

Political leaders play key role in how worried Americans are by climate change: study

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More than extreme weather events and the work of scientists, it is national political leaders who influence how much Americans worry about the threat of climate change, new research finds.

In a study of public opinion from 2002 to 2010, researchers found that public belief that climate change was a threat peaked in 2006-2007 when Democrats and Republicans in Congress showed the most agreement on the issue.

But public concern has dropped since then, as partisanship over the issue increased.

"It is the political leaders in Washington who are really driving public opinion about the threat of climate change," said J. Craig Jenkins, coauthor of the study and professor of sociology at Ohio State University.

"The politics overwhelms the science."

The study found that the state of the economy was the second biggest factor affecting perceptions of climate threat. The incidence of extreme weather events had no effect on American's view of the climate change threat. New research published in scientific journals had no impact on public views, but major reports on climate change and articles in popular science magazines did have a small but noticeable impact. The work of advocacy groups also had some effect. The quantity of media coverage also affected perceived threat levels, but that coverage was mostly a



function of what political leaders and advocates were saying.

"The most important factor remained the polarized positions taken by Democrats and Republicans in Washington," Jenkins said.

"When our political leaders can't agree on whether climate change is a threat, the majority of people can't either. The public is divided because our political leaders are polarized."

Jenkins conducted the study with Robert Brulle of Drexel University and Jason Carmichael of McGill University. Their results appear online in the journal *Climatic Change* and will appear in a future print edition.

The researchers created a U.S. Climate Change Threat Index that measures how public opinion has changed on the issue between January 2002 and December 2010. To create the index, they used a method that is regularly used in social research on public opinion, but has never been used specifically on the climate change issue, Jenkins said.

They combined data from 74 separate surveys over the nine-year period to create a quarterly measure of public concern over climate change. Included were 14 different questions from 6 different polling organizations, which were administered to 84,086 respondents.

They calculated the percentage of respondents choosing a particular response – for example, the percentage that sees global climate change as a "serious problem" or "major threat" -- over time.

The researchers examined how changes in the threat index were affected by five factors: extreme weather events, public access to accurate scientific information, media coverage, the impact of major advocacy groups, and cues from political elites. They also took into account other factors that may influence views on climate change, including the Gross



Domestic Product (GDP), unemployment rate, war deaths in Iraq and Afghanistan, and the price of oil.

The impact of political leaders was measured by Congressional press release statements on climate change issued by Republicans and Democrats, Senate and House roll call votes on climate-change bills, and the number of Congressional hearings on climate.

Advocacy was measured by the number of stories on climate change in major environmental magazines and conservative magazines, as well as the number of New York Times mentions of the movie An Inconvenient Truth, a popular 2006 documentary with Al Gore, the former vice president and 2000 Democratic Presidential candidate as a narrator, that supported the idea that climate change is a threat.

Jenkins said changes in the factors examined in the study can help explain how the threat index has fluctuated between 2002 and 2010.

Between 2002 and 2005, the index was relatively stable, with a score between about 41 and 45 (the numbers roughly correspond to the percentage of Americans who view climate change as a serious threat).

Beginning in the first quarter of 2006 and continuing until the third quarter of 2007, there was a steady increase in the threat index, peaking at a score of about 53.

During this time, Republican scores on anti-environmental voting decreased and Democratic statements in favor of action on climate change increased. Prominent Republican senators, such as John McCain, were openly advocating for climate change legislation and working with Democratic senators to pass it.

"This was a time when there was more partisan agreement that



something had to be done about climate change," Jenkins said.

In addition, the movie An Inconvenient Truth was released in 2006 and it won two Academy Awards, increasing public concern about climate change.

During this period, the GDP was increasing and unemployment remained low and stable.

However, things began to change in 2008. The level of Republican antienvironmental voting increased progressively, reaching the highest level ever recorded in 2010.

"Partisanship increased and Americans no longer saw a consensus among their political leaders about the importance of climate change," Jenkins said.

In addition, unemployment increased and the GDP declined following the 2008 financial collapse, also contributing to a decline in the index, which fell below 45 by the end of 2008.

There was one final increase in the index during the second quarter of 2009, when a number of Democratic congressional statements were released urging action on climate change. These statements coincided with House debate and vote on the American Clean Energy and Security Act of 2009.

But after this flurry of activity, the threat index soon dropped to the 2002 to 2005 levels and remained there through 2010. The Senate refused to take up the climate change issue.

Jenkins said the results of this study present a clear message to the climate science community.



"The message is that they need to re-think their strategy. Many scientists believe that if we simply educate people about climate change, they will eventually see it as a threat and determine that we need to do something about it," he said.

"But our findings suggest that's not what's happening. There is no linear process where people get educated about the threat and then demand action. People's views fluctuate quite a bit, and lot has to do with what they hear from their political leaders. It is a political battle."

More information: Brulle RJ, Carmichael J, Jenkins JC (2012). Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the U.S., 2002 – 2010

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