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## More Say There Is Solid Evidence of Global Warming

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### More Say There Is Solid Evidence of Global Warming

The percentage of Americans saying there is solid evidence of global warming has steadily increased over the past few years. Currently, 67% say there is solid evidence that the earth's average temperature has been getting warmer over the past few decades, up four points since last year and 10 points since 2009.

Similarly, an increasing proportion say that the rise in the earth's temperature has mostly been caused by human activity. Currently, 42% say the warming is mostly caused by human activity, such as burning fossil fuels, while 19% say it is mostly caused by natural patterns in the earth's environment. Last year, 38% mostly attributed global warming to human activity and in 2010 34% did so.

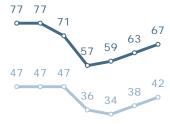
The national survey by the Pew Research Center for the People

& the Press, conducted Oct. 4-7 among 1,511 adults finds increasing numbers of Democrats, Republicans and independents saying there is solid evidence of warming, although there continues to be a substantial partisan divide on this issue. Fully 85% of Democrats say there is solid evidence that the average temperature has been getting warmer, up from 77% last year and similar to levels in 2007 and 2008.

Nearly half of Republicans (48%) say there is solid evidence of warming, compared with 43% last year and 35% in 2009. The percentage of Republicans saying there is solid evidence of warming is still lower than it was in 2006 and 2007, but is now about where it was in 2008. A majority of independents (65%) say there is solid evidence of warming; that is up from 53% in 2009 and lower than from 2006 to 2008.

#### Two-Thirds Say the Earth Is Warming

Yes, solid evidence the earth is warming



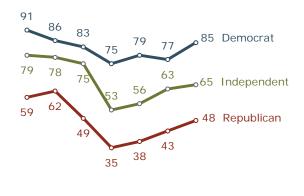
Warming mostly because of human activity

2006 2009 2012

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#### Across Party Lines, More Say There Is Evidence of Warming

% saying there is solid evidence of warming





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A majority of moderate and liberal Republicans (58%) say there is solid evidence of warming, including 38% who say it is mostly due to human activity. By contrast, only 43% of conservative Republicans say there is evidence of warming, while 51% say there is not. However, more conservative Republicans say there is evidence of warming than did so last year. In 2011, just

#### Republicans Divided Over Global Warming; Democrats Divided Over Its Cause

	Among	Reps	Among	g Dems
Is there solid evidence the	Conserv	Mod/ Lib	Cons/ Mod	Liberal
earth is warming?	%	%	%	%
Yes	43	58	83	91
Because of human activity	16	38	51	77
Because of natural patterns	23	18	23	11
Don't know	5	2	10	3
No	51	37	10	7
Mixed evidence (Vol.)/DK	<u>5</u>	<u>5</u>	<u>7</u>	<u>2</u>
	100	100	100	100

PEW RESEARCH CENTER Oct. 4-7, 2012. Figures may not add to 100% because of rounding.

31% said the earth has been warming while 60% said there was no solid evidence of warming.

Large majorities of both conservative and moderate Democrats (83%) and liberal Democrats (91%) think there is solid evidence of warming. But liberal Democrats are more likely to say that warming is mostly because of human activity -77% say this, compared with 51% of conservative and moderate Democrats. The percentage of liberal Democrats saying warming is mostly caused by human activity increased 13 points from 64% last year.

#### Do Scientists Agree?

The public continues to be divided on the question of whether scientists agree that the earth is warming mostly because of human activity; 45% say scientists agree while 43% say they do not. This is little changed from 2010. In 2006, far more said that scientists agree (59%) than disagree (29%) that the earth is warming mostly because of human activity. There is a wide partisan divide over the question of scientific consensus: Just 30% of Republicans think scientists agree, compared with 58% of Democrats. Independents, like the public overall, are divided.

Many continue to see global warming as a problem; 64% of Americans say it is a very serious (39%) or somewhat serious (25%) problem. That is virtually unchanged from last year and still lower than from 2006 to 2008.

## Public Divided over Scientific Consensus on Warming

Do scientists agree earth is getting warmer because of	Total	Rep	Dem	Ind
human activity?	%	%	%	%
Yes	45	30	58	45
No	43	57	32	45
Don't know	<u>12</u>	<u>13</u>	<u>10</u>	<u>10</u>
	100	100	100	100
How serious a problem is global warming?				
Very serious	39	19	56	39
Somewhat serious	25	23	27	26
Not too serious	14	22	7	15
Not a problem	19	33	8	17
Don't know	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
	100	100	100	100

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A majority of Democrats (56%) say that global warming is a very serious problem. By contrast, just 19% of Republicans think it is a very serious problem while the majority (55%) says it is not too serious or not a problem at all. Among independents, 39% say that global warming is a very serious problem.

#### **Skeptical Seniors**

A majority across all age groups say there is solid evidence that the average temperature on earth is warming. However, those 65 and older are far less likely to think that warming is mostly because of human activity – just 28% say this, compared with 47% of those under 50. Similarly, just 29% of people 65 and older say that global warming is a very serious problem That compares with about four-in-ten in other age groups.

On views about scientific consensus, the age differences are even greater. A majority of those under 30 (53%) say that scientists generally agree the earth is getting warmer because of human activity. By contrast, a plurality of seniors (46%) say scientists generally disagree while just 31% say they agree. Those ages 30 to 64 are divided in whether they think scientists generally agree or disagree about global warming.

## Wide Age Differences in Views of Global Warming

le there called avidence the	18- 29	30- 49	50- 64	65+
Is there solid evidence the earth is warming?	%	%	%	%
Yes	67	68	70	62
Because of human activity	47	47	41	28
Because of natural patterns	17	15	23	24
Don't know	3	6	6	9
No	25	26	24	28
Mixed evidence/Don't know	<u>7</u>	<u>6</u>	<u>7</u>	<u>11</u>
	100	100	100	100
How serious a problem is global warming?				
Very serious	43	41	41	29
Somewhat serious	24	25	29	23
Not too serious	15	15	11	16
Not a problem	17	17	17	25
Don't know	<u>0</u>	<u>3</u>	<u>3</u>	<u>7</u>
	100	100	100	100
Do scientists agree earth is getting warmer because of human activity?				
Yes	53	48	42	31
No	38	44	45	46
Don't know	<u>8</u>	<u>8</u>	<u>13</u>	<u>23</u>
	100	100	100	100
N	198	376	495	425

PEW RESEARCH CENTER Oct. 4-7, 2012. Figures may not add to 100% because of rounding.

#### Global Warming and the 2012 Vote

Fully 88% of voters who support Barack Obama say there is solid evidence that the average temperature on earth has been increasing over the past few decades while just 8% say there is not. And 63% say that the warming is mostly because of human activity.

By contrast, just 42% of Mitt Romney supporters say there is solid evidence of warming while as many (49%) say there is not. Just 18% of Romney supporters think the earth is warming mostly because of human activity.

Obama supporters also are far more likely than Romney supporters to say global warming is a very serious problem (59% vs. 13%). Fully 58% of Romney supports say it is not too serious or not a problem.

### Romney Voters Far Less Likely to See Solid Evidence of Warming

Is there solid evidence the	Obama voters	Romney voters
earth is warming?	%	%
Yes	88	42
Because of human activity	63	18
Because of natural patterns	19	20
Don't know	6	5
No	8	49
Mixed evidence (Vol.)/DK	<u>4</u>	<u>9</u>
	100	100
How serious a problem is global warming?		
Very serious	59	13
Somewhat serious	25	25
Not too serious	8	25
Not a problem	5	33
Don't know	<u>2</u>	<u>4</u>
	100	100
N	552	567

PEW RESEARCH CENTER Oct. 4-7, 2012. Based on registered voters. Figures may not add to 100% because of rounding.

#### **About the Survey**

The analysis in this report is based on telephone interviews conducted October 4-7, 2012, among a national sample of 1,511 adults, 18 years of age or older, living in all 50 U.S. states and the District of Columbia (906 respondents were interviewed on a landline telephone, and 605 were interviewed on a cell phone, including 291 who had no landline telephone). Data collection was managed by Princeton Survey Research Associates International and conducted by interviewers at Princeton Data Source. A combination of landline and cell phone random digit dial samples were used; both samples were provided by Survey Sampling International. Interviews were conducted in English and Spanish. Respondents in the landline sample were selected by randomly asking for the youngest adult male or female who is now at home. Interviews in the cell sample were conducted with the person who answered the phone, if that person was an adult 18 years of age or older. For detailed information about our survey methodology, see <a href="http://people-press.org/methodology/">http://people-press.org/methodology/</a>

The combined landline and cell phone sample are weighted using an iterative technique that matches gender, age, education, race, Hispanic origin and nativity and region to parameters from the March 2011 Census Bureau's Current Population Survey and population density to parameters from the 2010 Decennial Census. The sample also is weighted to match current patterns of telephone status and relative usage of landline and cell phones (for those with both), based on extrapolations from the 2011 National Health Interview Survey. The weighting procedure also accounts for the fact that respondents with both landline and cell phones have a greater probability of being included in the combined sample and adjusts for household size among respondents with a landline phone. Sampling errors and statistical tests of significance take into account the effect of weighting. The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey:

Group	Unweighted sample size	Plus or minus
Total	1,511	2.9 percentage points
Republican	440	5.4 percentage points
Conservative	321	6.4 percentage points
Moderate/liberal	112	10.8 percentage points
Independent	500	5.1 percentage points
Democrat	493	5.1 percentage points
Conserv/Moderate	298	6.6 percentage points
Liberal	179	8.5 percentage points
Among registered voters		
Obama supporters	552	4.8 percentage points
Romney supporters	567	4.8 percentage points

Sample sizes and sampling errors for other subgroups are available upon request.

In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

#### **Sample Composition Analysis**

The following table shows the profile of all adults interviewed, compared with population parameters from government surveys, as well as the profile of registered and likely voters interviewed.

	C	october 4-7, 2012 Po	litical Weighted
Group	Population Parameter	General Public	Registered Voters
<u>Gender</u>	%	%	%
Men	49	50	47
Women	51	50	53
<u>Age</u>			
18-24	13	13	10
25-34	18	17	13
35-44	17	17	17
45-54	19	19	20
55-64	16	16	19
65+	17	17	20
Education			
College grad +	28	30	36
Some college	28	28	30
High school or less	44	41	34
Race/Ethnicity			
White non-Hispanic	68	67	74
Black non-Hispanic	12	11	11
Hispanic	14	13	8
Other non-Hispanic	7	7	5
Region			
Northeast	18	19	18
Midwest	22	22	24
South	37	37	36
West	23	23	21
Phone use			
Landline only	7	7	6
Dual – landline and cell	58	59	65
Cell phone only	35	33	29
Unweighted N		1,511	1,201

Population parameters for all adults from the March 2011 Current Population Survey except phoneuse, which is based on projections from the 2011 National Health Interview Survey. All figures are based on weighted data. Don't know responses for the current survey are not shown. Whites, blacks and other race are non-Hispanic; Hispanics are of any race.

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# PEW RESEARCH CENTER FOR THE PEOPLE & THE PRESS EARLY OCTOBER 2012 POLITICAL SURVEY TOPLINE October 4-7, 2012 N=1,511

NO QUESTIONS 1-4, 6, 9-14, 16-19, 23-25, 29-33, 36-38, 41, 44-51, 53-55

QUESTIONS 5, 7-8, 15, 20-22, 26-28, 34, 35, 64-69 PREVIOUSLY RELEASED

**QUESTIONS 39-40, 42-43, 52, 56-60 HELD FOR FUTURE RELEASE** 

#### **ASK ALL:**

On a different subject...

Q.61 From what you've read and heard, is there solid evidence that the average temperature on earth has been getting warmer over the past few decades, or not?

#### ASK IF EARTH IS GETTING WARMER (Q.61=1):

Q.61a Do you believe that the earth is getting warmer [READ AND RANDOMIZE]?

#### **BASED ON TOTAL:**

		Nov	Feb 22-	Oct	Sep 30-					
Oct 4-7		9-14	Mar 1	13-18	Oct 4	Apr	Jan	Aug	Jul	Jun
<u>2012</u>		<u>2011</u>	<u> 2011</u>	<u>2010</u>	<u>2009</u>	2008	2007	2006	<u>2006</u>	<u>2006</u>
67	Yes	63	58	59	57	71	77	77	79	70
	Mostly because of									
	human activity such									
42	as burning fossil fuels,	38	36	34	36	47	47	47	50	41
	[OR]									
	Mostly because of natural									
	patterns in the earth's									
19	environment	18	18	18	16	18	20	20	23	21
6	Don't know/Refused (VOL.)	6	5	6	6	6	10	10	6	8
26	No	28	34	32	33	21	16	17	17	20
1	Mixed/some evidence (VOL.)	1	2	1	2	3	1	1	1	1
6	Don't know/Refused (VOL.)	8	5	8	8	5	6	5	3	9

#### ASK ALL:

Q.62 In your view, is global warming a very serious problem, somewhat serious, not too serious, or not a problem?

		Nov	Oct	Sep 30-	- Apr 28-				
Oct 4-7		9-14	13-18	Oct 4	May 12	Apr	Jan	Jul	Jun
<u>2012</u>		<u> 2011</u>	<u>2010</u>	2009	<u>2009</u>	2008	<u>2007</u>	<u>2006</u>	<u>2006</u>
39	Very serious	38	32	35	47	44	45	43	41
25	Somewhat serious	27	31	30	26	29	32	36	33
14	Not too serious	16	16	15	11	13	12	11	13
19	Not a problem	17	18	17	13	11	8	9	11
3	Don't know/Refused (VOL.)	2	3	3	2	3	3	1	2

#### ASK ALL:

Q.63 From what you've heard or read, do scientists generally agree that the earth is getting warmer because of human activity, or do they not generally agree about this?

		Oct	Apr 28-	Trend for Comparison
Oct 4-7		13-18	May 12	July
<u> 2012</u>		2010	2009	<u>2006</u> 1
	Yes, scientists generally agree that the earth is			
45	getting warmer because of human activity	44	56	59
	No, scientists do not generally agree that the ear	rth		
43	is getting warmer because of human activity	44	35	29
12	Don't know/Refused (VOL.)	12	9	12

#### ASK ALL:

PARTY In politics TODAY, do you consider yourself a Republican, Democrat, or independent?

ASK IF INDEP/NO PREF/OTHER/DK/REF (PARTY=3,4,5,9):

PARTYLN As of today do you lean more to the Republican Party or more to the Democratic Party?

#### BASED ON LIKELY VOTERS [N=1,112]:

				(VOL.)	(VOL.)			
				No	Other	(VOL.)	Lean	Lean
	<u>Republican</u>	<b>Democrat</b>	<u>Independent</u>	preference	party	DK/Ref	<u>Rep</u>	<u>Dem</u>
Oct 4-7, 2012	36	31	30	1	1	1	14	14
Sep 12-16, 2012	29	39	30	1	*	2	14	13

#### BASED ON REGISTERED VOTERS [N=1,201]:

				(VOL.)	(VOL.)			
				No	Other	(VOL.)	Lean	Lean
	<u>Republican</u>	<u>Democrat</u>	Independent	preference	<u>party</u>	DK/Ref	<u>Rep</u>	<u>Dem</u>
Oct 4-7, 2012	33	32	31	1	1	1	14	14
Sep 12-16, 2012	28	37	31	1	*	2	14	13
Jul 16-26, 2012	25	38	33	2	1	2	15	12
Jun 28-Jul 9, 2012	27	36	34	1	*	2	15	15
Jun 7-17, 2012	28	35	35	1	*	1	17	14
May 9-Jun 3, 2012	28	35	31	2	*	3	13	12
Apr 4-15, 2012	28	34	35	1	*	1	16	12
Mar 7-11, 2012	28	38	31	1	1	1	15	14
Feb 8-12, 2012	32	34	31	1	*	1	13	15
Jan 11-16, 2012	24	33	38	2	*	2	17	14
Jan 4-8, 2012	31	32	32	3	*	2	15	12

#### **BASED ON GENERAL PUBLIC:**

				(VOL.)	(VOL.)			
				No	Other	(VOL.)	Lean	Lean
	<u>Republican</u>	<u>Democrat</u>	<u>Independent</u>	preference	<u>party</u>	DK/Ref	<u>Rep</u>	<u>Dem</u>
Oct 4-7, 2012	27	31	36	3	1	3	15	15
Sep 12-16, 2012	24	35	36	2	*	2	14	16
Jul 16-26, 2012	22	33	38	4	*	3	14	15
Jun 28-Jul 9, 2012	24	33	37	3	*	3	15	17
Jun 7-17, 2012	24	33	39	2	*	2	17	17
May 9-Jun 3, 2012	24	32	36	4	*	4	13	14
Apr 4-15, 2012	24	31	39	3	*	2	15	15
Mar 7-11, 2012	24	34	36	3	1	2	16	17
Feb 8-12, 2012	26	32	36	4	1	2	13	17
Jan 11-16, 2012	22	31	42	3	*	2	17	16
Jan 4-8, 2012	26	31	35	4	*	4	14	14

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Question was worded "From what you've heard or read, is there general agreement among scientists that the earth is getting warmer because of human activity, or not."

#### PARTY/PARTYLN CONTINUED...

/PARTYLN CONTINUED								
				(VOL.)	(VOL.)			
				No	Other	(VOL.)	Lean	Lean
	<u>Republican</u>	<u>Democrat</u>	<u>Independent</u>	preference	<u>party</u>	DK/Ref	<u>Rep</u>	<u>Dem</u>
Yearly Totals								
2011	24.3	32.3	37.4	3.1	.4	2.5	15.7	15.6
2010	25.2	32.7	35.2	3.6	.4	2.8	14.5	14.1
2009	23.9	34.4	35.1	3.4	.4	2.8	13.1	15.7
2008	25.7	36.0	31.5	3.6	.3	3.0	10.6	15.2
2007	25.3	32.9	34.1	4.3	.4	2.9	10.9	17.0
2006	27.8	33.1	30.9	4.4	.3	3.4	10.5	15.1
2005	29.3	32.8	30.2	4.5	.3	2.8	10.3	14.9
2004	30.0	33.5	29.5	3.8	.4	3.0	11.7	13.4
2003	30.3	31.5	30.5	4.8	.5	2.5	12.0	12.6
2002	30.4	31.4	29.8	5.0	.7	2.7	12.4	11.6
2001	29.0	33.2	29.5	5.2	.6	2.6	11.9	11.6
2001 Post-Sept 11	30.9	31.8	27.9	5.2	.6	3.6	11.7	9.4
2001 Pre-Sept 11	27.3	34.4	30.9	5.1	.6	1.7	12.1	13.5
2000	28.0	33.4	29.1	5.5	.5	3.6	11.6	11.7
1999	26.6	33.5	33.7	3.9	.5	1.9	13.0	14.5
1998	27.9	33.7	31.1	4.6	.4	2.3	11.6	13.1
1997	28.0	33.4	32.0	4.0	.4	2.3	12.2	14.1
1996	28.9	33.9	31.8	3.0	.4	2.0	12.1	14.9
1995	31.6	30.0	33.7	2.4	.6	1.3	15.1	13.5
1994	30.1	31.5	33.5	1.3		3.6	13.7	12.2
1993	27.4	33.6	34.2	4.4	1.5	2.9	11.5	14.9
1992	27.6	33.7	34.7	1.5	0	2.5	12.6	16.5
1991	30.9	31.4	33.2	0	1.4	3.0	14.7	10.8
1990	30.9	33.2	29.3	1.2	1.9	3.4	12.4	11.3
1989	33	33	34					
1987	26	35	39					