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### Energy Use and Concerns of Rural Nebraskans

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# CENTER FOR APPLIED RURAL INNOVATION

A Research Report\*

**Energy Use and Concerns of Rural  
Nebraskans**

*2008 Nebraska Rural Poll Results*

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\*These reports have been peer reviewed by colleagues at the University of Nebraska. Any questions, suggestions, or concerns should be sent directly to the author(s).

All of the Center's research reports detailing Nebraska Rural Poll results are located on the Center's World Wide Web page at <http://cari.unl.edu/ruralpoll/>

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## *Executive Summary*

Energy prices have steadily increased during the past year. Rural residents are now faced with higher costs to drive and heat and cool their homes. Given these conditions, how much of a problem have rising energy costs been for rural Nebraskans? What are their opinions on future energy sources? What changes have they made or do they plan to make due to the price increases? This paper provides a detailed analysis of these questions.

This report details 2,496 responses to the 2008 Nebraska Rural Poll, the thirteenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about energy. For all questions, comparisons are made among different respondent subgroups, that is, comparisons by age, occupation, region, etc. Based on these analyses, some key findings emerged:

- ***Most rural Nebraskans report that rising energy costs have been a somewhat serious problem or a very serious problem for themselves and their family lately.*** Forty-one percent of rural Nebraskans say rising energy costs have been a very serious problem and 43 percent report it has been a somewhat serious problem. Only one percent say the rising costs have not been a problem at all and 14 percent indicate it has been not too serious a problem. (page 2)
- ***Persons with the lowest household incomes are more likely than persons with higher incomes to report that rising energy prices have been a very serious problem.*** Fifty-three percent of persons with household incomes under \$20,000 say rising energy costs have been a very serious problem, compared to 32 percent of persons with household incomes of \$60,000 or more. (page 3)
- ***Many rural Nebraskans have made changes in household spending, driving patterns and household energy use as a result of recent energy price increases.*** At least three-quarters of rural Nebraskans have done the following items as a result of the recent energy price increases: cut back on luxury household spending (94%), reduced the heat or air conditioning use in your home (91%), cut back how much you drive (91%), attempted to use household appliances more efficiently (89%), cut back on necessary household spending (88%), acquired more goods and services locally (80%), and changed your vacation plans by shortening or postponing the trip (75%). (page 8)
- ***Many rural Nebraskans have also made driving behavior changes as a result of the recent energy price increases.*** Two-thirds (67%) of rural Nebraskans have driven their most fuel-efficient vehicle more often as a result of the recent energy price increases. Another nine percent are considering this change. Eleven percent of rural Nebraskans have converted to E-85 gasoline and an additional 14 percent are considering making this switch. Only three percent of rural Nebraskans have purchased a hybrid vehicle but 17 percent are considering this type of purchase. (page 11)

- ***Rural Nebraskans are divided in their opinions about whether or not sufficient energy supplies exist or if new technologies and alternative energy sources will help maintain energy supplies.*** Just under one-half (44%) of rural Nebraskans agree or strongly agree that there are sufficient oil and natural gas supplies around the world to meet U.S. needs for the foreseeable future. Thirty-eight percent disagree or strongly disagree with the statement. Similarly, just under one-half (47%) agree or strongly agree that “even if oil and natural gas supplies do decline, new technologies and alternative energy sources will ensure Americans maintain their current standard of living.” Thirty-two percent disagree or strongly disagree. (page 3)
- ***Most rural Nebraskans think the environment should be protected, even if this means some energy supplies are not available for use.*** Over one-half (57%) agree or strongly agree with this statement. Seventeen percent disagree or strongly disagree with that statement. Approximately one-quarter (26%) neither agree nor disagree with the statement. (page 3)
- ***Most rural Nebraskans believe that Americans should reduce their energy consumption to prevent an energy crisis and that more should be done to develop renewable energy.*** Seventy-seven percent of rural Nebraskans agree or strongly agree with the following statement: Americans must change their lifestyles to reduce energy consumption to avoid the onset of an energy “crisis” in the U.S. Only 10 percent disagree or strongly disagree with the statement. The majority (91%) of rural Nebraskans agree or strongly agree that “more should be done to develop renewable energy, such as ethanol, biodiesel or wind energy.” Only three percent disagree or strongly disagree with the statement. (pages 3 and 4)
- ***The vast majority of rural Nebraskans also believe we are too dependent on foreign oil sources.*** Ninety-three percent of rural Nebraskans agree or strongly agree with that statement, while only three percent disagree or strongly disagree. (page 4)
- ***Most rural Nebraskans see renewable sources as being important energy sources for the next generation. A larger proportion of rural Nebraskans rated wind and solar energy as being important compared to the fossil fuels of oil and natural gas.*** At least three-quarters of rural Nebraskans rate the following energy sources as being important for the next generation: wind energy (89%), solar energy (89%), oil (87%), natural gas (84%), ethanol from other sources (81%), ethanol from corn (79%), and biodiesel (76%). (page 5)
- ***Most rural Nebraskans rate electricity and unleaded gasoline as being very important or somewhat important to their household.*** Ninety-seven percent of rural Nebraskans say electricity is important to their household and 95 percent rate unleaded gasoline as important to their household. (page 7)

## *Introduction*

Energy prices have steadily increased during the past year. Although gasoline prices have continued to increase after the administration of this survey, prices increased from approximately \$3.20 per gallon at the beginning of March to \$3.75 per gallon in mid-May when the last completed surveys were received. Rural residents are particularly affected by high gas prices due to increased commuting distances for jobs, groceries and other shopping. In addition to increased gas prices, rural residents have also faced higher costs to heat their homes.

Given these conditions, how much of a problem have rising energy costs been for rural Nebraskans? What are their opinions on future energy sources? What changes have they made or do they plan to make due to the price increases? This paper provides a detailed analysis of these questions.

The 2008 Nebraska Rural Poll is the thirteenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about energy.

### *Methodology and Respondent Profile*

This study is based on 2,496 responses from Nebraskans living in the 84 non-metropolitan counties in the state. A self-administered questionnaire was mailed in March and April to approximately 6,200 randomly selected households. Metropolitan counties not included in the sample were Cass, Dakota, Dixon, Douglas, Lancaster, Sarpy, Saunders, Seward and Washington. The 14-page questionnaire included questions pertaining to well-being, community, energy, climate change, television viewing, personal finances

and work. This paper reports only results from the energy portion of the survey.

A 40% response rate was achieved using the total design method (Dillman, 1978). The sequence of steps used follow:

1. A pre-notification letter was sent requesting participation in the study.
2. The questionnaire was mailed with an informal letter signed by the project director approximately seven days later.
3. A reminder postcard was sent to the entire sample approximately seven days after the questionnaire had been sent.
4. Those who had not yet responded within approximately 14 days of the original mailing were sent a replacement questionnaire.

Appendix Table 1 shows demographic data from this year's study and previous rural polls, as well as similar data based on the entire non-metropolitan population of Nebraska (using 2000 U.S. Census data). As can be seen from the table, there are some marked differences between some of the demographic variables in our sample compared to the Census data. Certainly some variance from 2000 Census data is to be expected as a result of changes that have occurred in the intervening eight years. Nonetheless, we suggest the reader use caution in generalizing our data to all rural Nebraska. However, given the random sampling frame used for this survey, the acceptable percentage of responses, and the large number of respondents, we feel the data provide useful insights into opinions of rural Nebraskans on the various issues presented in this report. The margin of error for this study is plus or minus two percent.

Since younger residents have typically been



under-represented by survey respondents and older residents have been over-represented, weights were used to adjust the sample to match the age distribution in the non-metropolitan counties in Nebraska (using U.S. Census figures).

The average age of respondents is 50 years. Seventy percent are married (Appendix Table 1) and 70 percent live within the city limits of a town or village. On average, respondents have lived in Nebraska 43 years and have lived in their current community 28 years. Fifty-two percent are living in or near towns or villages with populations less than 5,000. Ninety-five percent have attained at least a high school diploma.

Forty-five percent of the respondents report their 2007 approximate household income from all sources, before taxes, as below \$40,000. Forty-two percent report incomes over \$50,000.

Seventy-five percent were employed in 2007 on a full-time, part-time, or seasonal basis.

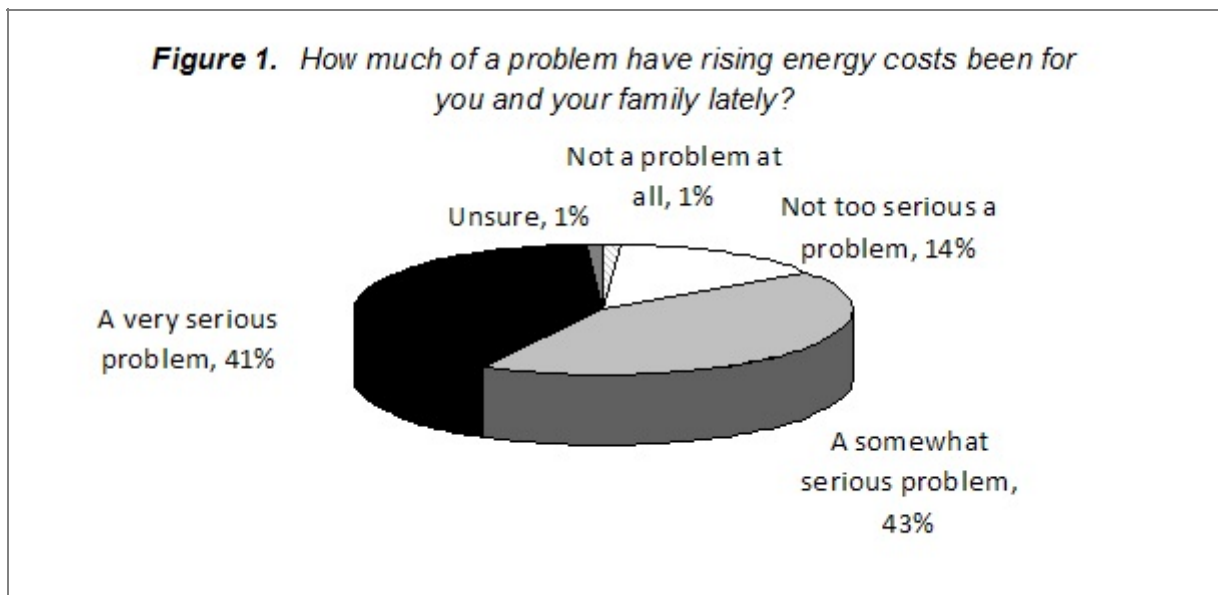
Eighteen percent are retired. Thirty-three percent of those employed reported working in a management, professional, or education occupation. Fifteen percent indicated they were employed in agriculture.

### *Concerns about Rising Energy Costs*

Most rural Nebraskans (84%) report that rising energy costs have been a somewhat serious problem or a very serious problem for themselves and their family lately (Figure 1). Only one percent say the rising costs have not been a problem at all and 14 percent indicate it has been not too serious a problem.

Responses to this question are analyzed by community size, region and various individual attributes (Appendix Table 2). Many differences emerge.

Persons with the lowest household incomes are more likely than persons with higher incomes to report that rising energy prices have been a very serious problem. Fifty-



three percent of persons with household incomes under \$20,000 say rising energy costs have been a very serious problem, compared to 32 percent of persons with household incomes of \$60,000 or more.

Persons living in or near smaller communities are more likely than persons living in or near larger communities to say energy price increases have been a very serious problem. Forty-eight percent of persons living in or near communities with less than 500 people report rising energy costs are a serious problem, compared to 37 percent of persons living in or near communities with populations of 10,000 or more.

Persons in agriculture occupations are the occupation group most likely to report rising energy costs have been a very serious problem. Fifty-one percent of persons employed in agriculture report rising energy costs are a very serious problem. In comparison, approximately 38 percent of persons with either management, professional or education occupations or sales or office support occupations report this being a very serious problem.

Other groups most likely to report rising energy costs have been a very serious problem include: persons between the ages of 40 and 64, divorced/separated respondents and persons with lower educational levels.

### ***Current and Future Energy Sources***

Respondents were next asked their opinions about energy supplies. They were asked to rate the extent to which they agreed or disagreed with six statements.

Rural Nebraskans are divided in their opinions on whether or not sufficient energy supplies exist or if new technologies and alternative energy sources will help maintain energy supplies. Just under one-half (44%) of rural Nebraskans agree or strongly agree that there are sufficient oil and natural gas supplies around the world to meet U.S. needs for the foreseeable future (Table 1). Thirty-eight percent disagree or strongly disagree with the statement.

Similarly, just under one-half (47%) agree or strongly agree that “even if oil and natural gas supplies do decline, new technologies and alternative energy sources will ensure Americans maintain their current standard of living.” Thirty-two percent disagree or strongly disagree.

Most rural Nebraskans think the environment should be protected even if this means some energy supplies are not available for use. Over one-half (57%) agree or strongly agree with this statement. Seventeen percent disagree or strongly disagree with that statement. Approximately one-quarter (26%) neither agree nor disagree with the statement.

Most rural Nebraskans believe that Americans should reduce their energy consumption to prevent an energy crisis and that more should be done to develop renewable energy. Seventy-seven percent of rural Nebraskans agree or strongly agree with the following statement: Americans must change their lifestyles to reduce energy consumption to avoid the onset of an energy “crisis” in the U.S. Only 10 percent disagree or strongly disagree with the statement.

**Table 1. Opinions About Energy Supplies**

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
There are sufficient oil and natural gas supplies around the world to meet U.S. needs for the foreseeable future.	8%	30%	18%	38%	6%
Even if oil and natural gas supplies do decline, new technologies and alternative energy sources will ensure Americans maintain their current standard of living.	4	28	21	43	4
The environment should be protected, even if this means some energy supplies are not available for use.	3	14	26	48	9
Americans must change their lifestyles to reduce energy consumption to avoid the onset of an energy “crisis” in the U.S.	3	7	13	60	17
More should be done to develop renewable energy, such as ethanol, biodiesel or wind energy.	1	2	6	52	39
We are too dependent on foreign oil sources.	1	2	6	38	55

The majority (91%) of rural Nebraskans agree or strongly agree that “more should be done to develop renewable energy, such as ethanol, biodiesel or wind energy.” Only three percent disagree or strongly disagree with the statement.

The vast majority of rural Nebraskans also believe we are too dependent on foreign oil sources. Ninety-three percent of rural Nebraskans agree or strongly agree with that statement, while only three percent disagree or strongly disagree.

Responses to these questions were analyzed by community size, region and various individual attributes (Appendix Table 3). Some differences are detected.

Younger persons are more likely than older persons to disagree with the statement that there are sufficient oil and natural gas supplies around the world to meet U.S. needs for the foreseeable future. One-half (50%) of persons age 19 to 29 disagree or strongly disagree with the statement, compared to 30 percent of persons age 65 and older.

Persons with higher educational levels are more likely than persons with less education to disagree that there are sufficient oil and natural gas supplies to meet the country's needs. Forty-five percent of persons with at least a bachelors degree disagree or strongly disagree with the statement, compared to thirty percent of persons with a high school diploma or less education.

Other groups most likely to disagree with this statement include: persons living in or near larger communities, persons with higher household incomes, females, and persons with management, professional or education occupations.

Persons living in or near the largest communities and persons living in the Panhandle are the groups most likely to disagree that new technologies and alternative energy sources will ensure Americans maintain their current standard of living.

The following groups are most likely to agree that the environment should be protected even if this means some energy supplies are not available for use: persons living in or near larger communities, the oldest respondents, females, the widowed respondents and persons in food service or personal care occupations.

Females, persons with at least a bachelors degree and persons with food service or personal care occupations are the groups most likely to agree that Americans must change their lifestyles to reduce energy consumption to avoid the onset of an energy "crisis" in the U.S.

The groups most likely to agree with the

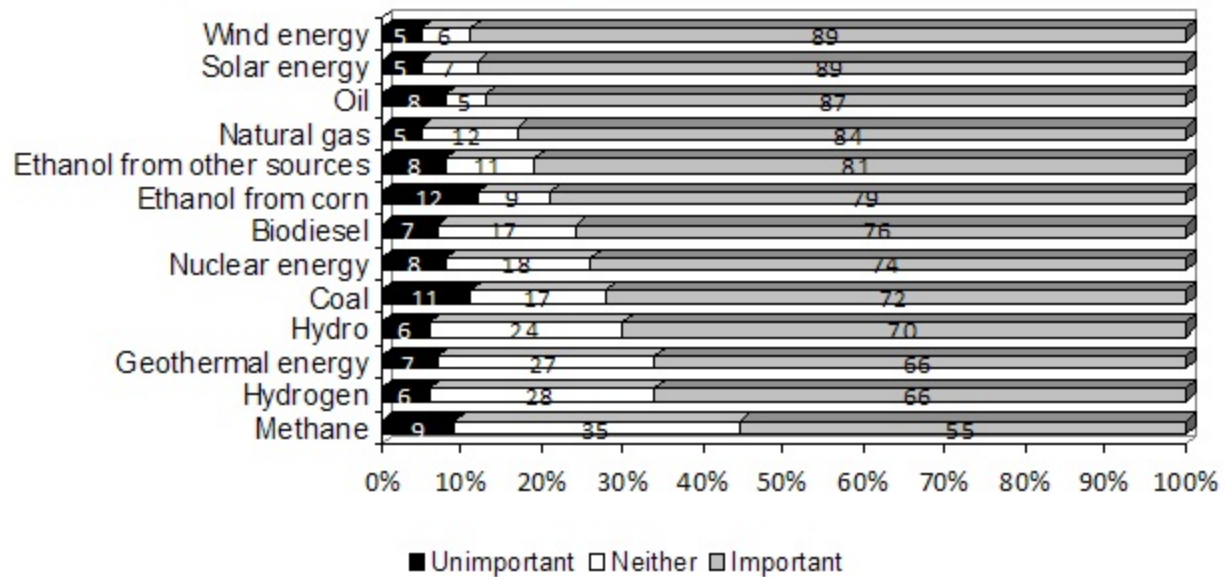
statement that we are too dependent on foreign oil sources include: persons living in or near the largest communities, residents of the South Central region (see Appendix Figure 1 for the counties included in each region), the oldest respondents, widowed respondents and persons with occupations classified as "other."

Respondents were next asked to rate how important various energy sources will be for the next generation. The specific question wording was "Many people believe that our energy sources will change dramatically for the next generation. How important do you believe the following energy sources will be for the next generation?" They were given a five-point scale that ranged from very unimportant to very important.

Most rural Nebraskans see renewable sources as being important energy sources for the next generation. A larger proportion of rural Nebraskans rated wind and solar energy as being important compared to the fossil fuels of oil and natural gas. At least three-quarters of rural Nebraskans rate the following energy sources as being important for the next generation: wind energy (89%), solar energy (89%), oil (87%), natural gas (84%), ethanol from other sources (81%), ethanol from corn (79%), and biodiesel (76%) (Figure 2).

Opinions about the future importance of the energy sources showed some differences by community size, region and various individual attributes (Appendix Table 4). Only the six energy sources with the highest proportions of somewhat important or very important responses were included in the table.

**Figure 2. Importance of Energy Sources for the Next Generation**



Persons living in the Panhandle region are more likely than persons living in other regions to believe wind energy will be important for the next generation. Ninety-three percent of the Panhandle residents believe wind energy will be important for the

next generation, compared to 83 percent of the residents of the Southeast region. Other groups most likely to believe wind energy will be important include: persons with production, transportation or warehousing occupations and both the married and widowed respondents.

Groups most likely to believe solar energy will be important include: residents of both the Panhandle and South Central regions, divorced/separated respondents and persons with either management, professional or education occupations or persons with occupations classified as other.

Widowed respondents are more likely than

persons of different marital status to believe oil will be important for the next generation. Persons with construction, installation or maintenance occupations and persons with food service or personal care occupations are the occupation groups *least* likely to rate oil as being an important energy source for the next generation.

Persons with production, transportation or warehousing occupations are the occupation group most likely to rate natural gas as being important for the next generation.

The youngest persons and persons living in or near communities with populations ranging from 500 to 999 are the groups most likely to believe ethanol from other sources will be important for the next generation.

Persons living in the South Central region, persons with lower household incomes, younger persons, persons living in or near communities with populations ranging from

500 to 999 and females are the groups most likely to believe ethanol from corn will be an important energy source for the next generation.

Respondents were also asked how important various energy sources are to their household. Most rural Nebraskans rate electricity and unleaded gasoline as being very important or somewhat important to their household. Ninety-seven percent of rural Nebraskans say electricity is important to their household and 95 percent rate unleaded gasoline as important to their household (Figure 3).

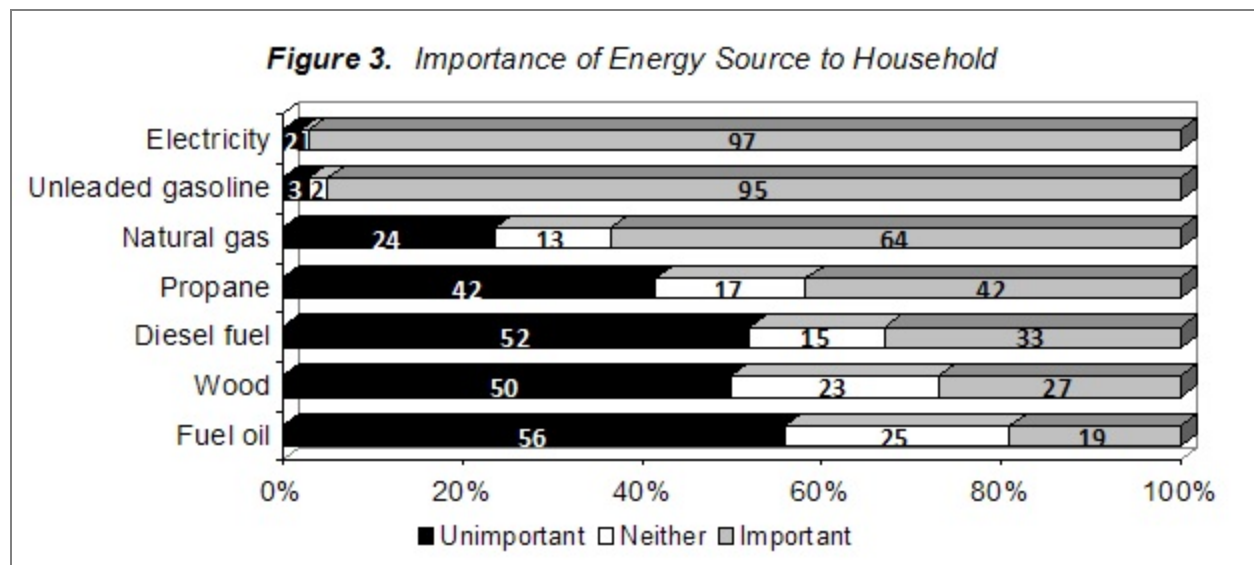
Responses to this question differ by community size, region and various individual attributes (Appendix Table 5). Persons in agriculture occupations are more likely than persons with different occupations to say diesel fuel is important to their household. Seventy-six percent of persons with agricultural occupations say diesel fuel is important to their household, compared to 20 percent of persons with food service or personal care occupations.

Other groups most likely to say diesel fuel is important to their household include: persons living in or near smaller communities, males, married persons and persons with lower education levels.

The groups most likely to say unleaded gasoline is important include: persons with the highest household incomes, younger persons, both married respondents and those who have never married, and persons with higher education levels.

Persons living in or near the smallest communities are more likely than persons living in or near larger communities to say propane is an important energy source for their household. Sixty-one percent of persons living in or near communities with less than 500 people say propane is important to their household, compared to 34 percent of persons living in or near communities with populations of 10,000 or more.

Persons with agriculture occupations are more likely than persons with different



occupations to say propane is an important energy source for their household. Sixty-two percent of persons with agriculture occupations say propane is important to their household, compared to 26 percent of persons with occupations classified as other. Other groups most likely to rate propane as important include: persons living in the Southeast region, persons under the age of 30 and married persons.

Persons living in or near the largest communities are more likely than persons living in or near smaller communities to say natural gas is an important energy source for their household. Seventy-six percent of persons living in or near communities with populations of 10,000 or more say natural gas is an important energy source for their household, compared to 37 percent of persons living in or near communities with less than 500 people.

Persons living in the South Central region are more likely than persons living elsewhere to say natural gas is an important energy source for their household. Seventy-five percent of South Central residents say natural gas is an important energy source for their household, compared to 52 percent of persons in the North Central region.

Other groups most likely to rate natural gas as important include: persons with lower household incomes, the youngest respondents, persons who have never married, persons with at least a bachelors degree and persons with food service or personal care occupations.

The groups most likely to rate fuel oil as important include: persons living in or near communities with populations ranging from

500 to 999, persons with the lowest household incomes, the youngest respondents, females, persons who have never married and persons with food service or personal care occupations.

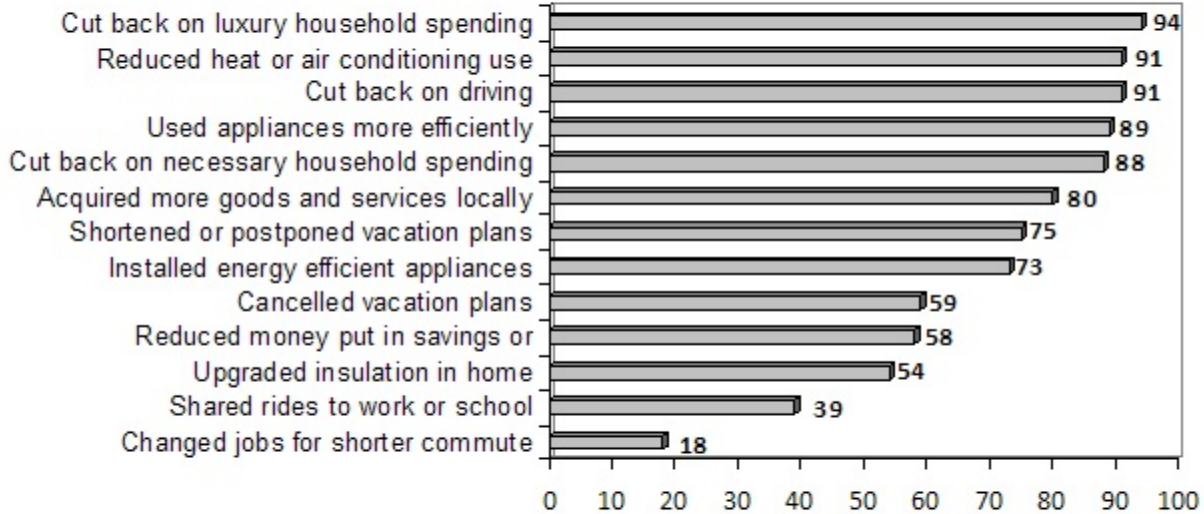
The groups most likely to rate wood as an important energy source for their household include: persons living in or near the smallest communities, residents of the North Central region, persons with the lowest household incomes, the youngest respondents, persons with the lowest education levels and persons with agriculture occupations and persons with construction, installation or maintenance occupations. The widowed respondents are the marital group *least* likely to rate wood as an important energy source for their household.

### *Effects of Energy Price Increases*

Finally, respondents were asked if they have done or plan to do various items as a result of the recent energy price increases. They were given a four-point scale (1 = none, 2 = a little, 3 = some, and 4 = a lot). To simplify the analysis, the last three scale points have been combined to determine if the respondent has done or plans to do the item or not. Given an approximate increase of 20 percent in gasoline prices since the administration of this survey, these results are probably underestimating the effects of increasing fuel prices on rural Nebraskans.

Many rural Nebraskans have made changes in household spending, driving patterns and household energy use as a result of recent energy price increases. At least three-quarters of rural Nebraskans have done the following items as a result of the recent energy price increases: cut back on luxury

**Figure 4. Effects of Recent Energy Price Increases**



household spending (94%), reduced the heat or air conditioning use in your home (91%), cut back how much you drive (91%), attempted to use household appliances more efficiently (89%), cut back on necessary household spending (88%), acquired more goods and services locally (80%), and changed your vacation plans by shortening or postponing the trip (75%) (Figure 4). Responses to these questions differ by community size, region and various individual attributes (Appendix Table 6). Persons with lower household incomes are more likely than persons with higher incomes to have cut back or plan to cut back on necessary household spending. Ninety-three percent of persons with household incomes under \$40,000 have or plan to cut back on

necessary household spending, compared to 83 percent of persons with household incomes of \$60,000 or more. Persons with production, transportation or warehousing occupations are more likely than persons with different occupations to have or plan to cut back on necessary household spending.

Persons living in or near the smallest communities are more likely than persons living in or near larger communities to have or plan to cut back how much they drive. Ninety-five percent of persons living in or near communities with less than 500 people have or plan to cut back how much they drive, compared to 88 percent of persons living in or near communities with populations of 10,000 or more.



Other groups most likely to have or plan to cut back how much they drive include persons with lower household incomes and persons with production, transportation or warehousing occupations.

Groups most likely to have either changed their vacation plans by shortening or postponing the trip or to have cancelled vacation plans include: persons living in or near the smallest communities, persons with lower household incomes, older persons and persons with occupations classified as other. Married persons were the marital group *least* likely to have or plan to cancel vacation plans.

Persons with occupations classified as other are the group most likely to have or plan to reduce the heat or air conditioning use in their home. All (100%) of persons with this occupation classification have or plan to reduce the heat or air conditioning use in their home, compared to 89 percent of persons with agriculture occupations.

Persons between the ages of 50 and 64 are the group most likely to have or plan to install energy efficient appliances. Seventy-nine percent of persons in this age group have or plan to install energy efficient appliances, compared to 65 percent of persons between the ages of 30 and 39.

Other groups most likely to have or plan to install energy efficient appliances include persons with household incomes between \$40,000 and \$59,999, married persons and persons with production, transportation and warehousing occupations.

The groups most likely to have or plan to upgrade insulation in their home include

persons living in or near communities with populations between 500 and 999, persons between the ages of 50 and 64, and married persons.

Younger persons are more likely than older persons to have or plan to change jobs for a shorter commute. Thirty percent of persons under the age of 30 have or plan to change jobs for a shorter commute, compared to 12 percent of persons age 65 and older.

Persons with food service or personal care occupations are the occupation group most likely to have or plan to change jobs for a shorter commute. Thirty-five percent of persons in this occupation group have or plan to change jobs for a shorter commute, compared to 11 percent of persons with occupations classified as other. Other groups most likely to have or plan to change jobs for a shorter commute include persons with lower household incomes and persons who have never married or divorced/separated respondents. The regional groups most likely to have or plan to change jobs for a shorter commute include residents of the South Central, Northeast and Southeast regions.

Persons living in or near communities with populations ranging from 500 to 9,999 are more likely than persons living in or near both the smallest and largest communities to have or plan to acquire more goods and services locally.

Persons with the lowest household incomes are more likely than persons with higher incomes to have or plan to reduce the amount of money put into savings or retirement account. Approximately 64 percent of persons with household incomes

under \$40,000 have or plan to reduce the amount put into either savings or retirement accounts, compared to 50 percent of persons with household incomes of \$60,000 or more. Persons who have never married are the marital group most likely to have or plan to reduce money put into savings or retirement account (69%).

The groups most likely to have or plan to share rides to work or school include persons with the lowest household incomes, the youngest respondents, persons who have never married and persons with food service or personal care occupations.

Respondents were also asked if they have made any driving behavior changes as a result of the recent energy price increases. The answer choices included yes, no or considering it.

Two-thirds (67%) of rural Nebraskans have driven their most fuel-efficient vehicle more often as a result of the recent energy price

increases (Figure 5). Another nine percent are considering this change.

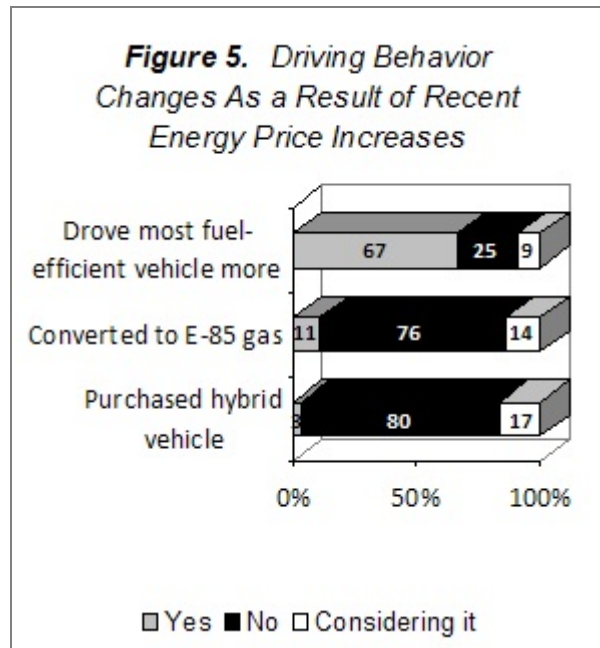
Eleven percent of rural Nebraskans have converted to E-85 gasoline and an additional 14 percent are considering making this switch. Only three percent of rural Nebraskans have purchased a hybrid vehicle but 17 percent are considering this type of purchase.

Answers to this question differ by community size, region and various individual attributes (Appendix Table 7). The groups most likely to be considering purchasing a hybrid vehicle include persons with the highest household incomes, younger persons, persons who have never married, respondents with at least some college education and persons with food service or personal care occupations.

Younger persons are more likely than older persons to have converted to E-85 gasoline. Nineteen percent of persons under the age of 30 have converted to E-85 gasoline, compared to seven percent of persons between the ages of 40 and 49.

Persons with management, professional or education occupations are more likely than persons with different occupations to have converted to E-85 gasoline. Persons living in the Northeast region are more likely than persons living in other regions of the state to have converted to E-85 gasoline.

Persons living in the North Central region are more likely than persons living in other regions of the state to have driven their most fuel-efficient vehicle more often. Seventy-six percent of North Central residents drove their most fuel-efficient vehicle more often,



compared to 62 percent of residents of the South Central region.

Other groups most likely to have driven their most fuel-efficient vehicle more often include persons living in or near smaller communities, persons with household incomes ranging from \$20,000 to \$39,999, the youngest respondents, married persons and respondents with some college education.

### ***Conclusion***

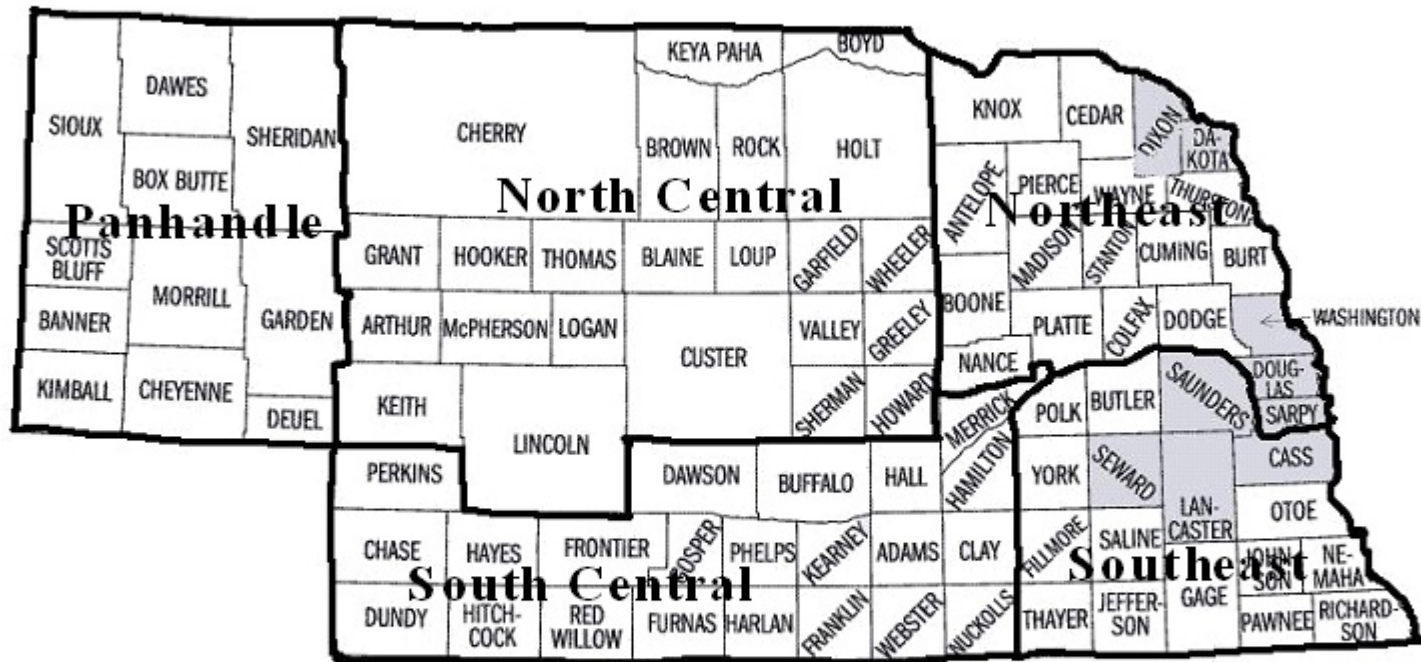
The recent energy price increases have impacted rural Nebraskans. Most say the price increases have been either a very serious or somewhat serious problem. Many rural Nebraskans have also made changes in household spending, driving patterns and household energy use as a result of these price increases. Although some of these changes are positive, rural Nebraskans have also had to cut back on necessary household spending, reduced money put in savings or retirement account and changed jobs for a shorter commute. These changes have the potential to affect the state's economy and rural population as less dollars are being spent and population may begin to concentrate in urban areas and retail hubs to eliminate long commutes.

Many rural Nebraskans believe sufficient energy supplies exist or that new technologies and alternative energy sources will help maintain energy supplies. However, a significant proportion disagree with these statements. Thus, opinions about future energy supplies are mixed.

Most rural Nebraskans favor environmental protection even if energy supplies are not

available for use. And, most believe energy consumption needs to be reduced and that more should be done to develop renewable energy. The state has been moving toward increasing renewable energy production through wind energy and ethanol production. However, it appears that rural Nebraskans think more can be done in this area. Rural Nebraskans believe wind energy, solar energy, oil, natural gas, ethanol from other sources, ethanol from corn and biodiesel will be important energy sources for the next generation.

# Appendix Figure 1. Regions of Nebraska



■ Metropolitan counties (not surveyed)

*Appendix Table 1. Demographic Profile of Rural Poll Respondents<sup>1</sup> Compared to 2000 Census*

	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>	<b>2003</b>	<b>2000</b>
	<b>Poll</b>	<b>Poll</b>	<b>Poll</b>	<b>Poll</b>	<b>Poll</b>	<b>Poll</b>	<b>Census</b>
<b>Age : <sup>2</sup></b>							
20 - 39	32%	31%	33%	34%	34%	33%	33%
40 - 64	44%	44%	43%	42%	42%	43%	42%
65 and over	24%	25%	24%	24%	24%	24%	24%
<b>Gender: <sup>3</sup></b>							
Female	56%	59%	30%	32%	33%	51%	51%
Male	44%	41%	70%	68%	67%	49%	49%
<b>Education: <sup>4</sup></b>							
Less than 9 <sup>th</sup> grade	2%	4%	2%	2%	2%	2%	7%
9 <sup>th</sup> to 12 <sup>th</sup> grade (no diploma)	3%	6%	4%	4%	4%	4%	10%
High school diploma (or equivalent)	26%	26%	28%	28%	31%	31%	35%
Some college, no degree	25%	23%	25%	24%	24%	24%	25%
Associate degree	12%	14%	13%	15%	14%	13%	7%
Bachelors degree	21%	18%	18%	17%	16%	18%	11%
Graduate or professional degree	10%	10%	10%	10%	8%	9%	4%
<b>Household income: <sup>5</sup></b>							
Less than \$10,000	7%	7%	6%	7%	9%	7%	10%
\$10,000 - \$19,999	10%	13%	12%	12%	14%	13%	16%
\$20,000 - \$29,999	14%	15%	14%	15%	16%	17%	17%
\$30,000 - \$39,999	14%	14%	15%	16%	16%	16%	15%
\$40,000 - \$49,999	13%	13%	16%	15%	13%	14%	12%
\$50,000 - \$59,999	11%	12%	12%	12%	12%	12%	10%
\$60,000 - \$74,999	13%	11%	12%	10%	11%	11%	9%
\$75,000 or more	18%	16%	13%	14%	10%	11%	11%
<b>Marital Status: <sup>6</sup></b>							
Married	70%	70%	70%	72%	69%	73%	61%
Never married	10%	10%	11%	10%	11%	9%	22%
Divorced/separated	11%	10%	9%	10%	10%	9%	9%
Widowed/widower	9%	10%	10%	8%	9%	9%	8%

<sup>1</sup> Data from the Rural Polls have been weighted by age.

<sup>2</sup> 2000 Census universe is non-metro population 20 years of age and over.

<sup>3</sup> 2000 Census universe is total non-metro population.

<sup>4</sup> 2000 Census universe is non-metro population 18 years of age and over.

<sup>5</sup> 2000 Census universe is all non-metro households.

<sup>6</sup> 2000 Census universe is non-metro population 15 years of age and over.

**Appendix Table 2. Perceptions of Rising Energy Costs by Community Size, Region and Individual Attributes**

<b>How much of a problem have rising energy costs been for you and your family lately?</b>						
	<i>Not a problem at all</i>	<i>Not too serious a problem</i>	<i>A somewhat serious problem</i>	<i>A very serious problem</i>	<i>Unsure</i>	<i>Significance</i>
<b>Percentages</b>						
(n = 2247)						
<b>Community Size</b>						
Less than 500	0**	8	44	48	0**	$\chi^2 = 35.42^*$ (.003)
500 - 999	0	15	42	43	0**	
1,000 - 4,999	1	13	42	43	1	
5,000 - 9,999	2	13	42	43	0**	
10,000 and up	1	18	44	37	1	
<b>Region</b>						
(n = 2326)						
Panhandle	1	14	42	43	1	$\chi^2 = 17.63$ (.346)
North Central	2	14	40	43	1	
South Central	1	14	41	44	1	
Northeast	1	16	45	38	1	
Southeast	0**	13	45	41	2	
<b>Income Level</b>						
(n = 2156)						
Under \$20,000	0	7	38	53	2	$\chi^2 = 93.90^*$ (.000)
\$20,000 - \$39,999	1	12	38	48	1	
\$40,000 - \$59,999	0**	13	45	41	0**	
\$60,000 and over	2	21	45	32	1	
<b>Age</b>						
(n = 2332)						
19 - 29	1	17	45	37	0	$\chi^2 = 28.70^*$ (.026)
30 - 39	1	13	46	39	1	
40 - 49	1	14	41	44	1	
50 - 64	1	13	40	46	1	
65 and older	1	14	43	39	2	
<b>Marital Status</b>						
(n = 2323)						
Married	1	15	44	40	1	$\chi^2 = 46.44^*$ (.000)
Never married	1	16	39	45	0**	
Divorced/separated	0	9	38	52	1	
Widowed	1	14	41	41	4	
<b>Education</b>						
(n = 2311)						
H.S. diploma or less	1	13	41	44	2	$\chi^2 = 49.06^*$ (.000)
Some college	1	12	42	45	1	
Bachelors or grad degree	2	18	45	35	0**	

Appendix Table 2 continued.

<i>How much of a problem have rising energy costs been for you and your family lately?</i>						
	<i>Not a problem at all</i>	<i>Not too serious a problem</i>	<i>A somewhat serious problem</i>	<i>A very serious problem</i>	<i>Unsure</i>	<i>Significance</i>
<b>Occupation</b>	(n = 1633)					
Management, professional or education	2	15	44	38	1	
Sales or office support	0**	17	46	37	0	
Construction, installation or maintenance	0	12	42	45	0	
Production, transportation or warehousing	1	12	40	47	0	
Agriculture	0**	12	36	51	0**	
Food service or personal care	0	9	44	46	1	$\chi^2 = 41.89^*$ (.044)
Healthcare support or public safety	1	16	42	41	0	
Other	0	13	42	42	3	

\* Chi-square values are statistically significant at the .05 level. 0\*\* = Less than 1 percent.

**Appendix Table 3. Opinions About Energy in Relation to Community Size, Region and Individual Attributes**

*There are sufficient oil and natural gas supplies around the world to meet U.S. needs for the foreseeable future.*

*Even if oil and natural gas supplies do decline, new technologies and alternative energy sources will ensure Americans maintain their current standard of living.*

	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	Chi-square (sig.)	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	Chi-square (sig.)
	(n = 2232)				Percentages (n = 2235)			
<b>Community Size</b>								
Less than 500	30	21	49		29	21	50	
500 - 999	29	17	54		29	17	54	
1,000 - 4,999	34	19	47	$\chi^2 =$	28	22	49	$\chi^2 =$
5,000 - 9,999	52	14	34	50.16*	37	17	46	19.13*
10,000 and up	41	16	43	(.000)	35	22	43	(.014)
	(n = 2313)				(n = 2315)			
<b>Region</b>								
Panhandle	39	13	48		39	16	45	
North Central	31	20	49		28	20	52	
South Central	40	18	42	$\chi^2 =$	31	24	45	$\chi^2 =$
Northeast	39	17	44	16.55*	32	19	48	17.77*
Southeast	35	20	45	(.035)	31	22	47	(.023)
	(n = 2141)				(n = 2146)			
<b>Income Level</b>								
Under \$20,000	33	16	51		34	17	49	
\$20,000 - \$39,999	36	23	42	$\chi^2 =$	30	22	48	$\chi^2 =$
\$40,000 - \$59,999	40	14	46	25.82*	33	21	47	5.15
\$60,000 and over	41	17	42	(.000)	32	23	46	(.525)
	(n = 2315)				(n = 2319)			
<b>Age</b>								
19 - 29	50	23	27		30	23	48	
30 - 39	35	20	45		31	20	48	
40 - 49	38	18	45	$\chi^2 =$	32	23	46	$\chi^2 =$
50 - 64	37	13	49	81.32*	35	21	45	7.85
65 and older	30	16	54	(.000)	30	19	51	(.448)
	(n = 2303)			$\chi^2 =$	(n = 2308)			$\chi^2 =$
<b>Gender</b>								
Male	32	13	55	81.15*	29	21	50	5.67
Female	42	21	37	(.000)	34	21	45	(.059)
	(n = 2305)				(n = 2311)			
<b>Marital Status</b>								
Married	37	17	46		31	22	47	
Never married	40	23	36	$\chi^2 =$	31	13	56	$\chi^2 =$
Divorced/separated	41	15	44	12.02	37	24	39	20.80*
Widowed	34	18	48	(.061)	33	18	49	(.002)
	(n = 2295)				(n = 2299)			
<b>Education</b>								
H.S. diploma or less	30	17	53	$\chi^2 =$	33	20	47	$\chi^2 =$
Some college	38	18	45	46.91*	31	20	48	2.78
Bachelors degree	45	18	37	(.000)	31	23	46	(.595)
	(n = 1624)				(n = 1631)			
<b>Occupation</b>								
Mgt, prof or education	48	14	38		34	21	45	
Sales or office support	39	20	41		28	24	48	
Constrn, inst or maint	30	16	53		28	20	52	
Prodn/trans/warehsing	29	21	50		30	23	47	
Agriculture	29	16	55	$\chi^2 =$	27	19	54	$\chi^2 =$
Food serv/pers. care	36	27	37	64.99*	32	26	43	17.74
Hlthcare supp/safety	45	24	31	(.000)	31	25	44	(.219)
Other	42	21	37		45	29	26	

\* Chi-square values are statistically significant at the .05 level.



Appendix Table 3 continued

	<i>The environment should be protected, even if this means some energy supplies are not available for use.</i>				<i>Americans must change their lifestyles to reduce energy consumption to avoid the onset of an energy "crisis" in the U.S.</i>			
	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	<i>Chi- square (sig.)</i>	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	<i>Chi- square (sig.)</i>
	(n = 2223)				Percentages (n = 2233)			
<b>Community Size</b>								
Less than 500	21	27	52		9	15	76	
500 - 999	23	26	51		12	16	73	
1,000 - 4,999	18	27	56	$\chi^2 =$	11	15	74	$\chi^2 =$
5,000 - 9,999	13	23	64	21.27*	7	11	83	14.40
10,000 and up	15	27	59	(.006)	10	11	79	(.072)
<b>Region</b>	(n = 2301)				(n = 2312)			
Panhandle	16	24	60		8	14	78	
North Central	17	30	53		14	13	73	
South Central	18	25	57	$\chi^2 =$	11	12	77	$\chi^2 =$
Northeast	18	26	56	8.04	9	12	79	24.01*
Southeast	14	27	59	(.430)	7	18	75	(.002)
<b>Income Level</b>	(n = 2135)				(n = 2144)			
Under \$20,000	14	27	59		11	14	75	
\$20,000 - \$39,999	15	28	57	$\chi^2 =$	10	13	77	$\chi^2 =$
\$40,000 - \$59,999	16	26	58	13.19*	8	13	79	4.93
\$60,000 and over	21	24	55	(.040)	11	13	76	(.553)
<b>Age</b>	(n = 2304)				(n = 2317)			
19 - 29	6	36	58		8	15	77	
30 - 39	23	27	50		12	16	72	
40 - 49	18	27	55	$\chi^2 =$	9	14	78	$\chi^2 =$
50 - 64	20	24	57	65.58*	10	11	79	11.22
65 and older	18	20	62	(.000)	11	12	77	(.189)
<b>Gender</b>	(n = 2295)				(n = 2303)			
Male	24	24	52	$\chi^2 =$	14	14	72	$\chi^2 =$
Female	12	28	60	(.000)	6	13	81	(.000)
<b>Marital Status</b>	(n = 2298)				(n = 2307)			
Married	18	26	55		10	13	77	
Never married	9	30	61	$\chi^2 =$	7	17	76	$\chi^2 =$
Divorced/separated	19	25	56	18.41*	11	13	76	6.81
Widowed	14	22	64	(.005)	7	14	80	(.338)
<b>Education</b>	(n = 2286)				(n = 2293)			
H.S. diploma or less	16	26	58	$\chi^2 =$	10	13	77	$\chi^2 =$
Some college	18	29	54	8.81	10	17	74	16.50*
Bachelors degree	17	23	60	(.066)	10	10	81	(.002)
<b>Occupation</b>	(n = 1623)				(n = 1628)			
Mgt, prof or education	16	25	59		9	11	80	
Sales or office support	13	33	55		9	21	71	
Constrn, inst or maint	17	28	55		10	20	70	
Prodn/trans/warehsing	18	24	59		12	9	79	
Agriculture	26	28	46	$\chi^2 =$	15	16	69	$\chi^2 =$
Food serv/pers. care	10	21	69	35.42*	6	6	87	43.78*
Hlthcare supp/safety	11	30	59	(.001)	7	13	80	(.000)
Other	21	24	55		0	16	84	

\* Chi-square values are statistically significant at the .05 level.

Appendix Table 3 continued

*More should be done to develop  
renewable energy, such as ethanol,  
biodiesel or wind energy.*

*We are too dependent on foreign oil sources.*

	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	<i>Chi- square (sig.)</i>	<i>Disagree</i>	<i>Neither</i>	<i>Agree</i>	<i>Chi- square (sig.)</i>
	(n = 2240)				Percentages (n = 2245)			
<b>Community Size</b>								
Less than 500	3	9	88		3	8	90	
500 - 999	4	7	89		3	3	93	
1,000 - 4,999	3	7	90	$\chi^2 =$	2	6	92	$\chi^2 =$
5,000 - 9,999	4	6	90	10.08	3	6	91	17.49*
10,000 and up	3	5	93	(.259)	1	4	95	(.025)
<b>Region</b>	(n = 2318)				(n = 2327)			
Panhandle	2	6	92		2	7	92	
North Central	5	5	90		2	10	88	
South Central	3	5	92	$\chi^2 =$	2	3	95	$\chi^2 =$
Northeast	3	5	92	15.77*	2	5	93	24.04*
Southeast	3	10	87	(.046)	3	6	91	(.002)
<b>Income Level</b>	(n = 2150)				(n = 2156)			
Under \$20,000	2	7	91		3	9	88	
\$20,000 - \$39,999	2	5	93	$\chi^2 =$	1	6	93	$\chi^2 =$
\$40,000 - \$59,999	3	5	91	9.68	1	4	94	20.75*
\$60,000 and over	5	6	89	(.139)	2	4	94	(.002)
<b>Age</b>	(n = 2322)				(n = 2331)			
19 - 29	0	7	93		2	13	85	
30 - 39	4	7	89		2	8	90	
40 - 49	5	5	90	$\chi^2 =$	2	4	95	$\chi^2 =$
50 - 64	5	6	89	23.47*	2	3	95	59.40*
65 and older	3	5	92	(.003)	2	3	95	(.000)
<b>Gender</b>	(n = 2311)			$\chi^2 =$	(n = 2319)			$\chi^2 =$
Male	5	6	90	16.73*	4	6	91	19.24*
Female	2	6	92	(.000)	1	6	94	(.000)
<b>Marital Status</b>	(n = 2313)				(n = 2320)			
Married	4	6	90		2	5	93	
Never married	0**	6	94	$\chi^2 =$	2	13	85	$\chi^2 =$
Divorced/separated	4	5	91	9.84	1	6	93	28.34*
Widowed	1	6	93	(.132)	1	4	95	(.000)
<b>Education</b>	(n = 2304)				(n = 2308)			
H.S. diploma or less	4	7	89	$\chi^2 =$	2	6	91	$\chi^2 =$
Some college	3	5	92	5.08	2	5	93	2.73
Bachelors degree	3	6	91	(.279)	2	6	93	(.604)
<b>Occupation</b>	(n = 1633)				(n = 1637)			
Mgt, prof or education	3	5	92		2	5	93	
Sales or office support	2	6	92		1	6	93	
Constrn, inst or maint	4	11	85		2	10	88	
Prodn/trans/warehsing	4	4	92		2	3	95	
Agriculture	5	6	89	$\chi^2 =$	3	10	86	$\chi^2 =$
Food serv/pers. care	3	7	90	14.77	1	10	89	29.02*
Hlthcare supp/safety	3	8	89	(.394)	1	5	94	(.010)
Other	0	5	95		0	0	100	

\* Chi-square values are statistically significant at the .05 level. 0\*\* = Less than 1 percent.

**Appendix Table 4. Perceptions of the Importance of Various Energy Sources for Next Generation by Community Size, Region and Individual Attributes**

	<i>Wind Energy</i>				<i>Solar Energy</i>			
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	<i>Chi-square (sig.)</i>	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	<i>Chi-square (sig.)</i>
<b><u>Community Size</u></b>		(n = 2268)			<i>Percentages</i> (n = 2249)			
Less than 500	3	5	93		5	5	90	
500 - 999	6	4	90		3	9	88	
1,000 - 4,999	6	5	89	$\chi^2 =$	6	6	88	$\chi^2 =$
5,000 - 9,999	4	9	87	15.13	3	7	90	8.24
10,000 and up	4	7	89	(.057)	4	6	90	(.411)
<b><u>Region</u></b>		(n = 2344)			(n = 2323)			
Panhandle	3	4	93		4	4	92	
North Central	4	8	88		7	7	86	
South Central	5	6	89	$\chi^2 =$	4	6	91	$\chi^2 =$
Northeast	5	4	91	27.16*	4	7	89	16.39*
Southeast	7	10	83	(.001)	6	10	85	(.037)
<b><u>Income Level</u></b>		(n = 2174)			(n = 2163)			
Under \$20,000	5	8	87		4	8	88	
\$20,000 - \$39,999	4	7	89	$\chi^2 =$	4	7	89	$\chi^2 =$
\$40,000 - \$59,999	3	4	93	9.87	4	6	90	4.25
\$60,000 and over	5	7	88	(.130)	5	6	89	(.642)
<b><u>Age</u></b>		(n = 2353)			(n = 2329)			
19 - 29	2	10	88		2	10	88	
30 - 39	6	9	85		4	9	87	
40 - 49	2	7	91	$\chi^2 =$	3	6	91	$\chi^2 =$
50 - 64	6	4	90	55.29*	6	5	89	32.08*
65 and older	7	3	90	(.000)	7	5	88	(.000)
<b><u>Gender</u></b>		(n = 2339)			(n = 2317)			
Male	6	5	88	$\chi^2 =$	7	7	86	$\chi^2 =$
Female	3	7	90	(.001)	3	7	90	(.000)
<b><u>Marital Status</u></b>		(n = 2341)			(n = 2318)			
Married	5	6	90		5	6	89	
Never married	3	13	84	$\chi^2 =$	5	15	81	$\chi^2 =$
Divorced/separated	7	6	87	28.34*	4	4	92	29.18*
Widowed	6	4	90	(.000)	6	5	89	(.000)
<b><u>Education</u></b>		(n = 2330)			(n = 2311)			
H.S. diploma or less	6	6	88	$\chi^2 =$	7	8	85	$\chi^2 =$
Some college	4	6	90	5.67	4	5	90	16.80*
Bachelors degree	4	7	89	(.225)	3	7	90	(.002)
<b><u>Occupation</u></b>		(n = 1660)			(n = 1654)			
Mgt, prof or education	4	8	88		3	7	91	
Sales or office support	2	6	92		3	8	89	
Constrn, inst or maint	8	7	86		10	7	83	
Prodn/trans/warehsing	3	3	94		4	7	89	
Agriculture	5	6	90	$\chi^2 =$	6	5	88	$\chi^2 =$
Food serv/pers. care	3	11	86	24.49*	3	11	87	25.58*
Hlthcare supp/safety	8	7	86	(.040)	3	8	89	(.029)
Other	0	8	92		3	8	90	

\* Chi-square values are statistically significant at the .05 level.

Appendix Table 4 continued

	<i>Oil</i>			<i>Chi-square (sig.)</i>	<i>Natural Gas</i>			<i>Chi-square (sig.)</i>
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>		<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	
<b><u>Community Size</u></b>		(n = 2251)				<i>Percentages</i> (n = 2244)		
Less than 500	6	6	88		3	15	82	
500 - 999	7	5	88		4	7	89	
1,000 - 4,999	9	6	85	$\chi^2 =$	5	11	84	$\chi^2 =$
5,000 - 9,999	10	8	82	19.51*	6	14	79	16.69*
10,000 and up	6	4	90	(.012)	4	11	85	(.034)
<b><u>Region</u></b>		(n = 2331)				(n = 2324)		
Panhandle	7	7	86		5	12	84	
North Central	8	4	88		4	11	86	
South Central	6	5	89	$\chi^2 =$	5	12	84	$\chi^2 =$
Northeast	9	5	86	6.69	5	11	84	4.74
Southeast	8	6	86	(.571)	5	14	81	(.785)
<b><u>Income Level</u></b>		(n = 2162)				(n = 2157)		
Under \$20,000	9	6	86		6	12	82	
\$20,000 - \$39,999	10	4	86	$\chi^2 =$	4	12	84	$\chi^2 =$
\$40,000 - \$59,999	6	5	89	12.00	5	12	83	2.77
\$60,000 and over	6	6	88	(.062)	4	11	85	(.837)
<b><u>Age</u></b>		(n = 2338)				(n = 2328)		
19 - 29	7	7	86		2	16	82	
30 - 39	6	7	87		3	15	82	
40 - 49	8	7	86	$\chi^2 =$	4	11	85	$\chi^2 =$
50 - 64	9	5	87	13.00	6	10	83	27.48*
65 and older	8	3	89	(.112)	6	9	85	(.001)
<b><u>Gender</u></b>		(n = 2327)		$\chi^2 =$		(n = 2316)		$\chi^2 =$
Male	9	5	86	3.76	5	11	84	1.90
Female	7	6	88	(.153)	4	12	84	(.387)
<b><u>Marital Status</u></b>		(n = 2328)				(n = 2315)		
Married	7	6	87		5	12	84	
Never married	6	5	89	$\chi^2 =$	2	16	82	$\chi^2 =$
Divorced/separated	11	6	83	13.91*	6	10	84	13.45*
Widowed	7	1	91	(.031)	6	8	86	(.036)
<b><u>Education</u></b>		(n = 2318)				(n = 2309)		
H.S. diploma or less	8	6	86	$\chi^2 =$	6	12	82	$\chi^2 =$
Some college	8	5	87	2.28	5	11	85	8.28
Bachelors degree	7	6	88	(.684)	3	13	84	(.082)
<b><u>Occupation</u></b>		(n = 1647)				(n = 1646)		
Mgt, prof or education	5	6	89		3	11	86	
Sales or office support	5	6	89		5	13	82	
Constrn, inst or maint	15	7	78		6	19	76	
Prodn/trans/warehsing	8	5	87		3	9	88	
Agriculture	9	3	88	$\chi^2 =$	6	8	87	$\chi^2 =$
Food serv/pers. care	12	11	78	36.62*	4	21	75	34.97*
Hlthcare supp/safety	6	9	85	(.001)	2	18	80	(.001)
Other	8	3	89		5	19	76	

\* Chi-square values are statistically significant at the .05 level.

Appendix Table 4 continued

	<i>Ethanol from Other Sources</i>			<i>Chi-square (sig.)</i>	<i>Ethanol from Corn</i>			<i>Chi-square (sig.)</i>
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>		<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	
<b>Community Size</b>		(n = 2243)				Percentages (n = 2256)		
Less than 500	7	12	81		9	12	79	
500 - 999	7	5	88		12	5	83	
1,000 - 4,999	9	10	82	$\chi^2 =$	11	8	81	$\chi^2 =$
5,000 - 9,999	10	14	77	17.49*	14	10	76	18.98*
10,000 and up	8	13	80	(.025)	13	10	76	(.015)
<b>Region</b>		(n = 2322)				(n = 2331)		
Panhandle	9	14	77		15	11	74	
North Central	9	12	79		14	11	74	
South Central	7	9	84	$\chi^2 =$	10	7	83	$\chi^2 =$
Northeast	8	9	82	13.21	11	9	80	17.46*
Southeast	8	14	79	(.105)	11	11	78	(.026)
<b>Income Level</b>		(n = 2158)				(n = 2168)		
Under \$20,000	6	13	81		9	11	80	
\$20,000 - \$39,999	7	10	83	$\chi^2 =$	10	9	81	$\chi^2 =$
\$40,000 - \$59,999	8	9	83	8.54	10	9	81	20.27*
\$60,000 and over	10	11	79	(.201)	16	9	75	(.002)
<b>Age</b>		(n = 2326)				(n = 2335)		
19 - 29	3	11	86		4	10	86	
30 - 39	7	13	80		12	10	78	
40 - 49	9	11	80	$\chi^2 =$	12	9	79	$\chi^2 =$
50 - 64	11	10	78	26.09*	16	10	74	35.93*
65 and older	9	10	81	(.001)	14	9	78	(.000)
<b>Gender</b>		(n = 2315)		$\chi^2 =$		(n = 2324)		$\chi^2 =$
Male	11	11	78	20.27*	17	11	73	45.96*
Female	6	11	83	(.000)	8	8	84	(.000)
<b>Marital Status</b>		(n = 2317)				(n = 2325)		
Married	9	11	81		13	9	78	
Never married	5	12	82	$\chi^2 =$	5	12	82	$\chi^2 =$
Divorced/separated	8	11	82	3.99	13	8	79	14.93*
Widowed	8	11	81	(.679)	10	8	82	(.021)
<b>Education</b>		(n = 2308)				(n = 2315)		
H.S. diploma or less	9	12	79	$\chi^2 =$	12	11	77	$\chi^2 =$
Some college	8	8	84	9.98*	12	7	81	8.63
Bachelors degree	8	13	80	(.041)	12	10	78	(.071)
<b>Occupation</b>		(n = 1647)				(n = 1648)		
Mgt, prof or education	8	12	80		12	9	80	
Sales or office support	6	13	81		11	10	79	
Constrn, inst or maint	6	13	81		12	14	75	
Prodn/trans/warehsing	10	7	83		15	9	75	
Agriculture	11	8	81	$\chi^2 =$	13	6	80	$\chi^2 =$
Food serv/pers. care	4	15	82	22.02	5	16	80	18.14
Hlthcare supp/safety	5	13	82	(.078)	13	10	78	(.200)
Other	3	8	89		8	11	81	

\* Chi-square values are statistically significant at the .05 level.

**Appendix Table 5. Importance of Energy Sources to Household by Community Size, Region and Individual Attributes**

	<b>Diesel Fuel</b>				<b>Unleaded Gasoline</b>			
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	<i>Chi-square (sig.)</i>	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	<i>Chi-square (sig.)</i>
<b>Community Size</b>	(n = 2255)				<i>Percentages</i> (n = 2290)			
Less than 500	32	14	54		5	1	94	
500 - 999	38	10	52		3	2	96	
1,000 - 4,999	48	15	38	$\chi^2 =$	4	2	94	$\chi^2 =$
5,000 - 9,999	63	15	22	181.6*	3	2	95	12.92
10,000 and up	63	16	21	(.000)	2	1	97	(.115)
<b>Region</b>	(n = 2332)				(n = 2378)			
Panhandle	50	13	37		2	2	96	
North Central	49	14	37		5	1	95	
South Central	54	16	31	$\chi^2 =$	2	2	96	$\chi^2 =$
Northeast	52	16	33	7.52	4	2	95	21.16*
Southeast	51	14	34	(.482)	5	3	92	(.007)
<b>Income Level</b>	(n = 2167)				(n = 2195)			
Under \$20,000	50	19	31		7	6	87	
\$20,000 - \$39,999	52	15	33	$\chi^2 =$	4	1	95	$\chi^2 =$
\$40,000 - \$59,999	51	17	33	22.91*	2	1	97	63.92*
\$60,000 and over	58	10	32	(.001)	1	1	98	(.000)
<b>Age</b>	(n = 2336)				(n = 2379)			
19 - 29	57	11	32		2	1	97	
30 - 39	56	13	31		1	2	97	
40 - 49	51	12	37	$\chi^2 =$	2	2	96	$\chi^2 =$
50 - 64	51	15	34	31.12*	3	2	95	38.05*
65 and older	46	21	33	(.000)	7	3	90	(.000)
<b>Gender</b>	(n = 2326)				(n = 2369)			
Male	47	14	39	$\chi^2 =$	4	2	95	$\chi^2 =$
Female	56	15	29	27.72*	3	2	95	0.90
				(.000)				(.639)
<b>Marital Status</b>	(n = 2329)				(n = 2371)			
Married	50	13	36		2	1	96	
Never married	55	13	32	$\chi^2 =$	3	3	95	$\chi^2 =$
Divorced/separated	58	18	24	30.20*	6	4	91	33.27*
Widowed	52	22	26	(.000)	7	4	89	(.000)
<b>Education</b>	(n = 2319)				(n = 2360)			
H.S. diploma or less	44	19	37	$\chi^2 =$	6	3	91	$\chi^2 =$
Some college	50	14	36	52.54*	2	1	97	30.78*
Bachelors degree	62	11	27	(.000)	2	1	97	(.000)
<b>Occupation</b>	(n = 1659)				(n = 1668)			
Mgt, prof or education	64	12	24		2	2	97	
Sales or office support	49	16	35		0**	0**	99	
Constrn, inst or maint	59	12	29		2	1	97	
Prodn/trans/warehsing	56	12	32		2	1	98	
Agriculture	15	9	76	$\chi^2 =$	5	1	95	$\chi^2 =$
Food serv/pers. care	64	17	20	232.4*	3	3	94	22.33
Hlthcare supp/safety	58	12	30	(.000)	3	2	95	(.072)
Other	61	14	25		3	6	92	

\* Chi-square values are statistically significant at the .05 level. 0\*\* = Less than 1 percent.

Appendix Table 5 continued

	<i>Propane</i>			<i>Chi-square (sig.)</i>	<i>Natural Gas</i>			<i>Chi-square (sig.)</i>
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>		<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	
<b><u>Community Size</u></b>	(n = 2239)				<i>Percentages</i> (n = 2267)			
Less than 500	28	11	61		38	26	37	
500 - 999	34	15	52		32	15	53	
1,000 - 4,999	40	19	41	$\chi^2 =$	24	15	62	$\chi^2 =$
5,000 - 9,999	50	19	32	96.73*	22	8	70	176.1*
10,000 and up	50	17	34	(.000)	17	7	76	(.000)
<b><u>Region</u></b>	(n = 2320)				(n = 2349)			
Panhandle	39	17	44		27	10	63	
North Central	43	14	43		32	16	52	
South Central	45	16	39	$\chi^2 =$	17	8	75	$\chi^2 =$
Northeast	41	20	39	17.28*	24	13	63	83.36*
Southeast	36	16	48	(.027)	25	19	56	(.000)
<b><u>Income Level</u></b>	(n = 2153)				(n = 2174)			
Under \$20,000	38	23	39		17	15	68	
\$20,000 - \$39,999	43	17	40	$\chi^2 =$	25	11	64	$\chi^2 =$
\$40,000 - \$59,999	39	19	43	26.74*	20	14	66	29.33*
\$60,000 and over	48	12	40	(.000)	29	10	61	(.000)
<b><u>Age</u></b>	(n = 2325)				(n = 2353)			
19 - 29	36	13	51		19	11	71	
30 - 39	46	17	38		26	12	62	
40 - 49	42	14	45	$\chi^2 =$	30	11	58	$\chi^2 =$
50 - 64	44	18	39	33.23*	25	14	62	28.74*
65 and older	41	21	37	(.000)	19	14	66	(.000)
<b><u>Gender</u></b>	(n = 2315)			$\chi^2 =$	(n = 2342)			$\chi^2 =$
Male	43	18	40	3.00	25	13	62	1.86
Female	41	16	43	(.223)	23	12	65	(.395)
<b><u>Marital Status</u></b>	(n = 2315)				(n = 2343)			
Married	41	16	44		27	14	59	
Never married	43	15	42	$\chi^2 =$	12	8	80	$\chi^2 =$
Divorced/separated	48	21	32	22.76*	19	8	73	55.97*
Widowed	41	23	35	(.001)	18	11	71	(.000)
<b><u>Education</u></b>	(n = 2305)				(n = 2332)			
H.S. diploma or less	39	19	42	$\chi^2 =$	23	15	62	$\chi^2 =$
Some college	39	18	43	27.68*	25	13	62	16.46*
Bachelors degree	49	12	39	(.000)	24	9	68	(.002)
<b><u>Occupation</u></b>	(n = 1648)				(n = 1654)			
Mgt, prof or education	45	15	40		24	8	68	
Sales or office support	41	14	44		25	12	62	
Constrn, inst or maint	50	13	38		21	14	66	
Prodn/trans/warehsing	46	19	36		23	11	66	
Agriculture	23	14	62	$\chi^2 =$	39	21	40	$\chi^2 =$
Food serv/pers. care	39	24	37	66.50*	19	9	73	72.33*
Hlthcare supp/safety	41	15	44	(.000)	26	13	61	(.000)
Other	66	9	26		22	8	70	

\* Chi-square values are statistically significant at the .05 level.

Appendix Table 5 continued

	<i>Electricity</i>			<i>Chi-square (sig.)</i>	<i>Fuel Oil</i>			<i>Chi-square (sig.)</i>
	<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>		<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	
<b><u>Community Size</u></b>		(n = 2300)				<i>Percentages</i> (n = 2235)		
Less than 500	3	1	96		51	29	21	
500 - 999	1	0	99		55	20	25	
1,000 - 4,999	2	2	96	$\chi^2 =$	54	29	18	$\chi^2 =$
5,000 - 9,999	2	1	97	20.11*	62	18	20	28.54*
10,000 and up	1	0**	99	(.010)	60	24	17	(.000)
<b><u>Region</u></b>		(n = 2384)				(n = 2309)		
Panhandle	2	0**	98		61	23	16	
North Central	2	0	98		52	28	21	
South Central	1	1	98	$\chi^2 =$	57	23	19	$\chi^2 =$
Northeast	2	1	97	16.57*	59	22	19	19.49*
Southeast	3	2	95	(.035)	50	32	19	(.012)
<b><u>Income Level</u></b>		(n = 2197)				(n = 2144)		
Under \$20,000	4	1	95		43	30	27	
\$20,000 - \$39,999	2	1	97	$\chi^2 =$	55	24	21	$\chi^2 =$
\$40,000 - \$59,999	1	1	98	16.04*	57	25	19	48.44*
\$60,000 and over	1	0**	99	(.014)	65	21	14	(.000)
<b><u>Age</u></b>		(n = 2390)				(n = 2316)		
19 - 29	0	1	99		40	28	33	
30 - 39	1	1	98		59	24	17	
40 - 49	1	1	98	$\chi^2 =$	62	20	17	$\chi^2 =$
50 - 64	3	0**	97	29.76*	64	23	14	92.06*
65 and older	4	1	95	(.000)	53	30	17	(.000)
<b><u>Gender</u></b>		(n = 2379)		$\chi^2 =$		(n = 2304)		$\chi^2 =$
Male	2	1	97	5.27	64	21	15	42.75*
Female	2	0**	98	(.072)	50	28	22	(.000)
<b><u>Marital Status</u></b>		(n = 2379)				(n = 2305)		
Married	2	1	98		57	24	18	
Never married	1	1	98	$\chi^2 =$	47	25	28	$\chi^2 =$
Divorced/separated	2	2	96	13.16*	61	22	17	23.35*
Widowed	4	0**	95	(.041)	50	33	17	(.001)
<b><u>Education</u></b>		(n = 2367)				(n = 2297)		
H.S. diploma or less	4	1	95	$\chi^2 =$	51	29	20	$\chi^2 =$
Some college	1	0**	99	25.96*	56	24	20	15.68*
Bachelors degree	1	1	98	(.000)	61	23	17	(.003)
<b><u>Occupation</u></b>		(n = 1666)				(n = 1641)		
Mgt, prof or education	1	0**	99		63	20	18	
Sales or office support	0**	0	100		51	30	19	
Constrn, inst or maint	0	1	99		58	26	16	
Prodn/trans/warehsing	1	1	98		61	22	18	
Agriculture	2	0**	98	$\chi^2 =$	54	23	23	$\chi^2 =$
Food serv/pers. care	4	0	96	19.14	34	39	27	45.49*
Hlthcare supp/safety	1	1	99	(.160)	56	22	22	(.000)
Other	0	0	100		73	16	11	

\* Chi-square values are statistically significant at the .05 level. 0\*\* = Less than 1 percent.



Appendix Table 5 continued

		<i>Wood</i>			
		<i>Unimportant</i>	<i>Neither</i>	<i>Important</i>	<i>Chi-square (sig.)</i>
<b><u>Community Size</u></b>		(n = 2252)			
Less than 500	42	26	32		
500 - 999	50	22	28		
1,000 - 4,999	46	24	30	$\chi^2 =$	
5,000 - 9,999	58	23	18	32.22*	
10,000 and up	55	22	23	(.000)	
<b><u>Region</u></b>		(n = 2328)			
Panhandle	51	22	27		
North Central	44	23	33		
South Central	51	23	27	$\chi^2 =$	
Northeast	54	23	23	16.56*	
Southeast	48	27	25	(.035)	
<b><u>Income Level</u></b>		(n = 2160)			
Under \$20,000	39	29	33		
\$20,000 - \$39,999	49	23	29	$\chi^2 =$	
\$40,000 - \$59,999	52	23	25	39.93*	
\$60,000 and over	59	19	23	(.000)	
<b><u>Age</u></b>		(n = 2333)			
19 - 29	41	25	34		
30 - 39	54	22	24		
40 - 49	53	19	29	$\chi^2 =$	
50 - 64	52	22	26	35.88*	
65 and older	50	28	22	(.000)	
<b><u>Gender</u></b>		(n = 2322)			$\chi^2 =$
Male	52	22	26	3.15	
Female	48	24	28	(.207)	
<b><u>Marital Status</u></b>		(n = 2323)			
Married	50	22	28		
Never married	47	26	27	$\chi^2 =$	
Divorced/separated	51	22	27	14.55*	
Widowed	50	32	18	(.024)	
<b><u>Education</u></b>		(n = 2313)			
H.S. diploma or less	41	29	30	$\chi^2 =$	
Some college	51	20	28	44.12*	
Bachelors degree	58	20	22	(.000)	
<b><u>Occupation</u></b>		(n = 1648)			
Mgt, prof or education	54	20	26		
Sales or office support	48	26	26		
Constrn, inst or maint	46	22	32		
Prodn/trans/warehsing	52	20	28		
Agriculture	45	22	33	$\chi^2 =$	
Food serv/pers. care	40	30	30	23.78*	
Hlthcare supp/safety	53	18	29	(.049)	
Other	69	17	14		

\* Chi-square values are statistically significant at the .05 level.

**Appendix Table 6. Actions Taken or Plan to Take As a Result of Recent Energy Price Increases in Relation to Community Size, Region and Individual Attributes.\*\*\***

	<i>Cut back on necessary household spending</i>	<i>Cut back on luxury household spending</i>	<i>Cut back how much you drove</i>	<i>Changed your vacation plans by shortening or postponing the tip</i>	<i>Cancelled vacation plans</i>
			<i>Percentages</i>		
<b><u>Community Size</u></b>	(n = 2305)	(n = 2306)	(n = 2304)	(n = 2264)	(n = 2252)
Less than 500	90	93	95	82	65
500 - 999	87	97	93	78	61
1,000 - 4,999	90	95	91	77	60
5,000 - 9,999	86	92	90	76	56
10,000 and up	87	94	88	69	55
<i>Significance</i>	(.175)	(.215)	(.004)	(.000)	(.015)
<b><u>Region</u></b>	(n = 2390)	(n = 2384)	(n = 2387)	(n = 2347)	(n = 2331)
Panhandle	90	93	91	73	56
North Central	87	91	89	74	55
South Central	87	95	90	74	59
Northeast	88	95	91	76	60
Southeast	90	95	91	79	61
<i>Significance</i>	(.707)	(.036)	(.908)	(.445)	(.385)
<b><u>Income Level</u></b>	(n = 2209)	(n = 2203)	(n = 2212)	(n = 2177)	(n = 2166)
Under \$20,000	93	95	93	80	76
\$20,000 - \$39,999	93	95	93	80	67
\$40,000 - \$59,999	88	96	92	75	57
\$60,000 and over	83	93	86	68	43
<i>Significance</i>	(.000)	(.049)	(.000)	(.000)	(.000)
<b><u>Age</u></b>	(n = 2393)	(n = 2389)	(n = 2393)	(n = 2352)	(n = 2335)
19 - 29	87	94	92	69	57
30 - 39	88	96	87	73	52
40 - 49	88	94	92	78	54
50 - 64	89	95	91	77	60
65 and older	88	93	90	77	66
<i>Significance</i>	(.970)	(.366)	(.067)	(.021)	(.000)
<b><u>Marital Status</u></b>	(n = 2385)	(n = 2379)	(n = 2383)	(n = 2342)	(n = 2326)
Married	87	94	91	75	56
Never married	87	96	89	73	63
Divorced/separated	92	94	92	77	65
Widowed	90	95	89	73	64
<i>Significance</i>	(.083)	(.478)	(.566)	(.636)	(.005)
<b><u>Occupation</u></b>	(n = 1677)	(n = 1674)	(n = 1683)	(n = 1663)	(n = 1651)
Mgt, prof or education	86	93	87	68	49
Sales or office support	92	99	90	74	53
Constrn, inst or maint	91	93	89	81	68
Prodn/trans/warehsing	94	98	96	87	65
Agriculture	87	92	94	78	61
Food serv/pers. care	90	97	93	72	57
Hlthcare supp/safety	90	96	94	78	56
Other	84	92	89	84	69
<i>Significance</i>	(.033)	(.002)	(.005)	(.000)	(.000)

\*\*\* Includes those who said they did or plan to do each item a little, some or a lot.

Appendix Table 6 continued

	<i>Reduced the heat or air conditioning use in your home</i>	<i>Installed energy efficient appliances</i>	<i>Attempted to use household appliances more efficiently</i>	<i>Upgraded insulation in home</i>	<i>Changed jobs for a shorter commute</i>
	<i>Percentages</i>				
<b>Community Size</b>	(n = 2286)	(n = 2277)	(n = 2268)	(n = 2243)	(n = 2186)
Less than 500	90	75	89	55	18
500 - 999	93	70	89	61	20
1,000 - 4,999	93	73	91	57	16
5,000 - 9,999	93	73	90	53	21
10,000 and up	90	72	88	50	17
<i>Significance</i>	(.153)	(.793)	(.507)	(.042)	(.311)
<b>Region</b>	(n = 2367)	(n = 2355)	(n = 2348)	(n = 2317)	(n = 2258)
Panhandle	92	77	90	55	13
North Central	90	74	88	51	12
South Central	90	73	89	54	20
Northeast	92	71	89	55	21
Southeast	94	70	90	54	20
<i>Significance</i>	(.205)	(.355)	(.902)	(.786)	(.000)
<b>Income Level</b>	(n = 2194)	(n = 2182)	(n = 2172)	(n = 2155)	(n = 2107)
Under \$20,000	93	67	90	52	28
\$20,000 - \$39,999	94	70	90	52	21
\$40,000 - \$59,999	93	77	92	57	16
\$60,000 and over	87	73	87	53	11
<i>Significance</i>	(.000)	(.011)	(.007)	(.275)	(.000)
<b>Age</b>	(n = 2373)	(n = 2361)	(n = 2352)	(n = 2322)	(n = 2262)
19 - 29	93	71	92	50	30
30 - 39	92	65	86	49	16
40 - 49	91	71	87	56	17
50 - 64	92	79	93	59	15
65 and older	89	74	88	54	12
<i>Significance</i>	(.157)	(.000)	(.001)	(.018)	(.000)
<b>Marital Status</b>	(n = 2361)	(n = 2350)	(n = 2342)	(n = 2314)	(n = 2255)
Married	91	75	89	56	16
Never married	95	66	90	46	25
Divorced/separated	94	69	89	53	25
Widowed	89	68	87	49	14
<i>Significance</i>	(.024)	(.011)	(.637)	(.015)	(.000)
<b>Occupation</b>	(n = 1668)	(n = 1672)	(n = 1661)	(n = 1659)	(n = 1642)
Mgt, prof or education	91	72	89	53	17
Sales or office support	93	71	90	56	16
Constrn, inst or maint	96	79	89	58	23
Prodn/trans/warehsing	94	81	95	61	18
Agriculture	89	71	87	56	14
Food serv/pers. care	97	67	90	51	35
Hlthcare supp/safety	94	71	87	56	21
Other	100	62	86	38	11
<i>Significance</i>	(.020)	(.046)	(.122)	(.235)	(.000)

\*\*\* Includes those who said they did or plan to do each item a little, some or a lot.

Appendix Table 6 continued

	<i>Acquired more goods and services locally</i>	<i>Reduced the amount of money put into savings or retirement account</i>	<i>Shared rides to work or school</i>
		<i>Percentages</i>	
<b>Community Size</b>	(n = 2251)	(n = 2254)	(n = 2164)
Less than 500	76	54	41
500 - 999	86	61	42
1,000 - 4,999	83	59	40
5,000 - 9,999	85	64	40
10,000 and up	75	56	38
<i>Significance</i>	(.000)	(.070)	(.751)
<b>Region</b>	(n = 2319)	(n = 2332)	(n = 2230)
Panhandle	84	60	47
North Central	77	55	40
South Central	79	55	38
Northeast	80	59	37
Southeast	80	62	39
<i>Significance</i>	(.220)	(.154)	(.093)
<b>Income Level</b>	(n = 2158)	(n = 2173)	(n = 2085)
Under \$20,000	82	65	49
\$20,000 - \$39,999	79	64	39
\$40,000 - \$59,999	84	58	34
\$60,000 and over	76	50	42
<i>Significance</i>	(.015)	(.000)	(.000)
<b>Age</b>	(n = 2324)	(n = 2336)	(n = 2235)
19 - 29	80	56	56
30 - 39	82	55	42
40 - 49	78	62	45
50 - 64	82	60	35
65 and older	77	57	22
<i>Significance</i>	(.138)	(.187)	(.000)
<b>Marital Status</b>	(n = 2317)	(n = 2328)	(n = 2230)
Married	80	56	39
Never married	85	69	46
Divorced/separated	75	64	43
Widowed	77	57	26
<i>Significance</i>	(.057)	(.000)	(.000)
<b>Occupation</b>	(n = 1649)	(n = 1670)	(n = 1638)
Mgt, prof or education	82	56	41
Sales or office support	80	59	36
Constrn, inst or maint	86	65	43
Prodn/trans/warehsing	76	62	39
Agriculture	81	58	44
Food serv/pers. care	77	63	55
Hlthcare supp/safety	82	55	41
Other	83	58	24
<i>Significance</i>	(.368)	(.523)	(.016)

\*\*\* Includes those who said they did or plan to do each item a little, some or a lot.

**Appendix Table 7. Driving Behaviors Changed or Considering As a Result of Recent Energy Price Increases in Relation to Community Size, Region and Individual Attributes.**

	<i>Purchased a hybrid vehicle</i>				<i>Converted to E-85 gasoline</i>			
	<i>Yes</i>	<i>No</i>	<i>Considering it</i>	<i>Chi-square (sig.)</i>	<i>Yes</i>	<i>No</i>	<i>Considering it</i>	<i>Chi-square (sig.)</i>
					<i>Percentages</i>			
<b>Community Size</b>		(n = 2268)				(n = 2255)		
Less than 500	4	83	13		10	74	17	
500 - 999	3	82	15		16	66	18	
1,000 - 4,999	3	81	17	$\chi^2 =$	11	74	15	$\chi^2 =$
5,000 - 9,999	4	77	20	9.47	7	85	9	32.98*
10,000 and up	2	80	18	(.304)	12	77	11	(.000)
<b>Region</b>		(n = 2348)				(n = 2331)		
Panhandle	3	82	15		10	76	14	
North Central	4	79	17		10	72	19	
South Central	3	78	20	$\chi^2 =$	11	74	15	$\chi^2 =$
Northeast	3	81	16	11.88	14	76	10	31.00*
Southeast	2	84	13	(.157)	7	81	13	(.000)
<b>Income Level</b>		(n = 2177)				(n = 2161)		
Under \$20,000	2	84	14		9	77	14	
\$20,000 - \$39,999	2	84	14	$\chi^2 =$	11	77	12	$\chi^2 =$
\$40,000 - \$59,999	3	79	18	18.41*	12	76	12	6.37
\$60,000 and over	3	75	21	(.005)	11	73	16	(.383)
<b>Age</b>		(n = 2352)				(n = 2334)		
19 - 29	2	76	23		19	65	17	
30 - 39	3	76	21		9	74	16	
40 - 49	2	78	20	$\chi^2 =$	7	80	13	$\chi^2 =$
50 - 64	3	81	16	61.29*	10	75	15	57.10*
65 and older	5	88	7	(.000)	11	81	8	(.000)
<b>Marital Status</b>		(n = 2342)				(n = 2326)		
Married	3	79	17		11	75	14	
Never married	0	80	21	$\chi^2 =$	7	78	16	$\chi^2 =$
Divorced/separated	1	80	19	30.92*	11	73	16	16.28*
Widowed	4	90	6	(.000)	12	83	6	(.012)
<b>Education</b>		(n = 2332)				(n = 2316)		
H.S. diploma or less	4	86	10	$\chi^2 =$	9	80	11	$\chi^2 =$
Some college	2	79	19	38.42*	11	73	16	17.64*
Bachelors degree	3	76	21	(.000)	13	74	13	(.001)
<b>Occupation</b>		(n = 1666)				(n = 1662)		
Mgt, prof or education	3	74	23		13	75	12	
Sales or office support	3	83	14		10	79	11	
Constrn, inst or maint	4	78	18		10	71	19	
Prodn/trans/warehsing	1	83	16		9	81	10	
Agriculture	1	86	13	$\chi^2 =$	9	71	20	$\chi^2 =$
Food serv/pers. care	1	74	26	32.25*	9	75	16	28.94*
Hlthcare supp/safety	3	73	24	(.004)	9	69	22	(.011)
Other	0	82	18		3	87	11	

\* Chi-square values are statistically significant at the .05 level.

Appendix Table 7 continued

<i>Drove my most fuel-efficient vehicle more often</i>				
	<i>Yes</i>	<i>No</i>	<i>Considering it</i>	<i>Chi-square (sig.)</i>
<b>Community Size</b>	(n = 2257)			
Less than 500	73	18	10	
500 - 999	77	17	7	
1,000 - 4,999	66	26	8	$\chi^2 =$
5,000 - 9,999	69	23	9	29.20*
10,000 and up	62	29	10	(.000)
<b>Region</b>	(n = 2334)			
Panhandle	65	24	12	
North Central	76	17	7	
South Central	62	28	11	$\chi^2 =$
Northeast	67	25	7	29.25*
Southeast	67	26	7	(.000)
<b>Income Level</b>	(n = 2163)			
Under \$20,000	58	31	11	
\$20,000 - \$39,999	72	22	6	$\chi^2 =$
\$40,000 - \$59,999	68	24	8	23.19*
\$60,000 and over	66	24	11	(.001)
<b>Age</b>	(n = 2338)			
19 - 29	71	23	7	
30 - 39	67	25	8	
40 - 49	69	23	8	$\chi^2 =$
50 - 64	68	23	10	18.81*
65 and older	59	30	10	(.016)
<b>Marital Status</b>	(n = 2330)			
Married	70	21	9	
Never married	59	33	8	$\chi^2 =$
Divorced/separated	63	32	5	46.64*
Widowed	53	37	11	(.000)
<b>Education</b>	(n = 2318)			
H.S. diploma or less	63	27	10	$\chi^2 =$
Some college	70	22	8	10.09*
Bachelors degree	67	25	8	(.039)
<b>Occupation</b>	(n = 1664)			
Mgt, prof or education	68	23	9	
Sales or office support	69	23	8	
Constrn, inst or maint	71	21	8	
Prodn/trans/warehsing	75	20	5	
Agriculture	75	20	5	$\chi^2 =$
Food serv/pers. care	70	21	9	9.38
Hlthcare supp/safety	68	21	11	(.806)
Other	68	24	8	

\* Chi-square values are statistically significant at the .05 level.

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