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Trust during an Energy Crisis

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Abstract: “Trust during an Energy Crisis”

In every energy crisis the U.S. has faced—beginning with the first crisis in 1973—we have seen a common sequence of events, which has been labelled the “energy crisis cycle” (Smith 2002). The steps in the cycle are:

- (1) When the demand for energy exceeded the supply, energy prices rose sharply—starting the energy crisis cycle.
- (2) Along with increases in energy prices came large increases in the profits of energy producers.
- (3) Politicians and interest group advocates criticized the energy industry for their greed in profiting at other people’s misfortune, and charged them with manipulating prices to increase profits. Some critics even claimed that the energy industry fabricated the energy crisis to increase profits.
- (4) Most of the public believed the industry critics. They did not accept claims that the energy crisis was real, and so they felt justified in demanding that the government fix the problem without any cost to the public.
- (5) In response to public demands, some politicians sought to protect the public from high prices with price controls or subsidies—steps that worsened the crisis because they encouraged energy consumption in a time of shortages.

In our paper, we investigate the causes of distrust in the oil industry during the 2000-2002 period of high gasoline prices. To do so, we use a public opinion survey of Californians, which included a battery of questions about trust in the oil industry, in government officials regulating the oil industry, and in environmental groups, as well as a specific question asking whether respondents believed that the oil industry was manipulating prices to increase profits. We model trust as a function of basic values (party identification, ideology, egalitarianism, individualism,) and political awareness, using the approach mapped out by John Zaller in *The Nature and Origins of Mass Opinion*. Although we cannot investigate the dynamic way in which distrust builds over time as energy prices rise, we can explore the sorts of people who accept competing explanations for the energy crisis.

Trust during an Energy Crisis¹

"Gas Dealers Say They Aren't Guzzling Profits
Service Station Owners Deny making more money because of price surges, but many
motorists aren't buying it."²

"Davis Orders State Agencies to Probe Soaring Cost of Gas"³

Headlines such as these regularly appear when energy crises strike and gasoline prices rise. The public reacts with annoyance and suspicion when gasoline prices rise, they call on politicians to do something, and politicians respond. Despite the fact that this pattern has repeated itself many times, there have been no systematic studies of trust during energy crises. In this paper, we begin to explore public trust during an energy crisis.

We should begin by pointing out that public trust in the energy industry, its government regulators, and environmental group critics seems to provide a case in which the public's trust--or, rather, distrust--affects public policy. The historical record (discussed below) shows the public responding to events with growing distrust, and then demanding investigations and policy changes, which politicians deliver. In this sequence, the public's trust is an important endogenous variable. This differs from most research on trust, which treats trust as a dependent variable (e.g., the studies in Hibbing and Theiss-Morse 2001). There are, of course, some studies in which trust is used as an independent variable (e.g., Bostrom 1999), but not very many. We hope to encourage such studies.

We begin by setting the stage with a brief historical background; we then report the results of our analysis of a survey of Californians conducted in 2002. We seek to explain trust in the oil industry, its government regulators, and environmental groups. We also attempt to explain why some people believed that high gasoline prices during the energy crisis were caused by real oil shortages, while others believed that the high prices were caused by oil industry manipulation. To explain these attitudes and beliefs, we use demographic variables, measures of basic values (party identification, ideology, individualism, and egalitarianism), and measures of general trust in government. We find that a combination of basic values and trust in government help explain people's trust during the energy crisis.

¹ This research is partly funded by a grant from the Minerals Management Service, U.S. Department of the Interior, under MMS Agreement No. 1435-01-00-CA-31063, and by a grant from the University of California Energy Institute. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either express or implied, of the U.S. Government.

² Elizabeth Douglass, "Gas Dealers Say They Aren't Guzzling Profits." *Los Angeles Times* 11 March 2003, c1.

³ Elizabeth Douglass, "Davis Orders State Agencies to Probe Soaring Cost of Gas." *Los Angeles Times* 14 March 2003, c2

The History of U.S. Energy Crises⁴

Since 1973, the U.S. has faced a series of energy crises related to the price of oil (see figure 1). The first crisis struck in 1973 when Egypt and Syria launched a surprise attack on Israel on October 6, Yom Kippur. For the first few days, the attack seemed to be succeeding. To prevent Israel from collapsing, the United States responded with an airlift of supplies. The Arab members of OPEC, the Organization of Petroleum Exporting Countries, reacted to the U.S. intervention by voting to increase the price of oil by seventy percent, and a few weeks later by voting to begin a boycott of oil going to the U.S. and other Israeli allies. The price of gasoline jumped from three dollars a barrel to \$11.65 in three months (Smith 2002, 24).

On the American home front, gasoline was both expensive and in short supply. The sight of lines at gasoline stations became commonplace. In some cities, police had to be stationed at gasoline stations to prevent violence. In the midst of this crisis, oil company profits shot up 52 percent. Politicians and consumer advocates suggested that the oil companies might be manipulating prices to make money. Congress held hearings to investigate the charges. For its part, the public largely believed the charges. A 1974 Roper Poll asked, "Some people say there is a real shortage of gasoline and fuel oil because demand has outrun supply. Others say there really isn't a shortage of gasoline and fuel oil and the big companies are holding it back for their own advantage. What do you think--that there is or is not a real shortage of gasoline and oil?" 73 percent said there was no real shortage (Richman 1979, 577). Other surveys told the same story: the public believed that the oil industry was conspiring to fix prices.

In 1979, the second energy crisis began. The seeds of the crisis were in the Iranian Revolution. Throughout 1978, the Ayatollah Khomeini had been calling for increasingly violent demonstrations against the Shah of Iran. In December, those demonstrations peaked in violence that shut down the Iranian oil industry. The following month, the Shah fled Iran, leaving the country to Khomeini and his followers. Under the new regime, oil exports resumed, but they were inconsistent and at a far lower volume than before. In the fall of 1980, Iraqi leader Saddam Hussein invaded Iran, and the situation deteriorated sharply. Iran stopped exporting oil, and Iraq's exports were cut by seventy percent. Again, oil shortages developed, lines at gasoline stations appeared, oil industry profits soared (see figure 2),⁵ and politicians attacked the oil industry. In March 1979, a CBS/New York Times Poll asked, "Do you think the shortage of oil we hear about is real or are we just being told there are shortages so oil companies can charge higher prices?" Sixty-nine percent responded that they were just being told that shortages existed and another 11 percent said they were not sure. Only 20 percent believed the shortages were real (Richman 1979, 577-79).

The third energy crisis began with the Iraqi invasion of Kuwait in August 1990. The immediate effect of the invasion was to cut off the flow of Kuwait's oil to world markets, and to send oil prices surging upward. Because Saudi Arabia, Venezuela, and

⁴ This section largely follows Smith (2002, chap 2).

⁵ Figure 2 begins with 1977 data because the Department of Energy does not report oil company profits prior to 1977.

other OPEC nations increased production, oil prices moderated quickly and oil shortages largely disappeared by December. In January 1991, the United States military crushed the Iraqi army in the Persian Gulf War, but although Kuwait was liberated, the fleeing Iraqis set fire to over 730 oil wells--the last of which was not put out for nine months. During these months, oil company profits sharply increased, the industry came under political attack, and pollsters found once again that a large portion of the public believed that the oil companies were conspiring to fix prices.

The next energy crisis began in the early months of 2000, with an OPEC decision to cut production and drive up prices. The OPEC move was timed to take advantage of the booming U.S. economy, and the fact that Americans were moving away from energy conservation toward more high-consumption lifestyles. Symbolizing this move was the rising popularity of SUVs. Nearly half of all new cars sold in 2000 were low gas-mileage SUVs, light trucks, and minivans. The OPEC production squeeze worked, driving prices from twenty-four dollars a barrel in January to thirty-four dollars a barrel by March. Along with soaring gas prices came greater profits for oil companies and charges that the oil industry was manipulating prices. Newspaper headlines such as “Chevron Earnings Soar on Higher Oil, Gas Prices” and “U.S. Questions Refiners on Gas Prices” drove home the point to the public (Moritsugu, 2000; Santa Barbara News-Press 2000).

Coming on the heels of the 2000, the September 11 attacks launched America into the War on Terrorism, and eventually to the invasion of Iraq. As a result, the oil supply was threatened, prices rose, oil industry profits rose, industry critics cried foul, and the public once again had reason to suspect a conspiracy.

In every energy crisis the U.S. has faced—beginning with the first crisis in 1973—we have seen a common sequence of events, which has been labeled the “energy crisis cycle” (Smith 2002). The steps in the cycle are:

- (6) When the demand for energy exceeds the supply, energy prices rise sharply—starting the energy crisis cycle.
- (7) Along with increases in energy prices come large increases in the profits of energy producers.
- (8) Politicians and interest group advocates criticize the energy industry for their greed in profiting at other people’s misfortune, and charge them with manipulating prices to increase profits. Some critics even claim that the energy industry is fabricating the crisis to increase profits.
- (9) Most of the public believes the industry critics. They do not accept claims that the energy crisis is real, and so they feel justified in demanding that the government fix the problem without any cost to the public.
- (10) In response to public demands, some politicians seek to protect the public from high prices with price controls or subsidies—steps that worsened the crisis because they encourage energy consumption in a time of shortages.

- (11) Spokespeople for business interests join the debate with demands to relax environmental regulations in order to produce more energy. For them, the energy crisis is an opportunity to weaken environmental protections that reduce their profits.

This cycle is important not just because it is an interesting pattern in public opinion, but because policy changes have resulted from it. From energy price subsidies to oil industry regulations, public opinion about the energy industry has consequences. For that reason, we believe that opinion merits careful investigation.

Theory

The central question we investigate here is, what explains Americans' trust in the oil industry, its regulators, and its environmental critics during the recent energy crisis. To explain trust, we begin by considering some demographic variables. Past studies have found that age and education are commonly associated with environmental attitudes (Dunlap and Scarce 1992; Jones and Dunlap 1992; Van Liere and Dunlap 1980). The young and the well-educated are more likely to take pro-environmental stands than the old and poorly educated. We expect that environmental attitudes will translate into trust. That is, people who tend toward environmentalist views will trust environmental groups, and people who tend toward pro-development views will trust oil companies. (Their views on government regulators are not easily predicted.) We also consider income to be a possible cause of trust because the big price boost in the cost of gasoline during the energy crisis should have made it more difficult for lower-income individuals to afford gas. As a result, we expect lower-incomes to be associated with support for oil drilling and trust in oil companies. Likewise, we also consider miles commuted to work as important to consider for this study. Our logic is that those who travel a greater distance in commuting to and from work will have experienced a noticeably higher gas bill during the energy crisis. Consequently, those who travel a greater distance to work are more likely to support oil drilling and also more likely to view the oil industry negatively.

We also expect that party identification and self-identified ideology are likely causes of trust. Numerous studies show that Democrats and liberals in the general public are more likely than Republicans and conservatives to support environmental causes (Smith 2002). Moreover, many Democratic and Republican leaders have taken clear stands on opposite sides of oil development questions in recent years. Studies of roll call voting in Congress have shown that Democratic politicians lean toward environmental positions, while Republicans lean against them (Kamieniecki 1995). In addition, during the 2000 presidential election, Governor Bush argued in favor of oil development (most prominently in Alaska), while Vice President Gore opposed it (Bruni 2000; Mitchell 2000). Again, we expect these patterns to explain trust in environmental groups and oil companies as well.

An additional set of independent variables is suggested by scholars who have argued that egalitarianism and individualism are core American values, which help explain people's opinions on a wide range of issues (Feldman 1988; Feldman and Zaller 1992). In related work, Douglas and Wildavsky have claimed that the rise of

egalitarianism and, to a lesser extent, the decline of individualism, explain the spread of environmental opinions in recent decades (Douglas and Wildavsky 1982; Douglas 1992; Wildavsky and Dake 1990). Their argument is that egalitarians are especially concerned with potential threats from what they see as inequalitarian institutions—big government and large corporations. According to Douglas and Wildavsky, egalitarians use environmental laws and regulations as vehicles to allow them to fight these enemies. Individualists, in contrast, defend large corporations and the profit motive as an essential aspect of free markets.

Although egalitarianism and individualism have been treated by previous studies as independent variables, we have found evidence in another study that they are actually opposite ends of the same underlying dimension (Michaud et al., n.d.). While we do not present data in this paper to support that claim, we nevertheless treat egalitarianism and individualism as a single variable which can be used to explain both attitudes on environmental issues and trust in groups involved in environmental disputes.

We also believe that Zaller's "receive-accept-sample" (RAS) model is useful to us insofar as it explains how people's basic values, or predispositions, along with their political awareness interact and contribute to subsequent political attitudes. Zaller's RAS model is based on four propositions, which are: 1) The greater a person's level of cognitive engagement with an issue, the more likely he or she is to be exposed to and comprehend (receive) political messages concerning the issue; 2) People tend to resist arguments that are inconsistent with their political predispositions, but they do so only to the extent that they possess the contextual information necessary to perceive a relationship between the message and their predispositions; 3) The more recently a consideration has been called to mind or thought about, the less time it takes to retrieve that consideration or related considerations from memory and bring them to the top of their head for use; and 4) Individuals answer survey questions by averaging across the considerations that are immediately salient or accessible to them.

An individual who knows more about politics will be more likely to recognize whether or not the content of a particular message is consistent with his/her basic values. As a result of this consistency between the message content and the individual's basic values, the individual will be more likely to accept consistent messages and reject inconsistent messages. We expect that the RAS model will help explain trust in environmental groups and the oil industry as well as attitudes toward environmental issues.

Finally, we use general trust in government to explain specific attitudes of trust in government regulators and in oil companies. We assume that general attitudes of trust in government are caused by exogenous factors, not by people's assessments of the trustworthiness of the Interior Department staff who regulate offshore oil drilling. It follows that we can use general trust to explain trust in specific types of government officials.

Data and Measures

The data for this paper come from a representative public opinion survey of California adults conducted in July and October, 2002 by the U.C. Santa Barbara Survey Research Center. The sample was a representative cross-section of 1,475 adult residents of the state. Respondents were selected by random digit dialing. All analyses reported in this paper are weighted with age-sex weights. The questions and coding details used in this analysis are reported in the appendix.

For our dependent variables, we begin with support for offshore oil drilling along the California coast and oil drilling in the Arctic National Wildlife Refuge (ANWR). We are not directly addressing trust here, but we think that support for oil drilling offers a good baseline to help us interpret data on trust in oil companies. As figure 3 shows, the California public opposes more oil drilling both off the California shore and in ANWR. On the left half of the figure, we see that 66 percent of the respondents oppose more offshore drilling in California; on the right half of the figure, we see that a virtually identical 65 percent oppose drilling in ANWR.⁶

Feeling thermometers to measure respondents' views of the oil industry, environmental groups, and government officials who regulate the oil industry make up our second set of dependent variables. Figure 4 presents a collapsed version of the scales (0-9 are scored '1', 10-19 are scored '2', etc.). The midpoint, 5, represents only those who responded 50. The higher categories again represent ranges (51-59 are scored '6', 60-69 are scored '7', etc.). Figure 4 shows that the oil industry and its government regulators are regarded quite similarly, and not very well liked. The oil company mean rating is 42 degrees, and the government regulators' mean rating is 44 degrees. 48 percent of the oil company evaluations and 45 percent of the government regulators' evaluations are below 50. In contrast, environmental groups are rated more highly, with a mean rating of 62, only 22 percent of their ratings under 50 percent, and 62 percent of their ratings above 50.

The next variables directly measure trust by asking about confidence in Department of Interior officials in Washington, and about local Department of Interior officials in California to ensure that oil drilling along the California coast is safe. Those data are presented in figure 5, which shows that local Interior Department staff are trusted far more than Washington staff. Fifty-three percent of the respondents said they had a "great deal" or "moderate amount" of confidence in local staff, but only 34 percent said they had a similar amount of confidence in the Interior Department's Washington staff.

We recognize, of course, that relatively few Californians will actually have any specific knowledge about Department of Interior staff based in California. However, we believe that answers to these questions tap more than nonattitudes. The extent to which people trust the government will surely have some influence. Trusting people should trust Interior Department staff, even though they know little about what those staff do. Similarly, distrusting people presumably will react with skepticism when asked about

⁶ The ANWR question was written to match the wording of a question asked in a national survey, which is why it has only two response categories.

government staff. In addition, we expect that people's responses to these questions will tap into their attitudes about local control versus Washington control.

Finally we come to our conspiracy question. Respondents were asked, "Do you think the high price of gasoline last year was caused by shortages of oil, or were we just being told there were shortages of oil so oil companies could charge higher prices?" By an overwhelming 85-15 percent margin, respondents said that they believed the oil companies were manipulating gasoline prices.

We examined three possible core values as predispositions—party identification, self-identified ideology, and a cultural values index measuring individualism and egalitarianism. Six of the questions making up our cultural values index were used by Ellis and Thompson (1997) in their study of cultural theory and environmental attitudes in the Pacific Northwest (items 1-3 and 6-8 in the appendix). To this set of questions we added three others (items 4, 5, and 9) in hopes of improving the Ellis and Thompson indexes. Respondents were asked whether they strongly agreed, somewhat agreed, somewhat disagreed, or strongly disagreed with each of the statements. These questions were used to construct a simple additive index ranging from 0 to 27 with strong individualists scored high. The reliability (Cronbach's alpha) of the index is 0.74.

For our knowledge scale, we used a five-item additive index recommended by Delli Carpini and Keeter (1996). All our other variables are fairly conventional, such as the trust in government questions from the American National Election Studies. We describe them in the appendix.

Findings

The results of the analysis of the first of the dependent variables, support for offshore oil drilling along the California coast and oil drilling in the ANWR, are displayed in tables 1 and 2. While the categorical nature of the question about oil drilling in ANWR requires that we use a logit model for the second question about support, the equations are the same for each question. The first equation includes demographic variables and commuting distance. The second equation adds party identification, ideology, and the cultural values index. The final equation adds political knowledge and the cultural values-knowledge interaction term specified by Zaller's RAS model.

The first equation for offshore oil drilling along the California coast, shown in table 1, yields typical findings for a model explaining attitudes toward environmental issues. The poorly educated and those who commute long distances are more likely to support additional drilling. In addition, older respondents are more likely than younger respondents to support it (as indicated by the positive coefficients). Income fails to achieve significance. Overall, the model performs poorly, explaining only 2 percent of the variance. The same equation for oil drilling in the ANWR, shown in table 2, yields slightly different findings. When it comes to support for drilling in Alaska, income becomes a positive and significant factor. In addition, age increases in significance.

Commuting distance, however, maintains a positive and significant relationship with attitudes towards oil drilling. Similar to the model of support for offshore oil drilling along the California coast, this model of drilling in the ANWR explains very little variance.

In the second equation in tables 1 and 2, we can see that adding party identification, ideology, and the cultural values index slightly reduces the influence of the demographic variables and commuting distance in both questions of support, with the exceptions of income in the question of offshore oil drilling along the California coast and age in the question of oil drilling in the ANWR. As table 1 illustrates, income achieves a significant influence on support, while the other demographic variables and commuting become insignificant. In table 2, age maintains its high level of significance, but education, age, and commute distance fall to insignificance. However, in both questions, party identification, ideology, and the values index achieve positive and highly significant influences on support for drilling in both California and Alaska. In other words, Republican party identification, conservative ideology, and values of individualism are powerful indicators of support for oil drilling, as our theoretical framework suggests. The addition of these variables significantly increases the explanatory power of model to 25 percent in the model of support for drilling along the California coast and to 26 percent in the model of support for drilling in ANWR.

In the final equation in tables 1 and 2, adding knowledge and the cultural values-knowledge interaction term slightly increases the variance explained by the model. More importantly, however, are the effects of knowledge and its interaction with the cultural values scale. In both questions of support for oil drilling, the cultural values-knowledge interaction term achieves significance while the cultural values index is weakened to the point of insignificance. This confirms our expectations about the expertise-interaction effects, showing that values and knowledge do interact in explaining support for oil drilling. In addition, party identification and ideology maintain their independent and significant effects in both questions, which indicates that each variable is tapping into something different, and that both are important causes of support for oil drilling. While an analysis of support for oil drilling along the California coast does not directly tell us about trust during an energy crisis, it provides us with a useful baseline for comparisons.

The results of the analysis of our second set of dependent variables--feelings towards the oil industry, environmental groups, and government officials who regulate the oil industry--are displayed in table 3. Using the same set of equations as in the model discussed earlier, we generally find that the same variables that cause support for oil drilling off the coast of California and in ANWR also cause trust in the oil industry, its government regulators, and their environmental group critics. The first equation, which includes only demographic variables and commuting distance, explains very little variance in trust in the energy industry, regulators, and critics. When it comes to feelings toward the oil industry, those who are poorly educated and who commute longer distances are more likely to feel warm. Conversely, those who are younger, have lower incomes, more education, and commute shorter distances are more likely to feel warmly toward environmental groups, findings that are consistent with models of support for

environmental issues. Finally, when it comes to the government regulators of the oil industry, only age proves to be significant, with younger people feeling more warmer.

In the second equation in table 3, party identification, ideology, and the cultural values index prove to be significant factors explaining feelings toward the oil industry and environmental groups. Age and commuting continue to help explain feelings toward environmentalists. Respondents who were older and who drive longer distances to work like environmentalists less than younger respondents and those who drive less. Education and income fail to have any effects. In the case of feelings toward government regulators, the only demographic variable with any effect is age. Older respondents feel less warmly toward the government. Finally, we should note that the addition of party identification, ideology, and our cultural values index increases the explanatory power of this model considerably in the cases of trust in the oil industry and in environmental groups, but very little in the case of trust in government regulators.

In the final equations in table 3, adding knowledge and the cultural values-knowledge interaction term produces very little change in any of the models. These variables only prove to be significant when it comes to trust in the oil industry, in which case ideology and the cultural values index become insignificant. In the model of feelings toward environmental groups, the only change that the addition of these variables produces is a slight increase in the significance of education and a slight increase in the variance explained, from 38 percent to 39 percent. Similarly, little change is produced in the model of trust in government regulators, with the exception of an increase in the significance of education, a decrease in the significance of party identification, and a one percent increase in the variance explained. Based on these findings, we can conclude that the values measures—party identification, ideology, and the cultural values index—are powerful predictors of trust in the oil industry and its environmental critics.

The results of the analysis of our third set of dependent variables, confidence in the Department of Interior staff, are displayed in table 4. The first of the two equations used in this model includes demographic variables, commuting distance, and basic values. The second equation adds general measures of trust in government. The results of the first equation, shown in table 4, indicate that age is a significant indicator of confidence in both local and Washington, DC staff. In both cases those who are younger are more likely to have confidence in the Department of Interior staff. When it comes to local staff, no other variables in this equation prove to be significant. When it comes to the Washington, DC staff, however, basic values prove to have a significant impact. Republican party identification, conservative ideology, and values of individualism are all influence confidence in the Department of Interior staff. Overall, this model performs poorly, explaining only 8 percent of the variance in the case of confidence in the DC staff and only 2 percent of the variance in the case of confidence in the local staff.

In the second equations in table 4, we can see that the addition of measures of general trust increases the explanatory power of each model, and that the influence of value measures in the model of confidence in the DC staff decreases. The trust variables

prove to have a significant influence in each case, with the exception of the attitude that government is run by big interests. In other words, those who trust government and who feel that the people that are running the government are smart are more likely to have confidence in both local and Washington regulators. In addition, those who feel that the government is not run by big interests are more likely to have confidence in the DC staff.

A key finding here is that the political variables—party identification, ideology, and cultural values—drop to statistical insignificance (although party identification achieves what some consider “borderline” significance at $p < .10$). So here we see that general attitudes of trust in government matter. Trust in government regulators is not a mere reflection of the respondent’s political views.

The results of the analysis of our final dependent variable, the belief that energy crises are fabricated by the oil industry, are shown in table 5. In this case, we present only a single equation to simplify the story. The results show that being younger and better educated makes people more likely to believe that the high energy prices were the product of a conspiracy. In addition, those who express trust for the government by saying that government is run for the benefit of all are more likely to *distrust* the oil companies. Finally, the expertise interaction has an effect. Those who lean toward individualism and are knowledgeable are more likely than others to believe that the oil companies faked the oil shortages and energy crisis.

Concluding Comments

In all of our models, the bulk of the explanatory power is provided by the value measures--party identification, ideology, and our cultural values index--and by general measures of trust in government. The demographic variables--including a measure of direct self-interest, how far one drives to work--explained little. The expertise-interaction effects predicted by Zaller's RAS model added some explanatory power to our models, but not a great deal.

The same variables that cause trust in the energy industry and their environmental group critics also cause support for oil drilling off the coast of California and in Alaska's Arctic National Wildlife Refuge. This suggests that these factors are intertwined in some fashion, although we do not attempt to separate the effects here. That is, support for oil drilling and trust in various groups involved in oil drilling controversies may cause one another, or may be jointly determined by exogenous variables such as basic values, the price of gasoline, and other conditions or events.

As a final comment, we would like to return to a point we made in the introduction. Most studies of trust have sought to explain changing levels of trust in government. We see trust as an endogenous variable that may play an important role in explaining politicians' decisions in a variety of policy areas. That is, we agree with Citrin and Luks (2001, 26) who write, "The political relevance of declining trust in government may lie in how a suspicious climate of opinion shapes the decisions of politicians rather than the actions of ordinary citizens."

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Appendix. Variable Coding

Age: Coded in decades (e.g., 26 year olds are coded 2.6)

Commute: Distance to work for those who drive - (1) 1-5 miles; (2) 6-10 miles; (3) 11-15 miles; (4) 16-20 miles; (5) 21-25 miles; (6) 26 miles or more

Education: (1) Less than high school; (2) High school graduate or trade school; (3) Some college; (4) College graduate; (5) Post-graduate education

Income: (1) Under \$20,000; (2) \$20-40,000; (3) \$40-60,000; (4) \$60-80,000; (5) \$80,000 or more

Trust in Government: Trusting answers scored high.

"How much of the time do you think you can trust the government in Washington to do what is right--just about all of the time, most of the time, or only some of the time?" (0) Only some of the time; (1) Most of the time; (2) Just about all of the time

"Would you say that the government is pretty much run by a few big interests looking out for themselves or that it is run for the benefit of all people?" (0) For the big interests; (1) For the benefit of all

"Do you feel that almost all the people running the government are smart people who usually know what they are doing or do you think that quite a few don't seem to know what they are doing?" (0) Don't seem to know; (1) Smart people

Ideology: (0) Strong liberal; (1) Weak liberal; (2) Moderate; (3) Weak conservative; (4) Strong conservative

Party identification: (0) Strong Democrat; (1) Weak Democrat; (2) Democratic-leaning independent; (3) Independent; (4) Republican-leaning independent; (5) Weak Republican; (6) Strong Republican

Cultural Values Index: The index is built from the nine questions. Respondents were asked to agree strongly, agree slightly, disagree slightly or disagree strongly with each statement below. Scores were assigned to each answer, and the answers were summed into a simple additive scale. For the individualism questions the scores ranged from 4= strongly agree to 1 = strongly disagree; for the egalitarianism questions, the scores were reversed. The first five questions tap individualism; the next four questions tap egalitarianism. The scale is designed so that individualists score high and egalitarians score low.

Individualism Questions

1. Competitive markets are almost always the best way to supply people with the things they need. [agree]
2. Society would be better off if there were much less government regulation of business. [agree]
3. People who are successful in business have a right to enjoy their wealth as they see fit. [agree]
4. The country would be better off if we worried less about how equal people are. [agree]
5. Competition, whether in school, work, or business leads to better performance and desire for excellence. [agree]

Egalitarianism Questions

6. The world would be a more peaceful place if its wealth were divided more equally among nations. [disagree]
7. We need to dramatically reduce inequalities between the rich and the poor, whites and people of color, and men and women. [disagree]
8. What our country needs is a fairness revolution to make the distribution of goods more equal. [disagree]
9. Government regulation of business is necessary to keep industry from becoming too powerful. [disagree]

Knowledge index: The number of correct answers to the following questions suggested by Delli Carpini and Keeter:

1. Do you happen to know what job or political office is now held by Dick Cheney?
2. Whose responsibility is it to determine if a law is constitutional or not . . . is it the President, the Congress, or the Supreme Court?
3. How much of a majority is required for the U.S. Senate and House to override a presidential veto?
4. Do you happen to know which party has the most members in the House of Representatives right now?
5. Would you say that one of the parties is more conservative than the other at the national level? Which party is more conservative?

Attitude toward Oil Drilling: Support for drilling scored high:

California:

"I would like to start by reading you a series of statements about the energy situation. I'd like you to tell me whether you agree strongly, agree slightly, disagree slightly, or disagree strongly with each of the statements as I read it.

Here's the first one ... Oil companies should be allowed to drill more oil and gas wells in state tidelands along the California seacoast." (1) Disagree strongly; (2) Disagree; (3) Agree; (4) Strongly agree.

ANWR:

"Do you think the federal government should or should not allow oil drilling in the Arctic National Wildlife Refuge in Alaska?" (1) Not allow drilling; (2) Allow drilling

Feeling Thermometers: Scores ranged from 0 to 100. The questions were:

I'd like to get your feelings toward different groups which are in the news these days. I'll read the name of a group and I'd like you to rate that group using something we call the "feeling thermometer". The feeling thermometer can rate groups of people from 0 to 100 degrees. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the group I mentioned. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward that group. Rating the group at the midpoint, the 50 degree mark, means you don't feel particularly warm or cold toward that group. If we come to a group whose name you don't recognize, you don't need to rate them. Just tell me and we'll move on to the next one. . . .

The oil industry

Environmental groups

Government officials who regulate the oil industry

Trust in Government Regulators

"How much confidence do you have in Department of Interior officials in Washington to regulate oil drilling along the coast of California and ensure that it is safe--a great deal, a moderate amount, only some, or almost none at all?"

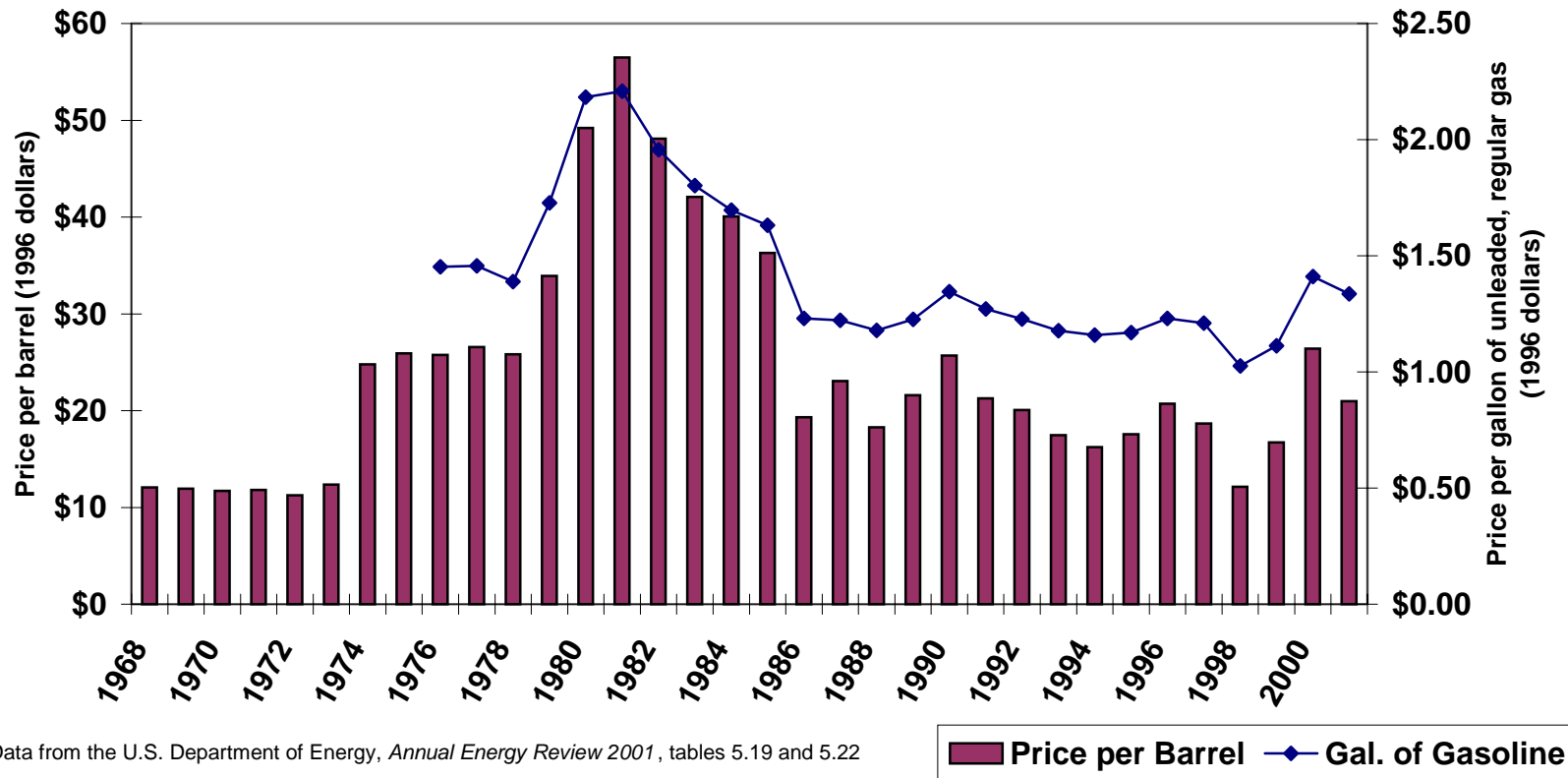
(1) Almost none; (2) Only some; (3) Moderate amount; (4) Great deal.

"How much confidence do you have in the local Department of Interior staff, based here in California, to regulate oil drilling along the coast of California and ensure that it is safe--a great deal, a moderate amount, only some, or almost none at all?" (1) Almost none; (2) Only some; (3) Moderate amount; (4) Great deal.

Oil Industry Price Fixing:

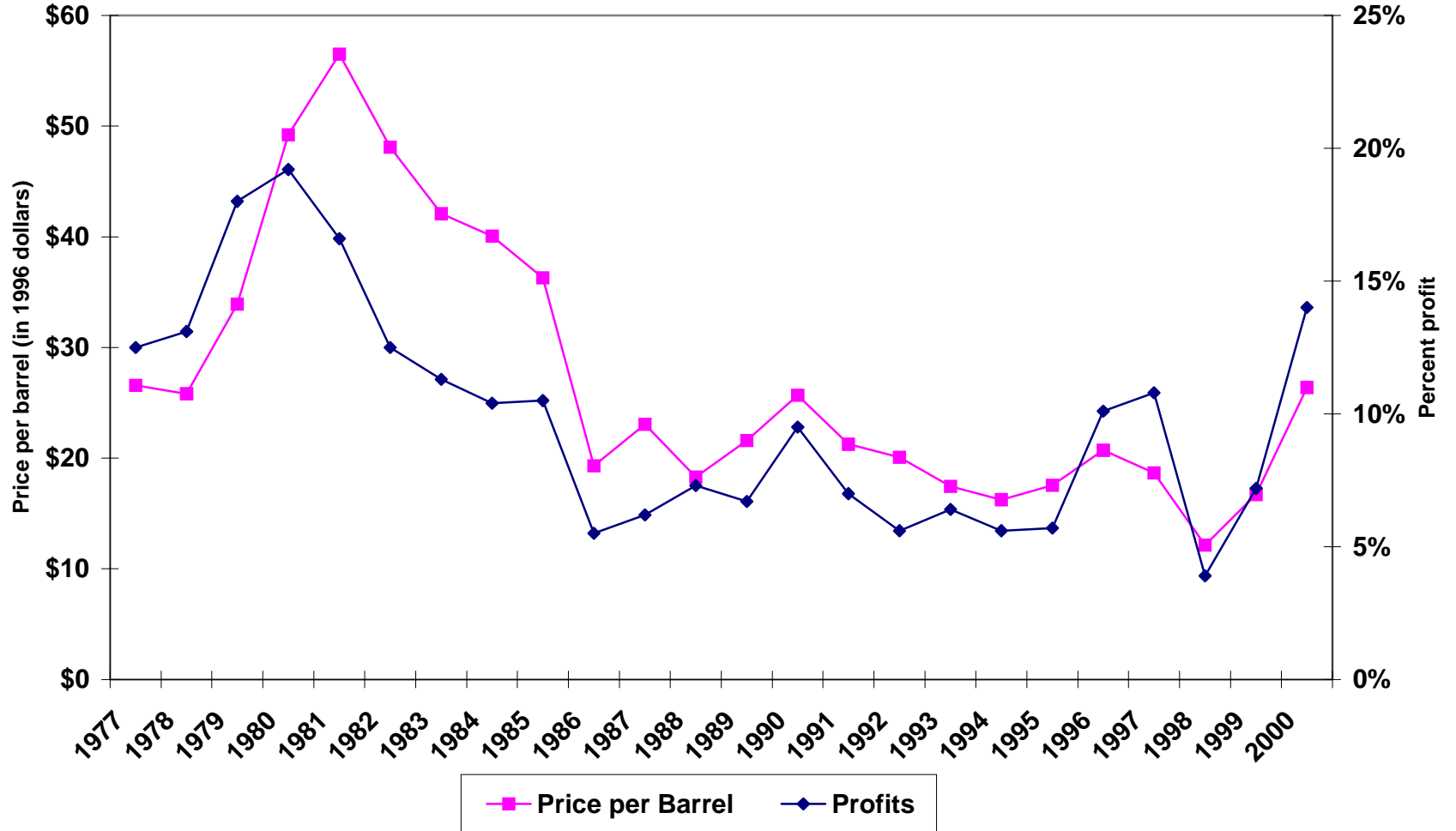
"Do you think the high price of gasoline last year was caused by shortages of oil, or were we just being told there were shortages so oil companies could charge higher prices?" (1) Shortages; (2) So oil companies could charge higher prices.

Figure 1. Prices of a Barrel of Oil and a Gallon of Unleaded Gasoline



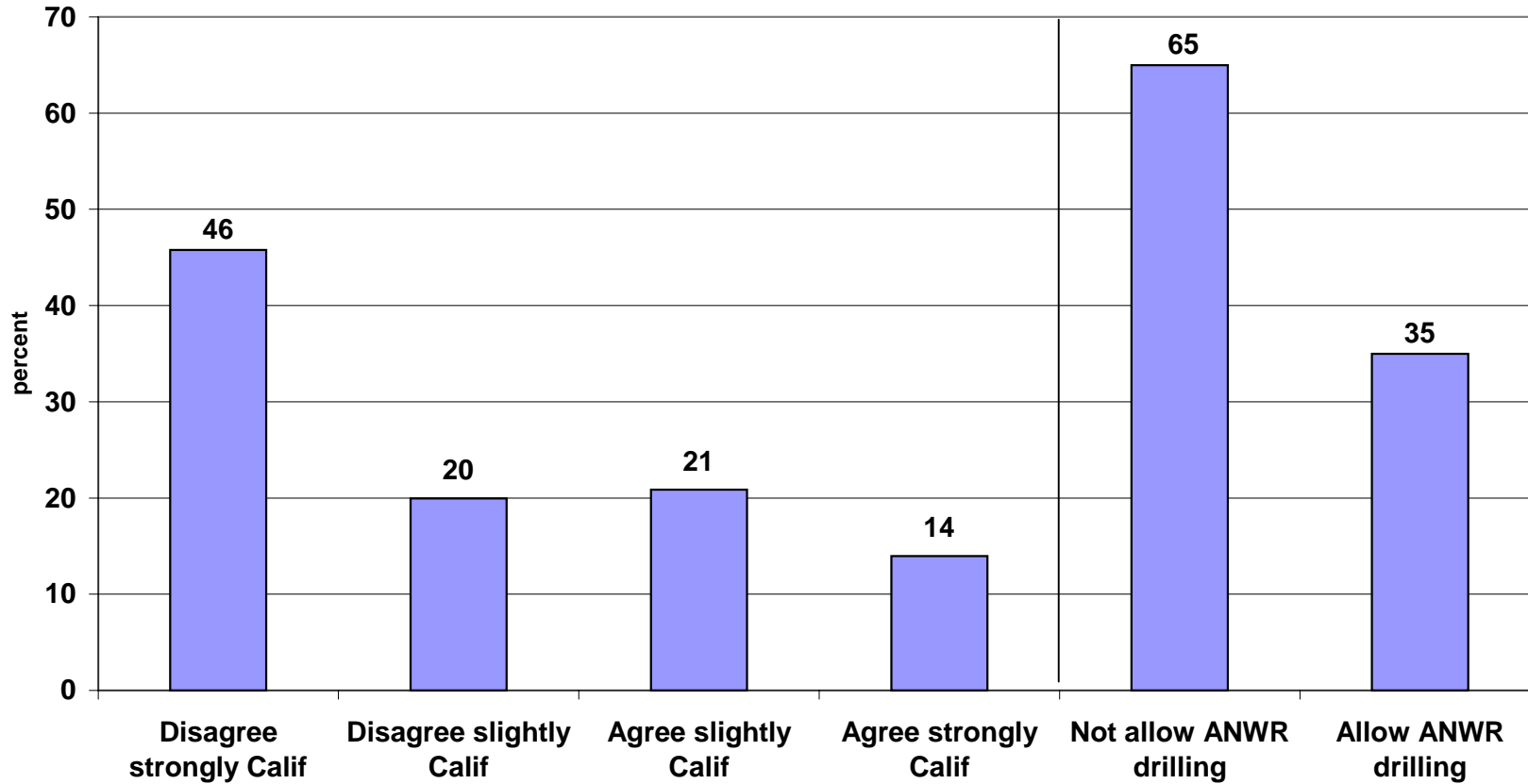
Data from the U.S. Department of Energy, *Annual Energy Review 2001*, tables 5.19 and 5.22

Figure 2. Oil Company Profits and the Price of Oil



Data from the U.S. Department of Energy, *Annual Energy Review 2001*, tables 3.10 and 5.19

Figure 3. Support for Oil Drilling along the California Coast and in ANWR



Calif: "Oil companies should be allowed to drill more oil and gas wells in state tidelands along the California seacoast"

ANWR: "Do you think the federal government should or should not allow oil drilling in the Arctic National Wildlife Refuge in Alaska?"

Figure 4. Feelings Thermometers for the Oil Industry, Environmental Groups, and Government Regulators

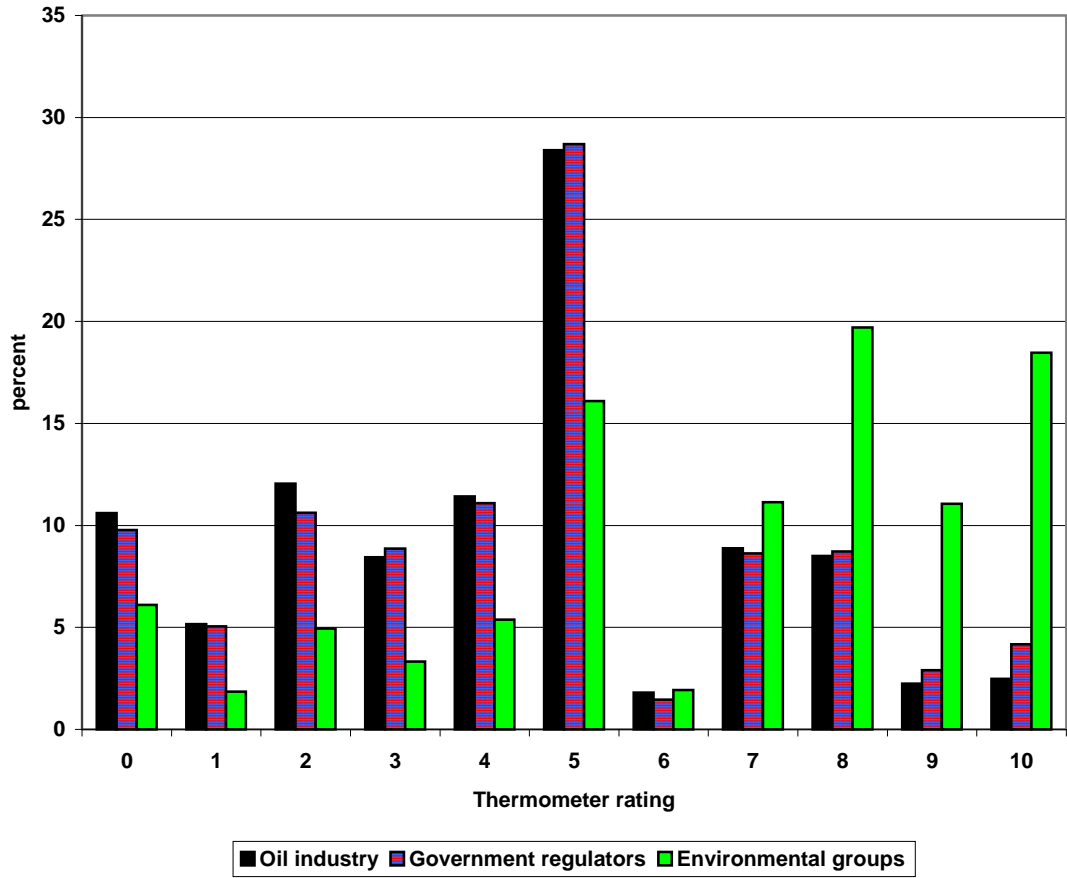


Figure 5. Confidence in Interior Dept. Staff to Regulate Offshore Oil Drilling

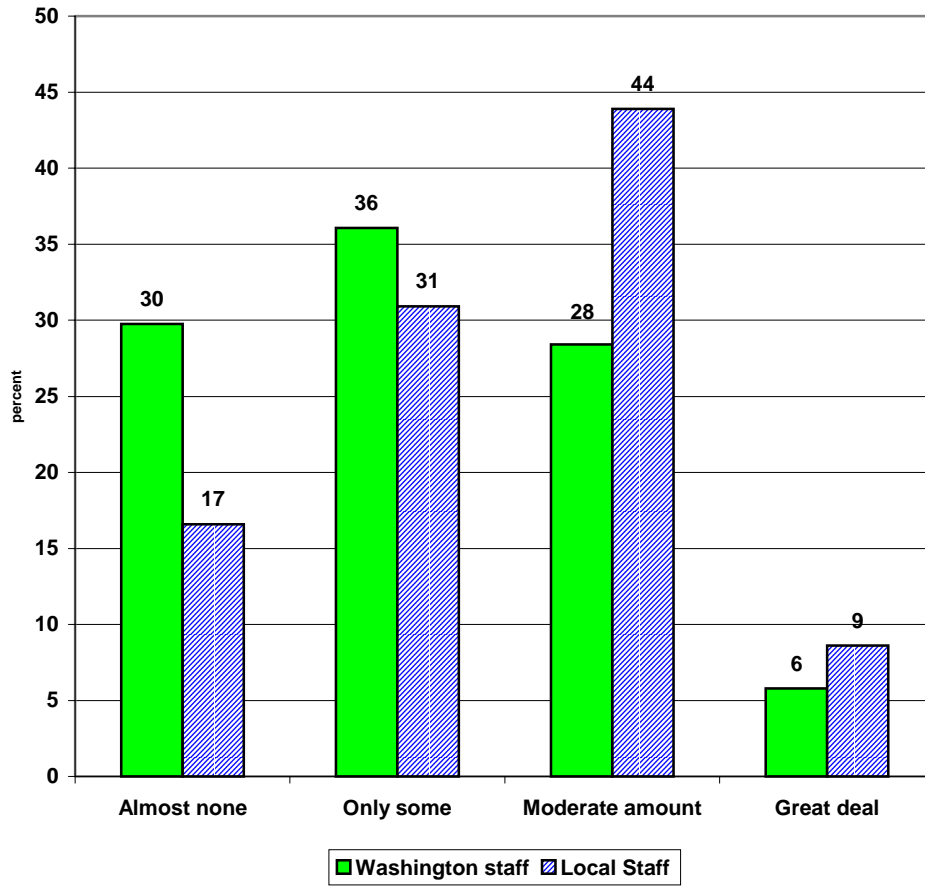


Table 1: Regression Models of Support for Offshore Drilling in CA, 2002

Variable	(1) b	(2) b	(3) b
Intercept	1.24*** (.14)	-.09 (.17)	.86*** (.34)
Income	-.03 (.02)	-.09*** (.03)	-.08*** (.03)
Education	-.12*** (.03)	.01 (.03)	.04 (.04)
Age (decades)	.04* (.02)	-.001 (.02)	.01 (.02)
Commute Distance	.04*** (.02)	.03 (.02)	.02 (.02)
Party ID (Republican High)		.09*** (.02)	.08*** (.02)
Ideology (Conservative High)		.09*** (.02)	.08** (.02)
Cultural Values Scale		.06*** (.01)	-.004 (.02)
Knowledge			-.32*** (.09)
Cultural Values X Knowledge			.02** (.01)
Adjusted R ²	.02	.25	.26
N	1149	761	761

*** .01<p, ** .05<p, * .05<p<.10

**Table 2: Logit Models of Support for Drilling in the Arctic
National Wildlife Refuge in Alaska, 2002**

Variable	(1) b	(2) b	(3) b
Intercept	-2.16*** (.29)	-5.92*** (.55)	-4.07*** (1.02)
Income	.15*** (.05)	.02 (.08)	.02 (.08)
Education	-.14** (.06)	.12 (.09)	.11 (.09)
Age (Decades)	.3*** (.04)	.28*** (.06)	.27*** (.06)
Commute Distance	.09*** (.03)	.06 (.05)	.06 (.05)
Party ID (Republican High)		.21*** (.05)	.21*** (.05)
Ideology (Conservative High)		.23*** (.07)	.21*** (.07)
Cultural Values Scale		.14*** (.02)	.02 (.06)
Knowledge			-.49* (.28)
Cultural Values X Knowledge			.04** (.02)
X ²	67.7	217.4	220.6
Pseudo R ²	.05	.26	.26
Somers' D	.31	.66	.66
N	1102	731	731

*** .01<p, **.05<p, *.05<p<.10

Table 3: Regression Models of Feelings towards the Oil Industry, Environmental Groups, and the Government, 2002

Variable	Oil Industry			Environmental Groups			Government		
	(1) b	(2) b	(3) b	(1) b	(2) b	(3) b	(1) b	(2) b	(3) b
Intercept	48.0***	25.1***	45.3***	70.1***	107.3***	98.2***	53.3***	55.5***	55.6***
Income	-.36	-1.65*	-1.41**	-2.2***	-.51	-.37	-.57	-1.06	-.78
Education	-2.78***	-.81	-.54	3.86***	1.41*	2.02**	.54	1.61*	2.42***
Age (decades)	.61	-.09	-.06	-2.9***	-2.04***	-1.65***	-2.09***	-2.21***	-1.77***
Commute Distance	.90**	.48	.39	-.91**	-.95**	-.95**	-.58	-.34	-.38
Party ID (Republican High)		1.55***	1.52***		-3.14***	-3.01***		-.92*	-.79
Ideology (Conservative High)		.93*	.62		-1.06*	-1.05*		.49	.34
Cultural Values Scale		1.19***	-.12		-1.86***	-1.16***		-.21	-.09
Knowledge			-.60***			1.01			-1.89
Cultural Values X Knowledge			.38***			-.19			-.02
Adjusted R ²	.02	.19	.19	.05	.38	.39	.02	.03	.04
N	1099	732	732	1099	732	732	1099	732	732

*** .01<p, **.05<p, *.05<p<.10

**Table 4:
Regression Models of Confidence in the Department of Interior Staff to Regulate Oil Drilling along the Coast, 2002**

Variable	DC Staff		Local Staff	
	(1) b	(2) b	(1) b	(2) b
Intercept	1.07***	.58***	1.94***	1.38***
Income	-.04	-.04*	.02	.02
Education	-.03	-.04	.01	.002
Age (decades)	-.05***	-.04**	-.09***	-.06***
Commute Distance	-.02	-.02	-.02	-.03
Party ID (Republican High)	.06***	.03*	-.01	-.02
Ideology (Conservative High)	.05**	.03	0	-.01
Cultural Values Scale	.01**	.01	-.01	-.01
Trust in Government		1.02***		1.11***
Govt run for benefit of all		.25***		.12
People running govt are smart		.19***		.18***
Adjusted R ²	.08	.19	.02	.12
N	705	614	705	614

*** .01<p, **.05<p, *.05<p<.10

Table 5: Logit Models of Perception of Energy Crisis as a Conspiracy Constructed by Oil Industry

Variable	b
Intercept	-.31 (1.15)
Income	-.16* (.09)
Education	.29** (.13)
Age (decades)	-.34*** (.09)
Commute	-.07 (.07)
Party ID	.04 (.08)
Ideology	.01 (.09)
Cultural Values Scale	-.09 (.07)
Trust in Government	1.32* (.67)
Gov't run for benefit of all	.92*** (.27)
People running govt are smart	.05 (.25)
Knowledge	-.64** .3
Cultural Values X Knowledge	.04** (.02)
X ²	63.1
Pseudo R ²	.12
Somers' D	.52
N	540

*** .01<p, ** .05<p, * .05<p<.10