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**"Public Support for Oil and Gas Drilling in
California's Forests and Parks"**

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Public Support for Oil and Gas Drilling in California's Forests and Parks

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Abstract: Offshore oil drilling has been controversial in California for decades. Oil drilling in national forests has never received the same kind of attention, but because of the Bush administration's decision to increase oil development in the national forests, attention is likely to increase. This paper examines public opinion regarding oil drilling in California's forests. We find that attitudes toward drilling for oil in national forests are similar to attitudes toward offshore oil drilling. This implies that oil drilling in the national forests can easily develop into a national controversy.

Public Support for Oil and Gas Drilling in California's Forests and Parks¹

Offshore oil drilling has been a perennial, hot-button issue in California politics ever since the disastrous, 1969 Santa Barbara Channel oil spill. Drilling for oil and gas in California's national forests has never received the same kind of attention from politicians, the news media, or even environmental leaders. Political observers might reasonably suspect that the public does not care about the issue, and is content to go along with the Bush administration's effort to open up national forests for more oil drilling. Surprisingly, the public does care—as a twenty-year long series of public opinion surveys shows.

Political opposition to drilling for oil and gas in the national forests is beginning to develop. Legislation has been introduced in Congress to ban oil and gas drilling in the Los Padres National Forest in California. Other anti-oil campaigns are gathering steam in New Mexico and elsewhere in the west. As a result of these efforts, it is possible that the dispute over drilling for oil and gas in the national forests will escalate into the same sort of controversy that surrounds offshore drilling. The basis for that potential controversy is public opinion.

In this paper, we describe Californians' opinions about oil and gas development in public parks and forests. In order to put them in context, we systematically compare opinion on oil drilling in parks and forests with opinion on offshore oil drilling. We begin by describing current opinion and trends in support for more oil and gas drilling since 1980. We then examine the patterns of group support for and opposition to drilling for oil in California forests. At every step, we find that public support for drilling in forests and for drilling along the coast are quite similar.

Data and Measures

The data for this paper come from a series of public opinion polls of Californians, which were conducted between 1980 and 2002. The surveys were conducted by the Field Institute—a nonpartisan, not-for-profit public opinion research organization established by the Field Research Corporation—and by the Survey Research Center at the University of California, Santa Barbara.² The samples were representative cross-sections of

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. The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official policies, either express or implied, of the U.S. Government.

² The Field Institute is located at 550 Kearny Street, Suite 900, San Francisco, California 94108. Data from all the Field Polls used in this report are archived at the University of California's UC DATA, located at the U.C. Berkeley campus. Neither of these organizations is responsible for the analysis or interpretation of the data appearing in this report.

California adults with sample sizes ranging from 485 to 1,475 (see the data appendix for details). Respondents were selected by random-digit dialing, and interviewed in English or Spanish as appropriate. All analyses reported in this paper are weighted to match demographic patterns in the state.

In order to understand attitudes toward drilling for oil in parks and forests, it helps to compare them to attitudes toward offshore oil drilling. To do this, we use a pair of questions which appeared in all the surveys. In the early surveys, respondents were asked to agree or disagree with two statements about forest and offshore oil drilling. In the 1998 and 2002 surveys, respondents were offered four options--whether they agreed strongly, agreed slightly, disagreed slightly, or disagreed strongly. Of course, some respondents declined to answer the question, and are recorded as “Don’t Know.” The statements were:

“Current government restrictions prohibiting the drilling of oil and gas wells on government parklands and forest reserves should be relaxed.”

“Oil companies should be allowed to drill more oil and gas wells in state tidelands along the California seacoast.”

Both statements are worded so that agreement supports more oil drilling. One result of asking questions in this format is that some people tend to agree irrespective of the content of the question (Couch and Keniston 1960). That is, people with weak opinions tend to agree with statements, no matter what the statements are. It follows that these questions probably tend to bias the results slightly in favor of drilling more oil. Had they been reworded in the opposite direction so that people were asked to agree with a ban or limit on future oil drilling, support for oil drilling would likely have been lower than the level shown by these questions.

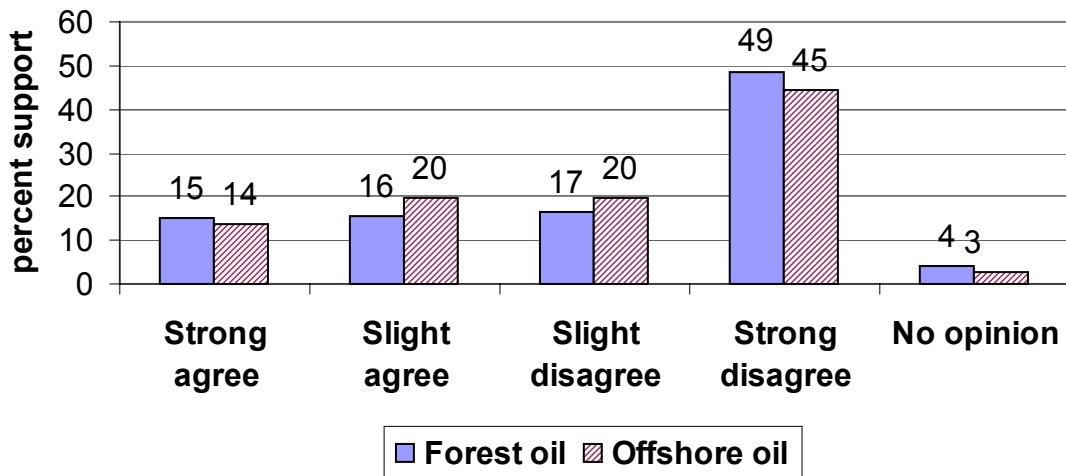
We should also point out that the expression, “drilling of oil and gas wells on government parklands and forest reserves” does not quite match the current political debate. Virtually all of the “parklands and forest reserves” in California with any potential for oil development are national forests. We cannot know what images that expression called to the minds of respondents, and so we have to note that the question might be biased in the sense that if the question were specifically about drilling in national forests, the answers might be different. However, the data show only minor differences between answers to the offshore oil and forest oil questions, so we presume that if there is a bias it is quite small. To simplify following discussion, we will refer to the “drilling of oil and gas wells on government parklands and forest reserves” question as “forest drilling” question.

Aside from the two oil-drilling items, all the other questions are standard questions. They and the details of their coding are reported in the survey questions appendix.

Current Support for Oil Drilling and Trends over Time

Drilling for oil in parks and forest reserves, or off the California coast were both unpopular in 2002. As figure 1 shows, about two-thirds of all respondents oppose both types of drilling, and about half oppose them strongly. Another fact revealed by figure 1 is that opinions about forest and offshore drilling are quite similar. Indeed, the distributions of opinion are so close that they are statistically indistinguishable from one another. They reflect the fact that answers to the two questions were highly correlated, Pearson's $r = 0.59$.

Figure 1. Support for Oil Drilling in 2002



Not only were attitudes toward the two types of oil drilling similar in 2002, they have been similar since 1980, as the data in figure 2 show. Here we see that although attitudes toward forest and offshore oil drilling (the dashed lines) are not identical, they do rise and fall together (with the exception of 1980-81). From 1981 to 1989, support for both types of drilling fell. In 1990, the year Iraq invaded Kuwait and started the Persian Gulf War, support for both types of oil drilling rose. In the war's aftermath, support for oil drilling fell through 1998. Finally, from 1998 to 2002, the popularity of oil drilling rose again.

Figure 2. Trends in Support for Oil Drilling and the Price of Gasoline

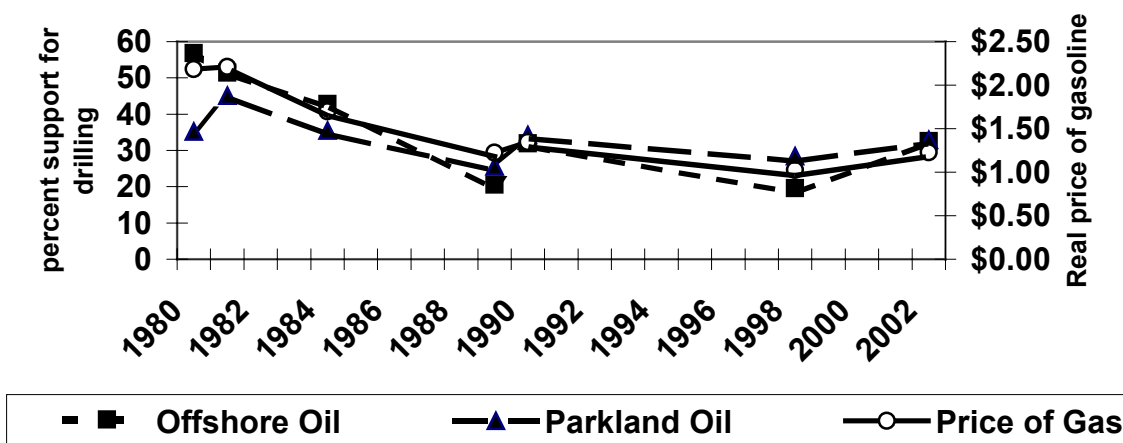


Figure 2 also reveals that opinions about offshore oil drilling changed more over time than did opinions about drilling for oil in parks and public forests. From 1980 to 1989, support for more offshore oil drilling fell 36 percent, but support for forest drilling fell only 10 percent. From 1989 to 1990, support for offshore drilling increased eleven percent, but support for park and forest drilling increased only nine percent. The 1990-1998 period saw support for offshore drilling decline by twelve percent, while support for park and forest drilling declined by only six percent. Finally, from 1998 to 2002, support for offshore drilling increased by thirteen percent, while support for park and forest drilling increase only four percent. In sum, support for more offshore oil drilling varied over a 37-percent range from 1980 to 2002, while support for more forest and parkland drilling only varied over an 11-percent range. Although we do not have solid evidence to explain these fluctuations, we can speculate that attitudes toward offshore oil drilling have swung more widely because offshore oil received far more news coverage and public attention. Drilling for oil in parks, and state and national forests received relatively little attention, so opinions on that subject remained relatively stable.

The gasoline prices shown in figure 2 offer a likely explanation for the changes in attitudes toward oil drilling over time. Support for more oil drilling rises and falls with the price of gasoline.³ At least in this area, people’s environmental opinions respond to the economy.

Who Supports Drilling in Parks and Public Forests?

When we look at the distribution of opinions toward oil development in parks and government forests at any one time, we find the typical pattern of attitudes toward most environmental issues (Guber 2003; Smith 2002; Van Liere and Dunlap 1980), and we

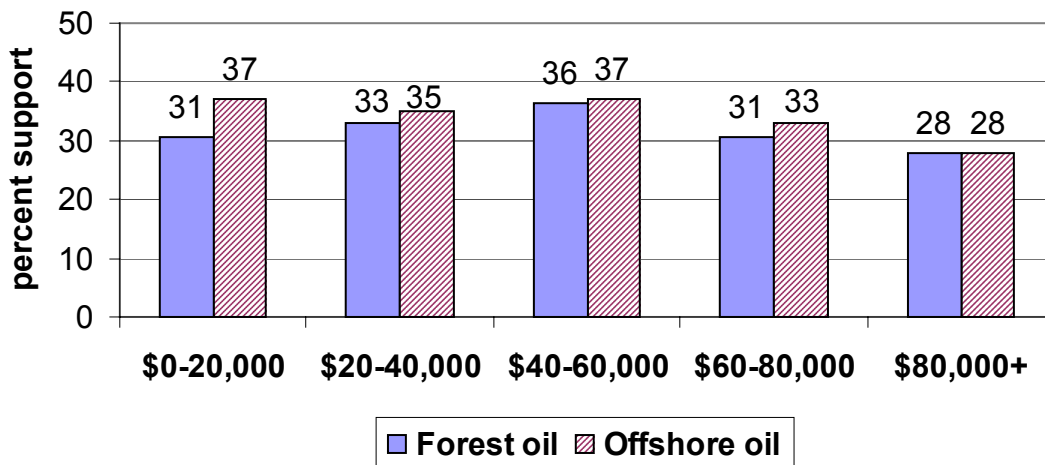
³ The data are 1998 chained-prices (i.e., inflation adjusted) of unleaded regular gasoline. The data are from the U.S. Energy Information Administration, *Annual Energy Review 2002*. Washington, D.C.: Government Printing Office, 2003.

find that attitudes toward forest drilling are fairly similar to attitudes toward offshore oil drilling. Although the level of support for oil development has changed over time, the pattern of supporters and opponents has held fairly steady across time--appearing from the 1980 to 2002.

A starting point for many studies of public opinion is self-interest. With environmental issues, the findings on self-interest have been mixed. In some cases, self-interest seems to drive opinion; in other cases, it seems to be unrelated to opinion. In the case of support for oil drilling, we have already seen that there is a pattern of rising and falling support that matches the price of gasoline. Two other indicators of self-interest, however, show no relationship to support for forest drilling

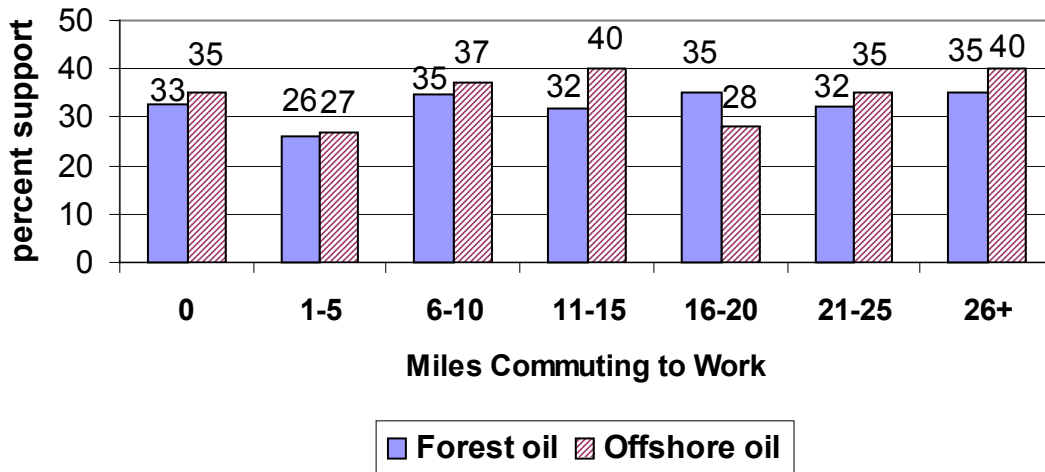
The most commonly-used indicator of self-interest is family income. People with low incomes should be more affected by gasoline prices than people with high incomes because gasoline represents a larger share of their household's disposable income. Oil-industry advocates argue that increased oil drilling should cut the price of gasoline, so one might expect that family income and support for oil drilling would be related. As figure 3 reveals, that is not the case. Middle income respondents may seem to be slightly more supportive of forest drilling than either low or high income respondents, but the difference was not statistically significant. Support for offshore drilling also fails to vary by income.

Figure 3. Support for Oil Drilling by Income



Commuting distance of people who work is another indicator of self-interest. The greater the distances that people drive to work, the more gasoline they must buy. If self-interest drives public support for oil drilling, then we might expect to find a relationship between commuting and attitudes toward drilling. As figure 4 shows, however, there is no relationship. There are some slight fluctuations in support for both forest and offshore drilling across the range of commuting distances, but statistical tests show that they are just random noise.

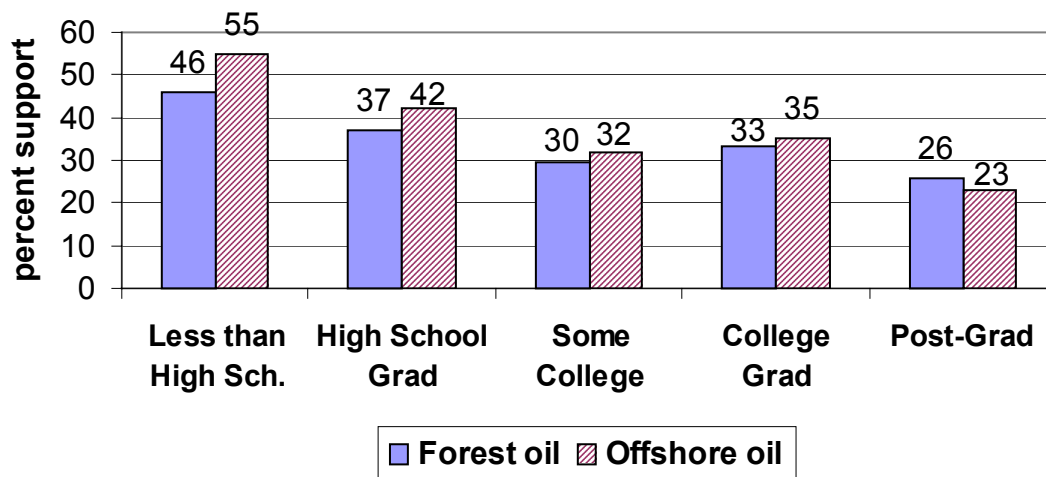
Figure 4. Support for Oil Drilling by Commute Distance



Another, usually more successful, approach to explaining support for environmental issues is to look at education and age (Jones and Dunlap 1992; Van Liere and Dunlap 1980). Many studies have shown that education and age are the two demographic variables that are most consistently associated with attitudes toward environmental issues. This is because the well-educated and the young tend to be liberal on social issues—that is, issues that turn on moral questions such as tolerance for free speech, for gays and lesbians, and for blacks and Latinos. Although environmental questions may seem to be inherently economic because they involve government regulations on the marketplace, most people seem to respond to environmental questions as if they were about religion and morals. On these sorts of issues, the well-educated and young tend to be liberal, while the poorly educated and old tend to be conservative (see Smith 2002, chap 5).

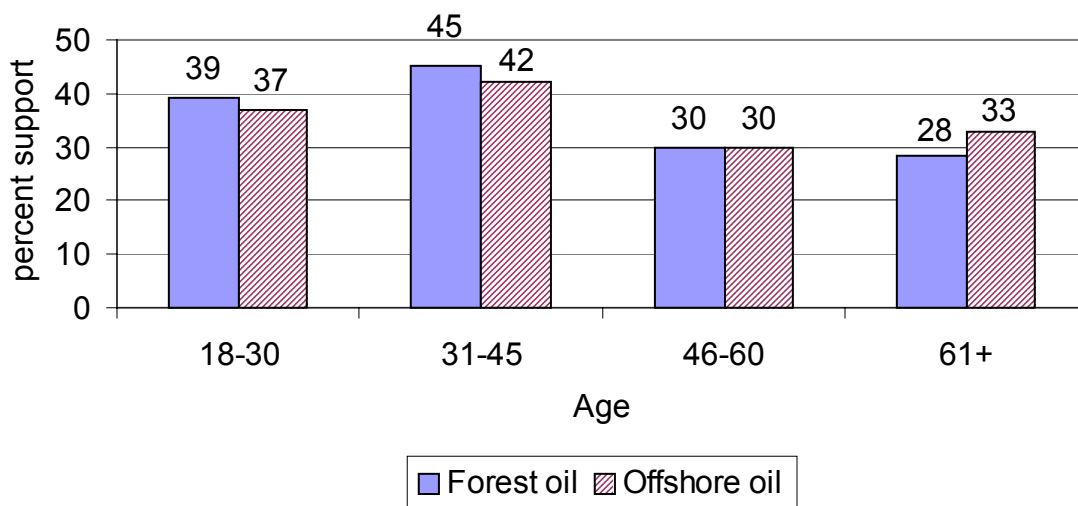
As expected, figure 5 shows a strong relationship between education and support for both forest and offshore drilling. While 46 percent of high-school dropouts favor more oil drilling in forests, only 26 percent of those with post-graduate degrees favor it. The gap is slightly larger for offshore oil development—55 percent of the high-school dropouts favor it, while only 23 percent of those with post-graduate degrees favor it. Both relationships are strong and statistically significant. We should also point out that these relationships are politically important because better educated people tend to vote at a higher rate than do the poorly educated.

Figure 5. Support for Oil Drilling by Education



Contrary to expectations, the relationship between age and support for drilling does not appear. The youngest group, 18-30 year-olds, is less supportive than respondents who were 31-45 years old (which is what we would expect), but both older groups show somewhat lower support levels. Overall, the age data are not typical of most attitudes toward environmental issues. However, again we see that attitudes toward drilling in forests and offshore are quite similar.

Figure 6. Support for Oil Drilling by Age



The final, and most important, characteristics we examine are political orientations. Party identification and ideology are generally the best predictors of environmental attitudes. Political disputes over how to protect the environment almost always see Democrats and liberals taking the pro-environment side, while Republicans and conservatives take pro-development stands. That pattern holds with both forest and offshore oil drilling. As figure 7 shows, there is a sharp, partisan difference in opinions about oil development. While 58 percent of strong Republicans support more forest drilling, only 13 percent of strong Democrats support it. The levels of support for offshore oil are slightly higher, but the pattern is the same. In a similar vein, figure 8 shows that about 60 percent of strong conservatives want more oil drilling both in forests and offshore, while only five or six percent of strong liberals agree. Partisan and ideological opinions on oil drilling are highly polarized.

Figure 7. Support for Oil Drilling by Party Identification

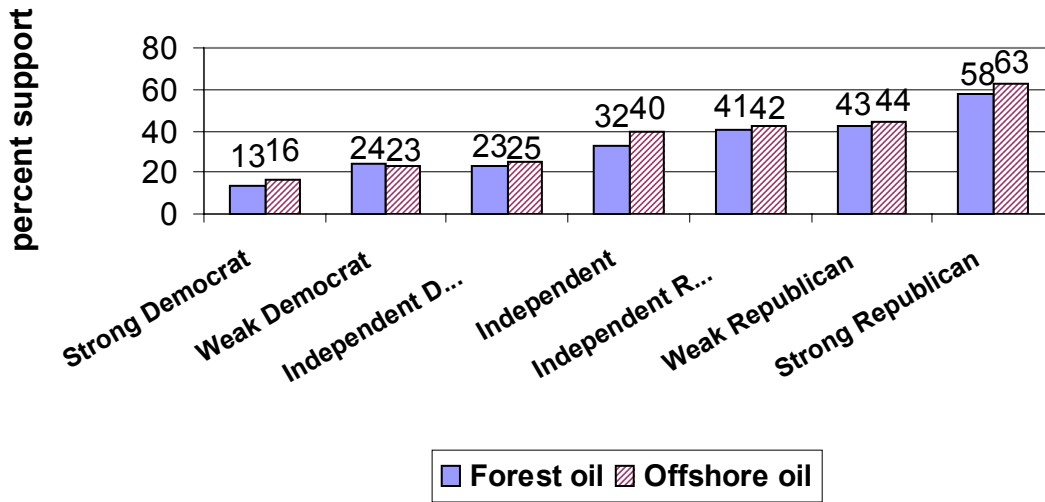
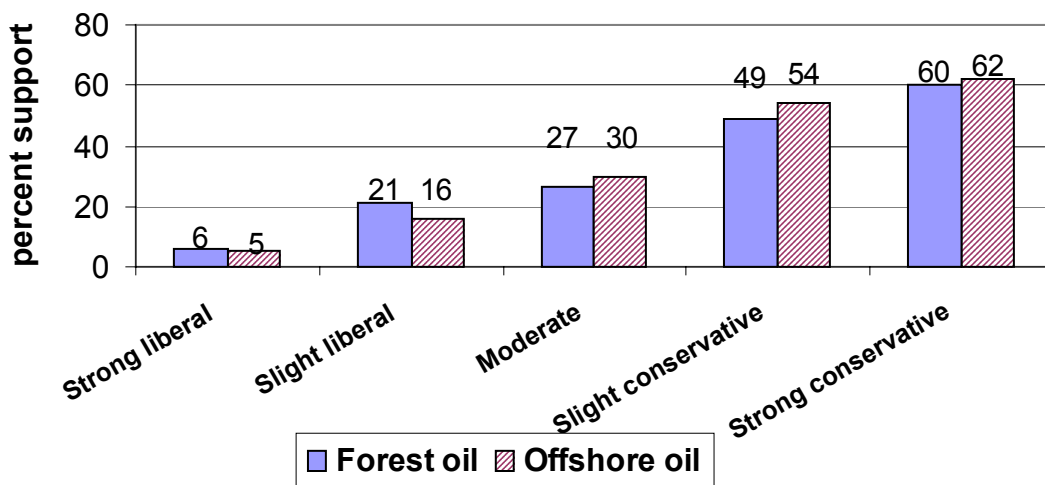


Figure 8. Support for Oil Drilling by Ideology



Concluding Comment

The data presented here show that Californians' opinions about offshore and forest oil drilling are very similar. Although offshore oil drilling has long been a contentious political issue in California, while drilling for oil in California's national forests has only recently become controversial, the public has responded to both issues in the same way for many years.

Because offshore oil drilling has received far more media attention for many years, we presume that people's opinions on that issue are more strongly held (our surveys did not include measures of intensity of preference). Yet given the similar patterns of opinion on forest and offshore drilling, it seems that forest drilling has the potential to develop into a major conflict similar to the conflict over offshore oil drilling.

Data Appendix

Data from the surveys listed below were used in this report. All of the Field surveys are publicly available from the University of California, Berkeley's UC DATA.

Survey	Dates	Sample Size
Field 8002	4/2-8/1980	501 (random half; total sample n=1,012)
Field 8006	10/15-18/1980	506 (random half; total sample n=1,018)
Field 8104	10/26-11/1/1981	1,102
Field 8401	2/1-9/1984	743 (random half; total sample n=1,511)
Field 8903	7/12-23/1989	993
Field 9004	8/17-27/1990	614 (random half; total sample n=1,235)
COODEPS_1*	3/5-18/1998	810
Field 0102	5/11-20/2001	448 (random half; total sample n=1,015)
COODEPS_2*	7/1-10/15/2002	1,475

*California Offshore Oil Drilling and Energy Policy Survey

Survey Questions used in this Analysis

Age: “What is your age?”

Commute: “About how many miles is it from your home to work?” Coded:
(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: “What is the highest year of school that you have finished and gotten credit for?” Coded: (1) Less than high school; (2) High school graduate or trade school; (3) Some college; (4) College graduate; (5) Post-graduate education

Income: “Now, we don't want to know your exact income, but just roughly, could you tell me if your annual household income before taxes is under \$20,000, \$20,000 to \$40,000, \$40,000 to \$60,000, \$60,000 to \$80,000, or more than \$80,000?”

Party identification: “Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent or what?”

If Republican or Democrat: “Would you call yourself a strong or not very strong (Republican) (Democrat)?”

If independent: “Do you consider yourself as closer to the Republican or the Democratic Party?”

Ideology: “Generally speaking, in politics do you consider yourself as conservative, liberal, middle-of-the-road?”

If conservative: “Do you consider yourself a strong or not very strong conservative?”

If liberal: “Do you consider yourself a strong or not very strong liberal?”

If middle-of-the-road: “If you had to choose, would you consider yourself as being conservative, liberal, or middle-of-the-road?”

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