## More Say There Is Solid Evidence of Global Warming

## FOR FURTHER INFORMATION CONTACT:

## Andrew Kohut

President, Pew Research Center

## Carroll Doherty and Michael Dimock

Associate Directors
Scott Keeter
Director of Survey Research

1615 L St, N.W., Suite 700
Washington, D.C. 20036
Tel (202) 419-4350
Fax (202) 419-4399
www.peoplepress.org

## 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.

Two-Thirds Say the Earth Is Warming

Yes, solid evidence the earth is warming $77 \quad 77$


Warming mostly because of human activity
200620092

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.

Across Party Lines, More Say There Is Evidence of Warming
\% saying there is solid evidence of warming



PEW RESEARCH CENTER Oct. 4-7, 2012.

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

| Is there solid evidence the earth is warming? | Among Reps |  | Among Dems |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Conserv | Mod/ Lib | Cons/ Mod | Liberal |
|  | \% | \% | \% | \% |
| 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 | $\underline{5}$ | $\underline{5}$ | $\underline{7}$ | $\underline{2}$ |
|  | 100 | 100 | 100 | 100 |
| PEW RESEARCH CENTER Oct. 4-7, rounding. | 2012. Figu | $\text { es may } r$ | $\text { to } 100 \%$ | cause of |

$31 \%$ 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: J ust 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\%)

| Public Divided over Scientific Consensus on Warming |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Do scientists agree earth is getting warmer because of human activity? | Total \% | $\begin{gathered} \text { Rep } \\ \% \end{gathered}$ | $\begin{gathered} \text { Dem } \\ \% \end{gathered}$ | Ind $\%$ |
| Yes | 45 | 30 | 58 | 45 |
| No | 43 | 57 | 32 | 45 |
| Don't know | 12 | 13 | 10 | 10 |
|  | 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 | $\underline{3}$ | $\underline{3}$ | $\underline{3}$ | $\underline{3}$ |
|  | 100 | 100 | 100 | 100 |

PEW RESEARCH CENTER Oct. 4-7, 2012. Figures may not add to $100 \%$ because of rounding. problem. That is virtually unchanged from last year and still lower than from 2006 to 2008.

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

|  | $\mathbf{1 8 -}$ | $\mathbf{3 0 -}$ | $\mathbf{5 0 -}$ |  |
| :--- | :---: | :---: | :---: | :---: |
| Is there solid evidence the | $\mathbf{2 9}$ | $\mathbf{4 9}$ | $\mathbf{6 4}$ | $\mathbf{6 5 +}$ |
| 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 | $\underline{7}$ | $\underline{6}$ | $\underline{7}$ | $\underline{11}$ |
|  | 100 | 100 | 100 | 100 |


| How serious a problem is <br> 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 | $\underline{0}$ | $\underline{3}$ | $\underline{3}$ | $\underline{7}$ |
|  | 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 | $\underline{8}$ | $\underline{8}$ | $\underline{13}$ | $\underline{23}$ |
|  | 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. J ust 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 <br> voters | Romney <br> 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 | $\underline{4}$ | $\underline{9}$ |
|  | 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 | $\underline{2}$ | $\underline{4}$ |
|  | 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 http:// peoplepress.org/methodology/

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 <br> sample size <br> 1,511 | Plus or minus... |
| :--- | :---: | ---: |
| Total | 440 | 5.9 percentage points |
| Republican | 321 | 6.4 percentage points |
| $\quad$ Conservative | 112 | 10.8 percentage points |
| $\quad$ Moderate/liberal | 500 | 5.1 percentage points |
| Independent | 493 | 5.1 percentage points |
| Democrat | 298 | 6.6 percentage points |
| $\quad$ Conserv/Moderate | 179 | 8.5 percentage points |
| $\quad$ Liberal |  |  |
| Among registered voters | 552 | 4.8 percentage points |
| Obama supporters | 567 | 4.8 percentage points |
| Romney supporters |  |  |

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.
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# PEW RESEARCH CENTER FOR THE PEOPLE \& THE PRESS <br> EARLY OCTOBER 2012 POLITICAL SURVEY <br> TOPLINE <br> October 4-7, 2012 <br> $\mathrm{N}=1,511$ 

NO QUESTI ONS 1-4, 6, 9-14, 16-19, 23-25, 29-33, 36-38, 41, 44-51, 53-55
QUESTI ONS 5, 7-8, 15, 20-22, 26-28, 34, 35, 64-69 PREVI OUSLY RELEASED
QUESTI ONS 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 GETTI NG WARMER (Q.61=1):
Q.61a Do you believe that the earth is getting warmer [READ AND RANDOMI ZE]?

## BASED ON TOTAL:

| Oct 4-7 |  | $\begin{gathered} \text { Nov } \\ 9-14 \end{gathered}$ | $\begin{gathered} \text { Feb 22- } \\ \text { Mar } 1 \end{gathered}$ | $\begin{gathered} \text { Oct } \\ 13-18 \end{gathered}$ | $\begin{gathered} \text { Sep } 30- \\ \text { Oct } 4 \end{gathered}$ | Apr | Jan | Aug | Jul | Jun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{2012}$ |  | $\underline{2011}$ | 2011 | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | 2007 | 2006 | 2006 | 2006 |
| 67 | Yes | 63 | 58 | 59 | 57 | 71 | 77 | 77 | 79 | 70 |
|  | Mostly because of human activity such |  |  |  |  |  |  |  |  |  |
| 42 | as burning fossil fuels, [OR] | 38 | 36 | 34 | 36 | 47 | 47 | 47 | 50 | 41 |
|  | 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?

| Oct 4-7 |  | Nov | Oct | Sep 30- | Apr 28- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 9-14 | 13-18 | Oct 4 | May 12 | Apr | Jan | Jul | Jun |
| $\underline{2012}$ |  | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2006}$ |
| 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?


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 LI KELY VOTERS [ $\mathbf{N}=1,112$ ]:

|  |  |  |  | (VOL.) | (VOL.) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Republican | Democrat | Indep | No reference | Other party | (VOL.) DK/Ref | Lean Rep | Lean |
| 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 REGI STERED VOTERS [ $\mathrm{N}=1,201$ ]:

|  | Republican | Democrat | Independent | (VOL.) (VOL.) |  | (VOL.) | Lean Rep | Lean Dem |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | No | Other |  |  |  |
|  |  |  |  | preference | party | DK/Ref |  |  |
| 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 |
| J an 4-8, 2012 | 31 | 32 | 32 | 3 | * | 2 | 15 | 12 |

BASED ON GENERAL PUBLIC:

|  | Republican | Democrat | Independent | $\begin{gathered} \text { (VOL.) } \\ \text { No } \\ \text { preference } \end{gathered}$ | (VOL.) Other party | (VOL.) DK/Ref | Lean Rep | Lean Dem |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oct 4-7, 2012 | 27 | 31 | 36 | 3 | , | 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 |

[^0]
## PARTY/ PARTYLN CONTI NUED...

(VOL.) (VOL.)

| Republican | Democrat | Independent | No preference | Other party | (VOL.) DK/Ref | Lean Rep | Lean Dem |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24.3 | 32.3 | 37.4 | 3.1 | . 4 | 2.5 | 15.7 | 15.6 |
| 25.2 | 32.7 | 35.2 | 3.6 | . 4 | 2.8 | 14.5 | 14.1 |
| 23.9 | 34.4 | 35.1 | 3.4 | . 4 | 2.8 | 13.1 | 15.7 |
| 25.7 | 36.0 | 31.5 | 3.6 | . 3 | 3.0 | 10.6 | 15.2 |
| 25.3 | 32.9 | 34.1 | 4.3 | . 4 | 2.9 | 10.9 | 17.0 |
| 27.8 | 33.1 | 30.9 | 4.4 | . 3 | 3.4 | 10.5 | 15.1 |
| 29.3 | 32.8 | 30.2 | 4.5 | . 3 | 2.8 | 10.3 | 14.9 |
| 30.0 | 33.5 | 29.5 | 3.8 | . 4 | 3.0 | 11.7 | 13.4 |
| 30.3 | 31.5 | 30.5 | 4.8 | . 5 | 2.5 | 12.0 | 12.6 |
| 30.4 | 31.4 | 29.8 | 5.0 | . 7 | 2.7 | 12.4 | 11.6 |
| 29.0 | 33.2 | 29.5 | 5.2 | . 6 | 2.6 | 11.9 | 11.6 |
| 30.9 | 31.8 | 27.9 | 5.2 | . 6 | 3.6 | 11.7 | 9.4 |
| 27.3 | 34.4 | 30.9 | 5.1 | . 6 | 1.7 | 12.1 | 13.5 |
| 28.0 | 33.4 | 29.1 | 5.5 | . 5 | 3.6 | 11.6 | 11.7 |
| 26.6 | 33.5 | 33.7 | 3.9 | . 5 | 1.9 | 13.0 | 14.5 |
| 27.9 | 33.7 | 31.1 | 4.6 | . 4 | 2.3 | 11.6 | 13.1 |
| 28.0 | 33.4 | 32.0 | 4.0 | . 4 | 2.3 | 12.2 | 14.1 |
| 28.9 | 33.9 | 31.8 | 3.0 | . 4 | 2.0 | 12.1 | 14.9 |
| 31.6 | 30.0 | 33.7 | 2.4 | . 6 | 1.3 | 15.1 | 13.5 |
| 30.1 | 31.5 | 33.5 | 1.3 | -- | 3.6 | 13.7 | 12.2 |
| 27.4 | 33.6 | 34.2 | 4.4 | 1.5 | 2.9 | 11.5 | 14.9 |
| 27.6 | 33.7 | 34.7 | 1.5 | 0 | 2.5 | 12.6 | 16.5 |
| 30.9 | 31.4 | 33.2 | 0 | 1.4 | 3.0 | 14.7 | 10.8 |
| 30.9 | 33.2 | 29.3 | 1.2 | 1.9 | 3.4 | 12.4 | 11.3 |
| 33 | 33 | 34 | -- | -- | -- | -- | -- |
| 26 | 35 | 39 | -- | -- | -- | -- | -- |


[^0]:    1 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."

