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George Mason University  
Center for Climate Change Communication

# *Understanding Audiences and the Value of Experiential Information*

## **Adapting to Climate Change in the Mid-Atlantic**

Wednesday, March 24, 2010

Hyatt Regency Chesapeake Bay Resort  
Cambridge, Maryland

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# Global Warming's "Six Americas"

**SAVING ENERGY  
AT HOME  
AND ON THE ROAD**

A survey of Americans' energy intentions, motivations, and



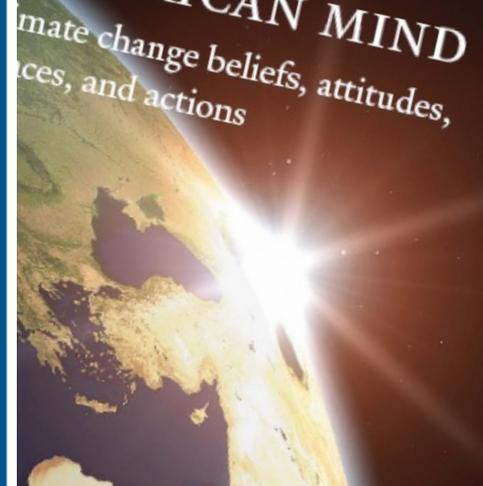
Wiserowitz, PhD  
Climate Change  
Environmental Studies

**GLOBAL WARMING'S  
SIX AMERICAS 2009:**  
An Audience Segmentation Analysis



segmentation

**CLIMATE CHANGE  
AMERICAN MIND**  
Climate change beliefs, attitudes,  
intentions, and actions



YALE PROJECT ON  
**CLIMATE  
CHANGE**



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## Take-away messages:

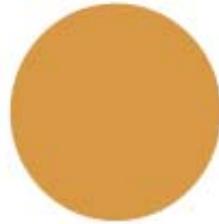
1. Audiences can be identified by unique clusters of beliefs, values and attitudes (*Global Warming's Six Americas*)
2. Early research points to regional differences across the United States in the ways that people think about global warming
3. Localized, experiential learning is more powerful than logical arguments



**Alarmed**  
10%



**Concerned**  
29%



**Cautious**  
27%



**Disengaged**  
6%



**Doubtful**  
13%



**Dismissive**  
16%

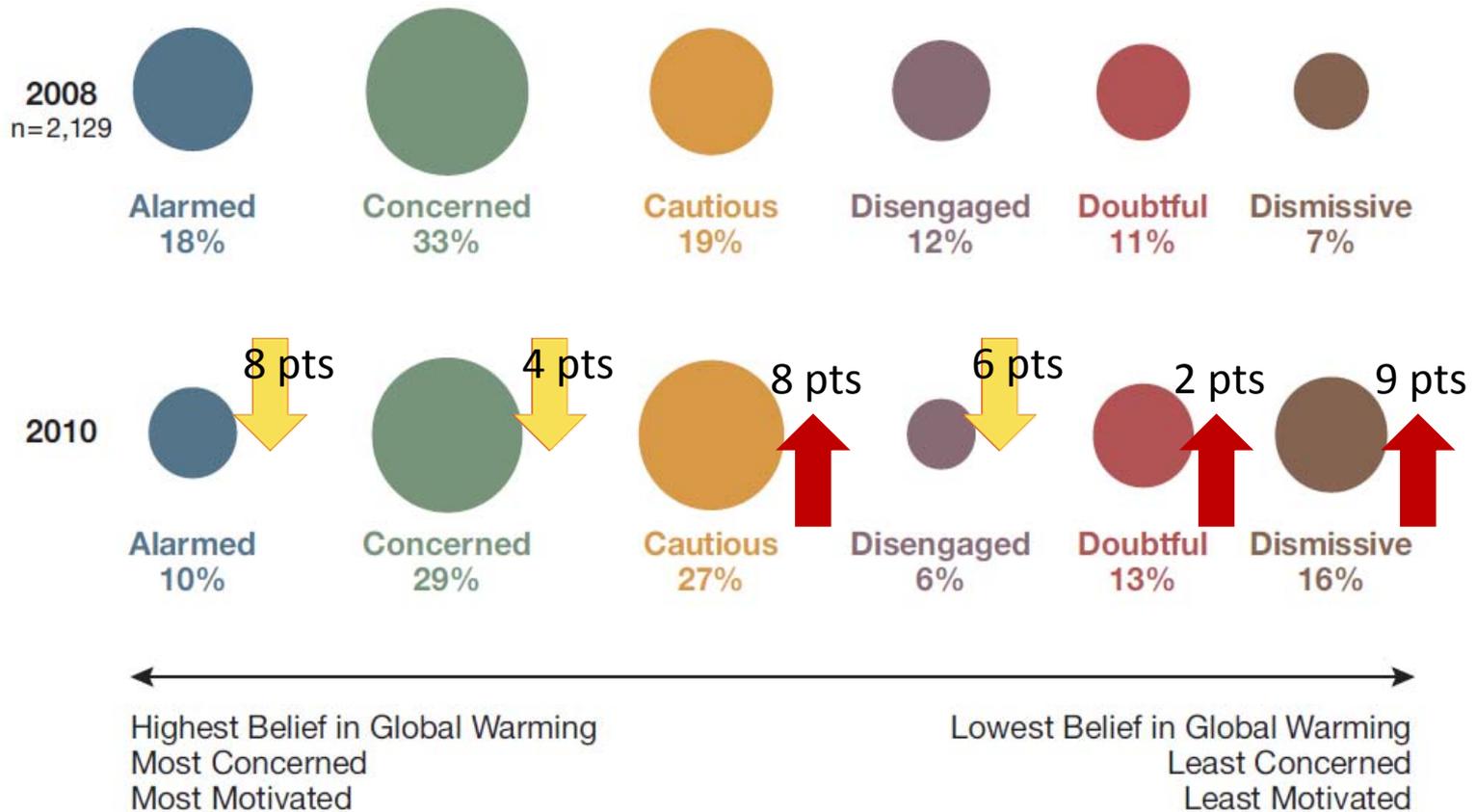


Highest Belief in Global Warming  
Most Concerned  
Most Motivated

Lowest Belief in Global Warming  
Least Concerned  
Least Motivated

**Figure 1:** Proportion of the U.S. adult population in the Six Americas

*Proportion represented by area*





To understand human behavior,  
we must understand people.

**But people are not all alike.**



2008 – 18% of Americans  
2009/2010 – 10%

# Alarmed Alice



Alice is completely sure global warming is happening, she believes it is human caused, and she feels personally threatened by it. She also believes that people around the world are already being harmed by it, or will soon be.

Alice is only modestly more likely than average to be taking steps to reduce her energy use, but she is far more likely than average to use her purchasing power - and her voice as a citizen - to advocate for change.

Alice supports a wide range of policy responses to address global warming.

2008 – 33%  
2009/2010 – 29%

# Concerned Claudia

Claudia is very sure global warming is happening, and she believes it is human causes, but she feels less personally threatened by it than Alice. She believes that global warming will begin to harm people around the world 10+ years from now.

Claudia is average in terms of taking measures to reduce her energy consumption, but well above average in terms of using her purchasing power to advocate for change.

Claudia supports aggressive government policies, but is unlikely to contact her elected officials to say so.



2008 – 19%  
2009/2010 – 27%

# Cautious Carl



Carl is only somewhat sure that global warming is happening, and he is equally likely to see it as human caused or not. He sees global warming as a more distant threat – primarily a threat to other people – that won't begin to hurt people around the world for another 25 - 50 years.

Carl is taking average steps to reduce his energy consumption, but isn't involved in addressing global warming in other ways.

He is, however, modestly supportive of a range of proposed policies.

2008 – 12%  
2009/2010 – 6%

# Disengaged Diane

Diane thinks global warming may be happening, but she's not at all sure. She's given it very little thought, doesn't consider it personally important, and doesn't feel she knows anything about it.

Diane has done relatively little to reduce her use of energy at home, but because she has lower than average income she is more likely than average not to rely on her own car.

Despite her low level of personal concern, Diane is more supportive than Carl of mounting a national response to global warming.



2008 – 11%  
2009/2010 – 13%

# Doubtful David



David says he doesn't know if real or not, but if it is, he's pretty sure it isn't human-caused. David certainly isn't worried about it; he sees global warming as a very distant threat that won't harm people for at least another 100 years.

David isn't in favor of a national response to global warming per se, but he is modestly in favor of a range of energy-saving policy measures, and is active in improving energy-efficiency in his home.

2008 – 7%  
2009/2010 – 16%

# Dismissive Dan

Dan simply does not believe that global warming is happening – or that it's in God's hands - and he believes that many scientists share his views. Needless to say, Dan doesn't support any form of government action against global warming.

Although vigorously opposed to government action on global warming, he himself is quite active in making energy-efficient improvements to his home.



## Five Key Beliefs

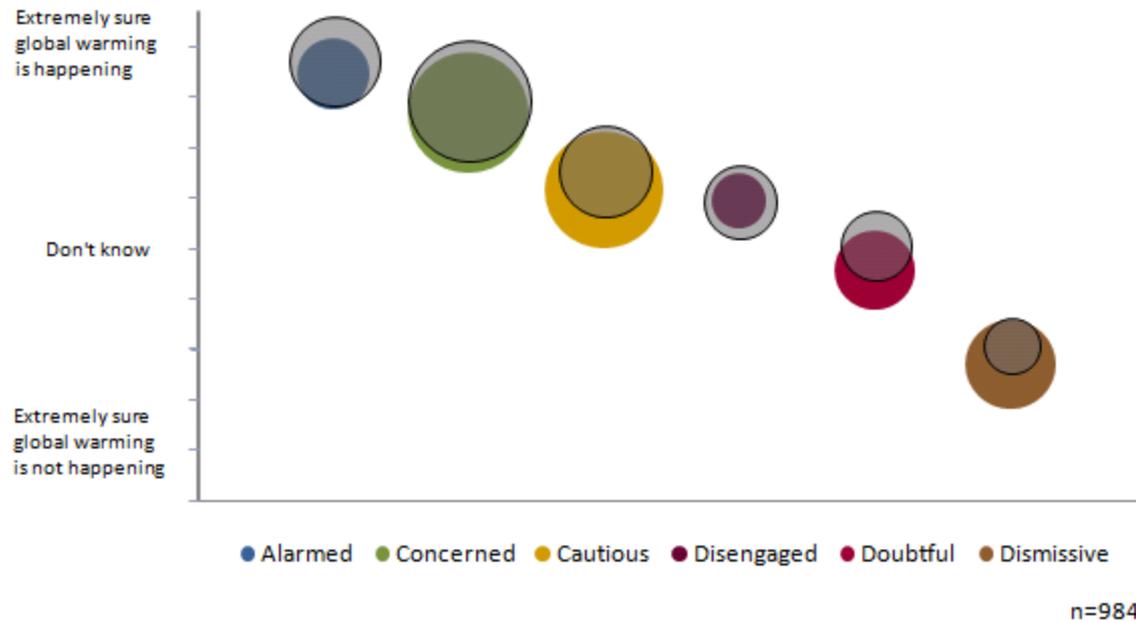
differentiate those who ***support*** strong climate change policies from those who ***don't*** in the United States

1. Reality of climate change: *It's real.*
2. Certainty: *I'm certain it's real.*
3. Evaluation: *It will be bad for people.*
4. Belief in human causation: *Humans caused it.*
5. Response efficacy: *Humans can fix it.*

Krosnick, Holbrook, Lowe & Visser, 2006

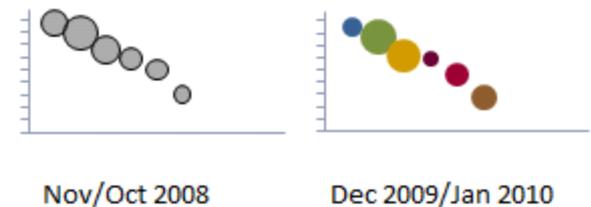
1. Reality of climate change: *It's real.*
2. Certainty: *I'm certain it's real.*

**Figure 1:** Certainty of belief in the reality of global warming  
*Do you think that global warming is happening? How sure are you that global warming [is/is not] happening?*



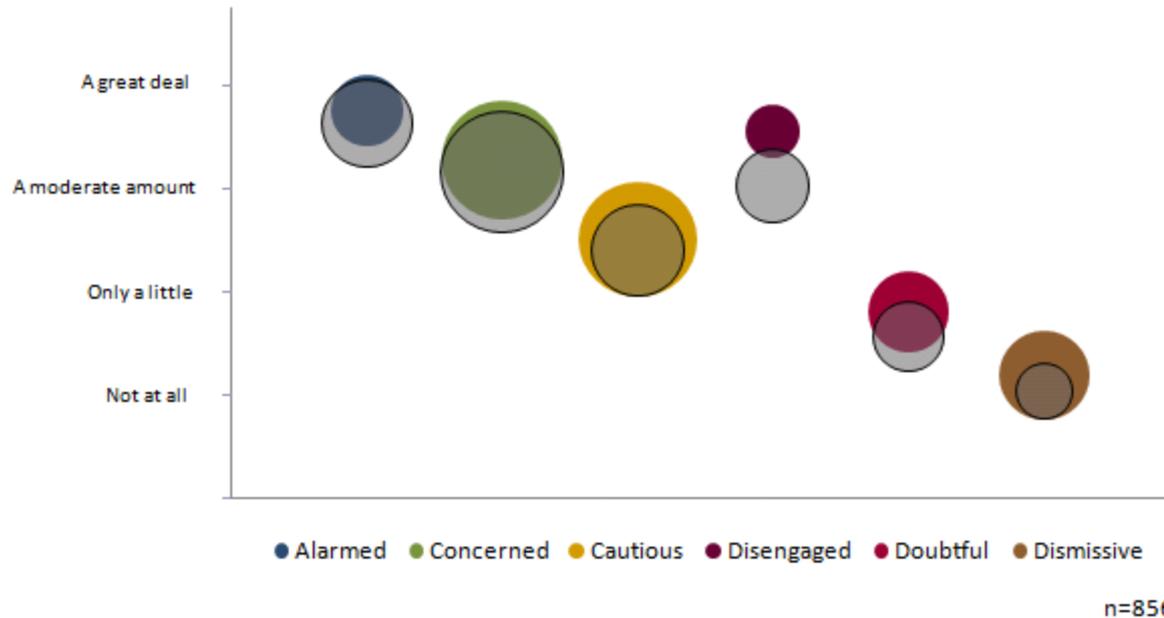
### *What has changed? 2008-2009/2010*

57 of 100 Americans say global warming is happening –  
down from 71 out of 100



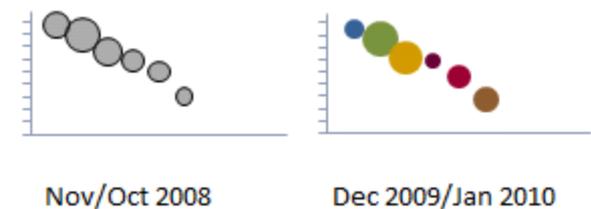
### 3. Evaluation: *It will be bad for people.*

**Figure 5:** Threat of harm to people in the United States  
*How much do you think global warming will harm ... people in the United States?*

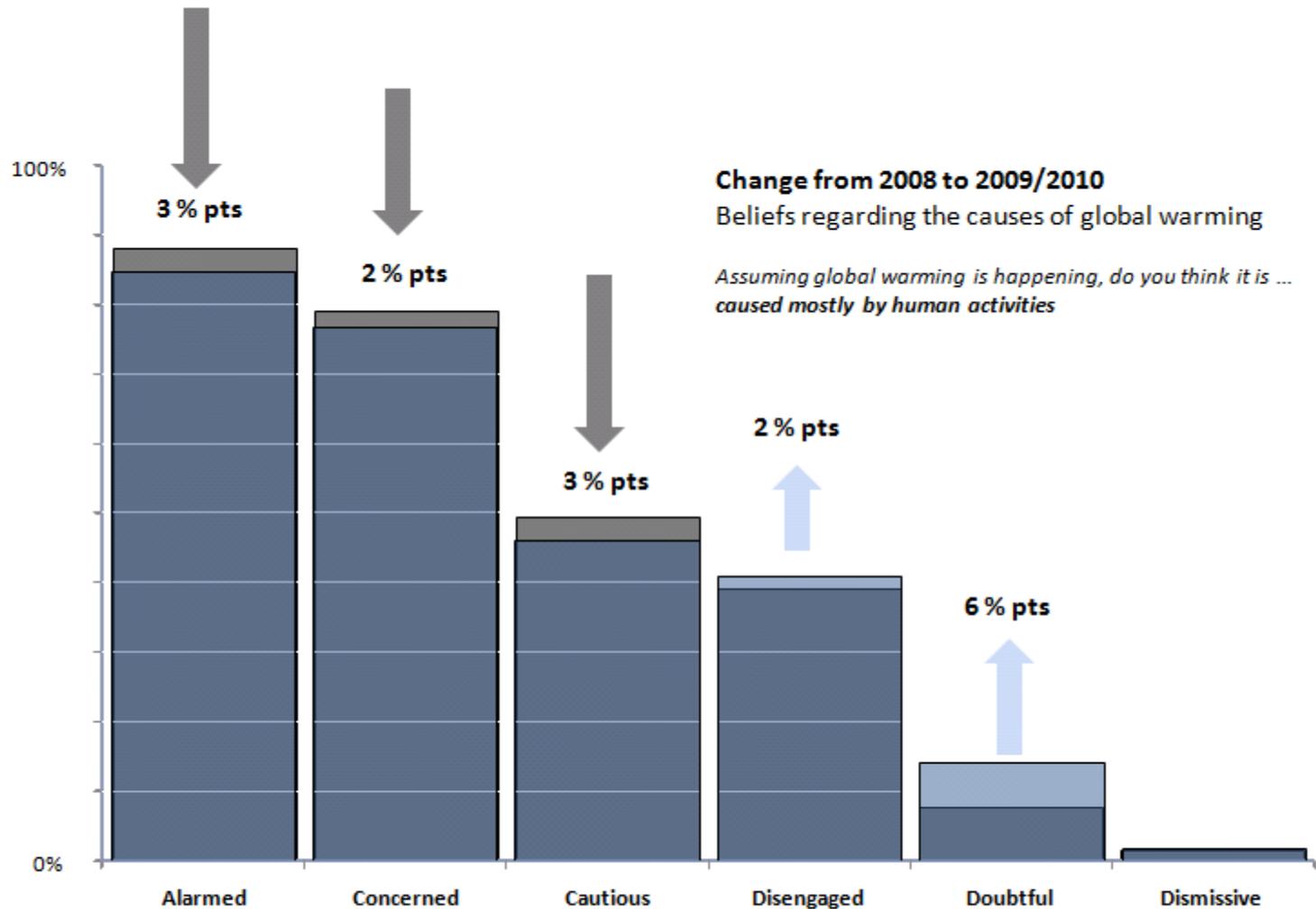


#### ***What has changed? 2008-2009/2010***

There is an increase in the number of people who say global warming will never harm people in the U.S.



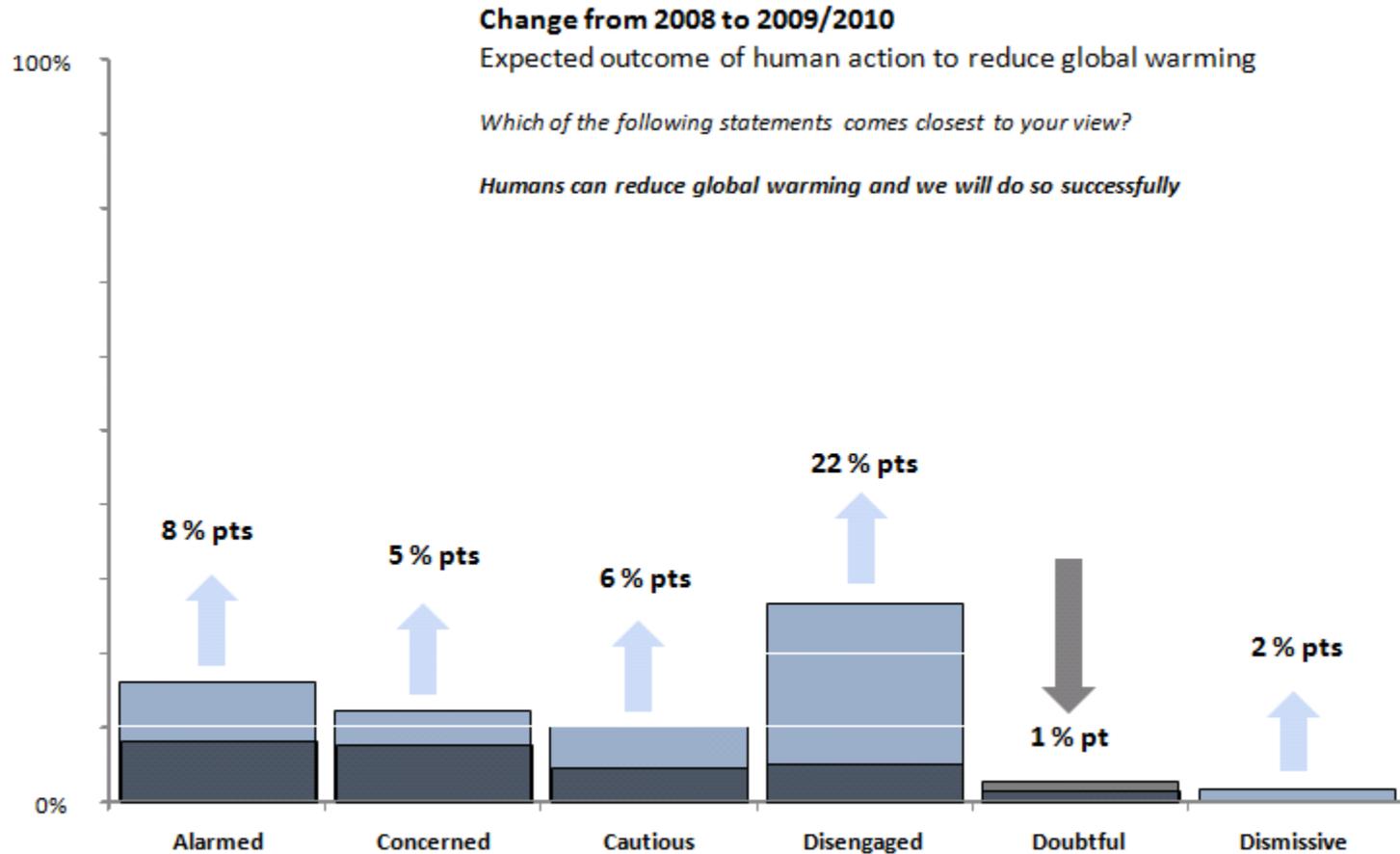
#### 4. Belief in human causation: *Humans caused it.*



***What has changed?  
2008-2009/2010***

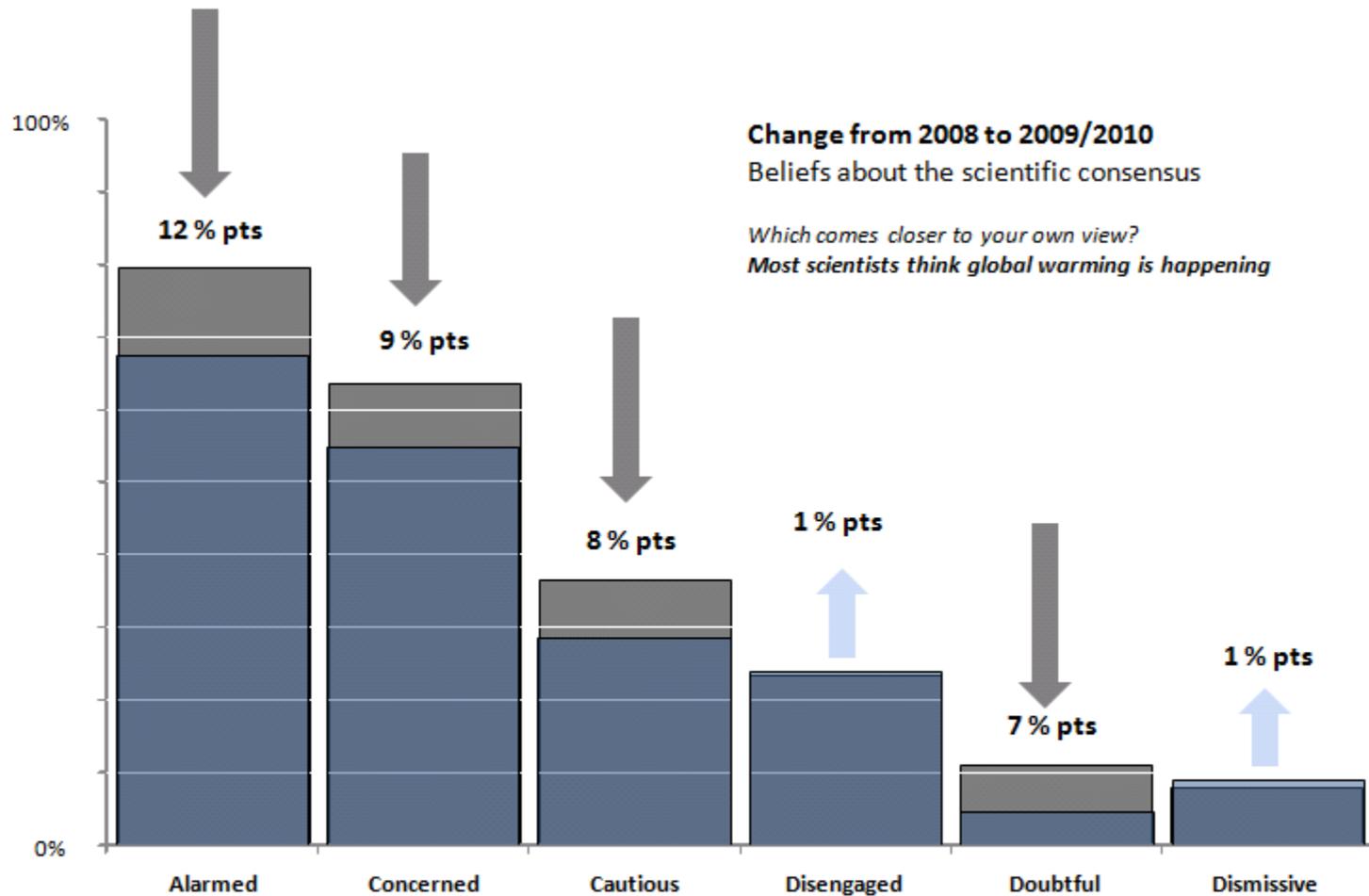
47 out of 100 Americans say global warming is caused by human activities, down from 57 in 2008

## 5. Response efficacy: *Humans can fix it.*



***What has changed?  
2008-2009/2010***

# In the wake of Climategate ...

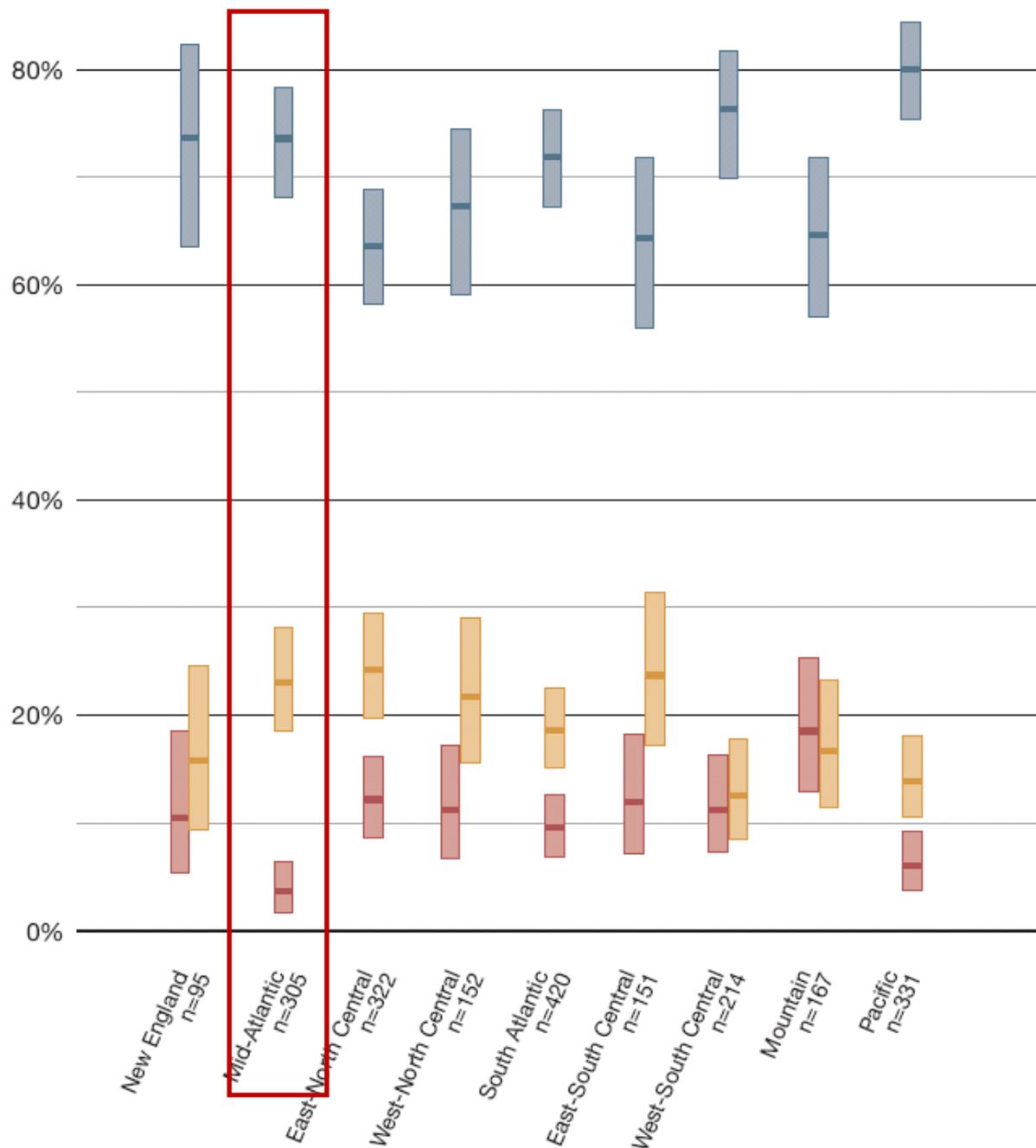


***What has changed?  
2008-2009/2010***

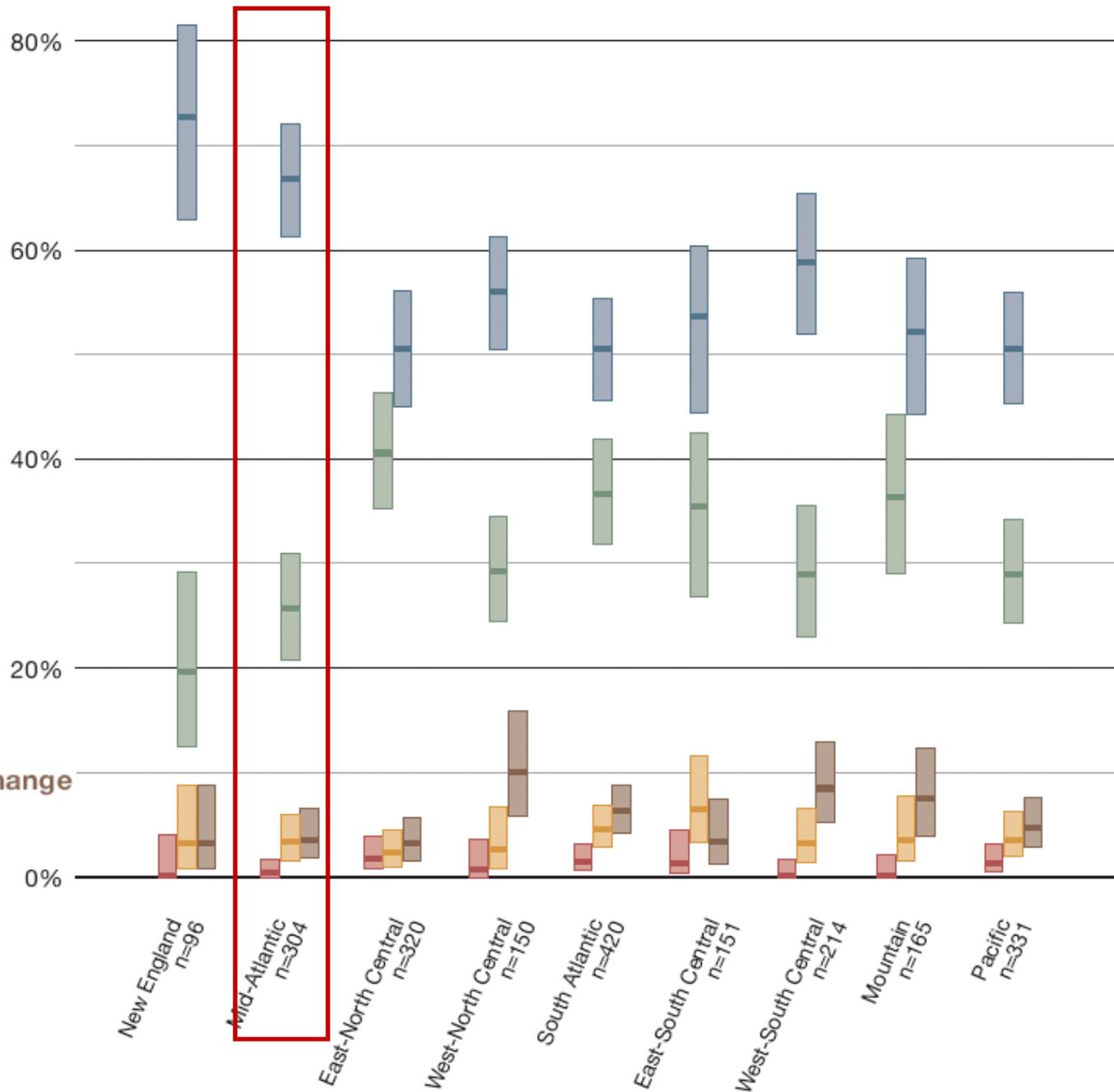
40 out of 100 Americans now believe there is a lot of scientific disagreement over global warming; 34 out of 100 say there is a scientific consensus

# Belief that Global Warming is Happening, by Nine Regions

Yes  
Don't know  
No



# Perceived Cause of Global Warming, by Nine Regions



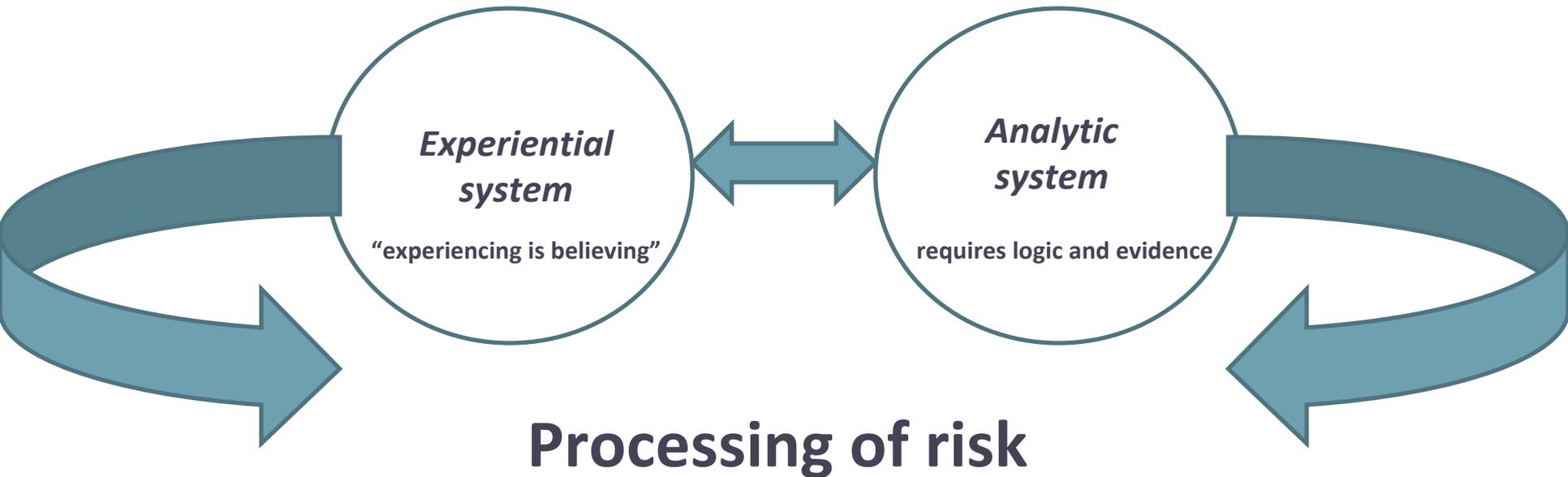
Humans  
Natural change  
Human and natural change  
Neither  
Don't know



Communications designed to create, recall and highlight relevant personal experience and to elicit affective responses can lead to more public attention to, processing of, and engagement with forecasts of climate variability and climate change.

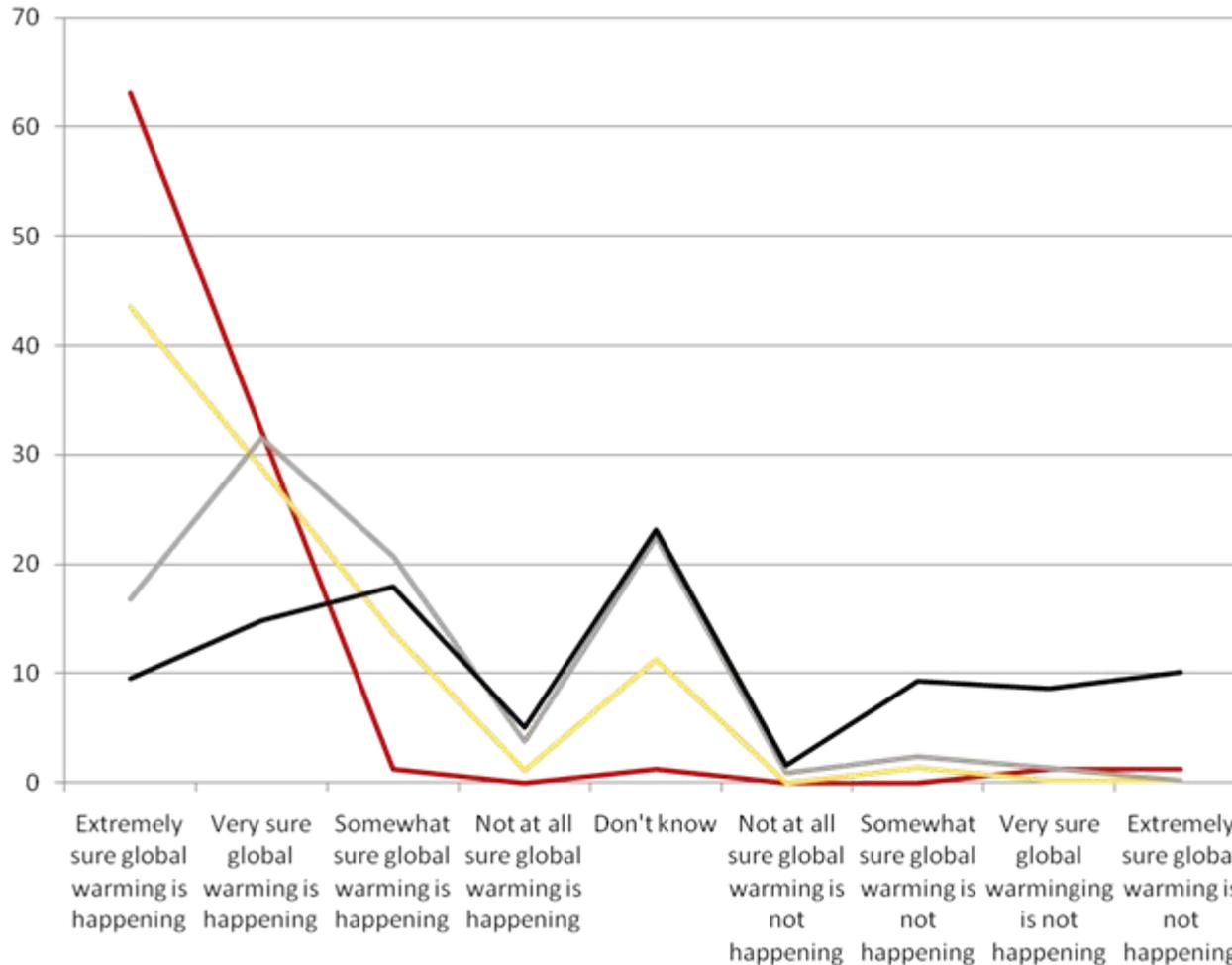
Marx, S. M., Weber, E. U., Orlove, B. S., Leiserowitz, A., Krantz, D. H., Roncoli, C., & Phillips, J. (2007).  
Communication and mental processes: Experiential and analytical processing of uncertain climate information.  
*Global Environmental Change*, 17, 47-58.

***What works: Anecdotes over statistical information, concrete images, strong emotions, stories***



Slovic, P., Finucane, M. L., Peters, E., & McGregor, D. G. (2004). Risk as analysis and risk as feelings: Some thoughts about affect, reason, risk, and rationality. *Risk Analysis*, 24(2), 311-322.

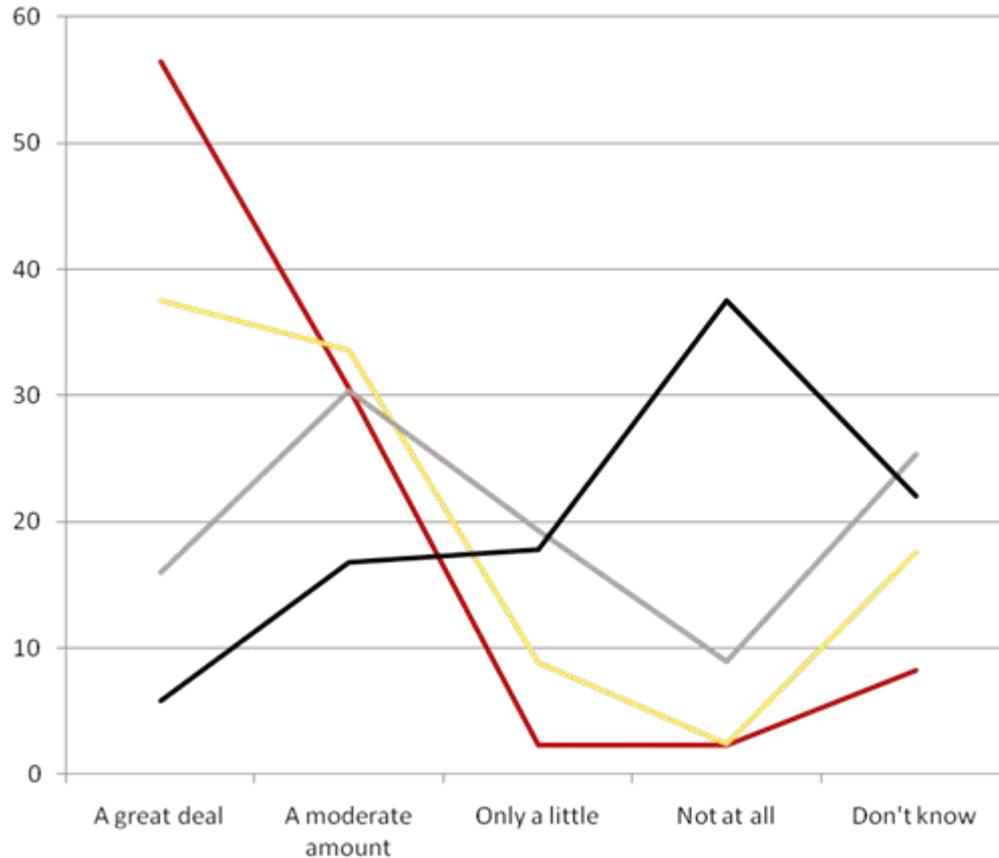
# Do you think that global warming is happening? How sure are you that global warming is happening?



*“I have personally experienced the effects of global warming.”*

- Strongly Agree 4%
- Somewhat Agree 29%
- Somewhat Disagree 43%
- Strongly Disagree 24%

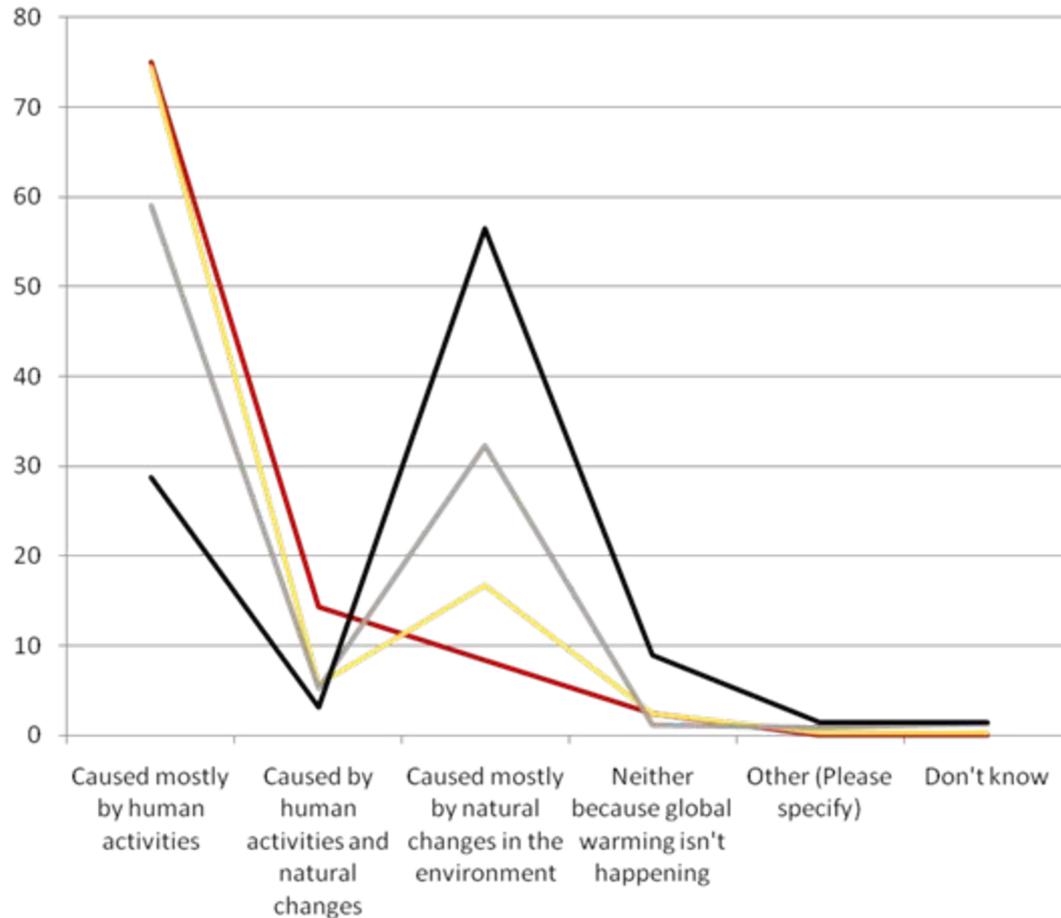
# How much do you think global warming will harm ... people in the United States?



*"I have personally experienced the effects of global warming."*

- Strongly Agree 4%
- Somewhat Agree 29%
- Somewhat Disagree 43%
- Strongly Disagree 24%

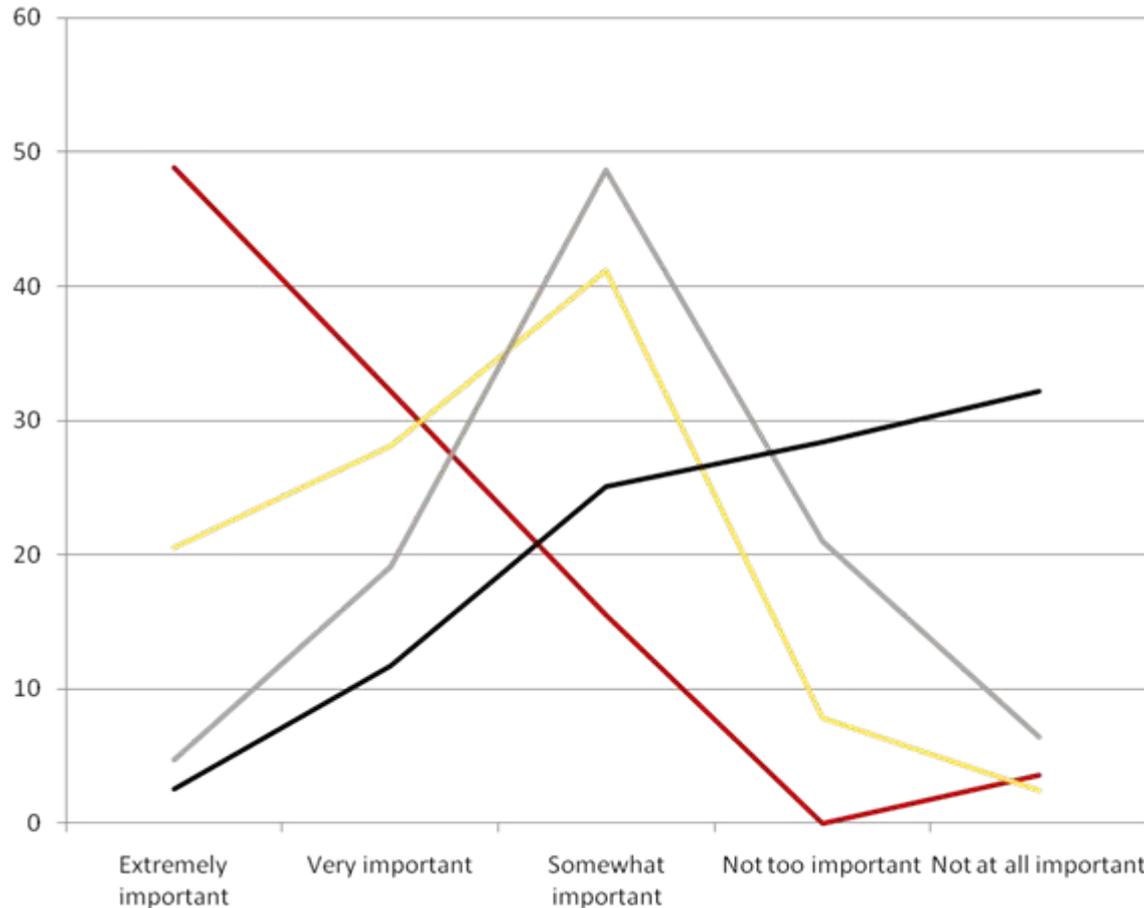
Assuming global warming is happening ...  
do you think it is:



*"I have personally experienced the effects of global warming."*

- Strongly Agree 4%
- Somewhat Agree 29%
- Somewhat Disagree 43%
- Strongly Disagree 24%

# How important is the issue of global warming to you Personally?



*“I have personally experienced the effects of global warming.”*

- Strongly Agree 4%
- Somewhat Agree 29%
- Somewhat Disagree 43%
- Strongly Disagree 24%



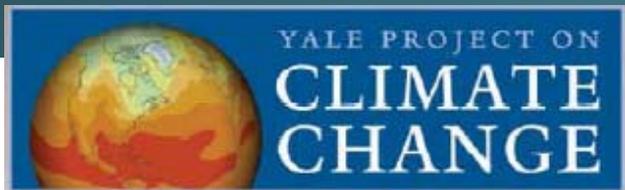
To date, the American public “debate” over climate change has largely focused on the need for mitigation. Civil society has a significant role to play in preparing for change by expanding the public discussion to also include the need for adaptation.

Luers, A. L. & Moser, S. C. (2006). *Preparing for the impacts of climate change in California: Opportunities and constraints for adaptation*. A report from California Climate Change Center. Available at:  
[http://www.isse.ucar.edu/moser/california/pdf/Preparing\\_for\\_the\\_Impacts.pdf](http://www.isse.ucar.edu/moser/california/pdf/Preparing_for_the_Impacts.pdf)

## ***Thank you to our funders:***

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- *The Pacific Foundation*
- *Investigator Award, Health Policy Research,  
Robert Wood Johnson Foundation*

Reports available at both:  
[climatechange.gmu.edu](http://climatechange.gmu.edu)  
[research.yale.edu/environment/climate](http://research.yale.edu/environment/climate)



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