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Global Climate Change: Opinions and Perceptions of Rural Nebraskans

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CENTER FOR APPLIED RURAL INNOVATION

A Research Report*

Global Climate Change: Opinions and Perceptions of Rural Nebraskans

2008 Nebraska Rural Poll Results

Rebecca J. Vogt Randolph L. Cantrell Miguel A. Carranza Bruce B. Johnson David J. Peters





Center Research Report 08-2, August 2008.

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

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Executive Summary

It is predicted that the earth's climate will change because of the buildup of greenhouse gases. However, the exact effect of these gases on the climate is difficult to predict. Given these conditions, what do rural Nebraskans think about global climate change? Do they think global climate change will impact them? What are their opinions about the causes and effects of global climate change? This paper provides a detailed analysis of these questions.

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

- Most rural Nebraskans report that they understand the issue of global climate change either fairly or very well. Twenty-one percent say they understand the issue very well and one-half (50%) understand it fairly well. Three percent say they don't understand the issue at all and 22 percent answered "not very well." Four percent are unsure.
- Rural Nebraskans are most concerned about global climate change impacting the United States. Over one-half (60%) are concerned or very concerned about global climate change impacting the United States. Fifty-two percent are concerned or very concerned about climate change impacting Nebraska and one-half (50%) are concerned or very concerned about it impacting their family. Less than one-half of rural Nebraskans are concerned or very concerned about climate change impacting their community (48%) or other countries (49%).
- Most rural Nebraskans believe climate change is already happening. Over one-half (58%) of rural Nebraskans believe climate change is already happening. Seventeen percent are not sure about their views. Twelve percent think climate change will not happen in their lifetime but will affect future generations. One percent think climate change will happen in the next few years and seven percent say it will happen in their lifetime. Five percent say climate change will never happen.
- Most rural Nebraskans believe that our actions contribute to global climate change. Sixty-five percent of rural Nebraskans agree or strongly agree that "human activity, including industry and transportation, is a significant cause of climate change." Fourteen percent disagree or strongly disagree with the statement and 22 percent neither agree nor disagree. Similarly, just over one-half (51%) of rural Nebraskans agree or strongly agree that "global climate change is something people can control." Just under one-quarter (23%) disagree or strongly disagree with that statement and 26 percent neither agree nor disagree.

- Most rural Nebraskans believe that we need to make changes in our behaviors to reduce the impacts of global climate change. The majority (84%) of rural Nebraskans agree or strongly agree that "we will have to change our lifestyles to reduce energy consumption." Only six percent disagree or strongly disagree with that statement. And, 70 percent agree or strongly agree that "it is my responsibility to help reduce the impacts of global climate change." Only nine percent disagree or strongly disagree while 21 percent neither agree nor disagree.
- Most rural Nebraskans think change is required to solve global climate change. Just over one-half (53%) agree or strongly agree that "global climate change requires immediate action by the government." Twenty-one percent disagree or strongly disagree with the statement and just over one-quarter (27%) neither agree nor disagree. Most rural Nebraskans (65%) disagree or strongly disagree that "we will do nothing since global climate change is not a problem." Only 11 percent agree or strongly agree and just under one-quarter (24%) neither agree nor disagree with the statement. Forty-five percent of rural Nebraskans disagree or strongly disagree that "global climate change is a problem but the U.S. won't do anything about it." Twenty-one percent agree or strongly agree with the statement and approximately one-third (34%) neither agree nor disagree.
- Opinions are mixed regarding whether or not too much fuss is made about global climate change. One-half (50%) of rural Nebraskans disagree or strongly disagree with the statement "too much fuss is made about global climate change." Thirty percent agree or strongly agree with the statement and 21 percent neither agree nor disagree.
- Opinions are mixed on whether or not technologies can be developed to solve the problem of global climate change. Forty-two percent of rural Nebraskans agree or strongly agree that "firms and government researchers will develop new technologies to solve the problem." One-quarter (25%) disagree or strongly disagree and approximately one-third (34%) neither agree nor disagree with the statement.
- Opinions are mixed on whether or not current climate change is due to normal climate patterns. Over one-third (37%) of rural Nebraskans agree or strongly agree that "current climate change is due to normal climate patterns." However, 34 percent disagree or strongly disagree with the statement. Twenty-nine percent neither agree nor disagree.
- Persons with agriculture occupations are more likely than persons with different occupations to agree that too much fuss is made about global climate change. Forty-four percent of persons with occupations in agriculture agree with this statement, compared to 19 percent of persons with food service or personal care occupations or persons with healthcare support or public safety occupations.
- Persons with agriculture occupations are more likely than persons with different

occupations to agree that current climate change is due to normal climate patterns. Over one-half (52%) of persons with agriculture occupations agree with this statemen compared to 24 percent of persons with food service or personal care occupations.

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Introduction

It is predicted that the earth's climate will change because of the buildup of greenhouse gases. However, the exact effect of these gases on the climate is difficult to predict. Over the last century, precipitation has increased by up to 10% in many parts of Nebraska, except in the far western part of the state where precipitation has decreased by almost 20%.¹

Given these conditions, what do rural Nebraskans think about global climate change? Do they think global climate change will impact them? What are their opinions about the causes and effects of global climate change? This paper provides a detailed analysis of these questions.

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

Methodology and Respondent Profile

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

questionnaire included questions pertaining to well-being, community, energy, climate change, television viewing, personal finances and work. This paper reports only results from the climate change portion of the survey.

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

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

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

¹ Source: "Climate Change and Nebraska" produced by the United States Environmental Protection Agency, available at http://yosemite.epa.gov/oar/globalwarming.nsf/UniqueKeyLookup/SHSU5BVJD9/\$File/ne_impct.pdf

presented in this report. The margin of error for this study is plus or minus two percent.

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

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

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

over \$50,000.

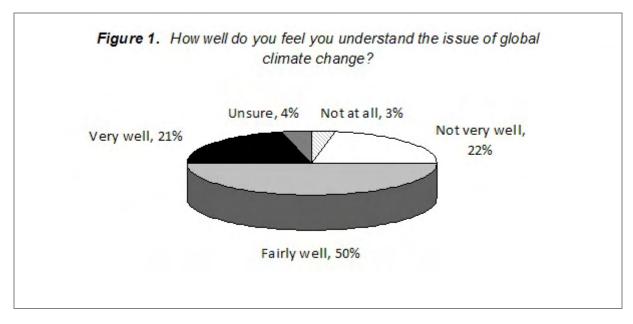
Seventy-five percent were employed in 2007 on a full-time, part-time, or seasonal basis. Eighteen percent are retired. Thirty-three percent of those employed reported working in a management, professional, or education occupation. Fifteen percent indicated they were employed in agriculture.

Level of Understanding of Global Climate Change

Most rural Nebraskans (71%) report that they understand the issue of global climate change either fairly or very well (Figure 1). Three percent say they don't understand the issue at all and 22 percent answered "not very well." Four percent are unsure.

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

Persons with at least some college education



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are more likely than persons with less education to say they understand the issue of global climate change very well.

Approximately 23 percent of persons with at least some college education understand global climate change very well, compared to 14 percent of persons with a high school diploma or less education.

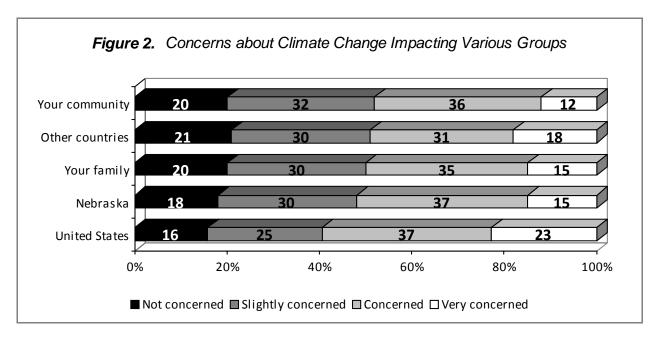
Other groups most likely to report understanding the issue of global climate change very well include: persons living in both the Panhandle and South Central regions (see Appendix Figure 1 for the counties included in each region), persons with higher household incomes, younger persons and males. When comparing responses by marital status, the widowed respondents are the group *least* likely to say they understand the issue very well. Of the occupation groups, persons with food service or personal care occupations and persons with sales or office support occupations are the groups *least* likely to say they understand the issue very well.

Concerns About Climate Change

Rural Nebraskans are most concerned about global climate change impacting the United States. Over one-half (60%) are concerned or very concerned about global climate change impacting the United States (Figure 2). Fifty-two percent are concerned or very concerned about climate change impacting Nebraska and one-half (50%) are concerned or very concerned about it impacting their family. Less than one-half of rural Nebraskans are concerned or very concerned about climate change impacting their community (48%) or other countries (49%).

Responses to this question are analyzed by community size, region and various individual attributes (Appendix Table 3). Some differences emerge.

Residents of the Panhandle are more likely than persons living in other parts of the state to be concerned about the possibility of global climate change impacting their family. Fifty-seven percent of Panhandle



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are concerned or very concerned about the possibility of climate change impacting their family, compared to approximately 48 percent of persons living in either the North Central or Northeast regions.

Younger persons are more likely than older persons to be concerned about the possibility of global climate change impacting their family. Fifty-six percent of persons under the age of 30 are concerned or very concerned about this, compared to 46 percent of persons over the age of 65.

Other groups most likely to be concerned about the possibility of global climate change impacting their family include persons with less education and persons with food service or personal care occupations.

Persons with lower household incomes, younger persons and persons with food service or personal care occupations are the groups most likely to be concerned about the possibility of global climate change impacting their community.

Panhandle residents are more likely than persons living in other regions of the state to be concerned about global climate change impacting Nebraska. Sixty percent of Panhandle residents are concerned or very concerned about global climate change impacting Nebraska, compared to 49 percent of persons living in both the North Central and Northeast regions of the state.

Persons with food service or personal care occupations are more likely than persons with different occupations to be concerned about global climate change impacting Nebraska. Younger persons are more likely than older persons to be *very concerned*

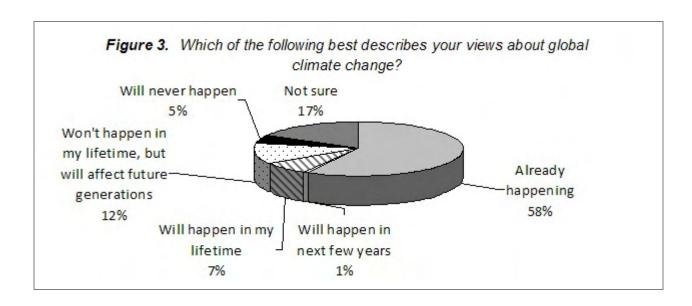
about the possibility of climate change impacting the state.

Panhandle residents, persons living in or near the largest communities, younger persons and persons with food service or personal care occupations are the groups most likely to be concerned about the possibility of global climate change impacting the United States. These same groups are those most likely to be concerned about global climate change impacting other countries, with the addition of persons with management, professional or education occupations and persons with occupations classified as other.

Views About Global Climate Change

Over one-half (58%) of rural Nebraskans believe climate change is already happening (Figure 3). Seventeen percent are not sure about their views. Twelve percent think climate change will not happen in their lifetime but will affect future generations. One percent think climate change will happen in the next few years and seven percent say it will happen in their lifetime. Five percent say climate change will never happen.

Some comments were received by respondents regarding this question that clarify their answers. It appears some think climate change is already happening, but that it is a natural process that has been occurring over time. Two specific comments received include, "Many of us believe climate change is happening, but is happening because of normal cyclical planet changes and not because of human activities" and "Climate change is already happening as it has since the beginning of time."



Responses to this question are analyzed by community size, region and various individual attributes (Appendix Table 4). Panhandle residents are more likely than persons living in other regions of the state to say that climate change is already happening. Sixty-seven percent of Panhandle residents believe climate change is already happening, compared to 53 percent of persons living in the North Central region.

Persons over the age of 65 are the age group most likely to believe that climate change will not happen in their lifetime, but will affect future generations. Eighteen percent of persons age 65 and older hold this belief, compared to only three percent of persons under the age of 30. Persons age 65 and older are the group *least* likely to believe that climate change is already happening. Forty-eight percent of persons age 65 and older believe climate change is already happening, compared to 64 percent of persons under the age of 30.

Females are more likely than males to believe that climate change is already happening (62

percent compared to 54 percent). When comparing responses by marital status, persons who are either divorced/separated or who have never married are the groups most likely to believe that climate change is already happening. Approximately two-thirds (67 percent) of these two groups believe climate change is already happening, compared to 49 percent of widowed respondents.

Persons with higher education levels are more likely than persons with less education to believe that climate change is already happening. Persons with lower education levels are the group most likely to be unsure of their beliefs.

Persons with agriculture occupations are the occupation group *least* likely to believe climate change is already happening. Fortyfour percent of persons in agriculture occupations believe climate change is already happening, compared to approximately two-thirds of persons with healthcare support or public safety occupations. Persons in agriculture occupations are the occupation

group most likely to be unsure of their beliefs and join persons with healthcare support or public safety occupations as the groups most likely to believe climate change will not happen in their lifetime but will affect future generations.

Respondents were also given a series of statements about global climate change and were asked the extent to which they agreed or disagreed with each. Table 1 shows the responses to these questions.

Most rural Nebraskans agree that gases released into the atmosphere unchecked will lead to global climate change.

Approximately two-thirds (67%) of rural Nebraskans agree or strongly agree with the statement "increased carbon dioxide and other gases released into the atmosphere will, if unchecked, lead to global climate change." Only 12 percent disagree or strongly disagree with the statement and 21 percent neither agree nor disagree.

Most rural Nebraskans believe that our actions contribute to global climate change. Sixty-five percent of rural Nebraskans agree or strongly agree that "human activity, including industry and transportation, is a significant cause of climate change." Fourteen percent disagree or strongly disagree with the statement and 22 percent neither agree nor disagree. Similarly, just over one-half (51%) of rural Nebraskans agree or strongly agree that "global climate change is something people can control." Just under one-quarter (23%) disagree or strongly disagree with that statement and 26 percent neither agree nor disagree.

Most rural Nebraskans believe that we need to make changes in our behaviors to reduce the impacts of global climate change. The majority (84%) of rural Nebraskans agree or strongly agree that "we will have to change our lifestyles to reduce energy consumption." Only six percent disagree or strongly disagree with that statement. And, 70 percent agree or strongly agree that "it is my responsibility to help reduce the impacts of global climate change." Only nine percent disagree or strongly disagree while 21 percent neither agree nor disagree.

Most rural Nebraskans believe we will learn to adapt to a changing climate. Seventy-three percent of rural Nebraskans agree or strongly agree that "we will learn to live with and adapt to a changing climate." Eleven percent disagree or strongly disagree with the statement and 17 percent neither agree nor disagree.

Most rural Nebraskans think change is required to solve global climate change. Just over one-half (53%) agree or strongly agree that "global climate change requires immediate action by the government." Twenty-one percent disagree or strongly disagree with the statement and just over one-quarter (27%) neither agree nor disagree. Most rural Nebraskans (65%) disagree or strongly disagree that "we will do nothing since global climate change is not a problem." Only 11 percent agree or strongly agree and just under one-quarter (24%) neither agree nor disagree with the statement. Forty-five percent of rural Nebraskans disagree or strongly disagree that "global climate change is a problem but the U.S. won't do anything about it." Twenty-one percent agree or strongly agree with the statement and approximately onethird (34%) neither agree nor disagree.

 Table 1. Opinions About Global Climate Change

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Increased carbon dioxide and other gases released into the atmosphere will, if unchecked, lead to global climate change.	5%	7%	21%	51%	16%
Firms and government researchers will develop new technologies to solve the problem.	5	20	34	39	3
We will have to change our lifestyles to reduce energy consumption.	2	4	10	58	26
We will learn to live with and adapt to a changing climate.	2	9	17	63	10
Global climate change is a problem but the U.S. won't do anything about it.	7	38	34	17	4
We will do nothing since global climate change is not a problem.	19	46	24	8	3
Human activity, including industry and transportation, is a significant cause of climate change.	5	9	22	50	15
Global climate change requires immediate action by the government.	7	14	27	38	15
It is my responsibility to help reduce the impacts of global climate change.	4	5	21	55	15
Global climate change is something people can control.	8	15	26	43	8
Too much fuss is made about global climate change.	16	34	21	20	10
Current climate change is due to normal climate patterns.	6	28	29	26	11
Agriculture is a major contributor of greenhouse gases.	15	31	38	14	3

Opinions are mixed regarding whether or not too much fuss is made about global climate change. One-half (50%) of rural Nebraskans disagree or strongly disagree with the statement "too much fuss is made about global climate change." Thirty percent agree or strongly agree with the statement and 21 percent neither agree nor disagree.

Opinions are mixed on whether or not technologies can be developed to solve the problem of global climate change. Forty-two percent of rural Nebraskans agree or strongly agree that "firms and government researchers will develop new technologies to solve the problem." One-quarter (25%) disagree or strongly disagree and approximately one-third (34%) neither agree nor disagree with the statement.

Opinions are mixed on whether or not current climate change is due to normal climate patterns. Over one-third (37%) of rural Nebraskans agree or strongly agree that "current climate change is due to normal climate patterns." However, 34 percent disagree or strongly disagree with the statement. Twenty-nine percent neither agree nor disagree.

Just under one-half (46%) of rural Nebraskans disagree or strongly disagree that agriculture is a major contributor of greenhouse gases. Seventeen percent agree or strongly agree with the statement and over one-third (38%) neither agree nor disagree with the statement.

Responses to these questions are analyzed by community size, region and various individual attributes (Appendix Table 5). Many differences are detected.

Persons with food service or personal care occupations and persons with healthcare support or public safety occupations are more likely than persons with different occupations to agree with the statement that increased carbon dioxide and other gases released into the atmosphere will, if unchecked, lead to global climate change. Just over three-quarters (approximately 76%) of persons with these types of occupations agree with this statement, compared to 52 percent of persons with agriculture occupations.

Other groups most likely to agree with this statement include: persons living in or near larger communities, persons under the age of 30 and females.

The youngest respondents and persons with sales or office support occupations and persons with construction, installation or maintenance occupations are the groups most likely to agree with the statement that firms and government researchers will develop new technologies to solve the problem.

Persons with occupations classified as other are the occupation group most likely to agree with the statement that we will have to change our lifestyles to reduce energy consumption. Ninety-two percent of persons with occupations classified as other agree with this statement, compared to 71 percent of persons with occupations in agriculture. Other groups most likely to agree with this statement include persons living in or near larger communities and females. When comparing responses by region, residents of the North Central region are the group *least* likely to agree with the statement. And, persons who have never married are the

marital group *least* likely to agree with this statement.

Persons with healthcare support or public safety occupations are the occupation group most likely to agree that we will learn to live with and adapt to a changing climate. Eighty-two percent of persons with this type of occupation agree with this statement, compared to 66 percent of persons with construction, installation or maintenance occupations. Persons with higher education levels are more likely than persons with less education to agree that we will learn to live with and adapt to a changing climate.

Older persons are more likely than younger persons to agree that global climate change is a problem but the U.S. won't do anything about it. Twenty-seven percent of persons age 65 and older agree with this statement, compared to 17 percent of persons age 19 to 29. Other groups most likely to agree with this statement include: persons with lower household incomes, the divorced or separated respondents, persons with lower education levels, persons with food service or personal care occupations, persons with occupations classified as other and persons with production, transportation or warehousing occupations.

Older persons are more likely than younger persons to agree that we will do nothing since global climate change is not a problem. Nineteen percent of persons age 65 and older agree with this statement, compared to six percent of persons age 19 to 29. Other groups most likely to agree with this statement include: widowed respondents, persons with a high school diploma or less education and persons with occupations classified as other.

Persons with healthcare support or public safety occupations are more likely than persons with different occupations to agree that human activity, including industry and transportation, is a significant cause of climate change. Seventy-nine percent of persons with this type of occupation agree with this statement, compared to 44 percent of persons with agriculture occupations. Other groups most likely to agree with this statement include: persons living in or near larger communities, females and persons who are divorced or separated.

Persons with healthcare support or public safety occupations are more likely than persons with different occupations to agree that global climate change requires immediate action by the government. Sixty-four percent of persons with this type of occupation agree with this statement, compared to 31 percent of persons with agriculture occupations.

Persons living in or near larger communities are more likely than persons living in or near smaller communities to agree that global climate change requires immediate action by the government. Fifty-seven percent of persons living in or near communities with populations of 5,000 or more agree with this statement, compared to 43 percent of persons living in or near communities with less than 500 people. Other groups most likely to agree with this statement include: persons under the age of 30, females and persons who are divorced or separated. When comparing responses by region, persons living in the North Central region are the group *least* likely to agree with this statement.

The groups most likely to agree with the

statement that it is my responsibility to help reduce the impacts of global climate change include: persons living in or near the larger communities, younger persons, females, persons with higher education levels and persons with healthcare support or public safety occupations.

Persons with agriculture occupations are *less* likely than persons with different occupations to agree that global climate change is something people can control. Thirty-eight percent of persons with occupations in agriculture agree with this statement, compared to 56 percent of persons with sales or office support occupations. Other groups most likely to agree with this statement include younger persons and females. Persons living in the North Central region are the regional group *least* likely to agree with the statement.

Persons with agriculture occupations are more likely than persons with different occupations to agree that too much fuss is made about global climate change. Fortyfour percent of persons with occupations in agriculture agree with this statement, compared to 19 percent of persons with food service or personal care occupations or persons with healthcare support or public safety occupations. Other groups most likely to agree with this statement include: persons living in or near smaller communities, persons living in the North Central region, older persons, males and widowed respondents.

Persons with agriculture occupations are more likely than persons with different occupations to agree that current climate change is due to normal climate patterns. Over one-half (52%) of persons with

agriculture occupations agree with this statement, compared to 24 percent of persons with food service or personal care occupations. Other groups most likely to agree with this statement include: persons living in or near smaller communities, older persons, males and widowed persons.

Persons with agriculture occupations are more likely than persons with different occupations to *disagree* with the statement that agriculture is a major contributor of greenhouse gases. Seventy-one percent of persons with agriculture occupations *disagree* with this statement, compared to 31 percent of persons with food service or personal care occupations. Other groups most likely to *disagree* with this statement include: persons living in or near smaller communities, older persons, males and widowed persons.

Conclusion

Most rural Nebraskans report that they understand the issue of global climate change either fairly or very well and are most concerned about it impacting the United States. Over one-half (60%) are concerned or very concerned about global climate change impacting the United States.

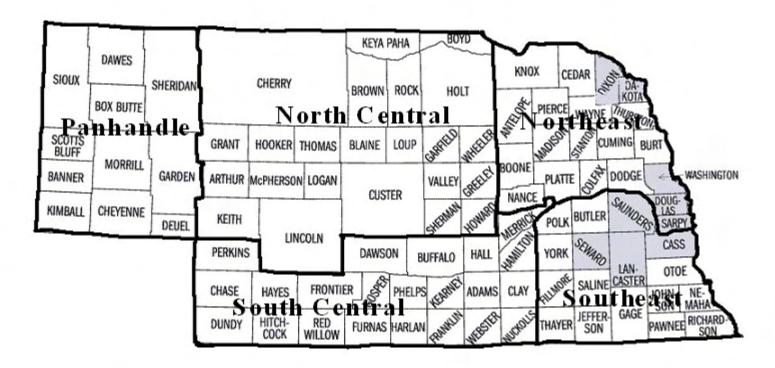
Most rural Nebraskans believe climate change is already happening and believe that our actions contribute to global climate change. In addition, most rural Nebraskans believe that we need to make changes in our behaviors to reduce the impacts of global climate change and that change is required to solve global climate change.

However, opinions are mixed regarding whether or not too much fuss is made about

global climate change and on whether or not technologies can be developed to solve the problem of global climate change. Opinions are also mixed on whether or not current climate change is due to normal climate patterns.

Persons with agriculture occupations are more likely than persons with different occupations to agree that too much fuss is made about global climate change. They are also more likely than persons with different occupations to agree that current climate change is due to normal climate patterns.

Appendix Figure 1. Regions of Nebraska



Metropolitan counties (not surveyed)

Appendix Table 1. Demographic Profile of Rural Poll Respondents¹ Compared to 2000 Census

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

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

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

³ 2000 Census universe is total non-metro population.

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

⁵ 2000 Census universe is all non-metro households.

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

Appendix Table 2. Level of Understanding of Global Climate Change by Community Size, Region and Individual https://doi.org/10.1007/jhtml/47872

<u> </u>	How wel	ll do you feel you clim	u understand ate change?	the issue of	global	
	Not at All	Not Very Well	Fairly Well	Very Well	Unsure	<u>Significance</u>
		Pe	ercentages			
Community Size		(1	n = 2312)			
Less than 500	3	22	54	16	6	
500 - 999	3	18	53	23	3	
1,000 - 4,999	5	26	47	19	3	$\chi^2 = 38.27*$
5,000 - 9,999	2	18	47	27	6	(.001)
10,000 and up	2	21	51	22	4	
Region		(1	n = 2348)			
Panhandle	3	20	50	25	2	
North Central	4	23	52	17	4	
South Central	4	23	43	25	5	$\chi^2 = 36.68*$
Northeast	2	21	56	18	4	(.002)
Southeast	4	22	50	20	4	
Income Level		(1	n = 2173			
Under \$20,000	7	24	47	15	7	
\$20,000 - \$39,999	3	23	47	22	5	$\chi^2 = 66.12*$
\$40,000 - \$59,999	1	22	54	22	2	(.000)
\$60,000 and over	2	19	53	24	3	` ,
Age		(1	n = 2352)			
19 - 29	4	23	49	21	4	
30 - 39	3	27	45	23	2	
40 - 49	3	19	55	22	2	$\chi^2 = 66.24*$
50 - 64	2	17	53	25	4	(.000)
65 and older	5	26	47	15	7	,
Gender		(1	n = 2342)			
Male	3	16	50	27	4	$\chi^2 = 64.60*$
Female	4	26	50	16	4	(.000)
Marital Status		(1	n = 2346)			
Married	3	21	51	22	3	
Never married	3	26	44	23	4	
Divorced/separated	4	18	51	21	6	$\chi^2 = 49.34*$
Widowed	7	26	45	12	9	(.000)
Education		(1	n = 2333			
H.S. diploma or less	6	26	47	14	7	
Some college	3	22	50	23	3	$\chi^2 = 92.62*$
Bachelors or grad degree	1	18	54	25	2	(.000)

Appendix Table 2 continued.

	How wel	ll do you feel you	u understand	the issue of	global	
		clim	ate change?			
	Not at All	Not Very Well	Fairly Well	Very Well	Unsure	<u>Significance</u>
Occupation		(1	n = 1650)			
Management, professional or						
education	2	17	56	24	1	
Sales or office support	4	28	50	14	4	
Construction, installation or						
maintenance	4	18	53	23	2	
Production, transportation or						
warehousing	1	20	52	25	4	
Agriculture	3	20	48	24	6	
Food service or						
personal care	11	25	47	11	8	$\chi^2 = 91.49*$
Healthcare support or						(.000)
public safety	2	25	48	24	1	
Other	3	24	45	26	3	

^{*} Chi-square values are statistically significant at the .05 level.

		How concer	ned are you al	oout the possi	bility of glob	oal climate cha	nge impactin	g the followin	g groups?	
		Y	our family					Your commun	ity	
					Chi-					Chi-
	Not	Slightly	G 1	Very	square	Not	Slightly	0 1	Very	square
	concerned	concerned	Concerned	concerned	(sig.)	concerned	concerned	Concerned	concerned	(sig.)
Community Sino		$(n-2)^{\prime}$	200)				Percentages			
Community Size Less than 1,000	22	(n = 23)	32	15	\sim^2	22	35	2292) 32	11	~2 —
*					$\chi^2 =$					$\chi^2 =$
1,000 - 9,999	19	28	38	15	9.24	21	30	37	12	7.58
10,000 and up	19	32	33	15	(.161)	19	33	36	12	(.270)
Region	1.0	(n=23)	/	1.6		1.0	,	2321)	1.5	
Panhandle	18	25	41	16		18	28	39	15	
North Central	23	30	30	17	2	24	29	35	12	2
South Central	19	31	32	18	$\chi^2 =$	20	32	34	14	$\chi^2 =$
Northeast	19	33	37	11	26.93*	19	35	37	10	18.24
Southeast	21	29	36	14	(800.)	22	32	37	9	(.109)
Income Level		(n=2)	,				,	2160)		
Under \$20,000	15	26	39	20		17	27	42	14	
\$20,000 - \$39,999	20	30	36	15	$\chi^2 =$	21	32	36	11	$\chi^2 =$
\$40,000 - \$59,999	19	37	28	16	33.16*	19	37	31	13	19.87*
\$60,000 and over	22	27	38	13	(000.)	22	30	36	12	(.019)
Age		(n = 2)	337)				(n =	2328)		, ,
19 - 29	18	26	33	23		21	26	37	16	
30 - 39	19	32	34	15		18	38	32	12	
40 - 49	18	31	33	18	$\chi^2 =$	20	33	34	13	$\chi^2 =$
50 - 64	22	30	35	14	40.63*	22	30	35	12	31.06*
65 and older	21	33	37	9	(.000)	21	33	39	7	(.002)
Education	21	(n=2)			(.000)	21		2306)	,	(.002)
H.S. diploma or less	18	28	37	17	$\chi^2 =$	19	31	38	12	$\chi^2 =$
Some college	19	32	33	17	17.80*	19	35	35	12	11.17
Bachelors degree	22	31	35	11	(.007)	23	29	35	13	(.083)
Occupation		(n = 10)			(.007)			1647)	10	(1002)
Mgt, prof or education	20	32	34	14		21	31	36	13	
Sales or office support	19	36	32	13		21	38	28	13	
Constrn, inst or maint	19	35	30	16		20	39	26	15	
Prodn/trans/warehsing	16	31	36	17		16	37	35	12	
Agriculture	31	31	26	12	$\chi^2 =$	32	31	26	11	$\chi^2 =$
Food serv/pers. care	14	17	47	22	λ 62.07*	14	21	48	17	64.20*
Hlthcare supp/safety	12	23	47	19	(.000)	14	28	47	12	(.000)
Timeare supp/sarety	12	23	4/	17	(.000)	14	4.4	4/	12	(.000)

Other

Appendix 1 au	ie 3 continuec		ned are you ab	out the possil	bility of glob	al climate cha	nge impactin	g the following	g groups?	
			Nebraska	•				United States		
					Chi-					Chi-
	Not	Slightly		Very	square	Not	Slightly		Very	square
	concerned	concerned	Concerned	concerned	(sig.)	concerned	concerned	Concerned	concerned	(sig.)
C '' C'		(20	200)				Percentages	2200)		
Community Size	20	(n=22)		1.4	2	10	,	2298)	10	2
Less than 1,000	20	32	34	14	$\chi^2 =$	19	29	34	19	$\chi^2 =$
1,000 - 9,999	16	28	39	16	10.34	15	23	38	24	17.74*
10,000 and up	17	32	36	16	(.111)	15	25	36	24	(.007)
Region		(n = 23)	,				,	2327)		
Panhandle	14	27	39	21		12	21	36	32	
North Central	21	29	35	14		20	24	33	23	
South Central	17	28	36	18	$\chi^2 =$	16	25	36	24	$\chi^2 =$
Northeast	16	35	37	12	29.60*	15	27	40	18	29.57*
Southeast	20	30	37	14	(.003)	18	26	36	21	(.003)
Income Level		(n = 2)	(65)				(n =	2163)		
Under \$20,000	16	25	41	18		14	21	41	24	
\$20,000 - \$39,999	17	32	37	14	$\chi^2 =$	16	25	37	22	$\chi^2 =$
\$40,000 - \$59,999	17	34	34	16	12.65	14	29	35	22	14.80
\$60,000 and over	19	29	37	16	(.179)	17	22	36	25	(.097)
Age		(n = 23)			,			2331)		,
19 - 29	16	30	34	20		15	22	31	32	
30 - 39	16	33	33	18		15	28	37	21	
40 - 49	17	31	36	17	$\chi^2 =$	15	25	37	23	$\chi^2 =$
50 - 64	20	27	39	15	27.95*	18	22	37	23	40.10*
65 and older	19	32	40	10	(.006)	17	27	40	16	(.000)
Education	17	(n = 23)		10	(.000)	1,		2310)	10	(.000)
H.S. diploma or less	17	28	41	15	$\chi^2 =$	15	24	40	20	$\chi^2 =$
Some college	17	32	36	15	ر 10.81	16	25	36	22	10.80
Bachelors degree	19	32	33	17	(.095)	16	25	33	26	(.095)
Occupation	19	(n = 16)		1 /	(.093)	10		1649)	20	(.093)
Mgt, prof or education	16	32	35	16		14	24	36	27	
Sales or office support	16	38	30	16		14	30	35	21	
1.1	18		34	16			30			
Constrn, inst or maint		32				15		36	20	
Prodn/trans/warehsing	14	35	35	16	2	13	26	37	23	2
Agriculture	28	31	29	12	$\chi^2 =$	27	30	29	15	$\chi^2 =$
Food serv/pers. care	14	18	45	23	57.61*	14	14	46	26	62.90*
Hlthcare supp/safety	10	25	48	18	(000.)	10	18	44	29	(.000)
Other	19	31	36	14		17	17	39	28	

How concerned are you about the possibility of global climate change impacting the following groups?

Other countries

	Not concerned	Slightly concerned	Concerned	Very concerned	Chi-square (sig.)
Community Size		(n = 228)	1)		
Less than 1,000	25	34	28	13	$\chi^2 =$
1,000 - 9,999	20	27	36	17	40.08*
10,000 and up	19	31	27	22	(000.)
Region		(n = 2313)	3)		
Panhandle	19	25	32	24	
North Central	26	32	26	16	
South Central	20	30	30	20	$\chi^2 =$
Northeast	19	32	33	16	24.79*
Southeast	22	30	34	15	(.016)
Income Level		(n = 2152)	2)		
Under \$20,000	19	26	37	17	
\$20,000 - \$39,999	23	31	29	17	$\chi^2 =$
\$40,000 - \$59,999	18	34	30	18	16.41
\$60,000 and over	21	28	31	20	(.059)
Age		(n = 2316)	5)		
 19 - 29	19	31	27	22	
30 - 39	22	35	25	18	
40 - 49	19	32	30	18	$\chi^2 =$
50 - 64	23	25	33	19	31.45*
65 and older	22	29	36	13	(.002)
Education		(n = 2299)	9)		
H.S. diploma or less	23	30	31	15	$\chi^2 =$
Some college	21	32	29	18	11.97
Bachelors degree	19	28	32	21	(.063)
Occupation		(n = 1643)	3)		
Mgt, prof or education	18	28	32	23	
Sales or office support	21	35	28	17	
Constrn, inst or maint	22	31	28	19	
Prodn/trans/warehsing	19	38	25	17	
Agriculture	33	35	22	9	$\chi^2 =$
Food serv/pers. care	17	17	43	24	75.74*
Hlthcare supp/safety	15	29	38	19	(.000)
Other	19	28	28	25	•

^{*} Chi-square values are statistically significant at the .05 level.

	Whi	ch of the followin	g best describes	your views about gle	obal climate ch	ange?	
				Climate change			
	Climate	Climate	Climate	will not happen in	Climate		
	change is	change will	change will	my lifetime but	change will		Chi-
	already	happen in the	happen in my	will affect future	never	Not	square
	happening	next few years	lifetime	generations	happen	sure	(sig.)
			Percenta	ges			
Community Size			(n = 226)	0			
Less than 500	54	0*	4	16	6	20	
500 - 999	57	1	8	11	5	19	
1,000 - 4,999	58	1	6	12	5	18	$\chi^2 =$
5,000 - 9,999	63	1	10	11	4	11	31.03
10,000 and up	59	2	8	10	5	16	(.055)
Region			(n = 229)	96)			
Panhandle	67	2	7	9	3	13	
North Central	53	1	8	11	5	22	
South Central	61	2	7	12	6	13	$\chi^2 =$
Northeast	54	1	9	13	4	19	40.81*
Southeast	59	1	4	14	5	17	(.004)
Income Level			(n = 212)	,			
Under \$20,000	58	1	3	13	4	22	
\$20,000 - \$39,999	60	1	5	11	5	18	$\chi^2 =$
\$40,000 - \$59,999	61	1	8	11	4	15	42.43*
\$60,000 and over	58	1	10	13	5	13	(000.)
<u>Age</u>			(n = 230)	,			
19 - 29	64	0	9	3	4	20	
30 - 39	57	2	10	11	3	17	2
40 - 49	61	1	7	12	5	14	$\chi^2 =$
50 - 64	63	1	7	13	5	12	104.7*
65 and older	48	2	4	18	6	23	(.000)
<u>Gender</u>		_	(n = 229)	,	_		$\chi^2 =$
Male	54	2	7	14	7	17	33.66*
Female	62	1	7	10	3	17	(000.)
Marital Status			(n = 229)		_	1.5	
Married	57	1	8	11	5	17	2
Never married	67	0*	3	8	5	17	$\chi^2 =$
Divorced/separated	68	1	7	10	2	13	62.58*
Widowed	49	2	4	22	2	22	(000.)
Education	5.4	1	(n = 228)	-	E	21	2
H.S. diploma or less	54	1	5	15	5	21	$\chi^2 =$
Some college	61	1	6	11	5	17	44.83*
Bachelors degree	60	1	$\frac{11}{(n-1)(2)}$	10	4	14	(000)
Occupation Motorpolism	6.4	1	(n = 163)	*	4	1.1	
Mgt, prof or education	64 56	1 0*	11 9	9 8	4	11 21	
Sales or office support					6		
Constrn, inst or maint	62 60	0	5	13	2 3	17	
Prodn/trans/warehsing	60 44	2 0*	10	11		15 24	$x^2 -$
Agriculture	44 65		6 6	16 9	10	24 19	$\chi^2 = 104.3*$
Food serv/pers. care Hlthcare supp/safety	65 66	$0 \\ 2$	5	9 16	1	19	(.000)
Other	57	0	11	5	14	14	(.000)
Other	<i>J</i> 1	U	1 1	\mathcal{J}	17	17	

Other 57 0

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

Increased carbon dioxide and other gases released into the atmosphere will, if unchecked, lead to global climate change.

Firms and government researchers will develop new technologies to solve the problem.

				Chi-				Chi-
				square				square
	Disagree	Neither	Agree	(sig.)	Disagree	Neither	Agree	(sig.)
		(2104)				Percentages		
Community Size	1.6	(n = 2184)	(2)		25	(n = 2180)	20	
Less than 500	16	22	63		25	37	38	
500 - 999	11	23	66	2	24	31	45	2
1,000 - 4,999	12	24	64	$\chi^2 =$	25	34	41	$\chi^2 =$
5,000 - 9,999	11	17	72 71	16.84*	23	27	50	13.05
10,000 and up	10	19	71	(.032)	27	34	39	(.110)
Region	10	(n = 2261)	70		22	(n = 2254)	4.5	
Panhandle	12	18	70		32	24	45	
North Central	13	25	63	2	20	42	38	2
South Central	13	18	69	$\chi^2 =$	25	33	42	$\chi^2 =$
Northeast	12	22	66	11.34	23	34	44	28.78*
Southeast	9	22	69	(.183)	28	34	38	(000.)
Income Level	0	(n = 2107)	71		27	(n = 2102)	4.4	
Under \$20,000	8	21	71	2	27	29	44	2
\$20,000 - \$39,999	11	23	66	$\chi^2 =$	24	38	38	$\chi^2 =$
\$40,000 - \$59,999	13	20	68	7.21	26	36	38	23.36*
\$60,000 and over	13	20	67	(.302)	24	29	48	(.001)
Age	4	(n = 2266)	7.1		1.5	(n = 2259)	40	
19 - 29	4	25	71		15	38	48	
30 - 39	11	25	64	2	30	33	37	2
40 - 49	16	17	67	$\chi^2 =$	28	35	38	$\chi^2 =$
50 - 64	13	19	68	41.62*	28	32	40	36.25*
65 and older	13	21	66	(.000)	23	31	45	(.000)
<u>Gender</u>	1.7	(n = 2254)	<i>C</i> 1	$\chi^2 =$	20	(n = 2248)	40	$\chi^2 =$
Male	17	22	61	47.32*	28	32	40	7.06*
Female	8	20	72	(000)	23	35	43	(.029)
Marital Status	1.0	(n = 2257)			2.5	(n = 2249)	4.1	
Married	13	22	66	2	25	33	41	2
Never married	11	21	69 7.6	$\chi^2 =$	22	39	39	$\chi^2 =$
Divorced/separated	9	16	76	10.34	28	34	38	9.95
Widowed	11	22	67	(.111)	22	28	50	(.127)
Education 1	1.1	(n = 2244)	67	2	26	(n = 2238)	4.1	2
H.S. diploma or less	11	23	67 67	$\chi^2 =$	26	33	41	$\chi^2 =$
Some college	12	21	67	4.93	25	35	41	1.97
Bachelors degree	12	19	69	(.294)	24	33	43	(.741)
Occupation 1	10	(n = 1611)	60		26	(n = 1610)	4.4	
Mgt, prof or education	10	20	69		26	30	44	
Sales or office support	8	22	71		16	38	46	
Constrn, inst or maint	10	21	69		28	36	37	
Prodn/trans/warehsing	12	23	65 52	2	20	34	46	2
Agriculture	21	27	52	$\chi^2 =$	29	34	37	$\chi^2 =$
Food serv/pers. care	9	15	76	46.75*	21	45	34	33.35*
Hlthcare supp/safety	8	15	77	(000)	25	32	43	(.003)
Other	14	24	62		32	50	18	

^{*} Chi-square values are statistically significant at the .05 level.

We will have to change our lifestyles to reduce

We will learn to live with and adapt to a

	energy consumption.			changing climate.				
		-		Chi- square				Chi- square
	Disagree	Neither	Agree	(sig.)	Disagree	Neither	Agree	(sig.)
						Percentages		
Community Size		(n = 2189)				(n = 2173)		
Less than 500	8	15	77		11	18	70	
500 - 999	9	10	80	•	11	10	78	2
1,000 - 4,999	6	11	83	$\chi^2 =$	8	20	72	$\chi^2 =$
5,000 - 9,999	5	8	86	17.13*	13	14	74	19.37*
10,000 and up	5	9	86	(.029)	11	15	74	(.013)
Region		(n = 2267)				(n = 2249)		
Panhandle	6	8	86		15	12	73	
North Central	7	17	76		7	21	72	
South Central	7	7	86	$\chi^2 =$	11	15	74	$\chi^2 =$
Northeast	6	10	84	27.75*	9	16	75	21.44*
Southeast	5	11	84	(.001)	11	18	72	(.006)
Income Level		(n = 2111)				(n = 2098)		
Under \$20,000	6	14	80		10	16	74	
\$20,000 - \$39,999	5	10	86	$\chi^2 =$	11	17	71	$\chi^2 =$
\$40,000 - \$59,999	7	9	84	12.63*	10	14	77	4.71
\$60,000 and over	7	8	84	(.049)	10	17	74	(.582)
<u>Age</u>		(n = 2270)				(n = 2254)		
19 - 29	5	12	83		10	16	74	
30 - 39	9	9	83		10	17	73	
40 - 49	7	7	86	$\chi^2 =$	11	14	75	$\chi^2 =$
50 - 64	7	10	83	16.09*	10	18	73	4.17
65 and older	6	13	82	(.041)	10	18	72	(.841)
Gender		(n = 2261)		$\chi^2 =$		(n = 2245)		$\chi^2 =$
Male	10	13	77	64.24*	11	18	71	3.61
Female	3	8	89	(.000)	10	16	75	(.164)
Marital Status		(n = 2263)		,		(n = 2246)		,
Married	7	9	84		9	17	74	
Never married	8	18	75	$\chi^2 =$	9	18	73	$\chi^2 =$
Divorced/separated	6	9	85	21.95*	16	13	71	15.27*
Widowed	3	10	88	(.001)	12	15	73	(.018)
Education	_	(n = 2250)		(***-)		(n = 2236)	, -	(1111)
H.S. diploma or less	5	12	83	$\chi^2 =$	11	19	70	$\chi^2 =$
Some college	6	10	84	7.13	11	16	73	11.05*
Bachelors degree	8	9	84	(.129)	8	15	77	(.026)
Occupation Occupation	O	(n = 1609)	0.1	(.12))	O	(n = 1598)	, ,	(.020)
Mgt, prof or education	6	8	86		10	14	76	
Sales or office support	4	10	86		8	19	73	
Constrn, inst or maint	4	19	77		9	25	66	
Prodn/trans/warehsing	5	7	87		13	13	74	
Agriculture	13	16	71	$\chi^2 =$	9	22	70	$\chi^2 =$
Food serv/pers. care	8	6	86	χ – 57.34*	5	23	73	χ – 30.45*
Hlthcare supp/safety	8 4	7	90	(.000)	10	8	82	(.007)
		_		(.000)				(.007)
Other	3	6	92		8	22	69	

^{*} Chi-square values are statistically significant at the .05 level.

Global climate change is a problem but the

We will do nothing since global climate

	U.S. won't do anything about it.			change is not a problem.				
		,		Chi- square	_		P	Chi- square
	Disagree	Neither	Agree	(sig.)	Disagree	Neither	Agree	(sig.)
						Percentages		_
Community Size		(n = 2175)				(n = 2162)		
Less than 500	47	34	19		62	27	11	
500 - 999	51	28	21		63	25	12	
1,000 - 4,999	44	35	22	$\chi^2 =$	66	22	12	$\chi^2 =$
5,000 - 9,999	47	31	22	7.00	68	22	9	5.53
10,000 and up	44	35	21	(.536)	65	23	12	(.700)
Region		(n = 2249)				(n = 2235)		, ,
Panhandle	38	35	27		66	22	13	
North Central	44	34	22		61	26	13	
South Central	45	36	19	$\chi^2 =$	66	22	12	$\chi^2 =$
Northeast	48	32	20	15.40	64	25	11	5.46
Southeast	48	30	22	(.052)	66	24	10	(.708)
Income Level		(n = 2096)		,		(n = 2085)		,
Under \$20,000	42	33	26		62	24	14	
\$20,000 - \$39,999	42	36	22	$\chi^2 =$	63	26	11	$\chi^2 =$
\$40,000 - \$59,999	45	33	22	16.61*	68	23	9	9.14
\$60,000 and over	51	31	18	(.011)	68	21	11	(.166)
Age		(n = 2254)				(n = 2239)		(
19 - 29	40	44	17		70	24	6	
30 - 39	42	38	21		64	25	10	
40 - 49	46	34	20	$\chi^2 =$	64	26	10	$\chi^2 =$
50 - 64	50	29	21	39.51*	67	21	11	47.83*
65 and older	46	27	27	(.000)	58	23	19	(.000)
Gender		(n = 2243)	_,	$\chi^2 =$		(n = 2231)		$\chi^2 =$
Male	48	30	22	9.50*	59	26	15	29.05*
Female	43	36	21	(.009)	69	22	9	(.000)
Marital Status		(n = 2244)	21	(.00)	0,	(n = 2233)		(.000)
Married	47	33	20		65	23	12	
Never married	43	40	17	$\chi^2 =$	66	23	11	$\chi^2 =$
Divorced/separated	37	34	30	20.59*	67	27	6	13.59*
Widowed	46	30	25	(.002)	61	23	16	(.035)
Education	10	(n = 2234)	23	(.002)	01	(n = 2220)	10	(.033)
H.S. diploma or less	40	33	27	$\chi^2 =$	60	26	15	$\chi^2 =$
Some college	44	37	19	33.09*	65	24	11	15.72*
Bachelors degree	52	31	18	(.000)	69	22	9	(.003)
Occupation Occupation	32	(n = 1606)	10	(.000)	0)	(n = 1596)		(.005)
Mgt, prof or education	49	31	20		72	20	8	
Sales or office support	38	45	17		64	30	6	
Constrn, inst or maint	39	40	21		56	33	11	
Prodn/trans/warehsing	44	33	23		62	26	12	
Agriculture	54	32	14	$\chi^2 =$	58	28	14	$\chi^2 =$
Food serv/pers. care	45	31	24	χ – 35.50*	72	28	7	χ – 36.30*
Hlthcare supp/safety	43 47	31	22	(.001)	72	23	7	(.001)
			24	(.001)	60	20		(.001)
Other	24	51	۷4		OU	20	20	

^{*} Chi-square values are statistically significant at the .05 level.

Human activity, including industry and transportation, is a significant cause of climate change.

Global climate change requires immediate action by the government.

				Chi-				Chi-
				square				square
	Disagree	Neither	Agree	(sig.)	Disagree	Neither	Agree	(sig.)
C '' C'		(·. 2105)				Percentages 2170)		
Community Size	17	(n = 2185)	50		27	(n = 2170)	42	
Less than 500	17	24	59 50		27	30	43	
500 - 999 1,000 - 4,999	15	26 24	59	~ ² —	25 19	28 29	48	n,2 —
5,000 - 9,999	15	2 4 17	61	$\chi^2 =$			53 57	$\chi^2 =$
	13	17	70 70	26.14* (.001)	15	28 24	57 57	29.18*
10,000 and up	11	(n = 2261)	70	(.001)	19	(n = 2247)	57	(.000)
Region Panhandle	13	(n-2201)	66		19	(11 - 2247) 26	55	
North Central	15	26	59		25	31	33 45	
South Central	13	18	69	$\chi^2 =$	20	24	56	$\chi^2 =$
Northeast	13	23	64	λ – 13.27	20 19	29	52	λ – 16.47*
Southeast	13	22	65	(.103)	17	27	55	(.036)
Income Level	13	(n = 2107)	03	(.103)	1 /	(n = 2096)	33	(.030)
Under \$20,000	11	26	64		17	(n – 2090) 29	53	
\$20,000 - \$39,999	13	26	62	~2 —	17	29 27	53 54	α^2 –
	13 14	26 17	62 69	$\chi^2 = 23.43*$	20	23	57	$\chi^2 = 7.00$
\$40,000 - \$59,999	15	17	66	(.001)	20	23 26	57 52	
\$60,000 and over	13		00	(.001)	22		32	(.321)
<u>Age</u> 19 - 29	6	(n = 2264)	67		10	(n = 2251)	61	
19 - 29 30 - 39	6 13	27 20	67		10 21	29 34	61	
30 - 39 40 - 49	18	20	62	••2 —	21	27	45 51	••2 —
40 - 49 50 - 64	15	21	64	$\chi^2 = 32.67*$	24	23	51 53	$\chi^2 = 45.53*$
65 and older	14	20	66	(.000)	22	25	53	(.000)
Gender Mala	20	(n = 2255)	57	$\chi^2 =$	27	(n = 2242)	16	$\chi^2 =$
Male	20	23	57 72	83.47*	27	27	46	52.12*
Female	8	20	72	(000.)	15	27	58	(000.)
Marital Status	1.5	(n = 2257)	(1		22	(n = 2243)	<i>5</i> 1	
Married	15	21	64	2	22	27	51	2
Never married	7	33	60	$\chi^2 =$	14	31	55	$\chi^2 =$
Divorced/separated	9	19	73	32.27*	13	26	61	19.63*
Widowed	14	18	68	(000.)	19	25	55	(.003)
Education III Continue and III Continue	1.1	(n = 2244)	(1	2	17	(n = 2234)	<i>5</i>	2
H.S. diploma or less	11	25	64	$\chi^2 =$	17	28	54	$\chi^2 =$
Some college	16	22	63	16.50*	20	30	50	18.09*
Bachelors degree	14	18	68	(.002)	23	22	55	(.001)
Occupation 1	10	(n = 1608)	70		1.0	(n = 1610)	5 .6	
Mgt, prof or education	12	18	70		18	26	56	
Sales or office support	12	25	63		16	38	46	
Constrn, inst or maint	19	28	54		21	30	49 52	
Prodn/trans/warehsing	13	20	67	2	17	30	53	2
Agriculture	23	33	44	$\chi^2 =$	37	32	31	$\chi^2 =$
Food serv/pers. care	7	22	71 7 3	78.29*	14	25	62	83.89*
Hlthcare supp/safety	7	14	79	(000)	13	23	64	(000.)
Other	8	33	58		18	32	50	

^{*} Chi-square values are statistically significant at the .05 level.

	It is my responsibility to help reduce the				Global climate change is something people can control.			
	impacts of global climate change.					<i>α</i> .		
				Chi-				Chi-
	Disagree	Neither	Agree	square (sig.)	Disagrag	Neither	Agree	square
	Disagree	renner	Agree	(sig.)	Disagree		Agree	(sig.)
Community Sino		(n - 2176)				Percentages		
Community Size	12	(n = 2176)	62		26	(n = 2159)	16	
Less than 500 500 - 999		26 25	63 63		26 24	28 31	46	
1,000 - 4,999	11 9	25 23	68	··2 —	24 26	24	45 50	or ² —
5,000 - 9,999	9	18	74	$\chi^2 = 23.90*$	20	2 4 26	52	$\chi^2 = 14.98$
10,000 and up	8	18	74 74	(.002)	20	26	55	(.059)
-	0		/4	(.002)	20	(n = 2235)	33	(.039)
Region Panhandle	10	(n = 2251) 20	70		24	(11 - 2233) 22	55	
North Central	10	26	63		25	31	33 44	
South Central	8	20 19	73	$\chi^2 =$	23 24	23	53	$\chi^2 =$
Northeast	9	21	73 71	χ – 12.31	21	23 29	50	χ – 15.83*
Southeast	8	21	71	(.138)	20	29 27	53	
	o	(n = 2095)	70	(.136)	20	(n = 2086)	33	(.045)
Income Level Under \$20,000	9	(11 - 2093)	68		17	(11-2080)	50	
\$20,000 - \$39,999	8	23	69	$\chi^2 =$	23	28	30 49	~2 —
\$40,000 - \$59,999	8 7	23	71	χ – 9.63	25 25	28	53	$\chi^2 = 17.17*$
	10	18			23 24	24	53 52	
\$60,000 and over	10		72	(.141)	24		32	(.009)
Age 19 - 29	4	(n = 2255)	74		14	(n = 2240)	55	
30 - 39	4 8	22 25	74 67		20	31 25	55 54	
30 - 39 40 - 49				2 —				2 _
40 - 49 50 - 64	10	20	71	$\chi^2 = 22.19*$	27 25	26 25	48	$\chi^2 =$
	10 12	20 21	69 67		25 25	25 25	49 50	27.38*
65 and older	12		07	(.005)	23		30	(.001)
Gender Mala	1.4	(n = 2244)	61	$\chi^2 = 52.17*$	20	(n = 2228)	16	$\chi^2 = 26.79*$
Male	14	23 20	64		28	26	46	
Female Marital Status	5		75	(000.)	19	27 (n = 2222)	55	(000.)
	10	(n = 2244)	70		25	(n = 2232)	<i>E</i> 1	
Married	10	20	70 71	2 _	25	25 25	51	2 —
Never married	5 5	24	71	$\chi^2 =$	14	35	51	$\chi^2 = 24.09*$
Divorced/separated		24 23	71 67	12.50	18	31	50	
Widowed	10		67	(.052)	21	24 (n = 2220)	55	(.001)
Education	O	(n = 2232)	(0	2 _	22	(n = 2220)	<i>E</i> 1	2 _
H.S. diploma or less	8	23	69 67	$\chi^2 =$	22	27 25	51	$\chi^2 = 2.71$
Some college	10	24	67 74	13.12*	22	25	53	3.71
Bachelors degree	9	17	74	(.011)	25	27	49	(.446)
Occupation	7	(n = 1607)	75		22	(n = 1601)	50	
Mgt, prof or education	7	18	75 72		22	27 25	52	
Sales or office support	7	22	72		19	25	56	
Constrn, inst or maint	11	25	64		24	30	46 52	
Prodn/trans/warehsing	7	19	74 52	2	24	25 27	52	2
Agriculture	18	29	53	$\chi^2 =$	35	27	38	$\chi^2 =$
Food serv/pers. care	4	24	72 78	56.76*	18	32	51	30.89*
Hlthcare supp/safety	5	17	78 72	(.000.)	17	27	55 45	(.006)
Other	11	17	72		29	26	45	

^{*} Chi-square values are statistically significant at the .05 level.

	Too much fuss is made about global climate			Current climate change is due to normal				
		change	2.			climate pat	terns.	
				Chi-				Chi-
	_			square	_			square
	Disagree	Neither	Agree	(sig.)	Disagree	Neither	Agree	(sig.)
						Percentages		
Community Size		(n = 2177)				(n = 2156)		
Less than 500	41	24	35		29	29	42	
500 - 999	45	24	32		31	25	44	
1,000 - 4,999	51	21	29	$\chi^2 =$	31	33	36	$\chi^2 =$
5,000 - 9,999	54	21	25	19.06*	39	30	31	26.67*
10,000 and up	53	19	28	(.015)	39	26	36	(.001)
Region		(n = 2251)				(n = 2229)		
Panhandle	52	22	26		34	31	35	
North Central	44	20	37		34	29	38	
South Central	51	20	30	$\chi^2 =$	38	26	36	$\chi^2 =$
Northeast	49	22	29	15.72*	31	29	40	8.54
Southeast	53	22	25	(.047)	34	31	35	(.382)
Income Level		(n = 2096)				(n = 2080)		
Under \$20,000	52	20	28	2	34	29	38	Ď.
\$20,000 - \$39,999	47	22	31	$\chi^2 =$	35	27	39	$\chi^2 =$
\$40,000 - \$59,999	51	22	27	9.34	35	28	36	4.20
\$60,000 and over	54	18	29	(.155)	35	31	34	(.649)
<u>Age</u>		(n = 2255)				(n = 2234)		
19 - 29	54	25	22		36	36	28	
30 - 39	49	25	26	2	32	33	36	2
40 - 49	53	20	28	$\chi^2 =$	38	29	33	$\chi^2 =$
50 - 64	51	20	29	47.06*	36	25	38	50.47*
65 and older	44	16	40	(.000)	29	23	48	(.000)
<u>Gender</u>	40	(n = 2247)		$\chi^2 =$	• •	(n = 2224)		$\chi^2 =$
Male	42	21	37	61.06*	30	25	45	44.55*
Female	56	21	23	(.000)	38	31	31	(000.)
Marital Status	40	(n = 2246)	2.1		22	(n = 2225)	20	
Married	49	20	31	2	33	29	38	2
Never married	48	25	27	$\chi^2 =$	40	26	34	$\chi^2 =$
Divorced/separated	60	21	19	21.27*	39	33	28	20.32*
Widowed	45	20	35	(.002)	31	23	47	(.002)
Education 1	47	(n = 2236)	22	2	2.4	(n = 2214)	26	2
H.S. diploma or less	47	21	33	$\chi^2 =$	34	31	36	$\chi^2 =$
Some college	50	22	27	7.30	35	27	38	2.06
Bachelors degree	52	19	29	(.121)	34	28	37	(.725)
Occupation 1	<i>7.4</i>	(n = 1609)	25		20	(n = 1596)	20	
Mgt, prof or education	54	21	25		39	29	32	
Sales or office support	49	23	28		29	36	35	
Constrn, inst or maint	43	27	31		34	24	43	
Prodn/trans/warehsing	50	22	28	2	37	32	31	2
Agriculture	36	21	44	$\chi^2 =$	23	25	52	$\chi^2 =$
Food serv/pers. care	63	17	19	54.71*	36	40	24	57.45*
Hlthcare supp/safety	62	20	19	(000.)	42	32	26	(000.)
Other	46	27	27		33	33	33	

^{*} Chi-square values are statistically significant at the .05 level.

Agriculture is a major contributor of greenhouse gases.

	р.	NI	_	Chi- square
	Disagree	Neither	Agree	(sig.)
Community Size		(n = 2177)		
Less than 500	56	$\frac{(n-2177)}{30}$	15	
500 - 999	49	36	14	
1,000 - 4,999	45	42	13	$\chi^2 =$
5,000 - 9,999	46	34	20	28.26*
10,000 and up	42	40	19	(.000)
Region		(n = 2248)		(1111)
Panhandle	51	36	14	
North Central	45	40	16	
South Central	48	35	18	$\chi^2 =$
Northeast	43	40	17	9.02
Southeast	45	40	15	(.340)
Income Level		(n = 2095)		, ,
Under \$20,000	44	37	19	
\$20,000 - \$39,999	45	40	15	$\chi^2 =$
\$40,000 - \$59,999	50	33	17	8.47
\$60,000 and over	45	40	15	(.206)
<u>Age</u>		(n = 2253)		
19 - 29	37	47	17	
30 - 39	43	41	17	
40 - 49	46	42	12	$\chi^2 =$
50 - 64	49	35	16	47.56*
65 and older	52	28	20	(000.)
Gender		(n = 2243)		$\chi^2 =$
Male	54	31	15	44.19*
Female	40	43	17	(000.)
Marital Status		(n = 2242)		
Married	47	37	16	2
Never married	38	49	13	$\chi^2 =$
Divorced/separated	37	44	19	30.06*
Widowed	54	27	19	(000.)
Education	4.6	(n = 2232)		2
H.S. diploma or less	46	37	17	$\chi^2 =$
Some college	47	38	15	1.73
Bachelors degree	45	39	17	(.786)
Occupation	42	(n = 1601)	1.5	
Mgt, prof or education	42	43	15	
Sales or office support	37	50	12	
Constrn, inst or maint	55 42	37	9	
Prodn/trans/warehsing	43	39 21	18 8	$\chi^2 =$
Agriculture	71 31	21 46	8 23	$\chi^2 = 93.23*$
Food serv/pers. care	31 38	46 46		
Hlthcare supp/safety	38 43	46 41	16 16	(.000)
Other	+3	···· · · · · · · · · · · · · · · · · ·	10	

^{*} Chi-square values are statistically significant at the .05 level.

