with presidential trait evaluations. However, each of these explanatory factors is based on the respondent's other simultaneously reported attitudes, and they do not address any demographic or external factors that might influence this package of attitudes.

When researchers use trait variables, they typically present single stage regression or probit models in which traits are exogenous to other variables and directly influence the outcome (presidential approval or electoral outcomes). As Kilburn (2005, 338) put it, "Nearly all studies … have assumed that trait

perceptions are exogenous to evaluation." In effect, they assumed people gather information about the candidates through the news media, candidates' campaigns, social networks, etc., but that these evaluations reflect the actual nature of the president's character and are not influenced by other factors.

Some studies suggest party identification is a common explanation for variation in character assessments of candidates (Hayes, 2005, 2010; Holian and Prysby, 2015). For example, Goren (2002) finds that party supporters focus on the positive character traits of candidates they support and on the negative traits of candidates from the opposing party. However, as Holian and Prysby observe, while partisan ideologues "are more likely than any other type of voter to see their party's candidate as superior across the range of character traits...in any election, some partisans see the candidate of the opposite party as better on character than their party's candidate" (2015, p. 198). Regardless, there are still a limited number of studies that present models assuming variables other than party identification influenced presidential traits (Bartels, 2002; Kenney and Rice, 1988; Markus, 1982; Miller and Shanks, 1996; Holian and Prysby, 2015). These studies identified party identification, ideology, job approval ratings, policy evaluations, pre-nomination preferences, and retrospective evaluations of the current president as causes of trait assessments. Only Bartels (2002) used perceptions of the economy, but not any direct measures of the economy, as a predictor. We have found no study that included any direct measures of the economy (e.g., change in GDP) as an independent variable predicting presidential traits.

It is clear that economic performance and presidential character are both important elements of vote choice and presidential approval. However, the potential link between objective economic performance and evaluations of presidential character traits has not yet been examined. We argue that economic conditions influence people's perceptions of presidential character traits because voters attribute economic conditions to presidential decision-making. Previous studies have argued "retrospective assessments of the president's handling of his job also are important influences on trait perceptions, especially when the incumbent is on the ballot" (Holian and Prysby, 2015, p. 198). It follows then that voters should attribute characteristics to incumbent candidates in order to explain observed economic outcomes (Gomez and Wilson, 2001; Iyengar, 1989).

Therefore, we test the hypothesis that actual performance of the economy has a direct relationship with assessments of each president's innate ability to discharge his responsibility for it – meaning "good" economic outcomes will be associated with an overall picture of the president as "good" at his job, and therefore possessing the traits important to carrying out his duties. Importantly, we hypothesize that this relationship exists for all aspects of the president's character, regardless of whether the trait has an obvious connection to economic leadership (i.e. empathy or morality). As economic performance improves, we expect voters to view the incumbent president as a "good" person and therefore attribute a wide range of positive personal character traits to the president.

3. Data and methods

The dependent variables of interest in this analysis are the series of presidential character traits asked about in the American National Election Studies (ANES) from 1984 through 2008. Each respondent was asked the following question after some introductory material: "In your opinion does the phrase [*trait*] describe [*incumbent president's name*] extremely well, quite well, not too well, or not well at all?" The five character traits that were included in all eleven ANES iterations for this time period are included in the analysis. They are: intelligent, moral, knowledgeable, provides strong leadership ("leadership"), and really cares about people like you ("cares"). Summary statistics for all variables are provided in Appendix 1.

The independent variable of interest is the state of the economy at the time of the evaluation. We expect improvements in overall economic outlook to reflect positively on the president's character and economic decline to reflect negatively. There are two broad ways in which we operationalize economic performance. First, we use a set of five well-known objective economic measures. We use the percent change in each measure from the first quarter to the second quarter of the interview year. The percent change allows for voters to respond to the general trend of economic performance, without having to be aware of the actual current value of any particular indicator. Additionally, using the percent change during the second quarter of the election year captures the trend of economic performance at the point in the year when voters are forming opinions and making their vote choice (see, for example, Abramowitz, 2012).

Specifically, at the national level we use the Consumer Price Index, Gross Domestic Product, and Barro's Misery Index (Barro, 1996).[1] Because there is significant variation in economic conditions across states, we also include two measures – personal income and unemployment rate – at the state level. This allows us to leverage the additional variation in economic conditions to increase the statistical power of our hypothesis tests, while also providing a measure of economic conditions that more closely reflects the lived experience of the survey respondents. To avoid multicollinearity arising from using multiple indicators to capture the same overall concept, each economic indicator is included as an independent variable in a separate model. To the extent that various indicators, at different levels of measurement, provide a consistent pattern of results, we have increased confidence in the validity of the overall conclusions.

In addition to objective economic performance indicators, we use four subjective indicators of economic performance. As previously noted, prior research tends to focus on either objective or subjective measures, but we argue that utilizing both adds greater theoretical and empirical depth to our analysis. The principle advantage of using subjective economic indicators is that respondents are able to weight various economic considerations in ways that they see fit in their response calculus, rather than relying on the predictive power of a researcher-defined single indicator (Lewis-Beck and Nadeau, 2001). First, we build on Lewis-Beck and Nadeau's (2001) finding that the survey-based National Business Index (*NBI*) and Economic Fortunes Index (*EFI*) perform better than standard objective economic indicators in predicting voting behavior. These measures, based on the University of Michigan's Survey of Consumer Attitudes and Behavior, are aggregate consumer evaluations of the retrospective (NBI) and prospective (EFI) state of the national economy.[2]

Second, we use survey respondents' own retrospective and prospective economic evaluations. The survey questions read:

[1] Barro's Misery Index (Barro, 1996) is calculated by adding together the CPI, unemployment rate, interest rate (10 year government bond rate), and the shortfall of the GDP growth rate from the expected trend (3.1%). To remain consistent with other measures, the CPI, unemployment, and interest rate indicators represent the absolute change from Q1 to Q2 of the election year, and it can therefore be interpreted as the change in the misery index during the second quarter of the election year.

[2] The NBI and EFI are calculated as described by Lewis-Beck and Nadeau (2001). However, to maintain consistency with the other measures used in this paper, the percent change in the NBI and EFI from the first to second quarters is used in the model. There is no significant difference in the results if the actual fourth-quarter NBI and EFI (following Lewis-Beck and Nadeau) are used instead.

"Would you say that over the past year the nation's economy has gotten better, stayed about the same, or gotten worse?" and "What about the next 12 months? Do you expect the (national) economy to get better, get worse, or stay about the same?" These three-category answers are included as two dummy variables (better and worse) with a baseline category of staying "about the same." For the retrospective question, 40 percent of respondents say the economy has deteriorated and 28 percent say it has improved, with 39 percent believing conditions will be better in the next year and only 9 percent expecting them to get worse. While objective economic indicators provide an essential validating link to the actual state of the economy, these subjective measures are a much more direct indication of the respondents' perceptions of economic fortunes.

In order to isolate the effect of economic variables and rule out alternative explanations, a number of control variables are also included. First, because we expect members of the president's party to have higher evaluations of him across the board (Holian and Prysby, 2015), a seven-point party identification scale is included, with higher values indicating identification with the incumbent president's party (m = 3.9, sd = 2.1). A dummy variable for female respondents is included to capture the potential gender gap in character trait evaluations (see Box-Steffensmeier et al., 2004). Additionally, to rule out the possibility that sophistication and income have confounding influences on the relationship between economic outlook and presidential traits, a four-category education variable (m = 2.7, sd = 0.9) and a five-category income variable (m = 2.9, sd = 1.1) are included as controls. Finally, president-level fixed-effects are also included to capture inherent variation in each of the character traits from president to president.[3]

4. Results

Because the five presidential traits that comprise the dependent variables of our study are coded as ordinal variables with four categories (extremely well, quite well, not too well, not well at all), we use ordered logit for the statistical analysis. Beginning with the objective economic indicators, Table 1 presents the results of models estimated for each of the five presidential traits of interest – intelligent, moral, cares, knowledgeable, and leadership, The five economic indicators (CPI, GDP, and Barro's Misery Index at the national level, along with per capita personal income and unemployment in the respondent's state) were each included as an independent variable in a separate model.

The results of the models presented here support our hypothesis that changes in economic conditions influence the evaluation of the sitting president's personal character traits. For all five traits, at least three of the economic variables are statistically significant. Regarding evaluations of presidential intelligence, the latter three indicators are again all highly significant in the expected direction, with only inflation failing to return a significant coefficient.

As expected, increasing GDP and personal income have positive effects on the assessment of a president's moral character, while higher values for inflation, the misery index, and unemployment negatively influence assessments of the president. Across the objective economic indicators, the misery index is the most consistent: higher values on the misery index are associated with poorer assessments of presidential intelligence, morality, caring, leadership, and knowledge. CPI, GDP, and unemployment all show significant effects in the expected directions for four of the five presidential traits. Perhaps consistent with the mixed findings regarding pocketbook voting, personal income is the least consistent indicator, but still returns significant results in three out of five models.

Turning to the control variables in these models, we find a somewhat mixed bag. As would be expected, the effect of party ID is consistent and strong. In all models the coefficient for party ID is positive and highly significant, indicating that respondents are more likely to feel that the president embodies the five favorable traits when they are of the same party. Education influences trait assessments in the opposite direction. A negative and significant coefficient obtains in each of the models, indicating that more education reduces the tendency of respondents to characterize presidents as possessing the five traits. This could be attributed to greater skepticism in general or the sources they utilized to follow political news. Other control variables, however, only appear to influence some of the trait assessments. For instance, while gender is not found to be a significant factor in assessments of whether the president is knowledgeable or intelligent, it does have an impact on the other traits. Women appear more likely to favorably assess the president's moral character and to believe the president "cares," but less likely to see the president as a leader. Income does not have a significant direct impact on presidential trait evaluations.

To add a degree of robustness to these findings, we also estimate a series of models using subjective assessments of the economy as the independent variable. Table 2 presents the results of these models. Echoing the findings of the models that employed objective economic indicators, the results here support our hypothesis that economic conditions strongly influence assessments of presidential character traits. All coefficients for the subjective economic indicators are statistically significant in the expected directed, save for one (the effect of a positive prospective outlook on the moral assessment of a president). Excluding that specific case, we find that respondents who expect the state of the national economy to improve over the next year are more likely to assess presidents favorably, while more pessimistic respondents rate presidents less favorably. Similarly, respondents who felt that the state of the economy improved over the past year were more favorable in their assessments than those who believed the state of the economy to have worsened over that stretch. This story is corroborated by the NBI and EFI measures, both of which are positive and highly significant in all models.[4]

Though the coefficients of such models cannot be interpreted in as straightforward of a manner as OLS estimates, ordered logit models do allow for estimates of the probability that a given individual will choose each of the four response options. To provide a substantive interpretation of the results outlined above, we created a hypothetical individual[5] and calculated the predicted probabilities for each of the five trait assessments based on changes in the economic conditions. We also manipulated the party ID variable in order to observe the differential effect of economic conditions on the trait perceptions given by co-partisans, independents, and

[3] The president-level fixed effects are operationalized as a dummy variable for each president included in the model. These are useful insofar as there is observed variation in the economic indicators for each president, meaning observations in multiple years at the national level, or variation across states in a single year. The multiple observations allow for the calculation of and control for the average score for the president on each of the character traits.

[4] In these models the control variables affect trait assessments in much the same manner as in the models that employed objective economic indicators.

[5] The individual is male, of median income and education, evaluating Ronald Reagan.

Table 1
Logit models predicting presidential trait evaluations based on objective economic performance indicators.

		Presidential trait												
		Intelligent					Moral					Cares		
Controls	Female	0.035	0.034	0.0414	0.035	0.040	0.061*	0.061*	0.061*	0.077**	0.088***	0.193***	0.192***	0.193***
		(0.040)	(0.040)	(0.0396)	(0.036)	(0.036)	(0.035)	(0.035)	(0.035)	(0.032)	(0.032)	(0.034)	(0.034)	(0.034)
	Member of the President's Party	0.301***	0.302***	0.303***	0.300***	0.299***	0.413***	0.412***	0.412***	0.401***	0.406***	0.559***	0.559***	0.558***
		(0.010)	(0.010)	(0.00999)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
	Bush Sr.	–	–	–	0.099**	0.154***	–	–	–	−0.001	0.153***	–	–	–
					(0.047)	(0.048)				(0.049)	(0.050)			
	Clinton	0.594***	0.299***	0.850***	0.636***	0.634***	−2.650***	−2.677***	−2.597***	−2.634***	−2.685***	−0.096**	−0.083**	−0.034
		(0.046)	(0.055)	(0.0498)	(0.047)	(0.048)	(0.043)	(0.044)	(0.047)	(0.043)	(0.043)	(0.038)	(0.039)	(0.042)
	Bush Jr.	−1.098***	−0.674***	−0.355***	−1.074***	−1.016***	−0.823***	−0.730***	−0.752***	−0.828***	−0.584***	−0.550***	−0.606***	−0.444***
		(0.055)	(0.064)	(0.0730)	(0.056)	(0.058)	(0.055)	(0.063)	(0.076)	(0.056)	(0.058)	(0.053)	(0.062)	(0.074)
	Income	0.018	0.014	0.0116	0.014	0.013	−0.021	−0.021	−0.022	−0.008	−0.009	0.025	0.025	0.024
		(0.019)	(0.019)	(0.0191)	(0.018)	(0.018)	(0.017)	(0.017)	(0.017)	(0.016)	(0.016)	(0.017)	(0.017)	(0.017)
	Education	−0.197***	−0.196***	−0.208***	−0.152***	−0.157***	−0.130***	−0.131***	−0.131***	−0.122***	−0.123***	−0.025	−0.025	−0.026
		(0.024)	(0.024)	(0.0240)	(0.022)	(0.022)	(0.021)	(0.021)	(0.021)	(0.020)	(0.020)	(0.021)	(0.021)	(0.021)
Economic Indicators	CPI	0.033					−0.144***					−0.136***		
		(0.042)					(0.042)					(0.042)		
	GDP		0.607***					0.196***					−0.019	
			(0.057)					(0.046)					(0.046)	
	Misery Index			−0.184***					−0.029**					−0.036***
				(0.0133)					(0.013)					(0.013)
	Personal Income				0.129***					0.122***				
					(0.024)					(0.022)				
	Unemployment					−0.022***					−0.057***			
						(0.004)					(0.004)			
Logit	Cut 1	−2.163***	−1.414***	−1.895***	−1.899***	−2.139***	−2.079***	−1.721***	−1.921***	−1.726***	−1.895***	0.338***	0.413***	0.505***
		(0.097)	(0.115)	(0.0927)	(0.096)	(0.084)	(0.087)	(0.099)	(0.084)	(0.088)	(0.075)	(0.085)	(0.100)	(0.082)
	Cut 2	−0.580***	0.177	−0.288***	−0.290***	−0.527***	−0.349***	0.010	−0.193**	0.002	−0.143*	2.159***	2.233***	2.325***
		(0.091)	(0.112)	(0.0883)	(0.092)	(0.079)	(0.085)	(0.098)	(0.081)	(0.086)	(0.073)	(0.088)	(0.103)	(0.085)
	Cut 3	1.800***	2.580***	2.127***	2.184***	1.945***	2.072***	2.431***	2.228***	2.478***	2.355***	4.463***	4.536***	4.629***
		(0.094)	(0.117)	(0.0921)	(0.095)	(0.082)	(0.088)	(0.102)	(0.085)	(0.090)	(0.077)	(0.097)	(0.111)	(0.094)
	Observations	9558	9558	9558	11,753	11,753	12,103	12,103	12,103	14,255	14,255	12,180	12,180	12,180

		Presidential trait												
		Cares		Knowledgeable					Leadership					
Controls	Female	0.175***	0.179***	0.069**	0.067*	0.071**	0.060*	0.060*	−0.075**	−0.080**	−0.072**	−0.083***	−0.080**	
		(0.032)	(0.032)	(0.035)	(0.035)	(0.035)	(0.032)	(0.032)	(0.034)	(0.034)	(0.034)	(0.032)	(0.0316)	
	Member of the President's Party	0.557***	0.558***	0.331***	0.331***	0.331***	0.327***	0.327***	0.491***	0.489***	0.492***	0.474***	0.475***	
		(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	
	Bush Sr.	−0.575***	−0.527***	–	–	–	0.288***	0.275***	–	–	–	−0.656***	−0.614***	
		(0.048)	(0.049)				(0.047)	(0.049)				(0.047)	(0.048)	
	Clinton	−0.070*	−0.078**	0.430***	0.416***	0.697***	0.466***	0.458***	−0.938***	−0.927***	−0.574***	−0.902***	−0.904***	
		(0.038)	(0.037)	(0.039)	(0.040)	(0.043)	(0.040)	(0.040)	(0.039)	(0.039)	(0.043)	(0.039)	(0.039)	
	Bush Jr.	−0.571***	−0.492***	−0.893***	−0.837***	−0.240***	−0.963***	−0.998***	−0.818***	−0.840***	0.002 (0.073)	−0.950***	−0.873***	
		(0.052)	(0.056)	(0.054)	(0.063)	(0.073)	(0.056)	(0.058)	(0.054)	(0.064)		(0.056)	(0.058)	
	Income	0.027*	0.026*	0.018 (0.017)	0.018 (0.017)	0.012 (0.017)	0.025 (0.016)	0.025 (0.016)	0.004 (0.016)	0.005 (0.017)	−0.001	−0.009	−0.009	
		(0.015)	(0.015)								(0.017)	(0.015)	(0.015)	
	Education	−0.046**	−0.046**	−0.153***	−0.153***	−0.161***	−0.142***	−0.143***	−0.109***	−0.109***	−0.120***	−0.126***	−0.125***	
		(0.019)	(0.019)	(0.021)	(0.021)	(0.021)	(0.020)	(0.020)	(0.021)	(0.021)	(0.021)	(0.019)	(0.019)	
Economic Indicators	CPI			−0.170***					−0.396***					
				(0.045)					(0.045)					
	GDP				0.151***					0.132***				
					(0.048)					(0.047)				
	Misery Index													

						−0.175***				−0.233***				
						(0.013)				(0.013)				
	Personal Income	0.043**					0.031 (0.023)					0.010 (0.022)		
		(0.021)												
	Unemployment		−0.018**					0.004 (0.004)					−0.015***	
			(0.004)										(0.004)	
Logit	Cut 1	0.444***	0.389***	−1.981***	−1.656***	−1.565***	−1.834***	−1.909***	−1.617***	−1.144***	−0.923***	−1.513***	−1.504***	
		(0.086)	(0.072)	(0.091)	(0.104)	(0.084)	(0.093)	(0.078)	(0.088)	(0.102)	(0.083)	(0.089)	(0.075)	
	Cut 2	2.299***	2.247***	−0.323***	0.002 (0.100)	0.110 (0.080)	−0.140	−0.215***	0.228***	0.696***	0.949***	0.392***	0.404***	
		(0.088)	(0.076)	(0.086)			(0.088)	(0.073)	(0.085)	(0.100)	(0.081)	(0.086)	(0.072)	
	Cut 3	4.584***	4.533***	2.166***	2.490***	2.623***	2.434***	2.359***	2.487***	2.942***	3.234***	2.666***	2.679***	
		(0.096)	(0.084)	(0.090)	(0.104)	(0.085)	(0.092)	(0.077)	(0.090)	(0.105)	(0.087)	(0.091)	(0.077)	
	Observations	14,345	14,345	12,278	12,278	12,278	14,457	14,457	12,303	12,303	12,303	14,491	14,491	

Heteroskedasticity-robust standard errors in parentheses ***p < 0.01, **p < 0.05, *p < 0.1. For state-level indicators (Personal Income and Unemployment), results do not change with standard errors clustered by state-years. Bush, Sr. is not included in the national-level models (CPI, GDP, and Misery Index) because data are only available for one year (1992), and therefore economic conditions and presidential fixed-effects are conflated.

opposition partisans. These predicted probabilities are presented in Fig. 1.

These figures indicate that regardless of the hypothetical individual's self-placement on the ideology spectrum, he is more likely to say the trait describes the president "extremely well" and less likely to choose "not well at all" when the economy is performing well. For individuals who identify with the opposing party, in several cases the improved economic performance eventually makes them more likely to choose "extremely well" than "not well at all," as can be seen when the dotted and solid opposition party lines (triangles) cross on the graph. The same pattern holds for all trait assessments, and is consistent across objective national and state indicators as well as the respondent's own subjective evaluations of the economy.

In sum, then, these results robustly support the hypothesis that economic conditions affect presidential trait assessments – when the economy is in relatively better shape, respondents are more likely to view the president in a favorable light. More importantly, it would appear that an individual's subjective perceptions of economic conditions are even more influential in her evaluations of the president. When one feels that the economy is worse off now than it was a year ago, or fears that may be the case next year, she is less likely to see the president as much of a leader. She is also not as likely to feel that the president cares about people like her, nor that he is intelligent, knowledgeable, or moral. While, as common sense would dictate, respondents were more likely to favorably assess a president of a similar ideological position, the impact of economic conditions is felt even in cases of partisan disagreement.

5. Conclusion

The analysis presented here demonstrates that economic performance has a strong impact on people's perceptions of presidents and presidential candidates, not only related to their competence, but also related to their personal character traits. Although subjective perceptions of economic trends have a clearer and more consistent impact on individuals' evaluations of presidential traits, both objective and subjective economic indicators have a demonstrated impact on the assessment of presidential character. The relationships discussed in this paper show a consistent and statistically significant pattern, even when controlling for the confounding variables of gender, income, party identification, and education. Importantly, our results are robust, based on national-level, state-level, and subjective aggregate and individual-level measures of economic performance.

Furthermore, this finding has implications for several important topics in public opinion research, including political psychology and voting behavior. Our findings indicate, confirming much of the literature, that presidents are credited or blamed for the state of the economy. We further argue that such crediting and blaming extends beyond general approval ratings and voting to ratings of specific personal characteristics. If the economy is doing well, people are more willing to generously evaluate the president's character, and if the economy is not good, people are more likely to express their suspicions about the president's character. If the economy is in decline during the second quarter of an election year, the public is likely to combine their disappointment in the economy and negative presidential trait evaluations when making voting

Table 2
Logit models predicting presidential trait evaluations based on subjective evaluations of the economy.

		Presidential trait											
		Intelligent				Moral				Cares			
Controls	Female	0.053 (0.036)	0.036 (0.037)	0.041 (0.036)	0.041 (0.036)	0.088*** (0.033)	0.082*** (0.032)	0.077** (0.032)	0.074** (0.032)	0.206*** (0.032)	0.181*** (0.032)	0.176*** (0.032)	0.176*** (0.032)
	Member of the President's Party	0.288*** (0.009)	0.298*** (0.009)	0.299*** (0.009)	0.298*** (0.009)	0.393*** (0.008)	0.399*** (0.008)	0.400*** (0.008)	0.402*** (0.008)	0.543*** (0.009)	0.553*** (0.009)	0.557*** (0.009)	0.556*** (0.009)
	Bush Sr.	0.137*** (0.048)	0.094* (0.048)	0.857*** (0.075)	0.613*** (0.067)	0.023 (0.049)	0.024 (0.048)	0.157** (0.075)	−0.202*** (0.066)	−0.506*** (0.049)	−0.577*** (0.049)	−0.350*** (0.073)	−0.414*** (0.064)
	Clinton	0.613*** (0.048)	0.605*** (0.048)	0.652*** (0.047)	0.575*** (0.047)	−2.664*** (0.043)	−2.640*** (0.041)	−2.658*** (0.042)	−2.643*** (0.043)	−0.075* (0.038)	−0.092** (0.038)	−0.079** (0.038)	−0.093** (0.038)
	Bush Jr.	−1.089*** (0.055)	−1.136*** (0.055)	−0.552*** (0.069)	−0.674*** (0.068)	−0.841*** (0.056)	−0.842*** (0.054)	−0.755*** (0.070)	−1.056*** (0.069)	−0.512*** (0.052)	−0.589*** (0.053)	−0.413*** (0.068)	−0.443*** (0.065)
	Income	−0.006 (0.018)	0.008 (0.018)	0.008 (0.018)	0.010 (0.018)	−0.021 (0.016)	0.004 (0.015)	−0.009 (0.016)	−0.008 (0.016)	−0.005 (0.016)	0.025 (0.016)	0.025* (0.015)	0.026* (0.015)
	Education	−0.171*** (0.022)	−0.166*** (0.022)	−0.165*** (0.022)	−0.166*** (0.022)	−0.133*** (0.020)	−0.116*** (0.019)	−0.126*** (0.020)	−0.122*** (0.020)	−0.065*** (0.019)	−0.056*** (0.019)	−0.049*** (0.019)	−0.050*** (0.019)
Economic Indicators	Retrospective (worse)	−0.242*** (0.047)				−0.220*** (0.042)				−0.428*** (0.043)			
	Retrospective (better)	0.157*** (0.042)				0.068* (0.038)				0.251*** (0.037)			
	Prospective (worse)		−0.276*** (0.069)				−0.298*** (0.058)				−0.528*** (0.063)		
	Prospective (better)		0.068* (0.039)				0.005 (0.033)				0.075** (0.034)		
	NBI			0.010*** (0.001)				0.002*** (0.001)				0.003*** (0.001)	
	EFI				0.010*** (0.001)				−0.004*** (0.001)				0.003*** (0.001)
Logit	Cut 1	−2.309*** (0.087)	−2.235*** (0.086)	−1.969*** (0.085)	−1.936*** (0.086)	−2.103*** (0.078)	−1.932*** (0.074)	−1.934*** (0.077)	−2.087*** (0.079)	0.156** (0.076)	0.270*** (0.075)	0.423*** (0.074)	0.432*** (0.075)
	Cut 2	−0.691*** (0.082)	−0.616*** (0.081)	−0.340*** (0.080)	−0.311*** (0.082)	−0.375*** (0.076)	−0.203*** (0.072)	−0.210*** (0.075)	−0.357*** (0.077)	2.039*** (0.079)	2.141*** (0.078)	2.279*** (0.0770 =)	2.288*** (0.078)
	Cut 3	1.790*** (0.085)	1.872*** (0.084)	2.154*** (0.084)	2.174*** (0.085)	2.115*** (0.079)	2.279*** (0.075)	2.266*** (0.078)	2.116*** (0.079)	4.351*** (0.087)	4.438*** (0.086)	4.566*** (0.086)	4.574*** (0.086)
	Observations	11,664	11,347	11,756	11,756	14,164	14,980	14,258	14,258	14,250	13,921	14,348	14,348

		Presidential trait							
		Knowledgeable				Leadership			
Controls	Female	0.076** (0.033)	0.051 (0.032)	0.065** (0.032)	0.065** (0.033)	−0.062* (0.032)	−0.083*** (0.031)	−0.078** (0.032)	−0.079** (0.032)
	Member of the President's Party	0.317*** (0.008)	0.322*** (0.008)	0.327*** (0.008)	0.326*** (0.008)	0.461*** (0.009)	0.468*** (0.008)	0.477*** (0.008)	0.477*** (0.008)
	Bush Sr.	0.330*** (0.048)	0.269*** (0.046)	1.014*** (0.073)	0.903*** (0.064)	−0.608*** (0.047)	−0.672*** (0.046)	0.363*** (0.073)	0.193*** (0.063)
	Clinton	0.462*** (0.040)	0.444*** (0.038)	0.458*** (0.040)	0.408*** (0.040)	−0.909*** (0.039)	−0.934*** (0.037)	−0.913*** (0.039)	−0.982*** (0.039)
	Bush Jr.	−0.922*** (0.055)	−0.984*** (0.053)	−0.422*** (0.069)	−0.434*** (0.066)	−0.898*** (0.055)	−0.968*** (0.054)	−0.174*** (0.067)	−0.202*** (0.064)
	Income	0.006 (0.016)	0.017 (0.016)	0.019 (0.016)	0.021 (0.016)	−0.038** (0.016)	−0.009 (0.015)	−0.016 (0.015)	−0.014 (0.015)
	Education	−0.153*** (0.020)	−0.174*** (0.019)	−0.149*** (0.020)	−0.153*** (0.020)	−0.143*** (0.019)	−0.124*** (0.019)	−0.136*** (0.019)	−0.143*** (0.019)
Economic Indicators	Retrospective (worse)	−0.323*** (0.043)				−0.277*** (0.042)			
	Retrospective (better)	0.083** (0.038)				0.289*** (0.037)			
	Prospective (worse)		−0.227*** (0.060)				−0.367*** (0.057)		
	Prospective (better)		0.097*** (0.033)				0.200*** (0.032)		
	NBI			0.009*** (0.001)				0.013*** (0.001)	
	EFI				0.012*** (0.001)				0.017*** (0.001)
Logit	Cut 1	−2.076*** (0.081)	−2.028*** (0.076)	−1.699*** (0.079)	−1.623*** (0.080)	−1.678*** (0.079)	−1.547*** (0.073)	−1.240*** (0.076)	−1.146*** (0.077)
	Cut 2	−0.370*** (0.076)	−0.340*** (0.071)	0.012 (0.074)	0.090 (0.075)	0.246*** (0.076)	0.368*** (0.070)	0.697*** (0.074)	0.799*** (0.075)
	Cut 3	2.219*** (0.080)	2.229*** (0.075)	2.606*** (0.078)	2.689*** (0.080)	2.546*** (0.080)	2.659*** (0.075)	3.005*** (0.079)	3.116*** (0.080)
	Observations	14,361	15,167	14,460	14,460	14,393	15,196	14,494	14,494

Heteroskedasticity-robust standard errors in parentheses ***p < 0.01, **p < 0.05, *p < 0.1.
Results are similar with standard errors clustered by state-years, more details available from the authors upon request.

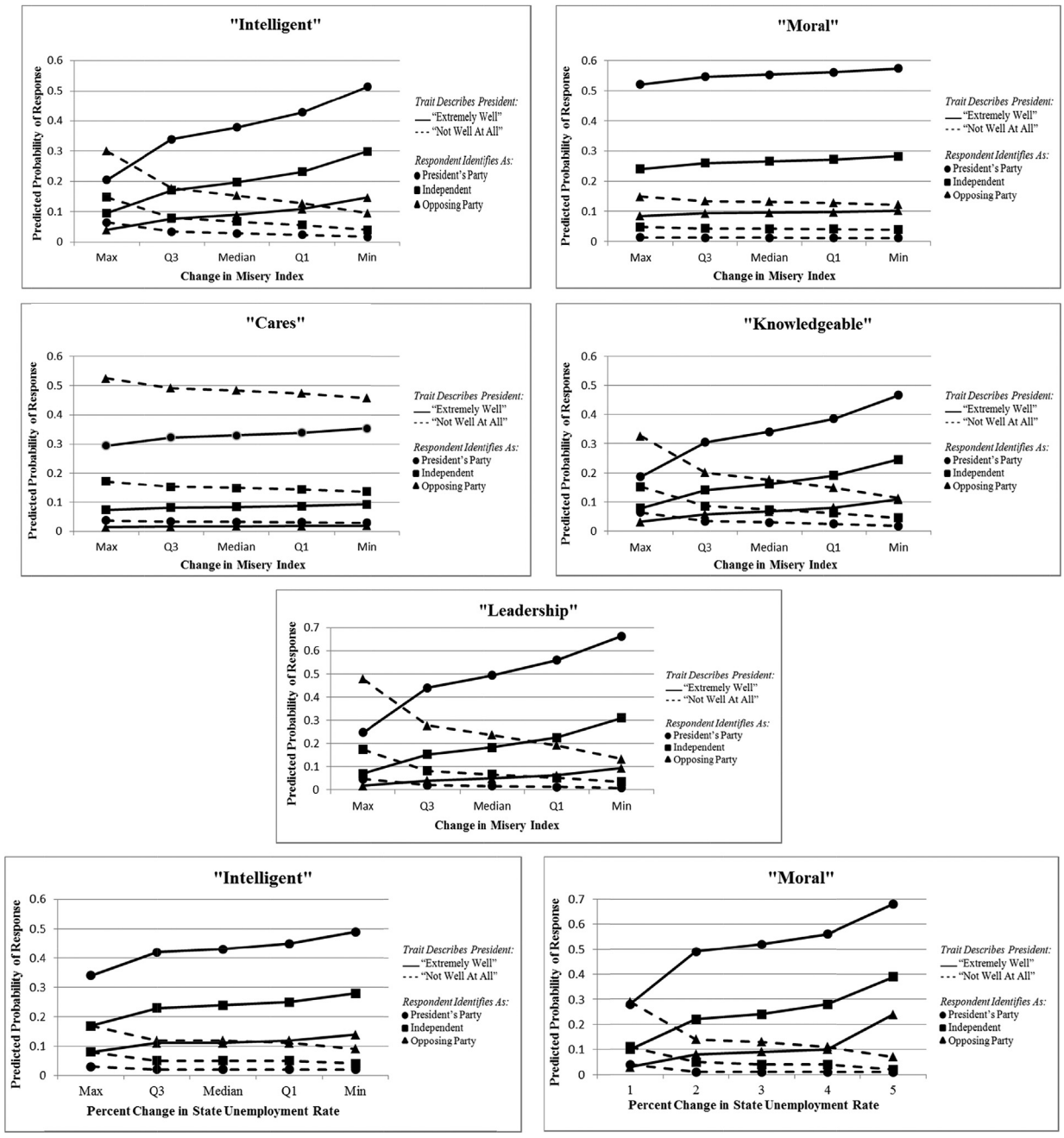

Fig. 1. Predicted probability of presidential character trait evaluation.

decisions.

We suggest that economics and presidential character traits may have a deeper connection beyond people's unrelated opinions about the president's style, political controversies, and personal life. It seems clear that presidents should be perceived as intelligent, knowledgeable and having good leadership if they are perceived to have improved the economy, since such traits would seem to be necessary for economic management. In addition, we demonstrate that people are not likely to see presidents as moral or caring if they are not able to properly execute some of the most important duties of their office in the eyes of the public- creating jobs and growing the economy. If the economy is good, people are likely to perceive the president as more moral and caring because the president has expressed his morality and caring by executing

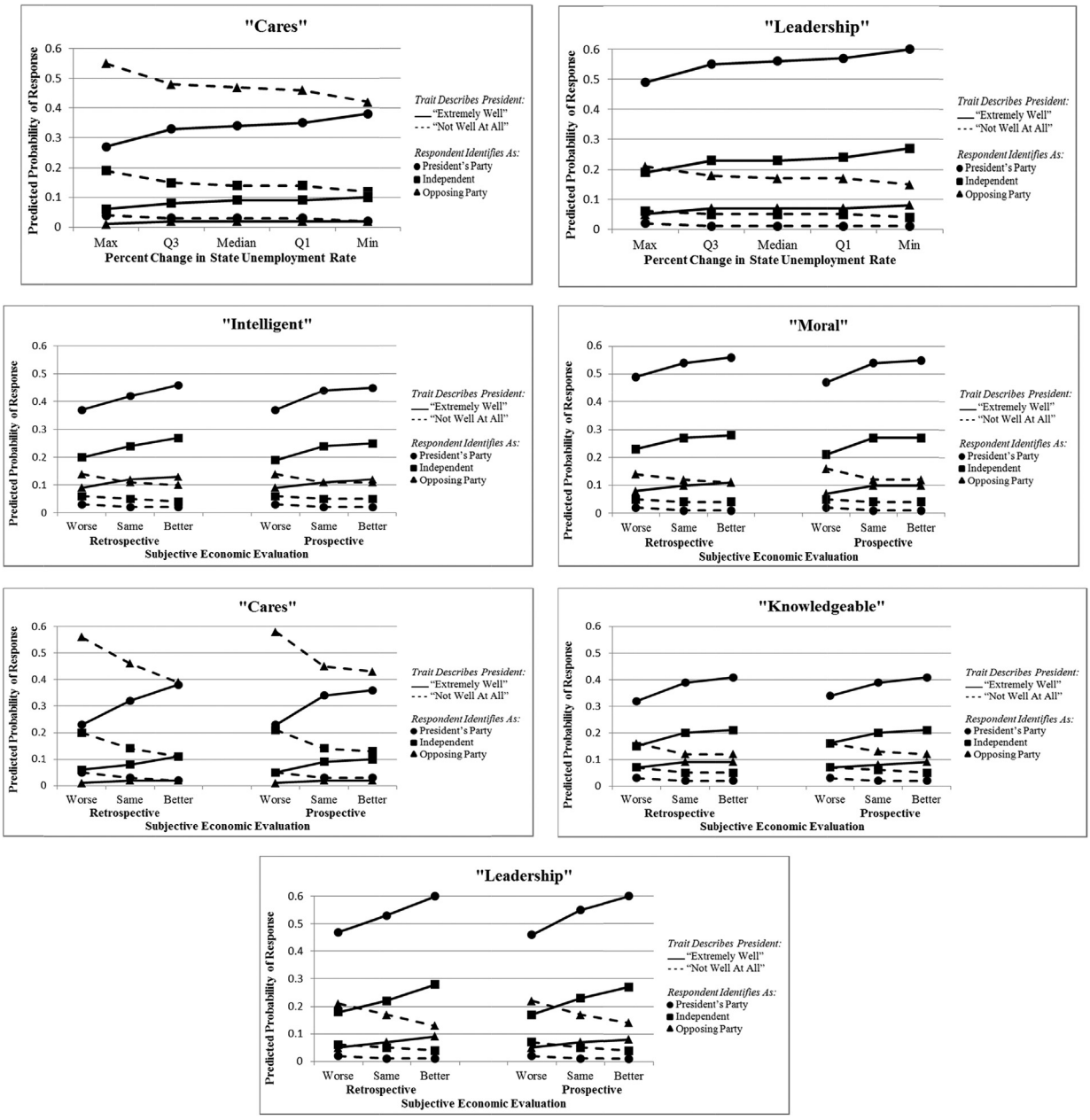

Fig. 1. (*continued*).

important duties well. Future research could clarify how and when the public views economic performance as a matter of presidential moral obligation.

In sum, this study identifies a crucial, but previously overlooked, connection between the economy and evaluations of political leaders, which in turn affects vote choice or approval. We address the question: "What causes the public to evaluate a presidential candidate's character in the way they do?," while also providing a causal mechanism for the litany of studies that demonstrate a link between economic conditions and election outcomes. Rightfully or not, the positive economic conditions were attributed to the incumbent president's policy choices, leading voters to perceive him under a more positive light, and ultimately rewarding him in November. The findings presented here offer support for the ability of American voters to utilize economic heuristics in politics; however, they may generate concern among those scholars seeking a deliberative and informed citizenry, especially in the modern campaign and media environment.

Appendix 1. Summary statistics and data sources.

Character Traits	Cares	Intelligent	Knowledgeable	Leadership	Moral
(1) Not well at all	21.6% (2340)	6.8% (735)	7.0% (763)	11.1% (1207)	14.7% (1592)
(2) Not too well	32.5% (3519)	16.4% (1773)	17.9% (1944)	26.7% (2896)	22.2% (2407)
(3) Quite well	33.7% (3650)	48.9% (5301)	50.8% (5506)	41.5% (4503)	42.5% (4607)
(4) Extremely well	12.3% (1334)	28.0% (3034)	24.3% (2630)	20.6% (2237)	20.6% (2237)
Mean	2.37	2.98	2.92	2.72	2.69
Standard deviation	0.95	0.85	0.84	0.92	0.96

Economic indicators	Min	Q1	Median	Q3	Max
CPI[a]	−0.49	−0.49	0.78	0.94	1.30
GDP[b]	0.40	0.46	0.73	1.37	1.89
Misery index[c]	−3.56	−1.67	−0.54	0.40	4.15
Personal income[d]	−0.5	1.5	1.9	2.3	3.4
Unemployment[e]	−9.6	−3.2	0	2.4	14.5
NBI	−77.33	−50	6.5	44.33	50
EFI	−53	−21.67	15.83	39.5	53.83

Subjective evaluations	Worse	Same	Better	Mean	St. Dev.
Retrospective	28.2% (3053)	31.3% (3388)	40.6% (4402)	2.9	1.1
Prospective	8.7% (945)	52.3% (5672)	39.0% (4226)	1.7	0.6

*Percent of cases providing each response is given, with the number of cases in parentheses.

[a] Organization for Economic Co-operation and Development, Consumer Price Index: Total All Items for the United States© [CPALTT01USQ661S], retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/CPALTT01USQ661S/, July 8, 2015. (*Quarterly percent change*).

[b] Bureau of Economic Analysis, United States Department of Commerce. "GDP Percent change from preceding period." www.bea.gov/national/ (Accessed on July 8, 2015).

[c] All data from the Organization for Economic Co-operation and Development, and retrieved from FRED, Federal Reserve Bank of St. Louis on November 17, 2015. ***CPI:*** Consumer Price Index: Total All Items for the United States© [CPALTT01USQ661 SS], (*Quarterly rate; seasonally adjusted*) ***Unemployment:*** Unemployment Rate: Aged 15–64: All Persons for the United States© [LRUN64TTUSQ156S], (*Quarterly rate; seasonally adjusted)* ***Interest Rate:*** Long-Term Government Bond Yields: 10-year: Main (Including Benchmark) for the United States© [IRLTLT01USQ156N], *(Quarterly percent; not seasonally adjusted)* ***GDP Growth Rate:*** Leading Indicators OECD: Reference Series: Gross Domestic Product: Original Series for the United States© [LORSGPORUSQ659S], (*Growth rate from previous year*).

[d] Bureau of Economic Analysis, United States Department of Commerce. State Personal Income. http://www.bea.gov/regional/index.htm, July 8, 2015. (*Personal Income, Percent Change from Preceding Period*).

[e] Bureau of Labor Statistics, United States Department of Labor. "Local Area Unemployment Statistics" http://data.bls.gov/cgi-bin/dsrv?la, July 9, 2015. (*3 month percent change; Seasonally adjusted*).

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