**Popular Opinion about Economic Policy: The Role of the Media**

*By Alan S. Blinder*
Princeton University

I take it as axiomatic that, first, the political mechanism makes almost all important economic policy decisions, and second, the decisions of elected politicians are heavily influenced by public opinion. These are hardly dazzling insights. The first statement is simply a fact. The second is rarely discussed by economists in their scholarly work. But its importance is apparent from the tremendous resources that politicians devote to assessing public opinion, and there is plenty of supportive evidence in political science.[1]

Legitimate doubts have been raised about whether the types of questions commonly asked in public opinion polls elicit individuals' true preferences.[2] That is not the question here because understanding the determinants of public opinion *as expressed in standard polls* remains important as long as these polls influence politicians' policy decisions. This point remains valid irrespective of whether people understand the issues well or are confused about them, whether they are self-interested or public spirited, and whether they are well or poorly informed.

Once these points are accepted, a host of interesting questions arise, two of which are the foci of this paper. First, to what extent is mass public opinion shaped by political ideology, self-interest, and—don't laugh—economic knowledge? Second, to the extent that knowledge is relevant to opinions on economic issues, how do people inform themselves?

This paper offers many detailed answers to these and related questions. So it may be useful to begin with a broad characterization that may help the reader see the forest amidst all the trees that will follow. Subject to many caveats, the main finding is that *ideology* is the most consistently important determinant of public opinion on a number of major economic policy issues, and objective measures of material *self-interest* are the least important.[3] *Knowledge* about the economy ranks somewhere in between: sometimes it is important, sometimes not. To me, this does not paint a picture in which the proverbial *homo economicus* is in charge.

The evidence comes from a unique telephone survey of a random sample of the U.S. population age eighteen and over. The paper begins by sketching a recursive model of the formulation of public opinion. Next, I explain the survey and discuss some of the specific questions. The most lengthy section then follows, discussing some of the more interesting tabulations and cross-tabulations of the data and relating them to the model of public opinion. I conclude with some overarching, although admittedly speculative, interpretations of the findings.

## [a] On The Determinants of Public Opinion

To the extent that the process of opinion formation is rational, a person's position on an issue should depend on her *self-interest*, her *ideology* or "values," her factual *knowledge* and conceptual understanding of the issue, and the degree to which she bases her decision on self-interest rather than her perception of what is in the public interest.[4] The last of these is likely the hardest to measure, even by asking people. So the basic model is

$$(1) \qquad OP_i = f(SI_i, ID_i, K_i, ED_i, X_i) + e_{1i},$$

where $OP$ is the opinion of person $i$ at the time of the survey, $SI$ is self-interest, $ID$ is ideology, $K$ is knowledge, $ED$ is education, $X$ is a collection of other demographic variables such as race, sex, age, and income, and $e_{1i}$ is an error term.

The survey elicits some information about each respondent's ideology and self-interest. But I make no attempt to explain how any particular person's values and ideology were formed, nor why his or her self-interest is what it is. I simply treat those variables as exogenous. (For example, one of the "self-interest" variables is income, but I make no attempt to explain family income.) The main focus is on the acquisition of information, where the survey probed much more deeply.

The amount and kind of knowledge a person has on any particular economic issue ought to depend on the costs and benefits of acquiring such knowledge. The survey was thus designed not only to measure how well informed respondents are, but also how and where they get their information. Thus,

(2) $K_i = g(ED_i, D_i, S_i, Q_i, X_i) + e_{2i}$,

where $D$ is a survey measure of how strongly the respondent *desires* to be informed about the economy and economic policy, $S$ is a vector representing the *sources* of information that the individual uses, and $Q$ is an indicator of the *quantity* or intensity of information. These variables are defined precisely in the next section.

Finally, I try to explain why people do or do not choose to inform themselves, and in what ways:

(3) $S_i = h_1(ED_i, D_i, SI_i, ID_i, X_i) + e_{3i}$

(4) $Q_i = h_2(ED_i, D_i, SI_i, ID_i, X_i) + e_{4i}$

(5) $D_i = h_3(ED_i, SI_i, ID_i, X_i) + e_{5i}$.

So, and now working forward from "causes" to "effects," the model says that people's education, desire to be informed, self-interest, and ideology combine to determine how much information—and what kinds of information—they acquire (equations 3, 4, and 5). This information, along with their education and desire to be informed, determines their knowledge of an issue (equation 2). And this knowledge, along with their ideology and self-interest, determines their opinions (equation 1). In what follows, I pay closest attention to equations 1, 2, and 3: (in reverse order) how people inform themselves, the determinants of knowledge, and the determinants of mass public opinion.

**[a]The Survey**

In the spring of 2003, Princeton's Survey Research Center conducted a telephone survey of a random sample of the U.S. population eighteen and over, using random-digit dialing.[5] As is typical for surveys of this type, the response rate (calculated according to American Association of Public Opinion Research guidelines) was low: just 26 percent of working residential numbers. But, perhaps surprisingly, the available evidence does not suggest that such low response rates lead to major statistical biases.[6] We completed 1,002 interviews and then weighted the responses to match the March 2002 population estimates of the U.S. Census Bureau's Current Population Survey (CPS) in the following five respects: race, age, sex, education, and geographical region.[7] All the results reported in this paper reflect that weighting.

The survey, which typically took twelve to seventeen minutes to administer, began with a series of questions about economic policy issues, some of which are factual and some of which solicit the respondent's opinion. An example of the former is: "Roughly what size (in billions of dollars) is this year's federal budget deficit?"

An example of the latter is: "Do you think the federal budget deficit ought to be reduced?"

The five policy issues we dealt with are taxes, the federal budget deficit, the minimum wage, Social Security, and health insurance. Each issue involved several questions. In some cases (detailed below), the ordering of the questions was randomized. But the ordering rarely mattered.

After thus giving people an idea of the sort of economic policy issues in which we were interested, the survey went on to inquire about how they become informed about such issues. The transition question to that part of the survey was: "Next, we'd like to know how important it is to you to keep well informed about major economic policy issues, *such as the ones we have just been discussing.* Would you say it is extremely important, very important, somewhat important, not very important, or not important at all?" (emphasis added)

The answers to this question comprise the "desire to be informed" variable, $D_i$, in equations 3, 4, and 5. Notice the deliberate framing of what we mean by "major economic policy issues."

That initial question about the importance of information was followed by a series of inquiries into "the sources of information you use, either to learn about economic issues or to learn the opinions of others on these issues." One prototypical example is: "Do you watch television regularly, occasionally, or not at all to learn about economic issues?"

Similar questions were asked for ten other sources of information: radio, newspapers, magazines, books, statements by political leaders, statements by business leaders, statements by economists, statements by civic or religious leaders, discussions with friends and relatives, and the Internet (in that order). Most people presumably encounter statements by political leaders, business leaders, or economists via one of the standard media channels (such as television or newspapers). But, in our judgment, information from these three groups of "experts" was sufficiently different from the standard media fare that they merited inclusion on their own.

The final section of the survey collected data on individual characteristics, including the usual demographic variables (such as race, age, and sex), but also including several less standard variables that relate to the five policy issues, such as income, whether the person reported voting in the 2000 election, whether the respondent was covered by health insurance, and whether the respondent's parents were alive.

**[a]Some Straight Facts**

[b]*The Demand for Economic Information*

I begin with the desire to be informed, the variable *D* in the model. Almost 24 percent of respondents said it was "extremely important" to keep well informed about major economic policy issues, and just over 50 percent said it was "very important." Another 23.5 percent characterized keeping well informed as "somewhat important," leaving fewer than 3 percent of the sample in the "not very important" or "not important at all" categories. Frankly, I was both surprised and pleased by the strength of the expressed desire to be informed.[8]

Looking across subgroups of the population, the answers to this question do not vary significantly (at the 5 percent level) by race, sex, education, or income. But older respondents expressed a slightly stronger desire to be well informed. We also divided the sample into those who were working at the time of the survey (56 percent of the sample) and those who were not. The working population turned out to have a slightly *weaker* desire to be informed than the heterogeneous nonworking group, which includes the unemployed, retirees, homemakers, and students.

In a survey that inquires about information relevant to economic *policy* issues, we expected to find many systematic differences by political ideology. So respondents were asked to classify themselves as liberals (who turned out to comprise 15 percent of the sample), conservatives (29 percent), moderates (19 percent), other (4 percent), or "haven't thought much about it" (33

percent). As shorthand, I will hereafter refer to the last group—the largest—as the "nonpoliticals." Using all five categories in a $\chi^2$ test of independence, there is little evidence of differences by ideology in the desire to be informed ($\chi^2 = 28.6$, $p = 0.133$).

However, there are rather strong differences with respect to a variable that might be called "political engagement" (rather than partisanship). The survey asked respondents whether they had voted in the 2000 presidential election. The answers to this question do not accurately represent actual voting behavior, since 68 percent of the respondents claimed to have voted whereas national data show that only 51 percent of the voting-age population actually did vote.[9] The data may instead indicate which respondents believe they *should have* voted (as well as those who actually voted). In any case the self-described "voters" were considerably and significantly ($\chi^2 = 26.0$, $p = 0.001$) more interested in keeping informed than were the nonvoters. Fully 78 percent of "voters" said keeping well informed was either extremely or very important to them, versus only 66 percent of nonvoters. This strong correlation supports the notion that self-professed voting is an indicator of political engagement. The notion that the "nonpoliticals" are disengaged is further supported by the fact that only 47 percent of them reported having voted in 2000, versus 79 percent of everyone else.

In sum, other than the proclivity to vote, hardly any other variable helped predict a person's desire to be informed.

The next survey question asked each respondent who said that being informed was at least "somewhat important" to state "the main reasons why you wish to be well informed." The choices listed were the five shown in table 1 (respondents could choose more than one reason). Just over half of our respondents gave the last response, which might be called the "civics class" answer. But, perhaps inconsistently, only 22 percent offered politics or voting as a reason. Slightly more than half mentioned the relevance of economic issues to their personal finances.

But, in a big surprise to me, only 4 percent specifically mentioned the stock market as a reason for wanting to keep informed.

Do these answers vary by personal characteristics? The only general answer, derived from the results below, is: somewhat. More specifically:

[c]DEMOGRAPHICS. Differences by age, sex, and race were generally minor. The only notable ones were that older people were slightly more likely to list the last response shown in table 1 (59 percent versus 51 percent of younger people; $p = 0.043$),[10] and that men were more likely than women to say that being informed might be politically important or affect their vote (26 percent versus 19 percent; $p = 0.010$). Because racial differences are so ubiquitous in cross-sectional work, I was surprised to find no significant racial differences in the professed reasons for desiring to be well informed.

[c]ECONOMIC STATUS. Differences by education, employment status, and income were more notable. For example, college-educated people were substantially more likely than others to list the following three reasons for wanting to be informed: the relevance of economic information for politics or their vote (mentioned by 35 percent of the college educated versus 17 percent of others; $p = 0.000$), the relevance to their business or profession (10 percent versus 6 percent; $p = 0.008$), and the relevance to personal finances (60 percent versus 51 percent; $p = 0.018$). Not surprisingly, employed people were much more likely (10 percent versus 3 percent of nonemployed, $p = 0.000$) to mention their job or profession as a reason for wanting to keep informed about the economy. And differences by income class were pervasive.[11] Compared with lower-income people, higher-income people were *more* likely to mention their personal finances (59 percent versus 48 percent, $p = 0.005$), the relevance to their business or profession (10 percent versus 4 percent, $p = 0.001$), and the relevance to politics and voting (26 percent versus

18 percent, p = 0.025), but *less* likely to mention their general desire to be well-informed (50 percent versus 62 percent, p = 0.004).

[c]POLITICAL INVOLVEMENT. Respondents of different political ideologies differed only in how often they mentioned politics or voting as a reason for keeping informed. However, this difference appears to be more a matter of detachment than of ideology: nonpoliticals were substantially less likely to cite politics (only 8 percent did so) than either liberals (27 percent), conservatives (28 percent), or moderates (31 percent). Across these four categories, the $\chi^2$ test of independence is highly significant ($\chi^2 = 52.4$; p = 0.000). Consistent with this, self-described voters were much more likely than nonvoters to cite politics or voting as a reason to keep informed (27 percent versus 12 percent, p = 0.000).

[b]*The Sources of Economic Information*

The lengthiest part of the questionnaire inquired about the sources of information people use to inform themselves. As mentioned in the previous section, we asked about the frequency of use of each of eleven possible sources of information about economic issues, and we coded the responses as either "regularly or often," "occasionally," or "rarely or never." Table 2 ranks the eleven sources from the most frequently used (television) to the least (books). It is hardly surprising that television is the most popular source of information—by a substantial margin.

We followed this question by asking respondents whether they "learn more about economics from the networks, from cable, or about the same from both," with the following results:

Network stations 17 percent

Cable stations 28 percent

About the same 44 percent.

Although it reaches many fewer viewers, cable has a noticeable edge. My guess is that this edge is even greater today than it was in 2003.

Nor is it surprising that newspapers rank second as a source of economic information. But I would not have predicted that more people (54 percent) get their economic information from local newspapers than from any of the six national newspapers (23 percent) listed in the survey or from any other "big city" newspaper (19 percent).[12] Remember, we preconditioned this response by first asking questions about *national* issues like the federal budget deficit and Social Security, not about the local school budget or personal finance. Finally, we inquired about which sections of the newspaper people "turn to, to learn about the economy or economic policy." The business and financial (43 percent) and national news (39 percent) sections received the most votes, with the editorial page (including op-eds) lagging far behind (9 percent).

Looking below first and second place in table 2, we find that "discussions with friends and relatives" ranked third, narrowly edging out "statements by political leaders." It is perhaps surprising to learn that radio is used so little, and that magazines are used so *very* little. (This includes the mass-circulation magazines like *Time* and *Newsweek*.) But I was gratified to find "statements by economists" ranking right in the middle of the eleven sources,[13] beating out the Internet, business leaders, civic or religious leaders, magazines, and books.[14] Finally, table 2 probably underestimates the dominance of television, because many people hear the views of political leaders, economists, and business leaders on television, although some of this information also comes from radio, magazines, the Internet, and newspapers, of course.

The survey's long section on sources of information concluded by reading back to each respondent the list of sources he or she had reported using "regularly or often" and then asking, "which… is your most important source of information on economics or economic policy?" By

this alternative criterion, the ranking of sources is rather different (table 3). Television and newspapers still rank first and second, respectively, but the margin for television is now enormous. After that, the rankings in table 3 differ noticeably from those in table 2. For example, the Internet ranks much higher and, alas, economists rank much lower. Overall, the rank correlation between tables 2 and 3 is 0.76.

In a word, television tops the list of sources from which our respondents get their economic information; everything else lags well behind. But not all people are alike. As with the *reasons* for desiring to be informed, I next looked for statistically significant (at the 5 percent level) differences in the frequency of use of the sources of information by demographics, economic status, and political engagement. But in this case, there were many:

[c]DEMOGRAPHICS. $\chi^2$ tests show that older respondents made significantly greater use of most, but not all, sources of information. But younger respondents used radio and the Internet more. Men reported making greater use of radio, business leaders, economists, and the Internet, whereas women reported greater use of civic or religious leaders. Racial differences were less common: whites used television more, and nonwhites used magazines, books, and civic and religious leaders more.

[c]EDUCATION AND ECONOMIC STATUS. There are statistically significant differences by respondent's level of education in the use of six of the eleven information sources: radio, newspapers, magazines, business leaders, economists, and the Internet. In each case, college-educated people reported using the information source more. Similarly, higher-income respondents made significantly greater use of six sources: newspapers, radio, the Internet, political leaders, business leaders, and economists. Lower-income people used only one information source, statements by civic or religious leaders, more intensely than did higher-income people. Differences by employment status were less common; nonemployed people reported using books and the Internet more.

[c]IDEOLOGY AND POLITICAL INVOLVEMENT. Although significant differences in information use by "ideology" appear in eight of the eleven cases, these differences do not typically cut across liberal-conservative lines. As a broad generalization, it was the nonpolitical group that stood apart from the rest by making less use of information. (This will be a recurring theme.) Similarly, for eight of the eleven sources, self-described voters were more likely to use the source than nonvoters.

Although the types of media used by liberals and conservatives are similar, there are ideological differences in the particular newspapers that individuals choose to read. Table 4 shows, for each of the major newspapers as well as big-city and local papers, the proportion of people, classified by self-identified ideology, who obtain information about the economy from that source.[15] Liberals are a stunning eight times more likely than conservatives to read the *New York Times*, and conservatives are twice as likely as liberals to read the *Wall Street Journal.* But there is no apparent ideological divide in the use of cable stations versus network television.[16]

Finally, for use as empirical counterparts to the theoretical variable $Q$ (quantity of information) in equation 2, we constructed two measures of how *intensively* each respondent used the various sources of information. Remember, each person was asked how often he or she used each source. Let $s_1$, $s_2$, and $s_3$ be, respectively, the number of sources a respondent reported using "regularly or often," "occasionally," and "rarely or never," and let the total number of sources, $s$, equal $s_1 + s_2 + s_3$. (Note that $s$ can be less than eleven because of item nonresponse.) Then define $Q_H$ ("quantity high") and $Q_L$ ("quantity low") as, respectively, $s_1/s$ and $s_3/s$. $Q_H$ and $Q_L$ thus measure *intensity* of information use and *lack of intensity*, respectively. Because not all sources of information convey equal quantities of information, our measures are undoubtedly crude proxies,

but they are probably still correlated with the extent to which individuals access information about the economy.

The distributions of these two variables in the overall sample are shown in table 5. Not surprisingly, heavy users of information are relatively rare. The frequency distribution of $Q_H$ (high intensity) is piled up at the low end; just 15 percent of respondents have a $Q_H$ greater than 0.4, whereas 32 percent have a $Q_H$ below 0.1. Perhaps more surprisingly, the distribution of the variable $Q_L$ (low intensity) is *not* piled up at the high end: fewer than 14 percent of respondents have a $Q_L$ above 0.7, whereas 73 percent have a $Q_L$ between 0.2 and 0.7. This is rather more use of information than I expected.

Looking across personal characteristics, several unsurprising empirical regularities emerge. College-educated people, high-income people, and self-professed voters reported significantly more intensive use of information sources. Compared with either liberals, conservatives, or moderates, the nonpoliticals had significantly lower $Q_H$ and significantly higher $Q_L$. All these differences are significant well beyond the 0.1 percent level. The other personal characteristics—age, race, sex, and employment status—did not seem to matter much.[17]

[b]*Knowledge about Economic Issues*

In the context of asking a series of questions about the five economic policy issues, the survey embedded nine "fact" questions whose purpose was to assess each respondent's economic *knowledge*. The facts inquired about were

--the share of income that a typical family pays in taxes

--whether most people pay more in payroll or in income taxes

--the size of the federal budget deficit

--the level of the federal minimum wage

--the size of the average Social Security benefit check

--whether they knew that President Bush had proposed partial privatization of Social Security (which he had at the time)

--whether they knew that the Social Security system is projected to start running deficits in about a decade (which was and is true)

--whether Medicare covered prescription drugs for outpatients (which it did not at the time of the survey, but does now)

--the percentage of Americans who do not have health insurance.

As a broad generalization and with some important exceptions to be noted shortly, the *average* responses to most of these questions were surprisingly accurate--although the standard deviations across people were often huge. With one important exception—the federal budget deficit—there was also hardly any indication of skewness: the mean and median responses were close. Table 6 compares the correct answers to these fact questions with the survey results. Several comments are in order.

The correct tax share is a difficult question conceptually. Most economists think first of *taxes as a share of GDP*, which was 28.4 percent in 2002. But the denominator of this ratio (GDP) is meaningless to most people, and the numerator includes many taxes that people probably do not think of themselves as paying.[18] So the survey posed a more user-friendly version of the question:

"About what percentage of the typical American family's income do you think goes to paying taxes—including all levels of government?"

What's the right answer? To calculating the "correct" denominator for this ratio, I added the employee's share of the payroll tax to personal income as defined in the National Income and Product Accounts (NIPA). For the numerator, I included personal income taxes, estate and gift taxes, the employee's share of the payroll tax, almost all sales and excise taxes, and property taxes on owner-occupied housing—all from the NIPA. But I *excluded* corporate income taxes, the employer's share of the payroll tax, property taxes on rental housing, customs duties, and the excise tax on diesel fuel on the grounds that individuals are unlikely to think of themselves as paying those taxes. The resulting tax share in calendar 2001 was 23.3 percent; the share of the median family would be a bit lower. Thus there are two alternative interpretations of the mean survey response of 31.3 percent: it was either a small overestimate of the tax share of GDP or a substantial overestimate of our constructed tax share. (I favor the latter interpretation.) Note also that the standard deviation across respondents was very large: more than 15 percentage points. Views on this "fact" are very diverse.

About 53 percent of tax filers with wage income pay more in payroll taxes than they do in income taxes.[19] But our respondents, by a decisive margin of 52 percent to 35 percent, thought the reverse was true—that a majority of taxpayers pay more in income taxes than in payroll taxes.[20] This was a very major misconception.

Estimates of the federal budget deficit—whether for fiscal 2003 or 2004—were rising sharply while our survey was in the field. We therefore decided to count any number between $246 billion and $310 billion as correct; these were the official estimates published by the Congressional Budget Office (CBO) on March 10, 2003, and May 9, 2003, respectively.[21] In fact, the mean estimate in the survey ($334 billion) was amazingly accurate, especially since private sector estimates at the time were running well above the CBO's estimates. However, the variance across respondents was truly astounding—we received estimates of the federal budget deficit as low as $1 billion and as high as $5 *trillion*. The median response—just $90 billion—also showed that the "typical" response was far too low.[22]

The average (and the median) estimate of the federal minimum wage was also quite accurate, especially when one considers that some respondents may have given the higher *state* minimum wage instead (as some explicitly did).[23]

Average Social Security benefits were also estimated quite accurately in the survey, although the variance was again enormous, and fully 18 percent of respondents were unable to answer the question. Similarly, majorities of respondents said they were aware "that President Bush has proposed that part of Social Security be replaced by personal investment accounts" and "that the Social Security system is projected to start running deficits about a decade from now." In general, public knowledge of the Social Security system seemed pretty high.

Not so for health insurance, however. A bare majority (54 percent) of those who answered the question realized that Medicare did not, at the time of the survey, cover prescription drugs "when people are not in the hospital"—this despite an avalanche of recent public attention to the issue.[24] And perhaps the greatest misconception in the survey was the belief that a stunning 37 percent (this was the mean response) "of Americans do not have any health insurance today." The actual number in 2002 was 15.2 percent.

Each of the nine "knowledge" questions above will be used in context later, when we study public opinion on specific policy issues. But we also constructed a generic knowledge score—corresponding to the variable $K$ in our model—as follows. Five of the questions have numerical answers. For each of these, we computed the absolute error and then assigned each respondent a percentile rank based on accuracy, $P_{ij}$, where $i$ indexes individuals and $j$ indexes questions. We also assigned numerical scores to two qualitative questions (those on payroll versus income tax

and on Medicare drug coverage), setting the values for the various answers so that the mean score was the 50th percentile (just like the numerical questions) and the standard deviation approximated that of a uniform distribution ($\sigma = 28.9$ percent). However, in computing our composite knowledge score, we gave only 50 percent weight to these two questions because it was easier to guess the correct answer. We excluded the two Social Security questions that began "Are you aware that…" on the grounds that the phrasing probably often "led the witness" to the correct answers. We then summed these ranks across all the (weighted) questions the respondent answered to obtain $K_i = (1/6) \Sigma_j P_{ij}$. Note that we always divide by six.[25] The knowledge measure thus treats unanswered questions exactly as they would be treated on an exam: they get zero points. Strikingly, the distribution of our constructed knowledge variable across the population of respondents closely resembles a normal distribution, with a mean of 42.9 and a standard deviation of 16.7 (figure 1).

How does economic knowledge, thus measured, vary by personal characteristics, by the desire to keep informed, by the main sources of information, and by the number of information sources an individual uses? The rest of this subsection explores various dimensions of this question.

[c]PERSONAL CHARACTERISTICS. There were no significant differences in mean knowledge score by age, and only minor differences by sex and race. Larger and more highly significant differences (all have p values below 0.001) emerged when we considered economic status and political involvement:

--Higher-income people outscored lower-income people on the knowledge "test" by an average of 8.6 points (0.51 of a standard deviation). The scores of college-educated respondents averaged 6.3 points (0.38 of a standard deviation) higher than the scores of non-college-educated respondents. This is far smaller than the gap of 0.9 of a standard deviation recorded on the 1994 U.S. International Adult Literacy Survey; the difference is probably due to the fact that our survey measure is based on just seven questions and the results are therefore noisy.[26]

--Once again, the nonpolitical group stood out from the rest, with unusually low scores (about 6 or 7 points lower than liberals, conservatives, or moderates), and self-reported voters scored 8.5 points higher, on average, than nonvoters.[27]

[c]DIFFERENCES BY DESIRE TO KEEP INFORMED. It seems almost axiomatic that individuals who deem it more important to keep informed should actually *be* better informed. But the knowledge scores do not bear this out, except for the lowest category (table 7). Although the ordering is as expected, the null hypothesis that all four mean scores are equal cannot be rejected at the 5 percent level ($p = 0.07$).

[c]DIFFERENCES BY MAJOR SOURCE OF INFORMATION. Table 8 shows that the small number of people who said that magazines are their primary source of information on economic issues (readers of *The Economist*?) were the most knowledgeable group, with a mean $K$ score of 52.7. The even smaller number of people whose most important source of information was statements by economists ranked second (mean $K = 50.3$). The least knowledgeable people, by far, were the small group that rely most on statements by civic and religious leaders (mean $K = 35.0$). Those whose most important source was television had a relatively low mean $K$ score of 41.1. This, of course, is the biggest group by far.

[c]DIFFERENCES BY QUANTITY OF INFORMATION. Table 9 displays a positive, but by no means high, correlation between the knowledge score and the number of different sources that the respondent reports using regularly or often. Thus, while more information does improve knowledge, it appears to do so very imperfectly. The null hypothesis that all the $K$ scores are equal in table 9 is rejected at beyond the 0.1 percent level, but the relationship is not monotonic.

[c]DOES INFORMATION BREED KNOWLEDGE? Similarly, the two intensity-of-use variables defined earlier, $Q_H$ and $Q_L$, do not show strong links to higher K scores. Thus our overall conclusion is that both education and the desire to be informed affect an individual's knowledge positively, although the magnitude of the education effect is modest.[28] The general intensity of information use does not. Educators will find these results somewhat disheartening, although we acknowledge that the brief test embedded in our survey assesses only a limited range of *factual* knowledge—and that, even as such, the test is highly imperfect.

[C]DIRECTION OF ERRORS. Our test scores are based on absolute errors, without regard to direction. But it has been suggested that conservatives and liberals may make systematically different errors because the two groups seek out and utilize different sources of information in order to see their beliefs confirmed.[29] Although conservatives and liberals had similar average percentile scores on the knowledge test, there are some differences in the direction of their errors.

On average, conservatives thought that the federal budget deficit was much larger ($333 billion versus $177 billion), that Social Security benefits were a bit more generous ($873 versus $766 per month), and that a smaller share of the U.S. population lacked health insurance (32 percent versus 40 percent) than did liberals. Conservatives were also more likely than liberals to report being aware that the Social Security trust fund is projected to run a deficit in about a decade (82 percent versus 74 percent) and less likely to say that Medicare already provided coverage for prescription drugs (23 percent versus 34 percent). Although each of these differences is statistically significant, it is hard—for me at least—to see any clear pattern of ideological bias in these numbers. And on the other policy questions—regarding the tax share of income, whether the payroll tax is larger than the income tax, the value of the minimum wage, and whether respondents were aware of the Bush Social Security proposal—ideological differences were trivial and consistent with chance.

[b]*Opinions on Economic Policy Issues*

As stated earlier, the survey instrument began with a series of questions about people's opinions on a variety of economic policy issues.

[C]THE TAX BURDEN AND THE BUSH TAX CUTS. The first such question was

"Do you think taxes in the United States are generally too high, too low, or about right?"

This question was asked, on a randomized basis, either before or after the fact question about the tax share. The ordering of the two questions turned out not to affect the responses appreciably, and so I treat all the responses as a single sample. Some 61 percent of respondents said that taxes are too high, 36 percent said they are about right, 3 percent said they are too low, and 2 percent said they did not know.

The overwhelming popular sentiment that taxes are too high can hardly come as a shock to any sentient American. We have probably believed this since the 1770s. But the cross-tabulations by subsets of the population did hold some surprises. First, self-described conservatives (at 62 percent) were not much more likely than others (at 60 percent) to say that taxes are too high. Liberals, however, were notably less likely—just 48 percent did so. The most antitax group turned out to be those disengaged nonpoliticals, 70 percent of whom said taxes are too high. Second, although racial differences were not terribly sharp, nonwhites (at 70 percent) were more likely than whites (at 59 percent) to say that taxes are too high ($p = 0.036$). Third, lower-income people were *more* likely than higher-income people to say that taxes are too high (68 percent to 56 percent, $p = 0.001$).[30] Two other breakdowns were statistically significant: college-educated people were much *less* likely than others to say that taxes are too high (51 percent versus 65

percent, p = 0.000), and employed people were more likely than the nonemployed (65 percent versus 56 percent, p = 0.033) to have that opinion.

While our survey was in the field, Congress was debating President Bush's 2003 tax proposal (which subsequently passed) to advance the timing of the phased-in tax rate reductions enacted in 2001 and to establish a preferentially low tax rate on dividends. So we asked respondents whether they favored or opposed this proposal, ordering this opinion question (on a randomized basis) either before or after the fact question about whether the typical American pays more in payroll or income taxes (but always *after* the question about the typical family's tax share). In this case the answers did depend a bit on the ordering: asking the payroll tax question first *reduced* support for the Bush tax cut by about 5 percentage points. But a $\chi^2$ test did not reject the null hypothesis of the independence of responses and question order (p = 0.31)**.**

Regarding differences by individual characteristics, it turned out that political ideology mattered quite strongly (p = 0.000). This time, conservatives were far more supportive of the Bush proposal (64 percent) than other groups (36 percent), even though, as just reported, they were no more likely to deem taxes too high. Both college-educated people (by 35 percent versus 23 percent of the non-college-educated) and self-reported voters (by 30 percent versus 19 percent of nonvoters) were more likely to oppose the 2003 Bush tax cuts (p = 0.000 and p = 0.003, respectively). And both whites (by a 46-to-33 percent margin) and higher-income people (by 50 to 35 percent) were much more likely to favor them (p = 0.000 in both cases). Finally, employed people favored the Bush tax cuts more than nonemployed people did. There were no significant differences by age or sex.

[C]THE FEDERAL BUDGET DEFICIT. The next opinion question was

"How much of a problem do you think the federal budget deficit poses for the economy? Would you say it is not a problem at all, a minor problem, or a serious problem?"

The survey had two variants of this question. For some respondents, it was asked *after* first inquiring about the size of the deficit. For others, it was asked after telling the respondent that, "This year's federal budget deficit is approximately $300 billion. This works out to around $3,000 per household." Remember, the median estimate of those who were asked about the size of the deficit was only $90 billion. So giving the $300 billion figure framed the deficit at a higher level for most respondents.

Telling respondents the actual size of the deficit did have a marked effect on their responses, as table 10 shows. But, oddly, doing so *reduced* the fraction who thought the deficit is a serious problem, by about 9 percentage points. However, the $\chi^2$ test for independence between order and response categories was only marginally significant (p = 0.06). So I would not make too much of this anomalous finding

The survey followed this question with two further queries about public policy toward the deficit:

"Do you think the federal budget deficit ought to be reduced?"

and (for the 87.5 percent of the sample who answered "yes")

"Do you think the deficit should be reduced mostly by raising taxes, mostly by cutting spending, or about equally by both means?"

The respondents divided approximately evenly between those who favored reducing the deficit "mostly by cutting spending" (45 percent) and those who favored doing so "about equally by both means" (47 percent), with a tiny minority (3 percent) favoring "mostly by raising taxes."

(The other 5 percent gave no coherent opinion.) Several differences among subgroups were also observed.

[d]*Demographics*. Older people and women were far more likely than younger people and men to rate the deficit "a serious problem," and by almost identical margins: 65 percent versus 50 percent ($p = 0.000$). But, ironically and perhaps inconsistently, this belief did not make them more likely to "think the federal budget deficit ought to be reduced." Nor were there significant sex or racial differences in the preferred cures for the deficit; however, older Americans favored expenditure cuts more than younger Americans did. Finally, although whites worried less about the budget deficit than did nonwhites, they were nonetheless slightly more likely to favor reducing the deficit.

[d]*Economic Status:* The opinions of college-educated and non-college-educated respondents did not differ significantly on any of the three deficit-related questions. The same was true when we compared the employed with the nonemployed. However, lower-income people were considerably more likely than higher-income people to rate the deficit a serious problem (by 65 percent versus 53 percent, $p = 0.012$). That said, income did not significantly influence opinion on either of the other two deficit-related questions.

[d]*Political Involvement*. Unsurprisingly, political ideology mattered quite a bit ($p = 0.000$). In a sign of these unusual times, liberals were far more likely to rate the budget deficit a serious problem (72 percent) than either conservatives (44 percent) or nonpoliticals (56 percent).[31] In this respect moderates (at 67 percent) were closer to liberals. Yet, once again, there were no significant differences by ideology in the fraction of people who "think the federal budget deficit ought to be reduced." (Almost everyone does.) Ideology showed through strongly again ($p = 0.000$), however, when it came to selecting the preferred method for reducing the deficit: conservatives favored spending cuts over tax increases by a margin of 50 percent to 2 percent; among liberals the corresponding margin was 39 percent to 12 percent. (The disengaged nonpolitical group were like the conservatives in this respect. Moderates were in between.) Finally, self-reported voters and nonvoters did not differ much on any of the three deficit-related questions.

[C]THE MINIMUM WAGE. Our next query was straightforward:

"Do you think the federal minimum wage should be increased?"

The answers favored a higher minimum wage overwhelmingly:

| | |
|---|---|
| Yes | 75 percent |
| No | 21 percent |
| Don't know or refused | 4 percent. |

The survey posed this question either before or after asking people, on a randomized basis, what the current minimum wage is. But the ordering made no difference. When the sample was disaggregated by personal characteristics, we found:

[d]*Demographics*. There were no significant differences in the answers to this question by age or employment status. But women and nonwhites were more likely to favor raising the minimum wage than men and whites—by margins of 81 percent to 69 percent ($p = 0.000$) for women versus men and 93 percent to 74 percent ($p = 0.000$) for nonwhites versus whites.

[d]*Economic Status*. College-educated people were less likely to favor a higher minimum wage than the non-college-educated (66 percent versus 83 percent, $p = 0.000$). Perhaps they learned about the alleged disemployment effects of the minimum wage in a college economics course![32]

And, as one would expect, lower-income people favored raising it more than higher-income people did (by a margin of 85 percent to 73 percent, p = 0.001).

[d]*Political Involvement*. Not surprisingly, attitudes toward the minimum wage differed significantly by political ideology (p = 0.000). Conservatives, although still supportive (with 60 percent favoring), were far less likely to favor raising it than were all other groups (which were in the 85 to 89 percent approval range). Self-reported voters were also less likely to favor raising the minimum wage (74 percent versus 87 percent of nonvoters, p = 0.000).

[c]SOCIAL SECURITY POLICY. In addition to the three fact questions mentioned above—pertaining to average Social Security benefits, the actuarial deficit, and President Bush's partial privatization plan—the survey posed two policy questions about Social Security. First, immediately after asking, "Are you aware that President Bush has proposed that part of Social Security be replaced by personal investment accounts?," it asked the following policy question:

"Do you favor or oppose this idea, or are you undecided?"

Second, right after asking, "Are you aware that the Social Security System is projected to start running deficits about a decade from now?", the survey inquired,

"Do you think the government should try to reduce those deficits mainly by raising the payroll tax, mainly by reducing Social Security benefits, or both?"

Twenty percent of respondents favored partially replacing Social Security with personal accounts, whereas 38 percent opposed the idea and 42 percent were undecided. As for closing the future Social Security deficit, respondents were roughly evenly divided between those who favored a mixture of both remedies (34 percent) and those who favored relying mainly on the payroll tax (30 percent). Only 5 percent wanted to rely mainly on benefit reductions, and a large 22 percent preferred neither remedy. Interestingly, this expressed preference for higher taxes over lower expenditure is just the reverse of what we found earlier, when we inquired about ways to reduce the overall budget deficit. Social Security, it appears, really is different.

Looking across subgroups yielded the following findings:

[d]*Demographics*. There were no significant racial differences on either Social Security policy question. Men were much more likely than women to favor partial privatization (28 percent versus 13 percent, p = 0.000), and they were less likely to favor tax increases to reduce the Social Security deficit (28 percent versus 38 percent, p = 0.000). But the biggest differences, as one would expect, came by age. Older people were much more likely than younger ones to oppose the privatization idea (46 percent versus 31 percent) and much less likely to be undecided (32 percent versus 50 percent). The curious consequence is that the proportion favoring the idea was roughly independent of age (about 20 percent). When it came to choosing between benefit cuts and tax increases as alternative ways to reduce the Social Security deficit, older Americans were more likely than younger ones (by 31 percent versus 18 percent) to choose "neither"—even though that option was not offered. Younger Americans were more likely (45 percent versus 29 percent) to opt for "both." Both sets of differences are highly significant.

[d]*Economic Status*. Higher-income people were much more likely to favor privatization (27 percent versus 12 percent of lower-income people, p = 0.000), as were the employed (24 percent versus 15 percent of the nonemployed, p = 0.007) and the college-educated (33 percent versus 16 percent of the non-college-educated, p = 0.000). Differences by education were interesting. The percentages of college-educated and non-college-educated respondents *opposing* the Bush privatization proposal were about the same (roughly 38 percent). But many fewer of the college educated were undecided (28 percent versus 46 percent). There were no significant differences on how best to reduce the looming Social Security deficit—no group wanted to see benefits cut.

[d]*Political Involvement*. Ideology was pretty much a no-brainer on this issue: conservatives were vastly more likely to favor partial privatization (40 percent) than either liberals (9 percent), moderates (18 percent), or nonpoliticals (8 percent). Those who claimed to have voted in the 2000 election were much more likely to favor privatization (25 percent versus 10 percent of nonvoters) and much less likely to be undecided (35 percent versus 54 percent). These differences are highly significant ($p = 0.000$). But, again, the subgroups did not differ significantly in how they want to reduce the Social Security deficit. Those who were aware of the president's proposal were more inclined to support it (by 31 percent versus 7 percent).

[c]MEDICARE AND HEALTH INSURANCE. Finally, the survey asked people whether Medicare currently included an outpatient drug benefit. (It did not at the time.) It then followed by asking those who answered correctly or who said there was presently only partial coverage (74 percent of all respondents),

"Would you favor or oppose adding a prescription drug benefit to Medicare for people who are not in the hospital, bearing in mind that it would have to be paid for somehow?"

Despite the last clause, which I deemed to be very important,[A] the general view was overwhelmingly supportive, with 80 percent in favor and only 12 percent opposed.[33] And opinions on this issue did not differ significantly by age (which was surprising), sex, race, employment status, income, or self-reported voting behavior. College-educated people were a bit less likely to favor a Medicare drug benefit (by 82 percent versus 89 percent of the non-college-educated), but the difference was barely significant ($p = 0.033$). The only highly significant difference was by political ideology, but the ordering here was somewhat counterintuitive: The proportion favoring a Medicare drug benefit was 95 percent among liberals, 89 percent among nonpoliticals, 85 percent among conservatives, and 79 percent among moderates.

The other health policy question was:

"Do you favor or oppose what is called universal health insurance coverage, meaning that the government would make sure that every American is covered by a health insurance policy?"

Remember, asking about the number of uninsured Americans elicited a gross *overestimate* of the extent of the problem. Such a misconception might be expected to *reduce* support for universal coverage, if respondents were thinking more about the high cost of reaching universal coverage, or *increase* support, if they were thinking more about the severity of the problem. In any case, over 75 percent of our respondents favored universal coverage.[34] On this policy issue, differences of opinion across subgroups were the rule rather than the exception.

[d]*Demographics*. Women were substantially more likely than men to favor universal health insurance (80 percent versus 71 percent, $p = 0.003$), and nonwhites were much more likely to favor it than whites (87 percent versus 72 percent, $p = 0.001$). But there were no significant differences by age.

[d]*Economic Status*: Lower-income people were much more supportive of universal coverage than were higher-income people (who were probably covered in any case), by a margin of 85 percent to 70 percent ($p = 0.000$). And people without a college degree were significantly more likely than college graduates to favor universal coverage (78 percent versus 68 percent, $p = 0.001$). But, surprisingly, employment status did not matter.

[d]*Political Involvement*. Politically disengaged nonvoters were much more likely to favor universal health insurance than were self-reported voters, by a margin of 85 percent to 71 percent ($p = 0.000$). Ideology mattered, too. Liberals strongly favored universal coverage (90 percent did

[A] Very important, but wrong. When Congress enacted the Medicare drug benefit, it provided no way to pay for it.

so), whereas conservatives barely favored it (just 52 percent). Moderates (79 percent) and nonpoliticals (87 percent) fell in between, but much closer to the liberals ($p = 0.000$).

**[a] Who Believes What? And Why?**

In more complicated multiple-regression analyses not reported here, Alan Krueger and I examined how people's opinions on policy issues depended on their self-interest, ideology, knowledge, education, and other demographic controls, once we controlled for other influences statistically.[B] Most of the results were consistent with what I have said already. The main finding was that political ideology was, in most cases, a more important explanatory variable than self-interest, knowledge, or education.

**[a]Conclusion**

Taken as a whole, the survey results hold little good news for those of us engaged in economic education or economic policy—or for economic theorists who use *homo economicus* as the backbone of their models of political economy.

On the positive side, a large majority of a representative national sample of Americans does express a strong desire to be well informed about major economic policy issues. And their factual knowledge is, on average, reasonably good. From where does their information come? The short answer is television, followed at a (long) distance by local (rather than national) newspapers. Unfortunately, as a source of information, television does far better on quantity than on quality. For example, it ranks eighth among the eleven possible sources of information in its contribution to the constructed measure of economic knowledge, although I recognize that one can question the direction of causality here. Perhaps more disconcerting, economic knowledge is barely higher in those people who use more sources of information, use information more intensively, or express a stronger desire to be informed than do others. On the other hand, people with more education and more income are more knowledgeable.

The broad finding that—with some exceptions—ideology seems to play a stronger role in shaping opinion on economic policy issues than either self-interest or knowledge is not terribly different from the conclusion reached by Victor Fuchs, Krueger, and James Poterba in their survey of professional economists:[35] left-right ideology seemed to shape opinion more than parameter estimates did. The contrast with *homo economicus*—who is well informed, nonideological, and extremely self-interested—could hardly be more stark. Instead, the findings seem more consistent with an idea expressed in the political science literature, namely, that people often use ideology as a short-cut heuristic for deciding what position to take, when properly informing oneself is difficult.[36]

But why? In closing, I offer two speculative explanations for this basic finding: confusion and generosity of spirit. Both explanations start from the premise that people typically develop conventional ("ideological") beliefs about how the world works and about what is good for them and for the commonweal. Thereafter the two explanations diverge. The confusion explanation emphasizes how misperceptions of their own self-interest can lead people to act (or, in the case of our respondents, to speak) against their best interests.[37] The generosity explanation emphasizes that, at least when it comes to national economic policy, people are often more interested in what they perceive to be the common good than they are in their own narrow self-interest.[38] In both cases there is at least room for hope that greater knowledge will improve decisionmaking, even though it appears from the survey that efforts in this dimension have shown less than impressive results to date.

[B] See Blinder and Kruger (2004).

**Alan Blinder** is the Gordon S. Rentschler Memorial Professor of Economics; Co-Director of the Center for Economic Policy Studies at Princeton University. A partner in Promontory Financial Group, Vice Chairman of the Promontory Interfinancial Network, and Vice Chairman of the G7 Group, Dr. Blinder has authored or co-authored 17 books, including the textbook *Economics: Principles and Policy* (with William J. Baumol). He is a member of the Bretton Woods Committee, the Bellagio Group, and the Council on Foreign Relations, and serves on the academic advisory panels of the Federal Reserve Bank of New York, the FDIC Center for Financial Research, and the Hamilton Project. From June 1994 until January 1996 he was Vice Chairman of the Board of Governors of the Federal Reserve System. He is a Fellow of the American Academy of Arts and Sciences.

## Bibliography

[1] Among the many references that could be cited, see Page and Shapiro (1983) and Monroe (1979).
[2] See, for example, Kahneman (1986).
[3] Our findings are consistent with Citrin and Green's (1990, pp. 16-17) survey of the political science literature, which concludes, "Taken as a group, the studies summarized above appear devastating for the claim that self-interest, defined narrowly as the pursuit of immediate material benefits, is the central motive underlying American public opinion.… When self-interest effects did appear, they generally were weaker than the influence of alternative sources of opinions such as values, feelings of group solidarity or ideology."
[4] See Zaller (1992) for an alternative, although related, framework for how individuals acquire and transform information into responses to public opinion questions. Unlike ours, Zaller's model does not start by assuming rationality.
[5] The interviews began on March 28 and ended on June 3. In the case of "no answers," the survey protocols called for up to eight callbacks. It has been suggested to us that mentioning Princeton University might have affected the response rates. But the sample did not appear exceptional in terms of education, age, or other objective attributes.
[6] See, for example, Keeter and others (2000).
[7] Without this weighting, women, senior citizens, the college educated, and non-Hispanic whites would all have been overrepresented. The weights for each observation are derived from an iterative procedure that balances the five variables. Thus we do not match the CPS counts exactly.
[8] The interviewers' script began, "Hi. My name is _____, and I'm calling from Princeton University to conduct a fifteen-minute survey about economics and access to economic information." Given this preface, perhaps respondents believed they *should* express a desire to be informed. On the other hand, the question about desire to be informed came after a series of daunting questions on policy issues, which may have deflated some respondents' beliefs about how well informed they actually were.
[9] See the Federal Election Commission data at www.fec.gov/pages/2000turnout/reg&to00.htm. If our sample is representative, and voters accurately reported that they voted, our finding implies that 34.7 percent ($0.17/0.49 \times 100$) of nonvoters reported voting. This figure is a bit higher than found in surveys for earlier elections, but very close to the overreporting of voting found for the 2000 election. Silver, Anderson, and Abramson (1986) find that 27.4 percent of nonvoters reported voting in 1964, 31.4 percent in 1976, and 27.4 percent in 1980. The self-reported voting rate in the 2000 election based on the National Election Survey, which includes citizens only, exceeded the actual voting rate of citizens by 17 percentage points (McDonald, 2003), the same as in our data. The voting rate of citizens in 2000 was 55 percent, which implies that 39 percent of citizens who did not vote reported that they had voted, slightly higher than the rate for all respondents (citizens and noncitizens) in our sample. Note also that some respondents would not have been old enough to vote in 2000. When those under 21 are omitted from the sample, the share claiming to have voted rises to 72 percent.
[10] Since the mean and median ages in our sample are both approximately forty-five, we divided our sample into "younger" and "older" subsamples at that age.

[11] For these $\chi^2$ tests, we divided the sample at the $40,000 mark, which is close to the median; 45 percent of the sample reported a household income of $40,000 or less. The next income bracket was $40,000 to $60,000.

[12] The six national publications were the *New York Times,* the *Washington Post,* the *Wall Street Journal, USA Today,* the *Financial Times*, and *Investors' Business Daily*. Examples of "other big-city newspapers" were the *Boston Globe* and the *San Francisco Chronicle*. Coding into "national," "big city," and "local" newspapers was done by the survey-takers, not by the respondents.

[13] About one-sixth of the people who said they learn about the economy from economists "regularly" or "occasionally" specifically mentioned Alan Greenspan as the economist. We did not prompt that response.

[14] Where the rankings of the distributions shown in table 2 were ambiguous, we broke the tie by assigning point scores as follows: regularly or often = 3, occasionally = 2, rarely = 1.

[15] These numbers need not, and do not, mirror published circulation figures. For example, almost as many people report learning about the economy from the *New York Times* (8.2 percent) as from the *Wall Street Journal* (8.7 percent), even though the *Journal*'s (weekday) circulation is almost double that of the *Times*.

[16] See Hamilton (2004) for an analysis of trends in "media bias" and the impact of competition on partisan news reporting.

[17] There were two minor exceptions. Whites had slightly higher average values of $Q_L$ than nonwhites, and the employed had lower $Q_L$ than the nonemployed.

[18] Two prominent examples are the corporate income tax and the employer's share of the payroll tax. This example illustrates a general and important point about public opinion polling. Economists often want to see survey questions that make sense *to them*. Such questions may involve complicated concepts and numerous provisos that leave ordinary people confused. Good poll questions need to be understandable by ordinary people with limited attention spans and no training in economics.

[19] See Gale and Rohaly (2003). The 53 percent figure includes just the employee component of the payroll tax. If both the employer and the employee shares are considered, 83 percent of wage earners pay more in payroll taxes than in income taxes.

[20] The remaining 13 percent said they did not know or thought they were about the same. Bartels (2003, p. 19) reports results from an NPR/Kaiser Foundation/Kennedy School survey that found that people are even more inaccurate in assessing whether *they themselves* pay more in income or in payroll taxes. To us, this suggests that many people simply do not distinguish between income and payroll taxes.

[21] The May 9 CBO estimate was actually "over $300 billion."

[22] The rate of nonresponse was also quite high on this question, at about 48 percent, suggesting that there was even less knowledge than the reported estimates indicate.

[23] When we compute errors below, we use the state minimum wage as the true value if a respondent mentioned that he or she was reporting the state minimum wage.

[24] The 54-46 split excludes the 11 percent of respondents who did not answer the question.

[25] About half the sample was not asked for their estimate of the budget deficit. For them we summed the (weighted) ranks and divided by five instead.

[26] As another point of comparison, Hansen, Heckman, and Mullen (forthcoming) find that scores on the Armed Forces Qualifying Test rise by 0.17 standard deviation for each year of schooling. The difference in years of schooling between college graduates and nongraduates is 4.5, so this amounts to a $0.77\sigma$ gap, or twice what we find for our test.

[27] This result is consistent with Palfrey and Poole's (1987) results for political knowledge.

[28] Four more years of education raises the test score by 4 or 5 points, or about one-quarter of a standard deviation.

[29] See Mullainathan and Shleifer (2003).

[30] It has been suggested to us that, even though the rich pay higher average tax rates, the utility loss from paying taxes may be proportionately greater for the poor.

[31] By contrast, an NBC/*Wall Street Journal* poll of 1,003 adults conducted in January 1995 found that 40 percent of conservatives identified the federal budget deficit as the most important economic issue facing the country, while only 23 percent of liberals did so. By a wide margin, the deficit was the most commonly cited issue by conservatives, but not by liberals (38 percent of whom cited unemployment) See

Roper Center, Public Opinion Online Archive, University of Connecticut, Question ID USNBCWSJ.012095, R09A.

[32] The argument can be found in most beginning economics texts. For contrary evidence, see Card and Krueger (1995). A survey by Fuller and Geide-Stevenson (2003) in fall 2000 found that 46 percent of members of the American Economic Association "mainly agreed" that "Minimum wages increase unemployment among young and unskilled workers." Twenty-seven percent disagreed, and 28 percent agreed with provisos.

[33] The rest did not know or gave no opinion. Of course, as was pointed out at the Brookings Panel meeting, we did not specify a *particular* way of paying for the drug benefit.

[34] However, the ordering of the questions mattered significantly in this case. When the policy question was asked *before* the inquiry about the number of uninsured, our respondents favored universal health insurance by a margin of 74 percent to 22 percent. When the ordering of the questions was reversed, the margin fell to 67 percent to 25 percent. Getting people to think about the magnitude of the problem did suppress support a bit.

[35] Fuchs, Krueger, and Poterba (1998).

[36] See, for example, Lupia (1994).

[37] Bartels (2003) and Slemrod (2003) fall squarely within this camp. Romer (2003) provides a start at modeling political outcomes under the assumption that voters have systematic misperceptions.

[38] See Caplan (2002) and the essays in Mansbridge (1990) for further discussion of how group interests affect public opinion and voting.