

Public Reaction to Energy, Overview



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1. Definition and Importance of Public Opinion on Energy
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Glossary

economic issues Political issues that relate to the distribution of wealth in society.

party identification A way in which people think of themselves; a psychological and emotional attachment to a political party.

social issues Political issues that relate to values and morals.

The term public opinion refers to the factual beliefs and preferences about issues of interest to the general population. Whether people believe that oil exists in the Arctic National Wildlife Refuge (a factual question) and whether people believe that the refuge should be opened to oil exploration (a preference) are typical examples of public opinion questions. Public opinion is normally measured using survey methods. Pollsters contact randomly selected samples of adults and ask them a series of questions to measure their opinions on current policy issues. The results of these surveys often play a major role in policy making.

1. DEFINITION AND IMPORTANCE OF PUBLIC OPINION ON ENERGY

What the public thinks about energy is important because public opinion is a major force influencing public policy on energy production and consumption.

The fact that elected officials generally follow their constituents' wishes on high-profile issues is well documented by political scientists. Studies certainly show the influence of major industries, such as petroleum and nuclear power, but that influence generally occurs on low-profile issues. Most studies show that on major issues that receive a good deal of press attention, such as nuclear power and offshore oil development, the public generally gets what it wants.

Academic studies aside, observers can easily see the influence of public opinion in the cases of both nuclear power and offshore oil development. Public opposition to nuclear power, especially after the 1979 Three Mile Island accident, helped block the construction of new nuclear power plants. In the aftermath of the accident, public support for nuclear power dropped sharply, and every proposal for a new nuclear facility was met with mass protests. Public opposition, coupled with soaring construction costs, ended the growth of the nuclear power industry. No more nuclear power plants were ever ordered.

In the case of offshore oil drilling, the California public has moved through intermittent periods of quiet acceptance and intense opposition during the past century. The 1969 spill in the Santa Barbara Channel crystallized public opposition, and—some historians argue—helped launch the modern environmental movement. During the 1980s and 1990s, public opinion polls consistently showed overwhelming opposition to further drilling. In order to curry favor with California voters, President George H. W. Bush ordered a moratorium on new oil drilling leases in federal waters in 1990. President Clinton continued it in his administration, and President George W. Bush has allowed the policy to stand. In the case of offshore drilling along the Florida coast, public opinion against oil drilling was so intense that in June 2002 President Bush ordered the Interior

Department to buy back some offshore oil leases that had been sold to oil companies and asked Congress to pass legislation to repurchase other leases. The official explanation for the buy-back from Department of Interior Secretary Gail Norton was that offshore oil development in Florida was opposed by “public opinion.”

One can also see the influence of public opinion on policy makers in every energy crisis from that of 1973–1974 to the gasoline and electricity price spikes of 2000–2001. Every time shortages appeared and prices soared, the public demanded laws to lower energy prices. Politicians leapt to do the public’s bidding, despite the fact that lowering energy prices encourages consumption, making the energy situation worse.

The initiative process gives voters a measure of direct control over public policy. In the 23 states and hundreds of counties and cities with the initiative process, voters can do more than demand that their elected officials pass the laws they want: Voters can pass the laws themselves. In these cases, public opinion controls energy policy. In California, for example, voters have passed both local and statewide initiatives limiting oil development. Although anti-nuclear power groups were not able to persuade California voters to pass an initiative to block nuclear power in the state in 1976, they came close enough to scare the state legislature into passing tough nuclear safety legislation that effectively blocked efforts to build more nuclear power plants. Moreover, the threat of an initiative vote against any controversial, proposed power source is clearly a deterrent to potential investors.

What the public wants does not always determine public policy. The influence of public opinion varies depending on a number of factors, including the attention given to the policy by the news media and the public, how much the public cares about the policy, expert opinion, and the interest groups arrayed for and against various policy choices. Nevertheless, in some circumstances, the public can get exactly what it wants—even against seemingly overwhelming opposition from the oil and gas, nuclear power, or electricity industries and their political allies. The public’s policy preferences may not always be wise or well informed, but they can be influential.

2. THE PUBLIC’S KNOWLEDGE ABOUT ENERGY

One of the best known findings of public opinion research is that most of the public pays little attention

to politics and, consequently, few people know much about politics or public policy. The list of facts not known by a majority of the public is stunning. What do the words “conservative” and “liberal” mean? What is the federal minimum wage? What majority is needed in the House and Senate to override a presidential veto? Who is the Speaker of the House of Representatives? Who is the Chief Justice of the U.S. Supreme Court? In national, representative surveys of adults, fewer than half the respondents offered correct answers to any of these questions.

These findings should not be exaggerated. The public is not ignorant or stupid. In fact, only a small percentage of the population knows virtually nothing about politics. Rather, most people do know something about politics, just not a great deal. The public’s modest level of knowledge stems from the fact that few people are interested in politics. In areas that people do care about—their jobs, their communities, their hobbies, and their favorite movies or sports teams—people know a great deal. Politics and public policy just do not draw much attention or interest.

Given these findings, one should not expect the public to know much about energy policy. There are a few aspects of the energy situation that almost everyone should grasp—for example, that the United States imports oil from the Middle East, whether gas prices are rising or falling, wind mills can be used to generate electricity, or waste from nuclear power plants is radioactive and hazardous. However, most aspects of energy policy are complicated and difficult to understand without some specialized knowledge or training. How much would new oil drilling in the Arctic National Wildlife Refuge or along the Florida or California coasts add to national oil supplies? Can the United States ever become energy independent? What are the effects of deregulation of the wholesale electricity market on prices? What are the trade-offs between clean air and electricity production? How safe is nuclear power? What is global warming, what causes it, and what are the policy options for doing something about it? None of these questions can be answered without a fair amount of knowledge. Because most energy policy questions are complicated, we should not expect the general public to understand them.

Table I presents selected survey results illustrating the public’s lack of knowledge about energy matters. Questions 1 and 2 show that despite the Arab–Israeli wars, the gas lines, and the sharp gasoline price hikes, in the 1970s only approximately half the public realized that the United States had to import oil to meet its energy needs. The failure to realize this

TABLE I
Selected Knowledge Questions, U.S. Samples

Question	Year: % correct
1. Do you think the United States has to import oil to meet our needs, or do we produce as much oil as we need?	1977: 48 1979: 51 1980: 63 1991: 50
2. Using the card, at the present time, how much of the oil used in the United States would you say we have to import from other countries? (Five choices)	1977: 29 1978: 30 1981: 27
3. About what proportion of its oil would you say the United States imports from other countries? Would you say two-thirds or more, about half, about one-third, or less than one-third?	1984: 33 1990: 49
4. There is a debate about whether this country should become less dependent on oil imported from foreign countries. Please give your best estimate of which phrase comes closest to describing how much of our oil comes from foreign countries—about a fourth, about half, about three-fourths.	2002: 34
5. Here is a list of different companies. All of them have operations here in the United States. But, would you go down that list and for each one would you tell me whether, to your knowledge, the main headquarters is located here in the United States or located in a foreign country?...	1978: 78 1986: 76
5a. Exxon?	1978: 17
5b. Shell?	1986: 19
6. From what you've heard or read, do you think a nuclear power plant accident could cause an atomic explosion with a mushroom-shaped cloud like the one at Hiroshima.	1979: 33
7. To your knowledge, what percentage of the nation's electric power is currently supplied by nuclear power plants?	1979: 5 1986: 6
8. In 1979, about 20 years ago, there was a nuclear power plant breakdown near Harrisburg, Pennsylvania. Would you happen to remember the name of that nuclear plant, or not?	1999: 38

Sources. Items 1–3 and 5–7 are from Delli Carpini, M.X., and Keeter, S. (1996). "What Americans Know about Politics," Appendix 3; Yale Univ. Press, New Haven; CT. Item 4 is from the Associated Press poll, February 22–27, 2002 ($N = 1016$). Item 8 is from the Gallup poll, March 19–21, 1999 ($N = 1018$). Both Items 4 and 8 are reported by Polling Report.Com (<http://www.PollingReport.com/enviro.htm>). Note: Delli Carpini and Keeter do not identify the surveys or sample sizes for the surveys, but all surveys were conducted by major reputable firms and are archived by the Roper Center for Public Opinion Research.

fundamental fact about the U.S. energy situation during the 1970s may seem astonishing, but it is consistent with other findings about the level of the public's knowledge. Large blocks of information are missing, and only a relatively small number of people have much detailed knowledge about any public policy issue. The other results in Table I add to the picture of the public's limited knowledge about energy policy.

Questions 3 and 4 show that the public lacks knowledge about our dependence on foreign oil continues. Question 5 shows that despite the political rhetoric about foreign and multinational oil companies, only a small portion of the public can identify them.

The next question about the possibility that a nuclear power plant could explode in a mushroom-shaped cloud is particularly revealing. The question was asked soon after the Three Mile Island accident. Even though television, newspapers, and news magazines reported extensively on what might happen during the Three Mile Island nuclear power

plant accident, only one-third of the public knew that a "mushroom-shaped cloud" was not possible. The Jack Lemon/Michael Douglas/Jane Fonda movie, "The China Syndrome," which premiered just before the Three Mile Island accident and offered a clear description of what might happen in the event of a nuclear power plant accident, may have been a critical and box office success, but an educational success it was not.

Table II presents results from a survey of Californians. The first question in Table II asks how long the world's oil supply will last. This is a difficult question because the topic has not been the subject of many news reports since the 1970s and because experts disagree. It has been the subject of some news coverage, however. Coincidentally, it was the subject of a *Scientific American* article published only weeks before the survey. Despite this, half the respondents admitted they did not know the answer and declined to guess. The answers from the other half ranged from less than 5 to more than 1000

TABLE II
Selected Knowledge Questions, California Sample

Question	% correct
1. As you know, the amount of oil in the world is limited. Do you know roughly how many years it will be before experts believe the world will run out of oil? [Probe if necessary]: Just your best estimate.	23
2. Do you happen to know whether it is currently safer to transport oil using oil tankers or using oil pipelines? By safer, I mean the way which is least likely to result in a major oil spill.	58
3. How often do you think a typical offshore oil platform along the California coast is likely to have a major oil spill—once every 5 years, once every 10 years, once 20 years, once every 40 years, or less frequently than this?	15
4. When a major oil spill occurs, how much threat does it pose to human life—a great deal, some, only a little, or no risk at all?	6

Source. California Offshore Oil Drilling and Energy Policy Survey, March 1998, conducted by the Field Institute ($N = 810$).

years. A reasonable estimate is somewhere between 50 and 100 years. Taking any number in this range as correct, we see that only 23% of our sample could make a reasonable guess.

The next three questions in Table II differ from the previous questions because they not only measure factual knowledge but also the public's perceptions of risk. In the abstract, this difference may sound trivial, but in practice people who feel threatened respond by demanding that politicians do something about the risks. In the case of oil, those demands are to limit or end offshore oil development.

The first risk question asks respondents whether it is safer to transport oil by using oil tankers or pipelines. The answer, pipelines, should be relatively well-known because most of the world's catastrophic oil spills have been tanker disasters, including such well-known ships as the *Castillo de Bellver*, the *Amoco Cadiz*, the *Torrey Canyon*, and the *Exxon Valdez*. Because tanker spills have received so much news coverage, one might expect most of the public to know this answer. The survey, however, showed that only 58% of the California respondents correctly identified pipelines as the safest way to transport oil. That is only slightly higher than the 50% who would have gotten the answer correct if they had guessed based on coin tosses.

The second risk question asks respondents to estimate how frequently a typical offshore oil plat-

form will have a major oil spill. The public's answers to this question reveal seriously exaggerated fears. Twenty-three percent of the California public said that they expected a major oil spill every 5 years from a typical platform. An additional 25% said that they expected such a spill once every 10 years. Although the exact meaning of "major oil spill" is not stated in the question, by any definition major oil spills from a typical platform are far less frequent than once every 10 years. If we were to use 1000 barrels of oil as the standard for a major oil spill, we would have to conclude that the correct answer—given by only 15% of the sample—was "less than once every 40 years" because there were only 11 spills of that size from all U.S. offshore platforms from 1964 to 1992 (and none since 1980). Even using a far smaller number of barrels as the standard would still yield less than once every 40 years as the correct answer because of the huge number of offshore oil platforms in operation in U.S. waters (more than 3800 platforms in 1990). This exaggeration of risk, or lack of knowledge, presumably contributes to the public's opposition to further offshore oil drilling.

The answers to the next question about oil spills also help us understand people's fears. The question asks how much threat a major oil spill poses to human life. Again, we see that the public seriously exaggerates the threat posed by oil. Thirty-one percent of the statewide sample responded that a major oil spill would pose a serious threat to human health. An additional 36% believed that it would pose some threat. In fact, oil spills pose only a negligible threat to human life. They certainly pose a substantial threat to many other kinds of life but not to human beings.

The public's low level of knowledge about energy policy is important because of the public's influence on policy makers. When the public forms opinions and makes demands on politicians based on misinformation, public policy may suffer. As the data in this section show, the public is often misinformed about even the most basic aspects of energy policy.

3. THE PUBLIC'S ENVIRONMENTALIST BUT CONFLICTED TENDENCIES

When the public does turn its attention to energy issues, it tends to prefer environmentalist policies. That is, the public generally favors conservation;

favors alternative, sustainable energy sources (wind and solar power); and opposes conventional energy development (oil, nuclear power, and coal). However, the public also displays a clear preference for government action to maintain low energy prices, despite the fact that low prices lead to excessive and wasteful energy consumption. These inconsistent preferences seem to result from a mix of people's misunderstandings about the energy situation and their distrust of the energy industry.

Evidence for the environmentalist tendencies of the public can be seen in a variety of survey results. Figure 1 shows the percentages of people who said in response to a series of Gallup polls that they preferred more conservation or more production as a solution to U.S. energy problems. The solid line represents the percentage indicating that they preferred conservation, and the dotted line represents the percentage indicating that they preferred production. Even at the height of the gasoline price hikes in 2001, the public preferred conservation by a substantial margin. By March 2002, when prices had stabilized and the public was becoming accustomed to higher prices, conservation was preferred by a margin of 60 to 30%. (The remaining 10%, not shown in the figure, either responded "both" or "neither.") Figure 2 shows the results of a related question in which respondents were asked in March 2001 and March 2002 whether they would give priority to development of energy supplies or protection of the environment. The environment won by a 52 to 40% majority. Figure 3 presents another trade-off. Respondents were asked whether they believed "protection of the environment should be given priority, even at the risk of curbing

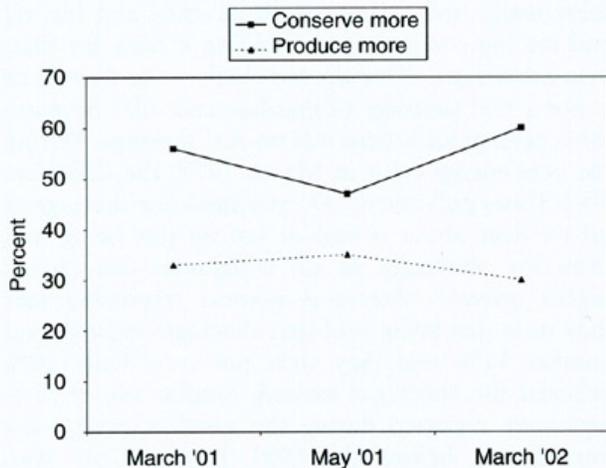


FIGURE 1 Energy solution: More conservation or more production. Source: Gallup polls.

economic growth, or economic growth should be given priority, even if the environment suffers to some extent." By wide and consistent margins from 1984 to 2000, the polls showed a strong public preference for environmental protection. Support for environmental protection ranged from 61 to 71%, whereas the number giving priority to economic growth ranged from only 19 to 32% and was only 28% when the question was last asked in April 2000.

On more specific policy questions, polls show that the public strongly supports investment in environmentally friendly energy sources and generally opposes the development of any conventional energy

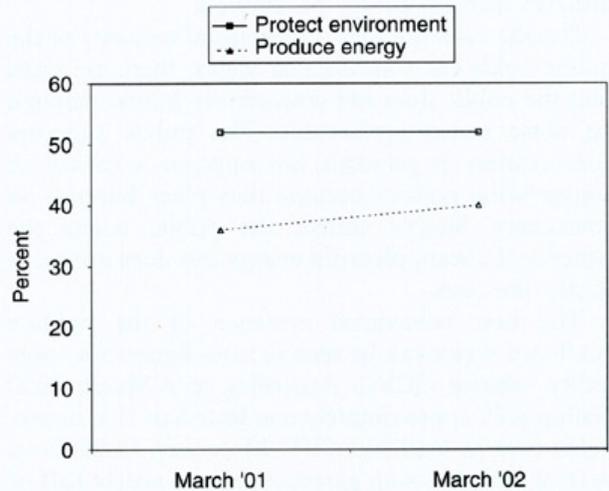


FIGURE 2 Environmental protection vs energy production. Source: Gallup polls.

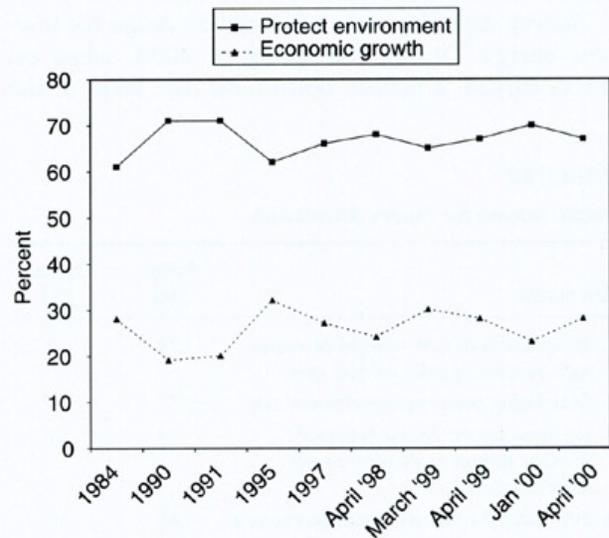


FIGURE 3 Environmental protection vs economic growth. Source: Gallup polls.

sources that are criticized by environmental groups. Table III shows the public's response to several policy proposals for dealing with U.S. energy problems. The public is nearly unanimous in calling for more support for solar, wind, and fuel-cell technology. Requiring automobile companies to build more fuel-efficient cars is also strongly supported. The proposals that fail to win majority backing are drilling for oil in the Arctic National Wildlife Refuge and nuclear power.

Further questions in other polls show majorities opposing drilling for oil and natural gas along the California coast or weakening environmental protections, such as automobile or industrial emissions, in order to increase energy production.

Despite evidence that a substantial majority of the public holds environmentalist views, there are signs that the public does not consistently follow through on those stated preferences. The public supports conservation in principle but opposes a variety of conservation policies because they place burdens on consumers. Simply stated, the public wants the benefits of cheap, plentiful energy but does not want to pay the costs.

The best behavioral evidence of the public's conflicted views can be seen in sales figures for sport utility vehicles (SUVs). According to a March 2000 Gallup poll, approximately one-fourth of U.S. households own at least one SUV. Moreover, in 2000—a year of sharply rising gasoline prices—nearly half of all new car sales were gas-guzzling SUVs, minivans, or light trucks. Thus, although the public says that it wants fuel-efficient cars, it actually buys fuel-inefficient cars (and trucks and SUVs).

Survey data also reveal the public's desire for low-cost energy. During the spring of 2000, when oil prices surged, a Gallup poll found that 80% of the

public favored lowering state fuel oil taxes, 75% favored reducing federal gasoline taxes, and 59% favored drawing oil from the U.S. Strategic Petroleum Reserve to put more oil on the market and cut prices. In a similar vein, when asked whether they favored or opposed the proposal of "giving tax breaks to provide incentives for drilling for more oil and gas in the U.S.," Gallup poll respondents in March 2001 favored the idea by a 53 to 43% margin. In addition, the proposal to set "legal limits on the amount of energy which average consumers can use" was solidly opposed by a 62 to 35% margin. The 2000–2001 electricity crisis in California provides further evidence of the public's desire for cheap energy. A May 2001 Field Institute poll asked Californians, "Is it a good thing or a bad thing for the federal government to cap energy prices?" Seventy percent said it was a good thing.

Most economists tell us that capping or subsidizing energy prices during shortages is foolish. If prices are allowed to rise freely, consumers will use less energy, and the energy problems will be resolved by free market forces. In contrast, if prices are capped or if energy consumption is subsidized, more energy will be used and shortages will worsen—potentially leading to lines at gasoline stations, electricity blackouts, or other problems.

Unlike economists, most of the public likes energy subsidies and dislikes free market solutions to energy shortages, but this does not mean that people are rejecting free market economics. Instead, many people believe that energy shortages are faked by energy companies to increase prices and profits. A 1974 Roper poll showed this when it 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?" Seventy-three percent said there was no real shortage. During the next energy crisis in March 1979, the 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% said they were not sure. Only 20% believed the shortages existed. Similar survey findings were reported during the gasoline price hikes immediately before the 1991 Persian Gulf War, during the 2000–2001 gasoline price hikes, and during the 2001 California electricity crisis.

TABLE III
Public Support for Energy Alternatives

Alternative	Favor (%)	Oppose (%)
1. Investments in new sources of energy such as solar, wind, and fuel cells	91	8
2. Mandating more energy-efficient cars	77	20
3. Opening up the Arctic National Wildlife Refuge in Alaska for oil exploration	44	51
4. Increasing the use of nuclear power as a major source of power	42	51

Source. Gallup poll, November 8–11, 2001.

Apparently, the public's reasoning is that the energy industries cause supply shortages and high prices by manipulating energy markets. In other words, high prices are the result of illegal or unethical activity. Given this situation, people can easily jump to the conclusion that the government should step in and fix the problem with price caps, subsidies, or other measures.

Here, the public's lack of knowledge about energy policy plays a role. In every energy crisis the United States has faced, politicians and activists have accused energy companies of manipulating prices. Certainly in the case of the oil crises, when people who do not even know that the United States needs to import oil to meet its energy needs hear those charges, they will be especially likely to believe them. More broadly, a mix of people's misunderstandings about the energy situation and their distrust of the energy industry may lead to poor judgments about the best energy policies for the government to adopt.

Public opposition to increases in energy prices affects more than government behavior during energy crises. Proposals for a carbon or Btu tax, such as the one offered by President Clinton in 1993, face a skeptical public. The idea behind Btu taxes is to increase the price of fossil fuels, causing consumption to decline and consumers to switch to using other fuel alternatives. Such proposals face two problems in winning public support. First, the proposals are complicated and require at least a moderate understanding of both economics and energy. Second, the proposals call for raising energy prices. These are both serious obstacles to Btu taxes.

In summary, the public generally favors environmentalist policies such as conservation and the development of alternative, sustainable power sources. However, the public also wants the government to take steps to guarantee low, stable energy prices. The contradictions among these views remain unresolved.

4. PUBLIC OPINION ON ENERGY AND DEMOGRAPHIC CHARACTERISTICS

To understand the sources of people's opinions about energy policy, it helps to examine the larger context of public opinion across a range of issues. Public opinion scholars have found that the best way to describe public opinion on domestic issues is to divide issues into two broad categories—economic

and social. Economic issues are those that relate to the distribution of wealth in society—the tax system, Social Security, Medicare, welfare, regulation of businesses and unions, etc. Social issues are those that relate to values and morals—abortion, birth control, free speech, civil rights, women's rights, sexual preferences, etc. This distinction is useful for two reasons. First, people tend to have similar opinions on the two types of issues. That is, if someone is liberal on one social issue, he or she is likely to be liberal on others. Second, the two types of issues have different causes and demographic correlates. Opinions on economic issues generally vary with income and self-interest, whereas opinions on social issues usually vary with education and age.

At first glance, energy policy would seem to be a classic economic issue. Energy production is a huge economic sector. Most disputes over energy policy involve the government regulating private businesses. Regulations affect company profits, create new jobs for some people, and eliminate existing jobs held by other people. From pollution controls to protections for endangered species, regulations on the energy industry have substantial economic impacts.

In some respects, attitudes toward energy policy do respond to events in ways that are consistent with people looking at energy policy as an economic policy. An excellent example of this is the way public support for offshore oil drilling along the California coast parallels the inflation-adjusted price of gasoline. Figure 4 shows a fairly close fit between support for offshore oil drilling and the real price of gasoline. When the price of gasoline increased in the late 1970s, so did support for offshore oil drilling. When the price of gasoline decreased in the 1980s, support for offshore oil declined as well. The 1989 survey shows a sharp decline in pro-development feelings that is not matched by gasoline prices, but it does

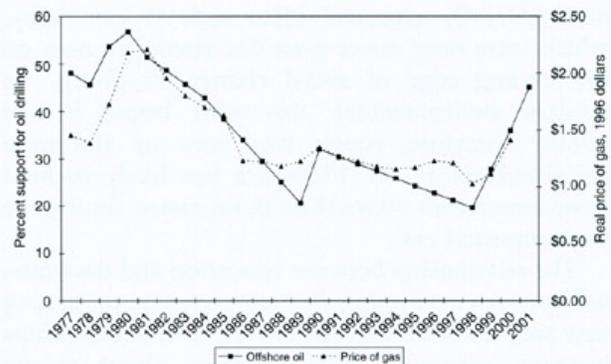


FIGURE 4 Support for oil drilling and the price of gasoline.

correspond to the Exxon Valdez oil spill. The post-1998 increase in support again parallels the increase in gasoline prices.

There is also some individual-level evidence that people think of energy issues in economic terms. For example, as the distance people commute to work increases, they become more likely to favor offshore oil drilling and other steps to increase oil production and cut prices. That is, economic self-interest affects attitudes toward energy policy in some cases.

However, the classic patterns of economic issues do not appear. Opinions on energy issues generally do not vary with income, occupation, or other measures of social class. A few studies have found that attitudes on energy policy vary with income, but these studies are outnumbered by the studies that found no relationships.

For the most part, attitudes toward environmental issues, including energy issues, behave like attitudes toward most social issues. Two key indicators of this pattern are the relationships that energy attitudes have with education and age. On virtually every social issue, the most liberal people in the population are the well educated and the young. The basis for the education–social issue relationship seems to be that education brings people into contact with new ideas and new types of people and broadens the perspectives of the well educated. This process develops a greater tolerance for people who are different—blacks, the disabled, gays and lesbians—and a greater appreciation of ideas such as the value of the environment.

Age is also related to opinions on social issues, but not because age causes beliefs or opinions. Instead, age is related to opinions on social issues because age reflects the generations in which people grew up and were socialized. Throughout the past century, the United States has been moving in a more socially liberal direction. Ideas such as racial and gender equality, which were once considered radical, are now generally accepted. Ideas such as gay rights, which were once never even discussed, are now on the leading edge of social change. Similarly, the modern environmental movement began in the 1960s. Therefore, people who grew up and were socialized before the 1960s are less likely to hold environmentalist views than those raised during the environmental era.

The relationship between education and the trade-off between protecting the environment or finding new sources of oil and gas is typical of relationships between education and questions about energy policy. Figure 5 presents the results of an April

2001 *Washington Post* poll, which showed that 51% of Americans with a high school education or less said that environmental protection was more important than finding new oil sources, whereas 58% of college graduates held that view. The better educated the respondents were, the more they favored protecting the environment.

The relationship between age and the environment–energy sources trade-off in the *Washington Post* poll is even stronger. As Fig. 6 shows, 66% of the 18- to 30-year-old respondents favored protecting the environment, whereas only 38% of those 61 or older did so—a 28% difference across the

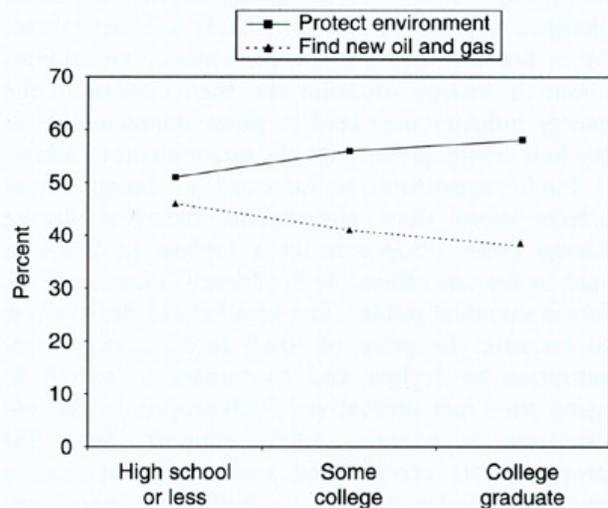


FIGURE 5 Energy vs environmental protection by education. Source: *Washington Post* poll, April 2001.

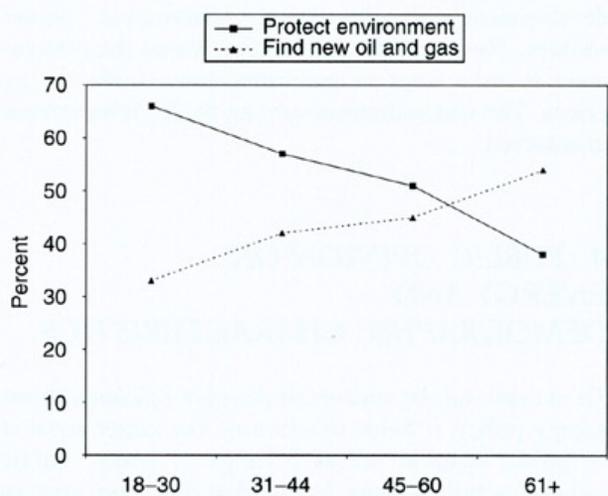


FIGURE 6 Energy vs environmental protection by age. Source: *Washington Post* poll, April 2001.

generations. This finding is typical in that age has been found to be the demographic characteristic yielding the strongest, most consistent differences on environmental issues.

Other demographic variables are also related to opinions on environmental and energy-related issues, although not as strongly or consistently as education and age. Gender is usually related to attitudes toward energy issues, but only if the issue entails some aspect of risk to people. When risk is involved, women tend to take the pro-environmental stand. For example, women tend to oppose nuclear power more than men do because many people in the public regard nuclear power as risky. In contrast, men and women usually hold similar opinions about offshore oil drilling because it is not seen as inherently risky by the public.

Race, ethnicity, and whether one lives in a rural or urban area have also been found to relate to environmental and energy issues in a number of studies, but the relationships do not consistently fall in a single direction. That is, in some studies blacks have been found to hold more pro-environmental views than whites; in other studies, the reverse pattern has been found. Studies of urban and rural dwellers yield similar results. The relationships often can be seen to depend on the exact issue in question. Location of hazardous waste dumps, for example, is of more concern to people living near proposed sites than those living at great distance. The demographic characteristics of those living near the dumps, therefore, may determine what studies find. Consequently, broad generalizations are difficult to make.

5. PUBLIC OPINION AND POLITICAL ORIENTATIONS

A second way to explain public opinion on energy issues is to examine people's political orientations and worldviews. By far the most important political orientation is party identification. Party identification is a way in which people think of themselves—a psychological and emotional attachment to a political party. People identify with political parties in the same way they identify with ethnicities or religions. Native-born Americans typically acquire a party identification from their parents by age 9 or 10—long before they understand anything about the substance of politics.

The importance of party identification stems from the way in which it influences people's opinions and behavior. Party identification influences people's opinions because it guides their decisions about what

to believe or disbelieve when they listen to the news or political discussions among friends. People who think of themselves as Democrats, for example, are far more likely than others to believe Democratic politicians and doubt Republican politicians. Similarly, Republicans trust fellow Republicans but not Democrats. As a result, both groups' view of reality is filtered through their partisan beliefs. In addition, party identification influences people's values. When a politician of one's political party says that preserving the Alaskan wilderness is vital, or that America desperately needs Alaskan oil, one's opinion is likely to be swayed. As a result of differing beliefs about the facts and differing opinions, the behavior of Democrats and Republicans differs as well. In voting and in a wide range of political activities, Democrats and Republican normally choose opposing sides.

In the world of politics, the Republican Party generally represents business interests and the wealthier segments of society, whereas the Democratic Party represents the working-class and lower income segments. Because environmental regulations are constraints on businesses, Republicans have usually been far less supportive of them than have Democrats. As a result, Republicans have generally leaned in a pro-development direction, whereas Democrats have generally leaned in a pro-environment direction.

These partisan patterns can easily be seen both in national political disputes and in public opinion data on energy issues. The fight over whether to open the Arctic National Wildlife Refuge for oil exploration and drilling is a good example. In the 2000 presidential election, the issue that drew the most public attention was the rising price of gasoline. Other issues garnered more press coverage, but drivers were reminded of the high prices every time they filled their cars' gas tanks. As a result, public interest remained high throughout the year. Both presidential candidates responded to the public's concerns. Governor George W. Bush, a former Texas oil man, declared that the way to lower prices was to produce more and, in particular, to open the Arctic National Wildlife Refuge in Alaska for oil drilling. Vice President Al Gore countered that the way to cut gasoline prices was to conserve energy and to pressure major oil-exporting countries such as Saudi Arabia to produce more oil for the world market. He stoutly opposed relaxing environmental standards to make it easier to drill for oil in the United States, and he insisted that the Arctic National Wildlife Refuge be kept closed to oil exploration.

The partisan division among the two parties' presidential candidates is mirrored in public opinion

data. Figure 7 shows the partisan breakdown of support for the proposal to deal with the energy situation by “oil exploration in the Alaskan Arctic Wildlife Refuge.” Republicans supported the idea by a 54 to 43% margin, but Democrats opposed it by a 65 to 27% margin. People who did not identify with either political party—that is, those who call themselves independents—fall between Republicans and Democrats in their policy views.

Similar partisan differences exist across many energy-related and environmental issues. The same May 2001 Gallup poll found sharp differences regarding whether to invest more money in natural gas pipelines (favored by 76% of Republicans but only 54% of Democrats), whether to drill for natural gas on federal land (favored by 75% of Republicans but only 55% of Democrats), and whether to increase the use of nuclear power (favored by 59% of Republicans but only 45% of Democrats). Other national and state polls routinely find similar partisan differences, with Republicans typically comprising the group that prefers conventional energy development and Democrats comprising the group that prefers conservation and alternative energy sources.

Another political orientation that helps explain public opinion on energy and environmental issues is ideological self-identification—that is, whether people consider themselves to be liberal, moderate, or conservative. Ideological self-identification is a curious characteristic. Pollsters ask respondents a question such as “Generally speaking, in politics do you consider yourself as conservative, liberal, middle-of-the-road, or don’t you think of yourself in those terms?” The terms liberal and conservative are

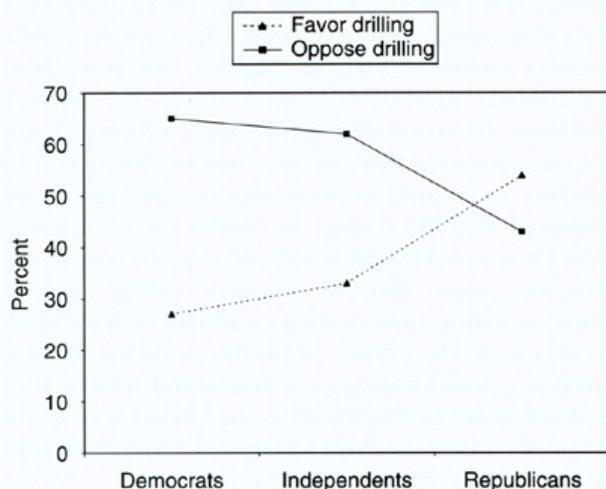


FIGURE 7 Support for oil drilling in the Arctic National Wildlife Refuge by party. Source: Gallup poll, May 2001.

in wide use in public debate. However, repeated studies for more than 50 years show that only approximately half the public can offer even crude definitions of what the labels mean. Typically, approximately one-third of respondents say “I don’t know” when asked for a definition. Another one-sixth will offer definitions that are not even remotely recognizable. Nevertheless, the ideological labels that people give themselves predict their opinions relatively well, including their opinions on many energy issues.

Environmental problems emerged as political issues relatively recently in comparison with traditional economic conflicts over labor laws, welfare systems, and tax codes. Nevertheless, when they did begin to draw the public’s attention in the 1960s, liberal leaders argued for laws imposing clean air standards, clean water standards, and other pro-environmental regulations. Conservative leaders argued against allowing the government to impose new regulations on businesses. Environmentalism quickly became an established part of liberalism, whereas pro-development views became part of the conservative agenda. This liberal-conservative distinction on environmental issues spread quickly among both political leaders and the public.

Figure 8 shows the ideological divisions over the dispute about offshore oil and gas drilling along the California coast. Seventy-seven percent of the people who say they are “strong liberals” oppose more drilling, whereas only 34% of strong conservatives oppose it. On the pro-development side, the figures

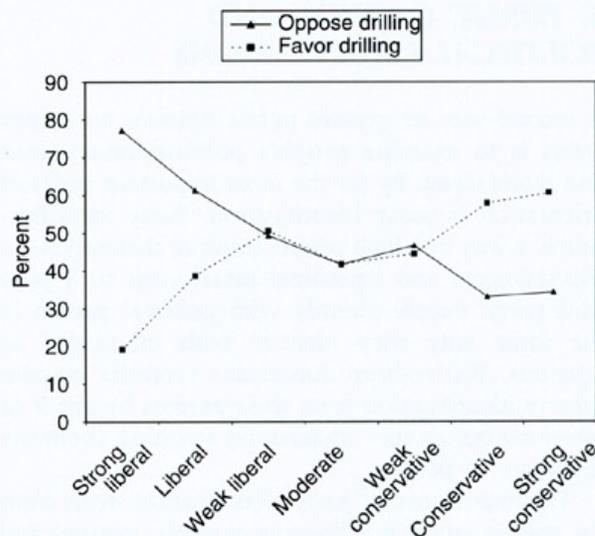


FIGURE 8 Californians support for offshore oil drilling by ideology. Source: Field Institute poll, May 2001.

are reversed, with 61% of strong conservatives but only 19% of strong liberals favoring more drilling.

Taken together, party identification and ideological self-identification do a much better job of explaining public opinion on energy issues than do demographic variables. Nevertheless, opinions on environmental and energy-related issues are not understood or explained as well by public opinion scholars as opinions in other areas (e.g., welfare and civil rights). Given the importance of public opinion to policy makers, research in this area continues.

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