



George Mason University
Center for Climate Change Communication

Climate Change in the American Mind: Americans' Global Warming Beliefs and Attitudes in May 2011

Interview dates: April 23, 2011 – May 12, 2011

Interviews: 1,010 Adults (18+)

Margin of error: +/- 3 percentage points at the 95% confidence level.

NOTE: All results show percentages among all respondents, unless otherwise labeled. Totals may occasionally sum to more than 100 percent due to rounding.

This study was conducted by the Yale Project on Climate Change Communication and the George Mason University Center for Climate Change Communication, and was funded by the Surdna Foundation, the 11th Hour Project, and the Grantham Foundation for the Protection of the Environment.

Principal Investigators:

Anthony Leiserowitz, PhD

Yale Project on Climate Change Communication

School of Forestry and Environmental Studies, Yale University

(203) 432-4865 anthony.leiserowitz@yale.edu

Edward Maibach, MPH, PhD

Center for Climate Change Communication

Department of Communication, George Mason University

(703) 993-1587 emaibach@gmu.edu

Connie Roser-Renouf, PhD

Center for Climate Change Communication

Department of Communication, George Mason University

(707) 825-0601 croserre@gmu.edu

Nicholas Smith, PhD

Yale Project on Climate Change Communication

School of Forestry and Environmental Studies, Yale University

(203) 432-1208 nicholas.smith@yale.edu

Cite as: Leiserowitz, A., Maibach, E., Roser-Renouf, C., & Smith, N. (2011) *Climate change in the American Mind: Americans' global warming beliefs and attitudes in May 2011*. Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication.

<http://environment.yale.edu/climate/files/ClimateBeliefsMay2011.pdf>

Q47¹. Recently, you may have noticed that global warming has been getting some attention in the news. Global warming refers to the idea that the world's average temperature has been increasing over the past 150 years, may be increasing more in the future, and that the world's climate may change as a result. What do you think? Do you think that global warming is happening?

	May 2011	June 2010	Jan 2010	Nov 2008
Yes	64	61	57	71
No	18	18	20	10
Don't Know	18	21	23	19

People who answered yes to question 47 (i.e. those who believe global warming is happening) were asked the following question.

Q48. How sure are you that global warming is happening?

	May 2011	June 2010	Jan 2010	Nov 2008
Extremely sure	21	20	24	35
Very sure	33	37	35	37
Somewhat sure	40	40	37	24
Not at all sure	6	3	5	4

People who answered no to question 47 (i.e. those who do not believe global warming is happening) were asked the following question.

Q49. How sure are you that global warming is not happening?

	May 2011	June 2010	Jan 2010	Nov 2008
Extremely sure	21	20	28	26
Very sure	31	31	31	28
Somewhat sure	38	44	34	38
Not at all sure	11	4	7	8

¹ Items are listed in the order they were asked despite occasional non-sequential item numbers. Items not shown in this report are being released separately.

Q50. Assuming global warming is happening, do you think it is...

	May 2011	June 2010	Jan 2010	Nov 2008
Caused mostly by human activities	47	50	47	57
Caused mostly by natural changes in the environment	35	34	36	32
None of the above because global warming isn't happening	8	6	9	4
Caused by both human activities and natural changes (volunteered)	8	7	6	5
Other	1	1	1	1
Don't know (volunteered)	1	1	1	1

Q54. Personally, how well informed do you feel you are about global warming?

	May 2011	June 2010	Jan 2010	Nov 2008
Very well informed	10	12	-	-
Fairly well informed	51	49	-	-
Not very well informed	34	35	-	-
Not at all informed	5	3	-	-

Q59. Which comes closer to your own view?

	May 2011	June 2010	Jan 2010	Nov 2008
Most scientists think global warming is happening	39	34	34	47
Most scientists think global warming is not happening	4	4	5	3
There is a lot of disagreement among scientists about whether or not global warming is happening	40	45	40	33
Don't know enough to say	18	17	22	18

Q30. To the best of your knowledge, what proportion of climate scientists think that global warming is happening?

	May 2011	June 2010	Jan 2010	Nov 2008
81 to 100%	13	-	-	-
61 to 80%	19	-	-	-
41 to 60%	23	-	-	-
21 to 40%	12	-	-	-
0 to 20%	3	-	-	-
Don't know enough to say	31	-	-	-

Q31. To the best of your knowledge, what proportion of climate scientists think that global warming is caused mostly by human activities?

	May 2011	June 2010	Jan 2010	Nov 2008
81 to 100%	15	-	-	-
61 to 80%	18	-	-	-
41 to 60%	18	-	-	-
21 to 40%	12	-	-	-
0 to 20%	7	-	-	-
Don't know enough to say	32	-	-	-

Q60. How worried are you about global warming?

	May 2011	June 2010	Jan 2010	Nov 2008
Very worried	9	12	12	17
Somewhat worried	43	41	38	46
Not very worried	28	30	27	24
Not at all worried	20	18	23	13

Q62. How much do you think global warming will harm you personally?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	11	10	14	10
A moderate amount	18	21	23	22
Only a little	28	27	22	24
Not at all	25	24	31	22
Don't know	18	18	11	23

Q63. How much do you think global warming will harm your family?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	13	11	15	11
A moderate amount	21	25	25	24
Only a little	26	24	21	23
Not at all	23	21	28	19
Don't know	18	19	11	23

Q64. How much do you think global warming will harm people in your community?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	12	11	15	13
A moderate amount	22	25	27	26
Only a little	26	24	22	20
Not at all	22	21	24	17
Don't know	18	19	12	23

Q65. How much do you think global warming will harm people in the United States?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	16	16	22	21
A moderate amount	26	28	29	28
Only a little	23	22	16	15
Not at all	17	17	22	14
Don't know	18	18	12	22

Q66. How much do you think global warming will harm people in other modern industrialized countries?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	17	17	23	22
A moderate amount	25	28	29	28
Only a little	23	21	16	13
Not at all	17	15	19	13
Don't know	19	18	13	24

Q67. How much do you think global warming will harm people in developing countries?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	23	22	29	31
A moderate amount	22	28	25	22
Only a little	20	17	14	11
Not at all	17	15	19	13
Don't know	19	18	13	24

Q68. How much do you think global warming will harm future generations of people?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	37	39	42	44
A moderate amount	22	22	22	17
Only a little	10	11	9	7
Not at all	12	12	15	10
Don't know	19	16	12	22

Q69. How much do you think global warming will harm plant and animal species?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	39	40	43	45
A moderate amount	19	21	19	17
Only a little	12	12	11	8
Not at all	13	13	15	9
Don't know	18	15	12	20

Q69A. How much do you think global warming will harm native plants in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	25	-	-	-
A moderate amount	25	-	-	-
Only a little	17	-	-	-
Not at all	16	-	-	-
Don't know	18	-	-	-

Q69B. How much do you think global warming will harm wild animals in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	25	-	-	-
A moderate amount	23	-	-	-
Only a little	18	-	-	-
Not at all	16	-	-	-
Don't know	18	-	-	-

Q69C. How much do you think global warming will harm wild birds in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	26	-	-	-
A moderate amount	23	-	-	-
Only a little	18	-	-	-
Not at all	16	-	-	-
Don't know	18	-	-	-

Q69D. How much do you think global warming will harm crops in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	28	-	-	-
A moderate amount	22	-	-	-
Only a little	19	-	-	-
Not at all	14	-	-	-
Don't know	17	-	-	-

Q69E. How much do you think global warming will harm pets in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	20	-	-	-
A moderate amount	19	-	-	-
Only a little	22	-	-	-
Not at all	21	-	-	-
Don't know	19	-	-	-

Q69F. How much do you think global warming will harm people's private property (e.g., homes, cars, boats) in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	11	-	-	-
A moderate amount	18	-	-	-
Only a little	25	-	-	-
Not at all	27	-	-	-
Don't know	20	-	-	-

Q69G. How much do you think global warming will harm public property (e.g., roads, schools, sewer systems and public buildings) in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	13	-	-	-
A moderate amount	20	-	-	-
Only a little	22	-	-	-
Not at all	25	-	-	-
Don't know	20	-	-	-

Q69H. How much do you think global warming will harm outdoor recreational places (e.g., parks, beaches, lakes, rivers, forests) in your area?

	May 2011	June 2010	Jan 2010	Nov 2008
A great deal	20	-	-	-
A moderate amount	24	-	-	-
Only a little	20	-	-	-
Not at all	18	-	-	-
Don't know	19	-	-	-

Q70. When do you think global warming will start to harm people in the United States?

	May 2011	June 2010	Jan 2010	Nov 2008
They are being harmed now	32	29	25	34
In 10 years	12	12	12	13
In 25 years	13	12	14	13
In 50 years	12	13	13	13
In 100 years	11	15	13	12
Never	20	19	23	15

Q71. When do you think global warming will start to harm other people around the world?

	May 2011	June 2010	Jan 2010	Nov 2008
They are being harmed now	34	32	28	38
In 10 years	12	11	13	13
In 25 years	12	13	12	12
In 50 years	12	12	12	12
In 100 years	11	13	13	11
Never	19	18	22	14

Q61. How concerned are you about the impact of global warming on your health? (Measured on a scale from 1-7, with one being “not at all concerned” and seven being “extremely concerned”).

	May 2011	June 2010	Jan 2010	Nov 2008
Seven (Extremely concerned)	11	8	7	-
Six	8	9	7	-
Five	14	14	14	-
Four	18	22	17	-
Three	13	9	12	-
Two	13	14	13	-
One (Not at all concerned)	25	25	29	-

Q61A. How concerned are you about the impact of global warming on the health of other Americans?

	May 2011	June 2010	Jan 2010	Nov 2008
Seven (Extremely concerned)	11	-	-	-
Six	8	-	-	-
Five	15	-	-	-
Four	17	-	-	-
Three	12	-	-	-
Two	13	-	-	-
One (Not at all concerned)	24	-	-	-

Q61B – Q61J. In the United States over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it:

Deaths and injuries from hurricanes

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	30	-	-	-
A few more	25	-	-	-
No difference	23	-	-	-
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	20	-	-	-

Deaths and injuries from floods

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	31	-	-	-
A few more	24	-	-	-
No difference	24			
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	18	-	-	-

Deaths and injuries from severe winter storms

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	29	-	-	-
A few more	24	-	-	-
No difference	25			
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	19	-	-	-

Asthma and other diseases of the lungs

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	24	-	-	-
A few more	23	-	-	-
No difference	27			
A few less	2	-	-	-
Many less	2	-	-	-
Don't know	22	-	-	-

Cholera and other diseases carried by infected water

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	21	-	-	-
A few more	22	-	-	-
No difference	31			
A few less	2	-	-	-
Many less	2	-	-	-
Don't know	22	-	-	-

Diseases carried by insects, such as Lyme disease, West Nile virus and dengue fever

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	21	-	-	-
A few more	24	-	-	-
No difference	29			
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	22	-	-	-

Heat stroke

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	26	-	-	-
A few more	27	-	-	-
No difference	25			
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	20	-	-	-

Deaths and injuries from wildfires

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	26	-	-	-
A few more	28	-	-	-
No difference	25			
A few less	1	-	-	-
Many less	2	-	-	-
Don't know	18	-	-	-

Increased malnutrition as a result of spikes in food prices

	May 2011	June 2010	Jan 2010	Nov 2008
Many more	27	-	-	-
A few more	23	-	-	-
No difference	26			
A few less	2	-	-	-
Many less	2	-	-	-
Don't know	21	-	-	-

Q62A – Q62F. Some people say that global warming is already impacting the United States. Do you agree or disagree that global warming is already causing or making the following things worse, or do you not know?

Rivers flooding

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	17	-	-	-
Somewhat agree	31	-	-	-
Somewhat disagree	14	-	-	-
Strongly disagree	14	-	-	-
Don't know	25	-	-	-

Coastline erosion and flooding

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	17	-	-	-
Somewhat agree	35	-	-	-
Somewhat disagree	12	-	-	-
Strongly disagree	14	-	-	-
Don't know	23	-	-	-

Wildfires

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	17	-	-	-
Somewhat agree	28	-	-	-
Somewhat disagree	16	-	-	-
Strongly disagree	15	-	-	-
Don't know	25	-	-	-

Hurricanes

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	19	-	-	-
Somewhat agree	30	-	-	-
Somewhat disagree	14	-	-	-
Strongly disagree	14	-	-	-
Don't know	23	-	-	-

Droughts

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	19	-	-	-
Somewhat agree	31	-	-	-
Somewhat disagree	13	-	-	-
Strongly disagree	14	-	-	-
Don't know	23	-	-	-

Damage from pine-bark beetles

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	9	-	-	-
Somewhat agree	17	-	-	-
Somewhat disagree	15	-	-	-
Strongly disagree	14	-	-	-
Don't know	46	-	-	-

Q72. How much had you thought about global warming before today?

	May 2011	June 2010	Jan 2010	Nov 2008
A lot	12	18	15	20
Some	33	37	31	35
A little	38	32	36	33
Not at all	16	13	18	12

Q73. How important is the issue of global warming to you personally?

	May 2011	June 2010	Jan 2010	Nov 2008
Extremely important	7	6	5	11
Very important	15	18	15	21
Somewhat important	38	39	38	40
Not too important	25	24	23	18
Not at all important	14	14	20	11

Q74. On some issues people feel that they have all the information they need in order to form a firm opinion, while on other issues they would like more information before making up their mind. For global warming, where would you place yourself?

	May 2011	June 2010	Jan 2010	Nov 2008
I need a lot more information	22	20	22	30
I need some more information	30	27	23	30
I need a little more information	25	29	26	22
I do not need any more information	23	24	29	18

Q75. How much do you agree or disagree with the following statement? “I could easily change my mind about global warming.”

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	6	5	5	5
Somewhat agree	32	32	30	28
Somewhat disagree	33	36	31	34
Strongly disagree	29	27	34	34

Q135. Which of the following statements comes closest to your view?

	May 2011	June 2010	Jan 2010	Nov 2008
Humans can reduce global warming, and we are going to do so successfully	5	5	10	6
Humans could reduce global warming, but it's unclear at this point whether we will do what's needed	41	47	45	51
Humans could reduce global warming, but people aren't willing to change their behavior, so we're not going to	25	21	17	22
Humans can't reduce global warming, even if it is happening	18	18	15	16
Global warming isn't happening	11	10	13	5

Q161. How much do you trust or distrust the following as a source of information about global warming?

Television weather reporters

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	5	5	5	6
Somewhat trust	47	56	51	60
Somewhat distrust	34	28	30	25
Strongly distrust	14	11	14	10

The mainstream news media

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	4	3	3	4
Somewhat trust	34	42	33	43
Somewhat distrust	37	34	35	33
Strongly distrust	25	22	29	20

Scientists

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	21	26	22	28
Somewhat trust	55	55	52	54
Somewhat distrust	19	15	19	14
Strongly distrust	5	4	7	4

President Obama

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	11	-	16	13
Somewhat trust	35	-	35	38
Somewhat distrust	24	-	21	23
Strongly distrust	30	-	28	26

Your U.S. Congressman/Congresswoman

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	2	-	-	-
Somewhat trust	34	-	-	-
Somewhat distrust	39	-	-	-
Strongly distrust	24	-	-	-

The U.S. Environmental Protection Agency (EPA)

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	15	-	-	-
Somewhat trust	47	-	-	-
Somewhat distrust	26	-	-	-
Strongly distrust	12	-	-	-

The U.S. Department of Energy (DOE)

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	11	-	-	-
Somewhat trust	48	-	-	-
Somewhat distrust	28	-	-	-
Strongly distrust	13	-	-	-

The U.S. Centers for Disease Control & Prevention (CDC)

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	14	-	-	-
Somewhat trust	55	-	-	-
Somewhat distrust	23	-	-	-
Strongly distrust	8	-	-	-

The National Oceanic and Atmospheric Administration (NOAA)

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	22	-	-	-
Somewhat trust	54	-	-	-
Somewhat distrust	18	-	-	-
Strongly distrust	6	-	-	-

The National Park Service

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly trust	12	-	-	-
Somewhat trust	61	-	-	-
Somewhat distrust	20	-	-	-
Strongly distrust	6	-	-	-

Q235. The actions of a single individual won't make any difference in global warming.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	15	13	17	9
Somewhat agree	31	29	29	22
Somewhat disagree	36	43	37	45
Strongly disagree	19	15	17	24

Q237. New technologies can solve global warming, without individuals having to make big changes in their lives.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	7	6	6	4
Somewhat agree	40	33	42	26
Somewhat disagree	33	40	33	46
Strongly disagree	21	21	19	25

Q238. Most of my friends are trying to act in ways that reduce global warming.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	4	5	5	4
Somewhat agree	41	47	43	44
Somewhat disagree	38	36	37	40
Strongly disagree	18	12	14	11

Q238A. With the economy in such bad shape, the US can't afford to reduce global warming.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	15	13	-	-
Somewhat agree	37	30	-	-
Somewhat disagree	33	42	-	-
Strongly disagree	16	15	-	-

Q238B. The record heat waves last summer in the United States strengthened my belief that global warming is occurring.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	13	-	-	-
Somewhat agree	41	-	-	-
Somewhat disagree	26	-	-	-
Strongly disagree	20	-	-	-

Q238C. The record snowstorms this winter in the eastern United States make me question whether global warming is occurring.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	13	17	-	-
Somewhat agree	34	35	-	-
Somewhat disagree	30	29	-	-
Strongly disagree	24	20	-	-

Q236. I have personally experienced the effects of global warming.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	5	5	5	4
Somewhat agree	29	25	21	29
Somewhat disagree	34	35	35	43
Strongly disagree	32	35	40	24

Methodology

These results come from nationally representative surveys of American adults, aged 18 and older. The samples were weighted to correspond with US Census Bureau parameters for the United States. The surveys were designed by Anthony Leiserowitz of Yale University and Edward Maibach and Connie Roser-Renouf of George Mason University and conducted by Knowledge Networks, using an online research panel of American adults.

- May 2011: Fielded April 23 through May 12 with 1,010 American adults. The margin of sampling error is plus or minus 3 percent, with 95 percent confidence.
- June 2010: Fielded May 14 through June 1 with 1,024 American adults. The margin of sampling error is plus or minus 3 percent, with 95 percent confidence.
- January 2010: Fielded December 24, 2009 through January 3, 2010 with 1,001 American adults. The margin of sampling error is plus or minus 3 percent, with 95 percent confidence.
- November 2008: Fielded October 7 through November 12 with 2,164 American adults. Data was collected in two waves: wave 1 from October 7 through October 20 and wave 2 from October 24 through November 12. The margin of sampling error is plus or minus 2 percent, with 95 percent confidence.