Abstract  Examining data on the recent health care legislation, we demonstrate that public opinion polls on health care should be treated with caution because of item nonresponse — or “don’t know” answers — on survey questions. Far from being the great equalizer, opinion polls can actually misrepresent the attitudes of the population. First, we show that respondents with lower levels of socioeconomic resources are systematically more likely to give a “don’t know” response when asked their opinion about health care legislation. Second, these same individuals are more likely to back health care reform. The result is an incomplete portrait of public opinion on the issue of health care in the United States.

In the spring of 2010 Democrats and Republicans fought over health care reform. While politicians on opposing sides of the aisle agreed on little with regard to the content of the bill, both parties claimed that public opinion was on their side. On the one hand, White House adviser David Axelrod cited opinion polls as evidence to support his case:

If you average together the public polls, what you find is that the American people are split on the top line, do you support the plan? But again, when you go underneath, they support the elements of the plan. When you ask them, does the health care system need reform, three quarters of them say yes. When you ask them, do you want Congress to move forward and deal with this issue, three quarters of them say yes. (Axelrod and Graham 2010)
The very next week, Senate minority leader Mitch McConnell (2010) made the opposite claim, arguing that Democratic leaders in the House and Senate were pushing ahead “even though public opinion is pretty darn clear that Americans don’t want this.” With both sides claiming public support, what did “the public” really want?

Measuring public opinion is no easy matter. Ensuring that citizens are equally represented is even harder. Direct participation by citizens in politics, such as writing letters and donating money, requires time, knowledge, and an inclination to participate. It should therefore come as no surprise that activists differ from those who do not directly express their views. Answering survey questions, on the other hand, requires little in the way of time and resource investment. As a result, there is the potential for all citizens to be heard by policy makers. In this regard, polling can be seen as the great equalizer; in theory, everyone’s political opinions can be voiced, not just the engaged and endowed. But in practice, do the opinions cited by elected officials and political elites, like Axelrod and McConnell, accurately reflect the distribution of attitudes in the mass public?

While opinion polls do serve as a link between citizens and elites, it would be a mistake to take all polls at face value. Using the recent health care reform legislation as an example, we demonstrate that opinion polls do not equally represent the preferences of all Americans. Misrepresentation arises from “exclusion bias”—the omission of those who respond “don’t know” because of a lack of resources that would allow them to form a coherent opinion. We make this argument in two phases. First, we show that respondents with lower levels of socioeconomic resources are systematically more likely to give a “don’t know” response when asked their opinion about health care legislation. Second, these same individuals who are victims of resource inequalities are natural supporters of the welfare state and, therefore, are more likely to back health care reform.1 The result is a disconnect whereby the political voice of those who abstain from survey questions is systematically different from those who respond to those questions. In the next sections we more clearly introduce and define item nonresponse as well as discuss its general causes and consequences. We then show how this model relates to health care policy specifically and conclude with suggestions about how researchers can become critical consumers of opinion polls.

1. Though, of course, they are not the only supporters of such a state.
Nonresponse and Public Opinion

On any survey, most respondents will answer certain questions and abstain from others. These instances of missing data are referred to as item nonresponse; some measurements are present for an observation unit, but at least one measure of interest is missing (Lohr 1999). For example, a respondent may provide her education level and partisanship, but not her income. These abstentions can take the form of “don’t know,” “no opinion,” or “refused”—three scenarios that all lead to the same outcome where we, as researchers, are missing responses for variables of interest. To understand whether item nonresponse should be of concern to researchers, we must consider what causes such a response.

Causes of “Don’t Know” Responses

It is first important to consider the sources of “don’t know” responses. As we demonstrate below, these predictors of item nonresponse can have concrete effects on the accuracy and representativeness of public opinion polls.

Respondent Characteristics

One reason that respondents choose a “don’t know” response is that they possess personal characteristics that lead them to such a response. For instance, various studies have demonstrated that higher levels of respondent education, respondent exposure to topic specific information, and interest in the survey topic all reduce “don’t know” responses (for a review, see Berinsky 2011).

Question Wording

Factors outside respondents’ immediate control may also affect the probability that they give a “don’t know” response. The survey interview can be a difficult and tedious affair. Given these demands, it might be easier for respondents to “satisfice” (Krosnick 1991) and give a “don’t know” response if they have difficulty readily forming a political judgment.

2. This article focuses solely on item nonresponse. Survey nonresponse, which occurs when an entire observation unit is missing from the sample, will not be discussed but is also an important problem facing public opinion researchers. For work on trends and consequences of survey nonresponse, see Holbrook, Krosnick, and Pfent 2008; Groves and Couper 1998; Lohr 1999.
Interviewer Behavior

Finally, the interviewer’s characteristics may affect the probability of item nonresponse. For example, Singer, Frankel, and Glassman (1983) find that those interviewers who believed it would be easy to administer a questionnaire were more likely to obtain responses to those items than were interviewers who thought it would be difficult to obtain a response.

The Meaning of “Don’t Know” Responses

Given that a variety of factors affect the probability that respondents will abstain from a given survey question, what meaning should we give to the “don’t know” response? Traditionally, scholars and practitioners of survey research have viewed “no opinion” responses as useful devices—a way to prevent nonattitudes (Converse 1964) from contaminating measures of public opinion. However, this view of item nonresponse proceeds from a particular model of the survey question-answering process as the product of individuals’ attempts to reveal their fixed preference on a given policy issue. In this view, people who say “don’t know” just do not have an opinion on the matter in question; a “don’t know” is simply a “don’t know.”

In the last twenty years, however, a more fluid view of the survey response has emerged, based partly on theories of preference construction developed in cognitive psychology. This view, advanced most forcibly by Zaller and Feldman, argues that “individuals do not typically possess ‘true attitudes’ on issues, as conventional theorizing assumes, but a series of partially independent and often inconsistent ones” (Zaller 1992: 93; Zaller and Feldman 1992). According to this line of public opinion research, a survey response is not necessarily a revealed preference. Instead, answers to survey questions are, to use Zaller’s (1992) turn of phrase, “opinion statements.” They reflect a sample of the types of concerns and predispositions people bring to bear when considering issues in the realm of politics. The types of information encountered about politics in daily life, and even the wording of survey questions, can bring about systematic changes in the base of available information.

From this perspective, “don’t know” responses are not necessarily an indication that a respondent is devoid of valid information to report on a question. Just as responses obtained from the same person may change from interview to interview, the decision to give a “don’t know” response may change as well.

Berinsky (2004) presents a model of the survey response focused on
the potential costs to the individual of answering specific questions. Individuals may come to a “don’t know” answer by two very different routes; either after they first attempt to form an opinion about a particular political controversy, or when—if successful in coming to a judgment—they then choose the “don’t know” category when expressing their answer to the survey interviewer because they are loath to express an opinion that could paint them in a poor light. In the first case, the respondent fails to answer the question because of cognitive costs associated with coming to a potentially difficult political judgment. In the second case, question abstention results from the social costs associated with expressing an undesirable opinion. But in both cases a “don’t know” response does not indicate an absence of politically relevant considerations on the part of the respondent. Under a slightly different set of circumstances, the same respondent might express an opinion on the same question.

Given that research has shown that “don’t know” responses arise through the interaction of question wording, interviewer behavior, and respondent characteristics, it is a mistake to attribute “don’t know” responses solely to the absence of meaningful political views on the part of the survey respondent. If, as with substantive responses to survey questions, a “don’t know” is a probabilistic response—dependent not only on the quality of political thought but on the respondent’s personal characteristics, the particular circumstances of the interview as well as other factors that we cannot fully account for—we should not take that “don’t know” as the final word on the matter.

Thus, to ensure that all citizens are properly represented in opinion polls, we should not necessarily take nonresponses at face value. Instead, we should incorporate information from respondents’ answers to other questions on the survey to understand what they might have said had they answered the survey question. In this way, we can come to a more complete picture of their politically relevant wants, needs, and desires. We take this position not because the decision to abstain from a survey question indicates that respondents are consciously aware of a formed political judgment that they reserve from the interviewer. Indeed sometimes a “don’t know” response is just that—the absence of opinion. But the decision to abstain from a survey question does not mean that respondents are devoid of politically relevant predilections. With the aid of theory and a close examination of the data—using the statistical techniques discussed below—we can learn much about the political proclivities of the “silent voices.”

Given the nature of the health care debate, health reform is a poten-
tially fruitful area to apply this framework. Thus, in the next section, we look at the first type of “don’t know” response — question abstention arising from cognitive complexity — and explore the political implications of item nonresponse in the realm of health care reform legislation using monthly tracking data from the Kaiser Family Foundation (KFF) collected between January and November 2010.3

**Item Nonresponse and Health Care**

As discussed in the previous section, one route through which respondents provide a “don’t know” response arises from the cognitive cost of the question. Carmines and Stimson (1980) identify the role of cognitive complexity by distinguishing between “hard” and “easy” issues. The authors argue that some issues are hard in the sense that they require careful consideration of technically difficult choices relating to how government should respond to (often) novel problems on the policy agenda. Easy issues, on the other hand, involve more symbolic concerns relating to the ends of public policies long in the public eye.4 Though the authors developed this typology in the context of issue voting, it has important implications for the study of public opinion more generally.

It is not a difficult task to demonstrate that health care reform can be categorized as a hard issue. In a poll taken on the eve of the legislation becoming law, a CBS poll found that 54 percent of respondents did not have a good idea about how the bill would affect them and their family (CBS News 2010).5 With 2,074 pages in the bill, a lack of consensus among politicians as to the legislation’s effects, and such high (admitted) confusion rate on the public’s part, there appear to be obvious cognitive costs attached to having structured attitudes about the 2010 Patient Protection and Affordable Care Act. This can be contrasted with other opinion questions from the KFF survey. For example, when asked “What will make the

---

3. The KFF surveys are based on a national adult sample. The field dates and sample sizes are January 7 – 12 (N = 2,002), February 11 – 16 (N = 1,201), March 10 – 15 (N = 1,208), April 9 – 14 (N = 1,208), May 11 – 16 (N = 1,210), June 17 – 22 (N = 1,207), July 8 – 13 (N = 1,504), August 16 – 22 (N = 1,203), September 14 – 19 (N = 1,200), October 5 – 10 (N = 1,202), November 3 – 6 (N = 1,502). The analysis of the survey data was conducted independent of the KFF.

4. The authors use racial desegregation as a quintessential easy issue in the 1972 election. The issue of desegregation is not technical or particularly complex, and opinions on the matter are often a “gut” reaction rather than a thoughtful, reasoned response. Additionally, segregation has been on the political agenda for many decades. The Vietnam War, on the other hand, was a hard issue. Voters were not given a simple choice of “war” or “peace” but complicated alternatives that were difficult to unpack and evaluate.

5. The poll was conducted by CBS News on March 22 and 23, 2010. The question read, “Do you feel you have a good understanding of how the current health care reform bill will affect you and your family, or is it confusing to you?”
biggest difference in how you vote for Congress in your district: specific national issues, local or state issues, the candidate’s character and experience, or the direction of the nation as a whole?” on average only 2 percent of respondents did not provide an answer.\textsuperscript{6} As additional evidence, Berinsky (2004) finds that across years of questions on school funding — an easy issue — the average “don’t know” rate was just over 2 percent.\textsuperscript{7} It appears as though there is significantly more uncertainty about health care relative to other issues.

Figure 1 presents the percentage of “don’t know” responses to a question on support for health care reform on the KFF polls.\textsuperscript{8} Over the course of eleven months, “don’t know” responses ebbed and flowed from a low of 9 percent in March to a high of just over 18 percent in November. While some fluctuation in “don’t know” rates is almost certainly due to measure-

\textsuperscript{6} The percentage of item nonresponse was 2.5 percent in August, 2 percent in September, and 1.4 percent in October.

\textsuperscript{7} While it may be difficult to consider the trade-offs between school spending and higher taxes, straightforward questions that ask whether schools deserve more funding are relatively easy to answer, and this is expressed with low rates of “don’t know” responses.

\textsuperscript{8} In January through March the question read, “As of right now, do you generally support or generally oppose the health care proposals being discussed in Congress?” After the bill became law, the question wording changed to “Given what you know about the new health reform law, do you have a generally favorable or generally unfavorable opinion of it?”
<table>
<thead>
<tr>
<th>Income</th>
<th>&lt; $20,000</th>
<th>$20,000–</th>
<th>$30,000–</th>
<th>$40,000–</th>
<th>$50,000–</th>
<th>$75,000–</th>
<th>$90,000–</th>
<th>$100,000</th>
<th>&gt; $100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t Know</td>
<td>21.62%</td>
<td>17.06%</td>
<td>13.46%</td>
<td>10.64%</td>
<td>10.63%</td>
<td>6.85%</td>
<td>8.26%</td>
<td>5.50%</td>
<td>5.50%</td>
</tr>
<tr>
<td>Support</td>
<td>59.09%</td>
<td>61.20%</td>
<td>60.39%</td>
<td>56.13%</td>
<td>45.39%</td>
<td>46.94%</td>
<td>47.28%</td>
<td>46.34%</td>
<td>5.50%</td>
</tr>
</tbody>
</table>

*Source: KFF 2010*
ment error, it also appears as though the “don’t know” rate might be related to the amount of attention the health care issue was receiving in Washington and in the media. The “don’t know” rate reached its minimum in March, which is the month when Congress voted on the health care bill.

These relatively high “don’t know” rates on the health care reform question are not troublesome in and of themselves. The equality of opinion polls is threatened only if abstention from a survey question follows predictable and systematic patterns across individuals. The first row of table 1 reports the pooled percentages of respondents who said “don’t know” by income category. As income increases, the rate of respondents saying “don’t know” decreases. This relationship holds in each survey in the time series. Figure 2 presents the nonresponse rates for those making $30,000 or less and more than $100,000 per year for each month. While the relative size of the gap changes over time, a clear pattern emerges; low-income respondents are more likely to provide a “don’t know” response when compared with their higher-income counterparts. A multivariate analysis that includes additional controls further confirms these trends — socioeconomic status systematically affects whether or not a respondent says “don’t know.”

9. These significant results hold in a multivariate probit analysis where gender, race, age, age squared, education, and living in the South are included as controls. In all pooled analyses, month dummies are included. On account of the fact that the question wording changes after the bill became a law, we also reran the analysis just looking at January through March and then April through November separately. The results remained virtually unchanged.
Differential rates of question abstention do not, however, necessarily lead to biased indicators of the public will. If people with low and high incomes have the same distribution of opinions on health care, there will be no bias even with different item nonresponse rates across income levels. In this case, the voices of the silent are the same as the voices of the heard. Differential rates of question abstention become politically consequential only when the factors that make it difficult to answer survey questions overlap significantly with factors that produce opinions of a particular stripe.

There is evidence that, in the realm of health care reform, this “exclusion bias” is rooted in socioeconomic factors. The bottom half of table 1 illustrates that there are significant differences in support for health care policy across income groups. Figure 3 shows this pattern graphically by looking at the wealthiest and poorest income groups’ level of support for the present health care plan. A significant majority of people making $30,000 per year or less support health care reform, with support peaking just below 70 percent. This support wanes, however, among those making more than $100,000 per year, hovering consistently at or below the 50 percent mark. Thus the poorest are simultaneously the most likely to support health care and the most likely to respond “don’t know.”
The Extent of the Bias

Above we discussed how bias in public opinion polls can arise and demonstrated that polls on health care seem to fit the bill. What we have not yet shown is how unrepresentative these polls are. To determine the nature and extent of bias in these polls, we need to measure the opinions of those individuals who answer survey questions and those individuals who abstain from the questions. Measuring opinions among the first group is straightforward. We can simply look at the answers they give to the interviewer. On the other hand, to measure the sentiment of the second group we must impute interests and opinions to the set of individuals who claim to have no opinion on the particular question asked of them. In effect, we must ask, “What would these individuals have said, had they voiced their underlying sentiment?”

This task is difficult, but not impossible. The details of the analysis—an explanation of the imputation process and justification—are presented in Berinsky 2004, but the underlying intuition behind the analysis is simple. Because we have an understanding about how question-answerers and abstainers differ—namely, in their socioeconomic status—and we can measure the various factors that determine the direction of a survey response, we are able to impute attitudes of those who responded “don’t know.” In effect, we can use what we know about the opinions of the question-answerers and what we know about the differences between the question-answerers and the nonanswerers to characterize the opinions of those individuals who declined to answer the survey questions.

Table 2 presents the results of these analyses for each month of the KFF tracker. The entries in the first column are the percentage of question-answerers who generally support or feel favorable toward health care reform. The entries in the second column represent the imputed attitudes of those who responded “don’t know.” The final column represents the difference in attitudes between those who gave a response and those who did not. While the extent of the bias fluctuates across the months, a clear trend emerges. Attitudes of those who do and do not respond to survey questions differ in a systematic and meaningful way; those who responded with a “don’t know” on the question are more likely to support health care legislation. Of course, correcting aggregate opinion to account for

10. Specifically, we use the coefficients generated from a probit model of health policy opinion on education, income, African American, Hispanic, living in the South, female, age, and age squared. We use the value of these variables to predict the issue positions of the non-respondents.
the views of the nonrespondents would move opinion only slightly. But the fact remains that those who keep silent on health policy reform would—if they gave opinions—speak in a different manner than those who answer those questions. This result is especially important because it mirrors the patterns of inequality found in traditional forms of political participation, such as writing to government officials. In sum, by looking only at responses to these policy questions, we may not be getting the whole picture of American attitudes on health care.

### Conclusion

While public opinion polling has brought many voices into the political fold, we should not assume that these polls accurately reflect American opinion. The goal of this article is to encourage caution when reading opinion polls. Health care reform items seem to be cognitively difficult questions that yield higher “don’t know” rates relative to other questions in the same survey. While the presence of a high “don’t know” rate does not ensure the presence of bias in opinion polls, such rates should raise warning flags for the critical consumer. The benefits of opinion polling, after all, rely on polls’ ability to accurately reflect the attitudes of the broader population. If these representative properties are undermined by nonresponse, polls lose both their appeal and their purpose.
References


