2007 Idaho Energy Policy Survey

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Chapter 1: Introduction

1-1: Executive Summary

The Energy Policy Institute (EPI), part of the Center for Advanced Energy Studies (CAES), performed this study so that the opinions and attitudes of Idahoans can be used to inform State policy-making related to energy production, distribution, and use. During the 2006 Idaho Legislature, an Interim Committee on Energy, Environment, and Technology was tasked to develop an Energy Plan for the State as a result of public controversy over a proposed 750 mega-watt coal-fired power plant to be built in south-central Idaho. Although the Interim Committee invited a number of citizens to participate in making recommendations for the plan, the make-up and the number of participants fell short of representing the Idaho public as a whole.

As a result, EPI, along with the Social Science Research Center at Boise State University, conducted a random state-wide survey relative to issues and policies discussed while developing the Idaho Energy Plan. The results of the survey can be used to understand the public's attitudes on issues related to the Energy Plan and to inform subsequent policy decision-making associated with energy issues in the State.

The survey had a total of 513 completed responses resulting in a state-wide standard error of +/-5.6 percent at a 95 percent confidence-level and an effective response rate of 44 percent. The sample design allowed for results to be broken down by Idaho's six planning regions. Results by political party affiliation were also provided for most of the questions in this report.

Questions included in the study deal with the public's perception of Idaho's status quo energy situation and also how Idaho should respond to future challenges. This includes questions of overall priority of future resources, policies related to alternative production of natural gas, transportation fuels, and electricity as well as issues and policies about energy conservation, power plant siting, global warming, low-income affordability, and policy implementation.

More often than not, results of the study reflected agreement with recommendations made in the Idaho Energy Plan. One large area of agreement favored the application of

incentives to expand the production and use of renewable sources of electricity, transportation fuels, and natural gas. Other areas of agreement included: the use of targets by utilities to increase conservation; allowing cities local option tax authority; encouraging land use planning that reduces commute times; providing aid to municipalities to help them apply and enforce energy-efficient building codes; and promoting policies that encourage customers to generate their own renewable electricity.

Areas where the public disagreed with the plan included: the use of renewable electricity generation as a higher priority over conservation; favoring targets to increase the percentage of renewable electricity utilities provide as opposed to not setting any targets; setting minimum percentages of renewable fuel sold at retail; and giving the State the authority to share power with counties in power plant siting decisions.

1-2: Methodology

The Energy Policy Institute (EPI) is responsible for initiating this study and for its overall management, including the development of technical specifications, research protocols, and the questionnaire as well as the analysis and reporting. The Social Science Research Center acted in a consultant role and performed all data collection sourcing activities. Clearwater Research, Inc. was selected as the vendor that performed the telephone survey.

The Institutional Review Board (IRB) at Boise State University approved the study's specifications and protocols. IRB authorization serves as a check to ensure that study participants understand their involvement as completely voluntary and anonymous.

Questions were developed after attending the Idaho Legislature's Interim Committee of Energy, Environment, and Technology which was tasked during the 2006 Legislative session to develop an Energy Plan for the State. From these meetings, EPI developed questions that covered the range of energy issues discussed.

After questions were developed, the Interim Committee was asked for feedback on which questions they would most like to see in the survey. Although their feedback was considered, EPI took responsibility for making the final determination as to which questions were asked in the survey.

EPI finalized the questionnaire to fit within acceptable time constraints, reducing bias, and to ensure the questions were as clear and concise as possible.

The actual data collection occurred between December 11th, 2006 and January 5th, 2007. Clearwater Research conducted telephone interviews with 513 randomly selected adults residing in Idaho through their computer-aided telephone interview system (CATI). A method known as random-digit-dialing was used to contact a random sample of households.

The sample was stratified by six planning regions used in Idaho (See Figure 1.0, page 6) with approximately an equal number of

samples (minimum of 84) from each region. This method of sampling allowed analysis by region with approximately equal standard error for each region.

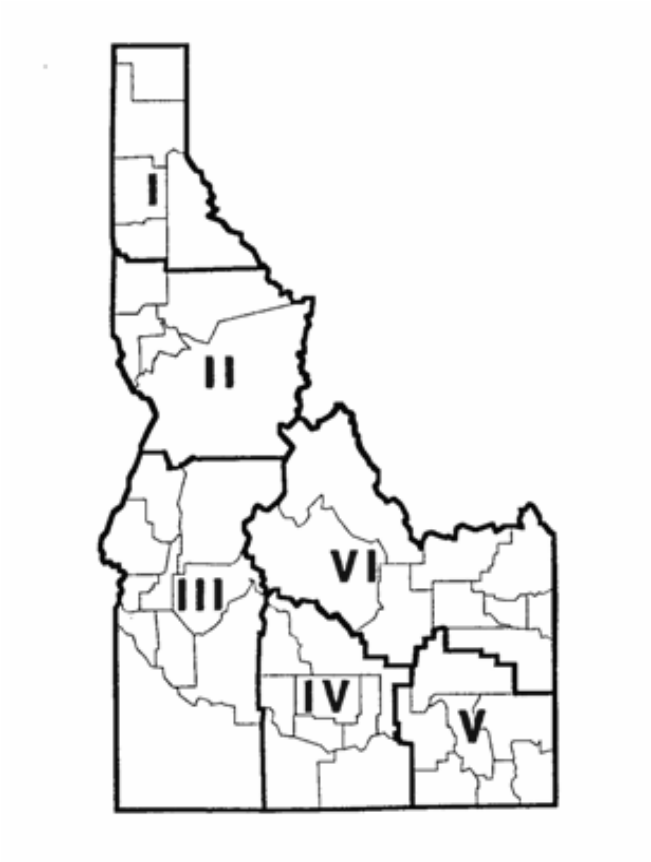
After a sufficient sample was collected, the data was quality checked and open-ended responses appropriately recoded for analysis. The data was also weighted to account for sample design, population differences, and to minimize effects of non-response.

The results of analysis are included in this report. State-wide frequency results are provided for each question. Whenever possible, results are also provided by region as well as by political party affiliation. Demographic questions are also included in the survey (See Appendix III). Results broken down by different demographics can be provided upon request.

In many cases, if a respondent did not know or was not sure of the answer to a question, their response was included in a "Don't Know, Not sure" category. Unless these percentages were significantly large, they were excluded from the reported results for ease of presentation. As a result, many of the frequency graphs may not add to 100%. The difference can be assumed to be from this response category.

For further details on the data collection including sample methodology, weighting, standard error calculations and response rates, see Clearwater's Method Report in Appendix III, page 79.

Figure 1.0 - Map of the Six Idaho Regions.



I. **Panhandle**—Boundary, Bonner, Kootenai, Benewah, Shoshone

II. **No. Central**—Latah, Clearwater, Nez Perce, Lewis, Idaho

III. **Southwest**—Adams, Valley, Washington, Payette, Gem, Boise, Canyon, Ada, Elmore, Owyhee

IV. **So. Central**—Camas, Blaine, Gooding, Lincoln, Minidoka, Jerome, Twin Falls, Cassia

V. **Southeast**—Bingham, Power, Bannock, Oneida, Franklin, Bear Lake, Caribou

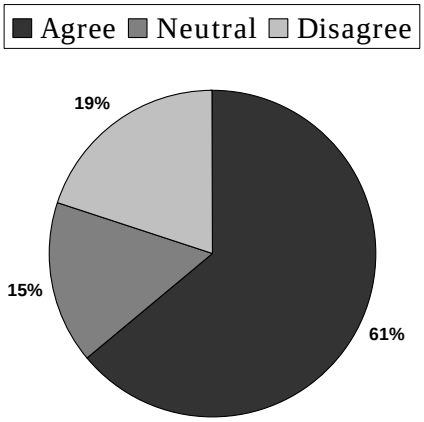
VI. **East Central**—Lemhi, Custer, Butte, Clark, Fremont, Jefferson, Madison, Teton, Bonneville

Chapter 2: Perceptions of Status Quo

2.1: Status Quo

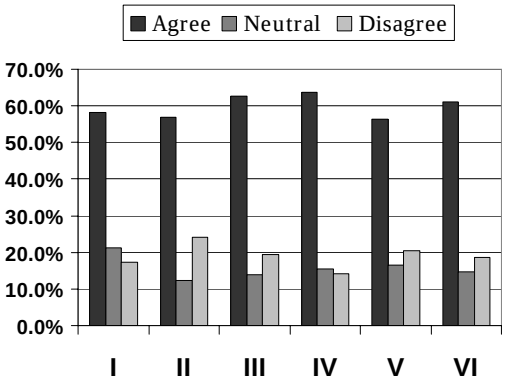
~Has the state done a good job of managing Idaho's energy resources?

About 61 percent of Idahoans feel that the state is doing a good job of managing Idaho's energy resources. Specific questions about energy management have not been asked in the past, however the 17th Annual Idaho Public Policy Survey found that 64 percent of Idahoans felt that the state was generally headed in the right direction[1] mirroring these results.

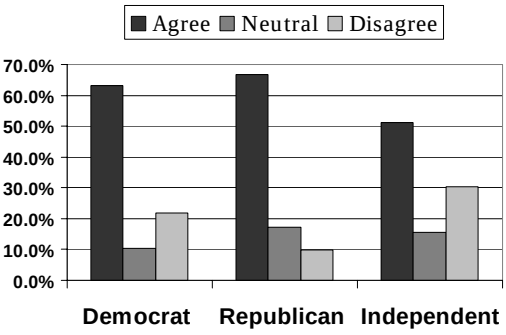


Q010

There is little variance among regions. Region IV had the highest agreement rate at around 64 percent, while Region V has the lowest agreement rate at 56 percent.



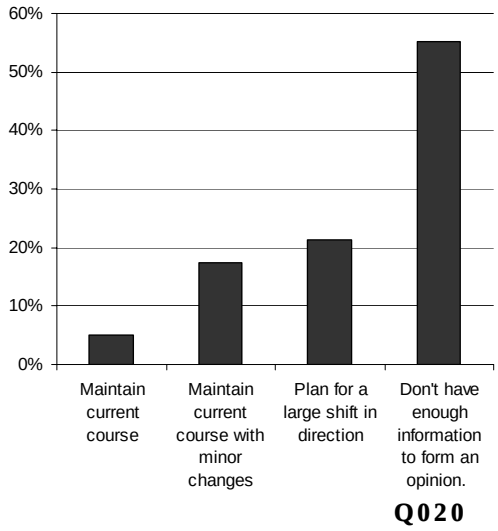
A breakdown by political party affiliation closely resembles overall state findings, although Independents seem more skeptical of the State's performance than either Democrats or Republicans.



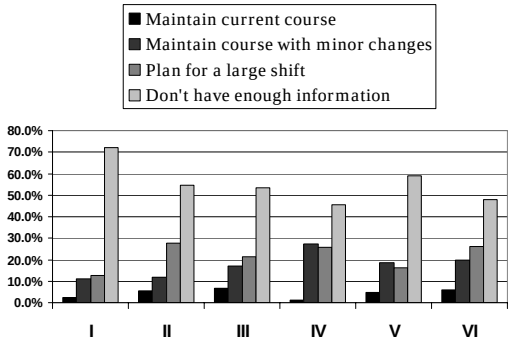
[1] http://ppa.boisestate.edu/ssrc/archive/2006-annualsurvey17.pdf

~What is Idaho's best approach for future energy resource planning?

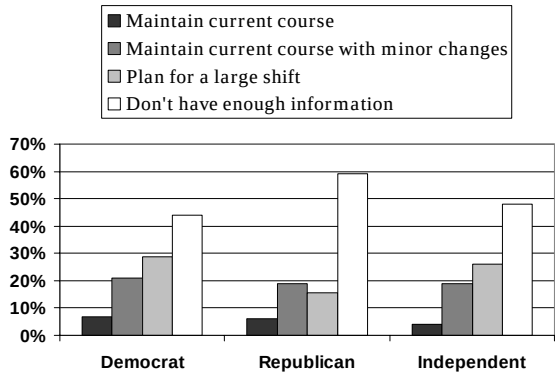
This question was asked to understand the public's perception about the degree of change needed to meet Idaho's future energy challenges. However, a 55 percent majority answered that they didn't have enough information to form an opinion. This may indicate a high level of uncertainty regarding Idaho's current ability to weather future problems or it might also indicate uncertainty regarding the extent of what those future problems might be.



Results across the state showed that Regions IV and VI may be somewhat more informed on energy related issues. This could be due to a proposed coal fired power plant in Region IV and the location of the Idaho National Laboratory in region VI.



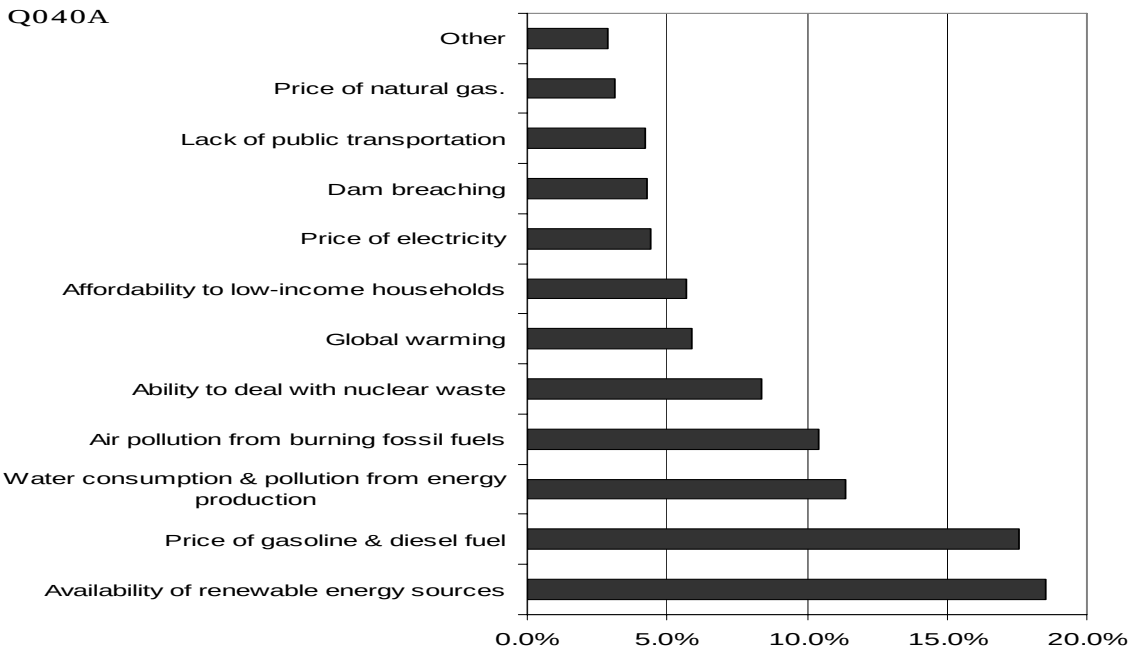
Results by political party affiliation generally reflect statewide results, although Republicans appear to be slightly less informed than Democrats or Independents.



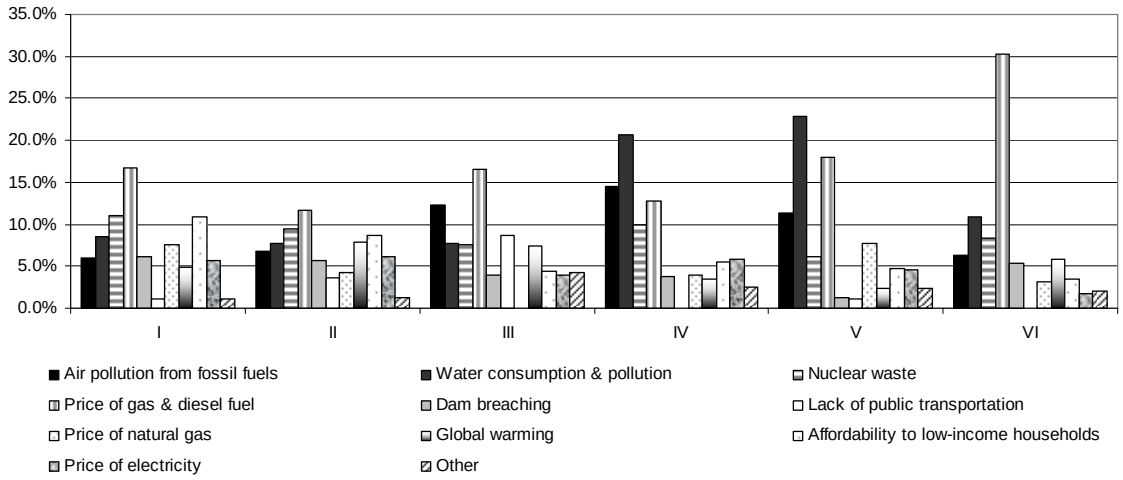
~What is the most important issue facing Idaho with regard to energy?

When asked about the single most important issue regarding energy in Idaho, the two most frequently selected issues were the availability of renewable energy and the price of gasoline and diesel fuel both at about 18 percent. These results are likely due to Hurricane Katrina and the resulting disruption in refinery capacity. That event triggered a spike in gasoline prices a few months prior to the survey being conducted.

Water consumption and pollution, always at the forefront of concerns to Idahoans ranked third at 11 percent while air pollution from burning fossil fuels ranked fourth at 10 percent. The ability to deal with nuclear waste was ranked fifth at 8 percent, likely due to ongoing battles between Idaho and the Federal Government to remove waste from the Idaho National Laboratory. Surprisingly, only 6 percent of Idahoans ranked global warming as the top issue. This is in spite of the widely held belief by Idahoans that human caused global warming is occurring (see question 180, page 43). The causes of global warming may be seen as inter-related to issues of air pollution and a lack of renewable energy sources.

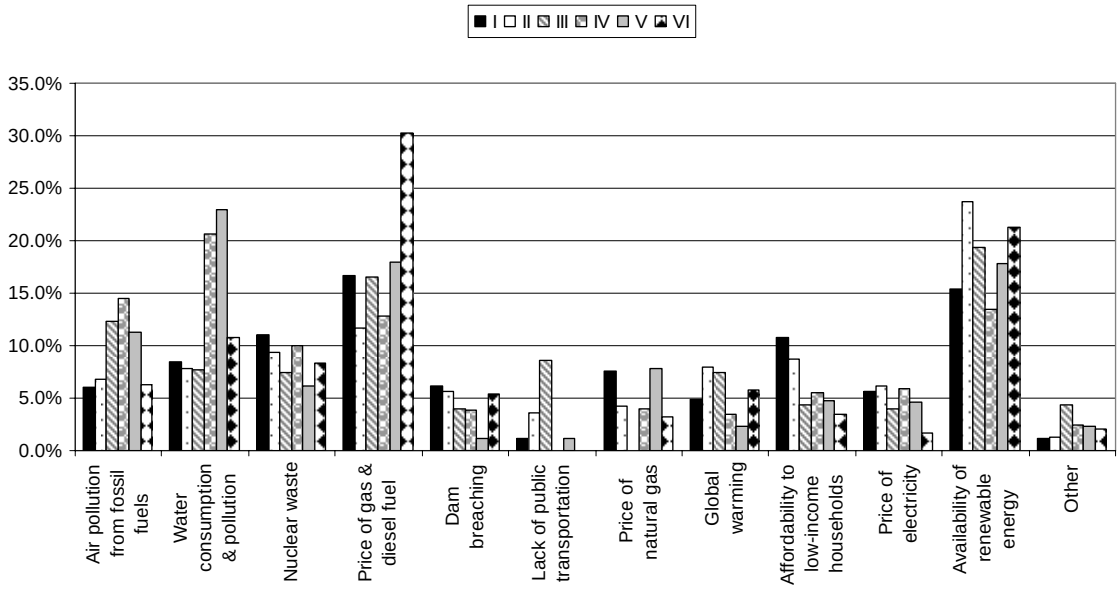


Identifying the most important issues by region (See table below), the price of gasoline and diesel fuel and the availability of renewable energy were the top two most important issues selected by study participants in Regions I, II, III, and VI. These issues were also in the top three most important issues for Region V. However, water consumption and pollution from energy production was the top issue for Regions IV and V, likely because of agricultural interests affected by drought in those regions. Air pollution from fossil fuels was the second most important issue in region IV. Respondents were likely sensitized to issues of air pollution after the controversy of a coal-fired power plant proposed for the region.



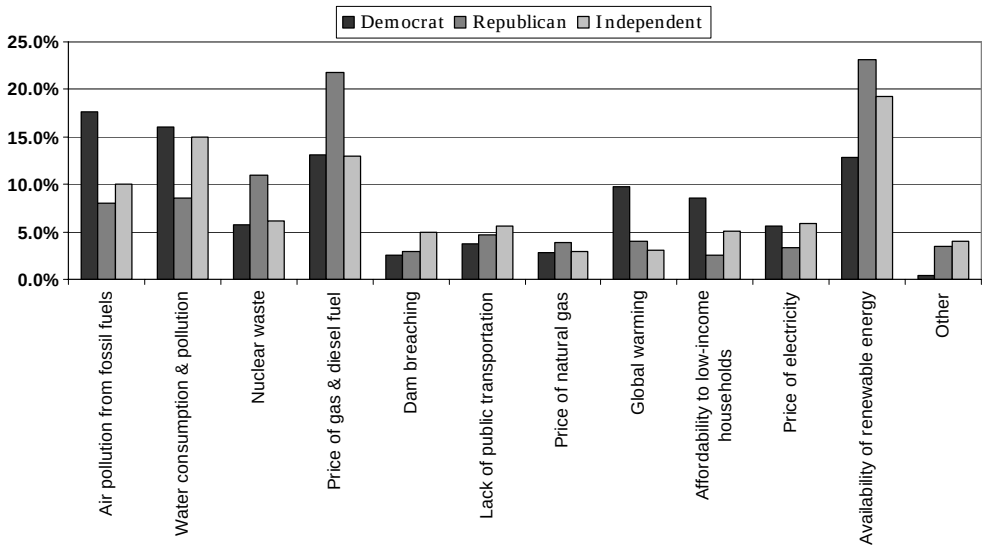
The following are some of the more significant results by issue category (See table below). In Regions III and IV, concern for air pollution from fossil fuels was higher than in other regions. This is not surprising given a history of air quality non-attainment in Boise, which is located in Region III, and the controversy over the proposed coal-fired power plant in Region IV. Water pollution and consumption was selected most often by far in agricultural Regions IV and V. Nuclear waste was selected as an issue least often in Regions V and second least often in region VI, possibly indicating a high level of support for the Idaho National Laboratory located within and closest to these regions. The

price of gasoline and diesel fuel was selected more often by Region VI than any other region. This could be due to the vastness of the area and distances residents must drive. Region III participants selected a lack of public transportation more often than other regions, likely as a result of air quality and population growth issues experienced there. In Regions I and V, the price of natural gas was selected as "most important" at a higher rate than in other regions. A likely cause of why this is important to residents in those regions is a high percentage of households that use natural gas for home heating (see Appendix II, page 75). Finally, affordability to low income households was selected in Regions I and II at a higher rate than in other regions. Regions I and II have a higher proportion of households with income below $30,000 compared to other regions which may be a significant factor (see Appendix II, page 73).



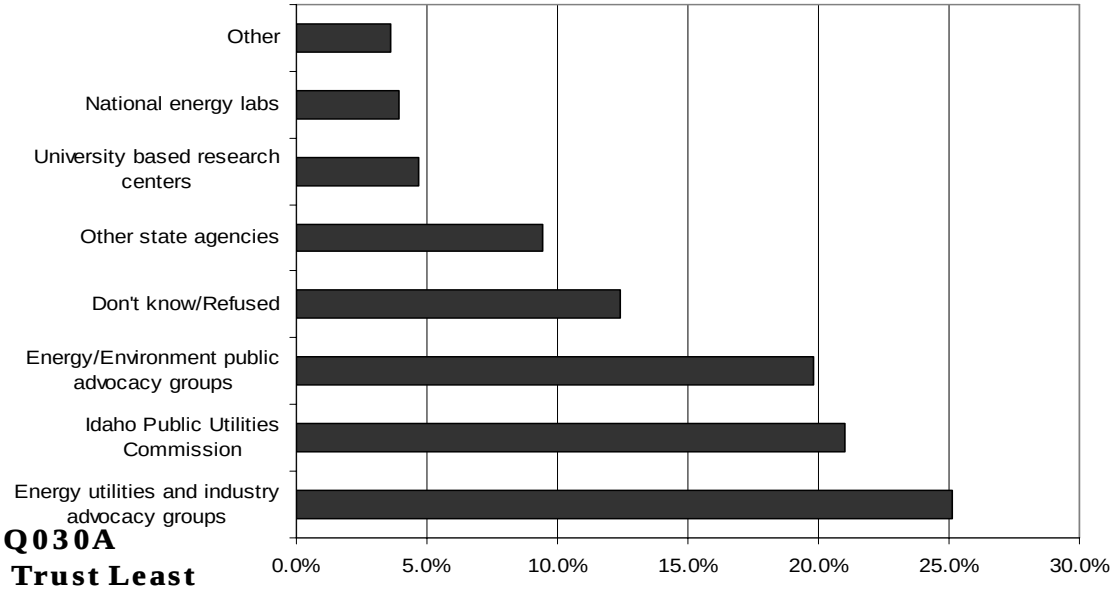
With respect to political party affiliation (see table below), Democrats tended to identify environmental impacts as their most important issues. These include air pollution from fossil fuels and water consumption and pollution from energy production. Republicans tended to identify availability and price of energy resources for consumption as their most important issues. They identified availability

of renewable energy most often as their most important issue and the price of gasoline and diesel fuel as the issue selected second. Independents seemed concerned about a combination of environmental and resource availability issues. While the issue most important to them was availability of renewable energy, they also selected water consumption and pollution from energy production second most often.

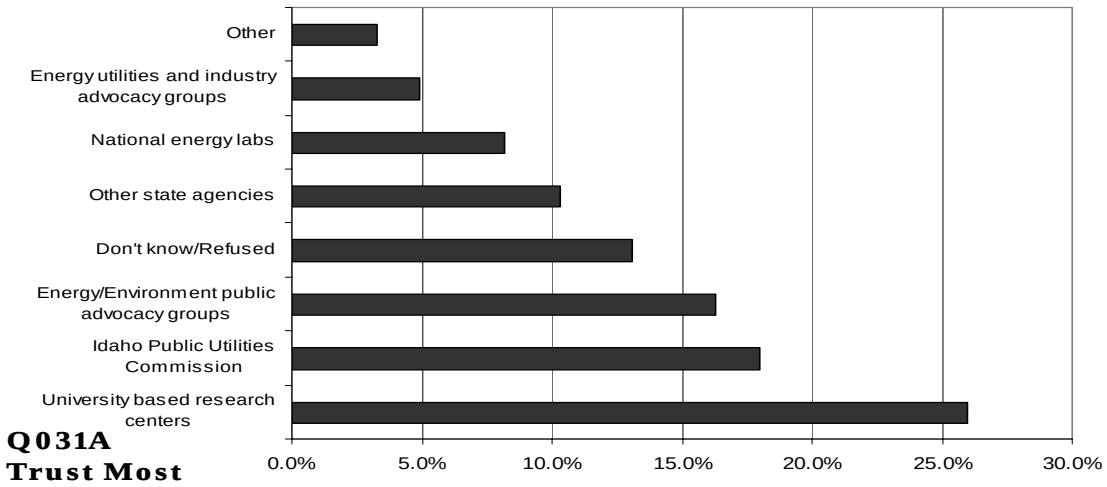


~Who do you trust to influence the State Legislature on energy policy?

Two questions were asked to understand the level of trust Idahoans have for particular groups that routinely provide input to the legislature on energy policy. Question 030A focused on who Idahoans trust the least, while Question 031A asked who they trusted the most. Consistent across both questions, university-based energy research centers tended to be trusted the most to influence the state legislature, while utilities and industry advocacy groups tended to be trusted the least. Inconsistencies between the two questions may indicate that study participants considered several factors in how trust was assessed. For example, advocacy groups focused on energy and the environment were shown to be the third *least* trusted in question 030A, while they were simultaneously the third *most* trusted in question Q030B. This may indicate that while the public doesn't fully trust environmental groups to represent the public's views wholly and accurately, they may feel that these groups do serve a beneficial purpose. The large percentage in the "Don't Know/Refused" category may indicate that many Idahoans don't understand the role some of these groups play and the interests they represent in shaping energy policy.

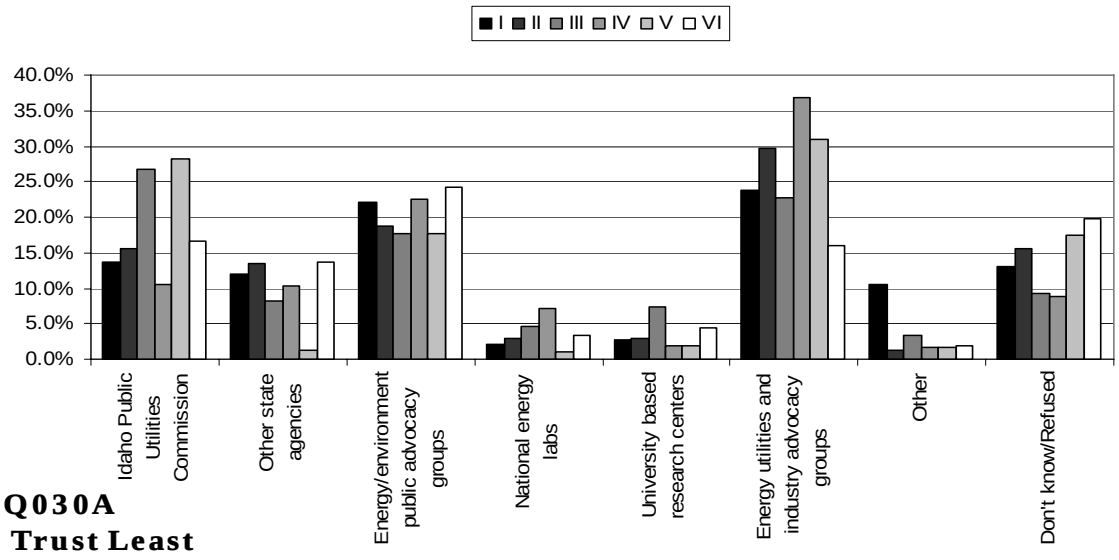


Q030A Trust Least

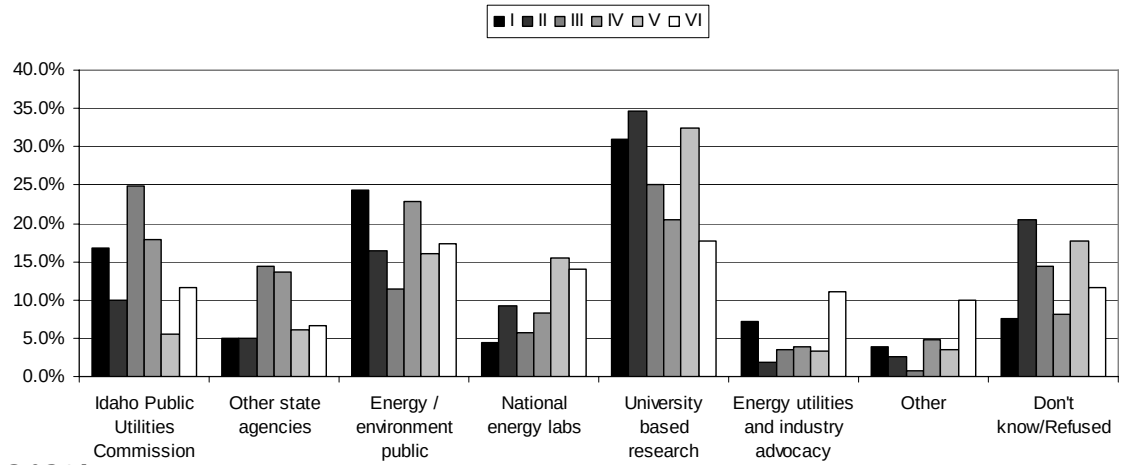


Q031A Trust Most

Across all six regions (see tables below), university-based research centers were trusted the most, although there was a small level of variability between regions. With the exception of Region VI, energy utilities and industry advocacy groups were least trusted across the regions in the state. The amount of variability between regions was also high regarding trust in the Public Utilities Commission (PUC). The role of the PUC varies between regions. Regions with utilities not regulated by the PUC may be less familiar with them and therefore reflect different levels of trust.



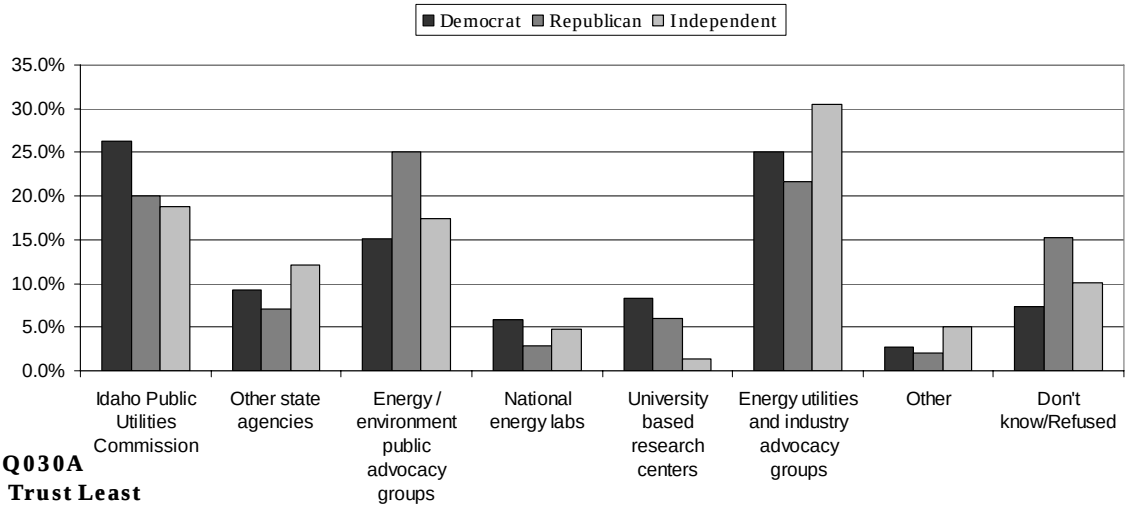
Q030A Trust Least



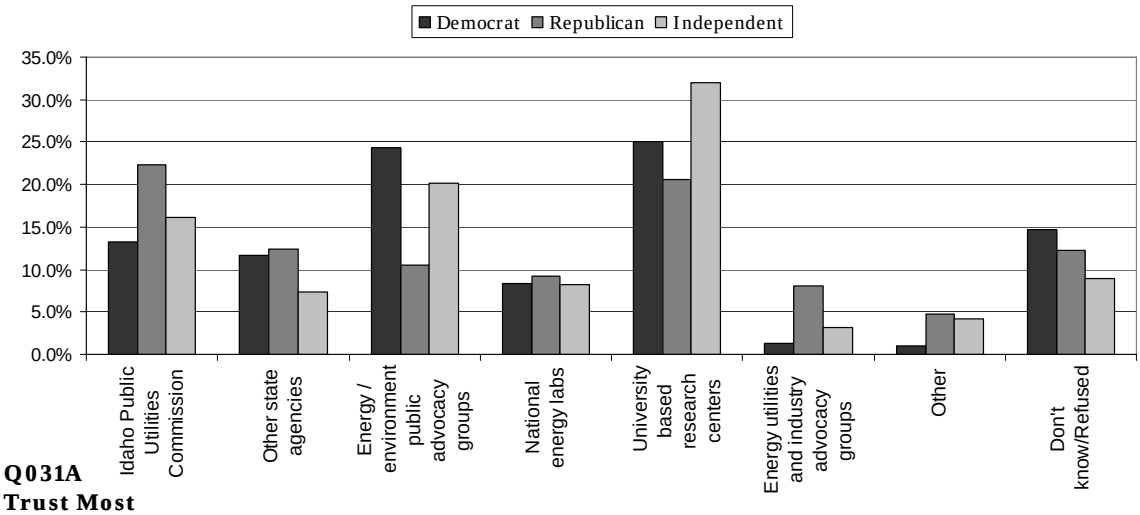
Q031A
Trust Most

Results by political party affiliation (see tables below) generally reflected statewide results. Although Republicans tend to trust the Idaho Public Utilities Commission more than Democrats, Democrats seem to trust public advocacy groups focused on energy and the environment more than Republicans.

Independents seemed to be more skeptical in trusting energy utilities and industry advocacy groups than either Democrats or Republicans, while trusting university-based research centers to a greater degree than those associated with the two main parties.



Q030A
Trust Least



Q031A
Trust Most

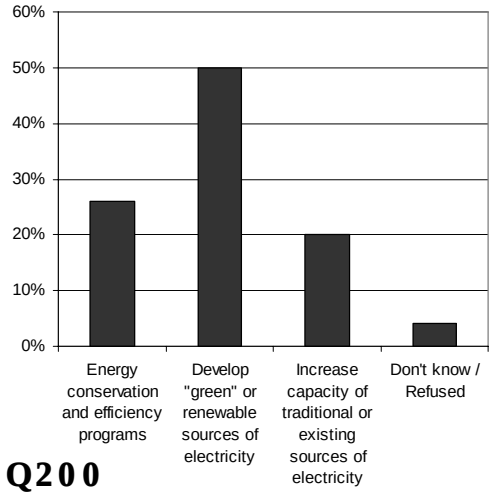
Chapter 3: How Should Idaho Respond?

3-1: Priority

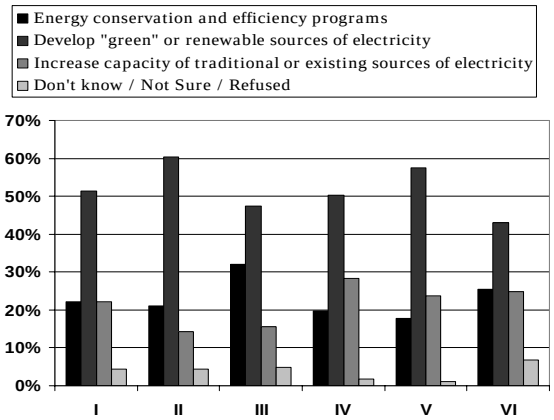
~What should be Idaho's highest priority to meet future demand for electricity?

Half of respondents (50%) said that developing green or renewable sources of electricity should be the state's highest priority. Efficiency programs were second at 26 percent, and increasing the capacity of current energy sources was third at 20 percent.

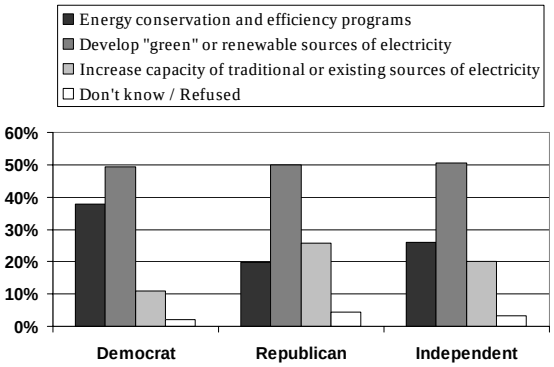
The opinion of the public differed from the Interim Committee's recommendation that placed energy conservation and efficiency programs as a first priority and the development of renewable sources of electricity second.



Developing renewable energy ranged in popularity across regions. Region VI reflected the lowest preference for renewable energy development (43%) and Region II had the highest (60%).



Results across all political party affiliations show that renewable energy should be the top priority, similar to statewide results. However, more Democrats than Republicans support conservation and efficiency as a priority while more Republicans than Democrats support the development of traditional sources.

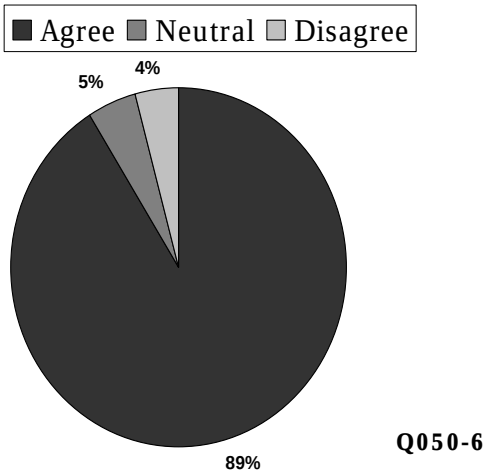


3-2: Natural Gas

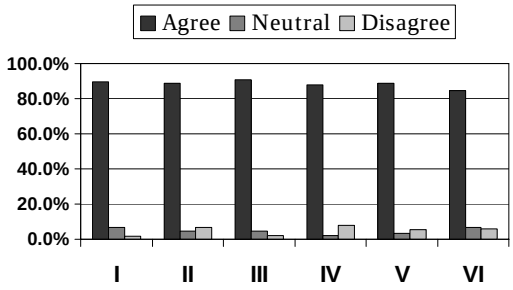
~Idaho should provide incentives for investment in resources needed to produce natural gas from feedstock and landfill wastes.

About 89 percent either strongly agree (59%) or somewhat agree (30%) that Idaho should provide incentives for investment in non-traditional natural gas resources.

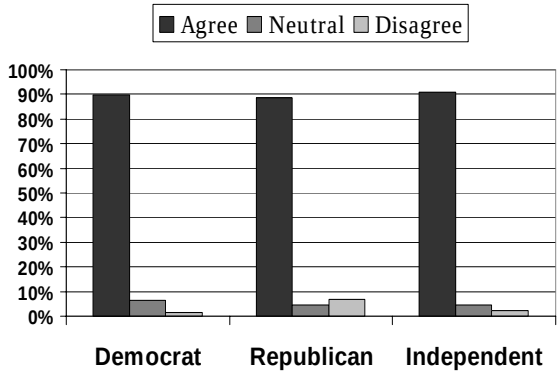
This majority opinion agrees with recommendations made in the Idaho Energy Plan to promote alternative natural gas resources.



There is moderate variance across regions. At 91 percent, Region III has the highest agreement rate, while Region VI has the lowest at 84 percent.



Results by political party affiliation reflected statewide results with little variation observed between parties.

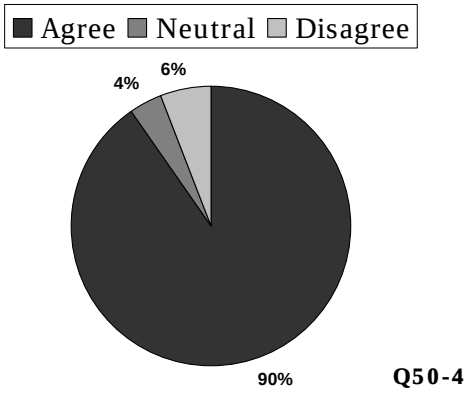


3-3: Renewable Energy

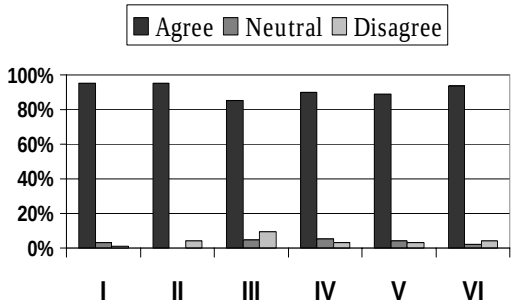
~Do you agree that Idaho should provide incentives to promote renewable energy?

Further supporting Idahoans' highest priority: developing renewable sources of energy for the future, about 90 percent of Idahoans either strongly agree (68%) or somewhat agree (21%) that the State should provide some sort of incentive to promote the development and use of renewable energy.

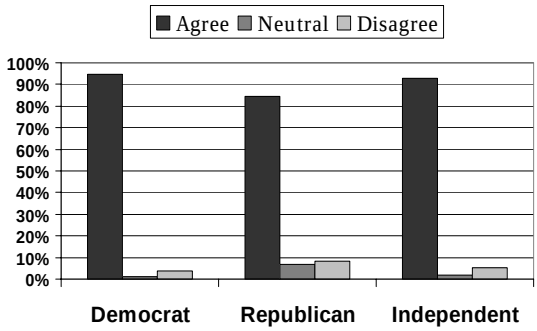
Strong public opinion in favor of renewable forms of energy and the use of incentives are common themes supported by the Interim Committee and the recommendations made in the Idaho Energy Plan.



There was little variance across regions on this question. Most agreement came from Region II with 97 percent, and the least agreement coming from Region III, with 85 percent.



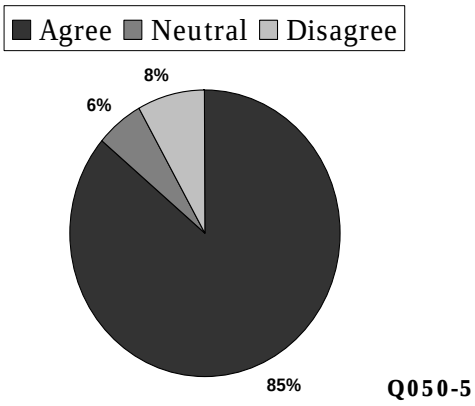
Across parties, Democrats (95%) and Independents (93%) showed slightly higher levels of agreement when compared to Republicans (83%).



~Idaho should establish uniform policies that encourage customers to generate their own renewable electricity and be able to sell any excess back to their utility company.

About 85 percent of Idahoans either strongly agree (56%) or somewhat agree (29%) that the State should establish uniform policies that would encourage customers to generate their own renewable electricity. There were only 8 percent that disagreed and 6 percent that were neutral.

The strong majority result shows that the Idaho public agrees with a similar recommendation made by the Interim Committee.



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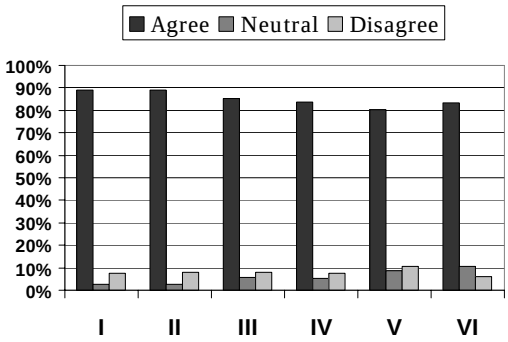
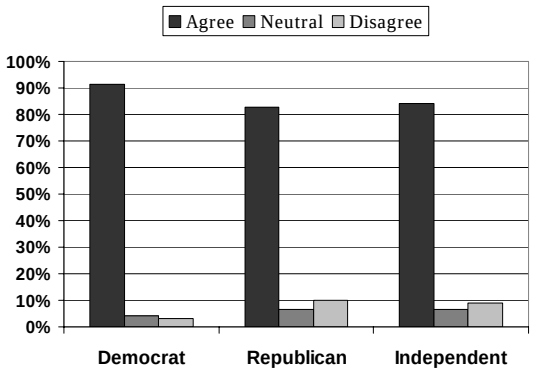
There was a slight variation across regions. Region's I and II had the highest agreement rate at around 90 percent each. Region V had the lowest agreement rate at 81 percent.



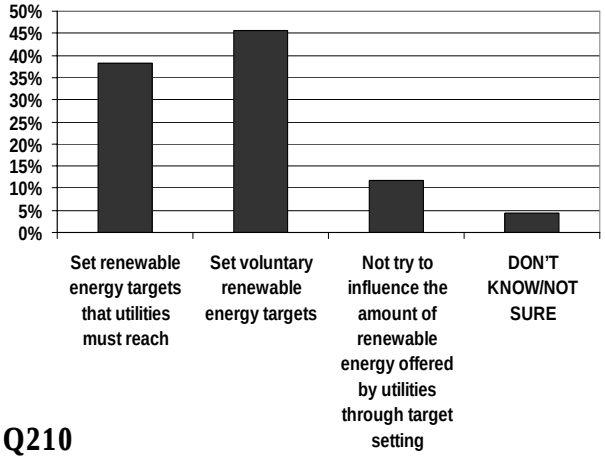
Although a breakdown by political party affiliation generally reflected strong majorities of agreement across the board, Democrats had the highest agreement rate at 92 percent, while Republicans and Independents had a lower rate at 83 percent and 84 percent, respectively.



~To increase the level of renewable energy that utilities provide customers, should Idaho set mandatory targets which utilities must meet, allow utilities to set voluntary targets, or not set any targets?

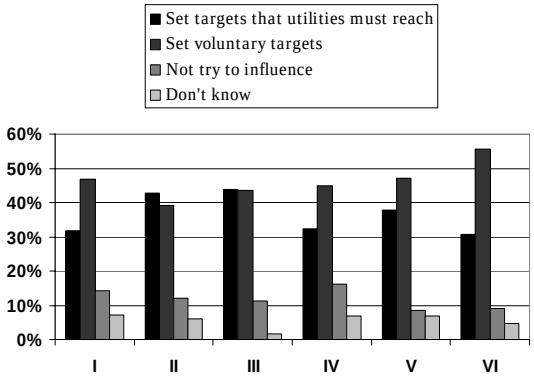
A total of 84 percent of Idahoans preferred that utilities should have targets, either voluntary (46%) or mandatory (38%), to increase the amount of renewable sources of energy in their overall resource mix. The largest percentage of respondents preferred voluntary targets over mandatory targets, while another 12 percent preferred not using targets at all.

In contrast to these results, the Interim Committee felt that mandatory targets or Renewable Portfolio Standards were not appropriate at this time.

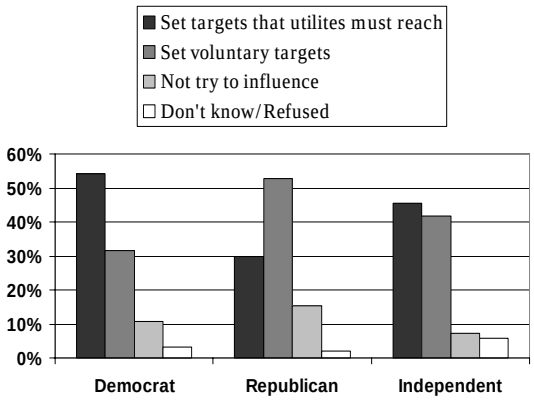


Q210

Being one of the more rural and conservative regions in Idaho, Region VI reflected a preference for voluntary targets more than any other region. Conversely, Regions II and III reflected a higher preference for mandatory targets.



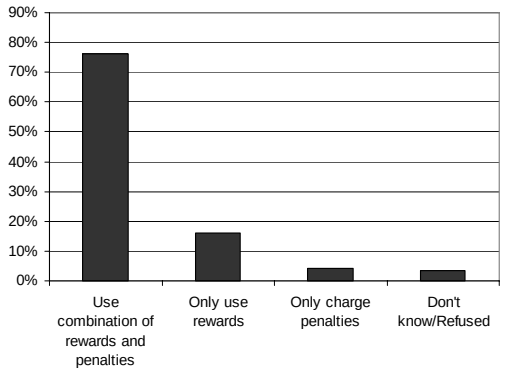
Democrats and Independents showed more support for mandatory targets while Republicans showed a preference for voluntary targets.



~If Idaho did set renewable energy targets for utilities, what reward/ penalty system should be used for goal attainment?

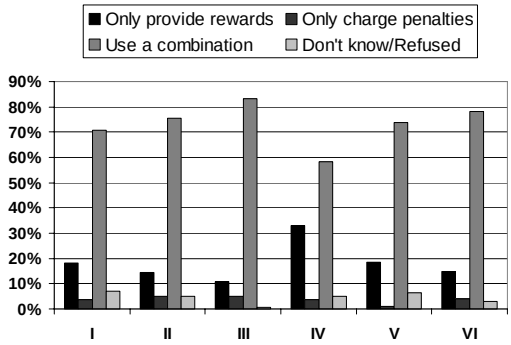
Independent of whether or not targets are mandatory or voluntary, a 78 percent majority of Idahoans believe that a combination of rewards and penalties should be used to achieve utility compliance. Only 18 percent of respondents felt that rewards should be used exclusively while only 3 percent felt that penalties should be used exclusively.

Although public opinion and the Interim Committee were aligned with respect to voluntary versus mandatory targets, the Committee generally felt that only rewards were appropriate to motivate utilities to increase the amount of renewable energy in their resource mix.

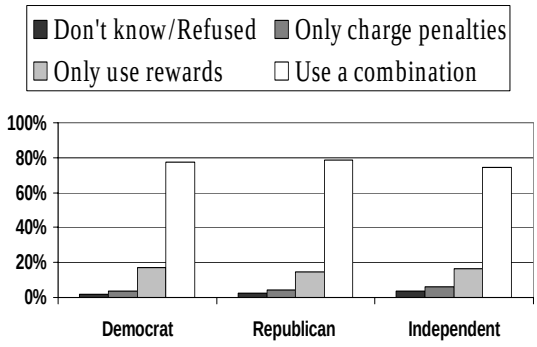


Q215

A combination of rewards and penalties garnered majority support across all regions.



Results by political party affiliation were all within the margin of error and therefore statistically equivalent.

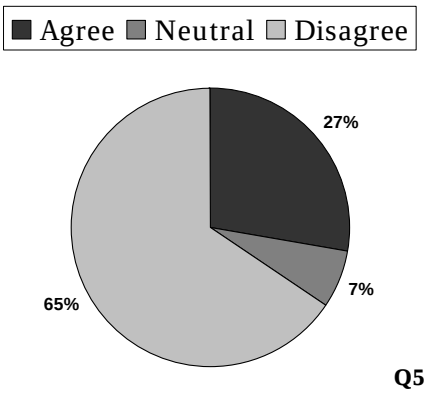


3-4: Conservation:

~Utilities should be able to charge higher rates during high demand periods to promote conservation?

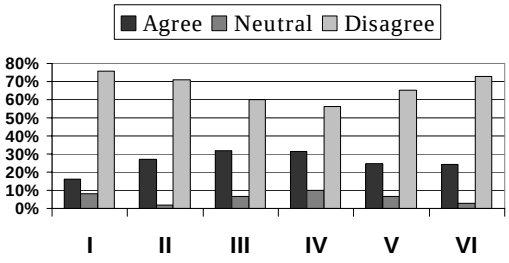
A majority of Idahoans (65%) either strongly disagree (43%) or somewhat disagree (21%) with charging higher rates to reduce peak demand for electricity. This may indicate a need for public education regarding this issue. Generally, by reducing peaks in demand, overall usage can be reduced resulting in a reduction in expensive peaking capacity and potentially lower rates.

The Interim Committee felt strongly that time-of-use rates by utilities are an important tool in keeping Idaho's electricity rates one of the lowest in the nation.

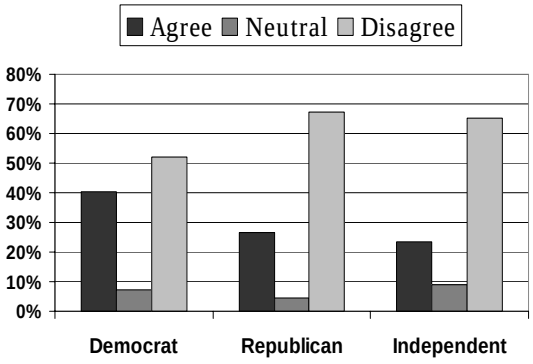


Q50-2

Regional results generally reflected state-wide results. Region I had the lowest level of agreement and Regions III and IV had the highest level of agreement. The high level of agreement in Region IV may reflect increased awareness of conservation as an alternative to siting a coal-fired power plant proposed in the region.



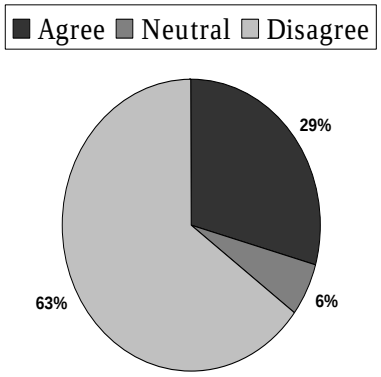
While differences by political party affiliation are minor, it appears that Democrats (40%) are more willing to support higher rates than Republicans (27%) or Independents (24%).



~Idaho should continue to allow cities and counties to opt-out of building codes that set minimum energy efficiency standards.

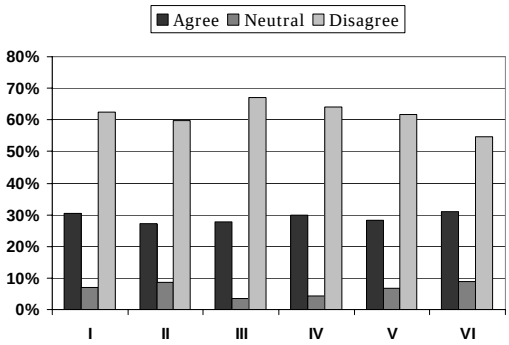
Currently, cities and counties can opt out of building codes adopted by the State. About 63 percent of Idahoans either strongly disagree (39%) or somewhat disagree (24%) with that policy when it comes to setting minimum energy efficiency standards.

Public opinion conflicts with recommendations made by the Interim Committee that recommended the State not set mandatory energy efficient building codes.

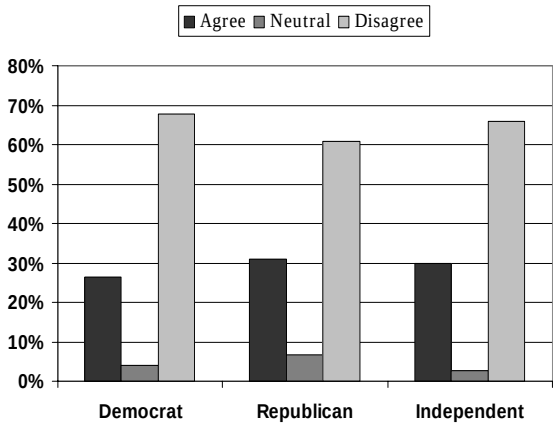


Q050-1

Results by region generally reflected overall state-wide results with no more than a 5% difference in levels of agreement between regions.



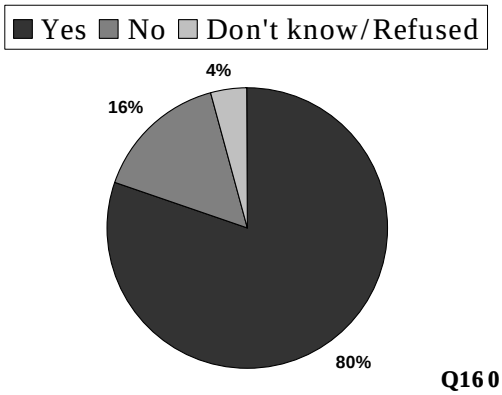
Results by political party affiliation also generally reflected state-wide results with differences within the margin of error.



~Should Idaho provide technical and financial assistance to help cities and counties apply and enforce energy-efficient building codes?

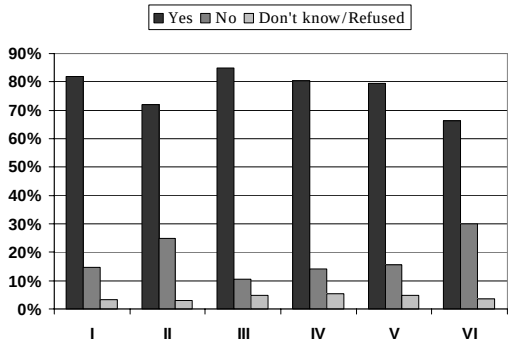
An 80 percent majority responded "yes" while only 16 percent said "no".

Although the Interim Committee did not recommend mandatory energy-efficient building codes for the State, they did recommend that Idaho provide technical and financial help to municipalities implementing energy efficient building codes.

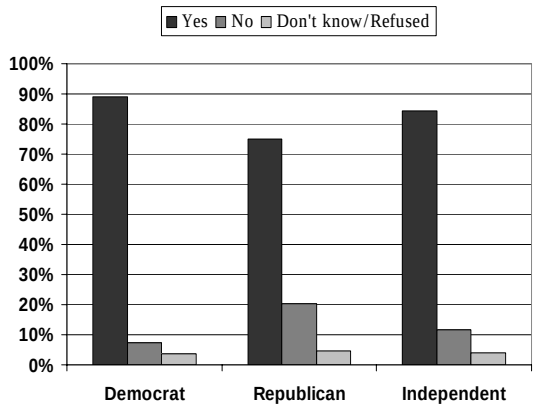


Q160

Results by region generally reflect overall statewide results. Region III had the largest number responding yes (85%) and Region VI had the lowest (66%).



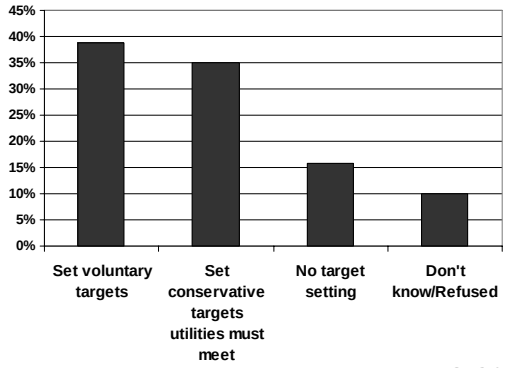
Differences across political party affiliations were minor reflecting strong majority support.



~ Currently, Idaho utilities promote customer conservation and efficiency which they use to meet future demand for electricity. To increase the amount of conservation and efficiency, should Idaho set mandatory targets that utilities must meet, allow utilities to set voluntary targets, or not set any targets?

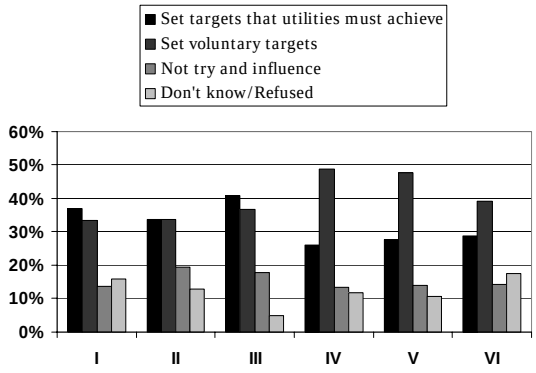
At 39 percent, the largest number of Idahoans would rather use voluntary targets for utilities to increase conservation and efficiency. However, a close second and within the margin of error, 35 percent would rather use mandatory targets.

Although the Interim Committee did recommend that utilities have annual targets for conservation achievement, they left the question open on whether targets should be voluntary or mandatory.

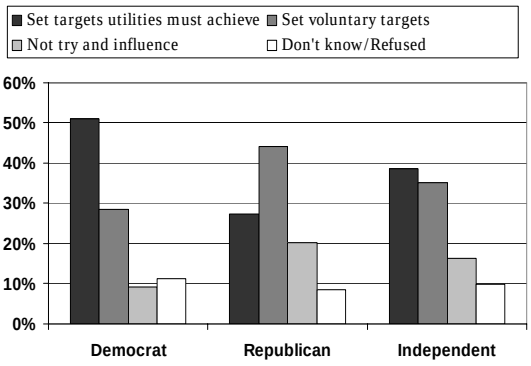


Q130

Regions IV, V, and VI showed a preference for voluntary targets while Regions I and III showed a preference for mandatory targets.



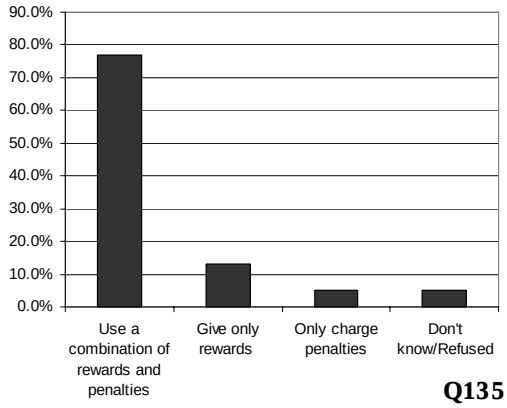
Democrats and Independents prefer mandatory targets over voluntary targets. Not surprisingly, Republicans favored voluntary targets over mandatory targets.



~If Idaho did set conservation targets for utilities, what reward / penalty system should be used to achieve goal attainment?

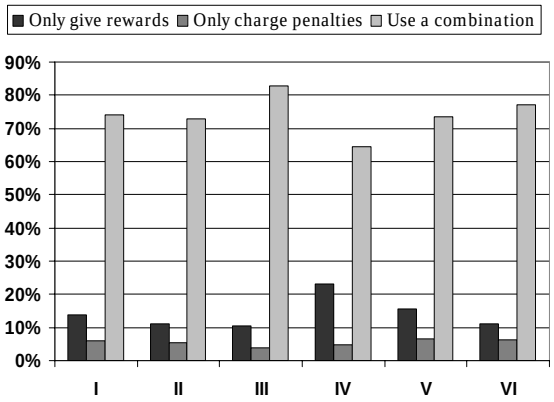
A large majority (77%) of Idahoans believe that a combination of rewards and penalties should be used to achieve utility compliance. Only 13 percent of respondents felt that rewards should be used exclusively while only 5percent felt that penalties should be used exclusively.

In comparing these results with the recommendations in the Idaho Energy Plan, the Interim Committee concentrated on the use of rewards in the form of utility shareholder incentives to achieve conservation targets, rather than a combination of penalties and rewards.

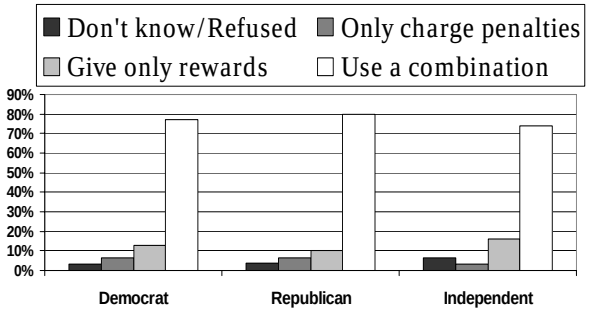


Q135

All regions reflected a majority preference for a combination of rewards and penalties. Urban region III showed the largest majority (83%) while rural Region IV showed the smallest majority (65%).



Results by political party affiliation generally reflected statewide results.

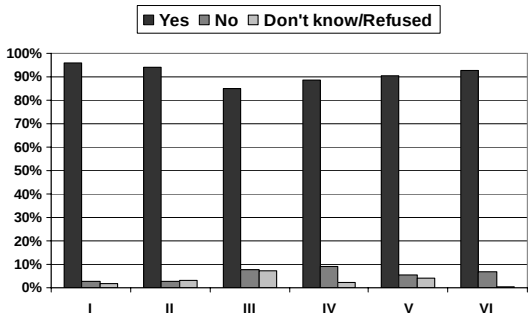


~Would you take advantage of financial incentives to make changes to your home or business to reduce your energy usage?

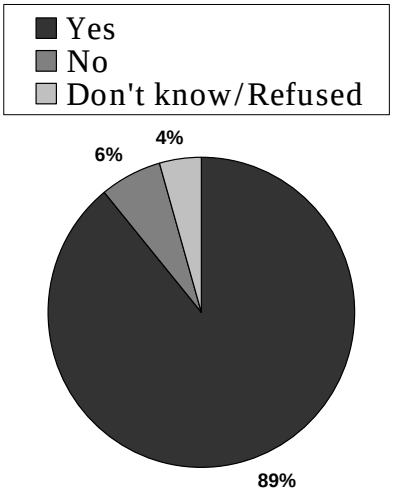
By an overwhelming majority, 89 percent of study participants responded "yes" when asked if they would take advantage of financial incentives to make changes to their home or business to conserve energy.

If the State did offer tax incentives for energy efficient investments, as recommended by the Interim Committee, households and business would likely take advantage of them.

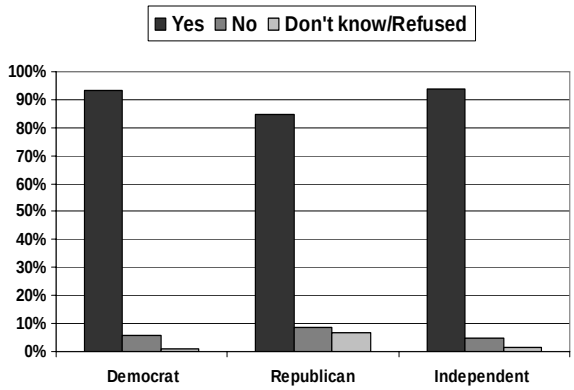
There was some variation in results by region. Responding "yes", Region I had the highest at about 96 percent and Region III had the fewest at 85 percent.



There was little difference in opinion between party affiliations as all had strong majority support.

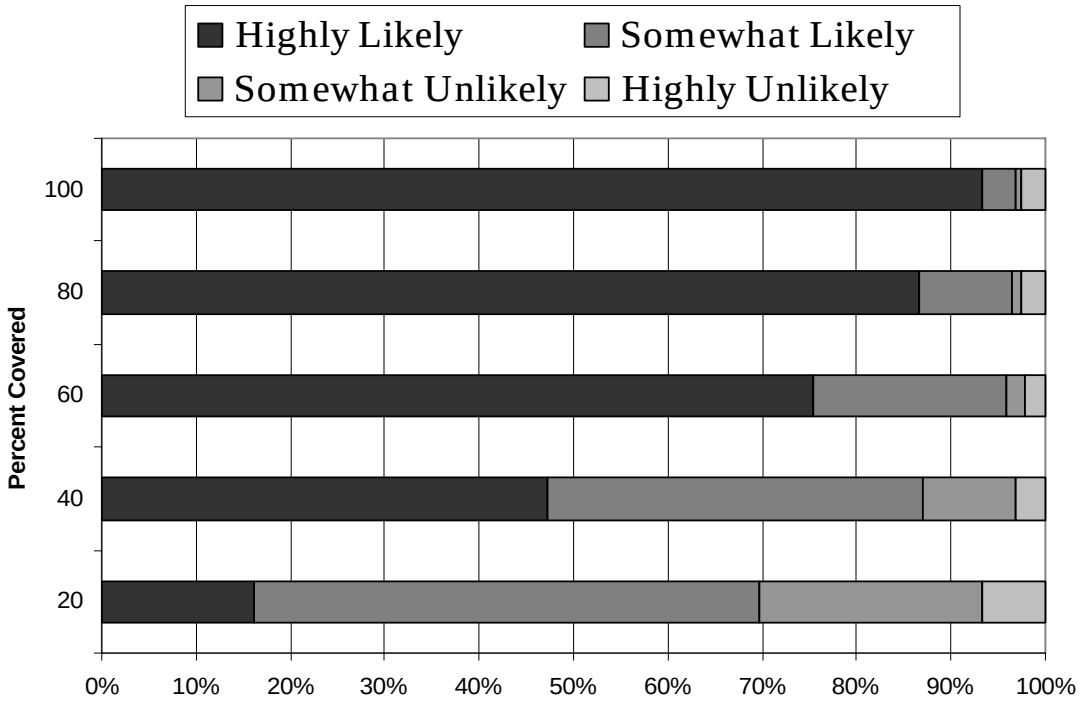


Q140



~How likely would you make the investment if the incentive covered 20%, 40%, 60%, or 80% of the cost?

Following the general question on incentives, study participants were asked how likely they would make an investment in energy efficient technology for their home or business if 20, 40, 60, 80, or 100 percent of the cost of the initial investment were covered. Each question increment was asked independently and in the order of increasing the cost covered. A point of diminishing marginal returns occurs at about 60 percent of the covered investment cost. At that point, 95 percent of those surveyed responded that they were either "somewhat" or "highly likely" to take advantage of the incentive. At rates above 60 percent of the cost covered, some of the participants shifted responses from "somewhat likely" to "highly likely" however the sum total of both "likely" response categories levels off at about 95%.

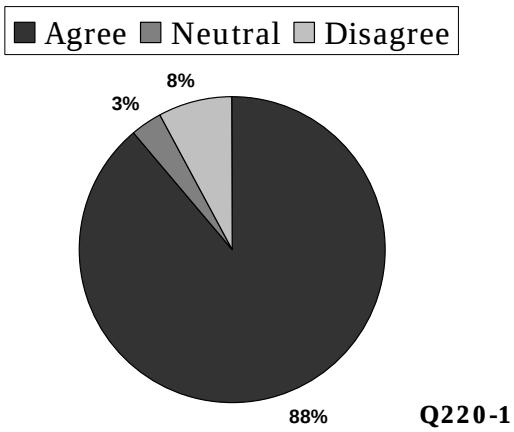


Q140-1 to 5

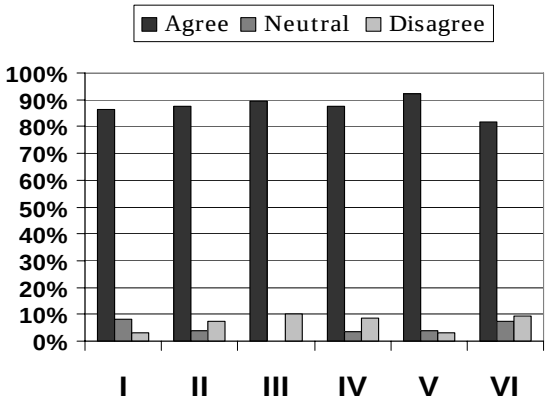
3-5: Transportation

~Idaho should provide incentives for a shift towards alternate fuels.

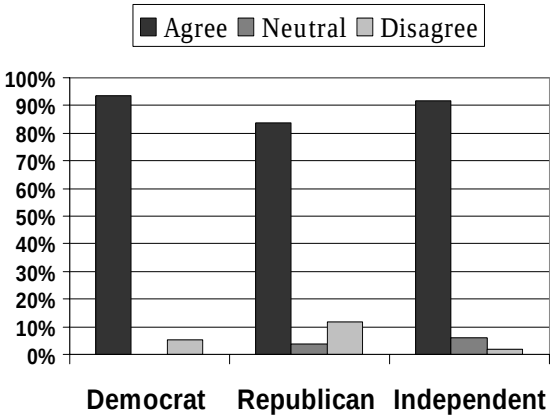
A majority of 88 percent of Idahoans either strongly agree (55%) or somewhat agree (33%) with using incentives to promote a shift towards alternative fuels. This supports the Interim Committee's recommendation.



A regional analysis of the results shows little variance across the state. Support ranged from 81 percent in Region VI to 93 percent in Region V.



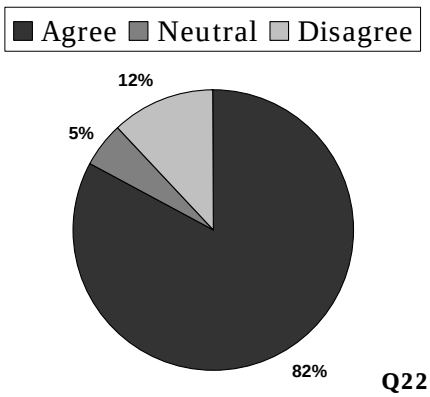
A breakdown by political party affiliation shows that Democrats (94%) and Independents (91%) may be slightly more supportive than Republicans (84%).



~Idaho should provide incentives to encourage Idahoans to purchase efficient, flexible fuel, and alternative fuel vehicles.

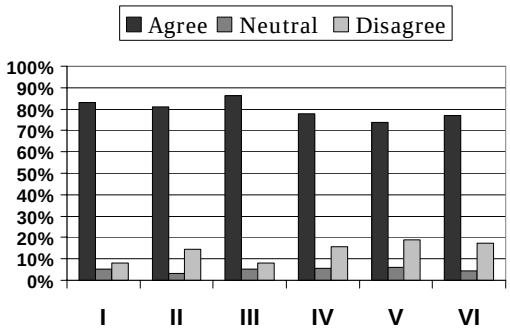
About 82 percent of Idahoans either strongly agree (47%) or somewhat agree (35%) that Idaho should provide incentives to encourage the purchase and use of efficient, flexible fuel and alternative fuel vehicles, supporting the recommendation in the Idaho Energy Plan.

This may also indicate a realization that Idahoans must have vehicles that burn alternative fuels. Without them, alternative fuel markets that they wish to promote will not become viable.

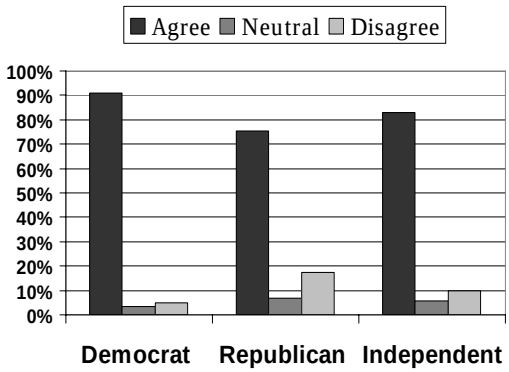


Q220-2

Region III had the highest agreement rate with 86 percent, while Region V had the lowest agreement rate at 75 percent.

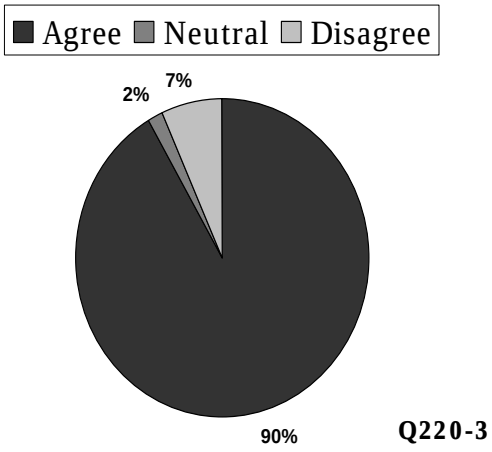


Responses varied slightly across political party affiliation with a larger percentage of Democrats (90%) than Republicans (75%) or Independents (83%) in favor of incentives to encourage the purchase of alternative fuel vehicles.



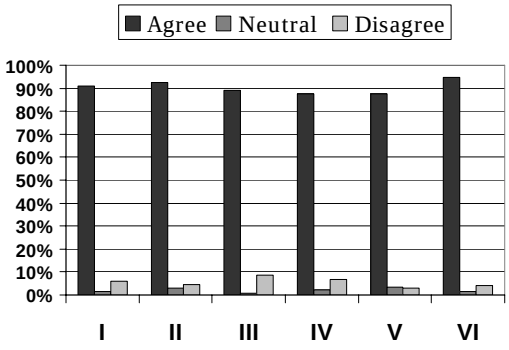
~Idaho should provide incentives to support local production of ethanol and bio-diesel using Idaho-grown crops.

About 90 percent of respondents either strongly agree (64%) or somewhat agree (26%) thus supporting recommendations made in the Idaho Energy Plan.

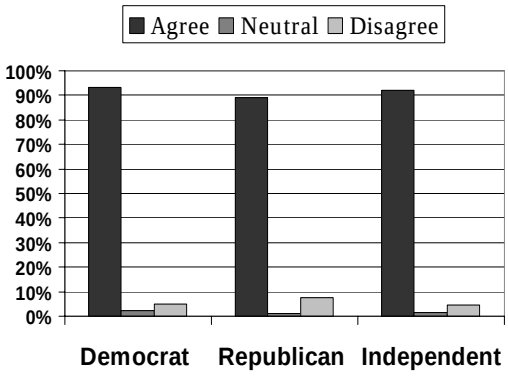


Q220-3

Idahoans across regions of the state are consistent in their views about the use of incentives to support using locally grown crops for fuel production.



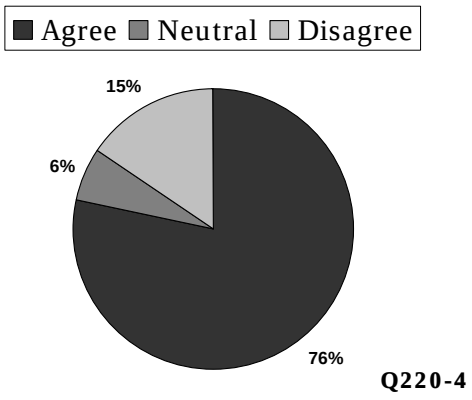
There is strong majority support across all political party affiliations regarding the use of incentives to support locally grown and produced bio-fuels.



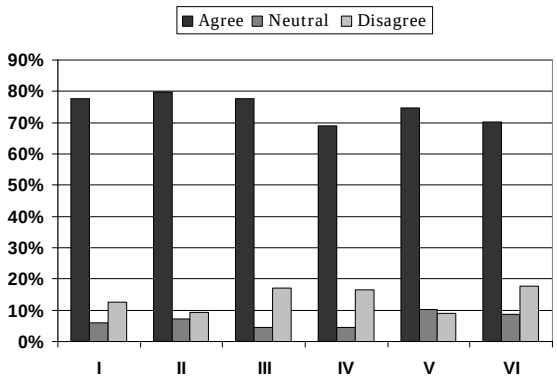
~Idaho should set a renewable fuel standard that requires a minimum percentage of renewable fuel to be sold at retail.

A 76 percent majority of Idahoans either strongly agree (37%) or somewhat agree (39%) that there should be a minimum percentage of renewable fuel sold through fuel retailers.

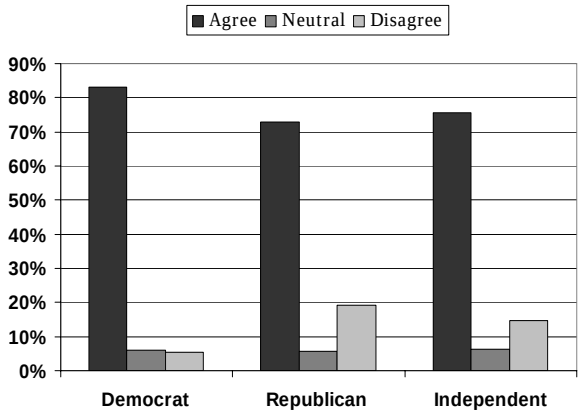
The Interim Committee decided not to recommend this policy option. The Committee felt the State is at a competitive disadvantage with other states that have more availability of renewable fuels.



Although results by region generally reflect statewide results, there was an 11 percent range between regions with the lowest and highest levels of agreement. Region II had the highest level of agreement (80%) and Region IV had the lowest (69 %).



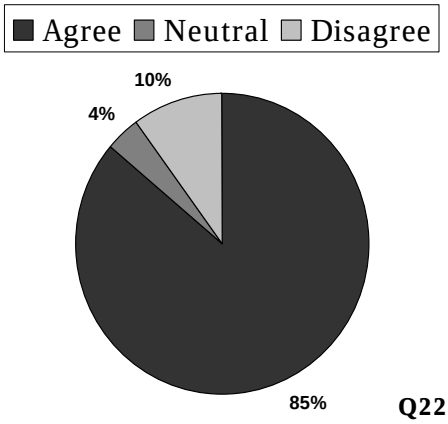
Results by political party affiliation showed that Democrats (83%) were slightly more supportive than Republicans (73%) or Independents (76%).



~Idaho should allow cities and counties to fund the use and expansion of public transportation through a local option tax if approved by voters.

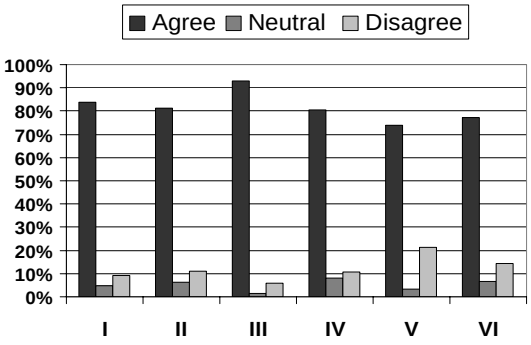
An 85 percent majority agreed that the State should allow cities and counties to use voter-approved local option taxes to fund public transportation.

Although the Idaho Energy Plan shared this view, the 2007 State Legislature voted against allowing municipalities to authorize local option taxes for the purposes of expanding public transportation.

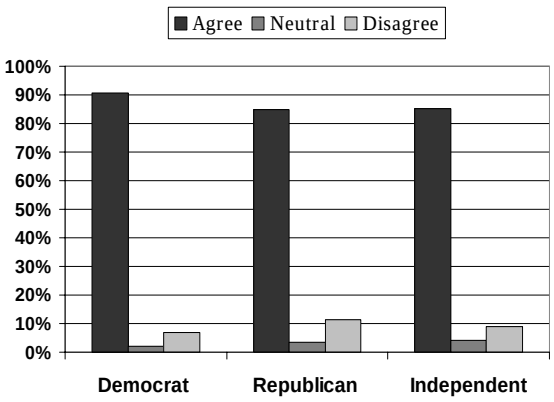


Q220-5

The data shows little variation between regions, even though some are more urban than others. Levels of agreement ranged from 74% to 93% with the highest rate of agreement being Region III (the most urban) and Region V (one of the more rural regions) being the lowest.

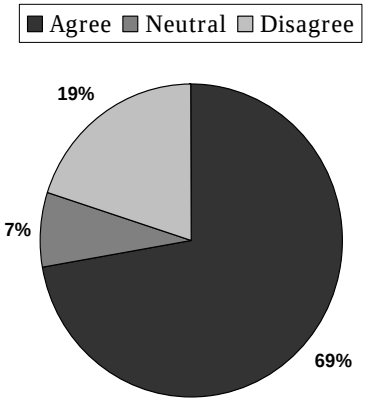


Results reflect that this is generally a non-partisan issue with large majority support that ranges from 85 percent for Republicans and 91 percent for Democrats.



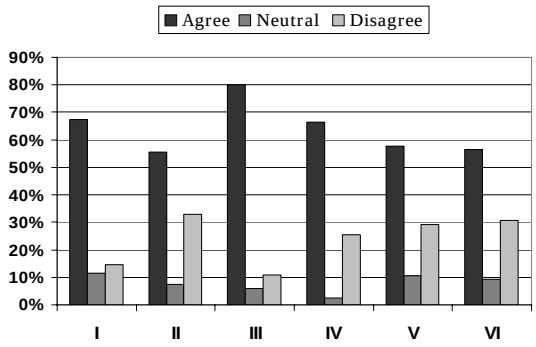
~Idaho should encourage land use planning and policies that reduce the amount of driving required by Idahoans.

About 69 percent of respondents either strongly agree (34%) or somewhat agree (35%). This majority view concurs with the recommendation made by the Interim Committee.

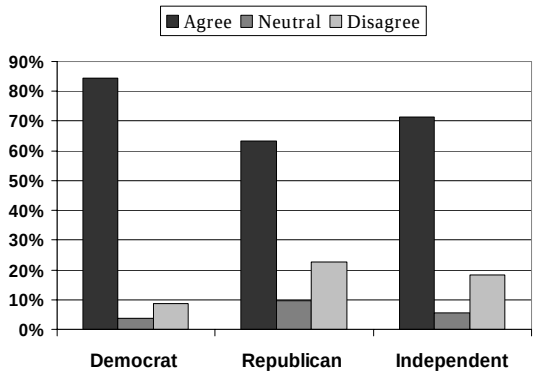


Q220-7

Region III had the highest agreement rate (80%) compared to all other regions. Because Region III has the highest urban population, this may indicate a high level of dissatisfaction with the region's crowded roads, especially during commute times.



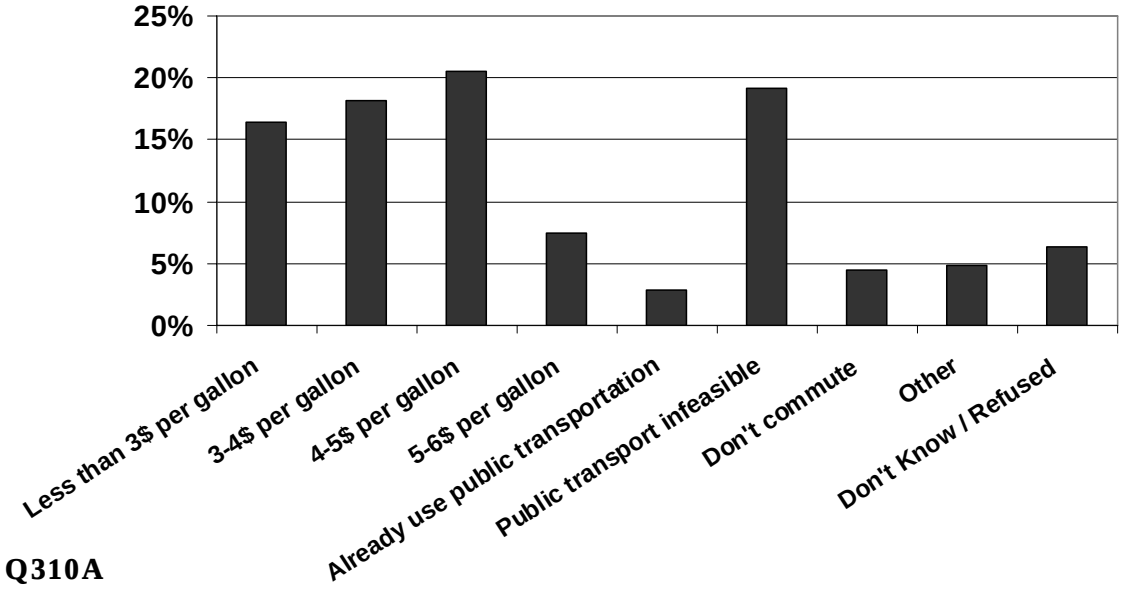
Although agreement is across the board for land use planning and policies to shorten daily commutes, more Democrats (84%) support the goal than Republicans (63%) or Independents (71%).



~What price would gasoline need to be before you would consider using public transportation?

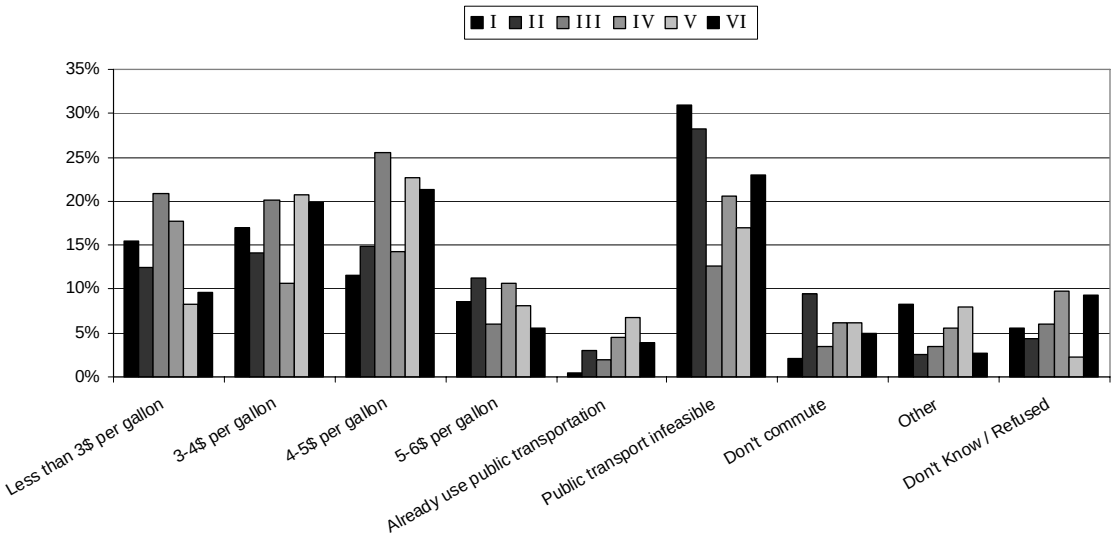
This question was asked to understand a gasoline price threshold for the public to consider public transportation as an option. About 38 percent of respondents claimed to already use public transportation, had other reasons for not considering it as an option, or did not respond to the question. Of the remaining 62 percent, once gasoline prices rose to over four dollars a gallon, over half of all respondents would consider using public transportation for their daily commute.

Additionally, 16% say they would consider public transportation when gas is fewer than three dollars per gallon, which was the price at the time of the study. This seems to indicate that there are other issues to consider since less than 3% say they currently use public transportation (also see question 500A in Appendix II, page 78).

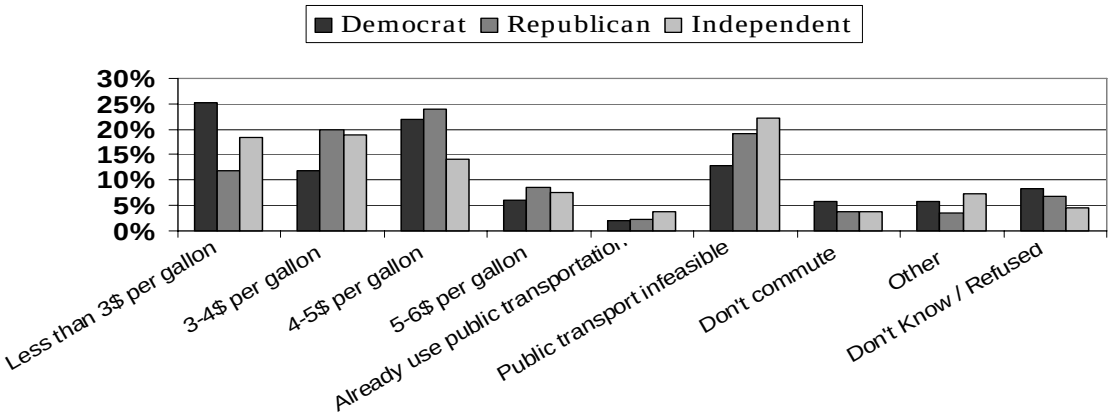


Q310A

Urban Region III tends to consider public transportation as an alternative at lower gasoline prices more than other regions, but also because participants in the region may consider public transportation more feasible for their area or situation.



Results by political party affiliation showed that Democrats and Independents are more likely to use public transportation at lower gasoline prices than Republicans. However, if gasoline prices continue to rise, an increasing number of Republicans indicate that they would likely consider public transportation as an option.

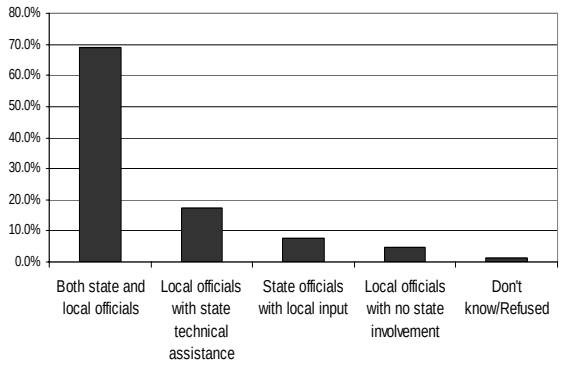


3-6: Siting

~Who should make decisions about where new energy facilities are built?

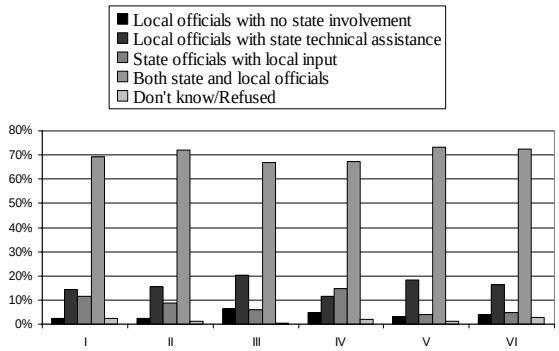
A 69 percent majority believe that both state and local officials should be involved in making final determinations for power plant siting. In contrast, only 22 percent of respondents felt that final power plant siting decisions should remain with local officials either with no state involvement (5%) or with state technical assistance (17%),

The Idaho Energy Plan recommended that local officials remain in charge of energy facility siting decisions but with assistance from the State, if the county requests it.

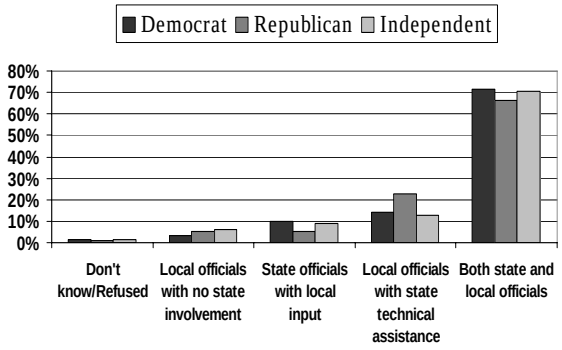


Q327

Regional results generally reflect statewide results. Results ranged from a majority of 67 percent in Region III to 73 percent in Region V supporting joint decision making from both local and state officials.

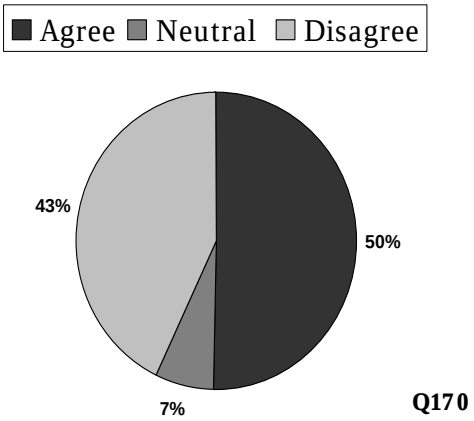


There was little variation, for this question, across party lines. About 71 percent of Democrats compared to 66 percent of Republicans and 70 percent of Independents felt that both state and local officials should be involved in siting decisions.

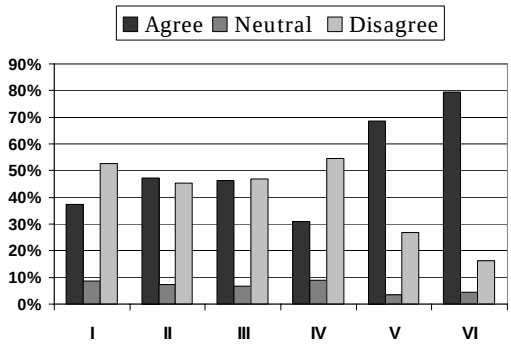


~How much do Idahoans support building nuclear facilities in Idaho to generate electricity for public consumption?

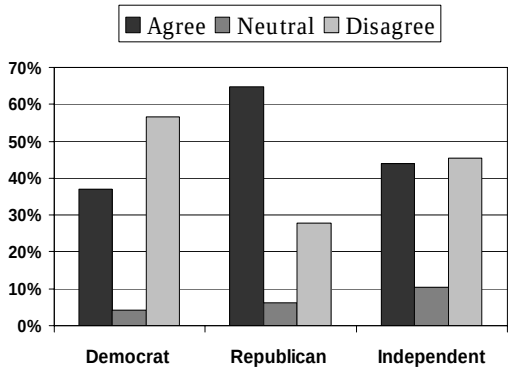
The Idaho National Laboratory is planning a next-generation demonstration power plant that could potentially supply electricity to consumers. There is also a proposal being developed to locate a commercial nuclear power plant within Idaho's borders. Given these circumstances, Idahoans show slightly more support for nuclear power as 50 percent of respondents either strongly agree (23%) or somewhat agree (27%) to building new nuclear facilities in Idaho while 43 percent either somewhat disagree (10%) or strongly disagree (33%).



Geographically, Region IV agreed the least at 32 percent, while Regions V and VI, where the Idaho National Laboratory is in close proximity, had a much higher level of agreement at 69 percent and 78 percent, respectively.

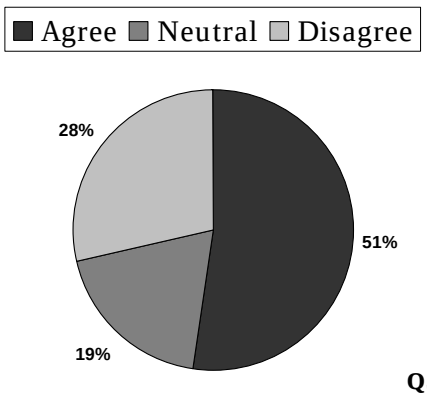


A majority of about 65 percent of Republicans favor building nuclear electricity generating facilities. Democrats and Independents show less than majority support at 37 percent and 44 percent, respectively.



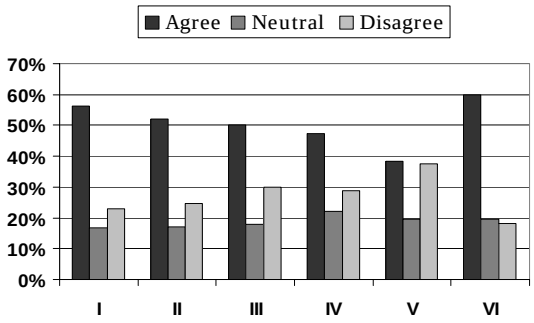
~Idaho should allow the building of new large electrical generation plants that can sell their power on the open market.

A thin 51 percent majority of Idahoans either strongly (21%) or somewhat agree (30%) that Idaho should allow the building and operating of new large electrical generation plants, for selling electricity on the open market. About 28 percent of respondents either strongly (16%) or somewhat disagree (12%) with such a proposal, while 19 percent remained neutral. It is unknown if respondents understood that the power generated by merchant plants is likely to be sold outside the state.

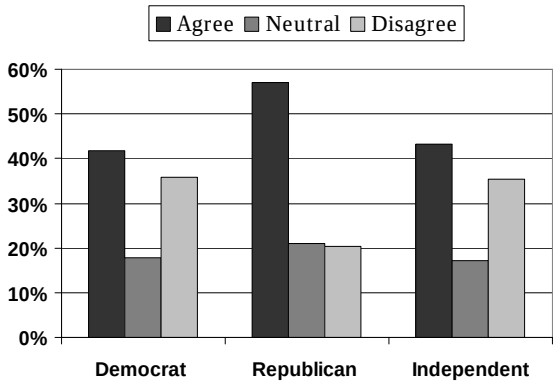


Q325

Regionally, agreement ranged from 39 percent to 60 percent, with Region V agreeing least and Region VI agreeing most.



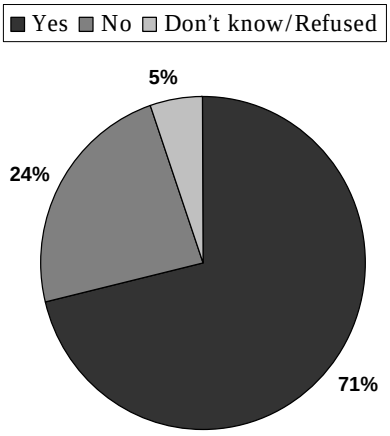
Republicans (57%) agree more than Independents (43%) or Democrats (42%), perhaps reflecting a stronger belief in market principles.



3-7: Environment

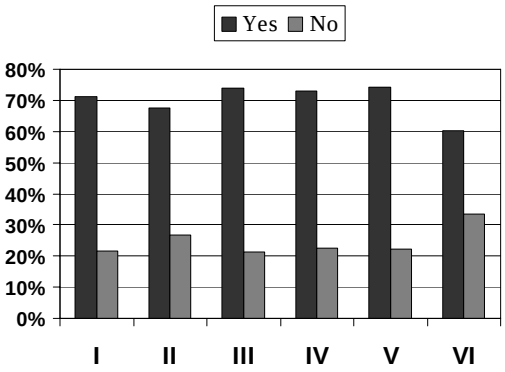
~Are human activities contributing to global warming?

By a large margin respondents agreed that global warming and human activities are linked. About 71 percent answered yes to the question, while only 24 percent said no.

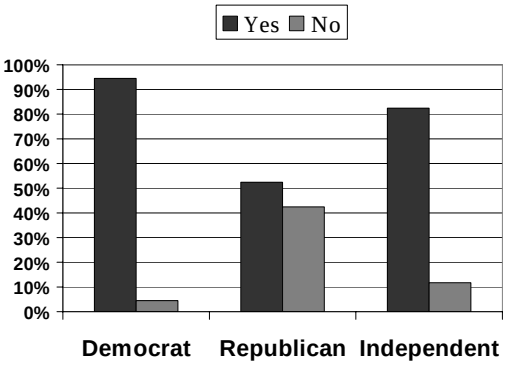


Q180

All regions across Idaho reflected a consistent majority belief that humans are contributing to global warming. This ranged from a high of 74 percent in Regions III and V to a low of 60 percent in Region VI.



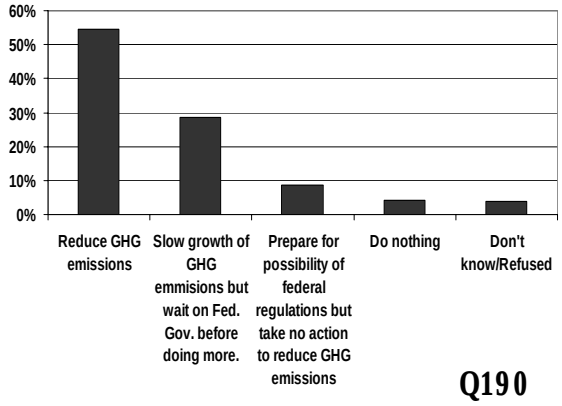
Respondents of all party affiliations reflected a majority opinion that humans are contributing to global warming. However, there was a large difference between Democrats (95%) and Republicans (52%). Those declaring themselves Independents (83%) reflected results closer to Democrats than Republicans.



~How should Idaho respond to global warming?

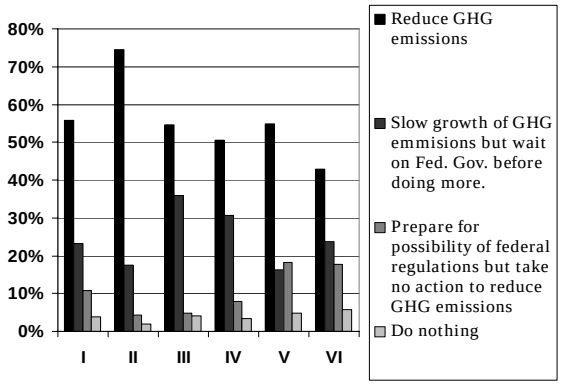
Of those that believe human activities contribute to global warming, 55 percent believe that Idaho should take action now to reduce greenhouse gas (GHG) emissions.* An additional 29 percent believe that Idaho should try to slow the growth of Idaho's GHG's, but wait for the federal government before doing more. Another 9% feel that Idaho should at least begin to prepare for federal regulations. Only 4% felt that Idaho should do nothing.

The Committee differed, recommending that Idaho's utilities begin preparing for future federal regulations (i.e., inventory sources and account for cost of carbon in IRP), but not take steps to slow its growth or reduce it.

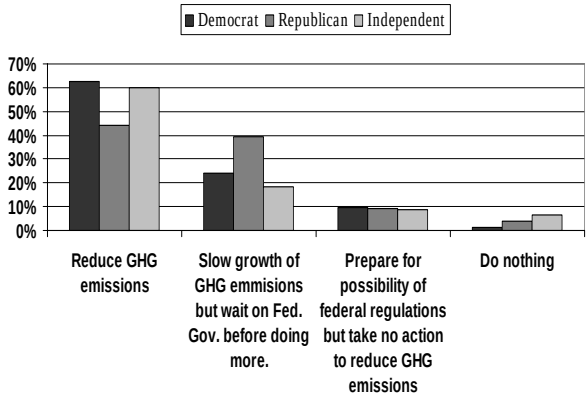


Q190

Region II had the largest number of respondents preferring to take the most aggressive approach to GHG emission reduction while Region VI had the lowest.



A breakdown by political party affiliation show that more Democrats than Republicans would rather take a more aggressive approach to reduce GHG emissions, with Independents falling in-between Democrats and Republicans.



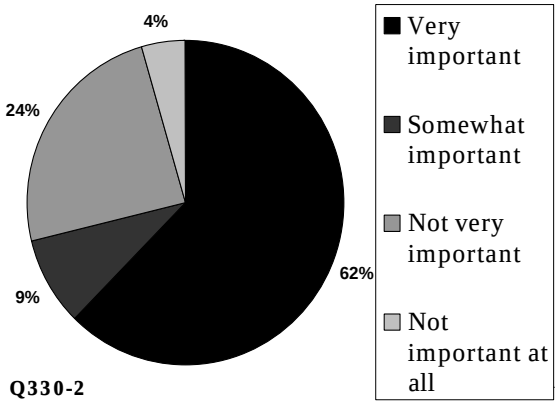
* note: Only 361 respondents answered this question, resulting in a larger standard error rate.

3-8: Affordability

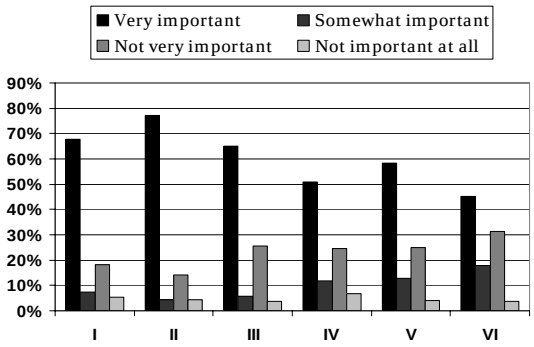
~There is a 13 year waiting list for low-income Idahoans to receive weatherization services to help reduce their energy bills. How important is it for the State to reduce this waiting list?

About 71 percent of Idahoans think it is very important (62%) or somewhat important (9%) for the state to take action to reduce the waiting list for assistance. Only 28 percent felt that it was not very important (24%) or not important at all (4%).

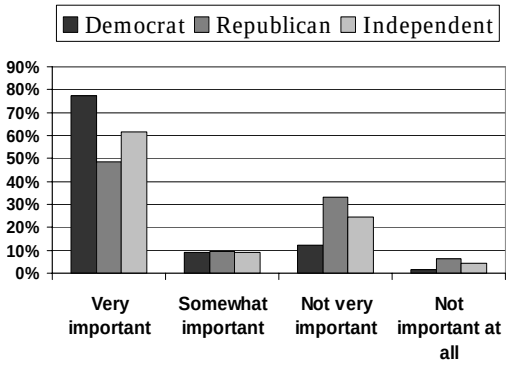
The Interim Committee discussed low-income weatherization services, but decided not to include any recommendations in the Idaho Energy Plan.



Regions I and II felt most strongly about reducing the wait, while Regions IV and VI felt least strongly. Lower levels of income in Regions I and II may indicate why participants felt the importance of this issue (see Appendix II, page 73).



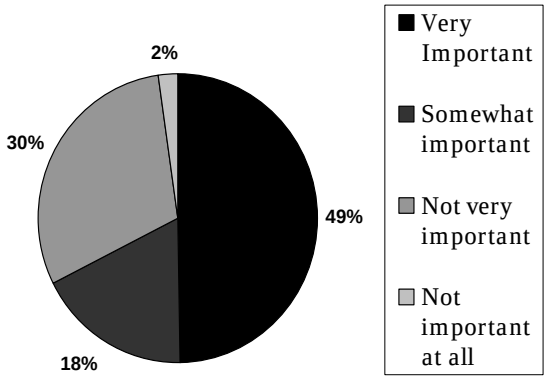
Generally, Democrats and Independents felt that the State needs to address this issue more than Republicans. However, 59 percent of Republicans felt that it was either very important (49%) or somewhat important (10%) to reduce the waiting list.



~How important is it for the state to take action to help low-income residents pay for high heating bills?

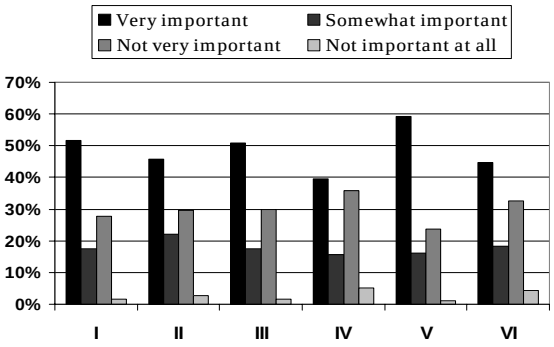
Almost 67 percent of respondents felt that it is either very important (49%) to somewhat important (18%) that the State take action to help low-income residents with high-heating bills. Only 32 percent felt that it was not very important (30%) or not important at all (2%).

The Interim Committee decided not to make recommendations relative to low-income assistance in the Idaho Energy Plan.

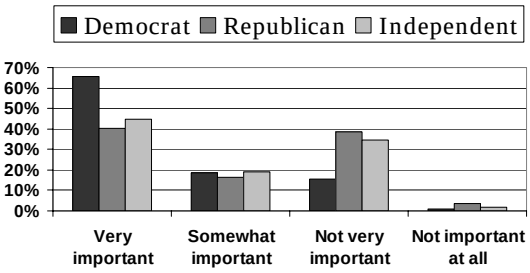


Q330-1

Importance for Idaho to provide assistance was strongest in Region V with 75 percent believing it is either very important or somewhat important. Region IV had the lowest level of importance with a combined rate of 55 percent.



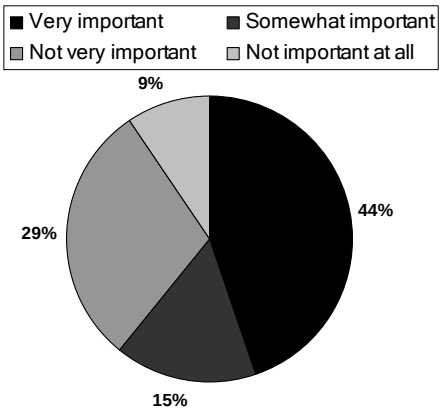
Although Republicans are less supportive than Democrats or Independents, a majority of 56 percent of Republicans still feel that it is either very important (40%) or somewhat important (16%) for the state to take action to help low income residents with heating bills.



3-9: Agency

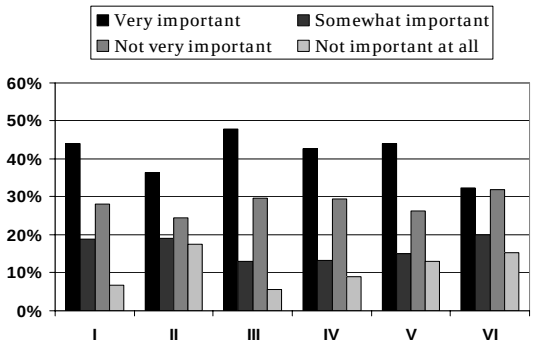
~How important is it for there to be a state agency to enforce the State energy plan and to provide advice to the governor and legislature regarding energy issues?

The public's opinion agreed with a recommendation in the Idaho Energy Plan on this issue. About 59 percent of respondents felt that it was either very important (44%) or somewhat important (15%) to have a state energy agency or department that deals with energy issues. Only 38 percent felt that it was not very important (29%) or not important at all (9%).

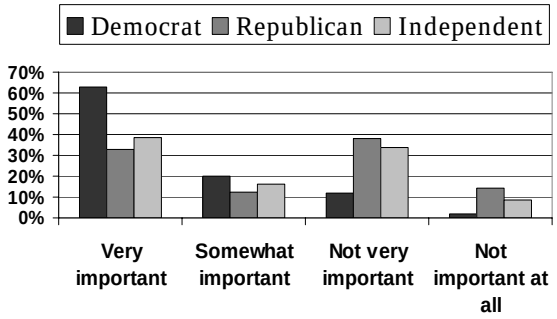


Q330-3

Across the state, Region III reflected the strongest support for an energy agency with 61% believing that it was either very important or somewhat important. Region VI felt least strongly with 52 percent combined support.



Political party affiliation revealed large differences. About 83 percent of Democrats thought an energy agency was very important or somewhat important. Only 45% of Republicans and 54% of Independents felt the same way.



Appendix I: Survey Questions

Intro

Hello, my name is _____. I am calling on behalf of the Social Science Research Center at Boise State University. This is not a sales call.

We are conducting a brief 15 minute survey to find out how the people of Idaho feel about energy issues that affect the state. This study is very important because it will be a resource for policy-makers currently involved in drafting an energy plan for the state.

I need to speak to the adult 18 years or older who lives in your household and who has had the most recent birthday. Are you the adult with the most recent birthday in your household?

GETNEWAD - GET IF INTRO1 = 2

May I speak with the adult with the most recent birthday?

1 YES, SELECTED RESPONDENT COMING TO THE PHONE (CONTINUE WITH INTRO2)
2 NO, NOT AVAILABLE NOW (SCHEDULE A CALLBACK)

INTRO2 - GET IF INTRO1 = 2 AND GETNEWAD = 1

Hello, my name is _____. I am calling on behalf of the Social Science Research Center at Boise State University. This is not a sales call.

We are conducting a brief 10-minute survey to find out how the people of Idaho feel about important issues that affect the state. This study is very important because it will be a resource for Idaho policy-makers.

I need to speak to the adult 18 years or older who lives in your household and who has had the most recent birthday. Are you the adult with the most recent birthday in your household?

1 YES
2 NO

Instate
---

your participation in this survey is completely voluntary and all of your answers will be kept entirely confidential.

First I need to make sure that I have reached a household in Idaho. Is this household in Idaho?

1 YES (CONTINUE WITH COUNTYQ)
2 NO, NOT IN IDAHO (SKIP TO SORRY)
3 NOT A PRIVATE RESIDENCE (SKIP TO SORRY)

COUNTYQ

In what Idaho county is your residence located?

SELECT FROM LIST OF IDAHO COUNTIES

001. ADA	031. CASSIA	061. LEWIS
003. ADAMS	033. CLARK	063. LINCOLN
005. BANNOCK	035. CLEARWATER	065. MADISON
007. BEAR LAKE	037. CUSTER	067. MINIDOKA
009. BENEWAH	039. ELMORE	069. NEZ PERCE
011. BINGHAM	041. FRANKLIN	071. ONEIDA
013. BLAINE	043. FREMONT	073. OWYHEE
015. BOISE	045. GEM	075. PAYETTE
017. BONNER	047. GOODING	077. POWER
019. BONNEVILLE	049. IDAHO	079. SHOSHONE
021. BOUNDARY	051. JEFFERSON	081. TETON
023. BUTTE	053. JEROME	083. TWIN FALLS
025. CAMAS	055. KOOTENAI	085. VALLEY
027. CANYON	057. LATAH	087. WASHINGTON
029. CARIBOU	059. LEMHI	

777 DON'T KNOW
999 REFUSED

Q010 *General*

In general terms, the state has done a good job of managing Idaho's energy resources. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q020 *General*

Which of the following would you say is Idaho's best approach toward future energy resource planning. Should Idaho ...

1 Maintain its current course
2 Maintain its current course with minor changes
3 Plan for a large shift in direction
4 Don't have enough information to form an opinion.
7 DON'T KNOW
9 REFUSED

Q030 *General*

When it comes to Idaho's energy policy, who do you trust the **least** to advise and influence the State Legislature?:

1 The Idaho Public Utilities Commission
2 Other state agencies (eg. DEQ, energy division, etc.)
3 Public advocacy groups focused on energy and the environment
4 National energy laboratories
5 University-based energy research centers
6 Energy utilities and industry advocacy groups
7 Other (PLEASE SPECIFY)
77 DON'T KNOW
99 REFUSED

Q031 *General*

When it comes to Idaho's energy policy, who do you trust the **most** to advise and influence the State Legislature?

1 The Idaho Public Utilities Commission
2 Other state agencies (e.g., DEQ, energy division, etc.)
3 Public advocacy groups focused on energy and the environment
4 National energy laboratories
5 University-based Energy Research Centers
6 Energy Utilities and Industry advocacy groups
7 Other (PLEASE SPECIFY)
77 DON'T KNOW
99 REFUSED

Q040 *General*

What do you believe is the single most important issue facing Idaho when thinking about energy? (i.e., production, distribution, and use)

1 Air pollution from burning fossil fuels
2 Water consumption and pollution from energy production
3 Ability to deal with nuclear waste
4 Price of gasoline and diesel fuel
5 Dam breaching
6 Lack of public transportation
7 Price of natural gas
8 Global warming
9 Affordability to low-income households
10 Price of electricity
11 Availability of renewable sources of energy
12 OTHER (PLEASE SPECIFY)
77 DON'T KNOW
99 REFUSED

Q050 *Electricity*

Now I am going to ask you a couple of questions about electrical energy. Please tell me if you strongly agree, agree, neither agree or disagree, disagree or strongly disagree with the statement.

Q050_1 *Electricity*

Idaho should continue to allow cities and counties to opt out of building codes set by the State that specify minimum energy efficiency standards. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q050_2 *Electricity*

Utilities should be able to charge higher rates during high demand periods to promote conservation. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q050_4 *Electricity*

Idaho should provide incentives to promote renewable electricity generation (wind, solar, etc). Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q050_5 *Electricity*

The State of Idaho should establish uniform policies that encourage customers to generate their own renewable electricity (e.g., wind, solar, small hydro, etc.) and be able to sell any excess back to their utility company. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q050_6 *Electricity*

Idaho should provide incentives for investment in non-traditional natural gas supply resources that can be produced from waste such as landfill and feedstock waste. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q130 *Electricity/Conservation & Efficiency*

Currently, Idaho utilities promote customer conservation and efficiency which they use to meet future demand for electricity. To increase the amount of conservation and efficiency, Idaho should:

1 Set conservation targets that utilities must achieve.
2 Set voluntary conservation targets.
3 Not try to influence the amount of conservation utilities achieve through target setting.
7 DON'T KNOW
9 REFUSED

Q135 *Electricity/Conservation & Efficiency*

If Idaho does set targets for the amount of conservation that utilities should achieve, do you think that Idaho should:

1 Only give rewards if utilities meet targets.
2 Only charge penalties if utilities miss targets.
3 Use a combination of rewards and penalties.
7 DON"T KNOW
9 REFUSED

Q140 *Electricity/Conservation & Efficiency*

Would you take advantage of financial incentives to make changes to your home or business to reduce your energy usage?

1 YES
2 NO
7 DON'T KNOW
9 REFUSED

Q145 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

For the following questions please use the following scale: Highly likely, somewhat likely, somewhat unlikely, or highly unlikely.

Q145_1 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

How likely would you make the investment if the incentive covered 20% of the cost?

1 Highly likely
2 Somewhat likely
3 Somewhat unlikely
4 Highly unlikely
7 DON'T KNOW
9 REFUSED

Q145_2 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

How likely would you make the investment if the incentive covered 40% of the cost?

1 Highly likely
2 Somewhat likely
3 Somewhat unlikely
4 Highly unlikely
7 DON'T KNOW
9 REFUSED

Q145_3 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

How likely would you make the investment if the incentive covered 60% of the cost?

1 Highly likely
2 Somewhat likely
3 Somewhat unlikely
4 Highly unlikely
7 DON'T KNOW
9 REFUSED

Q145_4 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

How likely would you make the investment if the incentive covered 80% of the cost?

1 Highly likely
2 Somewhat likely
3 Somewhat unlikely
4 Highly unlikely
7 DON'T KNOW
9 REFUSED

Q145_5 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

How likely would you make the investment if the incentive covered 100% of the cost?

1 Highly likely
2 Somewhat likely
3 Somewhat unlikely
4 Highly unlikely
7 DON'T KNOW
9 REFUSED

Q160 *Electricity/Conservation & Efficiency* - GET IF Q140 = 1

Should Idaho provide technical and financial help to cities and counties to apply and enforce energy efficiency building codes?

1 YES
2 NO
7 DON'T KNOW
9 REFUSED

Q170 *Alternative Energy*

Please tell me if you strongly agree, agree, neither disagree or agree, disagree or strongly disagree with the following statement ...

I would support building new nuclear facilities in Idaho to generate electricity for public consumption.

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q180 *Electricity/Environment*

Do you believe human activities are contributing to global warming?

1 YES
2 NO
7 DON'T KNOW
9 REFUSED

Q190 *Electricity/Environment* - GET IF Q180 = 1

How should Idaho respond?

1 Reduce Idaho green-house gas emissions.
2 Slow the growth of Idaho's green-house gas emissions, but wait for the federal government before doing more.
3 Prepare for the possibility of federal regulations but take no action to reduce green-house gas emissions.
4 Do nothing.
7 DON'T KNOW
9 REFUSED

Q200 *Electricity/Priority*

In order to meet Idaho's demand for electricity, which of the following should be the highest priority?

1 Energy conservation and efficiency programs
2 Develop "green" or renewable sources of electricity
3 Increase capacity of traditional or existing sources of electricity
7 DON'T KNOW
9 REFUSED

Q210 *Electricity/Renewables*

To increase the amount of renewable electricity, many states have required that electric utilities provide a minimum percentage of renewable energy to their customers. To increase the level of renewable energy that utilities provide to customers, Idaho should.

1 Set renewable energy targets that utilities must reach.
2 Set voluntary renewable energy targets.
3 Not try to influence the amount of renewable energy offered by utilities through target setting.
7 DON'T KNOW
9 REFUSED

Q215 *Electricity/Renewables*

If Idaho does set targets for the amount of renewable energy utilities provide to their customers, Do you think Idaho should ...

1 Only provide rewards if utilities meet targets.
2 Only charge penalties if utilities miss targets.
3 Use a combination of rewards and penalties.
7 DON'T KNOW
9 REFUSED

Q220 *Transportation/Alternative Fuels*

Now I am going to ask you a couple of questions about alternative fuel and energy. Please tell me if you strongly agree, agree, neither agree or disagree, disagree or strongly disagree with the statement.

Q220_1 *Transportation/Alternative Fuels*

Idaho should provide incentives that promote a shift towards using alternative fuels for transportation. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree

7 DON'T KNOW
9 REFUSED

Q220_2 *Transportation/Alternative Fuels*

Idaho should provide incentives to encourage Idahoans to purchase efficient, flexible-fuel, and alternative fuel vehicles. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q220_3 *Transportation/Alternative Fuels*

Idaho should provide incentives to support local production of ethanol and biodiesel using Idaho-grown crops. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q220_4 *Transportation/Alternative Fuels*

Idaho should set a renewable fuel standard that requires a minimum percentage of renewable fuel to be sold at retail. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q220_5 *Transportation/Conservation & Efficiency*

The Idaho legislature should allow city and county governments to fund the use and expansion of public transportation through local taxes if approved by voters? Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q220_7 *Transportation/Conservation & Efficiency*

Idaho should encourage land use planning and policies that reduce the amount of driving required by Idahoans. Do you ...

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q310 *Transportation/ Conservation & Efficiency*

What price would gasoline need to be before you would consider public transportation for your daily commute?

1 2 up to 3 dollars per gallon
2 3 up to 4 dollars per gallon
3 4 up to 5 dollars per gallon
4 5 up to 6 dollars per gallon
5 I already use public transportation for my daily commute.
6 Other (PLEASE SPECIFY)
7 DON'T KNOW
9 REFUSED

Q325 *Power Generation/Cost*

Idaho should allow building and operating large new electrical generation plants that can sell their electricity on the open market.

NOTE: EXAMPLES OF LARGE FACILITIES WOULD INCLUDE COAL, NUCLEAR, NATURAL GAS, HYDROELECTRIC, SOLAR AND WIND ELECTRICITY GENERATION PLANTS OVER 50 MEGAWATTS

1 Strongly agree
2 Agree
3 Neither agree nor disagree
4 Disagree
5 Strongly disagree
7 DON'T KNOW
9 REFUSED

Q327 *Siting*

Who should make the decisions about where new large energy facilities are built? Decisions should be made by ...

NOTE: EXAMPLES OF LARGE FACILITIES WOULD INCLUDE COAL, NUCLEAR, NATURAL GAS, HYDROELECTRIC, SOLAR AND WIND ELECTRICITY GENERATION PLANTS OVER 50 MEGAWATTS

1 Local officials with no state involvement
2 Local officials with state technical assistance
3 State officials with local input
4 Both state and local officials
7 DON'T KNOW
9 REFUSED

Q330

Now I am going to ask you a couple of questions about energy affordability. Please tell me if you feel the issue is very important, important, somewhat important or not at all important.

Q330_1 *Affordability*

How important is it for the state to take actions to help low-income residents pay for high winter heating bills? Is it ...

1 Very important
2 Important
3 Somewhat important
4 Not at all important
7 DON'T KNOW
9 REFUSED

Q330_2 *Affordability*

There is currently a 13-year waiting list for low-income Idahoans to receive weatherization services to help reduce their energy bills. How important is it for the state to take action to reduce this waiting list? Is it ...

NOTE: WEATHERIZATION SERVICES ARE THINGS LIKE WEATHER-STRIPPING DOORS AND WINDOWS AND ADDING NEW INSULATION

1 Very important
2 Important
3 Somewhat important
4 Not at all important
7 DON'T KNOW
9 REFUSED

Q330_3 *Implementation*

How important is it for there to be an agency in state government to enforce the state energy plan and to provide advice to the governor and the legislature regarding energy issues? Is it ...

1 Very important
2 Important
3 Somewhat important
4 Not at all important
7 DON'T KNOW
9 REFUSED

Q380 *Demographics*

What is your age?

_____ ENTER AGE (18-110)

777 DON'T KNOW
999 REFUSED

Q390 *Demographics*

CODE SEX OF RESPONDENT. IF NECESSARY, ASK:

INTERVIEWER NOTE: ONLY ASK FOR GENDER IF CAN'T TELL: For survey purposes I need to ask if you are male or female.

1 MALE
2 FEMALE
7 DON'T KNOW
9 REFUSED

Q400 *Demographics*

How many members of your household, <u>including yourself</u>, are 18 years of age or older?

_____ ENTER THE NUMBER OF ADULTS

77 DON'T KNOW
99 REFUSED

Q410 *Demographics*

Is your annual household income from all sources ...

1 Less than $10,000
2 $10,000 up to $20,000
3 $20,000 up to $30,000
4 $30,000 up to $40,000
5 $40,000 up to $50,000
6 $50,000 up to $60,000
7 $60,000 up to $70,000

8 $70,000 up to $80,000
9 $80,000 up to $90,000
10 $90,000 up to $100,000
11 More than $100,000
77 DON'T KNOW/NOT SURE
99 REFUSED

Q420 *Demographics*

How many years have you lived in Idaho? (IWR: IF LESS THAN 1 YEAR CODE AS 0)

_____ ENTER NUMERIC RESPONSE

7 DON'T KNOW
9 REFUSED

Q430 *Demographics*

When you vote, do you generally vote as a ...

1 Democrat
2 Republican
3 Independent
4 Other (PLEASE SPECIFY)
7 DON'T KNOW
9 REFUSED

Q440 *Demographics*

Do you and/or your spouse own or operate a business outside of your home?

1 YES
2 NO
7 DON'T KNOW
9 REFUSED

Q450 *Demographics*

What is your primary source of fuel for heating water?

1 Natural gas
2 Electricity
3 Wood
4 Other (PLEASE SPECIFY)
7 DON'T KNOW
9 REFUSED

Q460 *Demographics*

What is your primary source of fuel for home heating?

1 Natural gas
2 Electricity
3 Wood
4 Other (PLEASE SPECIFY)
7 DON'T KNOW
9 REFUSED

Q470 *Demographics*

Approximately how far is your commute to work roundtrip?

INTERVIEWER: READ ONLY IF NECESSARY

1 No commute
2 Less then 10 miles
3 10 up to 20 miles
4 20 up to 30 miles
5 30 up to 40 miles
6 40 up to 50 miles
7 50 up to 60 miles
8 60 up to 70 miles
9 70 up to 80 miles
10 80 up to 90 miles
11 90 up to 100 miles
12 Greater than 100 miles
77 DON'T KNOW
99 REFUSED

Q475 *Demographics*

Do you ...

1 Own your own home
2 Rent or lease your residence
3 OTHER (SPECIFY)
7 DON'T KNOW
9 REFUSED

Q476 *Demographics* - GET IF Q175 = 2

Are the utilities included with the rent?

1 YES
2 NO
3 DON'T KNOW
4 REFUSED

Q480 *Demographics*

How many square feet of living space is your primary residence?

INTERVIEWER: READ ONLY IF NECESSARY

1 Less then 500 sq. ft.
2 500 up to 1000 sq. ft.
3 1000 up to 2000 sq. ft.
4 2000 up to 3000 sq. ft.
5 3000 up to 4000 sq. ft.
6 4000 up to 5000 sq. ft.
7 Greater than 5000 sq. ft.
77 DON'T KNOW
99 REFUSED

Q490 *Demographics*

Have you voted in an election in the past two years?

1 YES
2 NO
7 DON'T KNOW
9 REFUSED

Q500 *Demographics*

What is your primary form of transportation?

1 Personal automobile (including trucks, vans, etc.)
2 Public transportation
3 Walking
4 Biking
5 Other (PLEASE SPECIFY)
7 DON'T KNOW
9 REFUSED

Q510 *Demographics* - GET IF Q500 = 1

Roughly how many miles per gallon does your vehicle get on average?

1 0-10 MPG
2 11-20 MPG
3 21-30 MPG
4 31-40 MPG
5 41-50 MPG
6 51+ MPG
7 DON'T KNOW
9 REFUSED

GOODBYE

Those are all my questions. Thank you very much for taking the time to participate in this survey.

TERMINATE THE CALL AS COMPLETED INTERVIEW

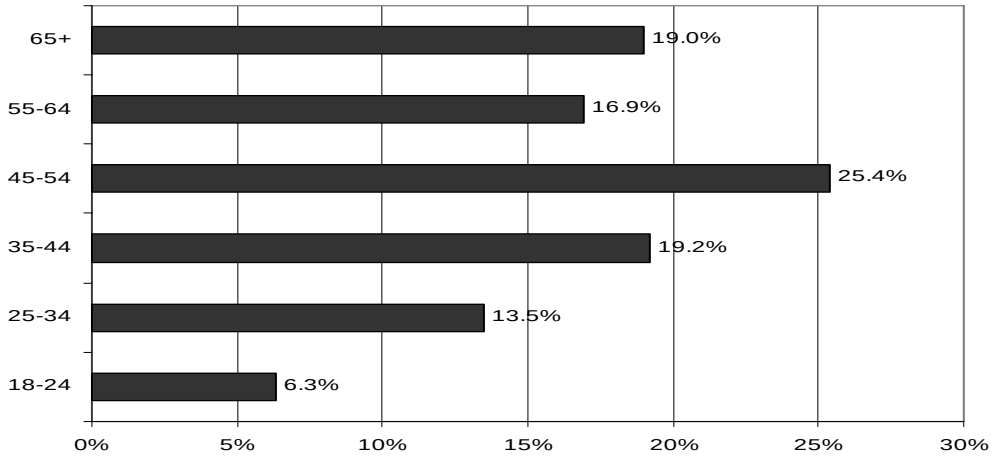
SORRY - GET IF INSTATE = 2

I'm sorry, but for this study we need to speak with people who live in private households in Idaho. Thank you for your time, and have a nice <day>/<evening>.

TERMINATE THE CALL AS NOT A PRIVATE RESIDENCE OR NOT IN STUDY AREA

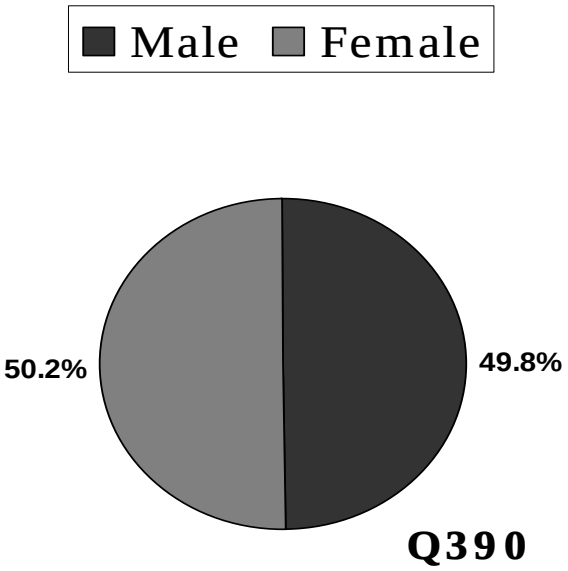
Appendix II: Demographic Data

~What is your age?



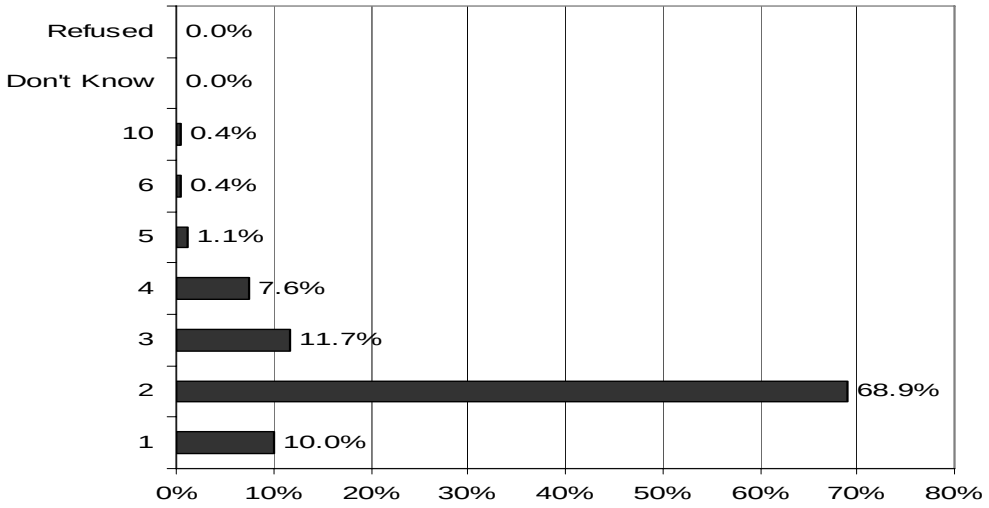
Q380

~What is your sex?



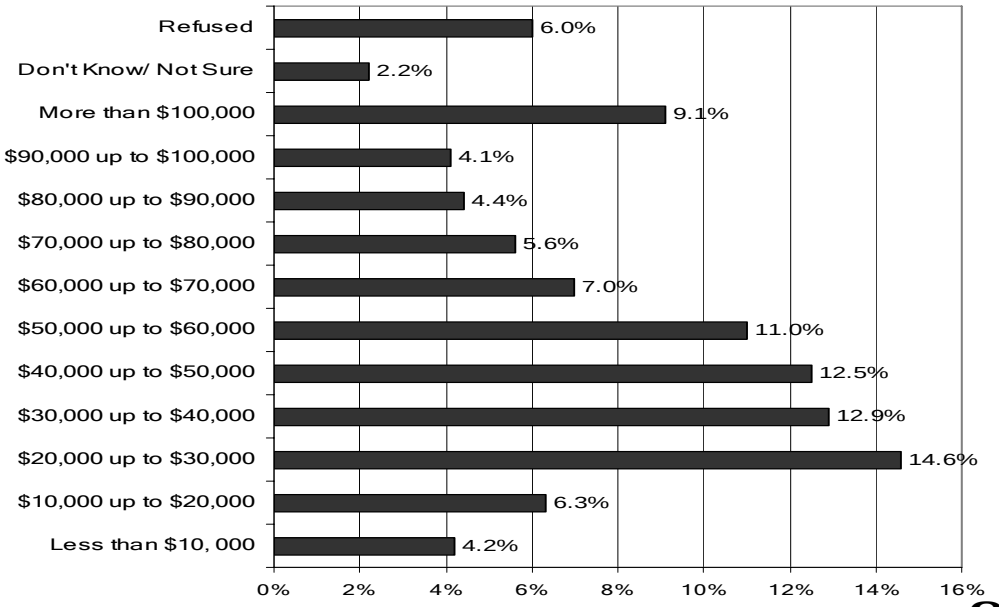
Q390

~How many members of your household, including yourself, are over 18 years of age?



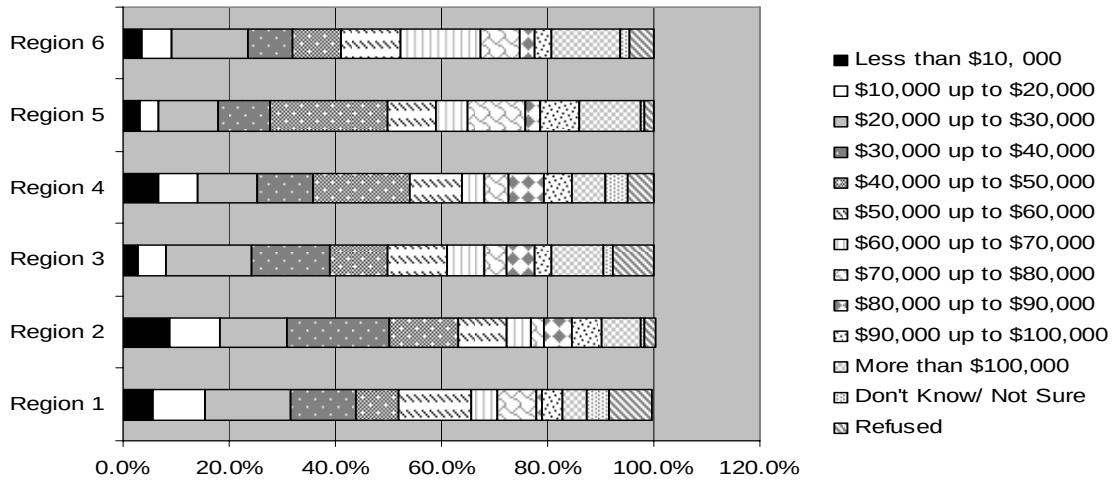
Q400

~What is your annual household income?



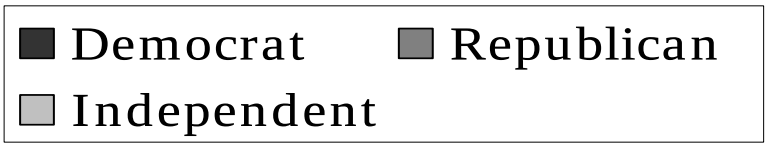
Q410

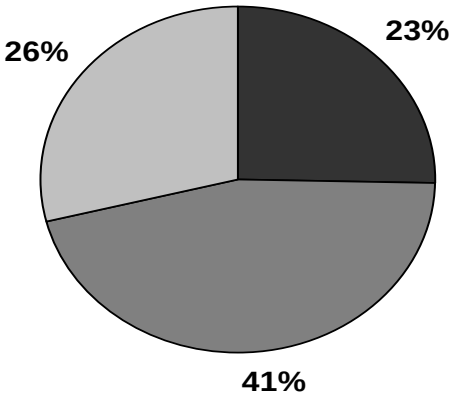
~What is your annual household income (Regional Breakdown)?



Q410-region

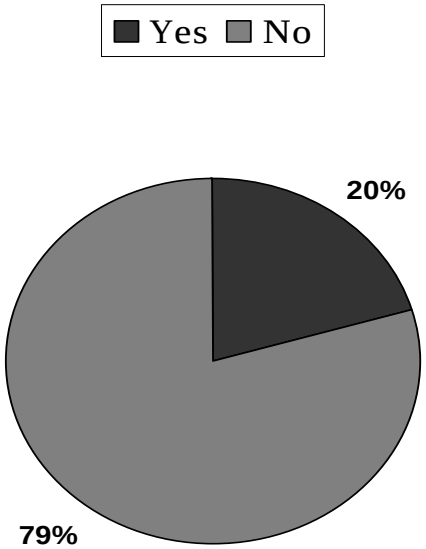
~When you vote, do you generally vote as a…?





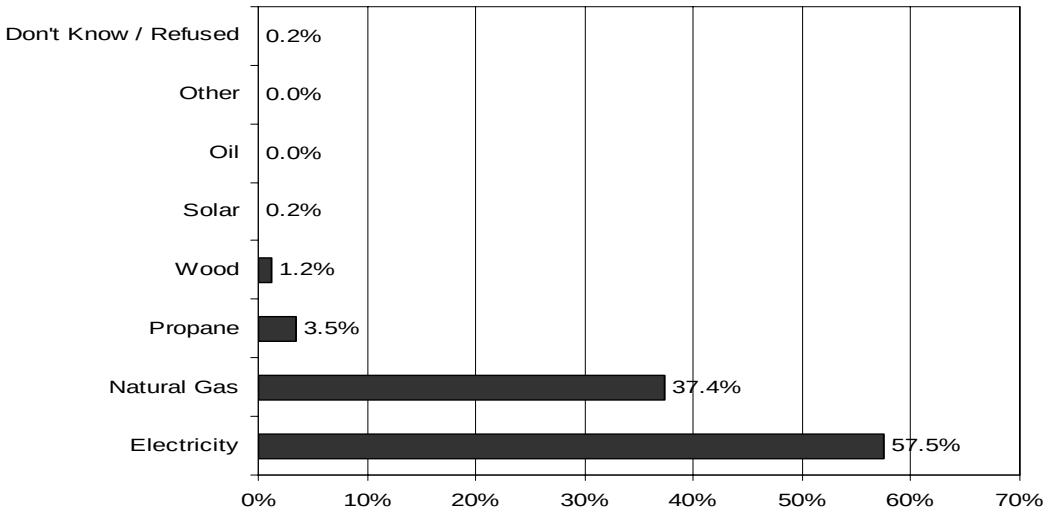
Q430A

~Do you or your spouse operate a business outside of your home?



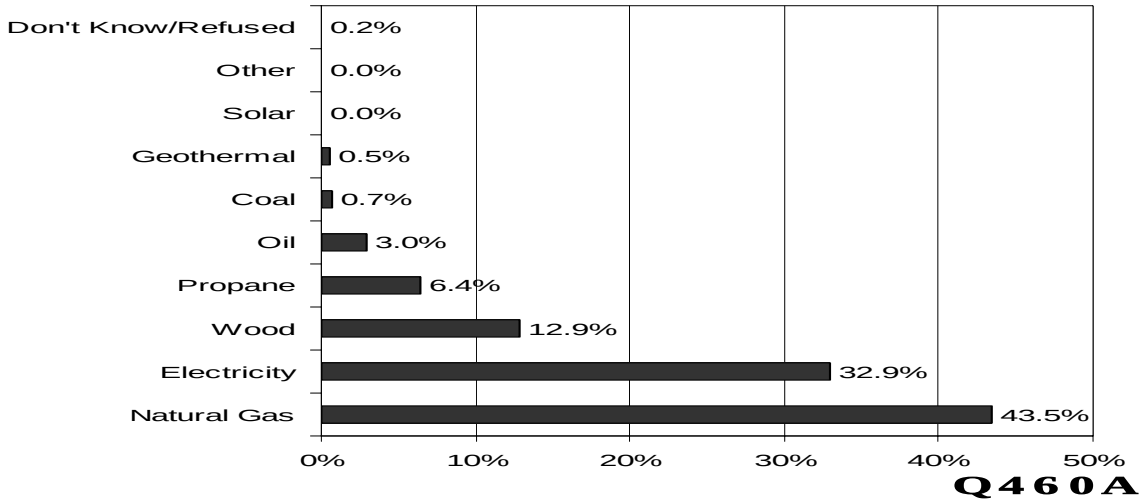
Q440

~What is your primary source of fuel for heating water?



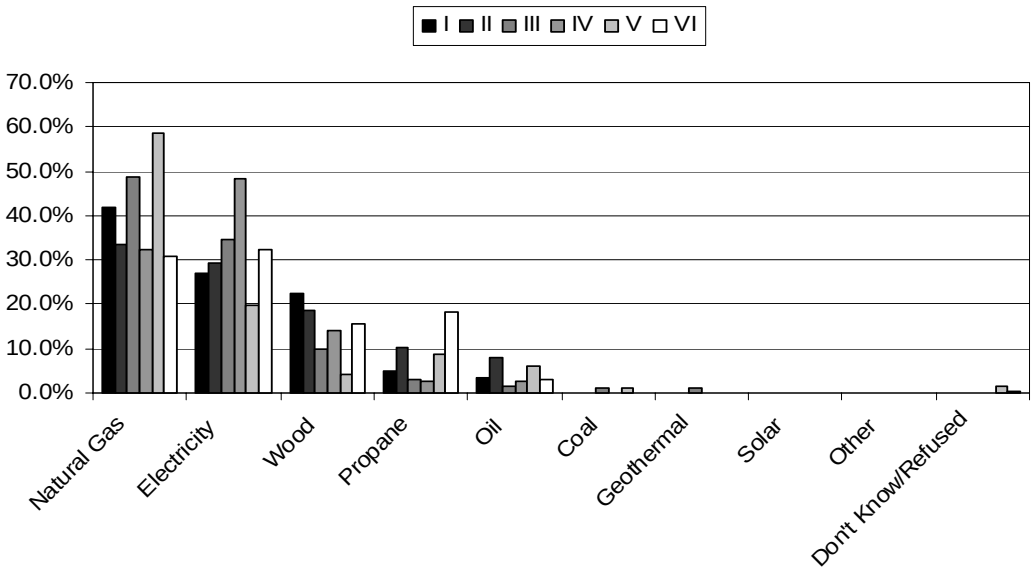
Q450A

~What is your primary source of fuel for home heating?



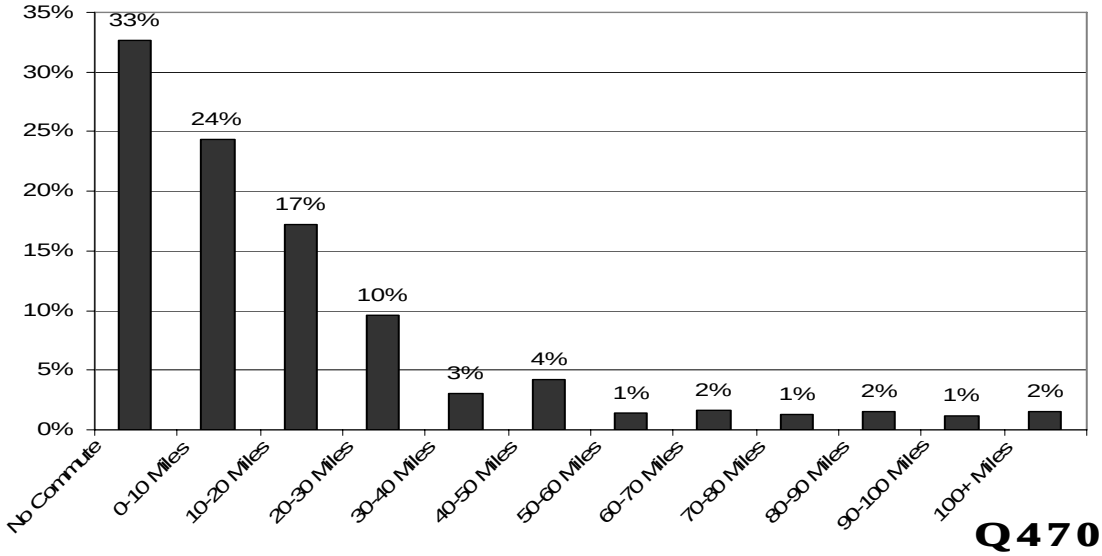
Q460A

~What is your primary source of fuel for home heating (Regional Breakdown)?

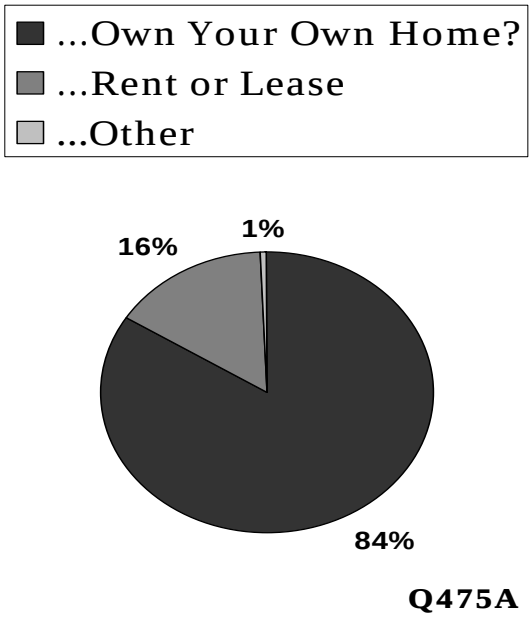


Q460A- region

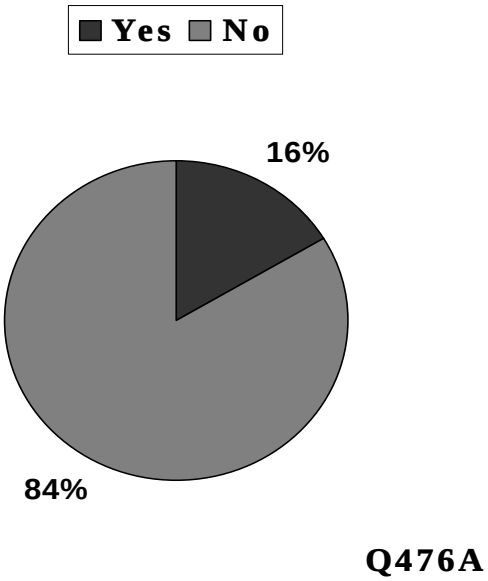
~Approximately how far is your commute to work round trip?



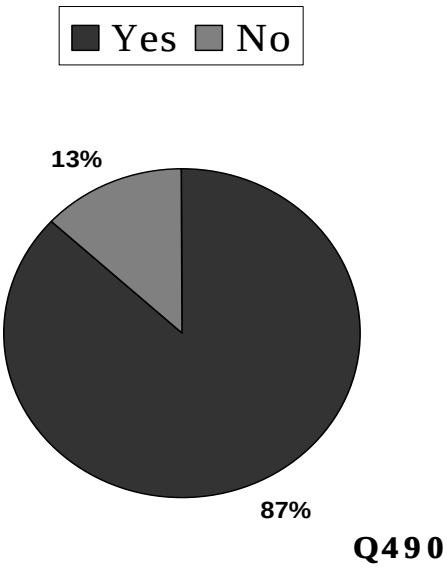
~Home ownership. Do you…



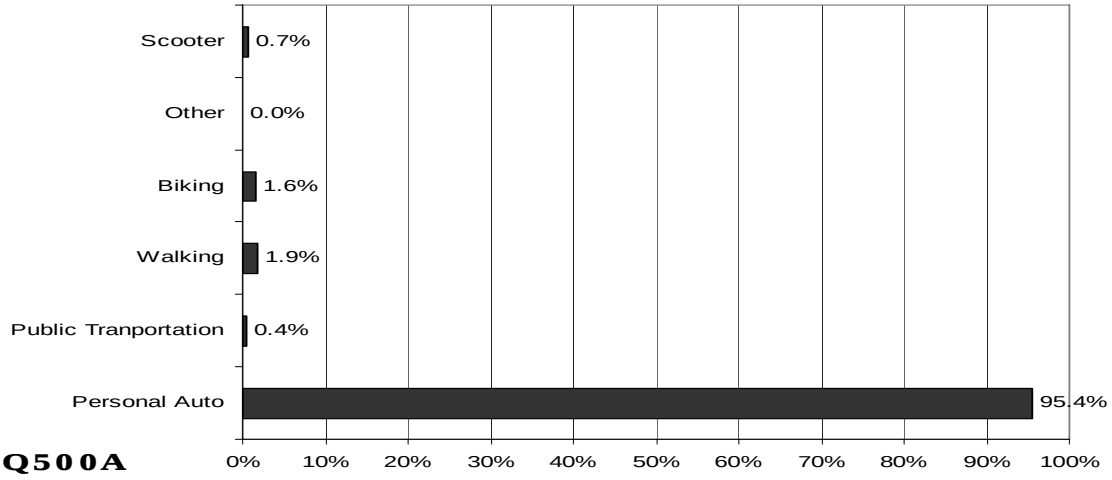
~Are utilities included with your rent?



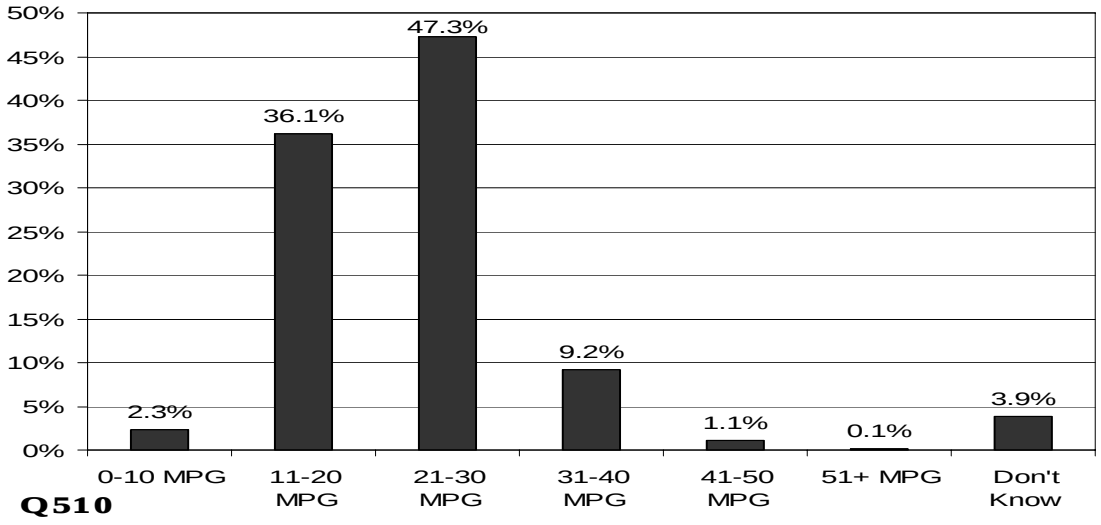
~Have you voted in an election in the last two years?



~What is your primary form of transportation?



~Roughly how many miles per gallon does your vehicle get?



Appendix III: Clearwater Methodology Report

Idaho Energy Survey

Social Science Research Center

Methods Report

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Clearwater
Research, Inc.

Date:
March 16, 2007

Introduction and Background

The Boise State University Social Science Research Center (SSRC) contracted with Clearwater Research, Inc., (Clearwater) to provide consultation on the design, collect data for, and complete initial analyses of the Idaho Energy Survey (IES). Clearwater provided sample design, questionnaire consultation, data collection, analysis, and data table production services. The survey design and implementation followed computer-assisted telephone interview (CATI) protocols Clearwater has used successfully for past SSRC projects.

Method

The SSRC provided Clearwater with the overall specifications of the 2006 IES project and with a set of questions to be included on the survey instrument. Clearwater consulted on the final questionnaire and sample design. We conducted telephone interviews with over 500 randomly selected adults residing in the Idaho using a random-digit-dialing (RDD) method.

Survey Instrument

SSRC provided Clearwater with the core questions for the 2006 IES questionnaire. Some items had been asked on earlier Idaho Public Policy surveys of Idahoans, and others were developed for the 2006 study. Clearwater consulted with the SSRC to finalize the CATI version of the survey instrument.

The omnibus questionnaire covered a variety of areas, including core energy survey items, opinions on conservation and efficiency, renewable energy sources, alternative fuels, environmental impact, and other issues to be considered by the Idaho legislature in 2007. It also included demographic questions such as education level, age, income, and political party affiliation. During the first few days of data collection, minor adjustments were made to the question wordings and response categories based on feedback from interviewers and survey respondents. In addition, some items originally included on the instrument were dropped in an effort to shorten the average length of the survey interview. The final questionnaire is presented in Appendix A.

The programming of the questionnaire included checks for out-of-range and improbable values, and for consistency in responses across questions, as questions were answered. These checks brought invalid or questionable answers to the attention of the interviewer for corrective action as a respondent was interviewed. In testing the programming, Clearwater checked the CATI questionnaire with mock data to ensure that appropriate skip patterns were followed. The survey was conducted in English only. The average interview length was 17.6 minutes.

Sampling

For the 2006 IES, a random-digit-dialing (RDD) method was used to sample a minimum of 500 of Idaho adults. The RDD sample frame consisted of all telephone numbers in one-plus working banks with exchanges serving Idaho households. A bank is a series of 100 telephone numbers from ending with 01 through 99 that start with the same area code, exchange, and first two digits

of the line number. A one-plus bank contains a telephone number listed in a residential directory and is therefore likely to include telephone numbers that ring at residential households.

The sample was stratified by region—six county groupings corresponding to the six districts of the Idaho Association of Counties. Independent samples were drawn for each region so that the total number of completed interviews in each could be controlled during the field period. The stratification was disproportionate, such that an equal number of interviews was planned to be completed in each region (a minumum of 84).

Clearwater estimated the necessary number of RDD records to generate for each region in order to achieve the required number of completed interviews. The generated sample records were divided into random subsamples of 30 records for processing. This technique—called "replication"—provides a means of ensuring that the minimum number of records are called to achieve the desired number of completed interiviews.

Before fielding, the sampled telephone numbers were processed by Marketing Systems Group (MSG) using their GENESYS-CSS (Comprehensive Sample Screening) service. The process identifies a large percentage of business, nonworking, and cell phone numbers that are drawn in RDD samples. Records identified through the CSS process as nonresidential lines were not called. Rather, they were sequestered and added to the calculation of final dispositions and response rates. All remaining RDD telephone numbers were called.

Once an interviewer made voice contact with a household, he or she verified the number reached and that the number was for a private residence. One adult member of the household was randomly selected to be interviewed using a most-recent-birthday method.

The sample for the 2006 IES is a complex random sample because the members of the sample did not have equal probabilities of being included. The probability that a given respondent was included in sample varied by the number of land telephone lines serving the household, the number of adults in the household, and the region of Idaho where the household was located (because the disproportionate stratification by region required a different sampling rate within each region). When cases in a complex random sample are weighted to account for the variation in probability of selection, the variances of the survey estimates are usually inflated compared to those from a simple random sample of the same size. The ratio of the variance of a complex sample design to the variance for a simple random sample of the same size is called the "design effect." Another way to describe the design effect is to calculate the "effective sample size," which is the size of a simple random sample that would be required to produce the same variance as that of a complex random sample with a particular design effect.

Regional and statewide confidence intervals, design effects, and effective sample sizes for the 2006 IES are shown in Table 1. The 95% confidence interval reported in the table is for the

"worst case" binomial proportion of 50%-50% using weighted data. This is often reported as the overall "margin of error" for a given survey. It is important to keep in mind, however, that a confidence interval can be calculated for every estimate from the 2006 IES survey. Some estimates will have larger 95% confidence intervals and some will have smaller ones than the overall "margin of error."

Region	Unweighted Sample Size		Weighted Population Size		95% Conf. Interval for 50%-50%	Design Effect	Eff. Sample Size
	Count	Percent	Count	Percent			
I	85	16.6	154,126	14.6	±11.2	1.10	77
II	84	16.4	80,245	7.6	±11.1	1.08	78
III	88	17.2	453,577	43.0	±11.0	1.11	79
IV	85	16.6	124,811	11.8	±11.7	1.21	70
V	85	16.6	113,513	10.8	±11.3	1.13	75
VI	86	16.8	128,644	12.2	±11.6	1.21	71
Total (Statewide)	513	100.0	1,054,916	100.0	±5.6	1.68	306

Data Collection

Clearwater collected data using its in-house 110-station computer-aided telephone interview (CATI) system. Data collection ran from December 11, 2006, through January 5, 2007.

Interviewers were thoroughly briefed prior to data collection, and they rehearsed the questionnaire before conducting actual interviews. Monitoring staff listened to a sampling of interviews throughout the fielding period to maintain data quality. Clearwater used computer-aided dialing, but not predictive dialing. Predictive dialing has the potential to annoy respondents by introducing a delay in connections after respondents answer the telephone. This delay leads to higher hang-up and refusal rates and a correspondingly lower response rate for the survey.

Calling protocols followed good practices for general population surveys sampled with RDD. We resolved each sample record by attempting the number 10 times during the calling period or until a final disposition code (such as "completed interview" or "disconnected/non-working number") was assigned. The calling protocols required that the 10 attempts occur on no fewer than five calling occasions—each consisting of no more than three attempts at least one hour apart. Further, the 10 attempts should involve at least three weekday calls, three weeknight calls, and three weekend calls. The calling periods for the PTES data collection were 8:30 A.M. to 5:00 P.M. weekdays, 5:00 P.M. to 9:00 P.M. weeknights, 10 A.M. to 7:30 P.M. Saturdays, and 1 P.M. to 9:00 P.M. Sundays (Mountain Time).

The calling protocol required that respondents or potential respondents who initially refused to participate or who terminated the interview after beginning it be contacted again in an attempt to convert them to a participating respondent. The initial refusal could occur either at the household

level (before a respondent had been selected) or at the respondent level (after a respondent had been selected and the selected respondent had refused). Adamant initial refusals were not included in the conversion effort.

The numbers of completed interviews being collected in each region during fielding was monitored. As needed, sample replicates were added to or removed from the pool of records being called by interviewers via the CATI system.

During fielding, the survey data were entered and automatically consolidated by the CATI software as interviewers completed each questionnaire with a respondent. During fielding, interviewers and supervisors used project feedback and data change forms to document and communicate data collection errors or problems to the production manager in the data collection department. Data changes were effected by the production manager using the CATI data editor. If a data change affected a skip pattern later in the questionnaire, the respondent was called back to collect the missing data.

The productivity of the sample was sufficient to achieve the minimum 500 completed interviews using 7,005 RDD telephone numbers. Clearwater completed 513 interviews for the 2006 IES.

Data Preparation

Calling on the RDD sample was considered complete at the point the all records in used replicates had reached their maximum attempts or a final disposition had been assigned. We exported the data from CATI, cleaned the data, and compiled them into a labeled SPSS data file. The data files included data from all completed interviews in the used replicates. Any data collected in replicates that had been backed out during fielding was removed from the final data set.

Clearwater checked the prepared data for out-of-range and improbable values and for consistency in responses across questions and appropriate skip patterns. Data cleaning included editing open-ended responses to ensure correctness and consistency in spelling, capitalization, and punctuation. Open-ended responses in “other” categories were further cleaned by coding them into existing categories when they were duplicative of existing categories. SSRC worked with Clearwater to finalize the coding schemes and the correct code assignments. Confidentiality of the data was ensured by removing from the data set any information—such as the telephone number—that could identify a specific household that participated in the study.

Clearwater calculated the final disposition for each sample record. The CATI call history tables recorded the interim or final disposition entered by the interviewer for each call attempt.

Database programming referenced both the CATI call history tables and the data sets to determine the correct final disposition for each sampled telephone number.

Finally, the data were weighted to account for the sample design and to reduce the effect of unit nonresponse. The list-assisted RDD design yields a complex probability sample. The probability that a given respondent was contacted to participate in the survey varies by the number of phone lines that serve the household, the number of adults that live in the household, and the total number of telephone numbers available to be sampled in the Idaho region where the household is located. Case weights were calculated to account for these varying probabilities of selection. In addition, we incorporated poststratification factor in the case weighting to help minimize bias due to nonresponse patterns (refusals and noncontacts). The population estimates used for poststratification were county-level estimates by age and gender for July 1, 2005, published by the U.S. Census in mid 2006.

We calculated two weights for each case. The first was an expansion weight for projecting to population counts and for correct variance estimation using specialized statistical analysis software, such as SUDAAN. The second was a relative weight, which can be used for approximating correct variance estimates using standard statistical analysis software with simple random sample assumptions, such as the SPSS Base software.

Call Outcomes

Each call attempt was given an interim or final disposition depending on the outcome of the call. At the end of the field period, each record without a final disposition was assigned a one based on its history of interim dispositions. The final disposition counts for the 2006 IES project—based on the disposition set developed by the American Association for Public Opinion Research (AAPOR) for CATI studies—are shown in Table 2.

Final Disposition	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Total
Interview (Category 1)							
Complete	88	84	86	84	84	87	513
Partial	2	3	4	2	3	3	17
Total Category 1	90	87	90	86	87	90	530
Eligible, non-interview (Category 2)							
Refusal and breakoff	12	13	9	13	8	8	63
Household-level refusal	4	0	0	0	2	2	8
Known-respondent refusal	31	15	26	23	18	25	138
Physically or mentally unable/incompetent	0	0	0	1	0	0	1
Total Category 2	47	28	35	37	28	35	210
Unknown eligibility, non-interview (Cat. 3)							
Unknown if housing unit	180	142	182	186	142	140	972

Final Disposition	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Total
Always busy	3	4	4	1	5	8	25
No answer	52	38	47	67	44	37	285
Housing unit, unknown if eligible respondent	9	4	0	1	0	0	14
Answering machine-don't know if household	39	41	40	31	28	32	211
Call blocking	1	1	1	0	0	1	4
Total Category 3	284	230	274	286	219	218	1511
Not eligible (Category 4)							
Fax/data line	50	36	31	51	25	29	222
Non-working number	795	590	495	751	512	536	3679
Nonresidence	153	108	165	160	116	103	805
Cell Phone	7	8	9	8	4	7	43
No eligible respondent	0	0	1	2	0	2	5
Total Category 4	1005	742	701	972	657	677	4754
Grand Total	1426	1087	1100	1381	991	1020	7005

Response Rates

For the 2006 IES project, we used the method of response rate calculation codified by the American Association for Public Opinion Research (AAPOR). Specifically, we calculated AAPOR Response Rate 4 (RR4). This rate reflects the percentage of completed and partially completed interviews achieved after fully processing all attempted sample records in worked replicates according to the prescribed sample management rules. It also estimates the number of eligible households from the total number of phone numbers of unknown status.

To calculate RR4, the IES final dispositions are summarized into seven categories, shown in Table 3.

The formula for RR4 is:

RR4 = (I+P)/((I+P)+(R+NC+O)+e(UH+UO))

For this calculation, we set the value of e to 0.30. This represents our estimate of the proportion of known households in the group of sample records whose eligibility status was able to be determined.