University of Nebraska - Lincoln DigitalCommons@University of Nebraska - Lincoln

Nebraska Rural Poll

Agricultural Economics Department

9-2015

Climate and Energy: Opinions of Nonmetropolitan Nebraskans 2015 Nebraska Rural Poll Results

Rebecca J. Vogt University of Nebraska-Lincoln, rvogt2@unl.edu

Cheryl A. Burkhart-Kriesel University of Nebraska-Lincoln, cburkhartkriesel1@unl.edu

Randolph L. Cantrell University of Nebraska-Lincoln, rcantrell1@unl.edu

Bradley Lubben University of Nebraska-Lincoln, blubben2@unl.edu

L. J. McElravy University of Nebraska-Lincoln, lj.mcelravy@unl.edu

Follow this and additional works at: https://digitalcommons.unl.edu/ruralpoll Part of the Agribusiness Commons, Agricultural and Resource Economics Commons, Civic and Community Engagement Commons, Community-Based Research Commons, Demography, Population, and Ecology Commons, Entrepreneurial and Small Business Operations Commons, Place and Environment Commons, Public Affairs, Public Policy and Public Administration Commons, Regional Economics Commons, and the Rural Sociology Commons

Vogt, Rebecca J.; Burkhart-Kriesel, Cheryl A.; Cantrell, Randolph L.; Lubben, Bradley; McElravy, L. J.; and Haigh, Tonya, "Climate and Energy: Opinions of Nonmetropolitan Nebraskans 2015 Nebraska Rural Poll Results" (2015). *Nebraska Rural Poll*. 19. https://digitalcommons.unl.edu/ruralpoll/19

This Article is brought to you for free and open access by the Agricultural Economics Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Rural Poll by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Authors

Rebecca J. Vogt, Cheryl A. Burkhart-Kriesel, Randolph L. Cantrell, Bradley Lubben, L. J. McElravy, and Tonya Haigh



NEBRASKA RURAL POLL

A Research Report

Climate and Energy: Opinions of Nonmetropolitan Nebraskans

2015 Nebraska Rural Poll Results

Rebecca Vogt Cheryl Burkhart-Kriesel Randolph Cantrell Bradley Lubben L.J. McElravy Tonya Haigh





Nebraska Rural Poll Research Report 15-3, September 2015.

© graphic used with permission of the designer, Richard Hawkins, Design & Illustration, P.O. Box 21181, Des Moines, IA 50321-0101 Phone: 515.288.4431, FAX: 515.243.1979

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

Funding for this project was provided by the Cooperative Extension Division of the Institute for Agriculture and Natural Resources, the Agricultural Research Division of the Institute for Agriculture and Natural Resources, and the Department of Agricultural Economics. Additionally, in-kind support and contributions were provided by the University of Nebraska Rural Futures Institute.

For this report, significant contributions were made from a number of individuals associated with the UNL School of Natural Resources including Don Wilhite, Deb Bathke and Nicole Wall who had substantial input into the questions asked in this climate and energy section as well as Kim Morrow who wrote the introductory paragraphs for this report. In addition, Tarik Abdel-Monem of the University of Nebraska Public Policy Center also provided assistance in identifying and framing questions.

Table of Contents

Executive Summary	i
Introduction	1
Climate Change	2
Figure 1. Level of Concern about Various Weather Problems in their Area	2
Figure 2. Concern over More Severe Droughts or Longer Dry Periods in Area by Region Figure 3. Health Problems During Drought of 2012	4 4
Figure 4. Experienced Increased Anxiety or Stress during Drought of 2012 by Occupation Figure 5. Opinions about Climate Change	5 6
Figure 6. Climate Change Will Harm Health of People in Community Within 25 Years by Occupation	7
Figure 7. Sources of Information Relating to Climate Change Over Past Year	8
Figure 9. Level of Trust in Environmental Organizations as Climate Change Information Source by Occupation	:е 12
Energy Sources	13
Figure 10. Opinions about Energy Sources Figure 11. More should be done to Develop Ethanol or Biodiesel Energy in Nebraska by Occupation	13
Figure 12. Suggested Levels of Investment in Sources of Electrical Energy over the Next Several Years	15
Figure 13. Energy Conservation Measures Taken for Current Home or Transportation	16
Conclusion	17

List of Appendix Tables and Figures

Appendix Figure 1. Regions of Nebraska19
Appendix Table 1. Demographic Profile of Rural Poll Respondents Compared to 2009 - 2013 Community Survey 5 Year Average for Nebraska
Appendix Table 2. Level of Concern about Various Weather Problems by Community Size, Region and Individual Attributes
Appendix Table 3. Experience with Health Problems During Drought of 2012 by Community Size, Region and Individual Attributes
Appendix Table 4. Opinions about Climate Change by Community Size, Region and Individual Attributes
Appendix Table 5. Sources of Information Relating to Climate Change by Community Size, Region and Individual Attributes
Appendix Table 6. Level of Trust in Sources of Information about Climate Change by Community Size, Region and Individual Attributes
Appendix Table 7. Opinions about Energy Sources by Community Size, Region and Individual Attributes
Appendix Table 8. Suggested Levels of Investment in Sources of Electrical Energy Over Next Several Years by Community Size, Region and Individual Attributes
Appendix Table 9. Energy Conservation Measures Taken by Community Size, Region and Individual Attributes

Executive Summary

In coming decades, climate change threatens significant changes to the way Nebraskans live, work and play. Effects range from increased heavy precipitation events, increased periods of drought, warmer summers and a greater frequency of days over 100° F., and overall temperature increases. These changes have significant implications for agricultural production, water resource management, the increased occurrence of floods and droughts, human health, wildfires and other sectors. Are rural Nebraskans concerned about climate change? Do they think we have a role in adapting to our changing climate? Do they believe climate change will affect their family's health in coming years?

Energy is another area in which broad changes are occurring. Natural gas, wind and solar resources are being brought online rapidly while coal is increasingly being phased out. How do rural Nebraskans feel about developing more renewable energy sources? How are they conserving energy? This paper provides a detailed analysis of these questions.

This report details 1,991 responses to the 2015 Nebraska Rural Poll, the twentieth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about their climate change and energy sources. Comparisons are made among different respondent subgroups, that is, comparisons by age, occupation, region, etc. Based on these analyses, some key findings emerged:

- Many rural Nebraskans are concerned about more severe droughts or longer dry periods in their area, insect-borne diseases like West Nile Virus, and more extreme summer temperatures in their area. Almost one-half (48%) of rural Nebraskans are concerned or very concerned about more severe droughts or longer dry periods. Just over four in ten rural Nebraskans (41%) are concerned or very concerned about insect-borne diseases and 39 percent are concerned or very concerned about more extreme summer temperatures. Less than one-quarter of rural Nebraskans are concerned about the availability of water for their community or home or more frequent extreme rains or floods.
- Residents of the North Central region are more likely than residents of other regions of the state to be concerned about more severe droughts or longer dry periods in their area. Almost two-thirds (64%) of North Central residents are concerned or very concerned about more severe droughts or longer dry periods in their area, compared to 41 percent of the residents of the Southeast region.
- Few rural Nebraskans report their household experiencing health problems during the drought of 2012. Almost one-quarter (24%) reported increased anxiety or stress and 14 percent had air quality/respiratory and breathing problems. Fewer than one in ten experienced poor quality drinking water or heat stress or heat stroke.
- Many persons with occupations in agriculture experienced increased anxiety or stress during the latest drought. Almost four in ten persons with agriculture occupations (38%) experienced

increased anxiety or stress, compared to 14 percent of persons with occupations classified as other.

- Many rural Nebraskans do not believe climate change is harming their health or members of their family's health now. However, opinions are mixed on whether or not that will happen within the next 25 years. One-half of rural Nebraskans (50%) disagree or strongly disagree that climate change is harming their health or members of their family's health now. Sixteen percent agree with that statement. When asked if climate change will harm their health or their family's health not their family's health within the next 25 years, 38 percent agree or strongly agree. But, one-third (33%) disagree or strongly disagree that this will occur. Almost three in ten (29%) neither agree nor disagree. Similarly, when asked if climate change will harm the health of people in their community within the next 25 years, 41 percent agree or strongly agree. However, just over three in ten (31%) disagree with the statement and 29 percent neither agree nor disagree.
- Most rural Nebraskans believe the state should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. And, most rural Nebraskans agree that the University of Nebraska should be helping agricultural producers, rural communities and others to adapt to climate change. Over six in ten rural Nebraskans (61%) agree or strongly agree that Nebraska should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. Fewer than two in ten (17%) disagree with the statement. And, 63 percent of rural Nebraskans agree or strongly agree that the University of Nebraska should be helping agricultural producers, rural communities, and others to adapt to climate change. Fifteen percent disagree with that statement.
- Younger persons are more likely than older persons to agree that Nebraska should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. Almost seven in ten persons age 19 to 29 (69%) agree with this statement, compared to 58 percent of persons age 65 and older.
- Most rural Nebraskans received information relating to climate change from traditional media sources over the past year (the newspaper, television, or the radio). Many also received information from an article or story they found on the Internet. Three-quarters of rural Nebraskans (75%) listened to or read information relating to climate change from the newspaper, television or radio over the past year. Four in ten read information on climate change from an article or story they found on the Internet. One-quarter of rural Nebraskans (25%) received information from a post on social media. Just under two in ten rural Nebraskans (18%) say they have not listened to or read any information relating to climate change over the past year.
- Most rural Nebraskans trust experts regarding information about climate change and its potential impacts, such as University of Nebraska experts, scientists in general, and doctors and other public health experts. Seventy percent of rural Nebraskans somewhat or strongly trust University of Nebraska experts, 61 percent trust scientists in general and 55 percent trust doctors and other public health experts as sources of information about climate change. Many rural Nebraskans trust television weather reporters (48%), state agencies (43%), environmental organizations (39%) and federal agencies (33%). Most rural Nebraskans distrust social media and

online blogs and podcasts as sources of information about climate change. And many rural Nebraskans *distrust* the mainstream news media as well as radio talk show hosts.

- Most rural Nebraskans agree that more should be done to develop solar or wind energy as well as ethanol or biodiesel energy in Nebraska. Eighty percent of rural Nebraskans agree or strongly agree that more should be done to develop solar or wind energy in Nebraska. Almost six in ten rural Nebraskans (59%) agree or strongly agree that more should be done to develop ethanol or biodiesel energy in Nebraska.
- Most rural Nebraskans believe Nebraska should invest more in wind and solar energy over the next several years. Approximately three-quarters of rural Nebraskans believe the state should invest much more or somewhat more in both wind and solar energy. One-half of rural Nebraskans believe more should be invested in hydroelectric energy.
- Most rural Nebraskans believe the level of investment in coal should be the same over the next several years. And, many rural Nebraskans believe the level of investment in nuclear energy should also remain the same. Over one-half (52%) of rural Nebraskans believe the same amount should be invested in coal over the next several years. Just over four in ten rural Nebraskans (42%) believe the same amount should be invested in nuclear energy.
- Residents of the Southeast region are more likely than residents of other regions of the state to believe more should be spent on wind energy over the next several years. Eighty percent of the residents of the Southeast region believe the state should spend more on wind energy over the next several years, compared to 68 percent of the residents of the North Central region.
- Most rural Nebraskans have undertaken various energy conservation projects on their current home, including: purchased fluorescent or LED light bulbs; purchased more energy-efficient appliances; sealed air leaks around windows and/or doors; upgraded insulation, windows or doors in the home; and purchased a more energy-efficient air conditioner, water heater or furnace. Many rural Nebraskans have installed motion sensor light switches or programmable thermostat as well as purchased a more fuel-efficient vehicle.

Introduction

In coming decades, climate change threatens significant changes to the way Nebraskans live, work and play. Effects range from increased heavy precipitation events, increased periods of drought, warmer summers and a greater frequency of days over 100° F., and overall temperature increases. These changes have significant implications for agricultural production, water resource management, the increased occurrence of floods and droughts, human health, wildfires and other sectors. Are rural Nebraskans concerned about climate change? Do they think we have a role in adapting to our changing climate? Do they believe climate change will affect their family's health in coming years? Energy is another area in which broad changes are occurring. Natural gas, wind and solar resources are being brought online rapidly while coal is increasingly being phased out. How do rural Nebraskans feel about developing more renewable energy sources? How are they conserving energy? This paper provides a detailed analysis of these questions.

This report details 1,991 responses to the 2015 Nebraska Rural Poll, the twentieth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about climate change and energy sources.

Methodology and Respondent Profile

This study is based on 1,991 responses from Nebraskans living in 86 counties in the state.¹ A

Research Report 15-3 of the Nebraska Rural Poll

self-administered questionnaire was mailed in April to 6,228 randomly selected households. Metropolitan counties not included in the sample were Cass, Douglas, Lancaster, Sarpy, Saunders, Seward and Washington. The 14-page questionnaire included questions pertaining to well-being, community, climate and energy, community involvement, and education. This paper reports only results from the climate and energy section.

A 32% 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.
- The questionnaire was mailed with an informal letter signed by the project director approximately seven days later.
- A reminder postcard was sent to the entire sample approximately seven days after the questionnaire had been sent.
- 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 nonmetropolitan population of Nebraska (using the latest available data from the 2009 - 2013 American Community Survey). 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. Thus, 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

¹ In the spring of 2013, the Grand Island area (Hall, Hamilton, Howard and Merrick Counties) was designated a metropolitan area. To facilitate comparisons from previous years, these four counties are still included in our sample. In addition, the Sioux City area metropolitan counties of Dixon and Dakota were added in 2014. Although classified

as metro, Dixon County is rural in nature. Dakota County is similar in many respects to other "micropolitan" counties the Rural Poll surveys.

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 nonmetropolitan counties in Nebraska (using U.S. Census figures from 2010).

The average age of respondents is 51 years. Sixty-eight percent are married (Appendix Table 1) and 72 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 27 years. Fifty-five percent are living in or near towns or villages with populations less than 5,000. Most have attained at least a high school diploma (97%). Thirty percent of the respondents report their 2014 approximate household income from all sources, before taxes, as below \$40,000. Fifty-eight percent report incomes over \$50,000.

Seventy-six percent were employed in 2014 on a full-time, part-time, or seasonal basis. Seventeen percent are retired. Thirty-five percent of those employed reported working in a management, professional, or education occupation. Fourteen percent indicated they were employed in agriculture.

Climate Change

Respondents were first asked how concerned they are about potential weather problems for their area. Many rural Nebraskans are concerned about more severe droughts or longer dry periods in their area, insect-borne diseases like West Nile Virus, and more extreme summer temperatures. Almost one-half (48%) of rural Nebraskans are concerned or very concerned about more severe droughts or longer dry periods (Figure 1). Just over four in ten rural Nebraskans (41%) are concerned or



Figure 1. Level of Concern about Various Weather Problems in their Area

very concerned about insect-borne diseases and 39 percent are concerned or very concerned about more extreme summer temperatures. Less than one-quarter of rural Nebraskans are concerned about the availability of water for their community or home or more frequent extreme rains or floods.

The level of concern with these potential weather problems in their area are examined by community size, region and various individual attributes (Appendix Table 2). Many differences emerge.

Persons living in or near smaller communities are more likely than persons living in or near larger communities to be concerned about the availability of water for their community or home. Just over one-quarter (27%) of persons living in or near communities with populations less than 500 are concerned or very concerned about the availability of water, compared to 19 percent of persons living in or near communities with populations ranging from 1,000 to 4,999.

Residents of the Panhandle region are more likely than persons living in other regions of the state to be concerned about the availability of water for their community or home (see Appendix Figure 1 for the counties included in each region). Twenty-nine percent of Panhandle residents are concerned about the availability of water, compared to 19 percent of persons living in the Northeast region.

Other groups most likely to be concerned about the availability of water for their community or home include: persons with the lowest household incomes; older persons; males; persons with lower education levels; persons with production, transportation or warehousing occupations; and persons with occupations classified as other. Residents of the Northeast region are more likely than residents of other regions of the state to be concerned about more frequent extreme rains or floods in their area. Twenty percent of Northeast region residents are concerned or very concerned about more frequent extreme rains or floods, compared to nine percent of the Panhandle residents.

Other groups most likely to be concerned about more frequent extreme rains or floods include: persons living in or near communities with populations ranging from 500 to 999, persons with the lowest household incomes, persons age 40 to 49, and persons who have never married.

Residents of the North Central region are more likely than residents of other regions of the state to be concerned about more severe droughts or longer dry periods in their area. Almost two-thirds (64%) of North Central residents are concerned or very concerned about more severe droughts or longer dry periods in their area, compared to 41 percent of the residents of the Southeast region (Figure 2).

Persons with food service or personal care occupations and persons with occupations in agriculture are more likely than persons with different occupations to be concerned about more severe droughts or longer dry periods in their area. Almost six in ten (58%) of these two occupation groups are concerned about this potential problem, compared to 33 percent of persons with occupations classified as other. Females are more likely than males to be concerned about more severe droughts or longer dry periods.

Residents of the North Central region are more likely than residents of other regions of the state to be concerned about more extreme



Figure 2. Concern over More Severe Droughts or Longer Dry Periods in Area by Region

summer temperatures in their area. Almost one-half (46%) of North Central residents are concerned about more extreme summer temperatures, compared to 32 percent of the residents of the Northeast region.

Other groups most likely to be concerned about more extreme summer temperatures in their area include females and persons with food service or personal care occupations.

The groups most likely to be concerned about more extreme winter temperatures in their area include: persons living in or near communities with populations ranging from 500 to 999, persons with lower household incomes, females, persons with lower education levels and persons with sales or office support occupations.

Persons with lower household incomes, females, persons with lower education levels,

Research Report 15-3 of the Nebraska Rural Poll

persons with food service or personal care occupations and persons with production, transportation, or warehousing occupations are the groups most likely to be concerned about insect-borne diseases like West Nile Virus.

Next, respondents were asked if they or anyone in their household experienced various health problems during the drought of 2012. Few rural Nebraskans report their household experiencing health problems during the drought of 2012. Almost one-quarter (24%) reported increased anxiety or stress and 14 percent had air quality/respiratory and breathing problems (Figure 3). Fewer than one in ten experienced poor quality drinking water or heat stress or heat stroke. These experiences differ by community size, region and individual attributes (Appendix Table 3).

Persons living in or near communities with populations ranging from 500 to 4,999, Panhandle residents and females are the groups most likely to have experienced heat stress or heat stroke in their household during the

Figure 3. Health Problems During Drought of 2012



drought of 2012.

Persons with occupations in agriculture are more likely than persons with different occupations to have experienced increased anxiety or stress during the latest drought.

Almost four in ten persons with agriculture occupations (38%) experienced increased anxiety or stress, compared to 14 percent of persons with occupations classified as other (Figure 4).

Other groups most likely to have experienced increased anxiety or stress include: persons living in or near the smallest communities, residents of the North Central region, persons with lower household incomes, females and persons age 40 to 49.

Figure 4. Experienced Increased Anxiety or Stress during Drought of 2012 by Occupation



Residents of the Panhandle are more likely than residents of other regions of the state to have experienced air quality/respiratory and breathing problems during the drought of 2012. Twenty-one percent of Panhandle residents experienced these respiratory issues, compared to approximately 13 percent of the residents of the other four regions of the state.

Other groups most likely to have experienced air quality/respiratory and breathing problems include: persons with lower household income, females, persons age 40 to 49, and persons with lower education levels.

Persons with food service or personal care occupations, persons with lower household incomes and persons with lower education levels are the groups most likely to have experienced poor quality drinking water during the recent drought.

Respondents were then given some statements about climate change and were asked the extent to which they agree or disagree with each, <u>regardless of whether they attribute</u> <u>change in climate to natural cycles or human</u> <u>activity</u>.

Many rural Nebraskans do not believe climate change is harming their health or members of their family's health now. However, opinions are mixed on whether or not that will happen within the next 25 years.

Most rural Nebraskans believe the state should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. And, most rural Nebraskans agree that the University of Nebraska should be helping agricultural producers, rural communities and others to adapt to climate change. One-half of rural Nebraskans (50%) disagree or strongly disagree that climate change is harming their health or members of their family's health now (Figure 5). Sixteen percent agree with that statement.

When asked if climate change will harm their health or their family's health within the next 25 years, 38 percent agree or strongly agree. But, one-third (33%) disagree or strongly disagree that this will occur. Almost three in ten (29%) neither agree nor disagree.

Similarly, when asked if climate change will harm the health of people in their community within the next 25 years, 41 percent agree or strongly agree. However, just over three in ten (31%) disagree with the statement and 29 percent neither agree nor disagree.

Over six in ten rural Nebraskans (61%) agree or

plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. Fewer than two in ten (17%) disagree with the statement.

strongly agree that Nebraska should develop a

And, 63 percent of rural Nebraskans agree or strongly agree that the University of Nebraska should be helping agricultural producers, rural communities, and others to adapt to climate change. Fifteen percent disagree with that statement.

These opinions differ by community size, region and various individual attributes (Appendix Table 4). Residents of the Panhandle are more likely than residents of other regions of the state to agree that climate change is harming their health or their family's health now. Almost one-quarter of Panhandle residents (24%) agree



Research Report 15-3 of the Nebraska Rural Poll

Figure 5. Opinions about Climate Change

with that statement, compared to 12 percent of the residents of the Southeast region.

Other groups most likely to believe climate change is currently harming the health of their household include: persons with lower household incomes, females and persons with production, transportation or warehousing occupations. Younger persons are more likely than older persons to *disagree* with this statement. And, persons with higher education levels are more likely than persons with less education to *disagree* that climate change is currently harming the health of their household.

Persons living in or near larger communities are more likely than persons living in or near smaller communities to agree that climate change will harm their health or their family's health within the next 25 years. Forty-five percent of persons living in or near communities with populations of 10,000 or more agree with this statement, compared to 31 percent of persons living in or near communities with populations ranging from 500 to 999.

Other groups most likely to believe climate change will harm their household's health within the next 25 years include: persons with lower household incomes, older persons, females, and persons with food service or personal care occupations. Persons with higher education levels are more likely than persons with less education to *disagree* with this statement.

Persons with food service or personal care occupations are more likely than persons with different occupations to agree that climate change will harm the health of people in their community within the next 25 years. Over one-half (52%) of persons with food service or personal care occupations agree with this statement, compared to 21 percent of persons with occupations in agriculture (Figure 6).

Other groups most likely to agree that climate change will harm the health of people in their community within the next 25 years include: persons living in or near larger communities, residents of the Panhandle, residents of the South Central region, persons with lower household incomes, females, and persons with higher education levels.

Younger persons are more likely than older persons to agree that Nebraska should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources.





Almost seven in ten persons age 19 to 29 (69%)agree with this statement, compared to 58 percent of persons age 65 and older.

Other groups most likely to agree that Nebraska should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources include: persons living in or near larger communities, females, persons with higher levels of education and persons with food service or personal care occupations. When comparing responses by region, residents of both the North Central and Northeast regions are the groups most likely to *disagree* with that statement. And, persons with higher household incomes are more likely than persons with lower incomes to *disagree* with that statement.

Persons living in or near larger communities are more likely than persons living in or near smaller communities to agree that the University of Nebraska should be helping agricultural producers, rural communities and others to adapt to climate change. Seventy percent of persons living in or near communities with populations of 10,000 or more agree with this statement, compared to 56 percent of persons living in or near communities with less than 500 people.

The other groups most likely to agree that the University of Nebraska should be helping agricultural producers, rural communities and others to adapt to climate change include: residents of the Panhandle, females, persons with the highest education levels, persons with food service or personal care occupations and persons with sales or office support occupations.

Next, respondents were asked about their sources of information relating to climate change. Specifically, they were asked, "Over the past year, have you listened to or read information relating to climate change from any of the following sources?"

Most rural Nebraskans received information relating to climate change from a story in the newspaper, on television, or on the radio over the past year. Many also received information from an article or story they found on the Internet.

Three-quarters of rural Nebraskans (75%) listened to or read information relating to climate change from the newspaper, television or radio over the past year (Figure 7). Four in ten read information on climate change from an article or story they found on the Internet. One-quarter of rural Nebraskans (25%) received information from a post on social media. Just under two in ten rural Nebraskans (18%) say they have not listened to or read any information relating to climate change over the past year.

Figure 7. Sources of Information Relating to Climate Change Over Past Year



Some of the information sources used differ by community size, region and individual attributes (Appendix Table 5). Persons living in or near larger communities are more likely than persons living in or near smaller communities to receive information relating to climate change from an article or story on the Internet as well as a post on social media. However, persons living in or near smaller communities are more likely than persons living in or near larger communities to have received information relating to climate change over the past year from the University of Nebraska Climate Change Report.

One difference was detected by region. Residents of the North Central region are more likely than residents of other regions of the state to have received information from the University of Nebraska Climate Change Report.

Persons with higher household incomes are more likely than persons with lower incomes to have received information relating to climate change from the following sources over the past year: story in newspaper, on television, or on the radio; article or story they found on the Internet; and a post on social media. Persons with the lowest household incomes are the group most likely to say they haven't listened or read any information relating to climate change over the past year.

Males are more likely than females to have received climate change information from the following sources: story in newspaper, on television, or on the radio; presentation or publication by a climate scientist; article or story they found on the Internet; and the University of Nebraska Climate Change Report. Females are more likely than males to have received climate change information from a social media post. Females are also more likely than males to say they haven't listened or read any information relating to climate change over the past year.

Older persons are more likely than younger persons to have received climate change information over the past year from the following sources: Extension presentation or publication; story in newspaper, on television or on the radio; presentation or publication by a climate scientist; and the University of Nebraska Climate Change Report. Younger persons are more likely than older persons to have received information relating to climate change from an article or story on the Internet and a post on social media. They are also more likely than older persons to say they haven't listened or read any information relating to climate change over the past year.

Persons with the highest education levels are more likely than persons with less education to have received information relating to climate change over the past year from all the sources listed, with the exception of the University of Nebraska Climate Change Report. Persons with less education are more likely than persons with more education to say they haven't listened or read any information relating to climate change over the past year.

Persons with management, professional or education occupations are more likely than persons with different occupations to have received climate change information over the past year from an Extension presentation or publication as well as an article or story they found on the Internet. Persons with agriculture occupations are the occupation group most likely to have received information relating to climate change over the past year from a presentation or publication by a climate scientist as well as the University of Nebraska Climate Change Report. Persons with healthcare support or public safety occupations are more likely than persons with different occupations to have received information from a post on social media. The occupation groups most likely to say they haven't listened or read any information relating to climate change over the past year include persons with healthcare support or public safety occupations as well as persons with construction, installation or maintenance occupations.

Finally, respondents were asked how much they trust or distrust various agencies, organizations or groups as sources of information about climate change and its potential impacts. Most rural Nebraskans somewhat or strongly trust University of Nebraska experts, scientists in general, and doctors and other public health experts as sources of information about climate change and its potential impacts. Seventy percent of rural Nebraskans somewhat or strongly trust University of Nebraska experts, 61 percent trust scientists in general and 55 percent trust doctors and other public health experts as sources of information about climate change (Figure 8). Many rural Nebraskans trust television weather reporters (48%), state agencies (43%), environmental organizations (39%) and federal agencies (33%). Most rural Nebraskans *distrust* social media and online blogs and podcasts as sources of information about climate change. And many rural Nebraskans *distrust* the mainstream news media as well as radio talk show hosts.

The level of trust placed in these information sources differs by community size, region and individual attributes (Appendix Table 6). Younger persons are more likely than older persons to trust University of Nebraska experts as sources of information about climate change. Approximately 77 percent of persons under the age of 30 trust University of Nebraska experts as sources of information about climate change. In comparison, 66 percent of persons age 50 and older trust University of Nebraska experts as climate change information sources.

Other groups most likely to trust University of Nebraska experts as sources of climate change information include: persons living in or near



Figure 8. Level of Trust in Information Sources about Climate Change

Research Report 15-3 of the Nebraska Rural Poll

the largest communities, persons with higher household incomes, females, persons with higher education levels and persons with management, professional or education occupations. When comparing responses by region, residents of the North Central region are the group most likely to *distrust* University of Nebraska experts.

Many of these same groups are also the ones that are most likely to trust scientists in general: persons living in or near the largest communities, persons with the highest household incomes, younger persons, females, persons with the highest education levels and persons with management, professional or education occupations.

Persons with healthcare support or public safety occupations are more likely than persons with different occupations to trust television weather reporters as climate change information sources. Fifty-eight percent of persons with these types of occupations trust television weather reporters, compared to 36 percent of persons with food service or personal care occupations and persons with occupations in agriculture.

Other groups most likely to trust television weather reporters as climate change information sources include: persons with mid-level incomes, persons age 30 to 39, persons age 65 and older, and females. When comparing responses by education level, persons with higher levels of education are more likely than persons with less education to *distrust* television weather reporters as sources of information relating to climate change.

Younger persons are more likely than older persons to trust state agencies as climate change information sources. Approximately 47 percent of persons under the age of 40 trust state agencies, compared to 37 percent of persons age 50 to 64.

Other groups most likely to trust state agencies as sources of information relating to climate change include: persons with higher household incomes, persons with higher education levels and persons with management, professional or education occupations. Males are more likely than females to *distrust* state agencies.

Younger persons, females, persons with higher education levels and persons with management, professional or education occupations are the groups most likely to trust federal agencies as sources of information about climate change.

Persons with sales or office support occupations are more likely than persons with different occupations to trust environmental organizations as sources of information about climate change. Almost one-half of persons with these types of occupations (49%) trust environmental organizations as climate change information sources, compared to 23 percent of persons with occupations in agriculture (Figure 9). The majority of persons with occupations in agriculture *distrust* environmental organizations as sources of information relating to climate change.

The other groups most likely to trust environmental organizations as sources of climate change information include: persons living in or near larger communities, persons with mid-level household incomes, younger persons, and females. Persons with higher levels of education are more likely than persons with less education to *distrust* environmental organizations as sources of information about climate change.

Persons with lower education levels are more





likely than persons with more education to trust the mainstream news media as climate change information sources. Almost one-third (32%) of persons with a high school diploma or less education trust the mainstream news media as sources of information relating to climate change, compared to 20 percent of persons with at least some college education.

Other groups most likely to trust the mainstream news media as information sources about climate change include: persons living in or near larger communities, persons with lower household incomes, older persons, and females.

Persons with agriculture occupations are more likely than persons with different occupations to *distrust* the mainstream news media as climate change information sources. Seventy-one percent of persons with agriculture occupations *distrust* the mainstream news media as sources of information relating to climate change, compared to 36 percent of persons with healthcare support and public safety occupations.

Persons living in or near the largest communities, persons with lower household incomes, persons with lower education levels and persons with healthcare support or public safety occupations are the groups most likely to trust radio talk show hosts as sources of information about climate change.

Certain groups are more likely than others to *distrust* online blogs and podcasts as sources of information relating to climate change: persons living in or near communities with populations ranging from 1,000 to 4,999; persons with higher household incomes; persons with the highest education levels; persons with occupations in agriculture; and persons with occupations classified as other.

The groups most likely to *distrust* social media as a climate change information source include: persons with the highest household incomes, younger persons, males, and persons with occupations in agriculture.

Persons living in or near larger communities are more likely than persons living in or near smaller communities to trust doctors and other public health experts as sources of information about climate change. Sixty-two percent of persons living in or near communities with populations of 10,000 or more trust doctors and public health experts, compared to 49 percent of persons living in or near communities with populations ranging from 500 to 999.

The other groups most likely to trust doctors and other public health experts as climate change information sources include: females,

Research Report 15-3 of the Nebraska Rural Poll

persons with higher education levels and persons with healthcare support and public safety occupations. When comparing responses by region, residents of the Northeast region are *less* likely than persons living in other regions of the state to trust doctors and other public health experts as sources of information about climate change. Older persons are more likely than younger persons to *distrust* doctors and other public health experts.

Energy Sources

Respondents were also asked several questions about energy sources. The first question gave statements listing different opinions about the types of energy sources that should be used in Nebraska and the United States. Respondents were asked the extent to which they agree or disagree with each.

Most rural Nebraskans agree that more should be done to develop solar or wind energy as well as ethanol or biodiesel energy in Nebraska.

Figure	10.	Opinions	about	Energy	Sources
--------	-----	----------	-------	--------	---------

One-half of rural Nebraskans agree that there are sufficient oil and natural gas supplies to meet U.S. needs for the foreseeable future. Many rural Nebraskans disagree that renewable energy sources are too expensive for Nebraska.

Eighty percent of rural Nebraskans agree or strongly agree that more should be done to develop solar or wind energy in Nebraska (Figure 10). Almost six in ten rural Nebraskans (59%) agree or strongly agree that more should be done to develop ethanol or biodiesel energy in Nebraska. One-half of rural Nebraskans agree that there are sufficient oil and natural gas supplies to meet U.S. needs for the foreseeable future. Almost one-half of rural Nebraskans (46%) disagree that renewable energy sources are too expensive for Nebraska.

The opinions about energy sources for Nebraska and the United States differ by community size, region and various individual attributes (Appendix Table 7). Persons with occupations in agriculture are more likely than persons with different occupations to agree



Research Report 15-3 of the Nebraska Rural Poll

that there are sufficient oil and natural gas supplies to meet U.S. needs for the foreseeable future. Sixty percent of persons with agriculture occupations agree with that statement, compared to 32 percent of persons with food service or personal care occupations.

Males and persons with higher household incomes are the other groups most likely to agree that there are sufficient oil and natural gas supplies to meet U.S. needs for the foreseeable future. Persons living in or near the largest communities are more likely than persons living in or near smaller communities to *disagree* with that statement. And, persons with higher education levels are more likely than persons with less education to *disagree* with that statement.

Persons with occupations in agriculture and persons with food service or personal care occupations are more likely than persons with different occupations to agree that more should be done to develop ethanol or biodiesel energy in Nebraska. Approximately two-thirds of persons with these two types of occupations (67%) agree that more should be done to develop ethanol or biodiesel energy in Nebraska, compared to 40 percent of persons with occupations classified as other (Figure 11).

Older persons and males are more likely than younger persons and females to *disagree* that more should be done to develop ethanol or biodiesel energy in Nebraska.

Residents of the Panhandle are more likely than persons living in other regions of the state to agree that more should be done to develop solar or wind energy in Nebraska. Eighty-five percent of Panhandle residents agree with this statement, compared to 75 percent of the residents of the North Central region.

The other groups most likely to agree that more should be done to develop solar or wind energy in Nebraska include: persons with lower household incomes, females and persons with food service or personal care occupations.

The groups most likely to agree that renewable energy sources are too expensive for Nebraska include: persons with lower household incomes, males, persons with lower education levels, and persons with occupations classified as other.

Next, respondents were given a list of sources of electrical energy and were asked if they think Nebraska should invest less, more or about the same in each over the next several years.

Most rural Nebraskans believe Nebraska should invest more in wind and solar energy over the next several years. Approximately three-quarters of rural Nebraskans believe the state should invest much more or somewhat more in both wind and solar energy (Figure 12). One-half of rural Nebraskans believe more should be invested in hydroelectric energy.

Most rural Nebraskans believe the level of investment in coal should be the same over the next several years. And, many rural Nebraskans believe the level of investment in nuclear energy should also remain the same. Over one-half (52%) of rural Nebraskans believe the same amount should be invested in coal over the next several years. Just over four in ten rural Nebraskans (42%) believe the same amount should be invested in nuclear energy.

Opinions about the future levels of investment for many of these sources differ by community size, region and individual attributes (Appendix Table 8). Persons with production,

Figure 12. Suggested Levels of Investment in Sources of Electrical Energy over the Next Several Years

transportation or warehousing occupations are more likely than persons with different occupations to believe more should be invested in coal over the next several years. Twenty-one percent of persons with these types of occupations believe more should be invested in coal, compared to seven percent of persons with healthcare support and public safety occupations.

The other groups most likely to support spending more on coal include: Panhandle residents, residents of the North Central region, older persons, males, and persons with lower education levels.

Residents of the Southeast region are more likely than residents of other regions of the state to believe more should be spent on wind energy over the next several years. Eighty percent of the residents of the Southeast region believe the state should spend more on wind energy over the next several years, compared to 68 percent of the residents of the North Central region.

The other groups most likely to support increasing the investment in wind energy include: older persons, females, persons with sales or office support occupations, persons with healthcare support or public safety occupations, and persons with occupations in production, transportation and warehousing.

Residents of the Southeast region are more likely than residents of other regions of the state to support increased spending for solar energy over the next several years. Seventy-nine percent of Southeast residents say more should be spent on solar energy, compared to 70 percent of the residents of the North Central region. The other groups most likely to favor increased investment in solar energy include: persons age 30 to 39, females, persons with higher education levels and persons with healthcare support or public safety occupations.

The two groups that are most likely to support increased spending for hydroelectric energy over the next several years include persons living in or near communities with populations ranging from 5,000 to 9,999 as well as persons with occupations in transportation, production, and warehousing.

Persons with higher household incomes, older persons, males, persons with higher education levels and persons with occupations in agriculture are the groups most likely to support increased investment in nuclear energy over the next several years.

Finally, respondents were asked if they have done various energy conservation measures for their current home or transportation. Most rural Nebraskans have undertaken various energy conservation projects on their current home, including: purchased fluorescent or LED light bulbs; purchased more energy-efficient appliances; sealed air leaks around windows and/or doors; upgraded insulation, windows or doors in the home; and purchased a more energy-efficient air conditioner, water heater or furnace (Figure 13). Many rural Nebraskans have installed motion sensor light switches or programmable thermostat as well as purchased a more fuel-efficient vehicle.

Some of these measures taken differ by community size, region and various individual attributes (Appendix Table 9). Persons living in or near larger communities are more likely than persons living in or near smaller communities to have purchased fluorescent or LED light bulbs and to have installed motion sensor light

Figure 13. Energy Conservation Measures Taken for Current Home or Transportation

switches or programmable thermostat. Persons living in or near smaller communities are more likely than persons living in or near larger communities to have sealed air leaks around windows and/or doors.

Panhandle residents are more likely than residents of other regions of the state to have installed motion sensor light switches or programmable thermostat. Residents of both the North Central region and the Southeast region are more likely than residents of other regions of the state to have purchased a more fuel-efficient vehicle. Persons with higher household incomes are more likely than persons with lower incomes to have done each of the items listed, with the exception of sealing air leaks around doors and/or windows.

Females are more likely than males to have purchased fluorescent or LED light bulbs. Males are more likely than females to have sealed air leaks around windows and/or doors.

Older persons are more likely than younger persons to have sealed air leaks around windows and/or doors and to have purchased a more energy-efficient air conditioner, water heater or furnace. Persons age 40 to 49 are the age group most likely to have purchased more energy-efficient appliances and to have purchased fluorescent or LED light bulbs. And, persons age 50 to 64 are the age group most likely to have upgraded insulation, windows or doors in the home.

Persons with higher education levels are more likely than persons with less education to have purchased more energy-efficient appliances, to have purchased fluorescent or LED light bulbs, and to install motion sensor light switches or programmable thermostat. Persons with less education are more likely than persons with more education to have sealed air leaks around windows and/or doors.

Persons with management, professional or education occupations as well as persons with sales or office occupations are the occupation groups most likely to have purchased more energy-efficient appliances. Persons with sales or office support occupations are the occupation group most likely to have purchased fluorescent or LED light bulbs. The occupation group most likely to have installed motion sensor light switches or programmable thermostat is persons with management, professional or education occupations. Persons with occupations in agriculture are more likely than persons with different occupations to have sealed air leaks around windows and/or doors.

Conclusion

Many rural Nebraskans are concerned about more severe droughts or longer dry periods in their area, insect-borne diseases like West Nile Virus, and more extreme summer temperatures in their area. Fewer rural Nebraskans are concerned about the availability of water for their community or home or more frequent extreme rains or floods. Residents of the North Central region are more likely than residents of other regions of the state to be concerned about more severe droughts or longer dry periods in their area.

Few rural Nebraskans reported their household experiencing health problems during the drought of 2012. However, many persons with occupations in agriculture experienced increased anxiety or stress during the latest drought.

Similarly, many rural Nebraskans do not believe climate change is harming their health or members of their family's health now. However, opinions are mixed on whether or not that will happen within the next 25 years.

Most rural Nebraskans believe the state should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources. And, most rural Nebraskans agree that the University of Nebraska should be helping agricultural producers, rural communities and others to adapt to climate change. Younger persons are more likely than older persons to agree that Nebraska should develop a plan for adapting to climate change in order to reduce its impact on agriculture, rural communities, forestry and natural resources.

Most rural Nebraskans received information relating to climate change from mainstream news sources (the newspaper, television, or the radio) over the past year. Many also received information from an article or story they found on the Internet.

When asked how much they trust various sources of information about climate change and its potential impacts, though, most rural Nebraskans trust expert sources such as University of Nebraska experts, scientists in general, and doctors and other public health experts. Many rural Nebraskans also trust television weather reporters, state agencies, environmental organizations and federal agencies. Most rural Nebraskans *distrust* social media and online blogs and podcasts as sources of information about climate change. And many rural Nebraskans *distrust* the mainstream news media as well as radio talk show hosts.

When asked about energy sources for the state, most rural Nebraskans agree that more should be done to develop solar or wind energy as well as ethanol or biodiesel energy in Nebraska. Furthermore, when asked about future investments for various sources of electrical energy, most rural Nebraskans believe Nebraska should invest more in wind and solar energy over the next several years. Most rural Nebraskans believe the level of investment in coal should be the same over the next several years. And, many rural Nebraskans believe the level of investment in nuclear energy should also remain the same.

Given the support for various renewable energy sources, it is not surprising that most rural Nebraskans have undertaken various energy conservation projects on their current home, including: purchased fluorescent or LED light bulbs; purchased more energy-efficient appliances; sealed air leaks around windows and/or doors; upgraded insulation, windows or doors in the home; and purchased a more energy-efficient air conditioner, water heater or furnace. In addition, many rural Nebraskans have installed motion sensor light switches or programmable thermostat as well as purchased a more fuel-efficient vehicle. **Appendix Figure 1. Regions of Nebraska**

Nebraska Metropolitan and Nonmetropolitan Counties (2013 Definitions)

Source: 2013 Metropolitan and Micropolitan Definitions, Office of Management and Budget, released 2-28-13

Prepared by: David Drozd, Center for Public Affairs Research, University of Nebraska at Omaha - August 11, 2014

Research Report 15-3 of the Nebraska Rural Poll

	2015 Poll	2014 Poll	2013 Poll	2012 Poll	2011 Poll	2010 Poll	2009 - 2013 ACS
Age: 2							
20 - 39	31%	32%	31%	31%	31%	32%	31%
40 - 64	45%	46%	44%	44%	44%	44%	45%
65 and over	24%	23%	24%	24%	24%	24%	24%
Gender: ³							
Female	58%	57%	51%	61%	60%	59%	51%
Male	42%	43%	49%	39%	40%	41%	49%
Education: ⁴							
Less than 9 th grade	1%	1%	1%	1%	1%	1%	5%
9 th to 12 th grade (no diploma)	2%	3%	3%	3%	3%	3%	7%
High school diploma (or equiv.)	22%	18%	23%	22%	26%	25%	34%
Some college, no degree	23%	23%	25%	25%	23%	25%	26%
Associate degree	15%	16%	15%	15%	16%	14%	10%
Bachelors degree	24%	24%	22%	24%	19%	20%	13%
Graduate or professional degree	13%	16%	12%	11%	12%	11%	5%
Household Income: ⁵							
Less than \$10,000	5%	5%	5%	6%	6%	6%	6%
\$10,000 - \$19,999	7%	7%	7%	10%	10%	10%	12%
\$20,000 - \$29,999	9%	8%	13%	11%	13%	13%	12%
\$30,000 - \$39,999	9%	14%	10%	10%	14%	12%	12%
\$40,000 - \$49,999	12%	12%	15%	12%	11%	13%	11%
\$50,000 - \$59,999	11%	13%	10%	13%	12%	11%	10%
\$60,000 - \$74,999	15%	13%	11%	14%	12%	13%	11%
\$75,000 or more	32%	29%	29%	25%	22%	23%	26%
Marital Status: ⁶							
Married	68%	68%	70%	70%	66%	71%	62%
Never married	13%	12%	12%	10%	14%	9%	17%
Divorced/separated	10%	12%	9%	11%	11%	11%	12%
Widowed/widower	8%	8%	9%	10%	10%	9%	8%

Appendix Table 1. Demographic Profile of Rural Poll Respondents¹ Compared to 2009 – 2013 American Community Survey 5 Year Average for Nebraska*

¹ Data from the Rural Polls have been weighted by age.

⁶ 2009-2013 American Community Survey universe is non-metro population 20 years of age and over.

² 2009-2013 American Community Survey universe is non-metro population 20 years of age and over.

³ 2009-2013 American Community Survey universe is non-metro population 20 years of age and over.

⁴ 2009-2013 American Community Survey universe is non-metro population 18 years of age and over.

⁵ 2009-2013 American Community Survey universe is all non-metro households.

^{*}Comparison numbers are estimates taken from the American Community Survey five-year sample and may reflect significant margins of error for areas with relatively small populations.

	The availability of water for my community or my home				More frequent extreme rains or floods			
	Not or not		Concerned		Not or not	-	Concerned	
	very	Somewhat	or very		very	Somewhat	or very	
	concerned	concerned	concerned	Sig.	concerned	concerned	concerned	Sig.
				Perce	ntages			
Total	53	25	22		65	21	15	
Community Size		(n = 1845))			(n = 1828))	
Less than 500	54	19	27		72	16	12	
500 - 999	49	30	21		58	23	19	
1,000 - 4,999	54	27	19	$\chi^2 =$	64	22	15	$\chi^2 =$
5,000 - 9,999	47	31	22	24.67*	74	18	8	23.97*
10.000 and up	58	21	22	(.002)	62	22	16	(.002)
Region		(n = 1875))	()		(n = 1862))	()
Panhandle	39	33	29		71	19	9	
North Central	53	24	23		67	20	13	
South Central	53	24	23	$\gamma^2 -$	65	21	14	$\gamma^2 =$
Northeast	58	23	19	$\lambda = 25.01*$	59	21	20	ہ – 21 95*
Southeast	58	23	21	(002)	67	21	13	(005)
Income Level		(n - 1720)	21	(.002)	07	(n - 1710)	15	(.005)
<u>Under \$20,000</u>	41	(II = 1729)	י דר		54	(II = 1719)	17	
	41 51	32 26	27	· ² –	54	29	17	· ² –
\$20,000 - \$39,999	51	20	25	χ =	62	23	15	$\chi =$
\$40,000 - \$59,999	53	24	23	24.82*	68	17	15	10.35*
\$60,000 and over	60	21	19	(.000)	67	19	14	(.012)
Age		(n = 1880))		70	(n = 186/)	1.5	
19 - 29	/5	11	14		12	13	15	
30 - 39	58	25	1/	2	6/	21	12	2
40 - 49	52	25	23	χ =	65	17	18	$\chi^2 =$
50 - 64	47	27	26	86.02*	64	22	14	30.31*
65 and older	• 44	30	26	(.000)	58	27	15	(.000)
<u>Gender</u>		(n = 1853)		$\chi^2 =$		(n = 1838)		$\chi^2 =$
Male	53	22	25	11.41*	67	19	14	2.82
Female	54	27	20	(.003)	63	22	15	(.244)
<u>Marital Status</u>		(n = 1844)				(n = 1827))	
Married	54	25	22		65	20	14	
Never married	61	16	22	$\chi^2 =$	71	11	18	$\chi^2 =$
Divorced/separated	51	28	21	22.29*	62	27	12	21.31*
Widowed	41	36	23	(.001)	58	26	16	(.002)
Education		(n = 1854))			(n = 1839))	
H.S. diploma or less	46	26	28	$\chi^2 =$	61	22	17	$\chi^2 =$
Some college	51	26	23	30.58*	63	21	16	9.34
Bachelors/grad degree	61	22	17	(.000)	69	19	12	(.053)
Occupation		(n = 1365))			(n = 1361))	
Mgt, prof or education	62	24	15		68	20	12	
Sales or office support	57	21	21		64	22	14	
Constrn, inst or maint	55	23	22		67	16	18	
Prodn/trans/warehsing	42	28	30		68	15	17	
Agriculture	60	15	26	2	67	19	14	2
Food serv/pers. care	49	29	23	$\chi^2 =$	59	25	16	$\chi^2 =$
Hlthcare supp/safety	58	21	20	35.37*	68	17	16	10.72
Other	47	23	30	(.001)	64	25	11	(.708)

Appendix Table 2.	Level of Concern about	Various Weather	Problems by Communit	y Size, Region and	l Individual Attributes
			ř .		

	More severe droughts or			More extreme summer				
	long	ger dry perio	ods		te	mperature	S	
	Not or not	, ,,	Concerned		Not or not	1	Concerned	
	very	Somewhat	or very		very	Somewhat	or very	
	concerned	concerned	concerned	Sig.	concerned	concerned	concerned	Sig.
				Percer	ntages			
<u>Total</u>	22	30	48		32	30	38	
Community Size		(n = 1843)	1			(n = 1831)	
Less than 500	21	27	52		30	31	38	
500 - 999	21	28	51		29	33	39	
1,000 - 4,999	22	27	51	$\chi^2 =$	33	29	39	$\chi^2 =$
5,000 - 9,999	24	32	45	12.90	36	33	32	5.96
10,000 and up	24	33	43	(.115)	33	29	39	(.652)
Region		(n = 1872)	1			(n = 1861)	
Panhandle	21	33	46		34	26	39	
North Central	13	24	64		27	27	46	
South Central	21	29	50	$\chi^2 =$	28	31	41	$\chi^2 =$
Northeast	28	31	42	48.58*	37	31	32	24.79*
Southeast	28	31	41	(.000)	34	32	34	(.002)
Income Level		(n = 1725)	1	· /		(n = 1719)))	· · /
Under \$20.000	22	27	51		24	30	46	
\$20,000 - \$39,999	22	35	43	$\gamma^2 =$	29	34	37	$\gamma^2 =$
\$40,000 - \$59,999	19	29	52	11.79	26	30	44	35.36*
\$60.000 and over	25	30	45	(.067)	38	29	33	(.000)
Age		(n = 1878)		(1007)	00	(n = 1866)	i)	(1000)
19 - 29	22	29	49		36	27	38	
30 - 39	26	31	43		32	33	35	
40 - 49	20	28	51	$\gamma^2 =$	32	30	38	$\gamma^2 =$
50 - 64	22	30	48	$\frac{1}{486}$	33	28	39	$\frac{1}{8}$ 37
65 and older	23	31	48	(772)	28	33	39	(398)
Conder	21	(n - 18/10)	40	(.772)	20	(n - 1838)	37	(.370)
Male	26	(11 - 10 + 7)	/ 15	λ – 9 //*	30	(II = 1050 20	33	λ - 27.46*
Female	20	31	40 50	(0.00)	37 27	31	12 12	(000)
Marital Status	20	(n - 1838)	50	(.007)	27	(n - 1827)	+2	(.000)
Married	$\gamma\gamma$	(11 - 1050)	48		33	(11 - 1027)	, 37	
Nover married	22	25	40	α^2 –	33	20	40	α^2 –
Divorced/separated	29 26	23	40	$\chi = 10.23$	32	20	40	χ – 292
Widowed	20	27	47	(115)	52 27	20 22	40	(700)
Education	19	(n - 1950)	40	(.115)	21	33 (n - 1940	40	(.700)
<u>Education</u>	26	(II = 1630)	15	.2 _	20	(II - 1040)	<i>יו</i> 20	· ² –
n.s. uipionia or less	20	29	43	$\chi = 2.56$	30 21	20	39 40	$\chi =$
Some conege	21	29	50	3.30	31 25	30 20	40	4.32
Bachelors/grad degree	2Z	50	47	(.408)	55	30 (m. 1262	30	(.303)
<u>Occupation</u> Mat. prof or advastion	22	(n = 1303)	16		24	(n = 1362)	24	
Sales or office support	22	52 21	40		54 25	23 23	54 42	
Construction instor maint	20	31 38	30		23	32 33	45	
Produ/trans/wareheing	23 38	23	39		20 12	55 77	29 30	
A oriculture	20	23	59		+3 27	∠ / ??		
Food serv/ners_care	20 19	22	59	$\gamma^2 -$	21	22 24	+1 55	$v^2 -$
Hithcare supplies earch	29	31	39	$\lambda = 40.42*$	34	29	37	$\kappa - 34.46*$
Other	30	37	33	(.000)	32	34	34	(.002)

	More extreme winter			Insect-borne diseases like				
	te	mperatures	5		We	st Nile Vir	us	
	Not or not	-	Concerned		Not or not		Concerned	
	very	Somewhat	or very		very	Somewhat	or very	
	concerned	concerned	concerned	Sig.	concerned	concerned	concerned	Sig.
				Percen	ntages			
<u>Total</u>	35	31	34		26	33	41	
Community Size		(n = 1830)				(n = 1845)	
Less than 500	38	28	34		30	30	41	
500 - 999	28	32	40		24	34	42	
1,000 - 4,999	39	31	30	$\chi^2 =$	27	34	39	$\chi^2 =$
5,000 - 9,999	40	36	24	21.42*	29	34	37	5.05
10,000 and up	34	29	37	(.006)	25	34	41	(.753)
Region		(n = 1858)				(n = 1875)	
Panhandle	35	32	34		24	27	49	
North Central	32	34	34		27	35	39	
South Central	33	31	35	$\chi^2 =$	26	32	42	$\chi^2 =$
Northeast	38	27	35	9.54	28	33	39	8.30
Southeast	39	31	30	(.299)	27	35	39	(.405)
Income Level		(n = 1716)		. ,		(n = 1731))	. ,
Under \$20,000	25	37	38		20	30	50	
\$20,000 - \$39,999	30	36	34	$\chi^2 =$	22	36	43	$\chi^2 =$
\$40,000 - \$59,999	30	29	41	41.81*	28	35	37	16.98*
\$60,000 and over	43	29	28	(.000)	30	32	39	(.009)
Age		(n = 1865)		× /		(n = 1882)		. ,
19 - 29	36	24	40		30	32	38	
30 - 39	37	32	32		30	36	35	
40 - 49	36	30	35	$\chi^2 =$	24	31	45	$\chi^2 =$
50 - 64	37	31	32	12.90	25	33	41	11.65
65 and older	33	35	33	(.116)	24	32	44	(.168)
Gender		(n = 1837)		$\chi^2 =$		(n = 1854)	.)	$\gamma^2 =$
Male	43	29	28	35.09*	34	30	36	38.19*
Female	30	32	38	(.000)	21	35	44	(.000)
Marital Status		(n = 1827)		· · ·		(n = 1844))	· /
Married	37	31	33		27	33	41	
Never married	35	27	38	$\chi^2 =$	32	33	35	$\gamma^2 =$
Divorced/separated	35	32	34	4.77	22	34	44	7.21
Widowed	31	36	33	(.574)	24	33	43	(.302)
Education		(n = 1838)		· · ·		(n = 1853))	· /
H.S. diploma or less	34	32	35	$\gamma^2 =$	25	31	45	$\gamma^2 =$
Some college	33	30	37	10.96*	24	30	47	34.47*
Bachelors/grad degree	40	31	30	(.027)	31	37	32	(.000)
Occupation		(n = 1361)	20	(/)	01	(n = 1365)	5)	(1000)
Mgt, prof or education	39	31	30		31	33	36	
Sales or office support	26	35	40		19	42	39	
Constrn, inst or maint	37	34	29		30	27	44	
Prodn/trans/warehsing	44	21	35		27	25	49	
Agriculture	46	20	35		34	34	32	
Food serv/pers. care	26	41	33	$\chi^2 =$	18	33	49	$\chi^2 =$
Hlthcare supp/safety	35	29	36	34.63*	23	40	38	35.20*
Other	37	30	33	(.002)	34	21	46	(.001)

		Recalling the dr	ought of 2012, did ye follow	ou or anyone in your household e wing health problems?	experience any of the
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Heat stress or heat stroke	Increased anxiety or stress	Air quality/ respiratory and breathing problems	Poor quality drinking water
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			Percent c	circling "yes" for each item	
$\begin{array}{c} \underline{\operatorname{Community Size}}{\operatorname{Suppose}} & (n=1844) & (n=1843) & (n=1844) & (n=1841) \\ Less than 500 & 7 & 31 & 14 & 7 \\ 5.00 - 9.99 & 10 & 25 & 14 & 9 \\ 1.000 - 4.999 & 10 & 25 & 14 & 9 \\ 1.000 - 4.999 & 10 & 25 & 14 & 9 \\ 1.000 - 4.999 & 10 & 25 & 14 & 9 \\ 1.000 and up & 6 & 16 & 12 & 7 \\ Chi-square (sig.) & \chi^2 = 11.7^* (.020) & \chi^2 = 42.9^* (.000) & \chi^2 = 3.47 (.482) & \chi^2 = 5.77 (.217) \\ \hline Retion & (n=1877) & (n=1877) & (n=1880) & (n=1875) \\ \hline Retion & (n=1877) & (n=1877) & (n=1880) & (n=1875) \\ \hline North Central & 9 & 21 & 13 & 8 \\ Southeast & 4 & 20 & 12 & 9 \\ \hline Chi-square (sig.) & \chi^2 = 1.2^{+*} (.013) & \chi^2 = 18.2^* (.001) & \chi^2 = 11.6^* (.020) & \chi^2 = 7.82 (.098) \\ \hline Individual Attributes & \\ \hline Income Level & (n=1731) & (n=1730) & (n=1733) & (n=1730) \\ Individual Attributes & \\ \hline Income Level & (n=1731) & (n=1730) & (n=1733) & (n=1730) \\ Gender & (n=1854) & (n=1854) & (n=1855) & (n=1852) \\ Gender & (n=1854) & (n=1854) & (n=1855) & (n=1852) \\ Gender & (n=1852) & (n=1854) & (n=1855) & (n=1852) \\ Gender & (n=182) & (n=1854) & (n=1855) & (n=1882) \\ Gender & (n=182) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1852) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1852) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1885) & (n=1882) \\ Gender & (n=1855) & (n=1854) & (n=1855) & (n=1882) \\ Gender & (n=1855) & (n=1364) & (n=1855) & (n=1882) \\ Gender & (n=1855) & (n=1364) & (n=1855) & (n=1363) \\ Gender & (n=1855) & (n=1364) & (n=1855) & (n=1363) \\ Gender & (n=1365) & (n=1364) & (n=1365) & (n=1363) \\ Gender & (n=1365) & (n=1364) & (n=1365) & (n=1363) \\ Gender & (n=1365) & (n=1364) & (n=1365) & (n=1363) \\ Gender & (n=1365) & (n=1364) & (n=1365) & (n=1363) \\ Gender & (n=1365) & (n=1364) & (n=1365) & (n=1363) \\ Gender & (n=1365) & (n=13$	<u>Total</u>	7	24	14	8
	Community Size	(n = 1844)	(n = 1843)	(n = 1844)	(n = 1841)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Less than 500	7	31	14	7
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	500 - 999	10	33	16	9
$\begin{array}{c} 5,000 - 9,999 & 4 & 20 & 16 & 12 \\ 10,000 and up & 6 & 16 & 12 & 7 \\ Chi:square (ig), & \chi^2 = 1.7 + (020) & \chi^2 = 4.2 + (000) & \chi^2 = 3.47 (.482) & \chi^2 = 5.77 (.217) \\ \hline {\bf Recion} & (n = 1877) & (n = 1877) & (n = 1880) & (n = 1875) \\ \hline {\bf North Central} & 9 & 33 & 13 & 6 \\ \hline {\bf South Central} & 9 & 21 & 13 & 8 \\ \hline {\bf South Central} & 9 & 21 & 13 & 8 \\ \hline {\bf South Central} & 6 & 24 & 13 & 8 \\ \hline {\bf South central} & (n = 1731) & (n = 1730) & (n = 1733) & (n = 1730) \\ \hline {\bf Individual Attributes} & \\ \hline {\bf Income Level} & (n = 1731) & (n = 1730) & (n = 1733) & (n = 1730) \\ \hline {\bf Under $20,000 + $39,999 & 10 & 23 & 18 & 10 \\ \hline {\bf S20,000 + $39,999 & 10 & 23 & 18 & 10 \\ \hline {\bf S40,000 + $59,999 & 7 & 29 & 14 & 8 \\ \hline {\bf S60,000 and over} & 6 & 20 & 10 & c & 6 \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 7.73 (.052) & \chi^2 = 13.5^* (.004) & \chi^2 = 22.33^* (.000) & \chi^2 = 22.90^* (.000) \\ \hline {\bf Gender} & (n = 1854) & (n = 1854) & (n = 1855) & (n = 1852) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.66^* (.010) & \chi^2 = 1.74^* (.020) & \chi^2 = 22.90^* (.000) \\ \hline {\bf Gender} & (n = 1882) & (n = 1854) & (n = 1855) & (n = 1852) \\ \hline {\bf Age} & (n = 1882) & (n = 1884) & (n = 1855) & (n = 1882) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.02 (.285) & \chi^2 = 3.456^* (.000) & \chi^2 = 5.57^* (.010) & \chi^2 = 1.01 (.179) \\ \hline {\bf Age} & (n = 1855) & (n = 1854) & (n = 1856) & (n = 1884) \\ \hline {\bf HS, diploma or less & 7 & 20 & 17 & 10 \\ \hline {\bf Some college} & 8 & 24 & 10 & 10 \\ \hline {\bf Ado + 49 & 9 & 34 & 20 & 11 \\ \hline {\bf Some college} & 8 & 24 & 10 & 0 \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.07 (.285) & \chi^2 = 3.72 (.156) & \chi^2 = 15.77^* (.000) & \chi^2 = 7.56^* (.023) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.05 (.747) & \chi^2 = 3.72 (.156) & \chi^2 = 17.27^* (.000) & \chi^2 = 7.56^* (.023) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.05 (.747) & \chi^2 = 3.72 (.156) & \chi^2 = 15.77^* (.000) & \chi^2 = 7.56^* (.023) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.05 (.747) & \chi^2 = 3.72 (.156) & \chi^2 = 15.77^* (.000) & \chi^2 = 7.56^* (.023) \\ \hline {\bf Chi:square (sig.)} & \chi^2 = 5.05 (.747) & \chi^2 = 3.72 (.156) & \chi^2 = 15.77^* (.000) & \chi^2 = $	1,000 - 4,999	10	25	14	9
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,000 - 9,999	4	20	16	12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10,000 and up	6	16	12	7
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Chi-sauare (sig.)	$\chi^2 = 11.7 * (.020)$	$\chi^2 = 42.9 * (.000)$	$\chi^2 = 3.47 \ (.482)$	$\chi^2 = 5.77 \ (.217)$
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Region	(n = 1877)	(n = 1877)	(n = 1880)	(n = 1875)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Panhandle	11	22	21	13
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	North Central	9	33	13	6
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	South Central	9	21	13	8
Southeast420129Chi-square (sig.) $\chi^2 = 12.7*(.013)$ $\chi^2 = 18.2^*(.001)$ $\chi^2 = 11.6^*(.020)$ $\chi^2 = 7.82(.098)$ Income Level(n = 1731)(n = 1730)(n = 1733)(n = 1730)Under \$20,00011282116\$20,000 - \$39,99910231810\$40,000 - \$59,999729148\$60,000 and over620106Chi-square (sig.) $\chi^2 = 7.73(.052)$ $\chi^2 = 13.5^*(.004)$ $\chi^2 = 22.3^*(.000)$ $\chi^2 = 22.90^*(.000)$ Gender(n = 1854)(n = 1854)(n = 1855)(n = 1852)Female927169Chi-square (sig.) $\chi^2 = 5.66^*(.010)$ $\chi^2 = 14.78^*(.000)$ $\chi^2 = 5.75^*(.010)$ $\chi^2 = 1.01(.179)$ Age(n = 1882)(n = 1884)(n = 1885)(n = 1882)Isolo - 40 - 49934201150 - 6472213765 and older516189Chi-square (sig.) $\chi^2 = 5.02(.285)$ $\chi^2 = 34.56^*(.000)$ $\chi^2 = 3.557^*(.000)$ $\chi^2 = 8.06(.089)$ Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106Chi-square (sig.) $\chi^2 = 5.86(.747)$ $\chi^2 = 3.72(.156)$ $\chi^2 = 17.27^*(.000)$ $\chi^2 = 7.56^*(.023)$	Northeast	6	24	13	8
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Southeast	4	20	12	9
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Chi-sauare (sig.)	$\chi^2 = 12.7 * (.013)$	$\chi^2 = 18.2 * (.001)$	$\chi^2 = 11.6^* (.020)$	$\chi^2 = 7.82 \ (.098)$
	Individual Attributes:	<i>n</i>	κ	\sim	κ ()
$ \begin{array}{ccccc} \mbox{Under $20,000} & 11 & 28 & 21 & 16 \\ \mbox{$20,000 - $33,999} & 10 & 23 & 18 & 10 \\ \mbox{$$40,000 - $59,999} & 7 & 29 & 14 & 8 \\ \mbox{$$60,000 and over} & 6 & 20 & 10 & 6 \\ \mbox{$$Chi-square (sig.)} & \chi^2 = 7.73 (.052) & \chi^2 = 13.5^* (.004) & \chi^2 = 22.33^* (.000) & \chi^2 = 22.90^* (.000) \\ $$Gender $$ (n = 1854) $$ (n = 1854) $$ (n = 1855) $$ (n = 1852) $$ (n = 1852) $$ (n = 1854) $$ (n = 1855) $$ (n = 1852) $$ (n = 1882) $$ (n = 1885) $$ (n = 1884) $$ (n = 1885) $$ (n = 1882) $$ (n = 1882) $$ (n = 1885) $$ (n = 1882) $$ (n = 1855) $$ (n = 1854) $$ (n = 1856) $$ (n = 1854) $$ (n = 1855) $$ (n = 1854) $$ (n = 1856) $$ (n = 1854) $$ (n = 1365) $$ (n = 1361) $$ (n = 1365) $$ (n$	Income Level	(n = 1731)	(n = 1730)	(n = 1733)	(n = 1730)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Under \$20.000	11	28	21	16
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\$20,000 - \$39,999	10	23	18	10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\$40.000 - \$59.999	7	29	14	8
$\begin{array}{ccccc} Chi-square (sig.) & \chi^2 = 7.73 \ (.052) & \chi^2 = 13.5^* \ (.004) & \chi^2 = 22.33^* \ (.000) & \chi^2 = 22.90^* \ (.000) \\ \hline Gender & (n = 1854) & (n = 1855) & (n = 1852) \\ & Male & 6 & 19 & 12 & 7 \\ & Female & 9 & 27 & 16 & 9 \\ Chi-square (sig.) & \chi^2 = 5.66^* \ (.010) & \chi^2 = 14.78^* \ (.000) & \chi^2 = 5.75^* \ (.010) & \chi^2 = 1.01 \ (.179) \\ Age & (n = 1882) & (n = 1884) & (n = 1885) & (n = 1882) \\ & 19 - 29 & 8 & 25 & 6 & 5 \\ & 30 - 39 & 9 & 23 & 10 & 10 \\ & 40 - 49 & 9 & 34 & 20 & 11 \\ & 50 - 64 & 7 & 22 & 13 & 7 \\ & 65 \ and \ older & 5 & 16 & 18 & 9 \\ Chi-square (sig.) & \chi^2 = 5.02 \ (.285) & \chi^2 = 34.56^* \ (.000) & \chi^2 = 35.57^* \ (.000) & \chi^2 = 8.06 \ (.089) \\ Education & (n = 1855) & (n = 1854) & (n = 1856) & (n = 1854) \\ H.S. \ diploma \ or \ less & 7 & 20 & 17 & 10 \\ Some \ college & 7 & 25 & 16 & 9 \\ Bachelors/grad \ degree & 8 & 24 & 10 & 6 \\ Chi-square (sig.) & \chi^2 = 0.58 \ (.747) & \chi^2 = 3.72 \ (.156) & \chi^2 = 17.27^* \ (.000) & \chi^2 = 7.56^* \ (.023) \\ Occupation & (n = 1365) & (n = 1361) & (n = 1365) & (n = 1363) \\ Mgt, \ prof \ or \ education & 8 & 21 & 9 & 6 \\ Sales \ or \ office \ support & 6 & 26 & 12 & 11 \\ Constrn, \ inst \ or \ maint & 6 & 24 & 14 & 7 \\ Prodn/rans/warehsing \ 6 & 18 & 16 & 9 \\ Agriculture & 9 & 38 & 9 & 2 \\ Food \ servipers, \ care & 12 & 24 & 19 & 18 \\ Hithcare \ supp/safety & 7 & 20 & 11 & 10 \\ \end{array}$	\$60.000 and over	6	20	10	6
Gender(n = 1854)(n = 1854)(n = 1854)(n = 1855)(n = 1852)Male619127Female927169Chi-square (sig.) χ^2 = 5.66* (.010) χ^2 = 14.78* (.000) χ^2 = 5.75* (.010) χ^2 = 1.01 (.179)Age(n = 1882)(n = 1884)(n = 1885)(n = 1882)19 - 298256530 - 39923101040 - 49934201150 - 6472213765 and older516189Chi-square (sig.) χ^2 = 5.02 (.285) χ^2 = 34.56* (.000) χ^2 = 35.57* (.000) χ^2 = 8.06 (.089)Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106Chi-square (sig.) χ^2 = 0.58 (.747) χ^2 = 3.72 (.156) χ^2 = 17.27* (.000) χ^2 = 7.56* (.023)Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers, care1224	Chi-sauare (sig.)	$\chi^2 = 7.73 \ (.052)$	$\chi^2 = 13.5^* (.004)$	$\chi^2 = 22.33 * (.000)$	$\chi^2 = 22.90 * (.000)$
Male619127Female927169Chi-square (sig.) $\chi^2 = 5.66^* (.010)$ $\chi^2 = 14.78^* (.000)$ $\chi^2 = 5.75^* (.010)$ $\chi^2 = 1.01 (.179)$ Age(n = 1882)(n = 1884)(n = 1885)(n = 1882)19 - 298256530 - 39923101040 - 49934201150 - 6472213765 and older516189Chi-square (sig.) $\chi^2 = 5.02 (.285)$ $\chi^2 = 34.56^* (.000)$ $\chi^2 = 35.57^* (.000)$ $\chi^2 = 8.06 (.089)$ Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106Chi-square (sig.) $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 1.727^* (.000)$ $\chi^2 = 7.56^* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hithcare supp/safety7201110	Gender	(n = 1854)	(n = 1854)	(n = 1855)	(n = 1852)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Male	6	19	12	7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Female	9	27	16	9
Age(n = 1882)(n = 1884)(n = 1885)(n = 1882)19 - 298256530 - 39923101040 - 49934201150 - 6472213765 and older516189Chi-square (sig.) $\chi^2 = 5.02$ (.285) $\chi^2 = 34.56^*$ (.000) $\chi^2 = 35.57^*$ (.000) $\chi^2 = 8.06$ (.089)Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106Chi-square (sig.) $\chi^2 = 0.58$ (.747) $\chi^2 = 3.72$ (.156) $\chi^2 = 17.27^*$ (.000) $\chi^2 = 7.56^*$ (.023)Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Chi-sauare (sig.)	$\chi^2 = 5.66 * (.010)$	$\chi^2 = 14.78 * (.000)$	$\chi^2 = 5.75^* (.010)$	$\chi^2 = 1.01 \ (.179)$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Age	(n = 1882)	(n = 1884)	(n = 1885)	(n = 1882)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	19 - 29	8	25	6	5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30 - 39	9	23	10	10
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	40 - 49	9	34	20	11
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50 - 64	7	22	13	7
Chi-square (sig.) $\chi^2 = 5.02 (.285)$ $\chi^2 = 34.56^* (.000)$ $\chi^2 = 35.57^* (.000)$ $\chi^2 = 8.06 (.089)$ Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106 <i>Chi-square (sig.)</i> $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 17.27^* (.000)$ $\chi^2 = 7.56^* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hithcare supp/safety7201110	65 and older	5	16	18	9
Education(n = 1855)(n = 1854)(n = 1856)(n = 1854)H.S. diploma or less7201710Some college725169Bachelors/grad degree824106 <i>Chi-square (sig.)</i> $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 17.27* (.000)$ $\chi^2 = 7.56* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Chi-square (sig.)	$\chi^2 = 5.02 \ (.285)$	$\chi^2 = 34.56^* (.000)$	$\chi^2 = 35.57 * (.000)$	$\chi^2 = 8.06 \ (.089)$
H.S. diploma or less7201710Some college725169Bachelors/grad degree824106 <i>Chi-square (sig.)</i> $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 17.27* (.000)$ $\chi^2 = 7.56* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Education	(n = 1855)	(n = 1854)	(n = 1856)	(n = 1854)
Some college725169Bachelors/grad degree824106Chi-square (sig.) $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 17.27* (.000)$ $\chi^2 = 7.56* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	H.S. diploma or less	7	20	17	10
Bachelors/grad degree824106Chi-square (sig.) $\chi^2 = 0.58 (.747)$ $\chi^2 = 3.72 (.156)$ $\chi^2 = 17.27* (.000)$ $\chi^2 = 7.56* (.023)$ Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Some college	7	25	16	9
Chi-square (sig.) $\chi^2 = 0.58$ (.747) $\chi^2 = 3.72$ (.156) $\chi^2 = 17.27^*$ (.000) $\chi^2 = 7.56^*$ (.023)Occupation(n = 1365)(n = 1361)(n = 1365)(n = 1363)Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Bachelors/grad degree	8	24	10	6
Occupation $(n = 1365)$ $(n = 1361)$ $(n = 1365)$ $(n = 1363)$ Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Chi-square (sig.)	$\chi^2 = 0.58 \ (.747)$	$\chi^2 = 3.72 \ (.156)$	$\chi^2 = 17.27 * (.000)$	$\chi^2 = 7.56^* (.023)$
Mgt, prof or education82196Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Occupation	(n = 1365)	(n = 1361)	(n = 1365)	(n = 1363)
Sales or office support6261211Constrn, inst or maint624147Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Mgt, prof or education	8	21	9	6
Construction interpreterConstructionCo	Sales or office support	6	26	12	11
Prodn/trans/warehsing618169Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Constrn inst or maint	6	20	14	7
Agriculture93892Food serv/pers. care12241918Hlthcare supp/safety7201110	Produ/trans/warehsing	6	2 4 19	14	0
Agriculture95892Food serv/pers. care12241918Hlthcare supp/safety7201110		0	10	10	7
Food services, care12241918Hlthcare supp/safety7201110	Agriculture	У 10	30 24	9 10	ے 19
$\frac{10}{10}$	Food serv/pers. care	12	24 20	19	18
Other 0 14 14	nucare supp/safety	/	20	11	10
Chi-square (sig.) $\gamma^2 = 8.02 (.330)$ $\gamma^2 = 26.95* (.000)$ $\gamma^2 = 11.57 (.116)$ $\gamma^2 = 27.02* (.000)$	Chi-square (sig)	$\gamma^2 = 8.02 (.330)$	$\chi^2 = 26.95^* (.000)$	$\chi^2 = 11.57 (.116)$	$\gamma^2 = 27.02^* (.000)$

Appendix Table 3. Experience with Health Problems During Drought of 2012 by Community Size, Region and Individual Attributes

	Climate change is harming my health or members of my family's health now.				Climate change will harm my health or my family's health within the next 25 years.				
	Disagree	Neither	Agree	Significance	Disagree	Neither	Agree	Significance	
				Percen	tages				
<u>Total</u>	50	35	16		33	29	38		
Community Size		(n = 1863)			(n	= 1865)			
Less than 500	52	34	15		32	34	34		
500 - 999	48	37	15		37	32	31		
1,000 - 4,999	51	37	12		34	31	36		
5,000 - 9,999	51	33	15	$\chi^2 = 8.07$	37	24	39	$\chi^2 = 26.31^*$	
10,000 and up	49	33	18	(.427)	31	24	45	(.001)	
Region		(n = 1901)			(n	= 1903)			
Panhandle	40	36	24		31	28	42		
North Central	57	30	13		37	31	32		
South Central	49	33	18		31	29	40		
Northeast	52	35	13	$\gamma^2 = 31.45^*$	37	26	37	$\gamma^2 = 13.98$	
Southeast	47	41	12	(.000)	29	32	39	(.082)	
Individual Attributes:				()			• •	()	
Income Level		(n = 1747)			(n	= 1747)			
Under \$20.000	27	52	20		18	39	44		
\$20,000 - \$39,999	43	38	20		27	28	46		
\$40,000 - \$59,999	49	33	17	$\gamma^2 = 75.50^*$	32	29	39	$\gamma^2 = 46.35^*$	
\$60.000 and over	59	29	12	(.000)	39	26	35	(.000)	
Age	• •	(n = 1906)		()	(n	= 1909)		(((((((((((((((((((((((((((((((((((((((
19 - 29	59	27	14		36	33	31		
30 - 39	54	31	14		36	23	41		
40 - 49	47	34	19		30	29	41		
50 - 64	49	35	16	$\gamma^2 = 25.21^*$	34	28	39	$\gamma^2 = 15.79^*$	
65 and older	43	41	16	(001)	30	32	38	(046)	
Gender		(n = 1871)	10	((n	= 1871)	00	(1010)	
Male	58	29	13	$\gamma^2 = 35.88^*$	42	26	32	$\gamma^2 = 51.55^*$	
Female	44	39	17	(000)	27	30	43	(000)	
Education		(n = 1871)	17	(.000)	_, (n	= 1873)	15	(.000)	
H S diploma or less	38	45	17		2.7	36	37		
Some college	49	37	14	$\gamma^2 = 53.43^*$	31	30	39	$\gamma^2 = 34.92^*$	
Bachelors/grad degree	58	26	16	(000)	40	22	39	(000)	
Occupation	20	(n = 1378)	10	(.000)	 (n	= 1382)	57	(1000)	
Mgt. prof or education	55	(n = 1570) 29	17		36	22	42		
Sales or office support	41	42	17		21	43	35		
Constrn inst or maint	54	37	10		40	28	32		
Prodn/trans/warehsing	54 47	29	24		-τυ 3/	20	52 43		
Agriculture	68	27	6		48	33	19		
Food serv/pers. care	41	45	15		20	32	48		
Hlthcare supp/safety	52	32	16	$\gamma^2 = 49.01*$	34	21	45	$\gamma^2 = 80.46^*$	
Other	49	38	13	(.000)	32	36	32	(.000)	

	Climate c health communi	hange will i h of people i ty within the years.	harm the in my e next 25		Nebraska plan for ac change in a impact on communi.	should de lapting to order to re agricultur ties, forest	velop a climate duce its re, rural try and	
	Disaaroo	Naithar	Agraa	Significance	Disagraa	Noithor	es.	Significance
	Disugree	weimer	Адгее	Parcan	tagas	wenner	Адгее	Significance
<u>Total</u>	31	29	41	1 erceni	18	21	61	
<u>Community Size</u>		(n = 1857)			(n	= 1865)		
Less than 500	31	32	37		18	26	56	
500 - 999	36	34	30		23	23	54	
1,000 - 4,999	31	32	37		19	23	58	
5,000 - 9,999	36	23	41	$\chi^2 = 36.90^*$	19	23	58	$\chi^2 = 31.67*$
10,000 and up	28	24	49	(.000)	14	16	69	(.000)
Region		(n = 1894)			(n	= 1902)		
Panhandle	31	25	45		10	25	65	
North Central	35	29	36		22	24	55	
South Central	28	28	44		17	20	63	
Northeast	34	27	39	$\chi^2 = 16.20^*$	22	19	60	$\chi^2 = 26.57*$
Southeast	27	35	38	(.040)	13	24	64	(.001)
Individual Attributes:								
Income Level		(n = 1739)			(n	= 1748)		
Under \$20,000	16	38	46		11	29	60	
\$20,000 - \$39,999	27	29	44		15	19	66	
\$40,000 - \$59,999	28	30	43	$\chi^2 = 38.06^*$	16	21	63	$\chi^2 = 20.25^*$
\$60,000 and over	37	26	38	(.000)	21	18	61	(.003)
Age		(n = 1898)			(n	= 1908)		. ,
19 - 29	31	33	36		11	20	69	
30 - 39	33	22	45		18	19	63	
40 - 49	28	29	43		17	21	62	
50 - 64	32	28	40	$\chi^2 = 12.89$	18	23	59	$\chi^2 = 15.73^*$
65 and older	29	31	40	(.116)	21	22	58	(.046)
Gender		(n = 1863)			(n	= 1873)		. ,
Male	42	26	32	$\chi^2 = 75.19^*$	23	24	52	$\chi^2 = 50.65^*$
Female	23	30	47	(.000)	13	19	68	(.000)
Education		(n = 1865)			(n	= 1873)		. ,
H.S. diploma or less	25	39	36		16	29	55	
Some college	30	29	41	$\chi^2 = 45.04*$	17	23	60	$\chi^2 = 39.69^*$
Bachelors/grad degree	36	21	43	(.000)	19	14	66	(.000)
Occupation		(n = 1375)			(n	= 1380)		
Mgt, prof or education	33	21	47		18	19	64	
Sales or office support	20	41	39		11	23	66	
Constrn, inst or maint	41	30	29		14	31	55	
Prodn/trans/warehsing	32	26	41		14	22	64	
Agriculture	46	33	21		27	28	45	
Food serv/pers. care	14	33	52		6	16	79	
Hlthcare supp/safety	31	22	47	$\chi^2 = 84.13*$	15	11	73	$\chi^2 = 63.96^*$
Other	32	30	39	(.000)	24	18	58	(.000)

		The Uni	versity of N	ebraska	
		sho	uld be help	ing	
		agricultu	ral produce	ers, rural	
		commun	nities. and o	thers to	
		adant t	o climate cl	hange.	
		Disagree	Neither	Aoree	Significance
		Disagree	Por	contagos	Significance
Total		15	22	63	
<u>10tai</u>		15		05	
Commu	nity Size		(n - 1860)		
Commu	Loss than 500	17	(II = 100))	56	
	Less than 500	17	20	50	
	500 - 999	21	20	59	
	1,000 - 4,999	14	25	61	2
	5,000 - 9,999	16	26	58	$\chi^2 = 30.39^*$
	10,000 and up	12	19	70	(.000)
Region			(n = 1905)		
	Panhandle	10	21	69	
	North Central	18	24	58	
	South Central	15	21	64	
	Northeast	18	21	61	$x^2 - 16.97*$
	Southoast	10	21	64	$\chi = 10.77$
T 10 0 1	Southeast	10	20	04	(.030)
	ai Attributes:		1750		
Income L	.evel		(n = 1750)		
	Under \$20,000	10	30	60	
\$20),000 - \$39,999	12	24	65	
\$40),000 - \$59,999	14	21	66	$\chi^2 = 19.06^*$
\$6	0,000 and over	18	19	63	(.004)
Age			(n = 1910)		
0	19 - 29	13	23	65	
	30 - 39	13	22	65	
	40 - 49	13	23	64	
	50 64	16	23	61	$x^2 - 7.04$
	-04 5 and alder	10	25	61	$\chi = 7.04$
C I	os and older	18	21 (n. 1972)	01	(.355)
Genaer		•••	(n = 18/3)		2 20 02:
	Male	20	23	57	$\chi^2 = 28.92^*$
	Female	11	22	67	(.000)
Educatio	n		(n = 1876)		
H.S.	diploma or less	14	31	56	
	Some college	14	25	61	$\chi^2 = 46.36^*$
Bachel	ors/grad degree	17	15	68	(.000)
Occupati	ion		(n = 1383)		
Mgt. r	prof or education	15	20	65	
Sales	or office support	8	20	71	
Cone	trn inst or maint	17	21	56	
Drode	/trans/worshsin~	10	∠/ 01	50 60	
FIOUN	A originality	12	21	0ð 51	
Eco	Agriculture	23 6	20	31 72	
F00	ou sei v/pers. care	0	21	15	2 26 514
HILL	icare supp/safety	14	1/	09 5 7	$\chi = 30.51^{\circ}$
	Other	23	23	55	(.001)

Over the past year, have you listened to or read information relating to climate change from any of the following sources?							
	I have not listened to or read any information relating to climate change	Extension presentation or publication	Story in newspaper, on television, or on the radio	Presentation or publication by a climate scientist	Article or story I found on the Internet	Post on social media (Twitter, Facebook, blogs, etc.)	University of Nebraska Climate Change Report
			Perc	ent circling each ite	т		
<u>Total</u>	18	12	75	15	40	25	9
Community Size	(n = 1802)	(n = 1802)	(n = 1802)	(n = 1801)	(n = 1801)	(n = 1801)	(n = 1802)
Less than 500	19	12	75	17	39	26	13
500 - 999	22	11	69	11	36	24	11
1.000 - 4.999	19	12	73	14	36	20	6
5.000 - 9.999	17	9	75	11	39	19	8
10.000 and up	15	12	78	17	46	31	9
Chi-square (sig.)	$\chi^2 = 7.29$ (.121)	$\chi^2 = 1.37$ (.849)	$\chi^2 = 9.49 (.050)$	$\chi^2 = 6.74 \; (.150)$	$\chi^2 = 14.69^* (.005)$	$\chi^2 = 21.94^* (.000)$	$\chi^2 = 14.17*(.007)$
Region	(n = 1830)	(n = 1830)	(n = 1831)	(n = 1830)	(n = 1830)	(n = 1829)	(n = 1830)
Panhandle	17	9	79	11	37	22	8
North Central	15	13	75	18	44	30	13
South Central	17	12	76	15	41	28	10
Northeast	20	12	72	14	38	23	7
Southeast	18	10	73	17	39	23	9
Chi-square (sig.)	$\chi^2 = 2.68 \; (.613)$	$\chi^2 = 2.17 \; (.705)$	$\chi^2 = 5.56 (.235)$	$\chi^2 = 5.84 \ (.212)$	$\chi^2 = 3.19 \; (.526)$	$\chi^2 = 7.95 (.094)$	$\chi^2 = 10.06* (.039)$
Individual Attributes:							
Income Level	(n = 1691)	(n = 1691)	(n = 1691)	(n = 1690)	(n = 1691)	(n = 1690)	(n = 1692)
Under \$20,000	25	10	68	12	27	19	7
\$20,000 - \$39,999	18	13	74	16	31	26	9
\$40,000 - \$59,999	21	11	71	14	41	24	9
\$60,000 and over	14	12	78	16	48	29	10
Chi-square (sig.)	$\chi^2 = 17.02^* (.001)$	$\chi^2 = 0.96 \; (.810)$	$\chi^2 = 12.04^* (.007)$	$\chi^2 = 2.48 \; (.479)$	$\chi^2 = 44.09^* (.000)$	$\chi^2 = 8.32^* (.040)$	$\chi^2 = 1.25 \ (.740)$
Gender	(n = 1807)	(n = 1807)	(n = 1808)	(n = 1808)	(n = 1808)	(n = 1807)	(n = 1808)
Male	13	12	80	20	42	20	13
Female	21	11	71	11	38	29	6
Chi-square (sig.)	$\chi^2 = 16.55 * (.000)$	$\chi^2 = 0.75 \; (.213)$	$\chi^2 = 21.11^* (.000)$	$\chi^2 = 26.22^* (.000)$	$\chi^2 = 3.15^* (.042)$	$\chi^2 = 16.13 * (.000)$	$\chi^2 = 23.89 * (.000)$

Appendix Table 5. Sources of Information Relating to Climate Change by Community Size, Region and Individual Attributes

	I have not listened to or read any information relating to climate change	Extension presentation or publication	Story in newspaper, on television, or on the radio	Presentation or publication by a climate scientist	Article or story I found on the Internet	Post on social media (Twitter, Facebook, blogs, etc.)	University of Nebraska Climate Change Report
Δαρ	(n - 1835)	(n - 1835)	(n - 1836)	(n - 1835)	(n - 1835)	(n - 1835)	(n - 1835)
19 - 29	28	(n = 1055)	(II = 1050) 53	(n = 1055)	39	(II = 1055) 41	(n = 1055) 8
30 - 39	20	12	55 72	10	53	42	6
40 - 49	19	10	73	14	48	28	7
50 - 64	15	9	82	16	40	17	8
65 and older	11	17	86	20	24	10	16
Chi-square (sig.)	$\chi^2 = 38.82*(.000)$	$\chi^2 = 15.95^* (.003)$	$\chi^2 = 115.70^* (.000)$	$\chi^2 = 18.62*(.001)$	$\chi^2 = 73.43^* (.000)$	$\chi^2 = 151.84* (.000)$	$\chi^2 = 27.50 * (.000)$
Education	(n = 1809)	(n = 1808)	(n = 1809)	(n = 1808)	(n = 1808)	(n = 1808)	(n = 1808)
H.S. diploma or less	21	8	71	10	24	20	8
Some college	21	10	72	14	38	23	9
Bachelors/grad degree	13	15	79	19	51	30	10
Chi-square (sig.)	$\chi^2 = 19.14*(.000)$	$\chi^2 = 16.02 * (.000)$	$\chi^2 = 13.60^* (.001)$	$\chi^2 = 16.41^* (.000)$	$\chi^2 = 82.17*(.000)$	$\chi^2 = 16.68* (.000)$	$\chi^2 = 0.59 (.744)$
Occupation	(n = 1340)	(n = 1342)	(n = 1343)	(n = 1341)	(n = 1344)	(n = 1343)	(n = 1340)
Mgt, prof or education	14	14	76	15	53	32	8
Sales or office support	23	7	70	7	42	27	3
Constrn, inst or maint	29	6	67	13	29	13	9
Prodn/trans/warehsing	17	9	78	12	42	33	5
Agriculture	10	11	79	25	38	18	20
Food serv/pers. care	24	1	74	2	30	23	4
Hlthcare supp/safety	28	12	65	12	48	42	5
Other	19	7	77	16	30	26	7
Chi-square (sig.)	$\chi^2 = 38.57 * (.000)$	$\chi^2 = 19.75^* (.006)$	$\chi^2 = 15.64 * (.029)$	$\chi^2 = 37.32^* (.000)$	$\chi^2 = 40.49^* (.000)$	$\chi^2 = 45.69 * (.000)$	$\chi^2 = 45.93 * (.000)$

Over the past year, have you listened to or read information relating to climate change from any of the following sources?

Significance
$x^2 - 21.70*$
$\chi = 21.70^{\circ}$
(.000)
$v^2 - 10.25$
$\chi = 10.55$
(.242)
2 14 20*
$\chi = 14.29^{*}$
(.027)
2 41 01*
$\chi = 41.21^*$
(.000)
2 42 20*
$\chi = 43.28^{*}$
(.000)
2 40.04*
$\chi = 40.84^{*}$
(.000)
$x^2 - 78.20*$
$\chi = 70.39^{\circ}$

Appendix Table 6. Level of Trust in Sources of Information about Climate Change by Community Size, Region and Individual Attributes

Appendix	Table 6	5 continued.
----------	---------	--------------

	Television weather reporters				Stat			
	Distrust	Neither	Trust	Significance	Distrust	Neither	Trust	Significance
				Percente	iges			
<u>Total</u>	23	30	47		23	34	42	
Community Size		(n = 1848)			(n	= 1835)		
Less than 500	23	31	46		26	38	36	
500 - 999	27	33	41		22	33	45	
1,000 - 4,999	23	28	48		25	34	41	
5,000 - 9,999	24	31	46	$\chi^2 = 8.53$	24	35	42	$\chi^2 = 9.36$
10,000 and up	20	31	50	(.383)	21	33	46	(.313)
Region		(n = 1885)			(n	= 1870)		
Panhandle	22	33	45		19	39	42	
North Central	25	29	46		27	32	41	
South Central	21	29	50		22	33	44	
Northeast	22	33	45	$\chi^2 = 9.15$	27	34	39	$\chi^2 = 11.81$
Southeast	25	26	49	(.330)	20	36	44	(.160)
Individual Attributes:								
Income Level		(n = 1735)			(n	= 1724)		
Under \$20,000	23	32	45		27	37	37	
\$20,000 - \$39,999	17	33	50		21	40	38	
\$40,000 - \$59,999	20	29	51	$\chi^2 = 12.94*$	22	36	42	$\chi^2 = 18.28*$
\$60,000 and over	25	30	45	(.044)	23	29	47	(.006)
Age		(n = 1892)			(n	= 1878)		
19 - 29	23	30	47		19	34	47	
30 - 39	20	28	52		20	31	50	
40 - 49	26	36	38		19	38	43	
50 - 64	26	29	45	$\chi^2 = 24.89^*$	31	32	37	$\chi^2 = 35.08*$
65 and older	18	28	54	(.002)	23	37	40	(.000)
Gender		(n = 1856)			(n	= 1841)		
Male	27	31	42	$\chi^2 = 20.96^*$	27	31	42	$\chi^2 = 11.50^*$
Female	19	30	51	(.000)	21	37	42	(.003)
Education		(n = 1856)			(n	= 1843)		
H.S. diploma or less	17	34	49		20	42	38	
Some college	26	28	47	$\chi^2 = 13.42^*$	25	32	43	$\chi^2 = 15.76^*$
Bachelors/grad degree	23	31	46	(.009)	24	32	45	(.003)
Occupation		(n = 1369)			(n	= 1364)		
Mgt, prof or education	23	30	47		22	30	48	
Sales or office support	25	32	43		20	41	38	
Constrn, inst or maint	27	29	44		28	27	45	
Prodn/trans/warehsing	26	34	41		27	35	38	
Agriculture	28	35	36		28	29	43	
Food serv/pers. care	24	40	36	2	23	48	29	2
Hlthcare supp/safety	14	28	58	$\chi^2 = 29.22*$	23	31	46	$\chi^2 = 29.54*$
Other	30	23	47	(.010)	30	42	28	(.009)

	Federal			Environmental				
	agencies			organizations				
	Distrust	Neither	Trust	Significance	Distrust	Neither	Trust	Significance
				Percent	ages			
<u>Total</u>	36	31	33		36	26	39	
Community Size		(n = 1842)			(n	= 1839)		
Less than 500	36	35	29		40	30	30	
500 - 999	34	33	33		38	26	36	
1,000 - 4,999	38	30	32		41	26	33	
5,000 - 9,999	38	31	31	$\chi^2 = 11.05$	37	26	37	$\chi^2 = 45.89^*$
10,000 and up	35	28	37	(.199)	29	22	49	(.000)
Region		(n = 1879)			(n	= 1877)		
Panhandle	31	33	36		35	25	40	
North Central	40	29	31		44	20	36	
South Central	35	32	33		33	28	39	
Northeast	40	28	32	$\chi^2 = 12.02$	36	25	38	$\chi^2 = 14.29$
Southeast	31	33	36	(.150)	31	28	41	(.075)
Individual Attributes:				. ,				
Income Level		(n = 1732)			(n	= 1730)		
Under \$20,000	36	33	31		30	31	38	
\$20,000 - \$39,999	34	35	31		28	29	44	
\$40,000 - \$59,999	37	29	34	$\chi^2 = 6.57$	31	27	42	$\chi^2 = 27.92^*$
\$60,000 and over	36	28	36	(.362)	41	22	38	(.000)
Age		(n = 1885)			(n	= 1882)		
19 - 29	27	34	39		27	26	47	
30 - 39	31	28	41		32	22	47	
40 - 49	32	35	33		33	27	40	
50 - 64	43	29	28	$\chi^2 = 36.55^*$	41	27	32	$\chi^2 = 34.19^*$
65 and older	39	30	31	(.000)	39	26	35	(.000)
Gender		(n = 1849)			(n	= 1845)		
Male	43	27	30	$\chi^2 = 27.24*$	47	21	32	$\chi^2 = 76.58*$
Female	31	34	35	(.000)	27	29	43	(.000)
Education		(n = 1849)			(n	= 1848)		
H.S. diploma or less	32	40	29		28	36	37	
Some college	40	28	32	$\chi^2 = 27.26^*$	38	24	38	$\chi^2 = 33.05*$
Bachelors/grad degree	34	28	38	(.000)	38	21	41	(.000)
Occupation		(n = 1369)			(n	= 1367)		
Mgt, prof or education	32	28	41		36	22	42	
Sales or office support	30	40	30		21	30	49	
Constrn, inst or maint	46	25	29		37	30	33	
Prodn/trans/warehsing	36	37	28		38	23	39	
Agriculture	47	25	29		59	17	23	
Food serv/pers. care	27	45	27	2	19	35	46	2 -
HIthcare supp/safety	33	30	37	$\chi^2 = 48.33^*$	28	31	42	$\chi^2 = 83.44*$
Other	50	21	30	(.000)	42	24	- 33	(.000)

	The mainstream news media				Radio talk show hosts			
	Distrust	Neither	Trust	Significance	Distrust	Neither	Trust	Significance
				Percent	ages			
<u>Total</u>	48	29	23		49	35	16	
Community Sizo		(n - 1052)			(- 1952)		
<u>Community Size</u>	51	(II = 1852)	21		(I.	1 = 1652	14	
Less than 500	31 44	28 28	21 19		50 45	30 42	14	
1 000 - 999	44 50	30 20	10		43 52	42 25	15	
1,000 - 4,999 5 000 - 0 000	50	30	21	·· ² 1675*	33 40	33 20	15	x^2 22.10*
5,000 - 9,999	50	20	24	$\chi = 10.75^{*}$	49	30 22	21	$\chi = 22.10^{*}$
10,000 and up	47	$\frac{27}{(22, 1990)}$	26	(.033)	49	32 1999)	19	(.005)
<u>Kegion</u>	50	(n = 1889)	21		(I 50	1 = 1888	15	
Pannandle Newth Control	52 52	28	21		52 52	33 25	15	
North Central	55 49	24	24		52 45	35 20	15	
South Central	48	29	24	2 0 55	45 50	39	10	2 11 74
Northeast	46	33	22	$\chi^{-} = 9.65$	50	33	1/	$\chi^{-} = 11.74$
Southeast	45	31	24	(.290)	48	32	20	(.163)
Individual Attributes:		(1500)			,	1.500		
Income Level	10	(n = 1738)	•		(n	i = 1739	•	
Under \$20,000	40	32	28		44	36	20	
\$20,000 - \$39,999	41	30	29	2	41	40	20	2
\$40,000 - \$59,999	48	32	20	$\chi^2 = 27.45^*$	47	36	18	$\chi^2 = 23.78^*$
\$60,000 and over	53	27	20	(.000)	55	32	14	(.001)
Age		(n = 1894)			(n	i = 1896)		
19 - 29	57	26	17		50	34	16	
30 - 39	47	29	24		45	38	17	
40 - 49	47	33	21	2	47	36	17	2
50 - 64	50	28	22	$\chi^2 = 25.00*$	53	32	15	$\chi^2 = 5.99$
65 and older	41	31	29	(.002)	47	37	16	(.649)
Gender		(n = 1859)			(n	n = 1860)		
Male	56	26	18	$\chi^2 = 30.38*$	53	31	16	$\chi^2 = 9.80*$
Female	43	32	25	(.000)	47	38	16	(.007)
Education		(n = 1860)			(n	n = 1859)		
H.S. diploma or less	34	35	32		37	42	21	
Some college	50	30	20	$\chi^2 = 58.33^*$	49	37	15	$\chi^2 = 50.50*$
Bachelors/grad degree	55	25	20	(.000)	58	28	14	(.000)
Occupation		(n = 1372)			(n	n = 1375)		
Mgt, prof or education	55	24	21		60	27	13	
Sales or office support	38	39	23		41	43	15	
Constrn, inst or maint	56	24	20		54	28	18	
Prodn/trans/warehsing	51	30	20		44	40	16	
Agriculture	71	18	12		62	31	8	
Food serv/pers. care	37	38	25	2	43	43	14	2
Hlthcare supp/safety	36	41	23	$\chi^2 = 75.09*$	33	45	22	$\chi^2 = 71.81^*$
Other	62	22	16	(.000)	64	21	16	(.000)

Other622216(.000)* Chi-square values are statistically significant at the .05 level.

	On	line blogs a	nd		Social media (e.g., Twitter, Facebook)			
	Distrust	Neither	Trust	Significance	Distrust	Neither	Trust	Significance
				Percen	tages			~.89
<u>Total</u>	54	37	9		58	35	7	
Community Size		(n = 1821)			(1	n = 1828)		
Less than 500	51	38	11		58	34	8	
500 - 999	53	42	6		54	40	6	
1,000 - 4,999	59	36	5		61	34	4	
5,000 - 9,999	53	37	10	$\chi^2 = 24.98*$	59	34	7	$\chi^2 = 14.13$
10,000 and up	53	36	12	(.002)	59	32	9	(.078)
Region		(n = 1855)			(1	n = 1865)		
Panhandle	51	37	11		55	35	10	
North Central	60	32	8		62	29	9	
South Central	51	41	8		58	35	7	
Northeast	55	36	9	$\chi^2 = 9.88$	58	36	6	$\chi^2 = 8.85$
Southeast	53	37	10	(.274)	57	37	6	(.355)
Individual Attributes:				~ /				
Income Level		(n = 1709)			(1	n = 1719)		
Under \$20,000	46	43	11		49	43	8	
\$20,000 - \$39,999	40	49	11		47	41	11	
\$40,000 - \$59,999	50	40	10	$\chi^2 = 53.32^*$	54	38	8	$\chi^2 = 51.94*$
\$60,000 and over	62	31	7	(.000)	67	28	5	(.000)
Age		(n = 1864)			(1	n = 1869)		
19 - 29	57	32	11		67	27	6	
30 - 39	50	38	12		59	31	10	
40 - 49	50	40	10		54	37	9	
50 - 64	57	35	8	$\chi^2 = 22.94*$	60	32	8	$\chi^2 = 33.55^*$
65 and older	52	43	5	(.003)	51	44	5	(.000)
Gender		(n = 1829)			(1	n = 1835)		
Male	56	35	9	$\chi^2 = 2.83$	61	31	8	$\chi^2 = 6.94*$
Female	52	39	9	(.243)	56	37	7	(.031)
Education		(n = 1825)			(1	n = 1836)		
H.S. diploma or less	40	48	12		41	45	14	
Some college	57	36	7	$\chi^2 = 44.58*$	61	33	6	$\chi^2 = 81.72^*$
Bachelors/grad degree	59	33	9	(.000)	66	29	5	(.000)
Occupation		(n = 1365)			(1	n = 1367)		
Mgt, prof or education	60	29	12		66	26	8	
Sales or office support	49	43	8		52	42	6	
Constrn, inst or maint	56	35	9		61	32	7	
Prodn/trans/warehsing	48	42	10		57	36	7	
Agriculture	66	29	4		68	27	5	
Food serv/pers. care	47	48	5		51	45	5	
Hlthcare supp/safety	47	42	11	$\chi^2 = 40.60*$	53	39	8	$\chi^2 = 32.35^*$
Other	65	28	7	(000.)	67	26	7	(.004)

	Doctors and other public						
	he	ealth experi	ts				
	Distrust	Neither	Trust	Significance			
		Perce	entages				
<u>Total</u>	14	31	55				
Community Size		(n = 1853)					
Less than 500	17	32	51				
500 - 999	15	36	49				
1,000 - 4,999	16	32	53				
5,000 - 9,999	14	34	52	$\chi^2 = 22.27*$			
10,000 and up	10	28	62	(.004)			
Region		(n = 1892)		× ,			
Panhandle	16	31	53				
North Central	18	25	58				
South Central	12	30	57				
Northeast	14	37	49	$v^2 - 19.17*$			
Southoast	12	20	59	$\chi = 17.17$			
Individual Attributos	15	29	58	(.014)			
Income Level		(n - 1743)					
Income Level Under \$20,000	17	(11 - 1743)	40				
¢20,000 \$20,000	17	54 22	49 55				
\$20,000 - \$39,999	15	32 21	55 55	2 6 50			
\$40,000 - \$59,999	14	31	33	$\chi^{-} = 6.59$			
\$60,000 and over	12	30	58	(.361)			
Age	_	(n = 189')					
19 - 29	7	33	60				
30 - 39	11	31	59				
40 - 49	13	36	51	2			
50 - 64	20	31	50	$\chi^2 = 35.33^*$			
65 and older	15	28	57	(.000)			
Gender		(n = 1861)					
Male	19	32	49	$\chi^2 = 30.02*$			
Female	11	31	59	(.000)			
Education		(n = 1862)					
H.S. diploma or less	15	37	47				
Some college	14	29	57	$\chi^2 = 13.62*$			
Bachelors/grad degree	13	30	57	(.009)			
Occupation		(n = 1374)					
Mgt, prof or education	10	31	58				
Sales or office support	13	41	47				
Constrn, inst or maint	14	36	50				
Prodn/trans/warehsing	21	38	42				
Agriculture	25	29	46				
Food serv/pers. care	17	39	44				
Hlthcare supp/safety	6	25	70	$\chi^2 = 65.53^*$			
Other	14	28	58	(.000)			

	There are sufficient oil and natural gas supplies to meet U.S. needs for the foreseeable future			More should be done to develop ethanol or biodiesel energy in Nebraska				
	Disagree	Neither	Agree	Significance	Disagree	Neither	Agree	Significance
	0		0	Percen	tages		0	0 7
<u>Total</u>	24	26	50		13	29	58	
Community Size		(n = 1839)			(r	n = 1840)		
Less than 500	22	30	47		15	26	60	
500 - 999	18	29	53		11	27	62	
1,000 - 4,999	24	26	50		13	28	59	
5,000 - 9,999	22	26	52	$\chi^2 = 16.07*$	17	32	52	$\chi^2 = 9.04$
10,000 and up	29	22	49	(.041)	12	31	57	(.339)
Region		(n = 1870)			(r	n = 1870)		
Panhandle	25	25	51		11	34	55	
North Central	19	29	53		18	29	52	
South Central	25	25	50		12	26	62	
Northeast	23	27	50	$\gamma^2 = 10.73$	13	30	58	$\gamma^2 = 14.15$
Southeast	30	25	46	(.217)	12	27	61	(.078)
Individual Attributes:	20			()		_,	01	(1070)
Income Level		(n = 1727)			(r	n = 1725		
Under \$20.000	20	38	42		13	27	60	
\$20,000 - \$39,999	23	29	48		11	29	60	
\$40,000 - \$59,999	27	27	46	$\gamma^2 = 31.28^*$	13	28	59	$\gamma^2 = 2.25$
\$60,000 and over	25	21	54	(000)	14	29	57	(896)
400,000 und 0101		(n = 1875)	0.	()	(r	n = 1877	01	(10) 0)
19 - 29	23	39	38		8	29	63	
30 - 39	30	30	40		8	38	55	
40 - 49	28	24	48		14	25	60	
50 - 64	20 24	23	53	$\gamma^2 = 77.42^*$	18	28	54	$\gamma^2 = 39.34*$
65 and older	19	18	63	$\chi = 77.42$	10	25	61	$\chi = 39.34$
Gender	17	(n - 1849)	05	(.000)	(r	n = 1848	01	(.000)
Male	18	(II = 10+)) 10	62	$x^2 - 84.23*$	17	1 = 1040	58	$x^2 - 27.79*$
Female	29	31	41	$\chi = 04.23$	10	32	58	$\chi = 27.75$
Education	2)	(n = 1849)		(.000)	10 (r	n = 1849	50	(.000)
HS diploma or less	16	32	53		13	29	58	
Some college	26	32 27	48 	$v^2 - 32.81*$	12	30	58	$v^2 - 1.88$
Bachelors/grad degree	20	21	-10 51	$\chi = 32.01$	12	27	50 59	$\chi = 1.00$
Occupation	20	(n - 1361)	51	(.000)	1 (r	1364	57	(.757)
Mot prof or education	31	20	50		15	30	56	
Sales or office support	27	20 35	38		10	30	50 61	
Construction instorement	18	35 26	50 57		10	21	60	
Prodn/trans/warehsing	10	∠0 25	51		17	∠1 21	16	
A oriculture	15 1/	55 77	60		23 11	21	+0 67	
Food serv/pers_care	24 24	27 45	32		11	22 24	66	
Hithcare supp/safety	35	25	40	$\gamma^2 = 73.79^*$	8	32	60	$\gamma^2 = 42.29^*$
Other	25	25	50	(.000)	9	51	40	(.000)

Appendix Table 7. Opinions a	bout Energy Sources by	y Community Size, Region and	Individual Attributes

	More should be done to develop							
	solar or wind energy in Nebraska.			Renewable energy sources are too expensive for Nebraska.				
	Disagree	Neither	Agree	Significance -	Disagree	Neither	Agree	Significance
				Percer	ntages			
<u>Total</u>	8	12	80		46	32	22	
Community Size		(n = 1839)			(n	i = 1831)		
Less than 500	8	13	79		42	35	22	
500 - 999	13	11	76		43	31	26	
1,000 - 4,999	7	14	79		48	30	21	
5.000 - 9.999	9	12	80	$\gamma^2 = 11.71$	47	34	19	$\gamma^2 = 7.30$
10.000 and up	7	10	83	(.165)	47	33	21	(.504)
Region		(n = 1870)			(n	= 1861)		
Panhandle	6	10	85		48	34	18	
North Central	13	12	75		42	33	25	
South Central	7	14	78		47	30	23	
Northeast	9	9	82	$\gamma^2 - 18.92*$	43	32	25	$\gamma^2 = 11.29$
Southeast	7	13	81	$\chi = 10.92$	19	32	17	(186)
Individual Attributor	. /	15	01	(.015)	40	55	17	(.100)
Income Level		(n - 1722)			(n	-1710		
Under \$20.000	1	$(\Pi - 1722)$ 1/	87		34	38	28	
\$20,000 \$20,000	5	14	82 85		J4 46	20	20	
\$20,000 - \$39,999	9	10	79	$x^2 - 20.50*$	40	30	21	$x^2 - 18.71*$
\$40,000 - \$J9,999 \$60,000 and over	0	14	70	$\chi = 20.39^{\circ}$	44 50	30	23 10	$\chi = 18.71^{\circ}$
	11	(n - 1873)	19	(.002)		-1868	19	(.003)
Age 10 20	Q	(11 - 10/3)	85		46	1 - 1000)	19	
19 - 29	0	0	03 70		40	21	10	
50 - 39 40 - 40	10	15	70		40	22	21	
40 - 49 50 - 64	0	14	80 70	$v^2 - 0.66$	47	32 22	21	$v^2 - 11.20$
50 - 04 65 and alder	9	12	79	$\chi = 9.00$	43	52 21	23	$\chi = 11.50$
Os allu oluer	9	12 (n - 1945)	19	(.290)	43	31 -1929	21	(.180)
Genaer	12	(n = 1843)	75	$v^2 - 41.00*$	(1)	1 = 1000	77	$x^2 - 26.74*$
Male Esmale	- 15 	12	13	$\chi = 41.00^{-5}$	43	28	27 19	$\chi = 20.74$
remaie Education	3	12	64	(.000)	47	30 1920)	18	(.000)
Laucation	6	(II = 1840)	00		24	1 = 1000	21	
H.S. diploma or less	0	13	82 70	.2 9.12	34 42	30 25	21	$x^2 = (1.16)^2$
Some college	8 10	13	/9	$\chi = 8.43$	43	35	22	$\chi = 61.16^{*}$
Bachelors/grad degree	10	10	80	(.077)	55	29	10	(.000)
Occupation	10	(n = 1359)	70		(n	i = 1360)	10	
Mgt, prof or education	10	12	/8		54	28	18	
Sales or office support		15	84		49	37	14	
Constrn, inst or maint		17	72		43	30	28	
Prodn/trans/warehsing	10	9	81		43	30	27	
Agriculture	15	12	/3		42	5/	21	
Flucture supplies fate		/ 0	91 07	$v^2 - 20.45*$	39	51 26	30	$x^2 - 22.07*$
Thurcare supp/safety	. D	ð 11	0/	$\chi = 39.43^{*}$	44	30 21	20 20	$\chi = 55.07^{*}$
Other	9	11	0U	(.000)	48	21	52	(.003)

• / 0		Coal				Wind		
		Same				Same		
	Less	Amount	More	Significance	Less	Amount	More	Significance
				Percent	ages			218.1.9
Total	34	52	15		8	18	75	
<u>Community Size</u>		(n = 1799)			((n = 1812)		
Less than 500	34	53	14		10	18	73	
500 - 999	31	53	17		10	21	69	
1,000 - 4,999	35	50	15		7	18	75	
5,000 - 9,999	30	55	15	$\chi^2 = 4.20$	8	17	76	$\chi^2 = 9.41$
10,000 and up	35	51	14	(.839)	6	16	78	(.309)
Region		(n = 1830)			((n = 1844)		
Panhandle	34	49	18		5	19	76	
North Central	29	53	18		13	19	68	
South Central	32	54	15		6	18	76	
Northeast	34	54	12	$\chi^2 = 18.77^*$	10	18	72	$\chi^2 = 23.22^*$
Southeast	42	43	15	(.016)	6	14	80	(.003)
Individual Attributes:								
Income Level		(n = 1697)			((n = 1708)		
Under \$20,000	35	53	12		4	23	73	
\$20,000 - \$39,999	34	50	17		6	16	79	
\$40,000 - \$59,999	39	48	12	$\chi^2 = 9.14$	8	20	72	$\chi^2 = 20.56^*$
\$60,000 and over	32	53	15	(.166)	10	15	75	(.002)
Age		(n = 1836)		~ /	((n = 1847)		
19 - 29	28	61	11		8	27	66	
30 - 39	36	51	14		11	9	80	
40 - 49	37	51	12		5	17	78	
50 - 64	34	50	17	$\gamma^2 = 20.14^*$	8	17	76	$\gamma^2 = 38.16^*$
65 and older	33	48	18	(.010)	8	18	74	(.000)
Gender		(n = 1808)			(n = 1824)		
Male	33	50	17	$\gamma^2 = 7.63^*$	11	17	72	$\gamma^2 = 20.29^*$
Female	35	53	13	(.022)	5	17	77	(.000)
Education		(n = 1809)		~ /	(n = 1822)		
H.S. diploma or less	26	55	19		6	21	73	
Some college	34	52	14	$\gamma^2 = 19.47*$	8	18	75	$\gamma^2 = 9.36$
Bachelors/grad degree	38	48	14	(.001)	9	15	76	(.053)
Occupation		(n = 1348)			(n = 1349		
Mgt, prof or education	40	47	12		9	16	75	
Sales or office support	25	58	17		1	19	81	
Constrn, inst or maint	32	54	14		9	19	71	
Prodn/trans/warehsing	33	45	21		9	10	80	
Agriculture	25	56	19		14	19	68	
Food serv/pers. care	36	53	11		4	21	75	
Hlthcare supp/safety	36	57	7	$\chi^2 = 34.85^*$	6	13	81	$\chi^2 = 32.61*$
Other	31	55	14	(.002)	12	14	74	(.003)

Appendix Table 8. Suggested Levels of Investment in Sources of Electrical Energy Over Next Several Years by Community Size, Region and Individual Attributes

	Solar			Hydroelectric				
		Same				Same		
	Less	Amount	More	Significance	Less	Amount	More	Significance
	_			Percente	iges			
<u>Total</u>	7	19	74		7	43	50	
<u>Community Size</u>		(n = 1804)			(n = 1793)		
Less than 500	8	18	74		6	42	52	
500 - 999	8	23	69		9	46	45	
1,000 - 4,999	7	18	75		5	50	45	
5,000 - 9,999	8	16	76	$\chi^2 = 10.06$	9	33	58	$\chi^2 = 24.71^*$
10,000 and up	5	20	75	(.261)	7	39	54	(.002)
Region		(n = 1833)			(n = 1823)		
Panhandle	5	21	73		9	44	47	
North Central	11	19	70		9	42	50	
South Central	5	19	76		8	42	50	
Northeast	9	20	71	$\chi^2 = 17.71^*$	5	42	53	$\chi^2 = 7.37$
Southeast	5	17	79	(.023)	6	45	48	(.497)
Individual Attributes:								
Income Level		(n = 1701)			(n = 1695)		
Under \$20,000	5	23	72		8	44	48	
\$20,000 - \$39,999	6	18	76		6	43	51	
\$40,000 - \$59,999	6	19	75	$\chi^2 = 7.87$	6	43	51	$\chi^2 = 3.58$
\$60,000 and over	8	18	74	(.248)	8	40	52	(.733)
Age		(n = 1840)			(n = 1831)		
19 - 29	5	28	67		6	47	47	
30 - 39	6	13	82		7	39	55	
40 - 49	5	17	79		7	40	52	
50 - 64	8	18	73	$\chi^2 = 34.26*$	8	41	51	$\chi^2 = 8.67$
65 and older	9	20	71	(.000)	7	46	47	(.371)
Gender		(n = 1812)			(n = 1800)		
Male	12	19	69	$\chi^2 = 62.92^*$	8	41	50	$\chi^2 = 4.12$
Female	3	19	78	(.000)	6	44	50	(.128)
Education		(n = 1815)			(n = 1802)		
H.S. diploma or less	6	22	72		6	47	48	
Some college	7	21	72	$\chi^2 = 9.70*$	8	42	51	$\chi^2 = 4.11$
Bachelors/grad degree	8	16	77	(.046)	7	42	51	(.392)
Occupation		(n = 1344)			(n = 1340)		
Mgt, prof or education	8	17	75		9	40	51	
Sales or office support	2	23	76		8	38	54	
Constrn, inst or maint	9	23	68		1	48	51	
Prodn/trans/warehsing	7	16	78		9	31	60	
Agriculture	13	17	70		6	51	44	
Food serv/pers. care	4	24	73	2	11	40	49	2
Hlthcare supp/safety	1	16	83	$\chi^2 = 38.31*$	4	45	51	$\chi^2 = 27.20^*$
Other	10	17	74	(.000)	7	37	56	(.018)

		Nuclear		
		Same		
	Less	Amount	More	Significance
		Per	centages	
<u>Total</u>	35	42	23	
Community Size		(n - 1702)		
Less than 500	30	(II = 1792) 30	23	
500 - 999	33	3) 44	23	
1 000 / 000	33	46	23	
5,000 - 4,999	32 44	40	23	$x^2 - 13.00$
3,000 - 9,999	44 22	34 42	22	$\chi = 13.99$
10,000 and up	55	42 (n - 1925)	23	(.082)
<u>Region</u> Douboudio	27	(II = 1823)	10	
Pannandle Nexth Centural	3/	45	18	
North Central	40	5/	23	
South Central	35	43	23	2
Northeast	31	43	27	$\chi^2 = 13.59$
Southeast	39	39	22	(.093)
Individual Attributes:				
Income Level		(n = 1692)		
Under \$20,000	40	45	15	
\$20,000 - \$39,999	44	37	19	
\$40,000 - \$59,999	33	43	25	$\chi^2 = 21.89^*$
\$60,000 and over	33	42	25	(.001)
Age		(n = 1830)		
19 - 29	41	48	11	
30 - 39	30	44	25	
40 - 49	39	39	22	
50 - 64	37	38	25	$\chi^2 = 42.24*$
65 and older	29	41	29	(.000)
Gender		(n = 1802)	-	<pre></pre>
Male	32	33	35	$\gamma^2 = 108.69^*$
Female	38	48	14	(.000)
Education		(n = 1804)		()
H.S. diploma or less	37	43	20	
Some college	37	41	22	$\gamma^2 = 10.94*$
Bachelors/grad degree	32	41	 27	(.027)
Occupation	52	(n = 1340)	- /	(/)
Mgt. prof or education	35	38	27	
Sales or office support	38	47	15	
Constrn inst or maint	30	-⊤, ⊿1	28	
Prodn/trans/wareheing	52	+1 27	20 22	
A griculture	21 26	21 13	22 31	
Food serv/ners_care	20 ⊿6	45 46	8	
Hithcare sunn/safety	-+0 -20	+0 ⊿7	0 1/	$x^2 - 57.36*$
Other	45	29	26	$\chi = 37.30^{\circ}$
Hlthcare supp/safety Other	39 45	47 29	14 26	$\chi^2 = 57.36^*$ (.000)

Appendix Table 9. Energy Conservation Measures Taken by Community Size, Region and Individual Attributes

	For your <u>current</u> home or transportation, have you done any of the following?								
	Purchased more energy-efficient appliances	Purchased fluorescent or LED light bulbs	Installed motion sensor light switches or programmable thermostat	Sealed air leaks around windows and/ or doors	Purchased a more energy-efficient air conditioner, water heater or furnace	Upgraded insulation, windows or doors in the home	Purchased a more fuel-efficient vehicle		
	Percent circling "yes" for each item								
<u>Total</u>	71	83	44	71	55	56	44		
Community Size	(n = 1838)	(n = 1843)	(n = 1839)	(n = 1842)	(n = 1839)	(n = 1838)	(n = 1838)		
Less than 500	71	80	38	78	58	58	43		
500 - 999	72	80	45	72	55	57	46		
1,000 - 4,999	69	83	43	71	51	58	42		
5,000 - 9,999	73	86	51	75	61	59	51		
10,000 and up	73	86	46	65	54	51	43		
Chi-square (sig.)	$\chi^2 = 2.33 \ (.675)$	$\chi^2 = 10.03^* (.040)$	$\chi^2 = 10.12^* (.038)$	$\chi^2 = 20.74 * (.000)$	$\chi^2 = 6.98 \; (.137)$	$\chi^2 = 7.48 \; (.113)$	$\chi^2 = 5.10 \; (.277)$		
Region	(n = 1871)	(n = 1877)	(n = 1870)	(n = 1871)	(n = 1869)	(n = 1869)	(n = 1870)		
Panhandle	72	84	52	71	54	61	43		
North Central	74	84	35	72	56	59	50		
South Central	71	83	43	71	58	54	41		
Northeast	68	82	46	68	52	53	42		
Southeast	72	85	46	73	53	55	49		
Chi-square (sig.)	$\chi^2 = 3.55 \; (.471)$	$\chi^2 = 1.43 \; (.839)$	$\chi^2 = 17.25^* (.002)$	$\chi^2 = 2.72 \; (.606)$	$\chi^2 = 3.89 (.421)$	$\chi^2 = 6.05 \; (.195)$	$\chi^2 = 10.9*(.028)$		
Individual Attributes:									
Income Level	(n = 1723)	(n = 1729)	(n = 1726)	(n = 1725)	(n = 1725)	(n = 1725)	(n = 1722)		
Under \$20,000	58	80	27	64	48	41	35		
\$20,000 - \$39,999	63	76	39	70	52	54	44		
\$40,000 - \$59,999	67	81	43	72	53	59	42		
\$60,000 and over	79	88	51	73	59	58	48		
Chi-square (sig.)	$\chi^2 = 53.83^* (.000)$	$\chi^2 = 31.86^* (.000)$	$\chi^2 = 40.98* (.000)$	$\chi^2 = 5.90 \; (.116)$	$\chi^2 = 10.97*$ (.012)	$\chi^2 = 20.02*(.000)$	$\chi^2 = 12.2*(.007)$		
Gender	(n = 1846)	(n = 1853)	(n = 1848)	(n = 1847)	(n = 1848)	(n = 1847)	(n = 1847)		
Male	71	80	42	73	55	58	45		
Female	71	85	46	68	55	54	43		

	Purchased more energy-efficient appliances	Purchased fluorescent or LED light bulbs	Installed motion sensor light switches or programmable thermostat	Sealed air leaks around windows and/ or doors	Purchased a more energy-efficient air conditioner, water heater or furnace	Upgraded insulation, windows or doors in the home	Purchased a more fuel-efficient vehicle
Chi-square (sig.)	$\chi^2 = 0.01 \ (.494)$	$\chi^2 = 7.83^* (.003)$	$\chi^2 = 2.57 \ (.060)$	$\chi^2 = 5.52^* \ (.011)$	$\chi^2 = 0.06 \; (.420)$	$\chi^2 = 2.35 \ (.069)$	$\chi^2 = 0.52 \; (.250)$
Age	(n = 1873)	(n = 1881)	(n = 1878)	(n = 1877)	(n = 1876)	(n = 1876)	(n = 1874)
19 - 29	60	81	42	59	40	46	38
30 - 39	68	85	44	71	53	51	45
40 - 49	80	89	50	73	57	57	43
50 - 64	75	84	45	75	60	62	48
65 and older	70	79	39	72	59	56	43
Chi-square (sig.)	$\chi^2 = 34.65 * (.000)$	$\chi^2 = 16.28* (.003)$	$\chi^2 = 8.64 \ (.071)$	$\chi^2 = 25.76^* (.000)$	$\chi^2 = 36.49 * (.000)$	$\chi^2 = 21.94* (.000)$	$\chi^2 = 7.19 \; (.126)$
Education	(n = 1847)	(n = 1854)	(n = 1848)	(n = 1850)	(n = 1848)	(n = 1847)	(n = 1846)
H.S. diploma or less	65	79	35	76	53	58	44
Some college	76	85	49	71	57	57	43
Bachelors/grad degree	71	85	45	66	53	53	44
Chi-square (sig.)	$\chi^2 = 15.36^* (.000)$	$\chi^2 = 8.48*(.014)$	$\chi^2 = 21.26^* (.000)$	$\chi^2 = 11.98*(.002)$	$\chi^2 = 3.12 \ (.210)$	$\chi^2 = 2.91 \ (.234)$	$\chi^2 = 0.08 \; (.959)$
Occupation	(n = 1361)	(n = 1363)	(n = 1362)	(n = 1361)	(n = 1359)	(n = 1361)	(n = 1359)
Mgt. prof or education	77	87	54	69	58	57	45
Sales or office support	77	93	41	74	58	53	43
Constrn. inst or maint	72	84	45	74	54	62	57
Prodn/trans/warehsing	69	86	45	72	53	56	50
Agriculture	72	74	31	82	50	58	43
Food serv/pers. care	72	87	36	58	55	42	46
Hlthcare supp/safety	60	86	45	65	47	51	39
Other	67	88	40	67	58	61	36
Chi-square (sig.)	$\chi^2 = 22.86^* (.002)$	$\chi^2 = 30.43^* (.000)$	$\chi^2 = 33.95^* (.000)$	$\chi^2 = 22.22 * (.002)$	$\chi^2 = 8.99 \ (.253)$	$\chi^2 = 11.84 \ (.106)$	$\chi^2 = 11.86 (.105)$

For your <u>current</u> home or transportation, have you done any of the following?

Rural Poll Research Report 15-3, September 2015

It is the policy of the University of Nebraska-Lincoln not to discriminate on the basis of sex, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.