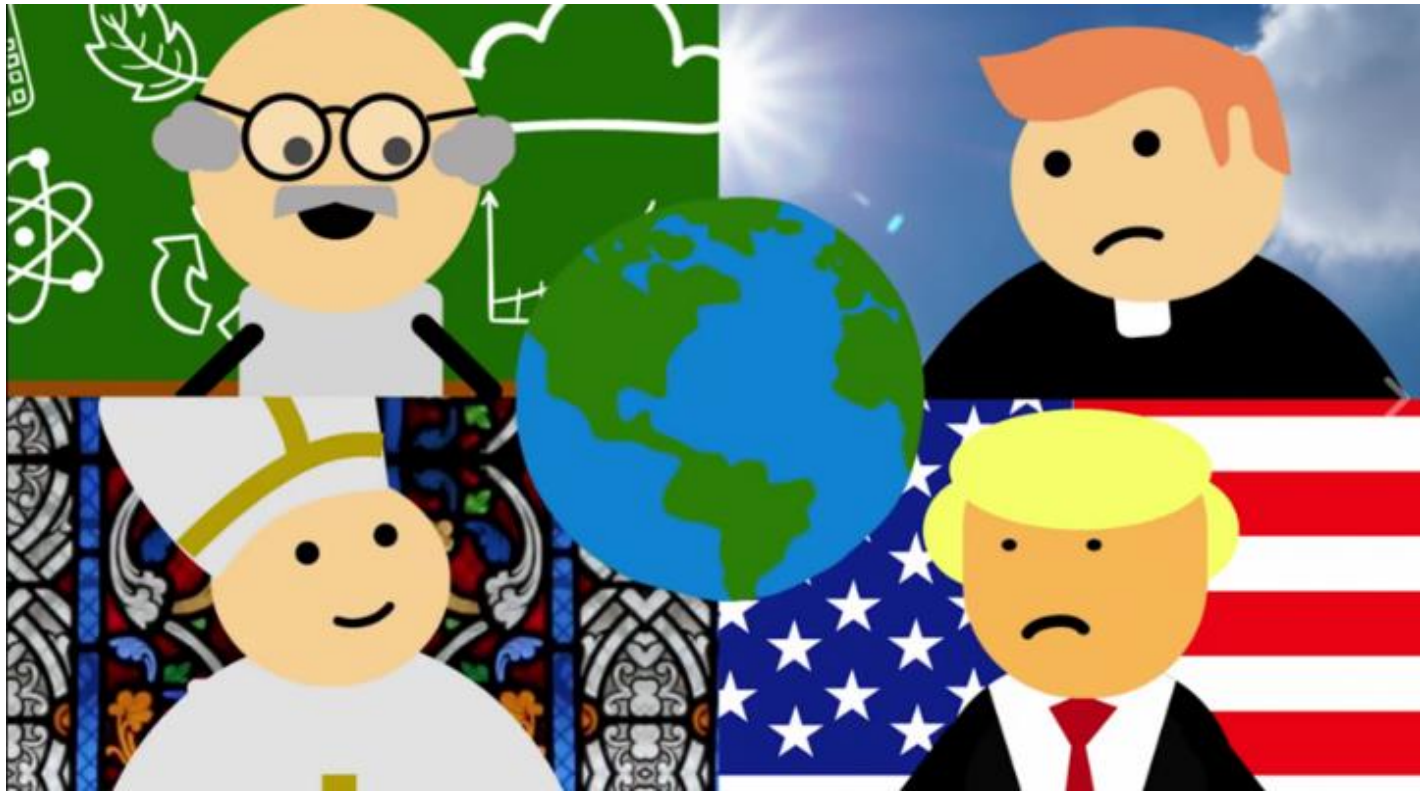


***Climate and Faith, Money
and Politics: Can We Build
a Sustainable Future?***

**Dr. Katharine Hayhoe
February 3, 2017**

Produced by and for *Hot Science - Cool Talks* by the Environmental Science Institute. We request that the use of these materials include an acknowledgement of the presenter and *Hot Science - Cool Talks* by the Environmental Science Institute at UT Austin. We hope you find these materials educational and enjoyable.



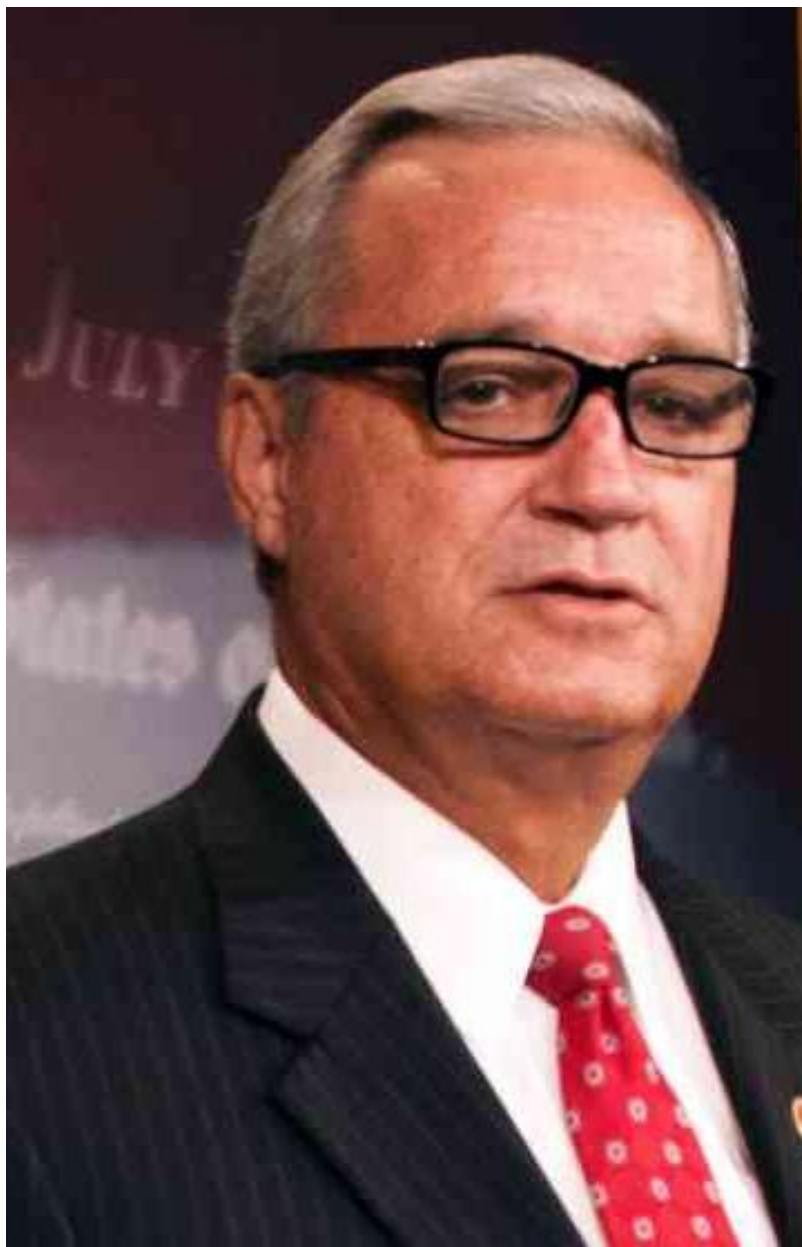
CLIMATE AND FAITH, MONEY AND POLITICS

Can We Build a Sustainable Future?



“The climate of the globe has been fluctuating since God created it.”

**Rep. Doug LaMalfa
R-CA, 2014**



“Our climate will continue to change because of the way God formed the earth.”

Rep. Jeff Miller
R-FL, 2013

**“The earth will end only when
God declares it is time to be over.
Man will not destroy this earth.”**

**Rep. John Shimkus
R-IL, 2009**





God's still up there.
The arrogance of
people to think that
we, human beings,
would be able to
change what He is
doing in the climate is
to me outrageous.

**Senator James Inhofe
R-OK, 2012**



“The problem is Al Gore has turned this thing into a religion”

**Sen. Lindsey
Graham
R-SC, 2014**





POLITICS

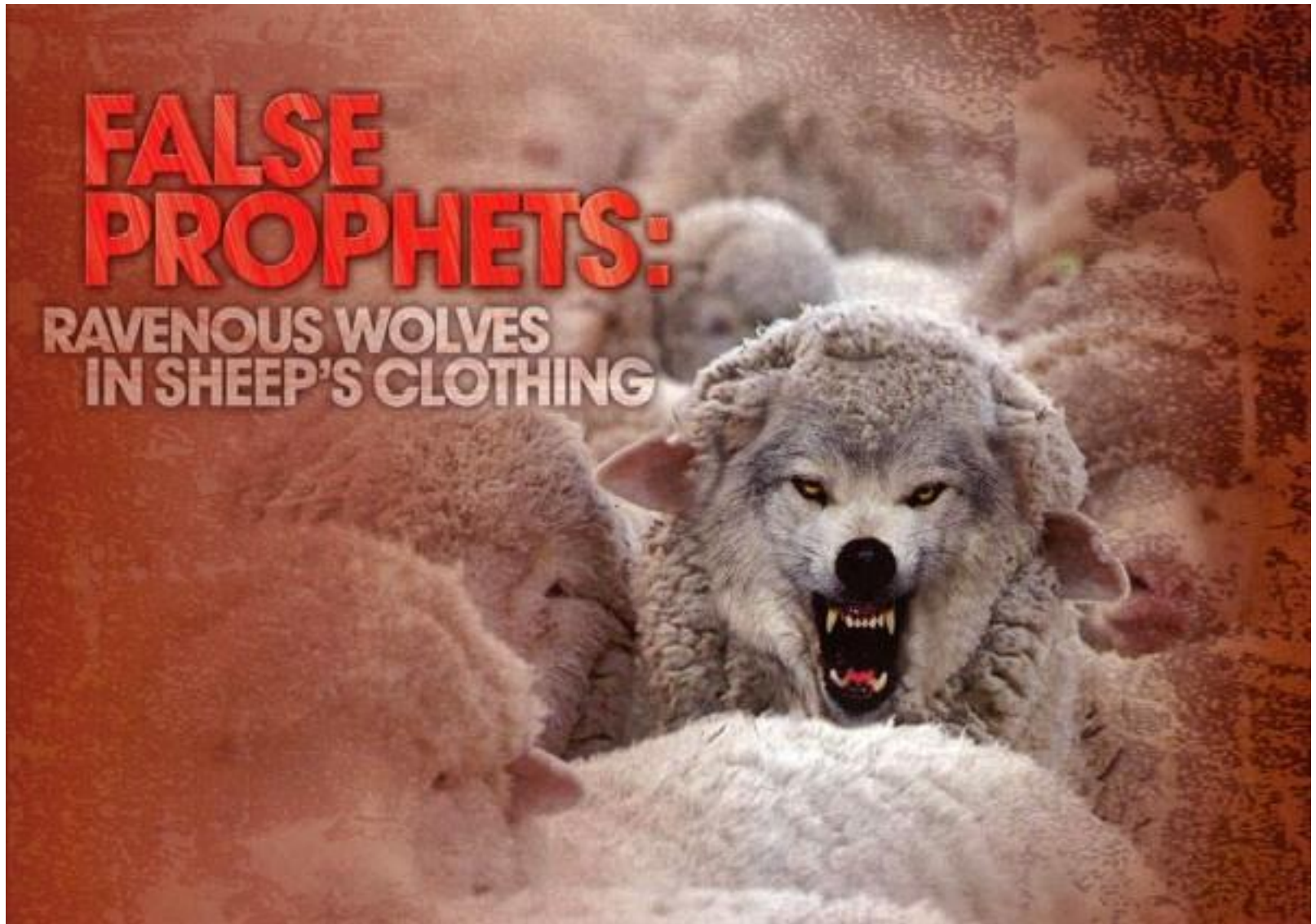
December 24, 2012

In U.S., 77% Identify as Christian

Eighteen percent have no explicit religious identity

FALSE PROPHETS:

**RAVENOUS WOLVES
IN SHEEP'S CLOTHING**





ENVIRONMENT

You Can't "Believe" in Climate Change
It's not a religion. It's a scientific fact.

[Science] does not demand belief.
Scientists do not join hands every
Sunday, singing, “Yes, gravity is real!
I will have faith!”

--Dan Barker



Sidney Nolan

what *are*
the facts?

PART ONE

THE FACTS ON CLIMATE

1. Climate is changing.



WEATHER

is what
happens
in a certain
place
at a certain
time

CLIMATE

is the long-term average of weather over at least **20 to 30 years**



It's freezing! Where's global warming now?!

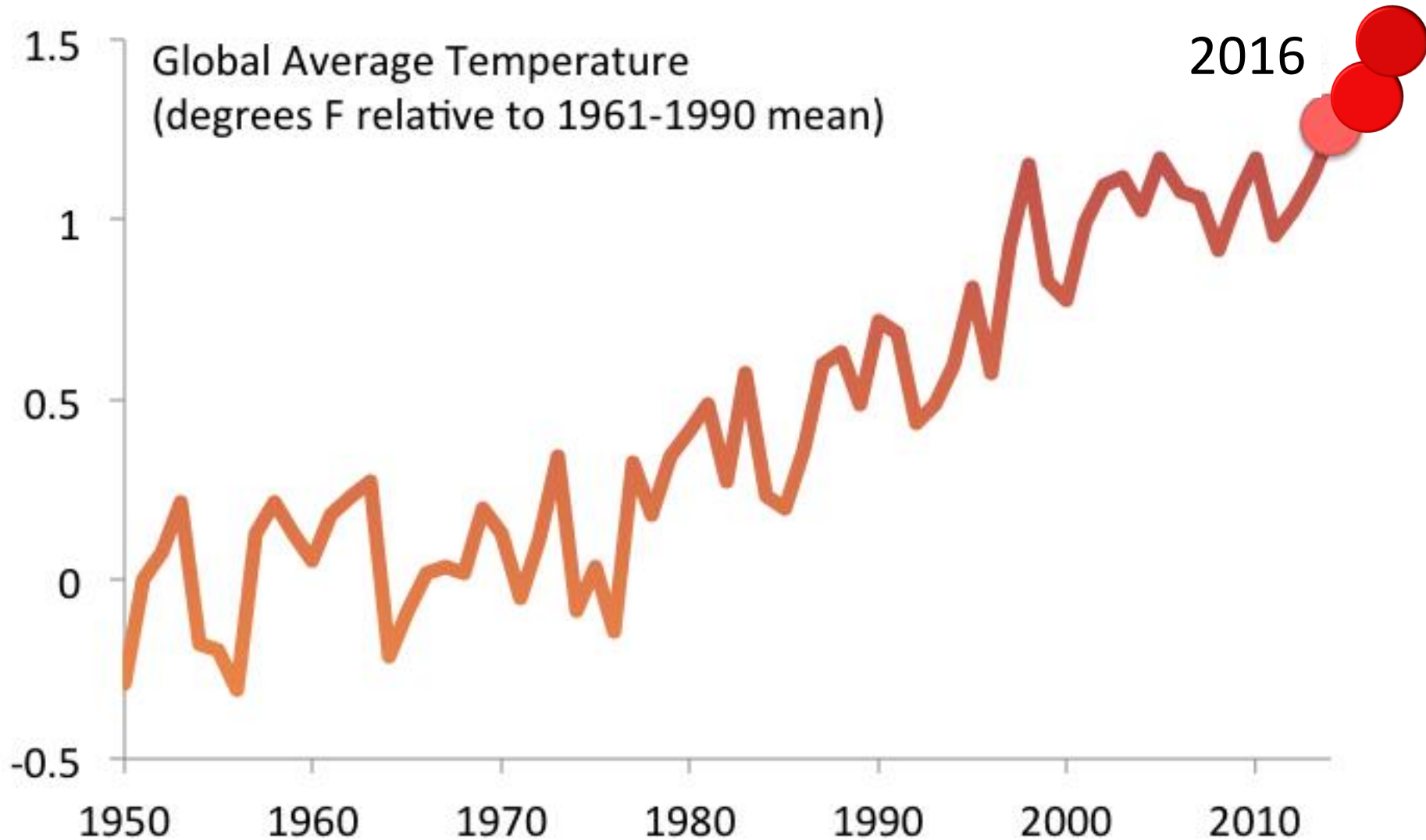


THE SHIP CAN'T BE SINKING



MY END JUST ROSE 200 FEET

2016 is the new warmest year on record



Even here in Texas ...

- Texas annual temperatures are increasing
- Winter temperatures have warmed the most
- Cold spells are becoming less severe and less frequent



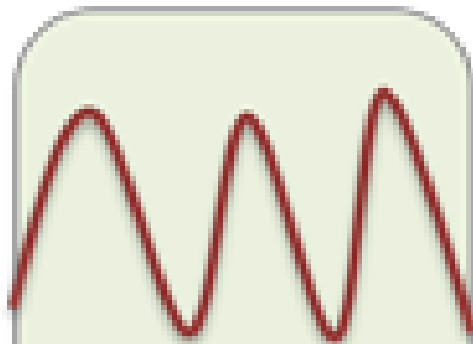
26,500

indicators of a
warming planet

THE FACTS ON CLIMATE

1. Climate *is* changing.
2. Yes, it's us.

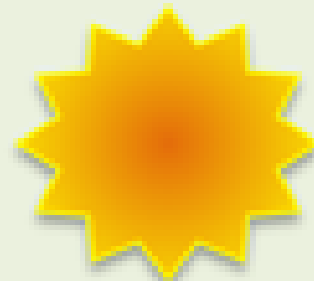
Climate's changed before



Isn't it just a
natural
cycle?

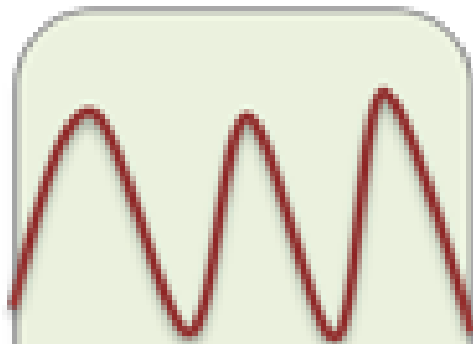


No one can
predict the
weather.



It's all the
sun's fault
anyways.

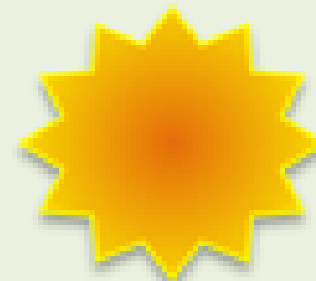
Climate's changed before



Isn't it just a
natural
cycle?

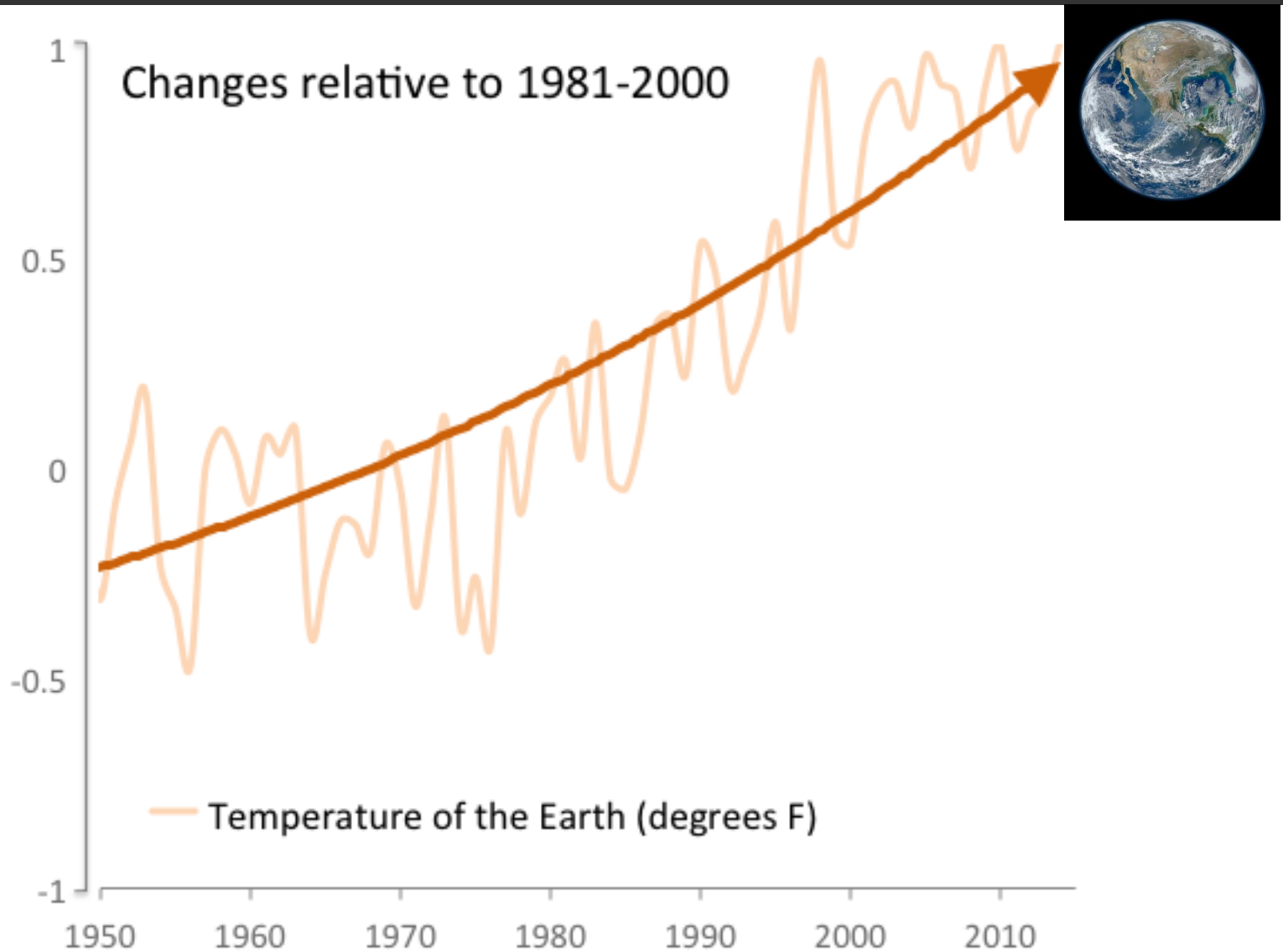


No one can
predict the
weather.

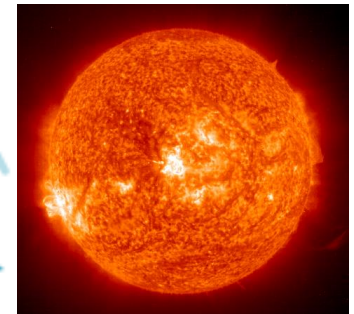
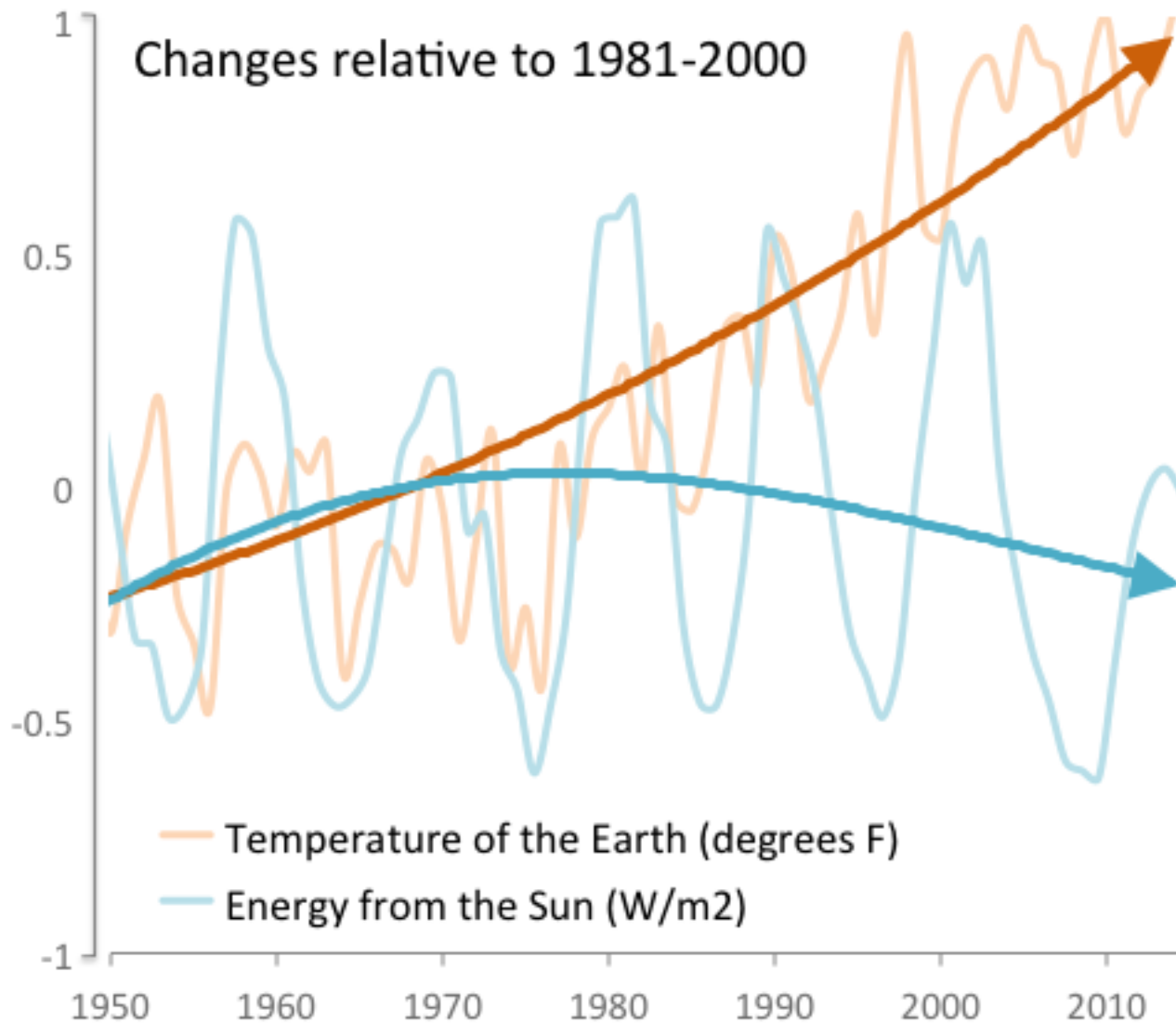


It's all the
sun's fault
anyways.

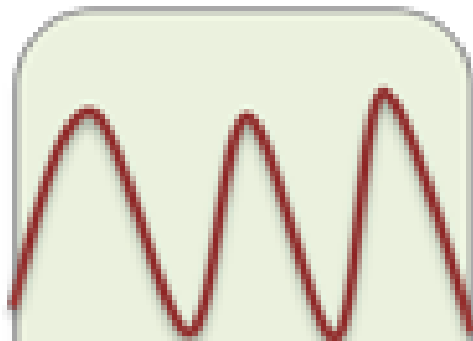
Here's the temperature of the Earth...



The sun has a perfect alibi ...



Climate's changed before



Isn't it just a
natural
cycle?

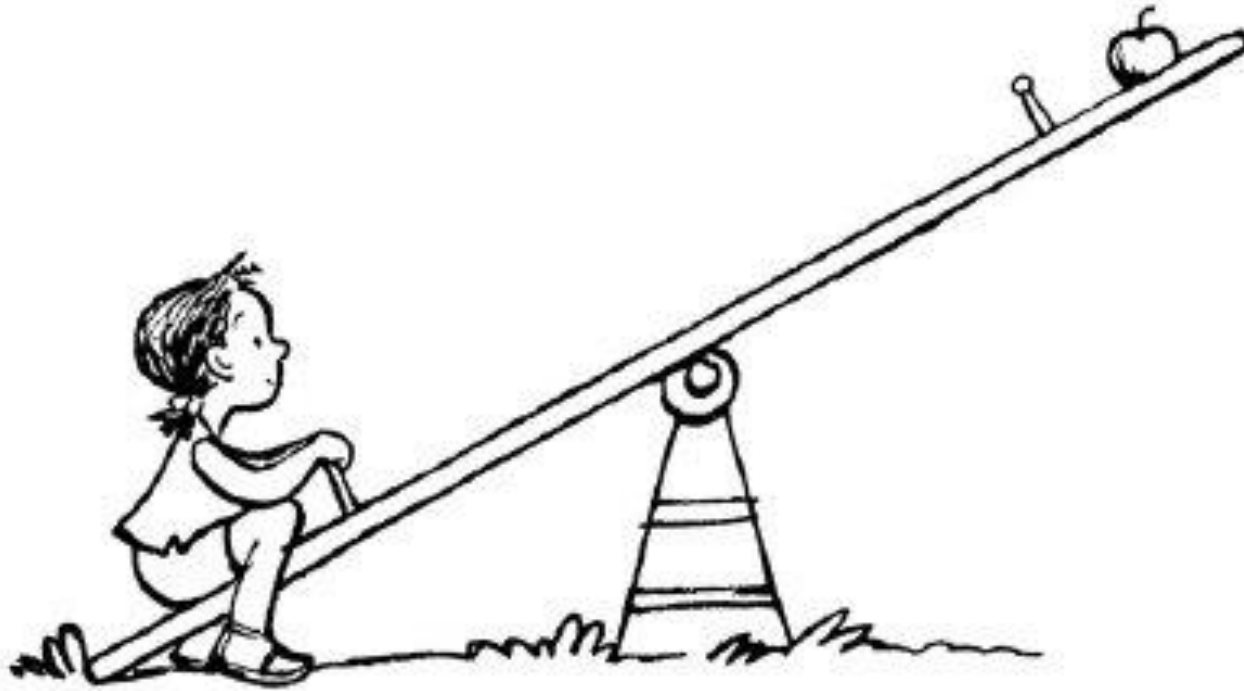


No one can
predict the
weather.



It's all the
sun's fault
anyways.

Could it be El Niño or natural cycles?

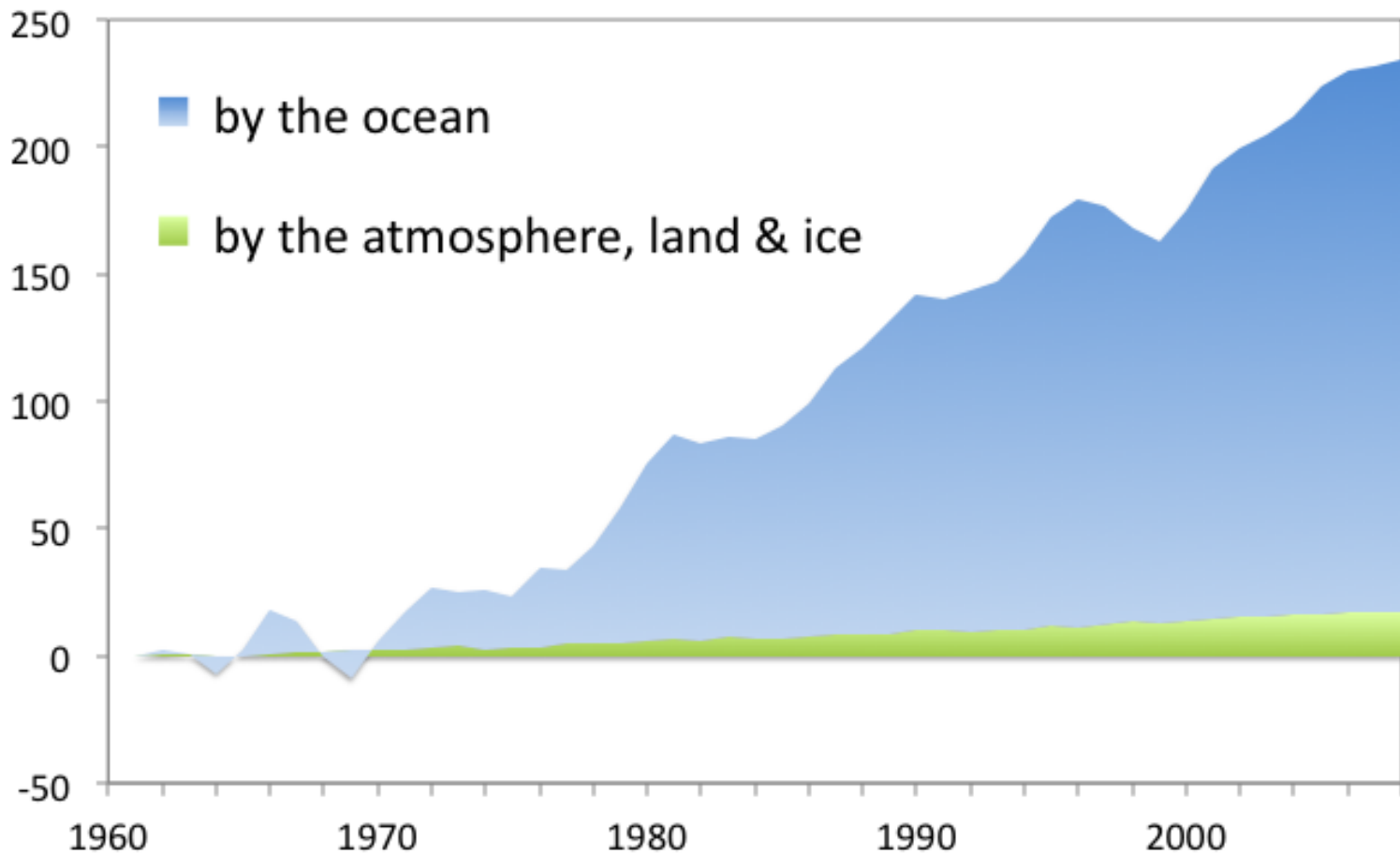


THE OCEAN

THE ATMOSPHERE

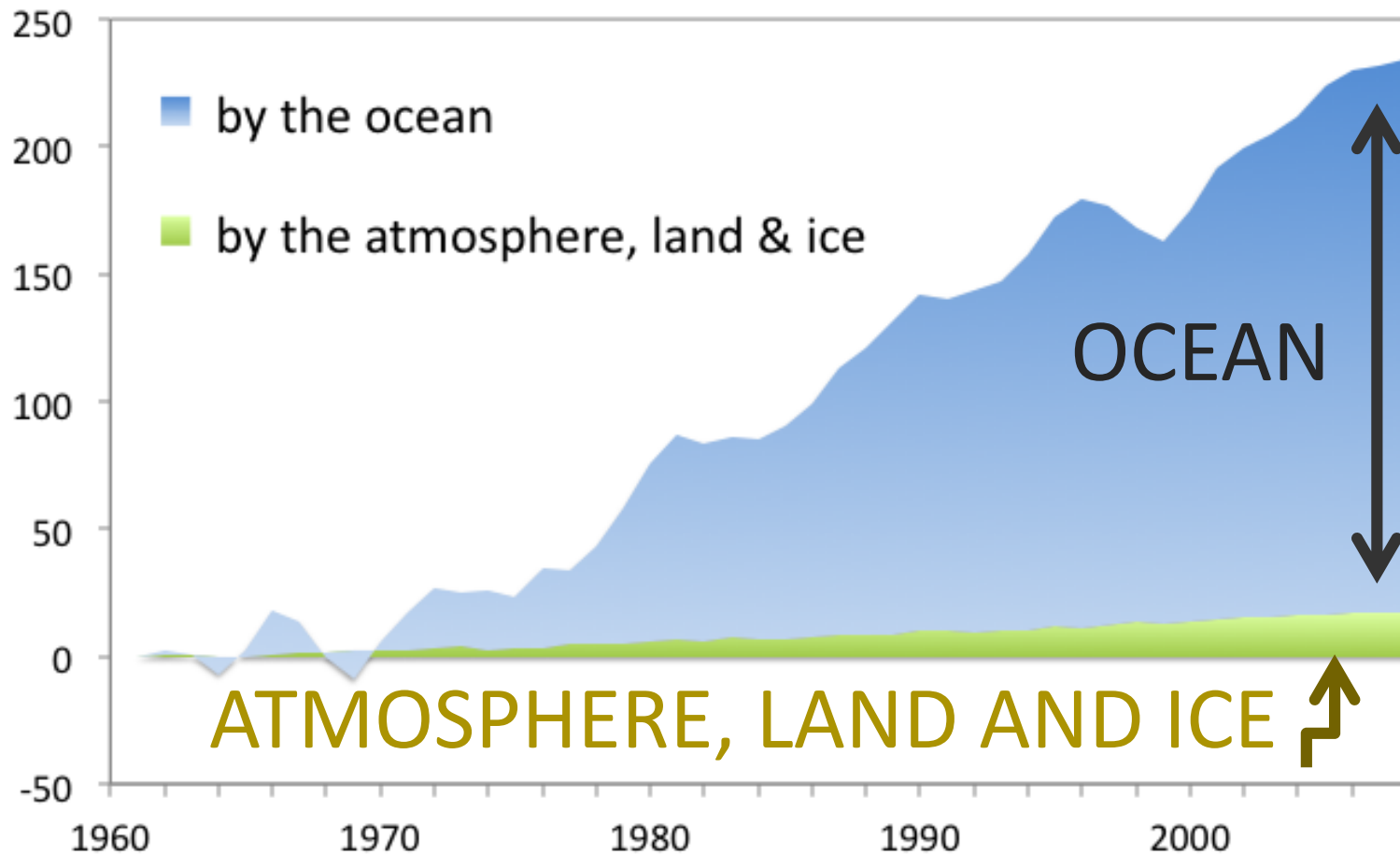
Nope! The entire planet is warming


Increased Heat Absorbed by the Earth (10^{21}J)



Nope! The entire planet is warming

Increased Heat Absorbed by the Earth (10^{21} J)

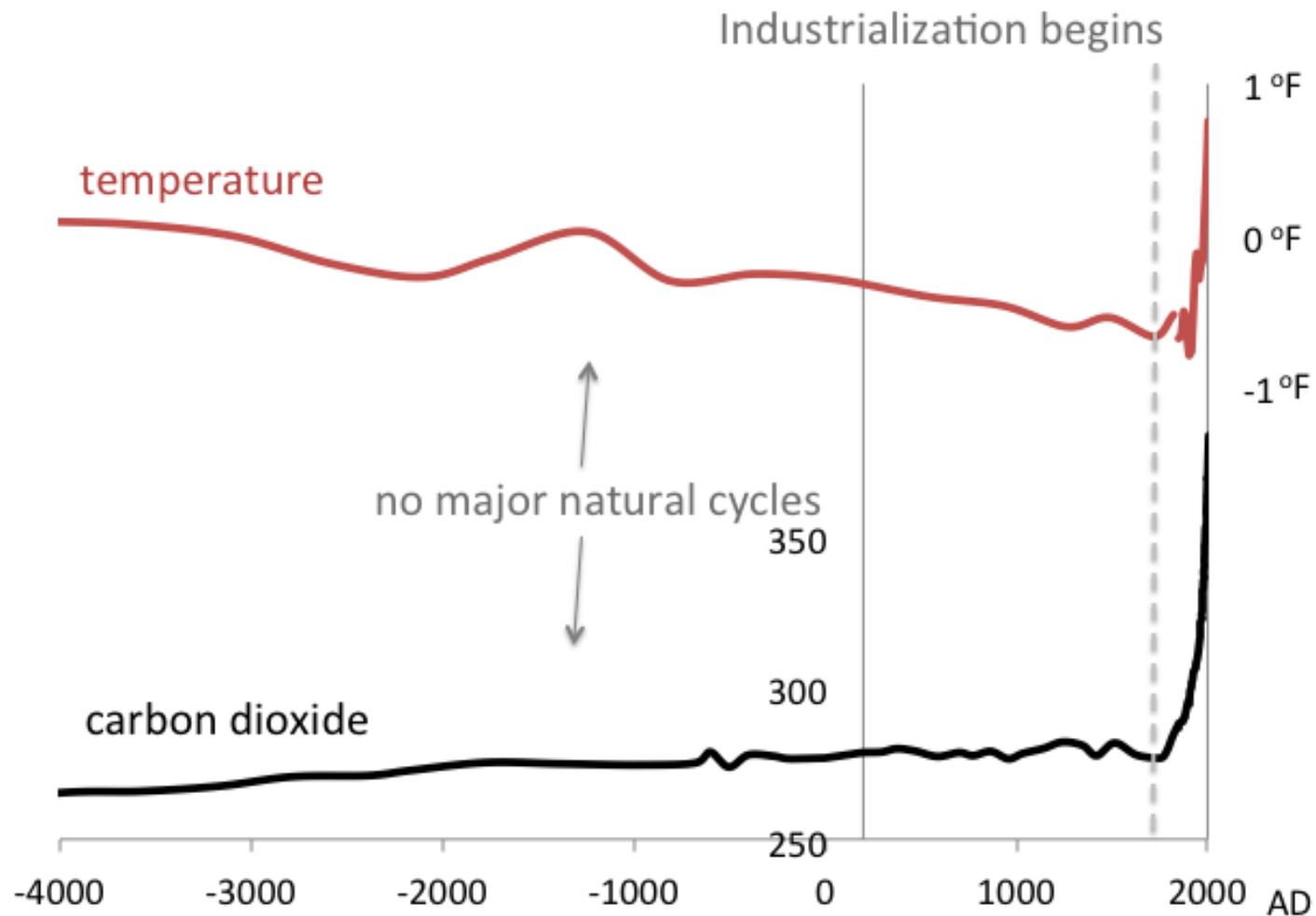




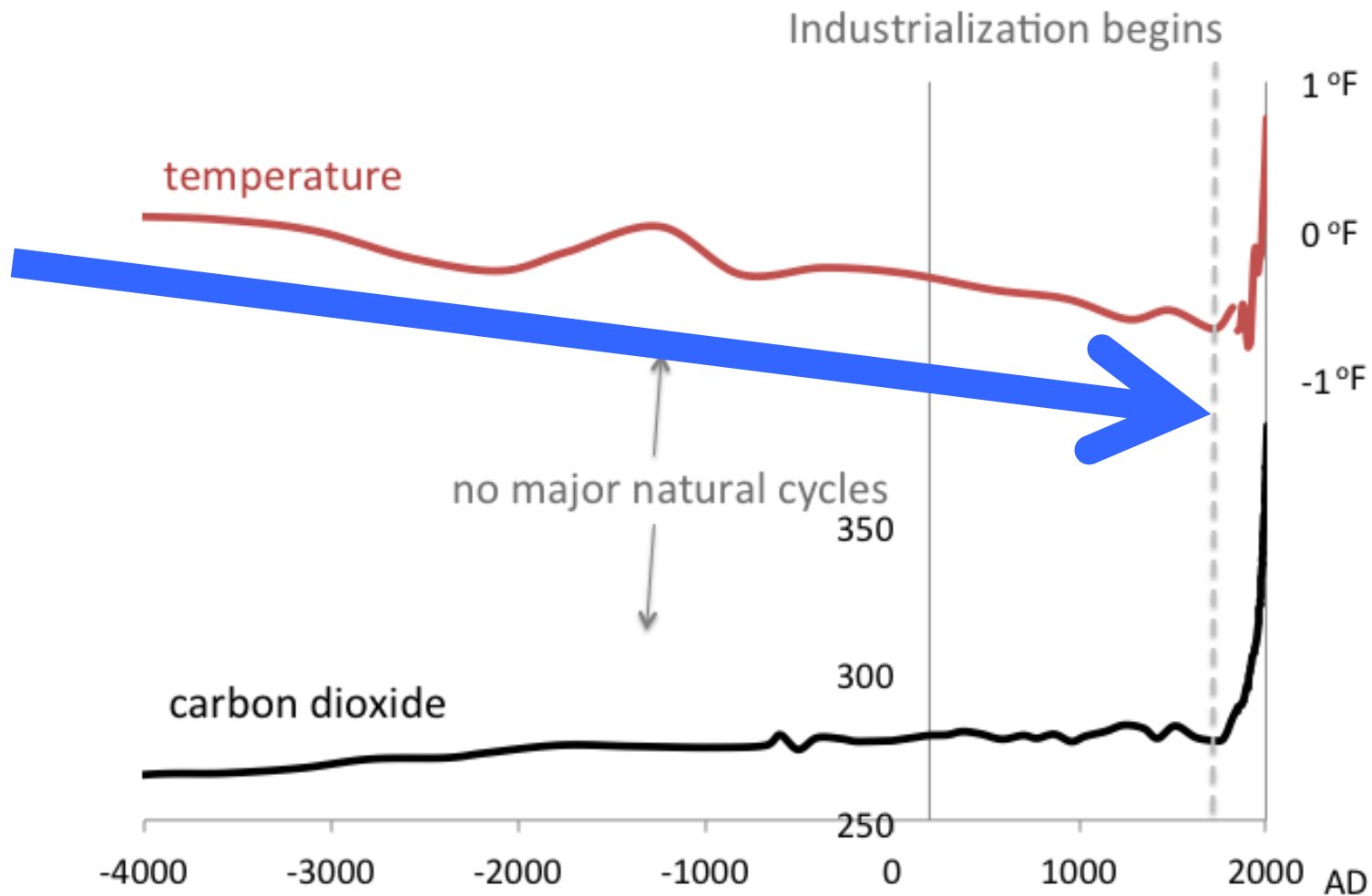
**in
Search
of**

**The Coming
Ice Age**

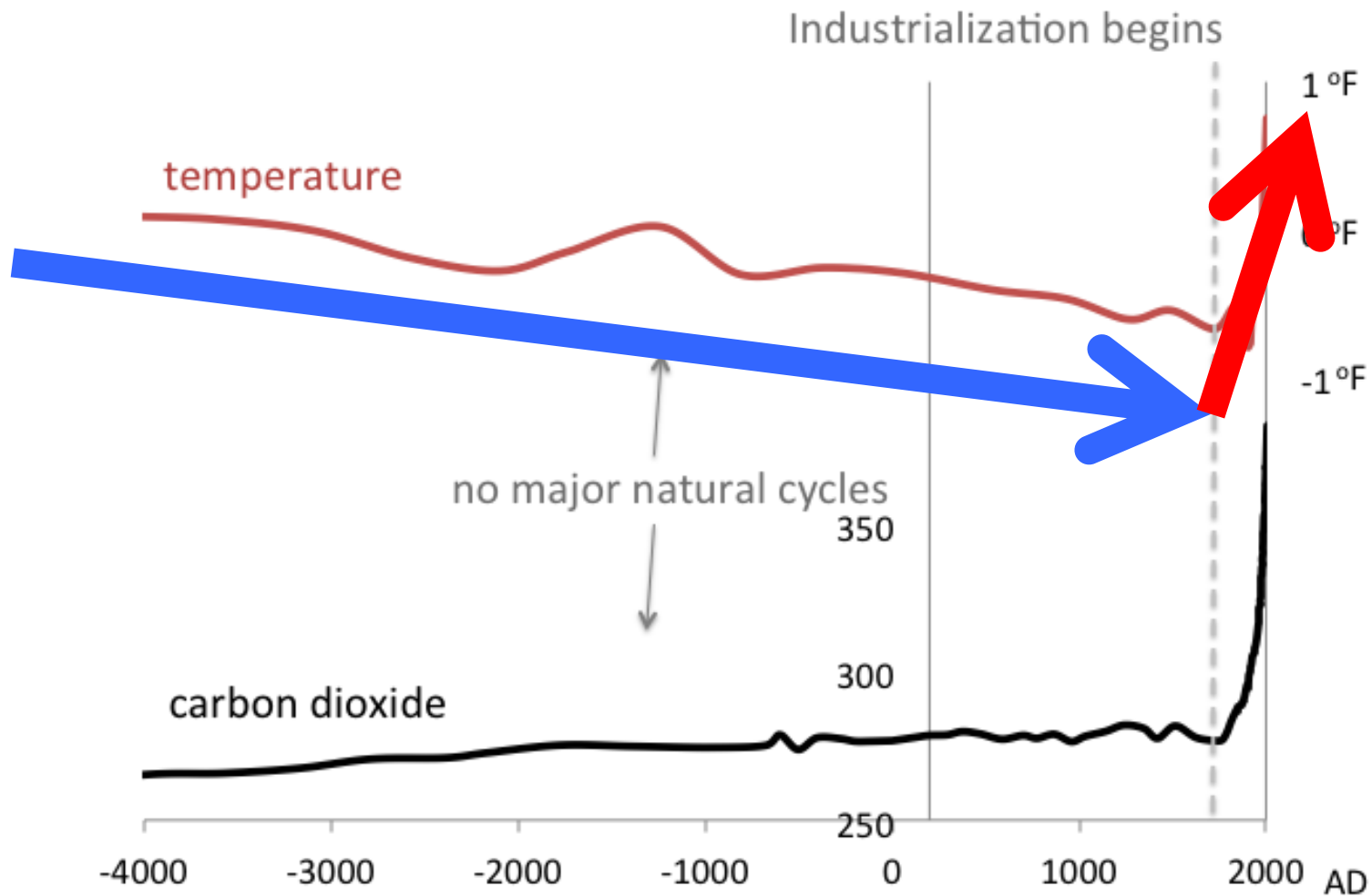
The next event on our “orbital calendar” ...



... is an ice age!



... until the Industrial Revolution, that is



All the “natural suspects” have an alibi

Can't be the sun

we'd be getting cooler

Can't be natural cycles

the entire planet is warming

Can't be the earth's orbit

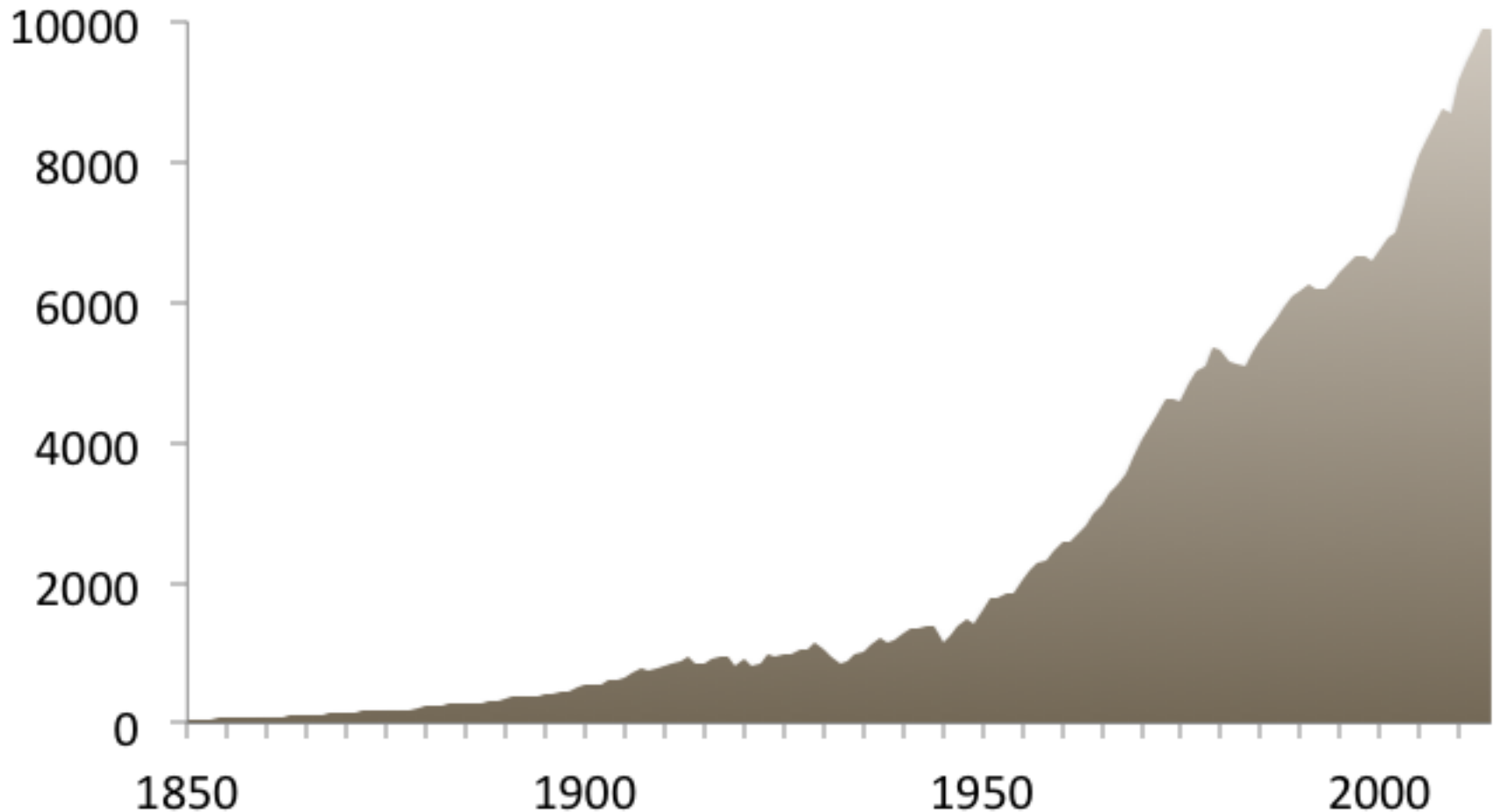
next thing coming is an ice age!

Burning coal, gas and oil
produces carbon dioxide



We've been burning a lot of it.

Global Carbon Emissions (MtC)



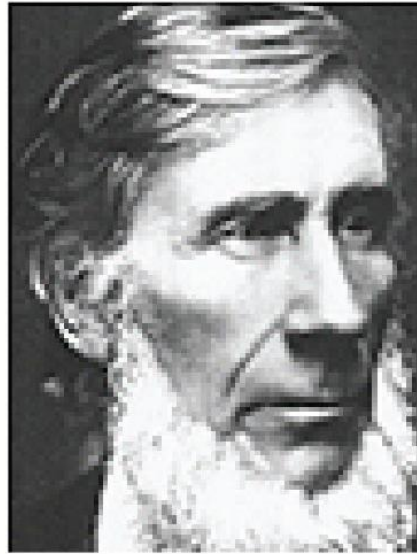
The background of the slide is a dark blue, almost black, night sky filled with numerous small, white, four-pointed stars of varying brightness. The stars are scattered across the entire frame, creating a sense of depth and vastness. The text "What is global warming?" is centered in the middle of the image in a white, sans-serif font.

What is global warming?

We've known this for a long time



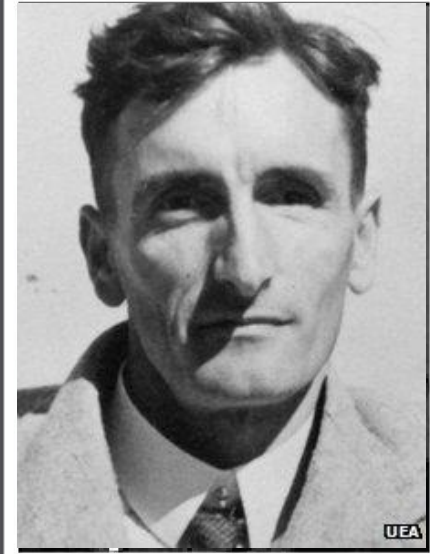
Joseph Fourier
(French, 1768-1830)



John Tyndall
(English, 1820-1893)



Svante Arrhenius
(Swedish, 1859-1927)



Guy Callendar
(English, 1898-1964)

THE FACTS ON CLIMATE

1. Climate *is* changing.
2. Yes, it's us.
3. It's bad.

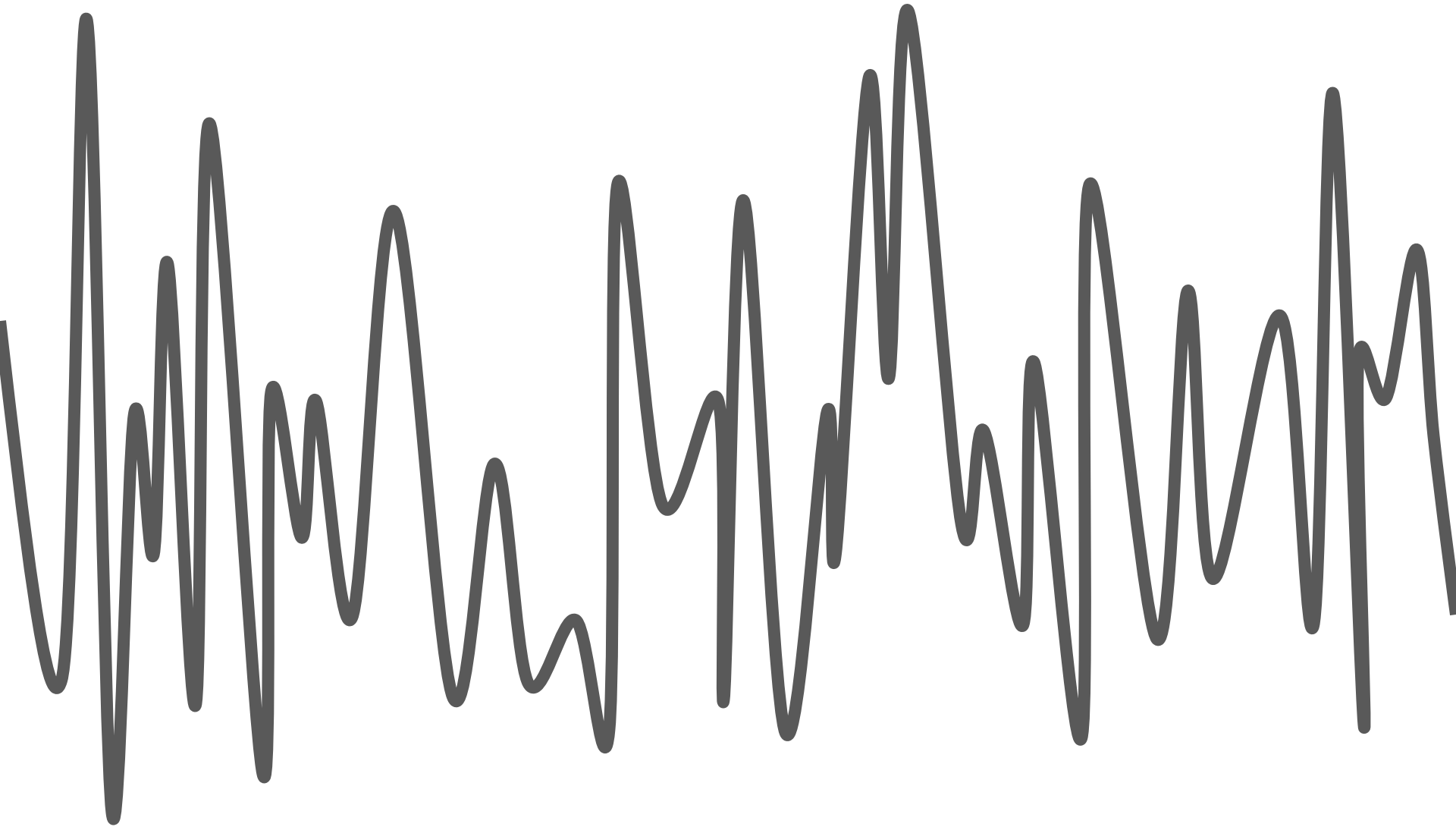


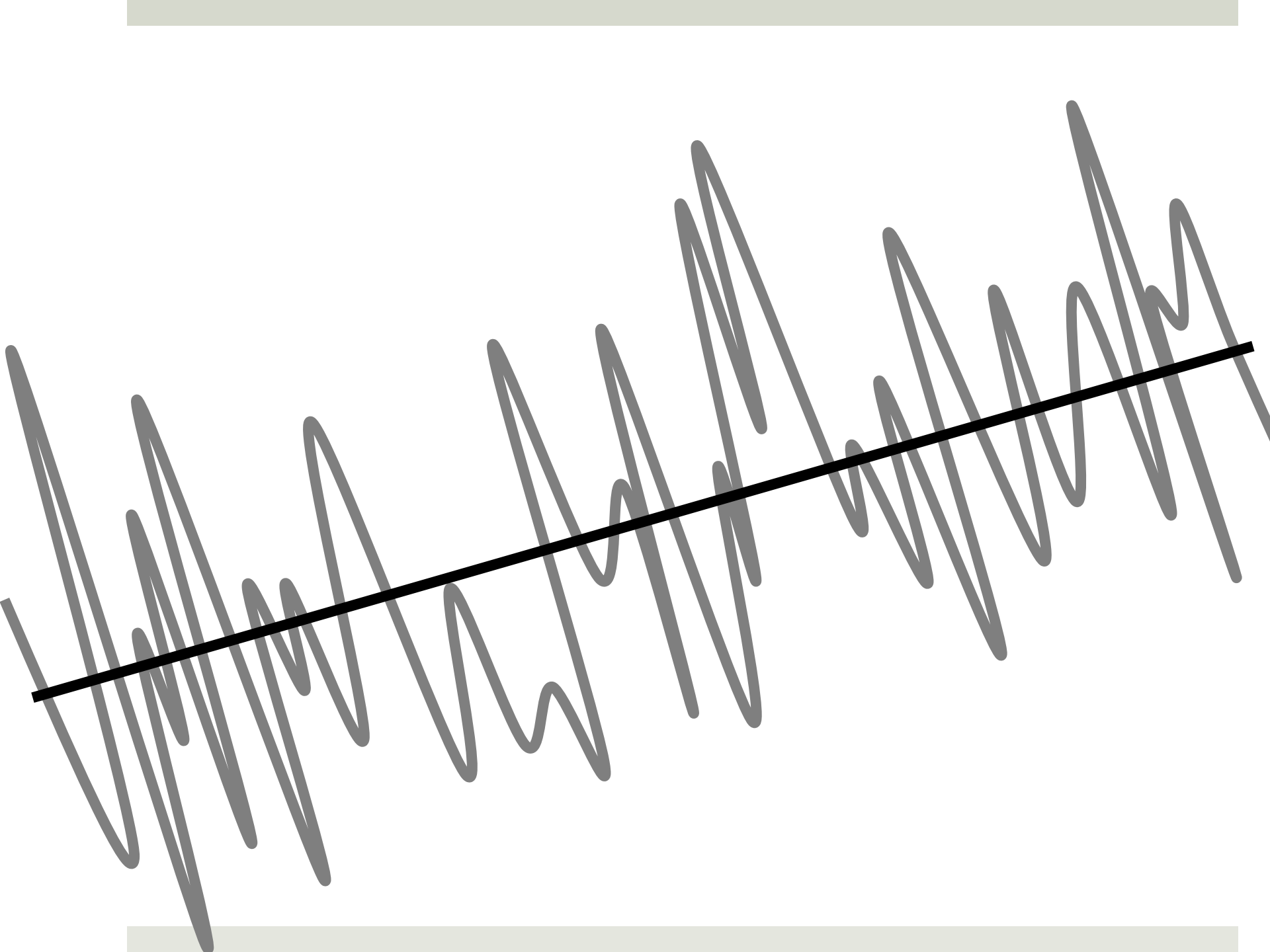


NORMAL CLIMATE

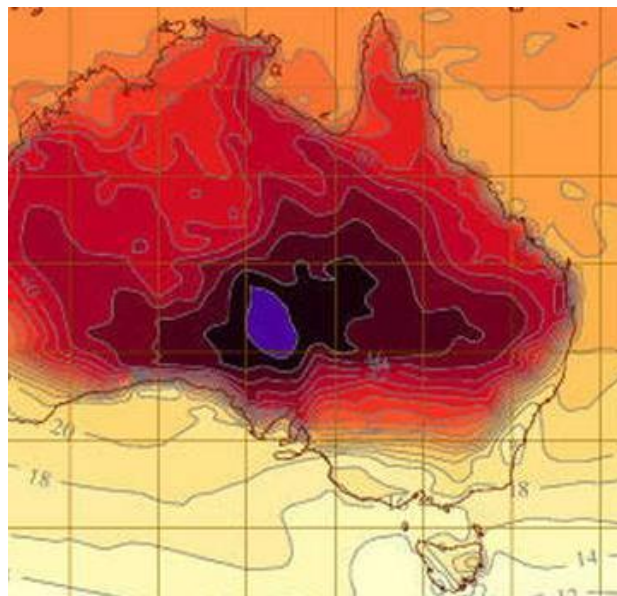
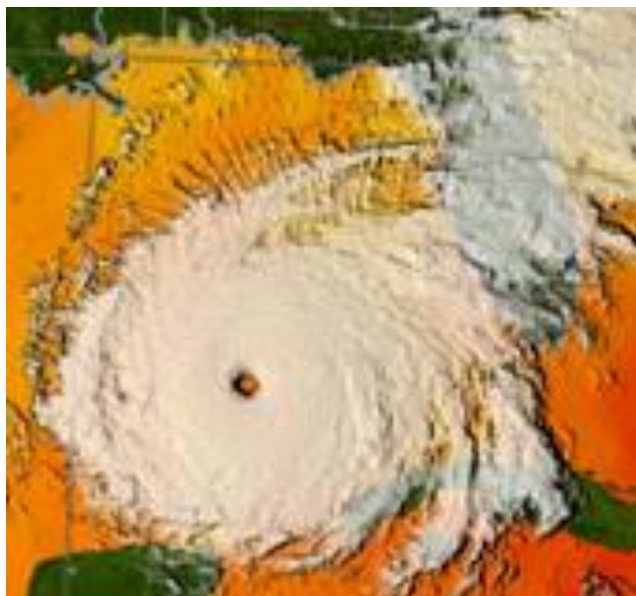


TEXAS CLIMATE





Making risks we've always faced stronger and/or more frequent



The impacts are here today

YEARS

OF LIVING DANGEROUSLY

COMING TO **SHOWTIME** IN 2014



PLAY TRAILER



We care about
a changing climate

**BECAUSE IT EXACERBATES
MANY OF THE RISKS WE
ALREADY FACE TODAY**

THE FACTS ON CLIMATE

1. Climate *is* changing.
2. Yes, it's us.
3. It's bad.
4. We're lowballing you.



Skeptics of the reality and significance of anthropogenic climate change have frequently accused climate scientists of **alarmism**

- Naomi Oreskes

The available evidence suggests that **scientists have been conservative** in their projections of the impacts of climate change.

Scientists are biased...

toward cautious estimates,

where we define caution as erring on the side of less rather than more alarming predictions.

We call this tendency

Erring on the Side of Least Drama.

what we *think*

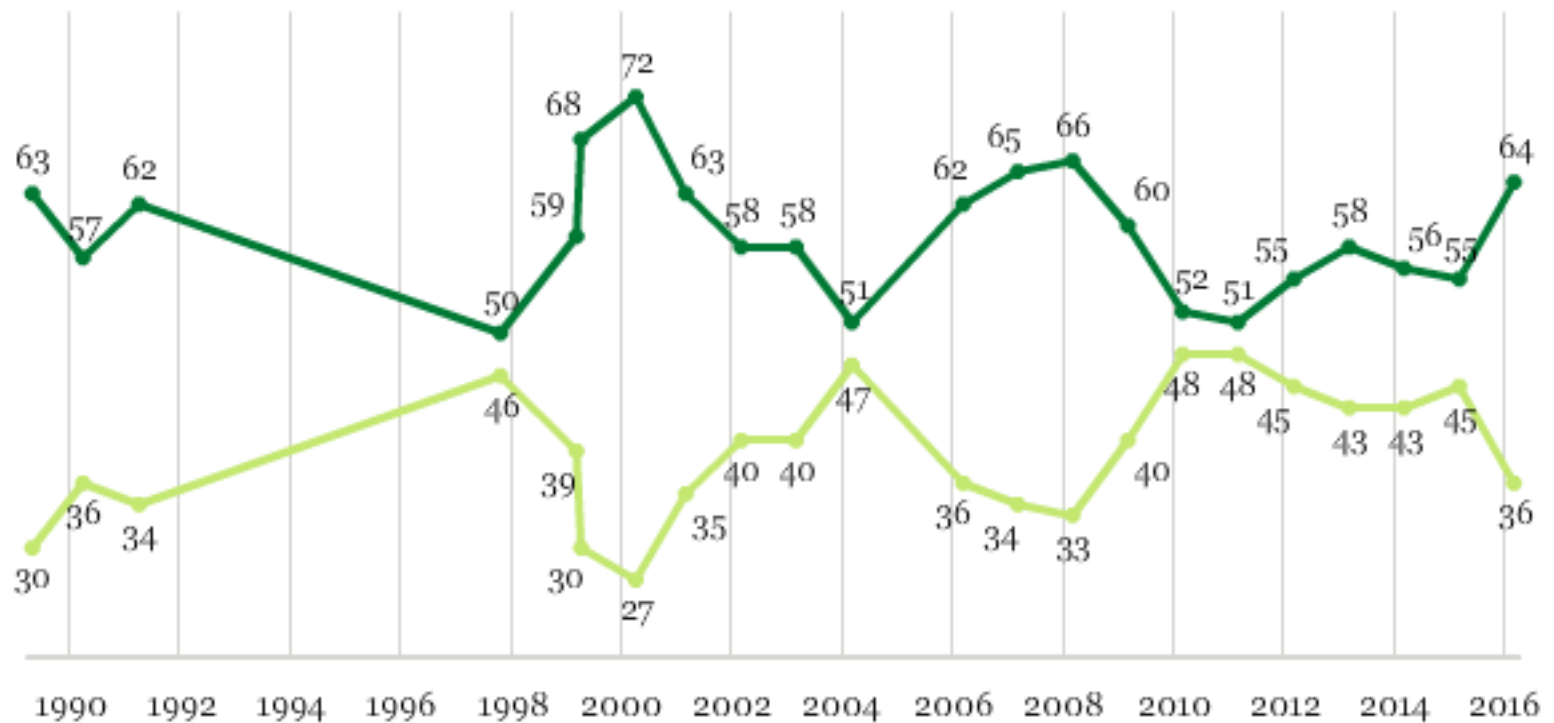
PART TWO

Are we worried about this?

How Much Americans Worry About Global Warming

■ % Great deal/Fair amount

■ % Only a little/Not at all



GALLUP®

SIX AMERICAS OF GLOBAL WARMING



Alarmed



Concerned



Cautious



Disengaged



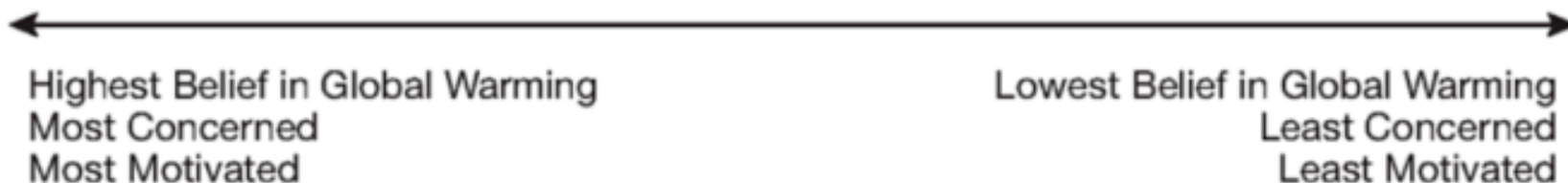
Doubtful



Dismissive



**March
2016**
n=1,203



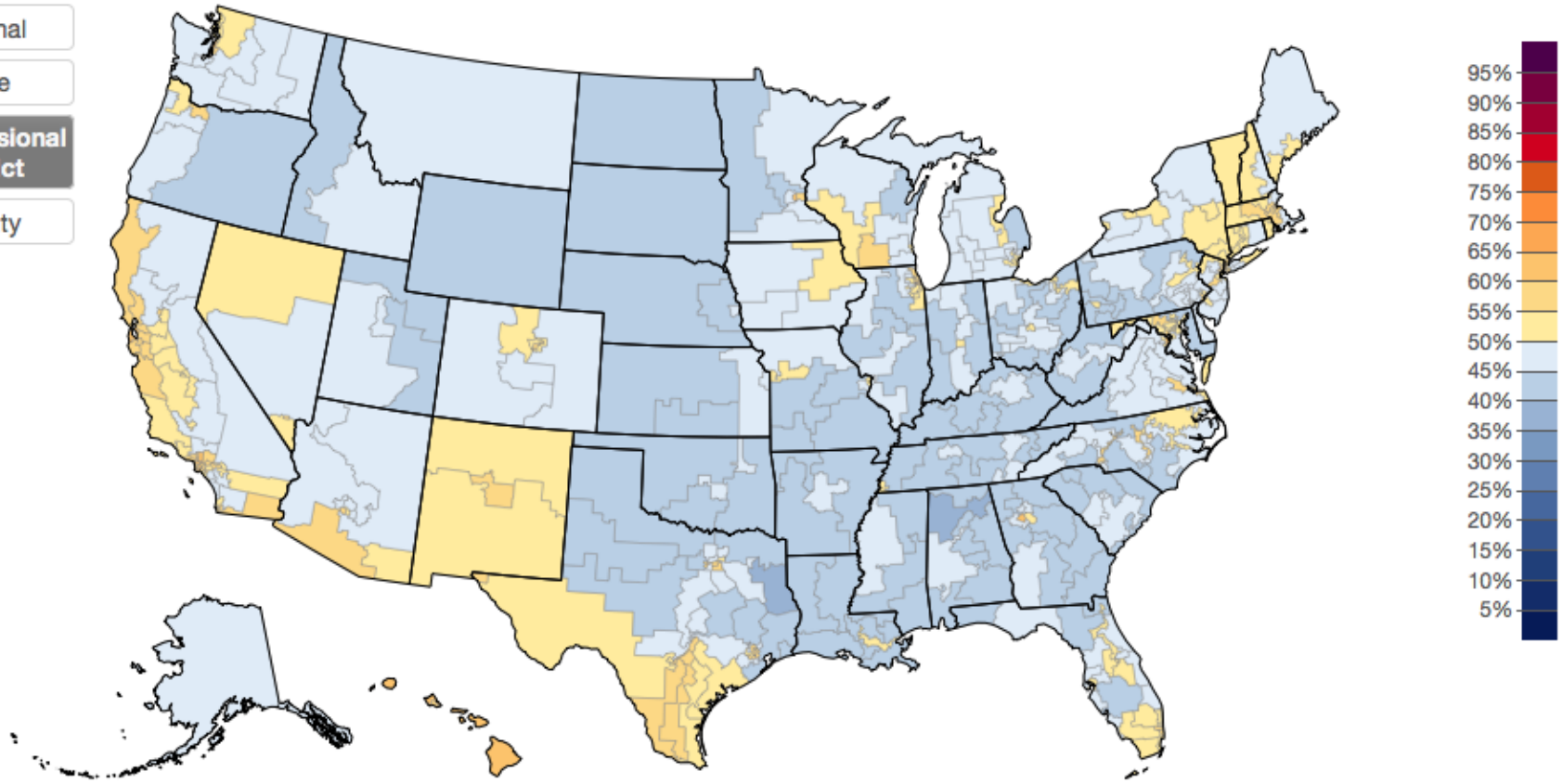
Proportion represented by area

Source: Yale / George Mason University

Estimated % of adults who think global warming is mostly caused by human activities, 2014

Display model output:

- National
- State
- Congressional District**
- County





The science literacy/knowledge deficit model

The public is willing and able to process information if it is available. Therefore, a lack of public support is caused by a lack of information available to the public.

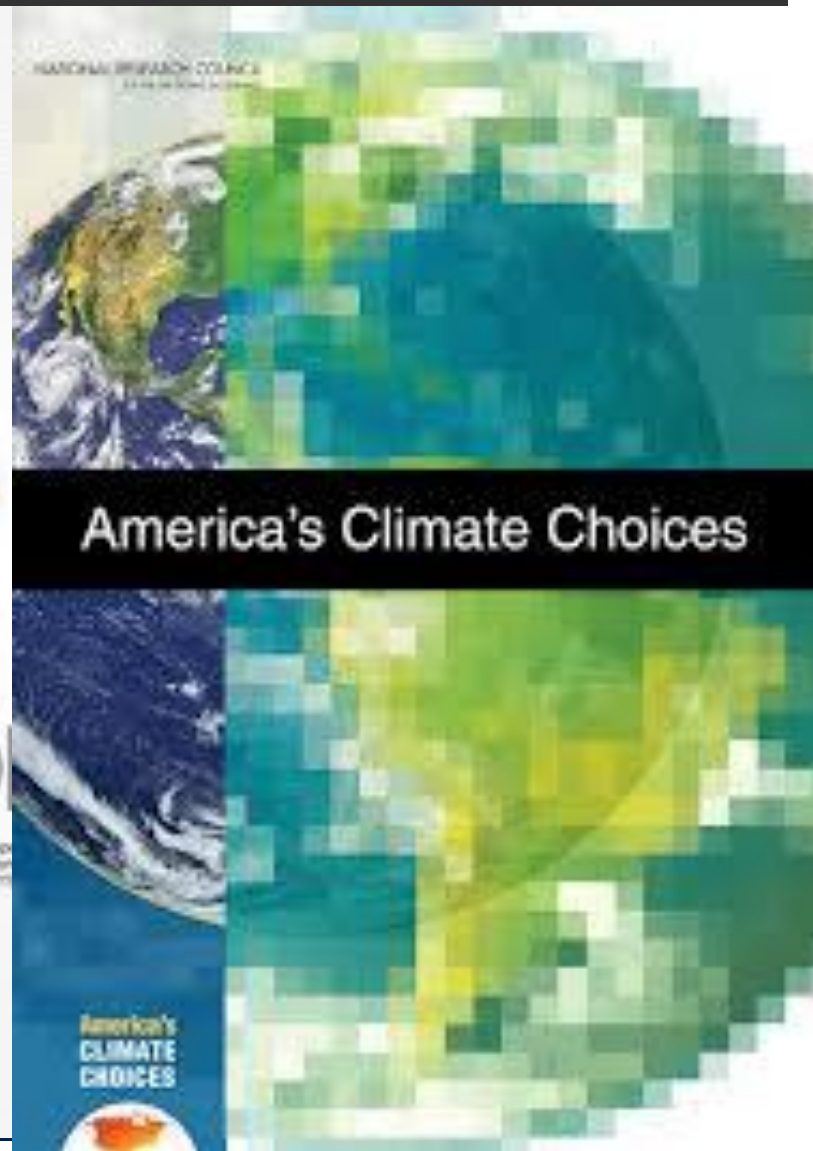




Public apathy over climate change is often attributed to **deficit in comprehension.**

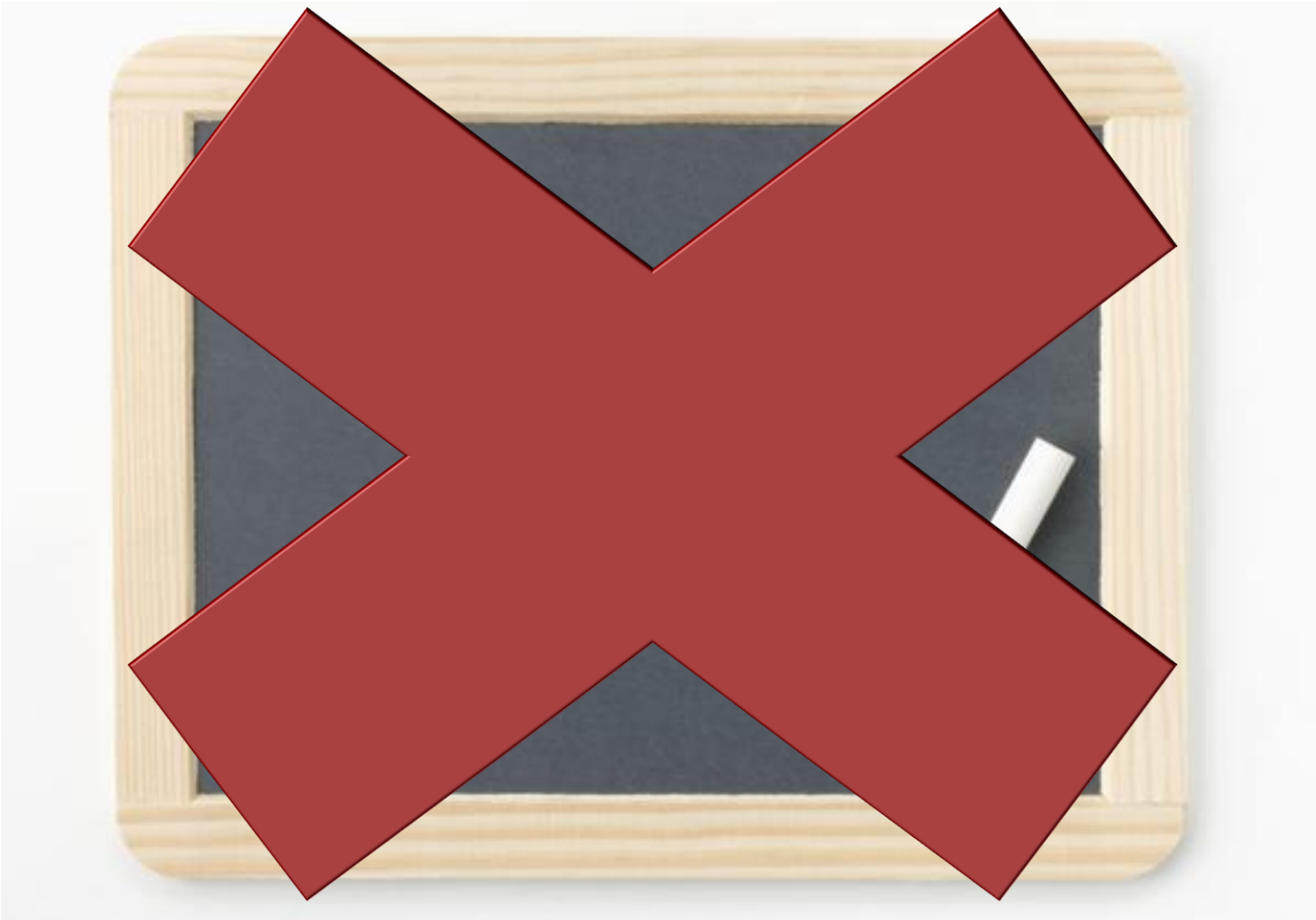
The public knows too little science, it is claimed, to understand the evidence or avoid being misled.

Let's write another report

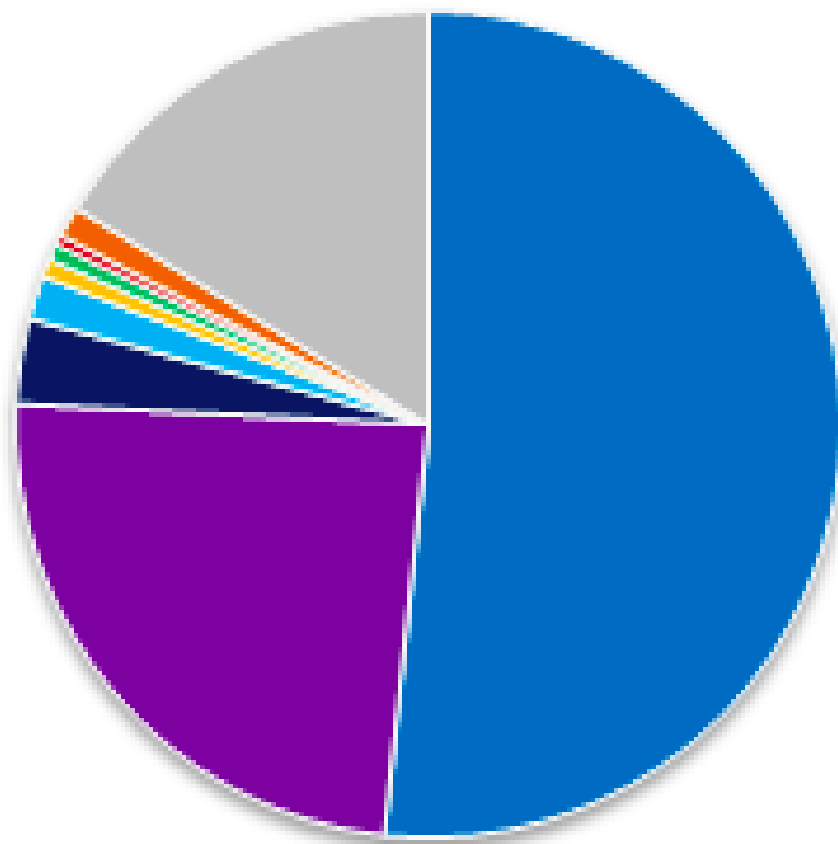


We conducted a study to test this account and **found no support for it.**

Members of the public with the highest degrees of science literacy were not the most concerned about climate change. Rather, they **were the ones among whom cultural polarization was greatest.**



This result suggests that **public divisions over climate change stem not from incomprehension of science** ... but from personal interest individuals have in forming beliefs in line with those held by others with whom they share close ties.



- Protestant (51.3%)
- Roman Catholic (23.9%)
- Other Christian (3.3%)
- Jewish (1.7%)
- Buddhist (0.7%)
- Muslim (0.6%)
- Hindu (0.4%)
- Other religions (1.2%)
- No religion (16.1%)

ENVIRONMENT

→ Climate Change, Climate Desk, Religion, Science, Top Stories

Watch a US Senator Cite the Bible to Prove That Humans Aren't Causing Global Warming

"Biblical evidence."

—By **Jeremy Schulman** | Thu Jan. 22, 2015 3:06 PM EST

Tweet



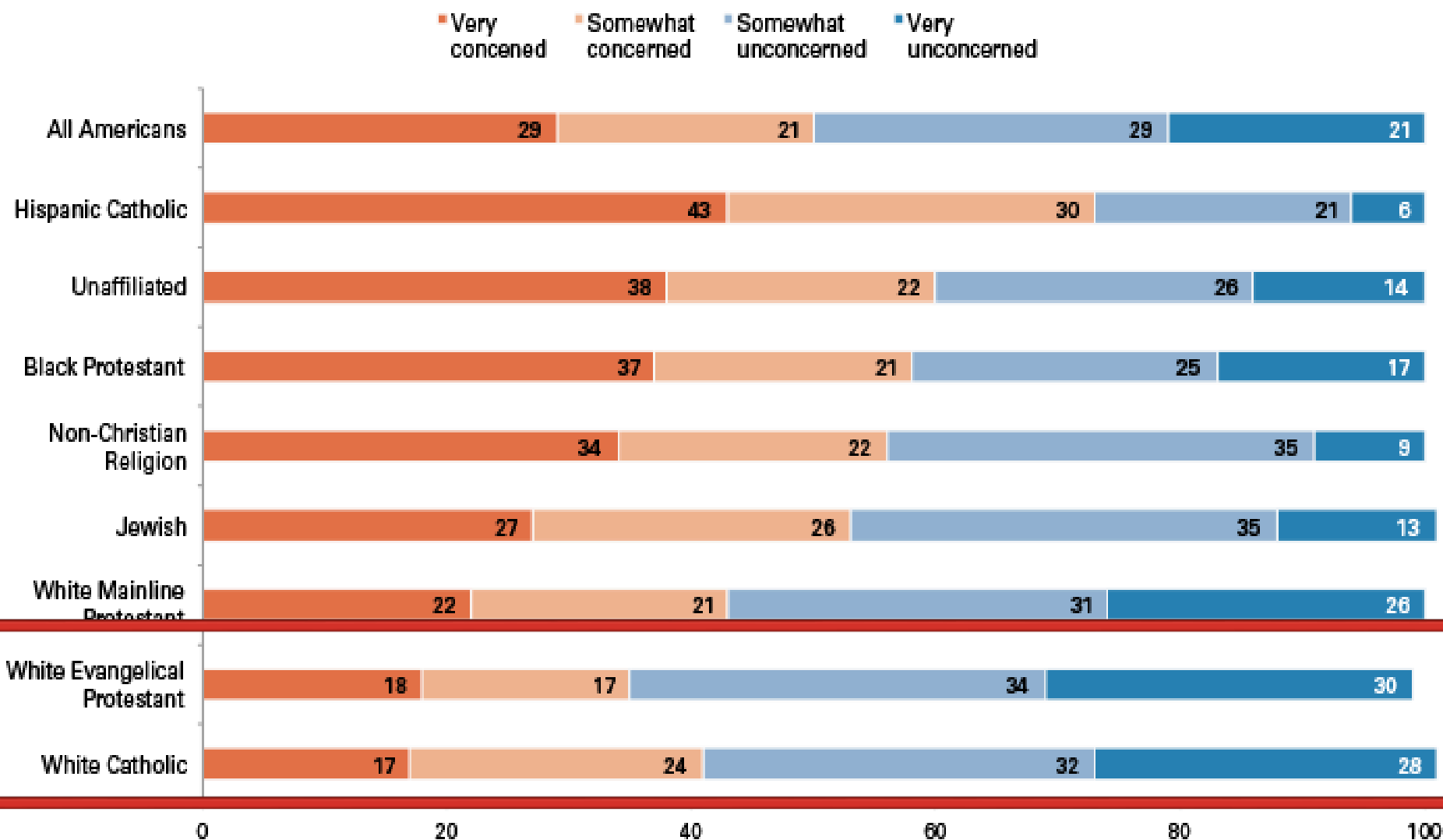
Email



558



Climate Change Concern Index by Religious Affiliation



Source: PRR/VAAR, Religion, Values, and Climate Change Survey, November 2014



The [global] warming caused by the enormous consumption of some wealthy nations has repercussions in the poorest places on the planet.

What really drives opinions?

PART THREE

Compared to the not-actively religious, **conservative Protestants are less likely to believe the conclusiveness of climate science.**



Controlling for other demographic properties shows that **it is not [going to church]** that causes this effect.

[Opinions] are rooted in **age, political conservatism** and the **Republican party**.

John Evans, UCSD



Many evangelicals oppose actions to slow climate change not on a religious basis but **politically, because they believe the government wants to take away their freedom.**

Galen Carey, government relations director for the National Association of Evangelicals (NAE)



Do you realize I was actually on your side of this issue [global warming] when I was chairing that [Senate Environment] committee and I first heard about this?

*Senator James Inhofe, R-OK
2012*



**I thought it must be
true until I found out
what it would cost.**

*Senator James Inhofe, R-OK
2012*



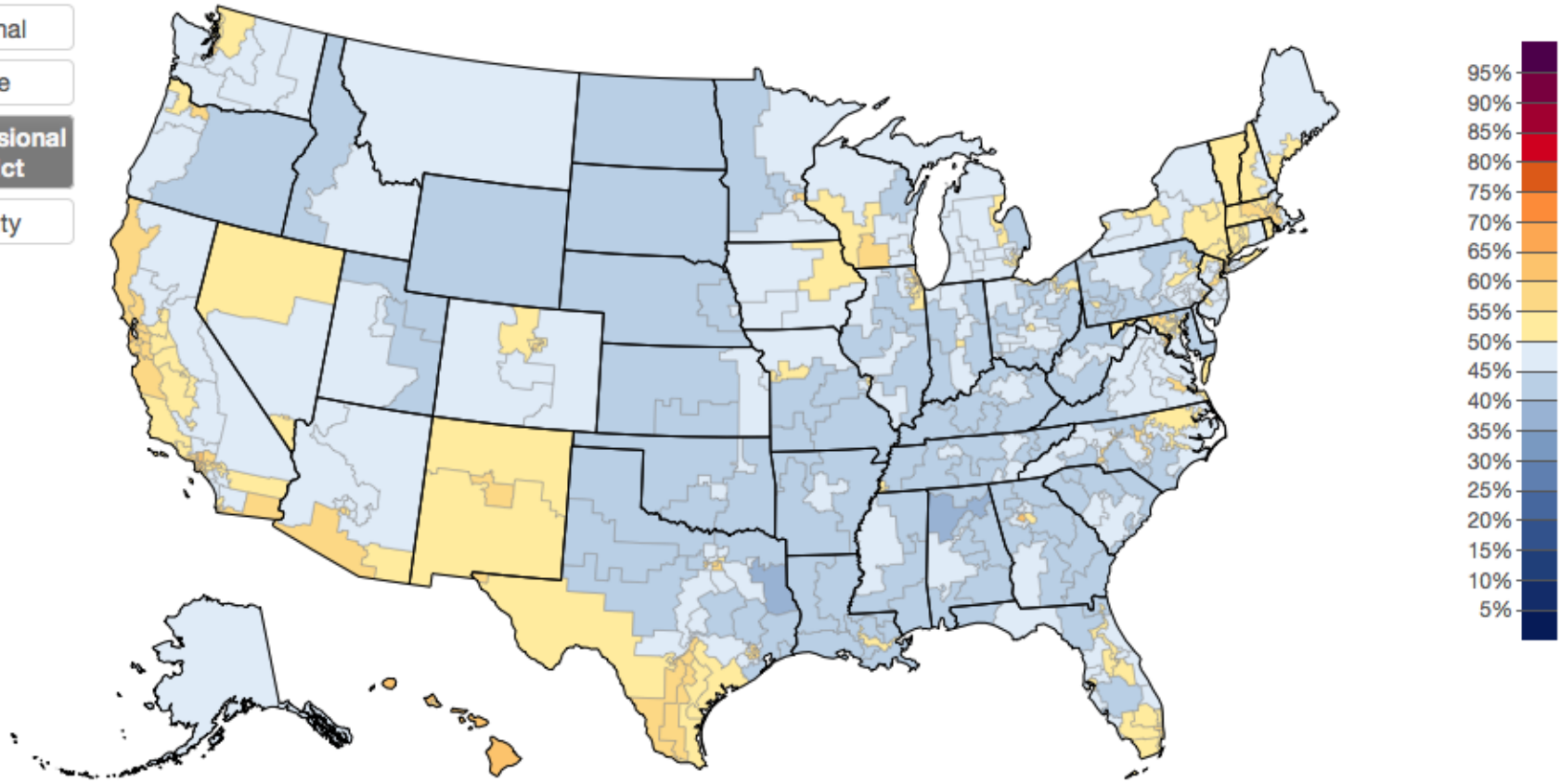
Even if we can't agree
about the politics,

**MANY OF US AGREE ABOUT
THE SOLUTIONS**

Estimated % of adults who think global warming is mostly caused by human activities, 2014

Display model output:

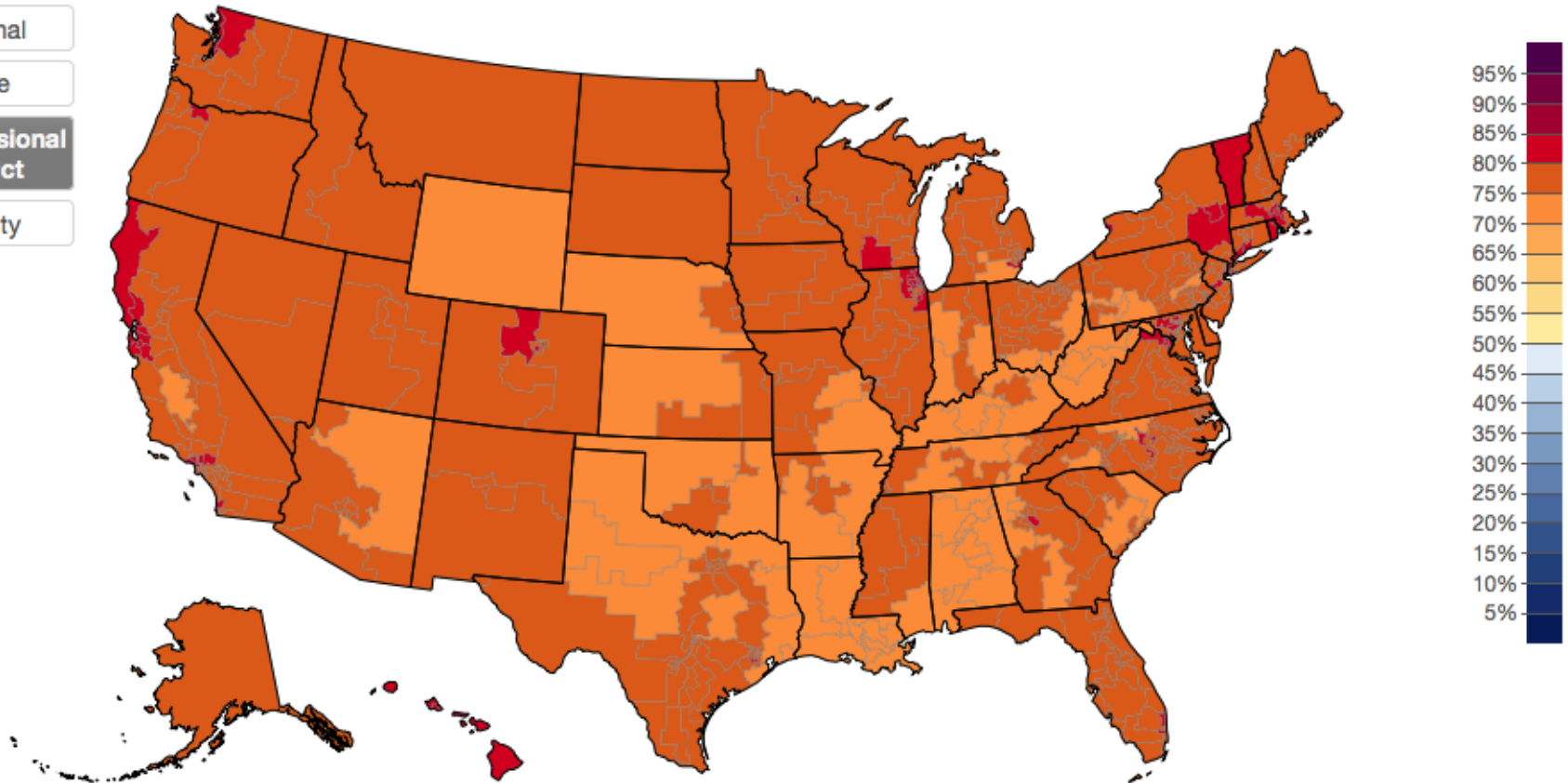
- National
- State
- Congressional District**
- County



Estimated % of adults who support funding research into renewable energy sources, 2014

Display model output: Fund research into renewable energy sources

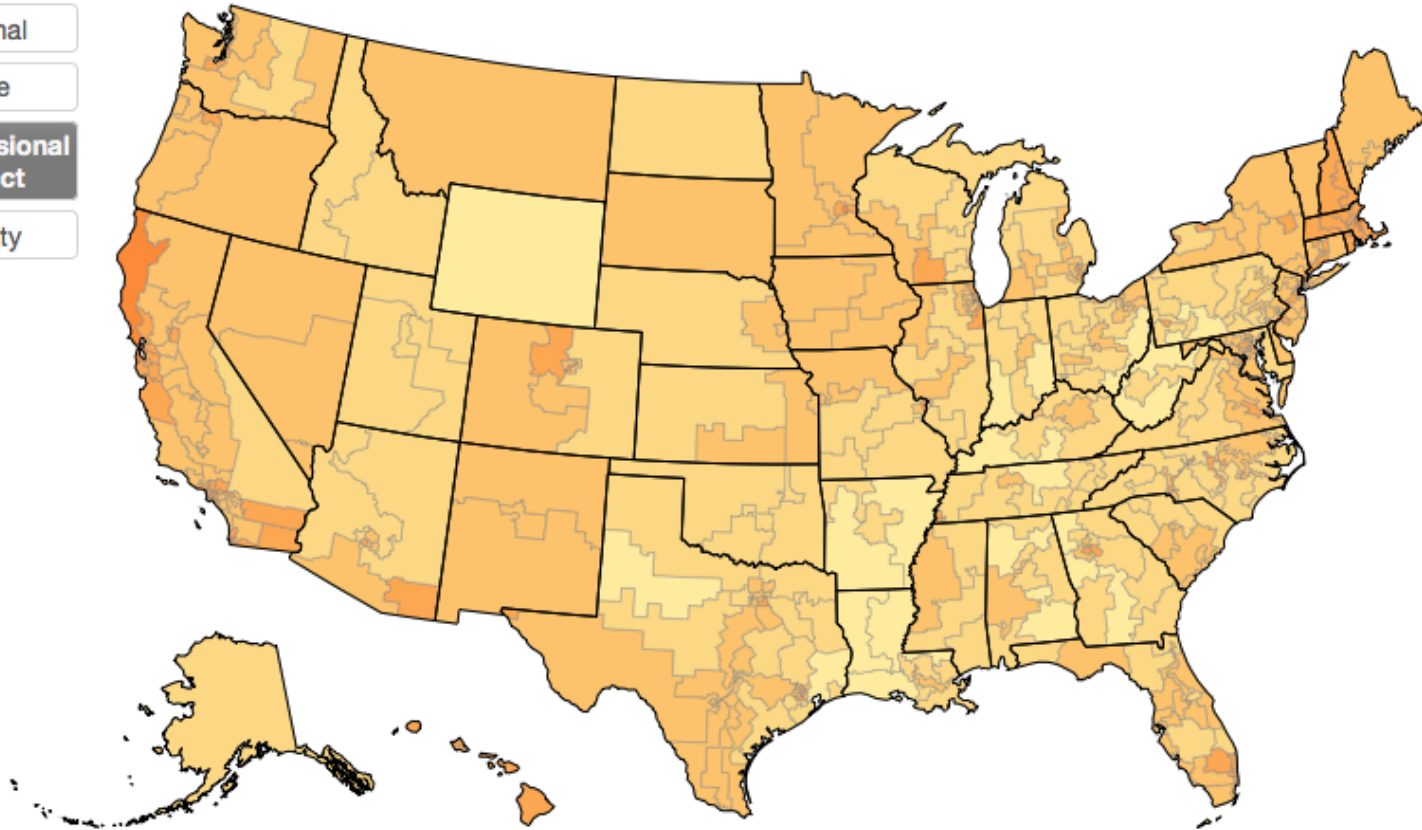
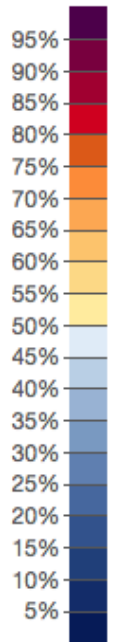
- National
- State
- Congressional District**
- County



Estimated % of adults who support requiring utilities to produce 20% electricity from renewable sources, 2014

Display model output:

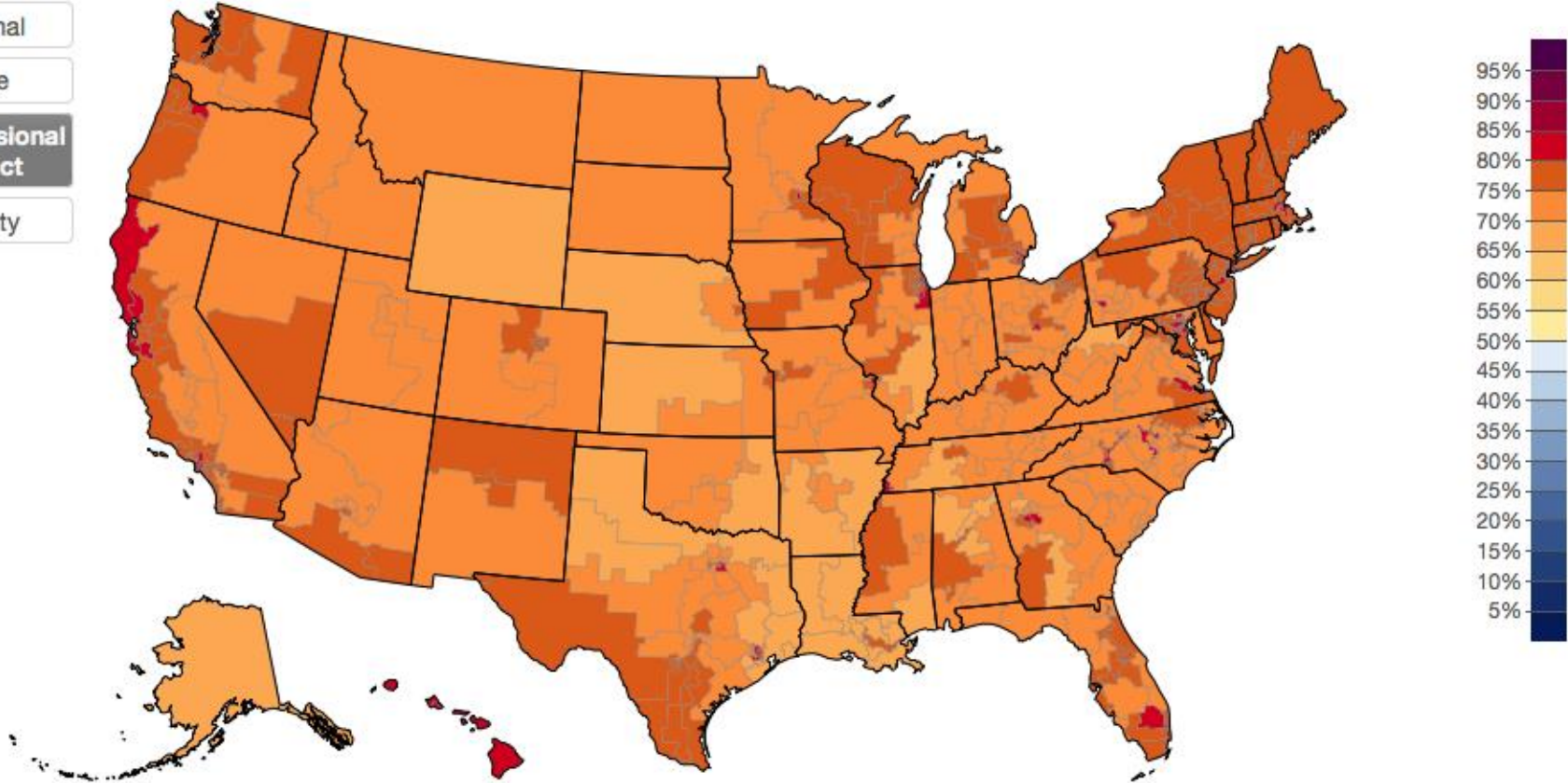
- National
- State
- Congressional District**
- County



Estimated % of adults who support regulating CO2 as a pollutant, 2014

Display model output: Regulate CO2 as a pollutant

- National
- State
- Congressional District**
- County



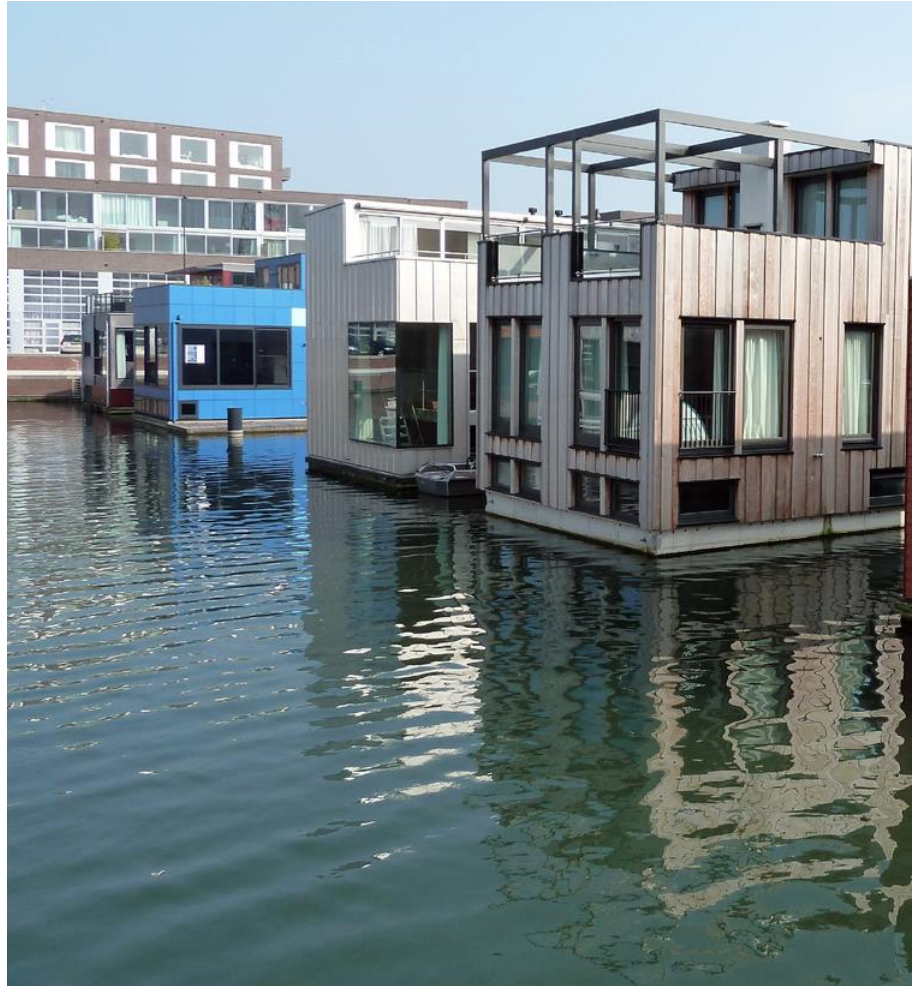
How *can* we move
forward when it
comes to climate?

PART FOUR

Acknowledge that climate change is a real problem affecting real people today



Prepare for a changing climate



Reduce our carbon emissions and invest in the new clean energy economy





Fossil Fuels Just Lost the Race Against Renewables

The race for renewable energy has passed a turning point. The world is now adding more capacity for renewable power each year than coal, natural gas, and oil combined. And there's no going back.





Texas Wind Power Breaks Another Record

MARCH 28, 2014 | 11:29 AM

BY **TERRENCE HENRY**

 1 Comment

 Email

 Tweet



MOSE BUCHELE/STATEIMPACT TEXAS

Wind turbines in West Texas help produce record amounts of electricity for the state.

MEET THE TEXAS TOWN
GOING **100% GREEN ENERGY.**



What about CHINA?



INSPIRE with progress already made

ENVIRONMENT

→ China, Climate Change, Climate Desk, Top Stories

China Says It Will Start the World's Biggest Carbon Market by 2017

On Friday, China will also announce that it will work closely with the US on a host of other climate measures.



President Barack Obama and Chinese President Xi Jinping walk on the North Lawn of the White House on Thursday. *Manuel Balce Ceneta/AP*



I'm just one person, what can I do?



Global Weirding with Katharine Hayhoe

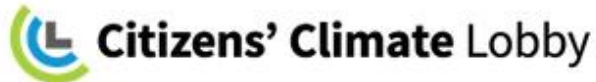
ENCOURAGE OUR COMMUNITY TO JOIN



Ney 2.6 MW Solar Array at Houghton College

“With this project, Houghton College has shown itself to be a leader in clean energy investment in New York State”

MAKE OUR VOICES HEARD



[About CCL](#)

[Carbon Fee
& Dividend](#)

[Blog](#)

[Ta
Act](#)



We're creating the political will for a livable world by empowering individuals to experience breakthroughs in exercising their personal and political power.





It is only when our clever brain and our human heart work together in harmony can we achieve our full potential.

- Jane Goodall

THANK YOU!

www.katharinehayhoe.com

