So, What Did You Expect? Putting Political Knowledge into Context

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Abstract

Survey research shows that voters know very little about politics. Some scholars believe this finding demonstrates that representative democracy does not work. We argue, however, that these measures suffer from weak construct validity. We seek to establish a baseline by putting political knowledge into broader context. We do so by asking the following: How does voters’ knowledge about politics compare to their knowledge about other subjects including consumer knowledge, sports, popular culture, geography, economics, and rules of the road? Using two unique surveys, we show that our respondents actually knew at least as much about politics as they knew about these other subjects.

Keywords: voter competence, political knowledge, consumer knowledge
Introduction

Public opinion research of the mid to late twentieth century has portrayed American voters as poorly educated about their own political system and uninformed of current political events. In survey after survey, researchers have verified the electorate’s ignorance of political facts. Many scholars and political pundits have interpreted this to mean that voters do not possess the requisite knowledge to make reasoned democratic decisions (Campbell et al. 1960; Converse 1964; 1970; 1975; 1990; Lippmann 1922). For some scholars, voter incompetence implies that representative democracy cannot function properly (e.g., Bennett 1988; Converse 1964; Entman 1989; Schumpeter 1950; Somin 1998; 2004).

A recent strand of research, however, has questioned whether standard survey measures of political knowledge can adequately assess voter competency (see, e.g., Delli Carpini 2009; Jerit, Barabas, and Bosen 2006; Johnson 2009; Lupia 2006; Prior and Lupia 2008). Lupia (2006) notes that surveys such as the American National Election Studies (ANES) are not measuring useful political knowledge; instead, standard knowledge questions measure an individual’s proficiency in civics. It is hard to judge, he argues, whether knowledge of basic civics helps voters make competent decisions on the ballot. We share the concerns of scholars who question how previous research has defined and measured political knowledge and seek to assess the construct validity of these measures. Following the lead of Lupia (2006), this article focuses on what should be the first question that scholars must ask about political knowledge: What do we expect voters to know about politics?

In addressing this question, we find that the existing research on voting behavior has not adequately defined a baseline to which we could — and perhaps should — compare political knowledge. Accordingly, the question we investigate is a simple one: How does voters’ knowledge about politics compare to their knowledge about other subjects?

In this paper, we take a step toward establishing a baseline by presenting results from two surveys. The first survey, conducted in 2008, asked a sample of adult voters exiting the polling booth factual knowledge questions about politics and everyday consumer products. The second survey, conducted in 2011, asked a pool of undergraduate students to answer a broad range of factual knowledge questions about politics, sports, popular culture, rules of the road, economics, geography, and consumer products.

Unpredicted given most public opinion research on the American voter, our 2008 election survey shows that the voters we surveyed are more adept at answering political knowledge questions when compared to questions about everyday consumer products. Moreover, our 2011 student survey shows that our respondents are more likely to provide correct answers on the topic of political knowledge than on any other topic in our survey except the rules of the road. These findings could imply: 1) individuals are just as woefully uninformed about most topics as they are about politics; 2) voters are more equipped to make political choices than scholars acknowledge; and/or 3) we must continue to reconsider how to measure knowledge. More directly, public opinion research needs a theory of knowledge, and in particular a theory of political knowledge to ask respondents questions which meaningfully reflect the researcher’s intent.

What We Know and Don’t Know About Political Knowledge

What does the public know about politics? The pioneering research on political knowledge by Berelson, Lazarsfeld, and McPhee (1954) and Campbell et al. (1960) found that the average voter knew very little about the topics of the day, political institutions, or their own
representatives. In fact, the inability of the general public to answer simple questions about politics remains one of the most consistent findings of public opinion research (for a summary see Delli Carpini and Keeter 1996; for an update see Pew Research Center for People and the Press 2007).

For some, the electorate’s lack of political knowledge calls into question whether voters can make competent decisions as democratic citizens (Bartels 1996; 2005; Bennett 1988; Converse 1964; Entman 1989; Somin 1998; 2004; for a review of the earlier literature, see Smith 1989, chapter 4). In essence, these scholars question the competence of the voter. They argue that voters in a representative democracy must make informed choices that ultimately reflect their preferences.1 To these scholars, if voters do not possess much political information as defined by their survey constructs, voters cannot make competent democratic decisions.

The canary in the coalmine for these scholars is that voters do not know simple political facts. Survey respondents struggle to identify the current Vice President, Chief Justice of the United States, and other prominent national political figures (e.g., Campbell 1960; Delli Carpini and Keeter 1996; Pew Research Center for the People and the Press 2007; Somin 1998). A striking number of individuals fail to name their own governors (Delli Carpini and Keeter 1996; Pew Research Center for the People and the Press 2007) and congressional representatives (cf. Jacobson 2008). Perhaps making matters worse, a vast majority of respondents admit they are unaware of salient current events and policy debates that saturate the news (e.g., Bartels 2005; Delli Carpini and Keeter 1996; Kinder 2006). Overall, the empirical evidence supports Converse’s belief that, “levels of information about public affairs are, from the view of the informed observer, astonishingly low” (1975, 79) [emphasis added].

Recent studies have begun to question the validity of how surveys measure political knowledge and what are the research implications of the implied or explicit theoretical concept. These critiques highlight problems with measurement and construct validity. Some scholars argue that simple survey questions about political knowledge are flawed and wrought with measurement error (see, e.g., Achen 1975; Ansolabehere, Rodden, and Snyder 2008; Gibson and Caldeira 2009; Mondak and Davis 2001; but see Luskin and Bullock 2011).2

Inquiries into voter knowledge have begun to focus more on what makes a voter competent. In particular, new research investigates the construct validity of survey measures used to assess political knowledge. Lupia (2006; see also Luskin 1987; 1990) argues that the common questions we use to measure political knowledge (e.g., identifying the Vice President) suffer from an academic bias: We tend to ask questions that have little or no relevance to the voter’s ability to make a competent choice. In a related theoretical piece, Johnson (2009) adopts the position that humans gather information in order to achieve a goal (see Anderson 1993; but for a discussion of what incentives promote learning see Lupia and McCubbins 1998). Similar to Lupia (2006), Johnson argues that research should not focus on assessing academic knowledge.

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1 Althaus (2006) questions the assumption that prominent democratic theorists claim an informed electorate is necessary for democracy to function. Despite the lack of an explicit connection to

2 In a related study, Jerit, Barabas, and Bolsen (2008) have demonstrated that political knowledge questions designed to measure awareness of current events vary in difficulty for individuals depending on the respondent’s level of education and preferred news medium. Their results suggest that researchers should be cognizant of the fact that respondents do not all receive the same treatment (education and exposure to information).
Instead, he suggests that scholars need to define and estimate “operative knowledge,” defined as information that helps voters make competent decisions.

Finally, Prior and Lupia (2008) present experimental data that suggest voters with proper motivation (they provide a monetary incentive) or sufficient time (they allot some treatment groups 24 hours to research the answer) can outperform their baseline measurement of political knowledge. Prior and Lupia offer two conclusions: First, most individuals have no incentive to learn political facts, and they do not give their best effort to recall the correct answer when asked. When incentivized, the opposite is true. Second, they find that a significant number of voters do in fact have the requisite skills to research political information if they have sufficient time. In other words, respondents are “surprised” when surveys ask them to recall political information. On balance, these studies suggest that current survey methods may be unable to assess relevant political knowledge.

What do we expect voters to know about politics? In order to answer this question, we must first have a theory about knowledge and specifically a theory about political knowledge. We submit that there are factual and conceptual knowledge questions. Do we expect voters to have conceptual political knowledge, factual political knowledge, or a combination of both? Public opinion researchers typically ask respondents factual political questions to measure whether individuals know specific facts about government, ranging from who controls Congress to the sitting Chief Justice of the United States. Indeed, these factual knowledge questions have become a permanent fixture in most political surveys, including the ANES. What these scholars have shown is that individuals are embarrassingly ignorant of most facts about the government (e.g., Delli Carpini and Keeter 1996). But do these questions measure actual knowledge?

Following Lupia and McCubbins (1998), we define “knowledge” as the ability to predict accurately the consequences of choices and “information” as the data from which knowledge may be derived. Therefore, knowledge requires information, but large amounts of information do not ensure knowledge. Information is valuable only when it improves the accuracy of predictions about the consequences of choices. Thus, acquiring a large amount of factual political knowledge does not necessarily lead to better political decision making. Factual questions may or may not relate to a unique respondent’s personal interest or the specific election decisions — i.e., the task at hand. To the extent that such questions do not address these decisions and lack personal interest to the respondent, they could be viewed as little more than trivia questions by the respondent. They require having memorizing a specific political fact without need or purpose for that fact and not necessarily understanding an underlying political concept.

Our research focuses on the construct validity of political knowledge measures. In particular, we aim to add a baseline or, at a minimum, some context to standard survey measures of political knowledge by comparing voters’ knowledge of politics to other subjects. By comparing survey responses in politics to different categories of knowledge, we can begin to assess just how well individuals “perform” in regards to their knowledge about basic political facts. This is an initial step in creating a benchmark framework analogous to what the Educational Testing Service (ETS) has established over decades of measuring the abilities of high school and college students in a variety of subject areas.

Research Design and Data

We begin with the premise that voters are busy individuals who have little reason to learn political facts unless they have an intrinsic interest in the subject or the fact directly affects their
ability to decide the election at hand. From this reasoning, we form our research question: Is the deficit in voters’ political knowledge greater or smaller than their deficit in facts about other subjects?

We conducted two surveys to answer our question. We administered the first survey to voters in San Diego as they left the polling booth during the November 4, 2008, general election. The survey included five common political knowledge questions and four consumer knowledge questions. Because we conducted exit interviews, we had significant time constraints on our survey and thus limited our questions to political and consumer knowledge questions.

We selected thirteen locations that covered nineteen precincts within the city to interview voters as they left the polling booth during the 2008 general election (November 4, 2008). We collected surveys from the opening (7:00 am) to the closing (8:00 pm) of the polls. We recruited over 100 student volunteers to collect our data. We gave our pollsters instructions on how to ask the survey questions and record responses one week before the election. To randomize our sample, we instructed our volunteers to ask every other departing voter for an interview. We collected 1,002 interviews from voters, of which 939 provided answers for all nine knowledge questions. An additional 1,051 voters refused to give an interview, yielding an overall cooperation rate of about 49 percent.

For the political knowledge questions, the interviewers collected responses to one multiple choice and four open-ended questions. For the consumer knowledge questions, we used a true-or-false question format. By using true-or-false questions for consumer knowledge, we biased our results toward finding that voters know more about consumer products than politics because respondents have a 50 percent chance of guessing the correct answer. We chose to format our questions as mostly open-ended and true or false to reduce the amount of time required for an interviewer to read the question, and, thus, reducing the overall time needed to complete a survey. The questions we use and their answers are available in Appendix B.

We designed the second survey to provide even greater depth to our understanding of what individuals know about politics in relation to other subjects. In this survey, we asked college students enrolled in lower-division political science and criminal justice courses to answer factual knowledge questions about seven topics. In particular, we asked these respondents to answer questions about sports (ten questions), popular culture (ten questions), the rules of the road (five questions), economics (five questions), geography (five questions), consumer products (ten questions), and American politics (ten questions). We conducted the study from September 5, 2011 to September 19, 2011. We chose to administer the surveys toward the beginning of the semester to minimize the potential testing threat of students learning as the semester continued.

In each of the seven categories, we asked a set of factual questions of varying difficulty, ranked between one and five. We expected that almost every respondent would be able to provide a correct answer to a question with a difficulty ranking of “one,” and that the overwhelming majority of respondents would fail to provide a correct answer to questions with a rank of “five.” All questions used the multiple choice format and included a “don’t know” option. For the ten questions categories (sports, popular culture, consumer products, and American politics), two questions of each level of difficulty appeared on the survey. Likewise,

3 Our election survey is different from an exit poll since our student volunteers marked the responses of voters as they interviewed them, whereas an exit poll asks the voter to mark the responses on the survey directly.
for the five question categories (rules of the road, economics, and geography), one question from each difficulty level appeared on the survey.\footnote{We devised the rank for each question based on a sample of ten graduate students who completed the survey before launch. We gathered these responses to establish that we had variance in the difficulty of the questions and to ensure that our questions did not strongly favor one category over another.} A list of the questions we used, their ranking, the correct answer, and the distribution of answer choices are available in Appendix C.

Our surveys add significant breadth to our understanding of political knowledge. Unlike other comparative studies that only ask about tabloid headlines or celebrities (see Pew Research Center for the People and the Press 2007), we chose to focus on more comparable factual questions. In fact, by varying the difficulty of our questions we are following the lead of Delli Carpini and Keeter’s (1996) work on political knowledge. The main difference here is that we are asking about a variety of topics to assess whether individuals’ factual knowledge of politics with a range of difficulty is greater than, less than, or equal to their factual knowledge in other subjects with varying degree of difficulty.

Given the previous research on political knowledge concludes most individuals lack basic facts, the literature would seem to imply that individuals’ knowledge of politics is less than their knowledge of the other topics we asked about. Since we define “knowledge” as the ability to predict accurately the consequences of choices, with the exception of the rules of the road questions which have pragmatic daily consequences for most individuals, the other subject areas can be equally thought of as factual trivia questions depending on one’s interest area. Hence, our expectation is that our subjects will know at least as much about these topics as they do about politics. We turn now to examine whether our intuition is correct.

Results

To answer our question — how does the political knowledge of our respondents compare to their knowledge in other areas — we first consider the survey responses of the San Diego sample of voters from 2008. While we are using a within-subjects design to answer our question, we compare the demographic composition of our sample to the 2005-09 American Community Survey (ACS) statistics of San Diego. Compared to the ACS estimates, we gathered a reasonable sample of San Diego voters. Our sample, however, was older, more educated, and more Caucasian than the ACS estimates, which was expected since our sample consists of only voters. A full comparison of our sample to the ACS is available in Appendix A.

Figure 1 presents the proportion of correct responses for all 939 respondents across all nine knowledge questions (listed in Appendix B). To make analysis easier, we arranged, in descending order, the questions from the highest percent of correct answers to the lowest percent of correct answers, starting from the left. The voters in our survey are better able to answer political questions when compared to consumer questions. In particular, the two questions with the highest percent of correct answers are political knowledge questions: recognizing Dick Cheney is Vice President (88.3%) and knowing that the Supreme Court determines the constitutionality of legislation (84.9%). Knowing that credit card companies charge different interest rates for cash advances and regular transactions (78.9%) is the question with the third highest percent of correct answers, and the consumer knowledge question with the highest percent of correct answers. Another political knowledge question — knowing Democrats control the House of Representatives — is the question with the fourth highest percent of correct answers (73.6%). The questions with the fifth and sixth highest percent of correct responses measure consumer knowledge: knowing that a Toyota Tacoma has a worse gas mileage rating
than a Ford Focus (61%) and an apple has fewer calories than a banana (60.4%). The three lowest scoring knowledge questions are a political knowledge question (a congressional override requires a two-thirds vote, 50.1%), a consumer knowledge question (a cup of cashews has more calories than a medium McDonald’s french fries, 36.8%), and a political knowledge question (identifying that John Roberts is the Chief Justice of the United States, 29.6%). These results suggest that voters know at least as much — and, again, in this case, more — about politics than they know about consumer products.

Figure 1 – Percent of Correct Responses for Political and Consumer Knowledge Questions from Adult Voter Sample Survey (n=939)

We calculated each individual’s total number of correct answers for our political and consumer knowledge questions, respectively. We then found the average respondent’s political knowledge and consumer knowledge score, and ran a t-test to compare the difference in scores. In the San Diego survey, our respondents answered 65.3 percent of the political knowledge questions correctly (about 3.3 out of 5 questions correct), but only answered 59.3 percent of the

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5 It is worthwhile to note that voters in the San Diego sample outperformed our student sample with regard to knowledge of politics. Not only does this suggest that voters are more knowledgeable about politics when compared to a typical undergraduate, but that drawing a
consumer knowledge questions correctly (about 2.4 out of 4 questions correct). A t-test shows that the difference in correct responses is significant at the 95 percent confidence level ($t = 5.4$). These results imply that the average respondent’s level of political knowledge is about 6 percent higher than her level of consumer knowledge according to our survey.

We now turn to examine the results of our second survey. For our student sample survey, we gathered a representative sample of subjects. Our sample included slightly more males (49.6 percent in the sample versus 46 percent on campus), about the same racial composition (88.3 percent White respondents in the sample versus 90 percent on campus), and an accurate sample of students based on SAT scores (the sample had an average score of 1133 where the Freshman admitted class was 1141). We also gathered a varied sample of majors. Most of our subjects had not declared a major (54.7 percent) and only 11.8 percent were political science majors. In regard to other important demographics, our sample is more Republican (45 percent) than Democratic (20.2 percent) and more conservative (38.8 percent) than liberal (21.1 percent).

Our task is to compare the level of political knowledge to the level of knowledge about other subjects. We begin by presenting the percent of correct responses to each question we asked on the student sample survey. In Table 1, we present the wording of each question, the percent of correct responses, and the subject area. We order the questions in descending order, beginning with the highest percentage of correct responses. While it is too difficult to discern from Table 1 how well our sample performed on each subject, there are a few results worth nothing. First, the percentage of correct answers to the questions we asked ranges from 100% to 7.1%, indicating that question difficulty varied. Second, the questions we asked generally conformed to the rating we gave the questions ex ante. In fact, all questions with a rating of “1” had a greater than 90 percent correct response rate. Likewise, questions with a rating of “5” had the lowest percent of correct responses (with the exception of the rules of the road).

### Table 1 – Student Sample Survey Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Percent Correct</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is the current president of the United States?</td>
<td>100</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>What is the primary color of a stop sign?</td>
<td>100</td>
<td>Rules of the Road</td>
</tr>
<tr>
<td>What is the official currency of the United States?</td>
<td>100</td>
<td>Economics</td>
</tr>
<tr>
<td>Who plays Captain Jack Sparrow in the “Pirates of the Caribbean” film series?</td>
<td>99.5</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>What sport do the New York Yankees play?</td>
<td>98.9</td>
<td>Sports</td>
</tr>
<tr>
<td>What league’s championship game is the Super Bowl?</td>
<td>98.6</td>
<td>Sports</td>
</tr>
<tr>
<td>Which of the following countries lies on the northern border of the United States?</td>
<td>98.4</td>
<td>Geography</td>
</tr>
<tr>
<td>How long is a president’s term in office?</td>
<td>96.5</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>Who is the founder of Playboy magazine?</td>
<td>95.1</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>Which type of fuel is used in the majority of automobiles</td>
<td>92.1</td>
<td>Consumer Knowledge</td>
</tr>
</tbody>
</table>

sample from lower division political science and criminal justice courses did not bias our student sample.

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6 Statistics on Appalachian State University’s student body are available here: [http://www.appstate.edu/about/](http://www.appstate.edu/about/)
<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which of the following forms of consumer activism is the act of voluntarily abstaining from using or buying from a specific company?</td>
<td>91.3</td>
<td>Consumer Knowledge</td>
</tr>
<tr>
<td>Which of the following countries is where reggae music originated?</td>
<td>88.6</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>What is the federal minimum wage in the United States?</td>
<td>88</td>
<td>Economics</td>
</tr>
<tr>
<td>Do you happen to know what job or political office is now held by Joe Biden?</td>
<td>86.7</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>In North Carolina, what is the BAC (Blood Alcohol Content) limit for drivers 21 years or older?</td>
<td>86.7</td>
<td>Rules of the Road</td>
</tr>
<tr>
<td>Which professional sports team does Kobe Bryant play on?</td>
<td>85.3</td>
<td>Sports</td>
</tr>
<tr>
<td>How much of a majority is required for the U.S. Senate and House to override a presidential veto?</td>
<td>84.2</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>Which unit of measurement is used to determine the interior dimensions of a house?</td>
<td>83.7</td>
<td>Consumer Knowledge</td>
</tr>
<tr>
<td>Which city is the location of the largest stock exchange in the world?</td>
<td>83.4</td>
<td>Economics</td>
</tr>
<tr>
<td>Whose responsibility is it to determine if a law is constitutional or not?</td>
<td>79.3</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>Which city is the home of the National Football League’s “Jaguars”?</td>
<td>67.3</td>
<td>Sports</td>
</tr>
<tr>
<td>Who created the “Star Wars” film franchise?</td>
<td>66.8</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>When shopping for a new car, the sales sticker usually provides the consumer with the MSRP. What does MSRP stand for?</td>
<td>65.1</td>
<td>Consumer Knowledge</td>
</tr>
<tr>
<td>What driver’s license must one acquire in order to operate a tractor trailer?</td>
<td>65.1</td>
<td>Rules of the Road</td>
</tr>
<tr>
<td>Which state, in terms of total landmass, is the second largest in the United States?</td>
<td>64.9</td>
<td>Geography</td>
</tr>
<tr>
<td>Do you happen to know which party has the most members in the House of Representatives in Washington, DC?</td>
<td>59.1</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>Which artist had a 1987 hit with the song “Bad”?</td>
<td>58.3</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>What does the hockey term “hat trick” mean?</td>
<td>55.9</td>
<td>Sports</td>
</tr>
<tr>
<td>How often does the FIFA World Cup occur?</td>
<td>55.6</td>
<td>Sports</td>
</tr>
<tr>
<td>Who is the current Speaker of the House of Representatives?</td>
<td>55</td>
<td>Political Knowledge</td>
</tr>
<tr>
<td>In what city is The Alamo located?</td>
<td>55</td>
<td>Geography</td>
</tr>
<tr>
<td>In North Carolina, which of the following is the only road sign shaped like a pennant?</td>
<td>55</td>
<td>Rules of the Road</td>
</tr>
<tr>
<td>Which unit of measurement do electric companies use to determine individual usage?</td>
<td>54</td>
<td>Consumer Knowledge</td>
</tr>
<tr>
<td>In which country was golf invented?</td>
<td>54.2</td>
<td>Sports</td>
</tr>
<tr>
<td>The Oprah Winfrey Show was filmed in what United States city for 25 seasons?</td>
<td>52</td>
<td>Popular Culture</td>
</tr>
</tbody>
</table>
To take a closer look at the data, we tally the percent of correct responses for all topics we asked about in the student sample survey. We then calculate a series of t-tests to compare the percent of correct responses for the political knowledge questions to the percent of correct responses to all other subjects. We present these results in Figure 2. The first result worth noting is that the percent of correct responses to political knowledge questions is the second highest scoring subject behind the rules of the road. In fact, our respondents provided a correct answer to about 70 percent of the driving-related questions (this difference is significant beyond
the 95% confidence interval). When we compare political knowledge scores to other subjects, however, political knowledge scores are either significantly higher than some subjects (popular cultures, geography, and consumer products) or are not statistically distinguishable from other subjects (economics and sports). Finally, political knowledge scores are significantly higher than the overall percent of correct answers across subjects (62.3% compared to 57.7%). In sum, Figure 2 provides strong evidence that individuals know at least as much about politics as they do about other subjects when being posed with random factual questions for subjects in which they may or may not have an intrinsic interest or immediate pragmatic application.

Figure 2 – Comparison of Types of Knowledge, By Category (n=367)

_Is Knowledge General or Domain-Specific?_

Figures 1 and 2 establish that individuals’ knowledge of politics is at least as good, and often better, than other topics. What our results thus far cannot tell us is whether knowledge about politics is domain-specific, or if political knowledge stems from one underlying latent dimension (i.e., intelligence). If knowledge is not domain-specific, then asking respondents survey questions about politics is tantamount to administering an intelligence test or asking for
self-reported levels of education. Using our student sample, we examine the construction of political knowledge questions by using Poole’s (2005) Optimal Classification algorithm to analyze the structure of the latent knowledge dimensions in our data for all 55 knowledge questions.

With our 55 knowledge variables, we analyze our data having Optimal Classification produce ideal points on ten latent dimensions for each of our 367 respondents. In essence, Optimal Classification finds the best location for each respondent on the specified number of latent dimensions based on each respondent’s choices relative to every other respondent’s choices. It achieves the best outcome by minimizing the number of classification errors (for a longer description of Optimal Classification, see Poole 2005, chapter 3). While Optimal Classification can uncover ten dimensions, not every dimension will be important. As seen in Figure 3, the scree plot shows that the “elbow” in the eigenvalues for the ten dimensions Optimal Classification estimated begins with the second dimension. As such, our Optimal Classification results indicate that the propensity of a respondent to provide a correct answer to a question from any and all of our knowledge categories largely falls on a single dimension. Corresponding with the eigenvalues, the first dimension accounts for 82.5 percent of the variance in the answers, while the second dimension and third dimension explains just 3.1 percent and 2.1 percent of the variance, respectively. The amount of variance explained by the fourth through tenth dimension is even smaller than the second and third. Overall, the ten dimensions explain 95 percent of the variance. In other words, the second through tenth dimensions explain a meager 12.5 percent of the variance in our respondents’ choices — compared to 82.5 percent for the first dimension — further demonstrating that the first dimension is dominant.

Another way to analyze the data would be to use principal factor analysis. Using factor analysis, however, is not the best approach to analyzing the data as it was designed for interval-level data. Poole’s Optimal Classification, by contrast, is a non-parametric algorithm for reducing binary choice data (e.g., correct and incorrect responses, or legislative votes). To be thorough, we did use principal factor analysis to analyze the data. Principal factor analysis reveals that some thirty factors have a positive eigenvalue. Only the first three factors, however, achieve an eigenvalue above one, the Kaiser criterion for retaining factors. By keeping just three factors, we can explain 58 percent of the variance: the first factor explains 36.7 percent, the second factor captures 12 percent, and the third factor accounts for 9.4 percent. Political Knowledge is the only category that correlates the best with Factor 3; Rules of the Road and sports correlate the best with Factor 1; and Economics, Popular Culture, Consumer Products, and Geography correlate with Factor 2. Factor analysis, then, suggests that the seven knowledge categories we asked about fit best on just three factors. It also implies that political knowledge is different from the others in that it is the only knowledge subject that loads on Factor 3 the best.

This is similar to the principal factor analysis we presented above where 30 factors were positive but only three factors were important enough to register above an eigenvalue of one.

The method we use to identify the relevant number of dimensions is similar to Spirling (2012).

As a matter of fit, Optimal Classification correctly predicted 95.6 percent of the correct answers and 94.6 of the incorrect answers, for an overall classification percent of 95.1 percent.
If, in fact, all categories of knowledge fit best on a single dimension, a simple correlation between our respondents’ uncovered ideal points and their respective scores in each knowledge category will bear this out. That is, if only one dimension is the best predictor of our respondents’ choices then we expect that our respondents’ knowledge scores will be the most strongly (and positively) correlated with their first dimension ideal point when compared with any other dimension. As Table 2 shows, this is indeed the case: a respondent’s first dimension ideal point best explains her knowledge on every topic we asked about. Taken together, Figure 3 and Table 2 demonstrate that all types of knowledge — political knowledge included — fit well on one dimension. While there is certainly enough variation for some domain-specific knowledge to exist, our data suggest that one dominant general knowledge dimension exists.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
<th>Six</th>
<th>Seven</th>
<th>Eight</th>
<th>Nine</th>
<th>Ten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Knowledge</td>
<td>0.54</td>
<td>0.36</td>
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<td>Consumer Knowledge</td>
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<td>0.33</td>
<td>0.14</td>
<td>-0.26</td>
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<td>0.18</td>
<td>0.05</td>
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Note: Bold denotes largest correlation with dimension.

If political knowledge is, at base, no different than other types of knowledge, what does this finding mean for political science research? First, survey researchers may be measuring an
individual’s general knowledge multiple times with socio-economic variables (e.g., level of education). Second, and importantly, it implies that political knowledge questions are only measuring an individual’s general intelligence, not politics-specific knowledge. While an individual’s intelligence undoubtedly has an effect on her ability to process information, a high level of intelligence is not a requisite for making reasoned choices (Lupia and McCubbins 1998). In sum, our analysis in this section establishes that political knowledge questions, as a matter of construct validity, do not measure an individual’s ability to make democratic decisions, just as Lupia (2006) suspected.

Discussion

We designed our surveys to establish benchmarks for political knowledge. We then measured where our respondents fell on this spectrum of benchmarks and considered the ontological meaning of a political knowledge construct. In our first survey of adult voters, we found that respondents knew more about politics than consumer products. In our second survey of students, we chose sports, popular culture, the rules of the road, economics, geography and consumer knowledge as our benchmarks. Public opinion research strongly suggests that respondents should have been lacking in their political knowledge, but we found the opposite: the average respondent knew more about politics in comparison to other subjects. With the exception of the rules of the road — which individuals knew more about than any other subject, presumably because they are factual details with regular pragmatic application, i.e., most people drive every day — knowledge of politics was at least as high as the other subjects we asked about. Finally, our analysis showed that the construction of political knowledge questions is substantively similar to knowledge questions about other subjects. This implies that commonly used political knowledge questions are likely measuring the general level of intelligence of the survey-taker. This finding further implies that civics questions are not measuring politics-specific knowledge that a voter can rely upon to make a reasoned choice.

Our research echoes the results of previous surveys administered by the Consumer Federation of America (CFA) (2003) and the National Hurricane Survival Initiative (NHSI) (2009; for a related study on what individuals know about economic policy see Blinder and Krueger 2004). A survey conducted by the CFA about credit scores and credit cards found that only 55 percent of individuals knew that using all of the available credit on their credit cards could have an adverse effect on their credit score. In the same survey, only 62 percent of the respondents knew that applying for a new credit card may lower their credit rating, and a surprising 27 percent thought their credit score measured their knowledge of how consumer credit works. Similar to the findings of the CFA, the NHSI found that individuals located in the Atlantic and Gulf Coast region did not know the basics of hurricane preparedness and protection. In particular, only 30 percent of their respondents knew that the storm surge is the most dangerous component of a hurricane and only 3 percent recognized that the garage door is the part of the house that is most likely to falter under hurricane-force wind. Furthermore, 44 percent knew that the most interior room in the house is the safest place to weather a hurricane, 49 percent responded that masking tape does not stop windows from shattering, and 44 percent recognized kerosene lamps should not be used in a disaster supply kit.

The results of the surveys conducted by the CFA and the NHSI are interesting because credit scores, credit cards, and hurricane safety should be more important to individuals than politics. For credit scores and credit cards, these are direct measures of what people know about
personal finance (and how to manage it). For hurricane preparedness and safety, knowing how to react to a disaster can mean the difference between life and death. Similar to our results, knowledge of both topics appears to be low. It is probable these surveys would have confirmed our results if they had included measures of political knowledge.

Our findings, similar to Lupia (2006) and Prior and Lupia (2008), raise an important analytical question: What do we expect voters to know about politics? If individuals are not omniscient calculators (e.g., March and Simon 1958; Simon 1955; 1957), they must make decisions under uncertainty and with incomplete and imperfect information. While we could ask only a few questions about each subject, what we found implies that our sample was better equipped to vote than to purchase a product or be a sports fan. Given how much ink is devoted to denigrating the American voter, our results suggest a re-thinking of how we characterize the voter and measure voter aptitude.

There are three possible implications of our findings. The first is that the average person is just as woefully clueless about other subjects as they are about politics. Indeed, government often enacts regulations to protect its citizens: for example, the U.S. government tries to protect consumers from suffering the consequences of incomplete information (e.g., the Food and Drug Administration has a long and complicated approval process) or avoid car accidents (e.g., establishing who has the right of way). It is also true that the government attempts to protect the electorate from making poor choices in the voting booth (e.g., defining who can run, limiting the number of parties who can place candidates on the ballot, regulating and disclosing campaign finance, and so forth). If this implication is correct, our results suggest that individuals are ill-prepared to make most decisions in life.

The second implication is that the questions we asked are inadequate measures of politics-specific knowledge as our factor analysis and Optimal Classification results indicated. If so, then we cannot hope to understand what individuals know about politics with our survey data (and, by extension, no existing research can either). It may be the case that when an individual needs to choose a candidate, purchase a product, or drive a car she relies on her experiential knowledge (Johnson 2009), or she performs an active search for information over time and at her leisure (Prior and Lupia 2008). After she learns what she needs to know, experientially or otherwise, the specific pieces of information that helped construct her choice may simply melt away and are not available for recall (see, e.g., Lodge, McGraw, and Stroh 1989; Lupia and McCubbins 1998, chapter 2; Popkin 1994). Without a new construct of how to measure knowledge as Lupia (2006) suggests we need, however, we cannot say for certain whether this implication is accurate. Whether Lupia’s (2006) call to action or Delli Carpini’s (2009) claim that factual knowledge and operational knowledge are highly correlated remains an important empirical question, however.

The third implication is that voters are better equipped to make decisions on the ballot than scholars commonly acknowledge. Many economists conclude that consumers are able to engage the market system with incomplete information successfully (e.g., Akerlof 1970; Greenwald and Stiglitz 1986; Spence 1973; Stiglitz and Weiss 1981). Moreover, while our student sample scored an average of 69.6 percent for the rules of the road questions, we doubt that most of our subjects are doomed to experience a car accident in the near term. In fact, people make complicated decisions routinely with incomplete information without adverse consequences. By extension, we could conclude that individuals, on average, may be better prepared to make political decisions because they have a superior knowledge base when compared to other subjects.
Our results are suggestive and highlight the need for additional research. Two extensions to this research will satisfy our call to create additional comparative benchmarks. First, we plan to replicate our results with a nationally representative adult sample. Second, we plan to move to the Educational Testing Service (ETS) model of measurement, creating, in essence, Guttman scales for knowledge of politics, consumer products, sports, popular culture, and other matters. With more questions we can create measures similar to the Scholastic Aptitude Test. The exploration of these constructs and the benchmarks to which we should compare them is long overdue.
References


Appendix A

Demographic Comparison of San Diego Sample to American Community Survey Data

<table>
<thead>
<tr>
<th></th>
<th>Survey</th>
<th>ACS Data for San Diego(^{11})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Median between 36-45; 7.8% &gt; 65 yrs.</td>
<td>Median age 33.6; 10.7% &gt; 65 yrs.</td>
</tr>
<tr>
<td>Household Income</td>
<td>Median between $50,000-100,000</td>
<td>$61,962</td>
</tr>
<tr>
<td>HS Diploma (Age &gt; 25)</td>
<td>99%</td>
<td>86.3%</td>
</tr>
<tr>
<td>College Degree (Age &gt; 25)</td>
<td>71.9%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Female</td>
<td>48.6%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>8.2%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Black</td>
<td>2.7%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Latino</td>
<td>8.4%</td>
<td>27.3%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>72.7%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Vote % for Obama</td>
<td>70.9%</td>
<td>62.6%(^{12})</td>
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</tbody>
</table>

\(^{11}\) American Community Survey data available here: http://www.census.gov/acs/www/

\(^{12}\) Presidential vote results by city are available from the California Secretary of State: http://www.sos.ca.gov/elections/sov/2008_general/ssov/5-pres-political-dists-within-counties.xls
Appendix B

Knowledge Questions for Exit Survey of 939 San Diego Voters. Correct answers are in **boldface** after the question.

### Political Knowledge

Open Ended: Do you happen to know what job or political office is held by Dick Cheney? (**Vice President**)

(Open Ended) Do you happen to know what job or political office is held by John Roberts? (**Chief Justice of the United States**)

(Open Ended) Do you happen to know the vote percent required by the Constitution for the US Senate and House to override a presidential veto? (**Two-thirds**)

(Open Ended) Do you happen to know which party has the most members in the House of Representatives in Washington today? (**Democrats**)

(Multiple Choice) Whose responsibility is it to determine if a law is constitutional or not…is it the

- A. **Supreme Court**
- B. Congress
- C. or the President?

### Consumer Knowledge

True or False: Credit card companies charge a higher interest rate for cash advances than for purchases (**True**)

True or False: A cup of cashews has more calories than a medium serving of McDonald’s French fries (**True**)

An apple has more calories than a banana (**False**)

A Toyota Tacoma has a higher EPA estimated mile per gallon rating than a Ford Focus (**False**
Appendix C

Knowledge Questions for Appalachian State University Survey of 367 Undergraduates
Correct answers in **boldface** font. Each questioned ranked 1-5 in parentheses denoting question difficulty, where 1=very easy and 5=very difficult. Percent of responses indicated in parentheses next to each response.

**Sports**

What sport do the New York Yankees play? (1)

A. Basketball (0.8%)
**B. Baseball (98.9%)**
C. Football (0%)
D. Hockey (0.3%)
E. Don’t Know (0%)

What league’s championship game is the Super Bowl? (1)

A. Major League Baseball (0.3%)
B. National Basketball Association (0%)
**C. National Football League (98.6%)**
D. National Hockey Association (0.3%)
E. Don’t Know (0.8%)

Which professional sports team does Kobe Bryant play on? (2)

A. Los Angeles Dodgers (0.3%)
B. Boston Celtics (0%)
**C. Los Angeles Lakers (85.3%)**
D. Miami Heat (8.5%)
E. Don’t Know (6%)

Which city is the home of the National Football League’s “Jaguars”? (2)

A. Tampa Bay, FL (1.9%)
B. Washington, DC (1.1%)
C. Cincinnati, OH (5.5%)
**D. Jacksonville, FL (67.3%)**
E. Don’t Know (24.3%)

What does the hockey term “hat trick” mean? (3)

A. When a Goalie Blocks a Shot with his Helmet (4.9%)
B. When a Player Scores a “Wrap-Around” Goal (5.2%)
C. When a Player Scores Three Goals in a Single Game (55.9%)
D. When a Forward Commits a “Boarding” Penalty (0%)
E. Don’t Know (34.1%)

How often does the FIFA World Cup occur? (3)
A. Every Two Years (17.7%)
B. Every Four Years (55.6%)
C. Every Six Years (1.4%)
D. Every Eight Years (0.3%)
E. Don’t Know (25.1%)

In which country was golf invented? (4)
A. United States (1.6%)
B. Wales (7.1%)
C. England (10.6%)
D. Scotland (54.2%)
E. Don’t Know (26.4%)

Which of the following major tennis championship has grass courts? (4)
A. US Open (3.3%)
B. French Open (7.6%)
C. Wimbledon (48.9%)
D. Australian Open (5.7%)
E. Don’t Know (36.5%)

Over their career, which of the following players has won the most “major” championships on the Professional Golfers’ Association (PGA) Tour? (5)
A. Arnold Palmer (14.7%)
B. Jack Nicklaus (22.1%)
C. Tiger Woods (46.9%)
D. Ben Hogan (0.3%)
E. Don’t Know (16.1%)

Which of the following is the third leg of the Triple Crown in US horse racing? (5)
A. Breeders’ Cup (2.5%)
B. Kentucky Derby (33.2%)
C. Preakness Stakes (7.9%)
D. Belmont Stakes (12.3%)
E. Don’t Know (44.1%)
Political Knowledge

Who is the current president of the United States? (1)

A. George W. Bush (0%)
B. Bill Clinton (0%)
C. **Barack Obama (100%)**
D. John McCain (0%)
E. Don’t Know (0%)

How long is a president’s term in office? (1)

A. Two Years (2.5%)
B. **Four Years (96.5%)**
C. Six Years (0%)
D. Eight Years (1.2%)
E. Don’t Know (0%)

Do you happen to know what job or political office is now held by Joe Biden? (2)

A. Secretary of State (3.5%)
B. Secretary of Defense (2.2%)
C. Speaker of the House (1.1%)
D. **Vice President (86.7%)**
E. Don’t Know (6.5%)

How much of a majority is required for the U.S. Senate and House to override a presidential veto? (2)

A. Simple Majority (1.1%)
B. **Two-Thirds Majority (84.2%)**
C. Three-Fifths Majority (9.3%)
D. Four-Fifths Majority (0.3%)
E. Don’t Know (5.2%)

Whose responsibility is it to determine if a law is constitutional or not? (3)

A. **The Supreme Court (79.3%)**
B. The President (1.9%)
C. The Senate (9.3%)
D. The House of Representatives (3.3%)
E. Don’t Know (6.3%)
Do you happen to know which party has the most members in the House of Representatives in Washington, DC? (3)

A. Republican (59.1%)
B. Democratic (30%)
C. Independent (0%)
D. Green (0%)
E. Don’t Know (10.9%)

Who is the current Speaker of the House of Representatives? (4)

A. Nancy Pelosi (33%)
B. Eric Cantor (1.1%)
C. Tip O’Neill (1.4%)
D. John Boehner (55%)
E. Don’t Know (9.5%)

Who is the current White House Chief of Staff? (4)

A. Andrew Card (3.8%)
B. William Daley (23.4%)
C. Ezra Klein (1.4%)
D. Rahm Emmanuel (15.8%)
E. Don’t Know (55.6%)

How many associate justices sit on the Supreme Court? (5)

A. Six (10.6%)
B. Seven (9%)
C. Eight (19.9%)
D. Nine (46.3%)
E. Don’t Know (14.2%)

Who was the first woman to run for Vice President of the United States? (5)

A. Sarah Palin (42.8%)
B. Shirley Chisholm (2.7%)
C. Geraldine Ferraro (18.5%)
D. Hillary Clinton (22.9%)
E. Don’t Know (13.1%)
Popular Culture

Who plays Captain Jack Sparrow in the “Pirates of the Caribbean” film series? (1)

A. **Johnny Depp (99.5%)**  
B. Brad Pitt (0.3%)  
C. Johnny Damon (0.3%)  
D. Bradley Cooper (0%)  
E. Don’t Know (0%)

Who is the founder of Playboy magazine? (1)

A. Larry Flynt (0%)  
B. **Hugh Hefner (95.1%)**  
C. Bob Guccione (0.5%)  
D. Howard Hughes (0.5%)  
E. Don’t Know (3.8%)

Which of the following countries is where reggae music originated? (2)

A. **Jamaica (88.6%)**  
B. Bermuda (0.3%)  
C. Bahamas (2.5%)  
D. Cuba (1.4%)  
E. Don’t Know (7.4%)

Who created the “Star Wars” film franchise? (2)

A. Francis Ford Coppola (0.3%)  
B. Steven Spielberg (14.7%)  
C. **George Lucas (66.8%)**  
D. Martin Scorsese (0.5%)  
E. Don’t Know (17.7%)

Which artist had a 1987 hit with the song “Bad”? (3)

A. George Michael (2.2%)  
B. **Michael Jackson (58.3%)**  
C. Prince (7.9%)  
D. Lionel Richie (1.1%)  
E. Don’t Know (30.5%)
The Oprah Winfrey Show was filmed in what United States city for 25 seasons? (3)

A. New York (13.9%)
B. Los Angeles (12.8%)
C. Miami (1.4%)
D. Chicago (52%)
E. Don’t Know (19.9%)

Which musical artist sold the most albums during the 2000s (2000-2009)? (4)

A. Eminem (23.7%)
B. Jay-Z (18.3%)
C. Britney Spears (23.7%)
D. Tim McGraw (5.5%)
E. Don’t Know (28.9%)

Which instrument did Miles Davis play? (4)

A. Trombone (4.1%)
B. Trumpet (31.3%)
C. Saxophone (25.3%)
D. Bugle (0.3%)
E. Don’t Know (39%)

Which actor or actress won the most Oscars for acting over their career? (5)

A. Tom Hanks (25.3%)
B. Humphrey Bogart (6.5%)
C. Katharine Hepburn (12.5%)
D. Meryl Streep (16.6%)
E. Don’t Know (39%)

What was Princess Diana's maiden name? (5)

A. Spencer (19.6%)
B. Ferguson (10.6%)
C. Windsor (19.9%)
D. Churchill (3.8%)
E. Don’t Know (46.1%)
Rules of the Road

What is the primary color of a stop sign? (1)

A. Yellow (0%)
B. Orange (0%)
C. Red (100%)
D. Green (0%)
E. Don’t Know (0%)

In North Carolina, what is the BAC (Blood Alcohol Content) limit for drivers 21 years or older? (2)

A. 0.06 (6.5%)
B. 0.08 (86.7%)
C. 0.10 (0.5%)
D. 0.12 (0.3%)
E. Don’t Know (6%)

What driver’s license must one acquire in order to operate a tractor trailer? (3)

A. Motorcycle Learner Permit (MLP) (0%)
B. Farm Equipment Permit (FEP) (18.3%)
C. Commercial Driver’s License (CDL) (65.1%)
D. Standard Driver’s License (No special endorsement required) (3.5%)
E. Don’t Know (13.1%)

In North Carolina, which of the following is the only road sign shaped like a pennant? (4)

A. No Passing Zone (55%)
B. No Left Turn (0%)
C. No Right Turn (1.4%)
D. Railroad Crossing (15.3%)
E. Don’t Know (28.3%)

In what state is a driver not legally required to wear a seat belt? (5)

A. Montana (9%)
B. Rhode Island (3%)
C. Utah (1.6%)
D. None of the Above (41.4%)
E. Don’t Know (45%)
Economics

What is the official currency of the United States? (1)

A. Pound Sterling (0%)
B. Euro (0%)
C. Yen (0%)
D. **Dollar (100%)**
E. Don’t Know (0%)

What is the federal minimum wage in the United Stated? (2)

A. $6.50 (2.5%)
B. $6.75 (4.1%)
C. $7.00 (2.2%)
D. **$7.25 (88%)**
E. Don’t Know (3.3%)

Which city is the location of the largest stock exchange in the world? (3)

A. London (3%)
B. **New York City (83.4%)**
C. Paris (0.3%)
D. Moscow (1.6%)
E. Don’t Know (11.7%)

Which classical economist theorized about the “invisible hand” of free markets? (4)

A. John Stuart Mill (3.3%)
B. Karl Marx (24.8%)
C. **Adam Smith (24%)**
D. John Maynard Keynes (8.2%)
E. Don’t Know (39.8%)

What was the Gross Domestic Product (GDP) for the United States in 2010? (5)

A. 5.7 Trillion (4.4%)
B. **14.7 Trillion (14.7%)**
C. 23.6 Trillion (13.1%)
D. 42.5 Trillion (4.6%)
E. Don’t Know (63.2%)
Geography

Which of the following countries lies on the northern border of the United States? (1)

A. Greenland (1.1%)
B. Norway (0%)
C. Canada (98.4%)
D. Sweden (0%)
E. Don’t Know (0.5%)

Which state, in terms of total landmass, is the second largest in the United States? (2)

A. Texas (64.9%)
B. Montana (1.4%)
C. California (16.1%)
D. Alaska (12.3%)
E. Don’t Know (5.5%)

In what city is The Alamo located? (3)

A. Dallas, TX (2.5%)
B. San Antonio, TX (55%)
C. Houston, TX (9%)
D. Santa Fe, NM (15.3%)
E. Don’t Know (18.3%)

Which of the following countries ranks second in the world in terms of total land mass? (4)

A. China (29.2%)
B. Russia (21.3%)
C. Canada (22.6%)
D. Untied States (11.4%)
E. Don’t Know (15.5%)

Which London Underground line goes to Heathrow International Airport? (5)

A. Piccadilly (7.1%)
B. Soho (4.3%)
C. London East (9.8%)
D. Victoria (4.1%)
E. Don’t Know (74.7%)
Consumer Knowledge

Which type of fuel is used in the majority of automobiles in the United States? (1)

A. Diesel (1.1%)
B. Leaded Gasoline (1.9%)
C. Ethanol (2.5%)
D. **Unleaded Gasoline (92.1%)**
E. Don’t Know (2.5%)

Which of the following forms of consumer activism is the act of voluntarily abstaining from using or buying from a specific company? (1)

A. Strike (2.7%)
B. **Boycott (91.3%)**
C. Protest (3.3%)
D. Recall (0.8%)
E. Don’t Know (1.9%)

Which unit of measurement is used to determine the interior dimensions of a house? (2)

A. Cubic Feet (11.7%)
B. Cubic Yards (1.4%)
C. **Square Feet (83.7%)**
D. Square Yards (0.5%)
E. Don’t Know (2.7%)

When shopping for a new car, the sales sticker usually provides the consumer with the MSRP. What does MSRP stand for? (2)

A. **Manufacturer’s Suggested Retail Price (65.1%)**
B. Manufacturer’s Standard Retail Price (18.5%)
C. Merchant’s Sales Retail Price (2.2%)
D. Motor Standards Relative Prospectus (1.1%)
E. Don’t Know (13.1%)

Which unit of measurement do electric companies use to determine individual usage? (3)

A. Amperage (9.8%)
B. Volt Hours (14.7%)
C. Nanometers (1.1%)
D. **Kilowatt Hours (54%)**
E. Don’t Know (20.4%)
How many calories are in a McDonald’s Big Mac? (3)

A. 340 (0.3%)
B. 440 (1.9%)
C. 540 (37.6%)
D. 640 (36.8%)
E. Don’t Know (23.4%)

For which of the following do most credit card companies charge the highest interest rates? (4)

A. Cash Advances (29.2%)
B. Purchases (3.5%)
C. Monthly Billing Fees (12.8%)
D. Service Charges (15.5%)
E. Don’t Know (39%)

What is the tuition (not including fees) for a full-time, in-state undergraduate at Appalachian State University for the 2011-2012 school year? (4)

A. $1,376 (5.5%)
B. $1,476 (8.7%)
C. $1,576 (26.7%)
D. $1,676 (17.2%)
E. Don’t Know (42%)

Which fruit has the most calories per 100 grams? (5)

A. Raw Avocado (18.3%)
B. Banana (11.4%)
C. Mango (12%)
D. Coconut Meat (16.1%)
E. Don’t Know (42.2%)

In 1965, consumer activist Ralph Nader published Unsafe at Any Speed. This book is a critique of the safety record of which American-made automobile? (5)

A. Nova (6%)
B. Corvette (18.5%)
C. Corvair (8.7%)
D. Camaro (9%)
E. Don’t Know (57.8%)