

# AMERICANS' ATTITUDES TOWARD THE AFFORDABLE CARE ACT:

## WOULD BETTER PUBLIC UNDERSTANDING INCREASE OR DECREASE FAVORABILITY?

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## Abstract

National surveys conducted in 2010 and 2012 suggest the following conclusions:

- American understanding of what is and is not in the ACA has been far from perfect.
- Correct understanding of the elements of the bill we examined varied with party identification: Democrats understood the most, independents less, and Republicans still less.
- Older people and more educated people have understood the elements of the bill we examined better than have younger and less educated people.
- Between 2010 and 2012, public understanding of the elements of the bill we examined did not change notably.
- Most people have favored most of the elements of the ACA that we examined, but not everyone recognized that these elements were all in the plan.
- Most people opposed policies that were sometimes falsely thought to be parts of the ACA. .
- If the public had perfect understanding of the elements that we examined, the proportion of Americans who favor the bill might increase from the current level of 32% to 70%.

Taken together, all this suggests that if education efforts were to correct public misunderstanding of the bill, public favorability might increase considerably.

## Introduction

The Patient Protection and Affordable Care Act of 2010 (ACA) enacted a series of significant changes to the American health care system. The 900-page-long bill, which elicited an extremely partisan reaction and substantial news media interest, amended the U.S. code to prevent insurance companies from denying coverage for pre-existing conditions, provide for health care exchanges where individuals could purchase care directly, require all individuals to have health insurance or pay a fine, and more. In June, 2012, the U.S. Supreme Court upheld a central element of this law.

Public debate about the bill called attention to many aspects of the law that were included in the version that Congress approved. But during the course of public debate, a number of inaccurate claims were made, asserting that the bill included provisions that were not included in the final version. Some of the widely discussed components were part of the legislation, such as the plan to allow children to stay on their parents' health plan through age 26. But other widely discussed notions were never considered for inclusion, such as the claim that a panel of bureaucrats could decide when coverage would be given (the so-called "death panels"). The legislation included a variety of less-often discussed provisions, such as charging a fee to insurance companies that offered particular types of insurance.

Many surveys were conducted both before the bill's passage and after its enactment to gauge the American public's reaction to it. In early 2010, public opinion was fairly evenly split. For example, according to a Kaiser Family Foundation (KFF) survey in April of that year, 46% of Americans said they had a favorable opinion of the bill, and 40% said they had an unfavorable opinion. A year later, in April 2011, KFF reported these two statistics to be 41% and 41%, respectively. And in January 2012, the figures were 37% and 44%, respectively, perhaps suggesting a slight shift in the unfavorable direction as time has passed. In May 2012, the figures were identical: 37% and 44%, solidifying evidence of that slight shift. And in August 2012, these figures were 38% and 43%, respectively.

A similar portrait was painted by AP-GfK polls. In May, 2010, 39% of respondents said they supported the ACA, and 46% said they opposed it. In June, 2012, those numbers were 33% and 47%, respectively. Thus, a small decrease in the proportion supporting, and a small increase in the proportion opposing.

Surveys done by other organizations provided similar, though not identical, portraits of the balance and trajectory of opinions. For example, a NBC News/Wall Street Journal poll done in May, 2010, found 38% of respondents saying they thought the ACA was a good idea, and 44% said it was a bad idea. As of June, 2012, that organization found these figures to be 35% and 41%. Thus, the proportion expressing a positive opinion dropped slightly, like the KFF polls. But the proportion expressing a negative opinion also dropped slightly.

Only one prominent national survey research organization, The Pew Research Center, reported results suggesting movement in the opposite direction. In January, 2011, 41% of their respondents approved of the ACA, and 48% opposed. Their most recent survey, in June-July, 2012, found that 47% approved, and 43% opposed.

Put together, most national surveys during the last two years support two principal conclusions: (1) public opinion has not manifested a sizable and consistent leaning toward being favorable or unfavorable toward the ACA, and (2) a slight shift in the negative direction may have occurred since the law was passed.

It would be understandable to look at such evidence as an indication that the American public does not strongly support this piece of legislation. After all, if about as many people favor it as oppose it, and if we have never seen a majority favoring it, that hardly sends a strong signal of support. Furthermore, it is easy to imagine that since passage of the bill, Americans have had time to consider the bill and its implications in more and more depth, and if such consideration leads to a shift in the negative direction, that certainly signals quite the opposite of enthusiasm. Thus, such data could be taken as a signal that Republican efforts to repeal the bill would be warmly welcomed by a growing group of Americans.

At the same time, the very same polling evidence can be viewed from the opposite viewpoint. Although a majority of Americans have not favored the bill, it is also true that a majority have never opposed it, either. And even after the recent small increase in opposition, the proportion opposing it does not exceed 50%. So direct questions asking about positive vs. negative evaluations of the plan have not documented a mandate from the public to repeal the bill.<sup>9</sup> Taken together, all this evidence portrays the American public in what might seem a typical way: split about evenly, and not providing a clear mandate to elected representatives one way or another.

It would therefore not be unreasonable for those representatives to look at this polling evidence, reach that conclusion, and proceed to take actions in keeping with the guardianship view of democracy: deciding what they feel is best for the country and taking action (or doing nothing) accordingly, regardless of public opinion.

Such ignoring of public opinion might also be justified from another perspective as well. In so many survey-based investigations of the American public for many decades, people have been found to perform quite poorly on quizzes assessing factual knowledge about domains in which significant legislation has been considered or passed. If most people lack the facts needed to truly understand the problems to be solved by a piece of legislation and the solutions offered by that legislation, why should public evaluations of the legislation be taken seriously? That is, the public might feel very differently if they truly understood a bill, so opinions based on partial information or substantial misconceptions can certainly not be described as “wise” and should perhaps therefore be ignored by legislators.

Of course, ignoring public opinion, even uninformed public opinion, may place legislators at risk come election-time. Even when the public does not understand a piece of legislation, members of the electorate may nonetheless hold strong opinions about it, either favorable or unfavorable, and those opinions may shape their voting down the road. Indeed, a great deal of research suggests that public opinion on policy issues does sometimes shape vote choices (see Anand & Krosnick, 2003; Krosnick, 1988). So a legislator who votes against a piece of legislation that voters favor may

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<sup>9</sup>Questions asking whether the bill should be repealed have sometimes shown a majority of Americans answering affirmatively.

find himself or herself later paying an electoral price if that vote becomes well publicized by the legislator's opponent during a campaign, even if public understanding of the legislation is seriously wanting.

In a situation such as this, legislators who wish to see a piece of legislation passed (or avoid its repeal) always have the option of informing the American public about what the legislation would truly do, in the hope that better understanding would lead the public to offer a stronger signal of support to their elected representatives. But would such education indeed lead to more support? This presumably depends on the nature of the public's misunderstandings and on the public's evaluations of the elements they believe compose the legislation and of the elements that in fact compose it.

In this paper, we report an investigation of exactly these issues with regard to the ACA. Using data from two surveys (one conducted in 2010 and the other in 2012), we explored:

- 1) How accurately Americans have understood what is in the ACA and what is not.
- 2) How the accuracy of people's understanding has changed during the two years since the bill was passed.
- 3) How knowledge accuracy is related to favoring the ACA – that is, whether people who know more about what's in the ACA like it more or like it less,
- 4) How the public would feel about the ACA if everyone understood that a series of its central elements are indeed included in the ACA and that a series of frequently discussed but ultimately omitted elements are not in it.

Along the way, we investigated two other issues:

- 1) The predictors of accurate understanding of the plan - that is, which types of people are more and less likely to score well on a quiz.
- 2) The popularity of various specific elements that were included in the plan, and how popular are elements that were not included but were sometimes claimed to be.

In carrying out this investigation, we implemented a new approach to measuring public understanding of a public policy issue. In surveys done during the last 80 years, it has been routine to test knowledge by asking people factual questions and grading people as either correct or incorrect based upon whether their answer matched the facts or not. But this approach ignores a simple and unavoidable fact: that a respondent saying to a survey interviewer that members of the Republican Party outnumber members of the Democratic Party in the U.S. House of Representatives does not necessarily mean that the respondent believes this to be true. When asked which party holds more seats, a respondent might simply guess and end up giving the correct answer by chance alone. This response would not reveal a belief that the respondent genuinely holds, nor would that purported belief have any impact on his or her thinking, because he or she does not truly hold that perception of the world. Guessing seems likely to especially distort answers to quiz questions that offer only two response choices, as we used here (is this included in the ACA or not included in the ACA?).

One might imagine that this problem can be overcome by explicitly offering survey respondents the opportunity to decline to answer a survey question by saying they “don’t know” the answer and encouraging them to do so. But a great deal of research suggests that this strategy is unwise. Instead of attracting only and all of the people who truly do not hold a belief on an issue, “don’t know” response options attract many respondents who truly hold opinions and fail to attract respondents who hold opinions with little or no certainty (for a review, see Krosnick, 2002).

The solution to this problem is suggested instead by a literature in psychology on certainty. The intended purpose of offering a “don’t know” option is typically expressed as filtering out people who would express a judgment with no certainty at all. That is, a person might say “I think that the Democrats hold more seats, but I’m not at all confident about that guess.” Thus, the preferable solution is to first ask people to make their best guess and then to ask them to rate the certainty with which they express that belief. This allows researchers to filter out people who offer opinions with little or no certainty.

A collateral benefit of this approach is that certainty strongly correlates with use of beliefs during decision-making. People who hold a belief with confidence are inclined to use it when making highly relevant decisions. In contrast, people who hold a belief with minimal confidence are unlikely to use it (for a review, see Petty & Krosnick, 1995). Thus, giving survey respondents “credit” for accurately possessing a belief only when they express high certainty allows us to identify those beliefs that are also likely to have shaped people’s overall evaluations of the ACA.

Therefore, in keeping with this perspective, when we administered quiz questions assessing public understanding of the ACA, each question was followed by a question asking respondents how sure they were about their answer to the prior question. People who expressed high degrees of confidence when giving a correct answer were treated as holding an accurate belief, and people who gave a correct answer while expressed low degrees of confidence were not credited as having an accurate belief, nor were people who answered the quiz questions incorrectly.

The elements of the ACA that were addressed by the quiz questions were selected carefully to cover most of the central elements of the plan. In their document entitled “Focus on Health Reform: Summary of New Health Reform Law” (Publication #8061; [www.kff.org](http://www.kff.org)), the Kaiser Family Foundation provided what they called a “summary of the law and changes made to the law by subsequent legislation.” We relied on this summary to select the elements of the ACA to ask about in our survey. We also asked about an additional set of policies that were not ultimately included in the ACA but were discussed during the public debate of it.

## **Data and Methods**

The data for this study come from two cross-sectional surveys of nationally representative samples of American adults conducted via the Internet by GfK (formerly Knowledge Networks). Respondents were drawn from the KnowledgePanel® - a nationally representative panel recruited via random digit dialing and by address-based sampling. The sampling design covers 97% of the American population, including households that do not have Internet access or a land line telephone. All panelists were remunerated for their participation; people who did not already have

either a computer or Internet access were provided them. Upon joining the panel, panelists first completed a core profile questionnaire that captured information about their race, gender, age, income, education, and more. For each subsequent survey, panel members were selected using a probability proportional to size (PPS) weighted sampling design, producing a sample that is representative of the American population.

The first survey for this project was conducted between August 31 and September 7, 2010. A random sample of 1,815 adults was invited to participate, and 1,271 completed the survey (completion rate = 70%). The median time spent completing the questionnaire was 26 minutes.

The second survey was conducted between August 3 and 13, 2012. GfK invited 2,344 American adults to participate, and 1,334 completed the questionnaire, a completion rate of 57%. The median time spent completing the questionnaire (which was much shorter than the questionnaire used in 2010) was 17 minutes.

All analyses reported below were conducted using weights to adjust for unequal probability of selection and post-stratifying based on demographics.

Table 1 displays various percentages needed for the calculation of response rates for the survey and displays various the breakdown for the response rates for both surveys.

<b>Rate</b>	<b>2010</b>	<b>2012</b>
<b>A. Panel Recruitment Response Rate (AAPOR Response Rate 3)</b>	17.2%	17.2%
<b>B. Household Profile Rate</b>	61.5%	61.5%
<b>C. Household Retention Rate</b>	35.0%	35.0%
<b>D. Survey Completion Rate</b>	70.0%	57.3%
<b>E. Active Rate</b>	99.2%	99.2%
<b>ORR1 (A*B*C*D*E)</b>	2.6%	2.1%
<b>ORR2 (A*B*D)</b>	7.4%	6.1%
<b>ORR3 (A*D)</b>	12.0%	9.9%

Appendix B displays the demographic profiles of both samples.

## Measures

### Knowledge and Certainty

Respondents were asked 18 knowledge quiz questions, probing whether specific provisions were in the health care bill. Respondents read one description at a time and indicated whether they thought the provision was “in the bill” or “not in the bill” that Congress passed in 2010.

Twelve of the elements were principal provisions of the ACA. The remaining six elements were not in the bill but had been frequently discussed in public debate; these elements were identified by experts at the Associated Press and researchers at Stanford University. Appendix A shows the instructions for respondents, the full list of questions, and the correct answer for each item.

Following each quiz question, respondents were asked, “How sure are you about this?” The answers “extremely sure” and “very sure” were coded 1 (certain), and the answers “moderately sure”, “slightly sure”, and “not sure at all” were coded 0 (uncertain).

To measure each respondent’s level of knowledge, we first computed the percent of the 12 provisions of the ACA that the respondents correctly identified as such with high confidence. Next, we computed the percent of the 6 provisions not in the ACA that the respondent correctly identified as such with high confidence. Then, we averaged these two percentages to yield a final knowledge score for each respondent. Consequently, the fact that twice as many questions tapped knowledge about provisions in the bill as tapped provisions not in the bill did not cause the final index score to be based more on understanding of the elements in the bill than on understanding of the elements not in the bill. The final knowledge score ranged from 0% for people who did not identify any provision correctly with high confidence, to 100% for people who properly identified all provisions with high confidence.

### Evaluation of the ACA

In the 2012 survey, respondents were asked, “In general do you favor, oppose, or neither favor nor oppose the law changing the health care system that the U.S. Congress passed in March 2010?” The responses “favor strongly” and “favor somewhat” were coded 1 (indicating favoring), and the responses “neither favor nor oppose”, “oppose somewhat”, and “oppose strongly” were coded as 0 (not favoring).

### Support for ACA Plan Elements

Respondents were also asked to indicate whether they favored or opposed each of the 18 provisions addressed by the quiz questions. On each screen, respondents were asked “Do you favor oppose this change?” along with a statement describing the provision. Responses were coded in the same fashion as for the general favorability question, “favor” versus “not favor”.

### Partisanship

Two dummy variables were created to distinguish Republicans and Democrats from people without a party affiliation. Respondents were coded to be a Democrat or a Republican if they answered “Democrat” or “Republican” to the question “Do you consider yourself a Democrat, a Republican, an

independent, or none of these?” All other respondents were treated as independents. Twenty-seven respondents refused to answer this question and were treated as missing in analyses using this variable.

### **Media Use**

Respondents were asked, “How often do you get news from each of the following?” and presented with a list of “Local TV News,” “Fox News cable channel,” “MSNBC cable news,” “CNN cable news,” “National evening network television news on CBS, ABC, or NBC,” “Radio news”, and “news from the internet.” Responses to these questions were coded 1 if the respondents answered “extremely often” or “very often”. The responses “moderately often”, “rarely”, and “never” were coded 0.

### **Demographic Information**

Age was coded to range from 0 to 1. Dummy variables distinguished between White, Black, Hispanic respondents and those who indicated they belonged to another ethnic group. Variables indicating education separated people with a high-school degree or less from people who indicated having attended some college education but no degree and people who graduated from college. Finally, two dummy variables distinguished three equally large groups of people who indicated having low income (less than \$39,999), moderate income (between \$40,000 and \$84,999), or high income (more than \$85,000).

## **Results**

### **Favoring vs. Opposing the ACA in 2012**

In 2012, 32% of respondents said they favored the ACA, 36% said they opposed it, and 32% said they neither favored nor opposed it. The fact that negative responses slightly outnumbered positive responses resembles results produced by various other polling organizations in recent months.

Not surprisingly, evaluations of the bill varied according to political party identification. Among Democrats, 51% favor the bill; 29% of independents expressed the same opinion, and 8% of Republicans did so. The partisan gap of 43 percentage points is not atypical in American evaluations of pieces of legislation these days.

### **Knowledge about the ACA in 2012**

In 2012, when implementing the method used in most past studies of giving credit to respondents who gave correct answers regardless of certainty, frequency of correct answers was strikingly high for some elements of the plan (see column 2 of Table 2). For example, 80% said that children could be covered by their parents’ policy. And 80% said that companies with more than 50 employees were required to provide health insurance to their employees. Majorities, and often large majorities, gave correct answers regarding most of the provisions in the bill. For only two of the twelve provisions we asked about (new fees to be charged to health insurance companies and pharmaceutical companies) did majorities give the incorrect answer (only 44% and 37% gave correct answers, respectively).

However, these numbers should be taken with a grain of salt, for at least two reasons. First, because these questions offered just two answer choices (in the bill vs. not in the bill), random guessing would be expected to yield 50% of answers correct by chance alone. And second, many of the correct answers people gave may have been given with little or no certainty, so it might be inappropriate to say that these people possessed these beliefs.

When taking into account people's certainty ratings, we observed much lower levels of accurate knowledge (see column 1 of Table 2). Indeed, only one provision was correctly identified with high certainty as being part of the ACA by a majority of respondents. 52% of respondents correctly said with high certainty that children under the age of 26 could get health insurance by being included on their parents' health insurance policies. All other provisions of the law were correctly identified with high certainty by less than 40% of Americans. Only 11% correctly believed with high certainty that drug companies would pay new fees under the law, and only 10% correctly believed with high certainty that insurance companies would pay such new fees.

Policy	% Thinking policy is in law with high certainty	% Thinking policy is in law regardless of certainty
<b>Children under 26 can be included in parents' insurance</b>	52.2%	80.1%
<b>Large companies have to provide health insurance to employees</b>	38.7%	80.1%
<b>U.S. citizens without health insurance have to pay fine if they don't have specific reasons</b>	36.3%	69.4%
<b>Insurance companies have to sell health insurance to people with preexisting conditions</b>	32.6%	72.2%
<b>Insurance companies have to continue insurance as long as no rules are broken</b>	28.8%	77.1%
<b>Make insurance for sale for any American</b>	28.7%	69.2%
<b>Prevent limiting amount paid for person's health care costs</b>	23.5%	60.5%
<b>Discounts on prescriptions to seniors with high drug costs</b>	20.0%	68.4%
<b>Federal tax credits for small companies that buy insurance for their employees</b>	17.5%	66.8%
<b>Subsidize health insurance for U.S. citizens with low income</b>	16.8%	51.4%
<b>New fees for health insurance companies</b>	11.1%	44.3%
<b>New fees for companies that make drugs</b>	10.2%	37.0%

A similar portrait emerged with regard to the 6 provisions we asked about that were not actually in the ACA. Majorities gave correct answers to the quiz questions for all but one of these provisions

(see column 2 of Table 3). But some of these were only slight majorities. For example, 54.3% said that so-called “death panels” are not part of the law. This is only very slightly more than would be expected by chance alone. And when certainty was taken into account, minorities (and sometimes very small minorities) believed with high confidence that they were not included in the law (see column 1 of Table 3). For example, only 25.6% was certain that job applicants would not have to disclose previous illnesses to new employers. And “death panels” were said with certainty to not be part of the law by only 17% of the respondents.

**Table 3: Accuracy of Knowledge About Provisions That Were Not in the ACA– 2012 Data**

Policy	% Thinking policy is NOT in law with high certainty	% Thinking policy is NOT in law regardless of certainty
<b>Job applicants have to disclose previous illnesses to employer</b>	25.6%	75.3%
<b>Restaurants with unhealthy food must pay fee to government</b>	23.2%	73.1%
<b>Committees decide whether people get medical care (“death panels”)</b>	16.8%	54.3%
<b>Smokers have to pay additional \$1,000 a year</b>	14.1%	64.0%
<b>Health care ID card needed to get treatment at hospital</b>	13.3%	56.5%
<b>Require treatment of illegal immigrants for free</b>	10.5%	41.7%

Looked at from another vantage point: 78% of respondents answered more than half of the 18 quiz questions correctly (see column 4 of Table 4), but only 44% answered 13 or more of the 18 questions correctly. And these figures were strikingly lower when treating as correct only answers provided with high certainty (see column 2 of Table 4): 14% and 3%, respectively. Not a single respondent answered every quiz question correctly with high certainty.

**Table 4: Number of Correctly Answered Quiz Questions With and Without Taking Certainty into Account (N = 1344) – 2012 Data**

Number of correctly answered questions	Requiring High Certainty		Regardless of Certainty	
	Percent	Cumulative percent	Percent	Cumulative percent
<b>All 18</b>	0.0%	0.0%	0.3%	0.3%
<b>17 out of 18</b>	0.0%	0.0%	1.5%	1.8%
<b>16 out of 18</b>	0.1%	0.1%	6.0%	7.8%
<b>15 out of 18</b>	0.8%	1.0%	10.9%	18.8%
<b>14 out of 18</b>	1.3%	2.3%	12.5%	31.3%
<b>13 out of 18</b>	1.1%	3.4%	12.9%	44.1%

<b>12 out of 18</b>	3.2%	6.6%	14.4%	58.5%
<b>11 out of 18</b>	2.7%	9.3%	11.9%	70.4%
<b>10 out of 18</b>	4.2%	13.5%	7.7%	78.1%
<b>9 out of 18</b>	5.4%	18.9%	6.1%	84.2%
<b>8 out of 18</b>	5.6%	24.5%	5.6%	89.7%
<b>7 out of 18</b>	5.9%	30.4%	3.0%	92.7%
<b>6 out of 18</b>	6.7%	37.1%	2.8%	95.5%
<b>5 out of 18</b>	5.9%	42.9%	0.9%	96.4%
<b>4 out of 18</b>	7.2%	50.1%	0.6%	97.0%
<b>3 out of 18</b>	8.8%	58.9%	0.3%	97.3%
<b>2 out of 18</b>	8.6%	67.5%	0.1%	97.5%
<b>1 out of 18</b>	10.4%	77.9%	0.3%	97.8%
<b>0 out of 18</b>	22.1%	100.0%	2.2%	100.0%
<b>Total</b>	100.0%	100.0%	0.3%	0.3%

### Predicting Levels of Knowledge about the ACA

As shown by the estimates of parameters of ordinary least squares (OLS) regressions predicting the knowledge score (computed as described in the method section above), levels of knowledge varied systematically with some characteristics of respondents. When using demographics and party identification as predictors (see column 1 of Table 5), we found:

- Democrats were significantly more accurate than were independents.
- Independent were significantly more accurate than Republicans.
- Accuracy increased as respondent age increased.
- Accuracy increased as respondent education increased, perhaps at least partly the result of the fact that more educated people generally pay more attention to information about politics in the news.
- Sex, race, and income were not significantly related to knowledge accuracy.<sup>10</sup>

When we added news sources as predictors in the regression equation, we observed a series of striking findings:

- Frequent exposure to what might be called “mainstream” news sources (CNN, CBS, ABC, NBC, and local television news programs) appears to have had no significant effect on the extent of accurate knowledge possessed by respondents. That is, these news organizations may not have conferred enhanced understanding on their viewers.

<sup>10</sup> Representing income in five groups instead of three did not change these results.

- Frequent exposure to MSNBC may have enhanced accurate knowledge more than did frequent exposure to any other news source we examined.

Frequent exposure to Fox News may also have had a positive effect on understanding the bill.

- Frequent exposure to radio news and internet news also appear to have significantly enhanced understanding of the bill.

**Table 5: OLS Regression Predicting Percent Correct Answers to Knowledge Quiz Questions with High Certainty – 2012 Data**

Predictor	Analysis 1	Analysis 2
<b>Democrat</b>	3.90*	3.00
<b>Republican</b>	-4.69**	-5.77***
<b>Age</b>	9.18**	5.70
<b>Female</b>	-1.86	-1.85
<b>Black</b>	-.93	-1.11
<b>Hispanic</b>	-.37	-0.41
<b>Other Race</b>	3.22	3.75
<b>Some college education</b>	4.10*	3.59*
<b>College graduate</b>	8.59***	7.04***
<b>High income</b>	2.11	1.95
<b>Middle income</b>	-.47	-1.05
<b>Fox News exposure</b>	-	3.81*
<b>MSNBC exposure</b>	-	8.05**
<b>CNN exposure</b>	-	-1.30
<b>Exposure to news on CBS, ABC, or NBC</b>	-	1.07
<b>Exposure to local TV news</b>	-	1.01
<b>Radio news exposure</b>	-	4.40*
<b>Internet news exposure</b>	-	3.77*
<b>Intercept</b>	14.94***	13.42***
<b>N</b>	1316	1222

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

### The Relation of Knowledge to Favoring the ACA

As revealed by estimates of the parameters of a logistic regression equation predicting opinions about the ACA using knowledge scores, more knowledge was associated with a higher probability of favoring the bill (see Table 6). Put differently, the more accurate a person's beliefs were about the 18 elements that we asked about, the more he or she liked the ACA.

According to the coefficients in Table 6, an independent with perfect knowledge of the plan elements we examined had a 15.7 times higher chance of favoring the bill than did someone who did not answer a single quiz question correctly (log-odds = .03, odds-ratio for 100% knowledge versus no knowledge= 15.73). When using the parameter estimates from an equation excluding party affiliation as a predictor, a hypothetical person with perfect knowledge of the plan elements we examined had a almost 21 times higher chance of favoring the bill than did someone who did not answer a single quiz question correctly.

When controlling for knowledge level and all other background variables, party identification was still significantly related to favoring the ACA. Democrats liked it more than independents, and independents liked it significantly more than Republicans. The chances that a Democrat would favor the bill was about 2.5 times higher than the chance for an independent (log-odds = .94, odds-ratio = 2.56). And a Republican's chances of favoring the bill was only 0.26 times the chance that an independent would do so (log-odds = -1.36, odds-ratio = 0.26). Thus, although these three groups differed in terms of their knowledge levels, the gap between them in approval remained even when statistically equating these groups in terms of their knowledge levels.

College graduates and people who were frequently exposed to news on CNN had a higher likelihood of favoring the ACA than others. In contrast, people who frequently watched Fox News were significantly less likely to favor the bill than others. All other demographic variables were not related to the probability of favoring the ACA.

**Table 6: Logistic Regression Predicting Favoring the ACA – 2012 Data**

Predictor	Analysis 1
<b>Percent correct answers</b>	.03***
<b>Democrat</b>	.94***
<b>Republican</b>	-1.36***
<b>Age</b>	.08
<b>Female</b>	-.23
<b>Black</b>	.21
<b>Hispanic</b>	.01
<b>Other Race</b>	.36
<b>Some college education</b>	-.08
<b>College graduate</b>	.55*
<b>High income</b>	.27
<b>Middle income</b>	.01
<b>Fox News exposure</b>	-1.31***
<b>MSNBC exposure</b>	.40
<b>CNN exposure</b>	.72**
<b>Exposure to news on CBS, ABC, or NBC</b>	.15
<b>Exposure to local TV news</b>	.11

<b>Radio news exposure</b>	-.10
<b>Internet news exposure</b>	.28
<b>Intercept</b>	-1.95***
<b>N</b>	1316
*** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$	

## Projecting Favorability with Perfect Knowledge

How would the nation have felt about the ACA if everyone had understood all the provisions we asked about correctly and with confidence?

We answered this question in two ways. First, we calculated the degree of favorability among hypothetical people to illustrate how knowledge affected supporters of the two parties and independents differently. Figure 1 shows how the probability of favoring the bill changed based on the results in Table 6 for a hypothetical white female, 45 years old, with high school education or less, a high income, and who did not receive information often from any of the news sources.

This figure illustrates that if this hypothetical person were a Republican who answered none of our knowledge quiz questions correctly with confidence, she would have only a 4% probability of favoring the bill. And if she had answered all of our questions with high confidence, she would have had a 37% chance of favoring the ACA.

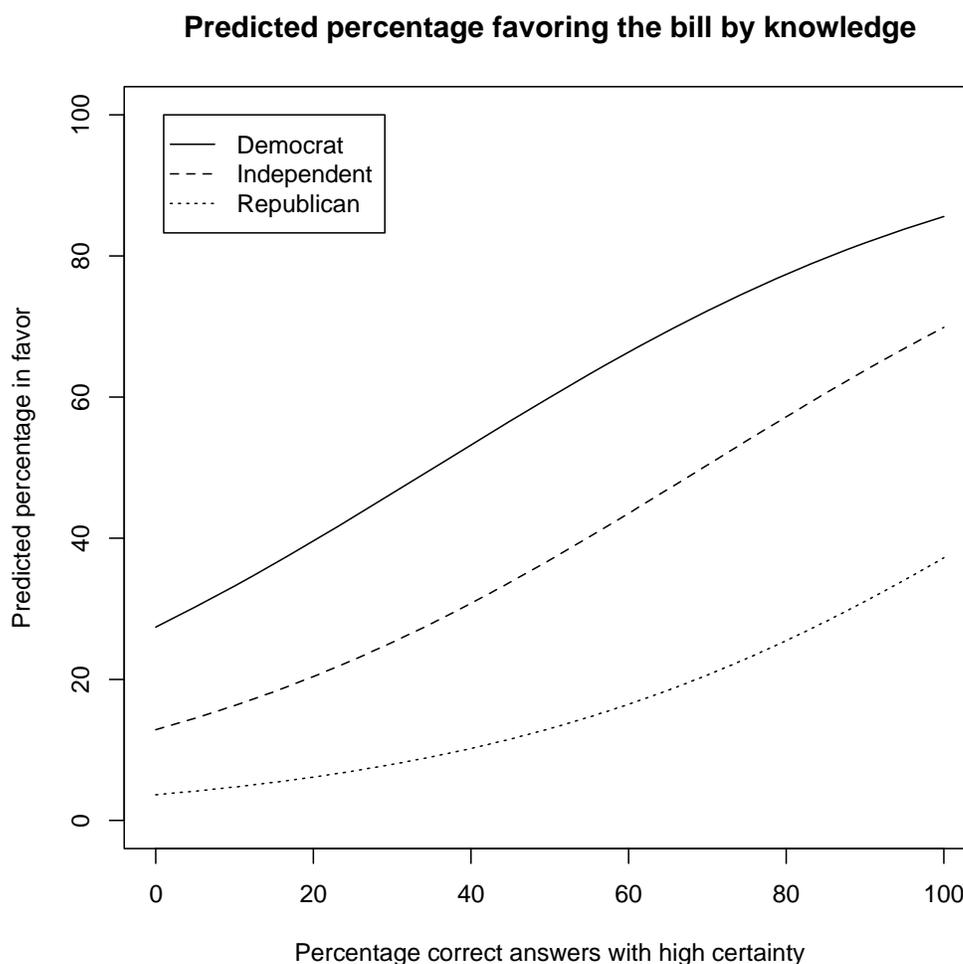
If the person were a Democrat or considered herself to be an independent, both the increase in the probability of favoring the bill with increasing knowledge would be greater. A hypothetical independent who gave no correct answers with high certainty would have had a 13% chance of favoring the bill, and this number would increase to 70% if she answered all questions accurately with high confidence. For a hypothetical Democrat who answered all questions accurately with high confidence, the probability of favoring the bill was 86%.

To approach this issue in a second way, we calculated for every respondent the probability that he or she would favor the plan if he or she had answered all questions accurately with high confidence.

This method yielded the prediction that 70% of people would favor the bill if they all answered the questions accurately with high knowledge. This contrasts dramatically with the fact that 32% of respondents in the survey said that they favored the bill, based on their current, far from perfect levels of current actual understanding of the provisions we asked about. Thus, this analysis suggests that increased understanding might have transformed the 32% favoring into 70% favoring.

This method suggested that about 88% of Democrats would favor the bill, 74% of independents would do so, and 40% of Republicans would do so.

**Figure 1: The Relation of Knowledge to Favoring the ACA: Dems, Inds, and Reps Separately**



### Favoring the Elements of the ACA

The results of this simulation suggest that eliminating misunderstandings about the ACA might lead to more favorable evaluations of it. In order for this to be true, it would be necessary that people generally liked the provisions that were actually included in the ACA but that they often did not believe with confidence were. Then, learning of their inclusion would increase overall favorability. And likewise, it may also be the case that people generally disliked the provisions that they sometimes thought incorrectly were in the bill, so learning that they were not in the bill would also increase overall favorability.

In fact, direct questions assessing evaluations of the specific plan elements conformed to those guesses. As shown in Table 7, majorities of respondents, and sometimes huge majorities, favored the elements that were actually included in the plan. Only three plan elements were not favored by a majority of Americans: charging a fee to citizens who do not have health insurance, and charging new fees to health insurance companies and pharmaceutical manufacturers – were not favored by a majority of Americans

**Table 7: Percent Favoring the Elements of the ACA - 2012 Data**

Element	Percent Favoring the Element
<b>Insurance companies have to continue insurance as long as no rules are broken</b>	81.8%
<b>Discounts on prescriptions to seniors with high drug costs</b>	79.2%
<b>Make insurance for sale for any American</b>	77.9%
<b>Federal tax credits for small companies that buy insurance for their employees</b>	71.2%
<b>Children under 26 can be included in parents' insurance</b>	70.4%
<b>Prevent limiting amount paid for person's health care costs</b>	63.9%
<b>Insurance companies have to sell health insurance to people with preexisting conditions</b>	62.0%
<b>Large companies have to provide health insurance to employees</b>	55.3%
<b>Subsidize health insurance for U.S. citizens with low income</b>	47.3%
<b>New fees for companies that make drugs</b>	31.1%
<b>U.S. citizens without health insurance have to pay fine if they don't have specific reasons</b>	27.5%
<b>New fees for health insurance companies</b>	24.3%

Even more strikingly, the provisions that were not in the ACA were favored by minorities, and often small minorities, of Americans (see Table 8). A minority of 35% favored the idea that smokers should have to pay an additional \$1,000 per year for their insurance. Not surprisingly, “death panels” were favored by fewer than 20%. Thus, these figures suggest that correcting misunderstandings about these elements might lead to increased public favorability about the ACA.

**Table 8: Percent Favoring of Elements That Were NOT in the ACA – 2012 Data**

Element	Percent Favoring the Element
<b>Smokers have to pay additional \$1,000 a year</b>	35.1%
<b>Health care ID card needed to get treatment at hospital</b>	27.1%
<b>Restaurants with unhealthy food must pay fee to government</b>	26.1%
<b>Require treatment of illegal immigrants for free</b>	20.8%
<b>Committees decide whether people get medical care (“death panels”)</b>	19.1%
<b>Job applicants have to disclose previous illnesses to employer</b>	15.5%

## Change in Knowledge Accuracy between 2010 and 2012

During the two years since the ACA was passed by Congress, public understanding of the law has increased slightly for some plan elements and has not changed for most. We were able to assess this by comparing the results of our 2012 knowledge quiz with the results obtained by administering an identical quiz in our 2010 survey.

With regard to the 12 elements that are included in the ACA, the percent of people who correctly recognized that fact with high confidence increased significantly for 5 of the 12 elements (see the last column of Table 9). This increase was most sizable for the plan elements requiring that citizens without insurance pay a fine (13.9% increase), allowing children under 26 to be included on parents insurance plan (9.5% increase), and requiring large companies to provide health insurance to their employees (8.4% increase).

Correct understanding decreased significantly for one plan element, though slightly. Specifically, fewer people are aware of the fact that small companies that buy health insurance for their employees can get federal tax credits (decrease of -3.4%). Correct understanding held steady for the remaining 6 elements.

The rates of accuracy with regard to elements not in the plan showed even less improvement (see the last column of Table 10). Only one such element manifested a significant increase in accuracy from 2010 to 2012. The rest showed no change. Thus, with the passage of time, myths about these elements have not been notably discredited in the public's mind.

Element	% Thinking the Policy Was in the ACA with High Certainty		Change from 2010 to 2012
	2010	2012	
<b>Children under 26 can be included in parents' insurance</b>	42.6%	52.2%	+9.5%***
<b>Large companies have to provide health insurance to employees</b>	30.3%	38.7%	+8.4%***
<b>U.S. citizens without health insurance have to pay fine if they don't have specific reasons</b>	22.4%	36.3%	+13.9%***
<b>Insurance companies have to sell health insurance to people with preexisting conditions</b>	24.8%	32.6%	+7.8%***
<b>Insurance companies have to continue insurance as long as no rules are broken</b>	27.0%	28.8%	+1.8%
<b>Make insurance for sale for any American</b>	26.7%	28.7%	+2.0%
<b>Prevent limiting amount paid for person's health care costs</b>	19.5%	23.5%	+3.9%*
<b>Discounts on prescriptions to seniors with high drug costs</b>	21.7%	20.0%	-1.7%

<b>Federal tax credits for small companies that buy insurance for their employees</b>	20.8%	17.5%	-3.4%*
<b>Subsidize health insurance for U.S. citizens with low income</b>	19.7%	16.8%	-2.9%
<b>New fees for health insurance companies</b>	11.1%	11.1%	+0.0%
<b>New fees for companies that make drugs</b>	10.0%	10.2%	+0.2%
*** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$			

**Table 10: Change in Accuracy for Policies that are NOT in the ACA Bill between 2010 and 2012**

Element	% Thinking the Policy Was NOT in the ACA with High Certainty		Change from 2010 to 2012
	2010	2012	
<b>Job applicants have to disclose previous illnesses to employer</b>	26.9%	25.6%	-1.2%
<b>Restaurants with unhealthy food must pay fee to government</b>	19.6%	23.2%	+3.6%*
<b>Committees decide whether people get medical care (“death panels”)</b>	17.2%	16.8%	-0.4%
<b>Smokers have to pay additional \$1,000 a year</b>	13.9%	14.1%	+0.2%
<b>Health care ID card needed to get treatment at hospital</b>	14.5%	13.3%	-1.2%
<b>Require treatment of illegal immigrants for free</b>	12.3%	10.5%	-1.8%
*** $p < 0.001$ , ** $p < 0.01$ , * $p < 0.05$			

In line with the previously described findings, people gave more correct answers with high certainty in 2012 than in 2010. Table 11 shows that only 14.9% of Americans answered 9 quiz questions correctly with high confidence in 2010, whereas 18.9% did so in 2012. The median number of correct answers offered with high confidence increased from 3 to 4 between 2010 and 2012, a statistically significant increase that was accompanied by a non-significant increase in the percent of people favoring the health care bill, from 29.9% in 2010 to 33.6% in 2012

**Table 11: Number of Correctly Answered Quiz Questions with High Certainty in 2010 and 2012**

Number of correctly answered questions	2010		2012	
	Percent	Cumulative percent	Percent	Cumulative percent
<b>All 18</b>	0.0%	0.0%	0.0%	0.0%
<b>17 out of 18</b>	0.2%	0.2%	0.0%	0.0%
<b>16 out of 18</b>	0.1%	0.2%	0.1%	0.1%
<b>15 out of 18</b>	0.6%	0.9%	0.8%	1.0%
<b>14 out of 18</b>	0.6%	1.5%	1.3%	2.3%
<b>13 out of 18</b>	1.8%	3.4%	1.1%	3.4%
<b>12 out of 18</b>	2.5%	5.8%	3.2%	6.6%
<b>11 out of 18</b>	2.6%	8.5%	2.7%	9.3%
<b>10 out of 18</b>	2.9%	11.4%	4.2%	13.5%
<b>9 out of 18</b>	3.5%	14.9%	5.4%	18.9%
<b>8 out of 18</b>	5.2%	20.1%	5.6%	24.5%
<b>7 out of 18</b>	5.4%	25.4%	5.9%	30.4%
<b>6 out of 18</b>	5.8%	31.3%	6.7%	37.1%
<b>5 out of 18</b>	7.2%	38.4%	5.9%	42.9%
<b>4 out of 18</b>	8.5%	46.9%	7.2%	50.1%
<b>3 out of 18</b>	8.6%	55.5%	8.8%	58.9%
<b>2 out of 18</b>	8.3%	63.8%	8.6%	67.5%
<b>1 out of 18</b>	12.2%	75.9%	10.4%	77.9%
<b>0 out of 18</b>	24.1%	100.0%	22.1%	100.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%
<b>N</b>	1251		1344	

## Conclusions

Taken together, these findings reinforce two major conclusions:

- American understanding of what is and is not in the ACA has been far from perfect.
- Correct understanding of the elements of the bill that we asked about varied with party identification: Democrats understood the most, independents less, and Republicans still less.
- Older people and more educated people have understood the elements we asked about better than have younger and less educated people.
- Between 2010 and 2012, public understanding of the bill did not change notably.

- Most people have favored most of the elements of the ACA that we examined, but not everyone recognized that these elements were all in the plan.
- Most people opposed the elements we asked about that were not in the ACA, but some people thought these elements were in the plan.
- If the public had perfect understanding of the elements that we examined, the proportion of Americans who favor the bill might increase from the current level of 32% to 70%.

Taken together, all this suggests that if education efforts were to correct public misunderstanding of the bill, public evaluations might increase considerably in favorability.

## References

- Anand, S., & Krosnick, J. A. (2003). The impact of attitudes toward foreign policy goals on public preferences among presidential candidates: A study of issue publics and the attentive public in the 2000 U.S. Presidential election. Presidential Studies Quarterly, *33*, 31-71.
- Krosnick, J. A. (1988). The role of attitude importance in social evaluation: A study of policy preferences, presidential candidate evaluations, and voting behavior. Journal of Personality and Social Psychology, *55*, 196-210.
- Krosnick, J. A. (2002). The causes of no-opinion responses to attitude measures in surveys: They are rarely what they appear to be. In R. M. Groves, D. A. Dillman, J. L. Eltinge, & R. J. A. Little (Eds.), Survey nonresponse. New York: Wiley.
- Petty, R. E., & Krosnick, J. A. (Eds.). (1995). Attitude strength: Antecedents and consequences. Hillsdale, NJ: Erlbaum.

## Appendix A: Question Wordings of Knowledge Questions

Respondents were shown the following text on one screen:

*We'd like to find out people's impressions about the law that the U.S. Congress passed back in March 2010 to change the U.S. health care system in many ways.*

*We'd like to find out people's impressions about what that law says will happen.*

*Before the law was passed by the Congress, there was a lot of talk in the news about things that the plan might or might not do.*

*Next, you will read a list of these things, one at a time.*

*Most the things you'll read were talked about as possibly being in the law.*

*But only some of the things you'll read are actually in the law that the Congress passed in March 2010.*

*We'd like to learn your best guesses about which of these things are in the law and which are not.*

*We will also ask you how sure you are that each answer you give is correct.*

*It's fine if you are sure of an answer or if you are not sure of an answer. We just want to find out your best guesses.*

*We want to know what people think without asking someone else for the answers and without looking up the answers on the Internet or in any other way. So please do not do any of these things. Please just give us your best guesses.*

On a series of screens, respondents were asked:

*Do you think that the new law will or will not do the following after the law is fully in effect?*

*[STATEMENT APPEARED HERE]*

*How sure are you about that?*

The order of the items was rotated across respondents. The items are:

- Require that if a U.S. citizen does NOT have health insurance, that person will have to pay a fine on his or her federal income taxes unless he or she is allowed not to have the insurance for a series of specific reasons, such as having a very low income. (IN THE PLAN)
- Require companies with 50 or more employees to provide health insurance to their employees or pay a fine to the federal government if they do not. (IN THE PLAN)
- Give money to pay for health insurance to people who are U.S. citizens and have very low incomes. (IN THE PLAN)

- Give federal tax credits to some very small companies if they buy health insurance for their employees. (IN THE PLAN)
- Require companies that make drugs to pay new fees to the federal government each year. (IN THE PLAN)
- Require companies that sell health insurance to pay new fees to the federal government each year. (IN THE PLAN)
- Prevent a health insurance company from limiting the amount of money that it will pay for a person's health care costs during his or her life. (IN THE PLAN)
- Require health insurance companies to sell health insurance to U.S. citizens and legal immigrants who don't have health insurance and have a serious medical problem. (IN THE PLAN)
- Allow young adults to get health insurance by being included in their parents' health insurance policies until they turn 26. (IN THE PLAN)
- Require a health insurance company to continue a person's health insurance as long as he or she pays for it and has not broken any rules of the health insurance plan. (IN THE PLAN)
- Make health insurance available for sale so that any American can buy if he or she wants to. (IN THE PLAN)
- Provide discounts on prescriptions to seniors with high drug costs. (IN THE PLAN)
- Require that anyone applying for a job must tell the employer if he or she has ever had any serious diseases. (NOT IN THE PLAN)
- Require that fast food restaurants that sell unhealthy food or drinks to pay a fee to the federal government. (NOT IN THE PLAN)
- Require insurance companies to charge an additional fee of \$1,000 year to anyone who buys insurance from them and smokes cigarettes. (NOT IN THE PLAN)
- Create committees of people who will review the medical histories of some people and decide whether they can get medical care paid for by the federal government. (NOT IN THE PLAN)
- Require every American to show a government health care identification card in order to get medical care at a hospital. (NOT IN THE PLAN)
- Require some doctors and hospitals to treat illegal immigrants free of charge if they cannot afford to pay. (NOT IN THE PLAN)

## Appendix B: Sample Demographics

### 2010 Sample

**Table B.1: 2010 Sample Demographic Characteristics**

	Unweighted (%)	Target (%)	Weighted (%)	Target – Weighted
<b>Age</b>				
<b>18-29</b>	13.2	22.0	21.2	0.8
<b>30-44</b>	28.3	26.1	26.5	-0.4
<b>45-59</b>	31.2	27.8	28.2	-0.4
<b>60+</b>	27.3	24.1	26.1	-2.0
<b>Gender</b>				
<b>Male</b>	50.7	48.3	48.3	0.0
<b>Female</b>	49.3	51.7	51.7	0.0
<b>Education</b>				
<b>Less than high school</b>	7.2	13.0	12.0	1.0
<b>High school</b>	24.4	31.3	31.7	-0.4
<b>Some college</b>	30.1	28.0	28.3	-0.3
<b>Bachelors degree or higher</b>	38.3	27.7	28.0	-0.3
<b>Race/Ethnicity</b>				
<b>White, Non-Hispanic</b>	78.1	67.9	68.5	-0.6
<b>Black, Non-Hispanic</b>	7.8	11.5	11.6	-0.1
<b>Other, Non-Hispanic</b>	3.3	5.5	5.5	0.0
<b>Hispanic</b>	8.4	14.0	13.2	0.8
<b>2+ Races, Non-Hispanic</b>	2.5	1.1	1.2	-0.1
<b>Region</b>				
<b>Northeast</b>	18.0	18.4	18.1	0.3
<b>Midwest</b>	22.8	21.8	22.0	-0.2
<b>South</b>	13.2	22.0	21.2	0.8
<b>West</b>	28.3	26.1	26.5	-0.4

*Note:* Target data are taken from the July, 2010, Current Population Survey.

## 2012 Sample

Table B.2: 2012 Sample Demographic Characteristics

	Unweighted (%)	Target (%)	Weighted (%)	Target - Weighted
<b>Age</b>				
18-29	15.9	21.7	21.3	0.4
30-44	21.6	25.6	25.7	-0.2
45-59	28.9	27.4	27.6	-0.2
60+	33.6	25.4	25.4	0.0
<b>Gender</b>				
Male	48.9	48.2	48.2	0.0
Female	51.1	51.8	51.8	0.0
<b>Education</b>				
Less than high school	7.7	12.3	12.2	0.1
High school	29.5	30.9	30.8	0.1
Some college	29.2	28.7	28.8	-0.1
Bachelors degree or higher	33.6	28.2	28.3	-0.1
<b>Race/Ethnicity</b>				
White, Non-Hispanic	73.2	66.2	66.7	-0.5
Black, Non-Hispanic	8.8	11.5	11.5	0.0
Other, Non-Hispanic	5.0	6.1	6.1	0.0
Hispanic	9.4	14.9	14.4	0.5
2+ Races, Non-Hispanic	3.6	1.3	1.3	0.0
<b>Region</b>				
Northeast	19.0	18.3	18.3	-0.1
Midwest	22.7	21.5	21.5	0.0
South	35.0	37.0	37.0	0.0
West	23.3	23.2	23.1	0.1
<b>Income</b>				
Under \$25,000	15.8	19.3	19.3	0.0
\$25,000-\$49,999	24.1	23.2	23.2	0.0
\$50,000-\$74,999	19.1	18.9	19.0	-0.1
\$75,000 and above	41.0	38.6	38.5	0.1

*Note:* Target data are taken from the July, 2012, Current Population Survey (age, gender, education, race/ethnicity, and region) and the March, 2011, Current Population Survey Supplement (income).