

Climate Change in the American Mind



Photos: climatevisuals.org

Metropolitan Mayors Caucus
Environment Committee

April 20, 2021

Jennifer Marlon

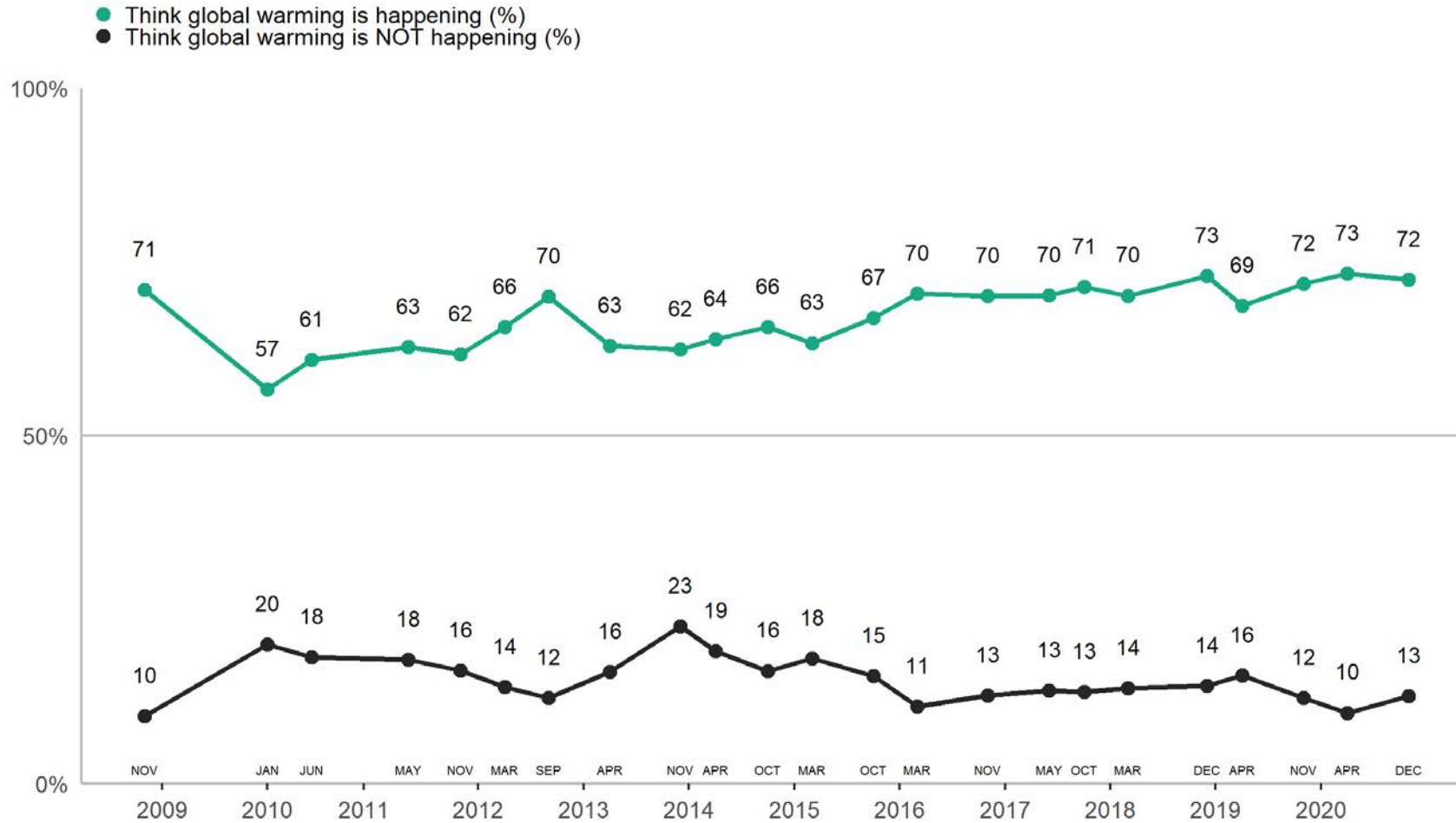
Yale School of the Environment



The Five Key Ideas

1. It's real.
2. It's us.
3. It's bad.
4. Scientists agree.
5. There's hope!

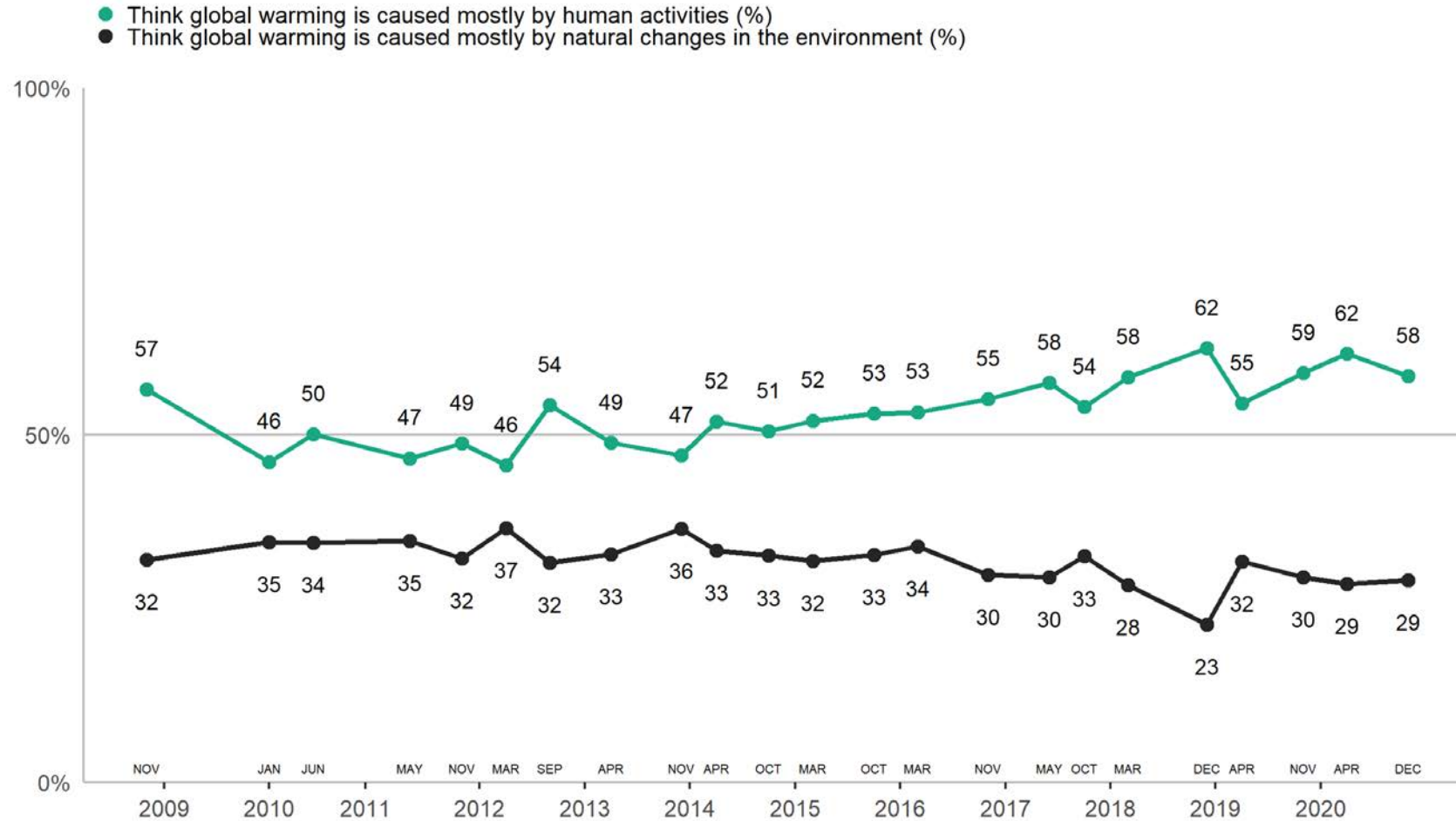
Most Americans Think Global Warming Is Happening



Do you think global warming is happening?

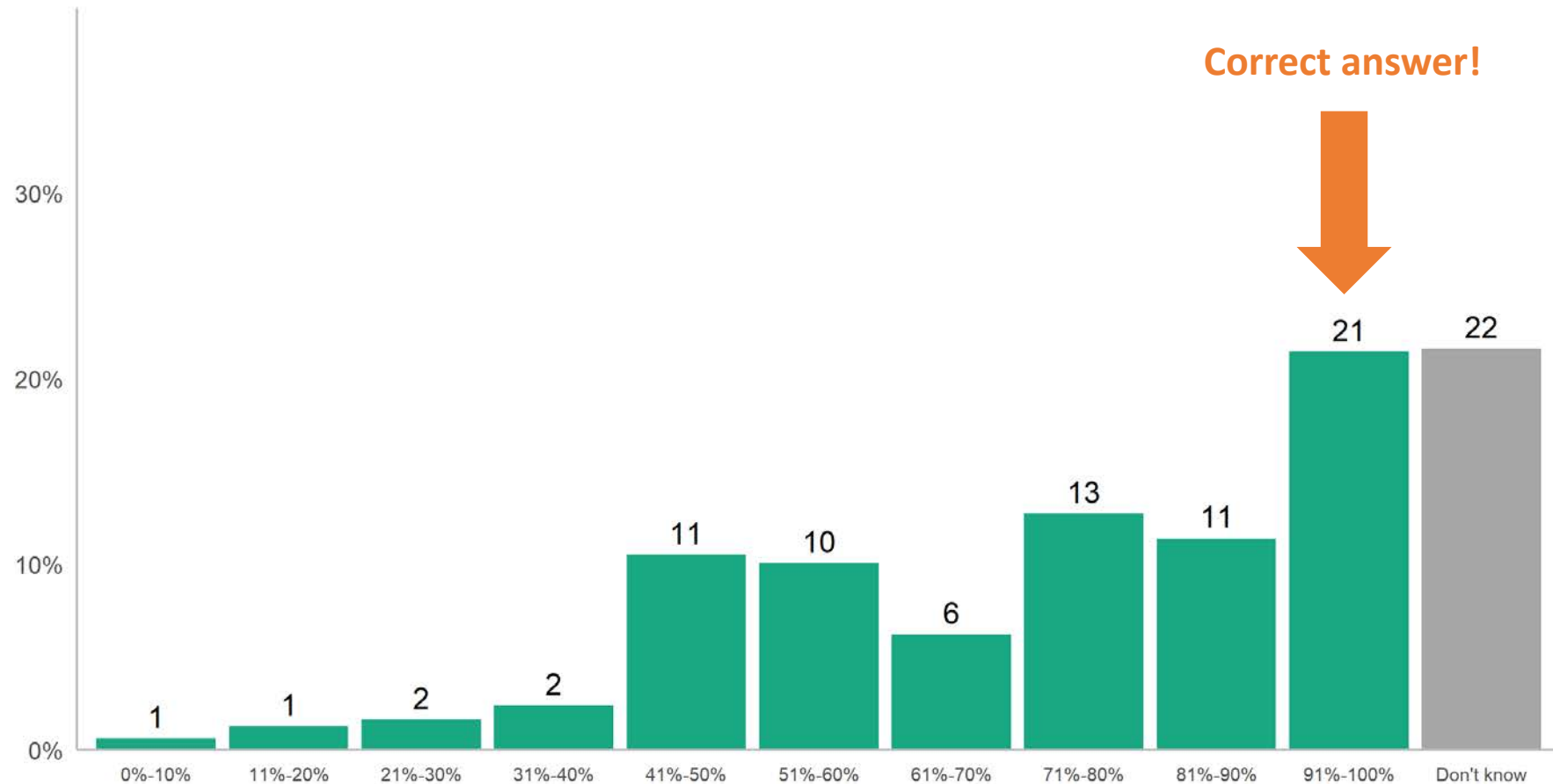
December 2020

A Majority of Americans Think Global Warming Is Mostly Human-Caused



Assuming global warming is happening, do you think it is...
December 2020

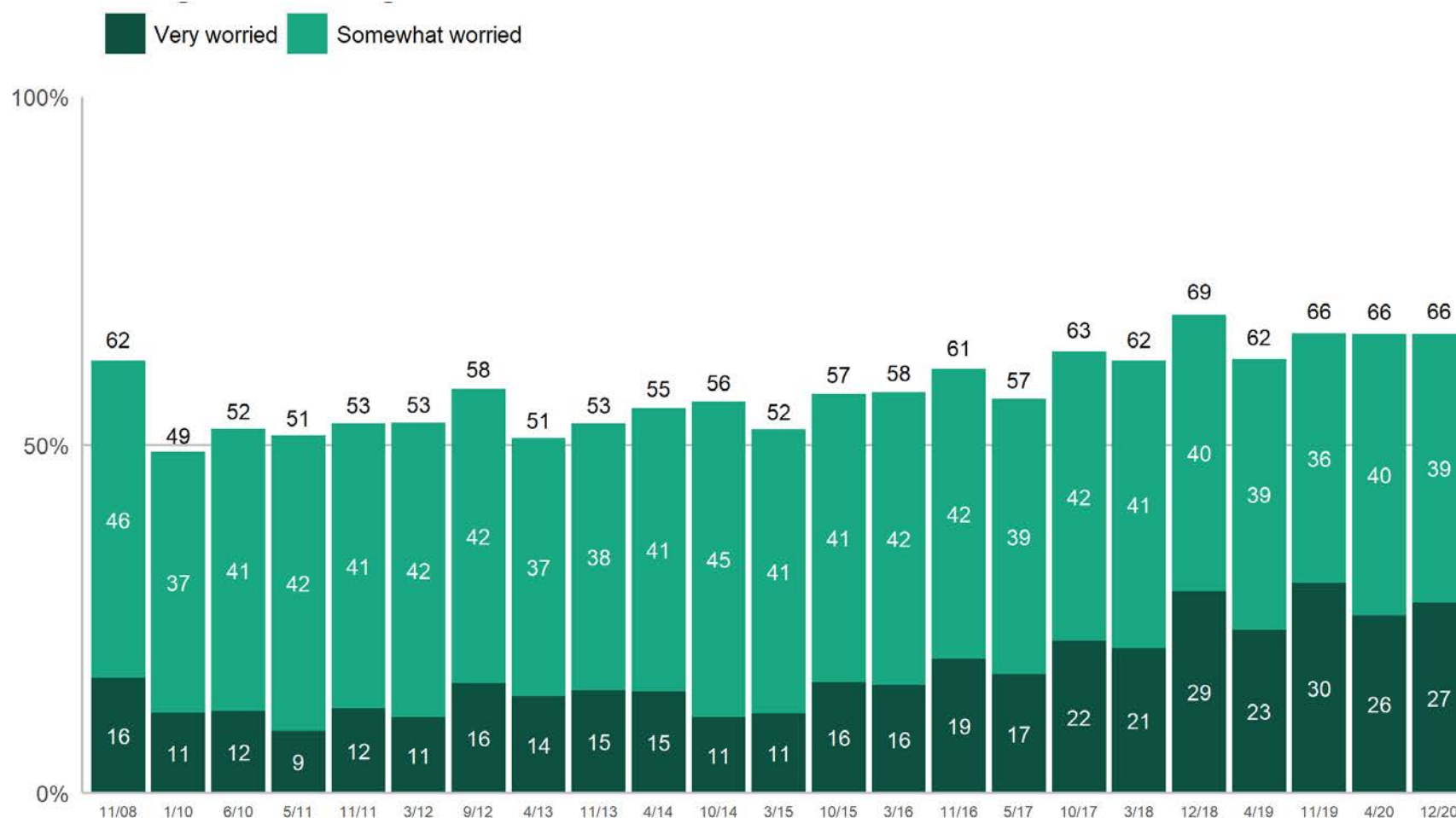
Few Americans Understand the Scientific Consensus that Human-Caused Global Warming is Happening



To the best of your knowledge, what percentage of climate scientists think that human-caused global warming is happening? Please click on the slider bar below to indicate your answer. You can slide the indicator to the position that best describes your opinion.

April 2020

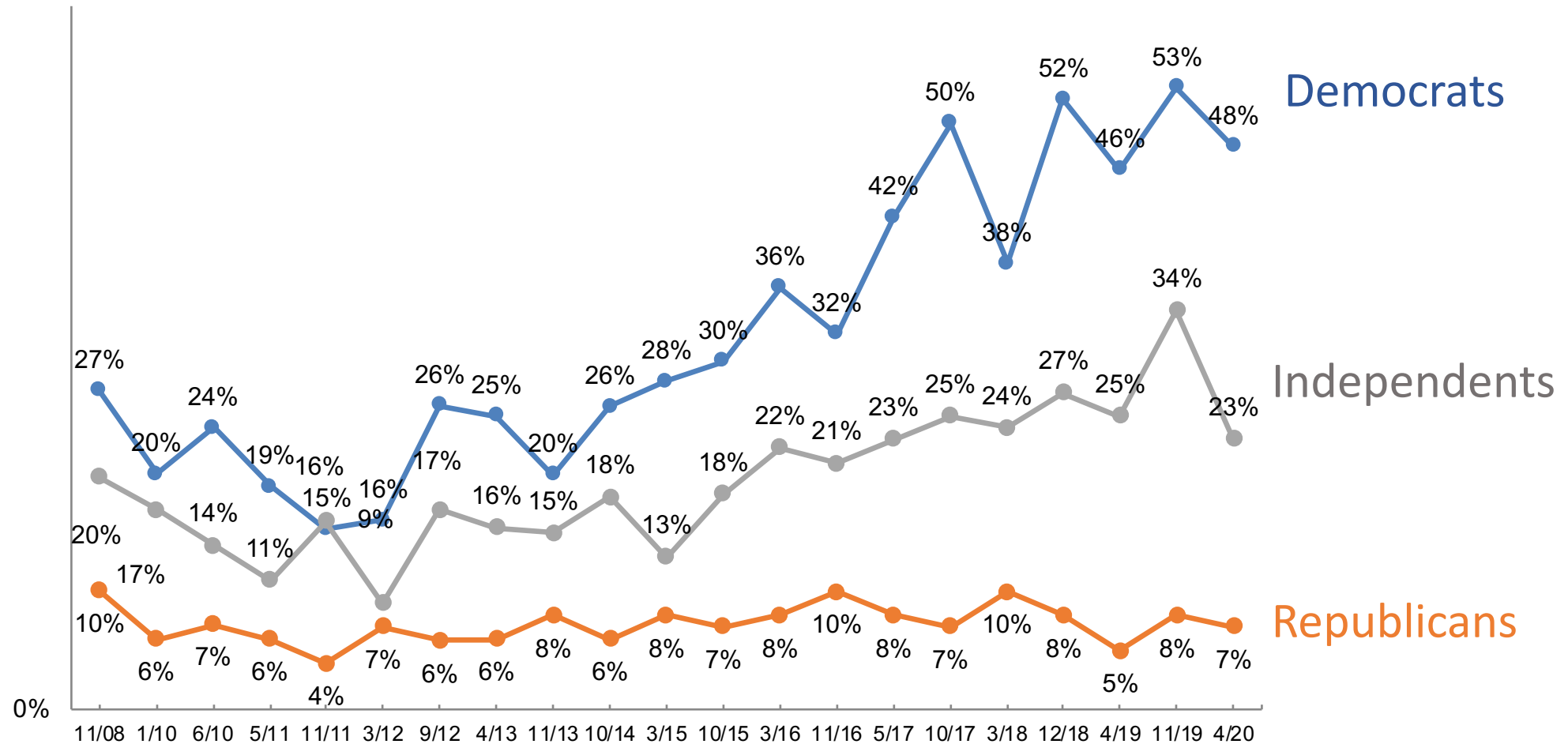
Only 27% of Americans Are “Very Worried”



How worried are you about global warming?

December 2020

Global Warming Should be a “Very High” Priority for the President and Congress



Do you think each of these issues should be a low, medium, high, or very high priority for the next president and Congress?
[Global warming]

Global Warming was #2 Voting Issue for Liberal D's

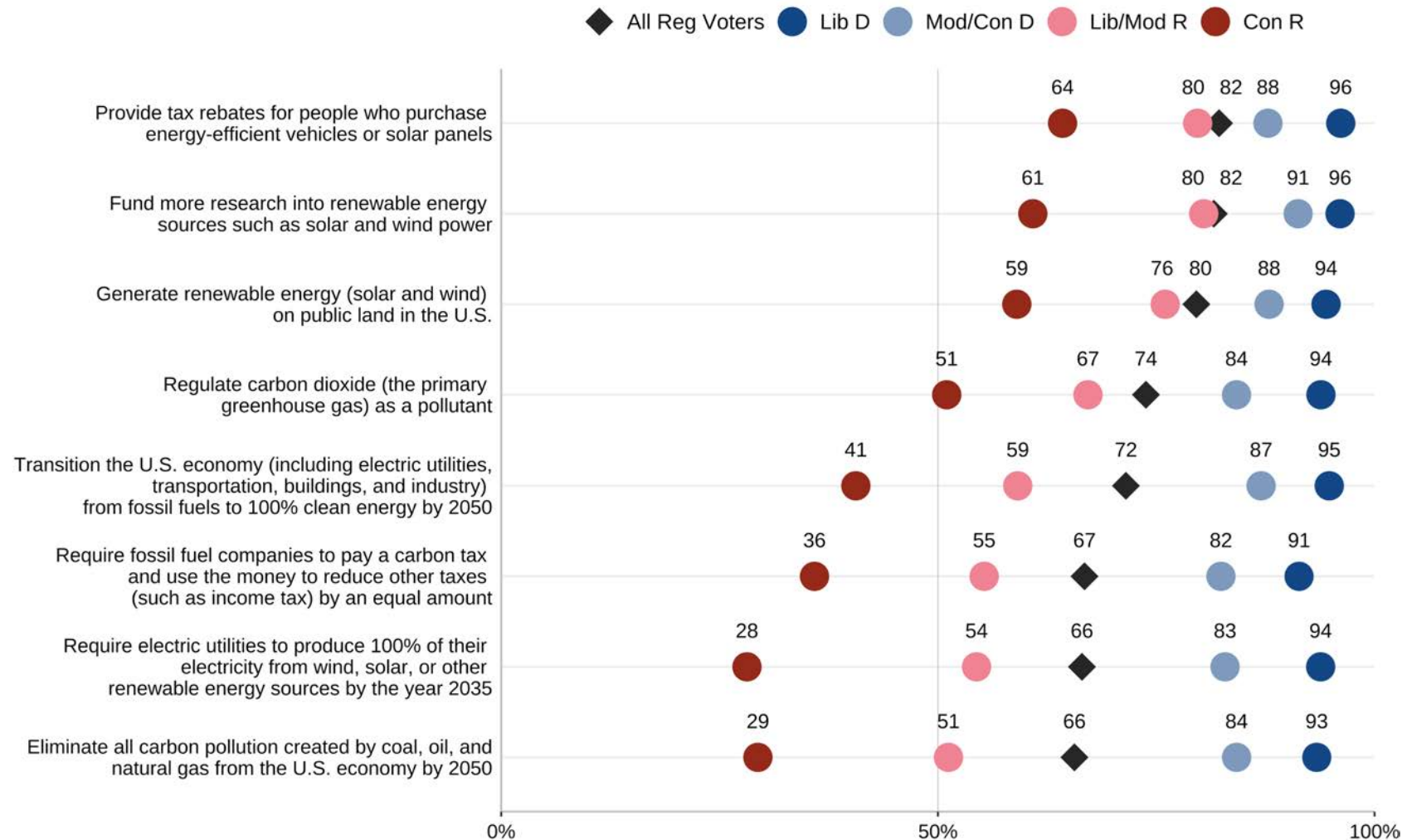
Rank by "very important"	All Registered Voters	Liberal Democrats	Moderate/Conservative Democrats	Liberal/Moderate Republicans	Conservative Republicans
1	Economy	Healthcare	Healthcare	Economy	Economy
2	Healthcare	Global warming	COVID-19	Government corruption	Border security
3	Government corruption	Environmental protection	Economy	Terrorism	Government corruption
4	COVID-19	Income gap	Russian election interference	Healthcare	Gun policies
5	Social Security	Supreme Court nominations	Social Security	Social Security	Terrorism
6	Gun policies	Russian election interference	Government corruption	Gun policies	Immigration reform
7	Terrorism	Government corruption	Education	COVID-19	Supreme Court nominations
8	Education	COVID-19	Global warming	Border security	Healthcare
9	Supreme Court nominations	Developing clean energy	Environmental protection	Tax reform	Social Security
10	Russian election interference	Education	Terrorism	Immigration reform	Foreign policy
11	Environmental protection	Gun policies	Income gap	Federal budget deficit	Abortion
12	Immigration reform	Race relations	Disaster relief	Education	Federal budget deficit
13	<i>Global warming</i>	Economy	Race relations	Disaster relief	International trade
14	Disaster relief	Abortion	Developing clean energy	Improving roads, etc.	COVID-19
15	Federal budget deficit	Disaster relief	Supreme Court nominations	Foreign policy	Tax reform
16	Income gap	Social Security	Federal budget deficit	Environmental protection	Improving roads, etc.
17	Foreign policy	Foreign policy	Tax reform	Energy independence	Energy independence
18	Tax reform	Immigration reform	Improving roads, etc.	Russian election interference	Education
19	Improving roads, etc.	Energy independence	Gun policies	Supreme Court nominations	Russian election interference
20	Abortion	Tax reform	Foreign policy	International trade	Opioid crisis
21	Border security	Criminal justice reform	Campaign finance reform	Income gap	Disaster relief
22	Developing clean energy	Improving roads, etc.	Energy independence	Abortion	Criminal justice reform
23	Energy independence	Campaign finance reform	Immigration reform	Global warming	Environmental protection
24	Race relations	Terrorism	Criminal justice reform	Developing clean energy	Campaign finance reform
25	International trade	Wall Street reform	Opioid crisis	Campaign finance reform	Legalizing marijuana
26	Criminal justice reform	Federal budget deficit	International trade	Opioid crisis	Race relations
27	Campaign finance reform	Opioid crisis	Abortion	Race relations	Wall Street reform
28	Opioid crisis	Legalizing marijuana	Legalizing marijuana	Criminal justice reform	Developing clean energy
29	Wall Street reform	International trade	Wall Street reform	Wall Street reform	Income gap
30	Legalizing marijuana	Border security	Border security	Legalizing marijuana	Global warming

In 2020, there will be an election to choose the U.S. president. As of today, how important will the following issues be to you when you decide who you will vote for in the 2020 Presidential election?

April 2020.

Most Registered Voters, Including Republicans, Support Climate-Friendly Energy Policies

- % “strongly” or “somewhat” support -



How much do you support or oppose the following policies?

April 2020.

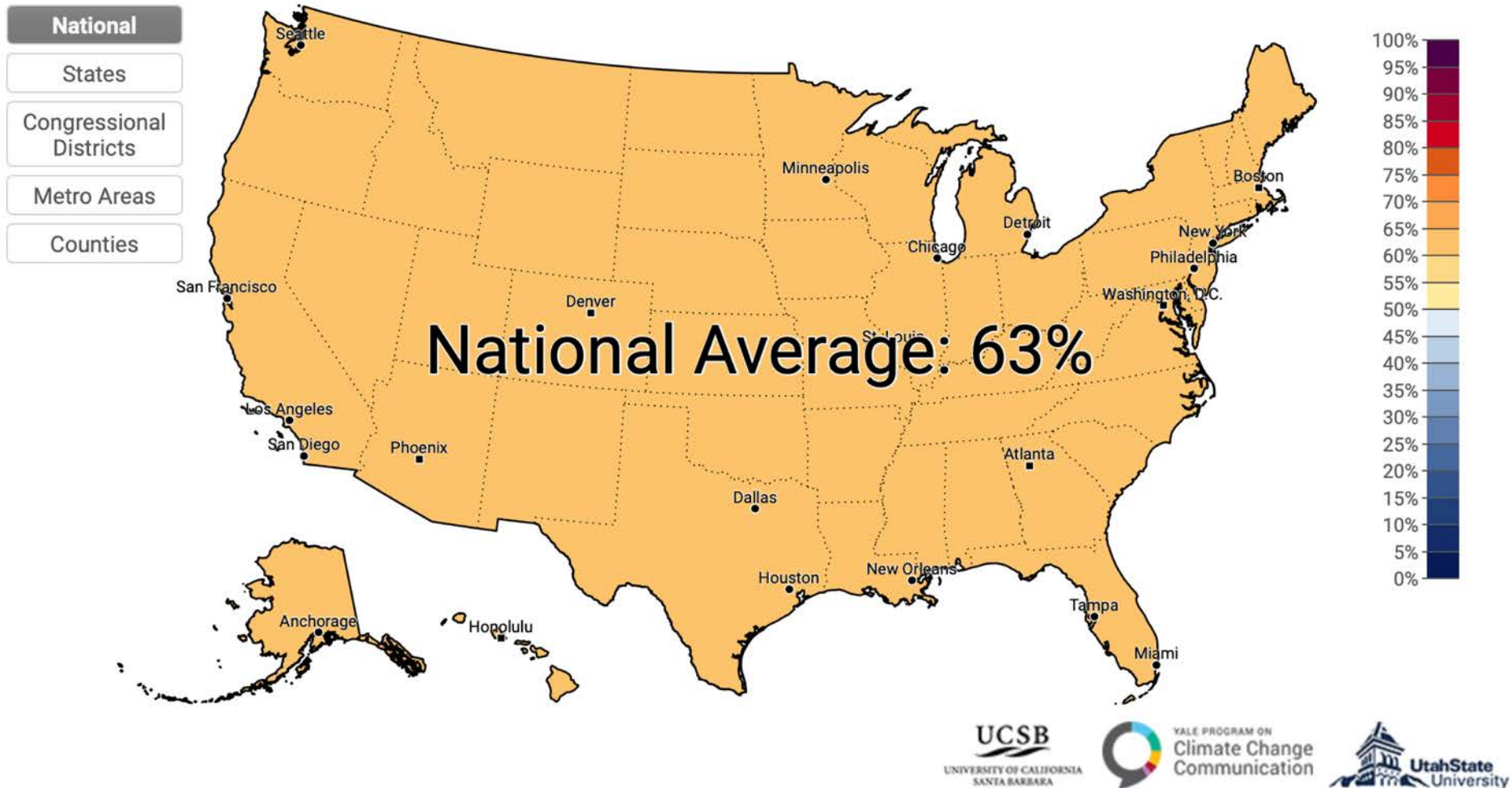
The Yale Climate Opinion Maps

Estimated % of adults who are worried about global warming (63%), 2020

Select Question: Worried about global warming

Absolute Value

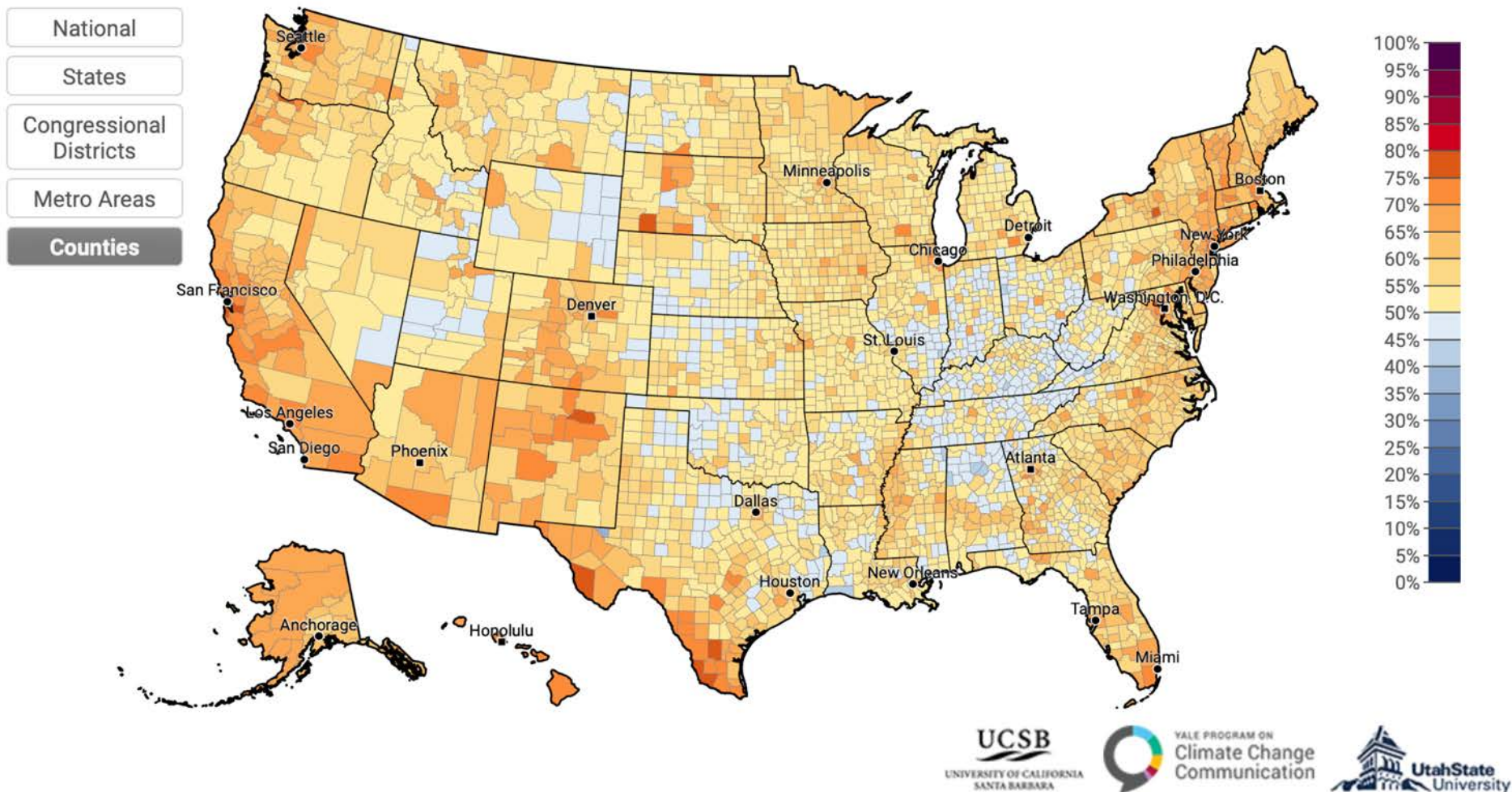
Click on map to select geography, or:



Estimated % of adults who are worried about global warming (63%), 2020

Select Question: Absolute Value

Click on map to select geography, or:



Estimated % of adults who think global warming will harm plants and animals (71%), 2020

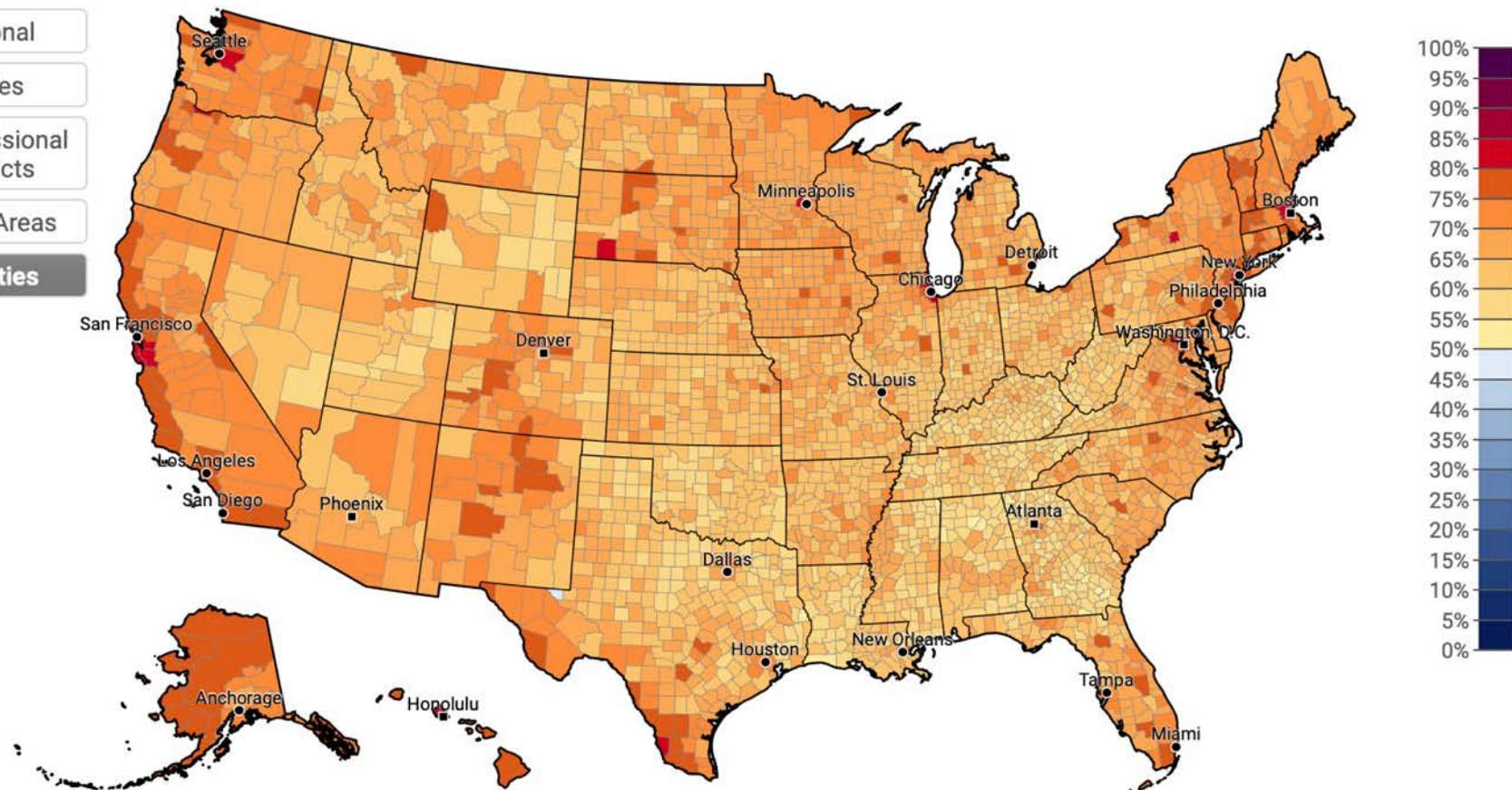
Select Question: Global warming will harm plants and animals

Absolute Value

Click on map to select geography, or: Select a State

Select a County

- National
- States
- Congressional Districts
- Metro Areas
- Counties**



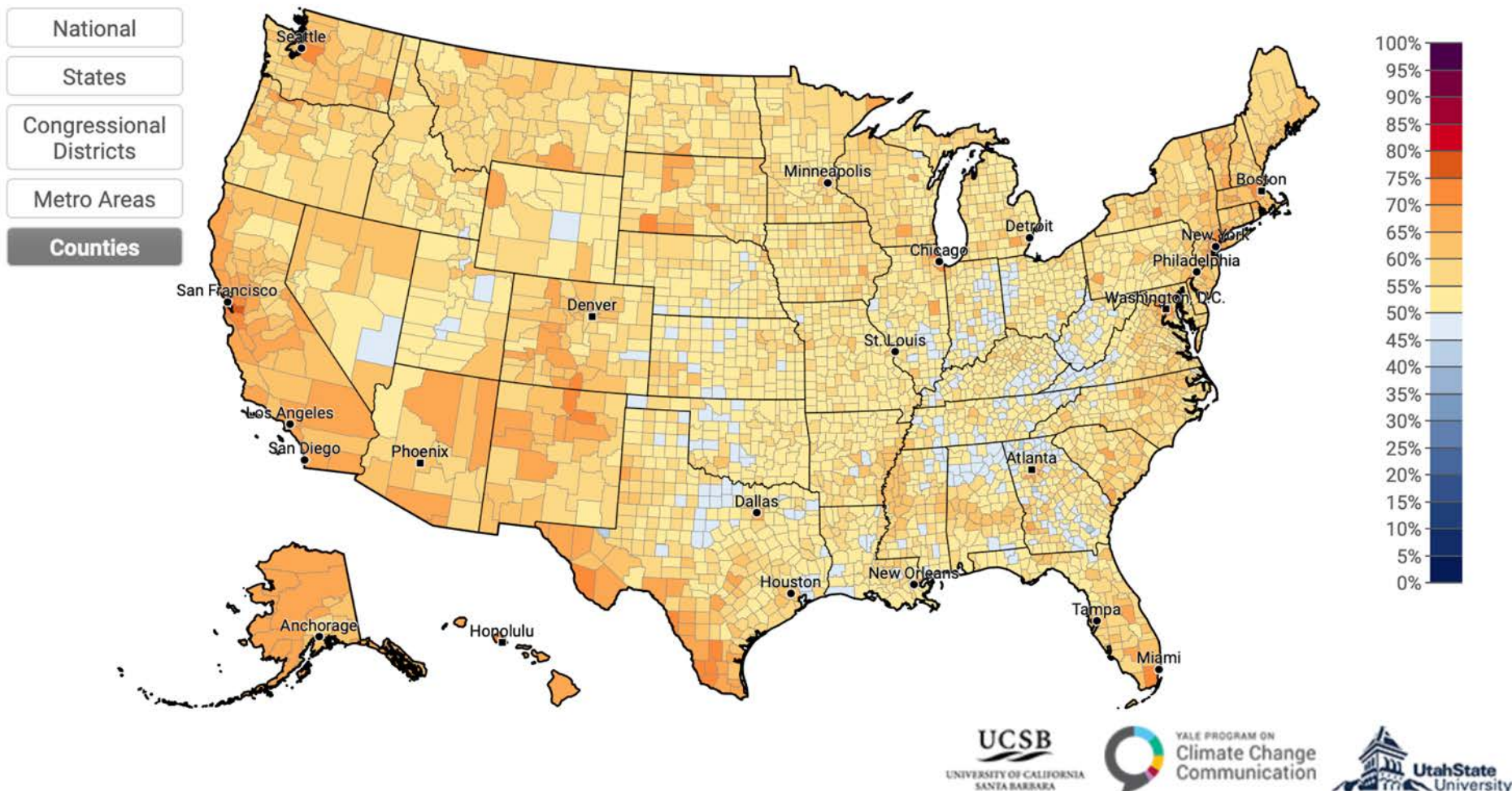
Estimated % of adults who think global warming will harm people in the US (61%), 2020

Select Question: Global warming will harm people in the US

Absolute Value

Click on map to select geography, or: Select a State

Select a County



Estimated % of adults who think global warming will harm them personally (43%), 2020

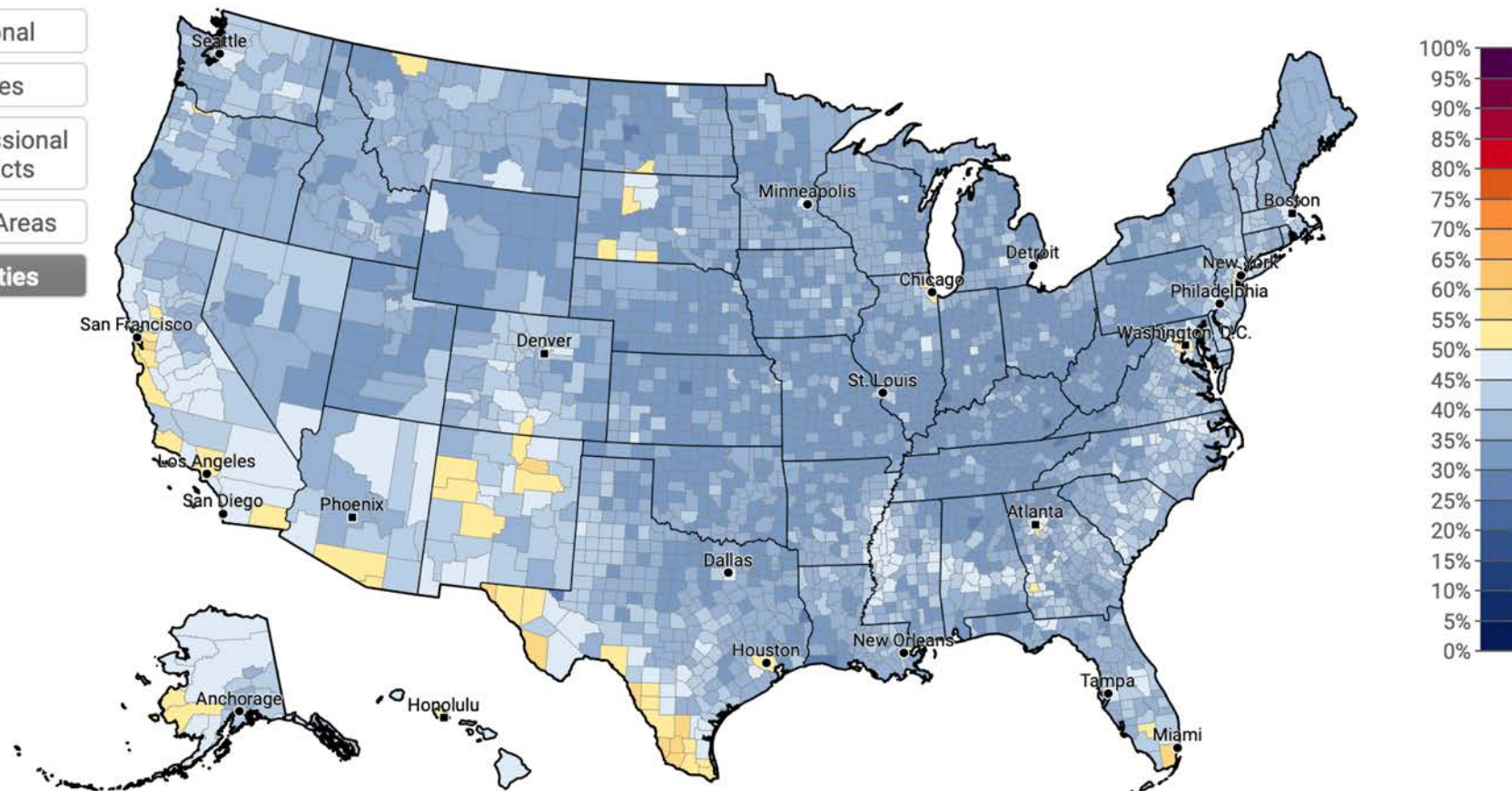
Select Question: Global warming will harm me personally

Absolute Value

Click on map to select geography, or: Select a State

Select a County

- National
- States
- Congressional Districts
- Metro Areas
- Counties**



Climate Opinion Factsheets

Get Climate Opinion Factsheets for States, Counties, or Congressional Districts

[Español](#)

Public sentiment is everything. With public sentiment, nothing can fail. Without it, nothing can succeed.

— Abraham Lincoln

Americans' opinions about climate change vary widely depending on where people live. So why would we rely on just one national number to understand public responses to climate change at the state and local levels? This Factsheets tool, based on the [Yale Climate Opinion Maps](#), provides information about Americans' beliefs, risk perceptions, and policy preferences about climate change for all 50 states, 435 congressional districts, and 3,142 counties across the U.S. The tool allows you to customize which survey questions are shown on your Factsheet. The opinion estimates are based on a statistical model (see [Howe et al. 2015](#) for details) that uses a large individual-level survey dataset (n > 24,000), plus geographic, demographic, economic, and other data to provide results accurate to within about 8 percentage points at any geographic level. We hope you find the data and tool useful, and welcome your feedback to help us improve future versions.

Select a State

Choose...

⌵

Select a County

⌵

Select a Congressional District

⌵

Generate Factsheet

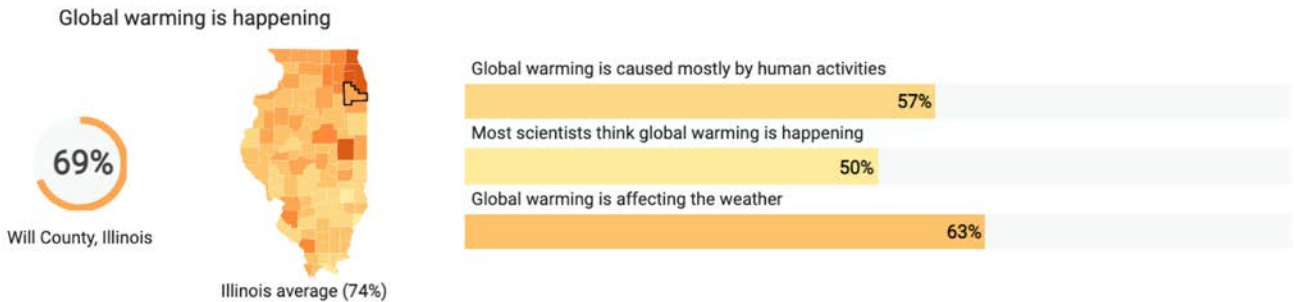
Show	Map	Question
<input checked="" type="checkbox"/>		Beliefs
<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Global warming is happening
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming is caused mostly by human activities
<input checked="" type="checkbox"/>	<input type="radio"/>	Most scientists think global warming is happening
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming is affecting the weather
<input checked="" type="checkbox"/>		Risk Perceptions
<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Worried about global warming
<input type="checkbox"/>	<input type="radio"/>	Global warming will harm plants and animals
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming will harm future generations
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming will harm people in developing countries
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming will harm people in the US
<input checked="" type="checkbox"/>	<input type="radio"/>	Global warming will harm me personally
<input type="checkbox"/>	<input type="radio"/>	Global warming is already harming people in the US
<input checked="" type="checkbox"/>		Policy Support
<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Schools should teach about global warming
<input checked="" type="checkbox"/>	<input type="radio"/>	Fund research into renewable energy sources
<input checked="" type="checkbox"/>	<input type="radio"/>	Provide tax rebates for energy efficient vehicles or solar panels
<input checked="" type="checkbox"/>	<input type="radio"/>	Regulate CO2 as a pollutant
<input checked="" type="checkbox"/>	<input type="radio"/>	Set strict CO2 limits on existing coal-fired power plants
<input type="checkbox"/>	<input type="radio"/>	Require fossil fuel companies to pay a carbon tax
<input type="checkbox"/>	<input type="radio"/>	Require utilities to produce 20% electricity from renewable sources
<input type="checkbox"/>	<input type="radio"/>	Drill for oil in the Arctic National Wildlife Refuge
<input type="checkbox"/>	<input type="radio"/>	Expand offshore drilling for oil and natural gas off the U.S. coast
<input type="checkbox"/>	<input type="radio"/>	Environmental protection is more important than economic growth
<input checked="" type="checkbox"/>		Behaviors
<input checked="" type="checkbox"/>		Discuss global warming at least occasionally
<input checked="" type="checkbox"/>		Hear about global warming in the media at least once a week
<input checked="" type="checkbox"/>		Who should do more about global warming

Generate Factsheet

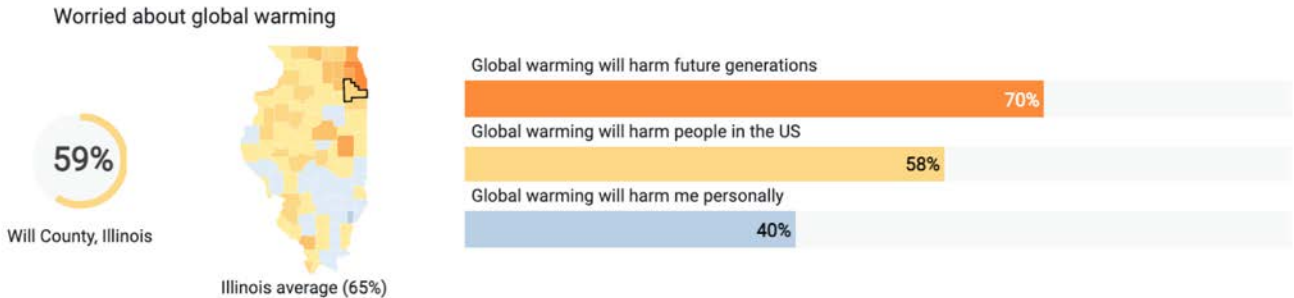
Public Opinion on Climate Change, 2020

Public opinion data come from the Yale Climate Opinion Maps (YCOM), which are based on a statistical model that employs nationally representative Climate Change in the American Mind (CCAM) surveys conducted between 2008 and 2020. The model combines geographic, census, socioeconomic, and political data with CCAM survey data collected by the Yale Program on Climate Change Communication and George Mason University Center for Climate Change Communication (combined n > 25,000). For more information about the survey question wording and methodology, please visit YCOM: climatecommunication.yale.edu/visualizations-data/ycom-us

Beliefs

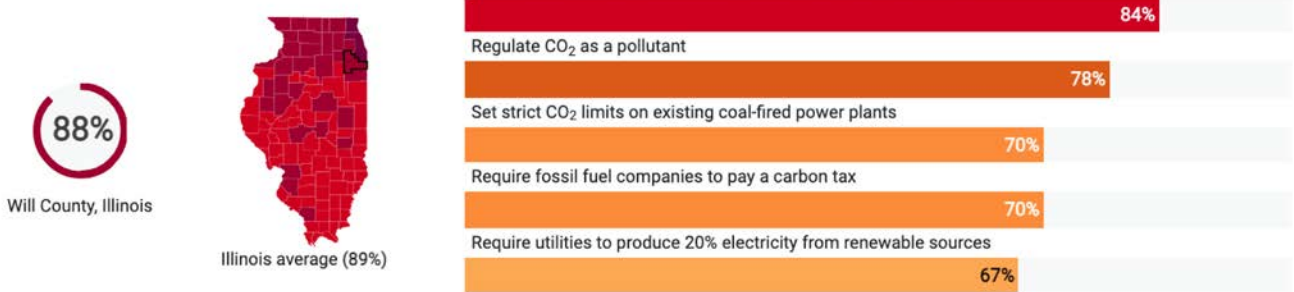


Risk Perceptions

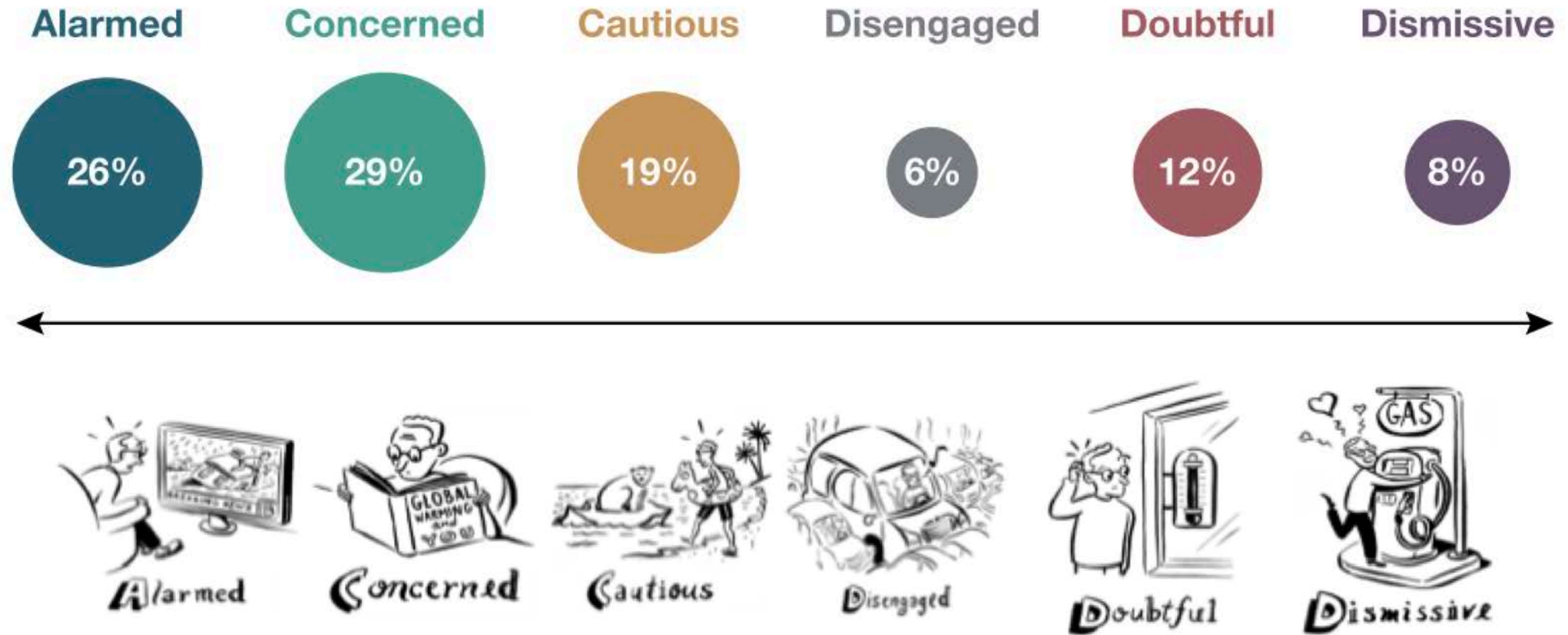


Policy Support

Fund research into renewable energy sources



Global Warming's Six Americas December 2020



Illustrations by Michael Sloan

“If you could ask an expert on global warming one question, which question would you ask?”

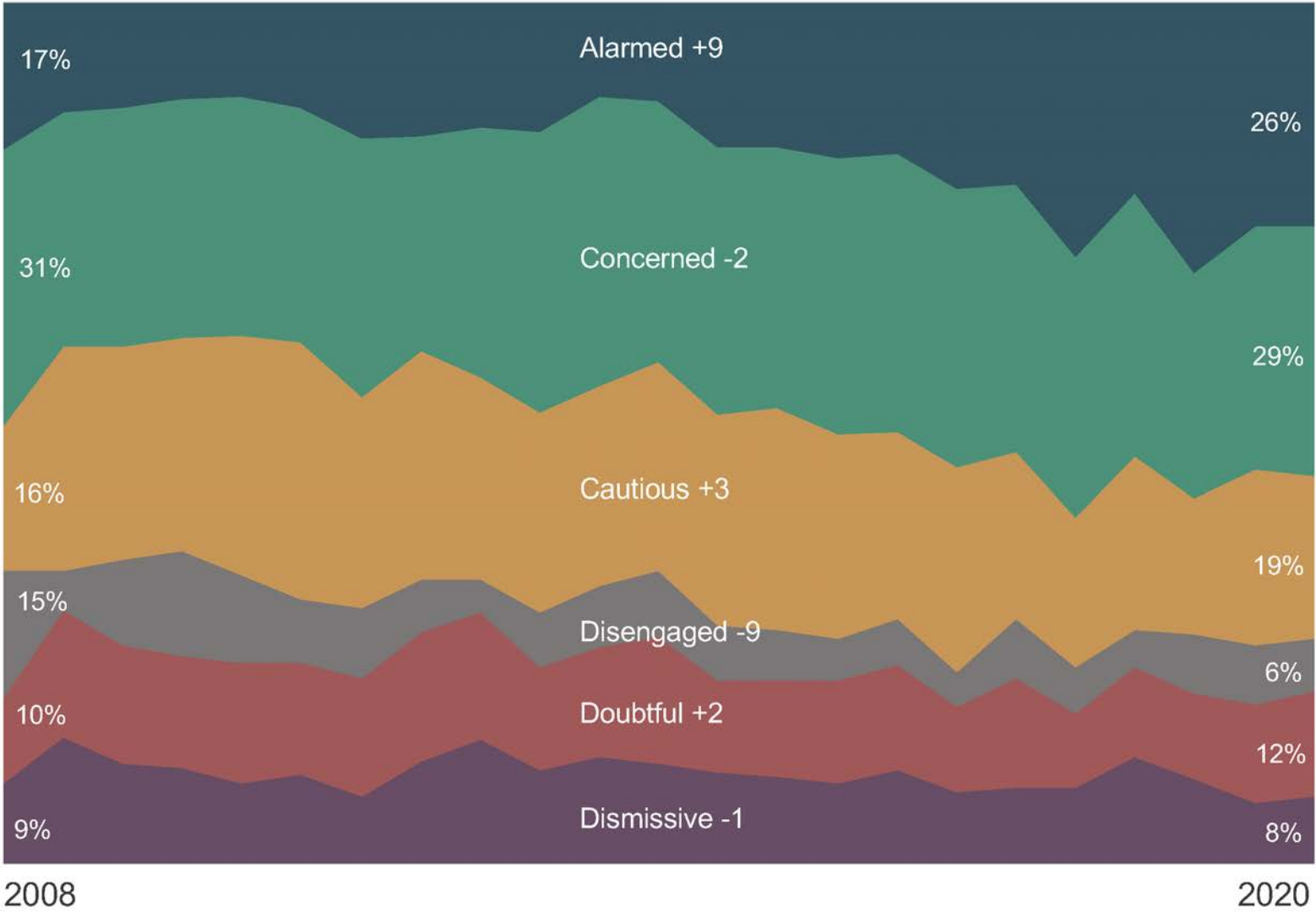
What can the world
(and I) do to reduce
global warming?

What harm will it
cause? Why should
I care?

How do you know
that global warming is
happening or human-
caused?



Global Warming's Six Americas



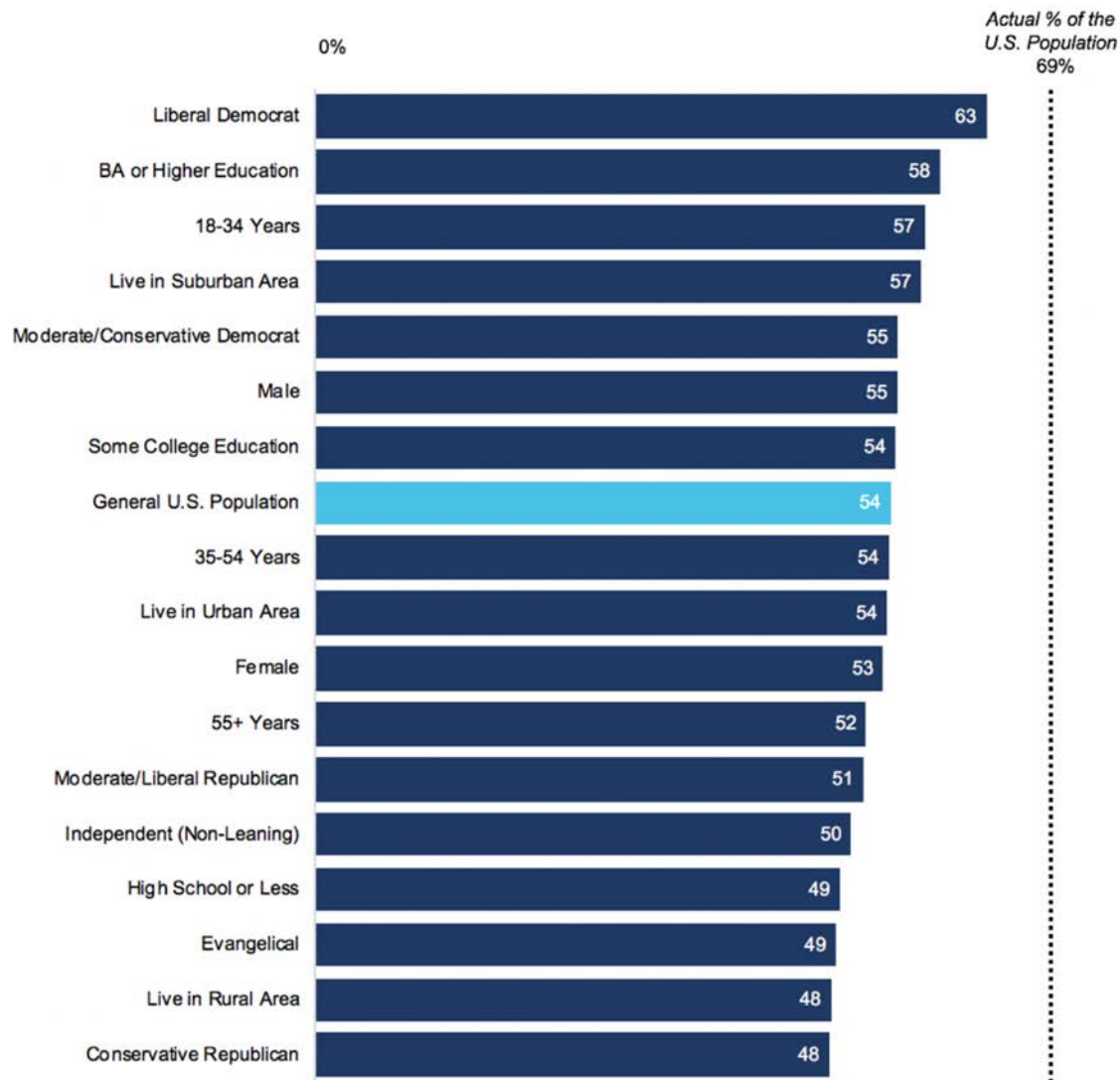
Data from 23 waves of the *Climate Change in the American Mind* national survey.
November 2008 – December 2020. (n = 27,075).



YALE PROGRAM ON
Climate Change
Communication



GEORGE MASON UNIVERSITY
CENTER for CLIMATE CHANGE
COMMUNICATION



All Americans underestimate the % of the population who thinks global warming is happening

Liberal Democrats underestimate by 6 percentage points

Conservative Republicans underestimate it by 21 pp

We perceive more confusion and conflict than there really is. This is a barrier to discussion and to action.

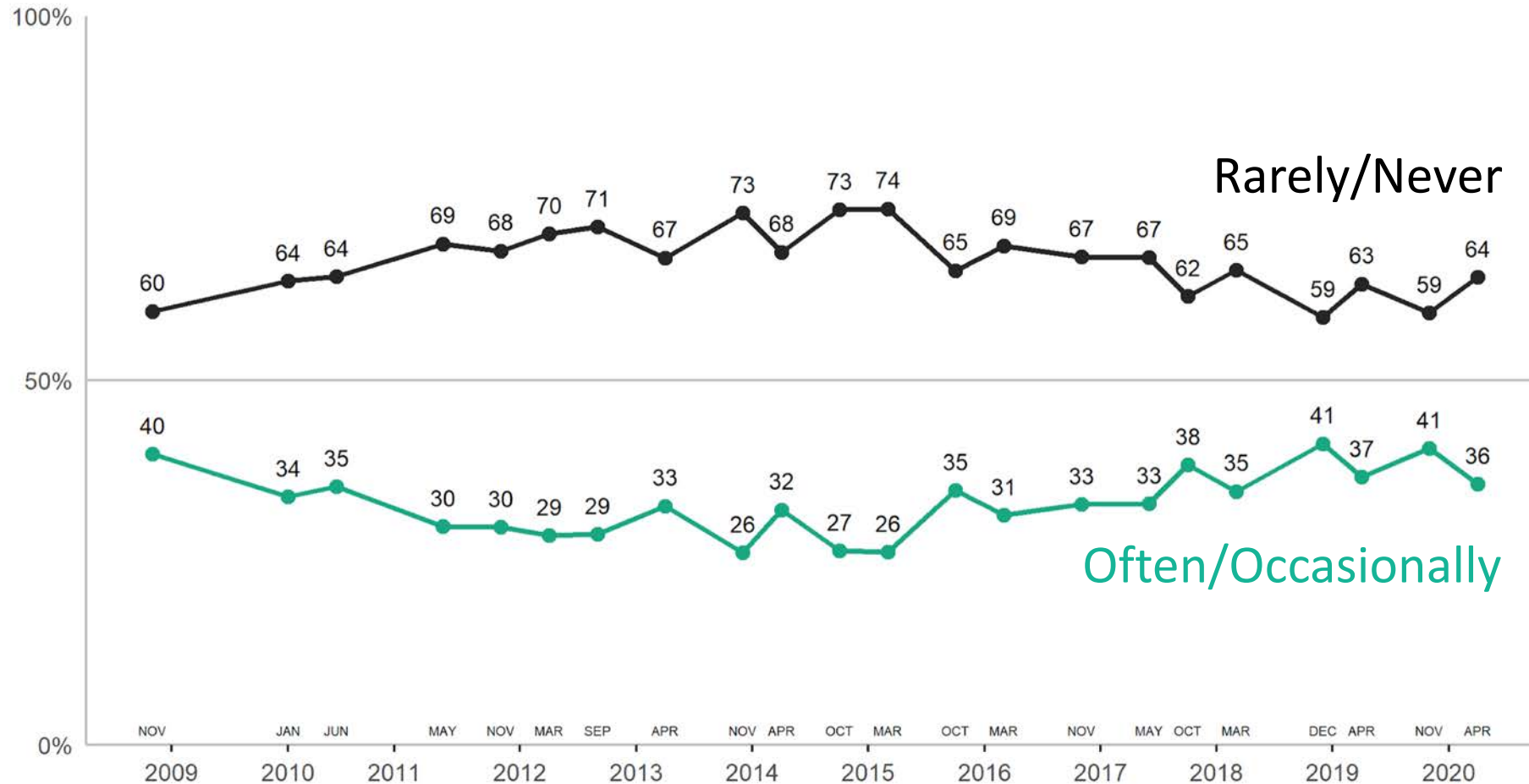
To the best of your knowledge, what percentage of adults in the United States (18 years or older) think that global warming is happening?
0 – 100% with a “Don’t know” option

April, 2019. Base: U.S. adults who responded with a percentage (n=1,055). Estimates are rounded to the nearest whole percentage point.

Recommendations

Talk About It:

Most Americans "rarely" or "never" discuss global warming with family and friends



How often do you discuss global warming with your family and friends?

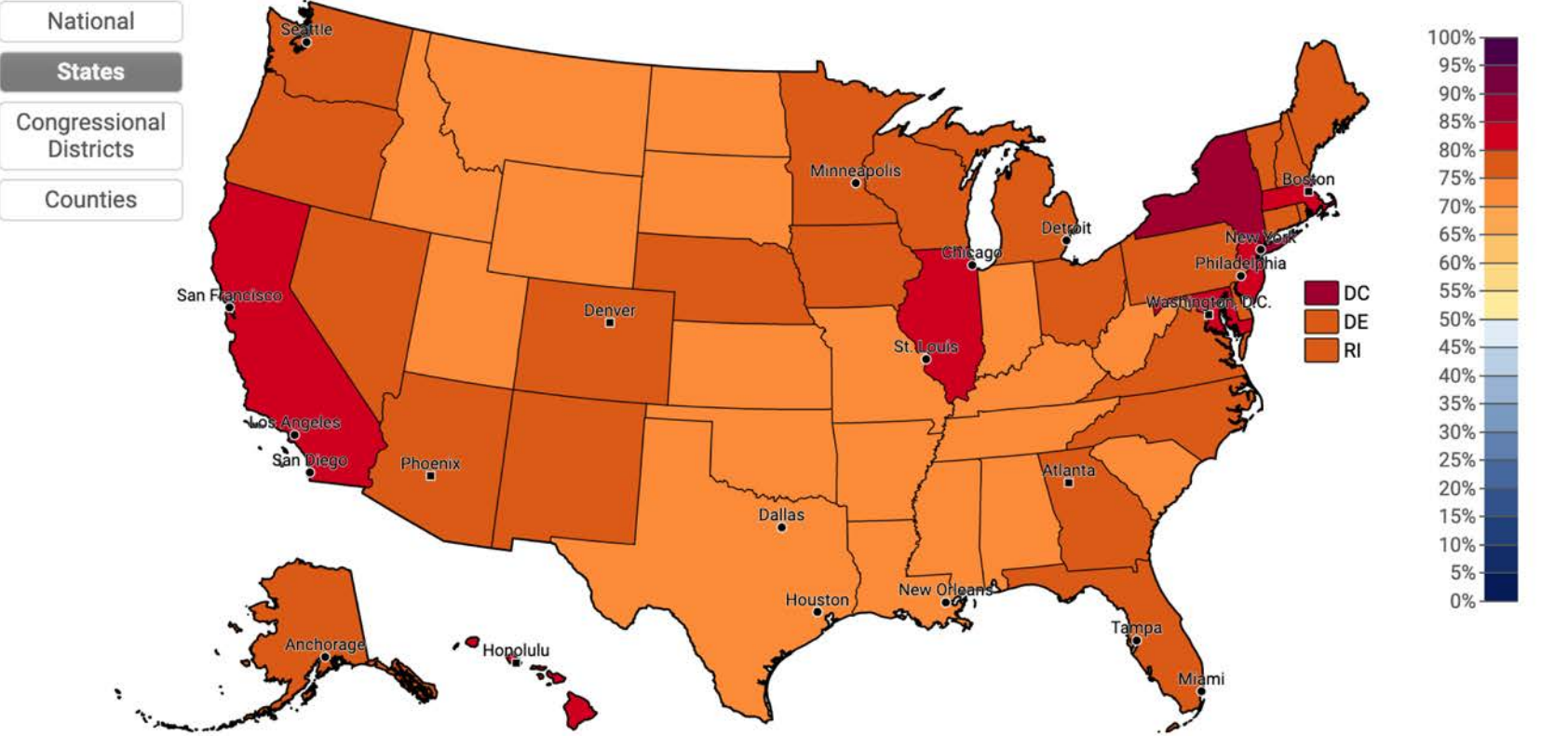
April 2020



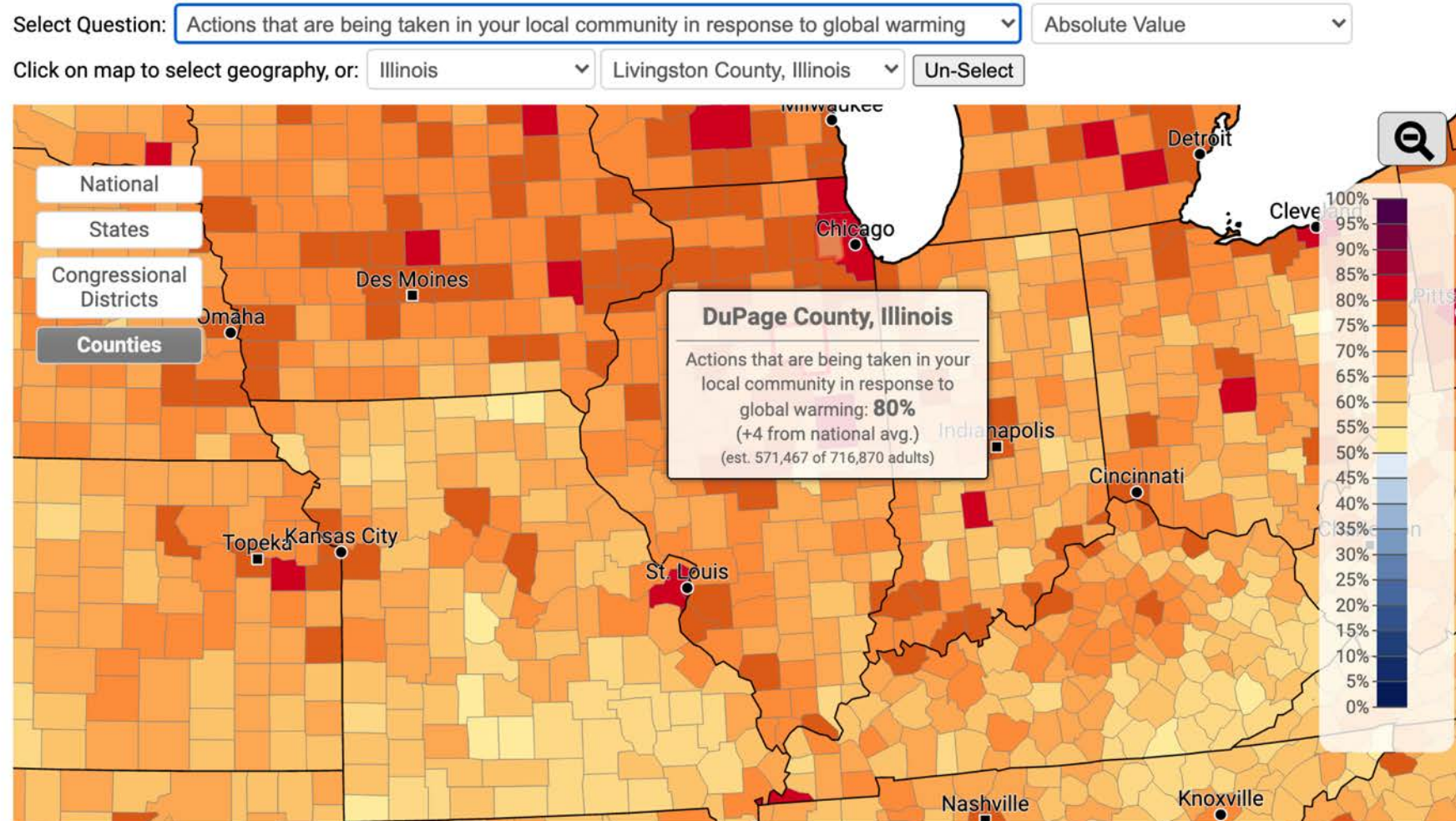
Estimated % of adults who are interested in news stories about the impacts of global warming on your local community (78%), 2020

Select Question: Absolute Value

Click on map to select geography, or:



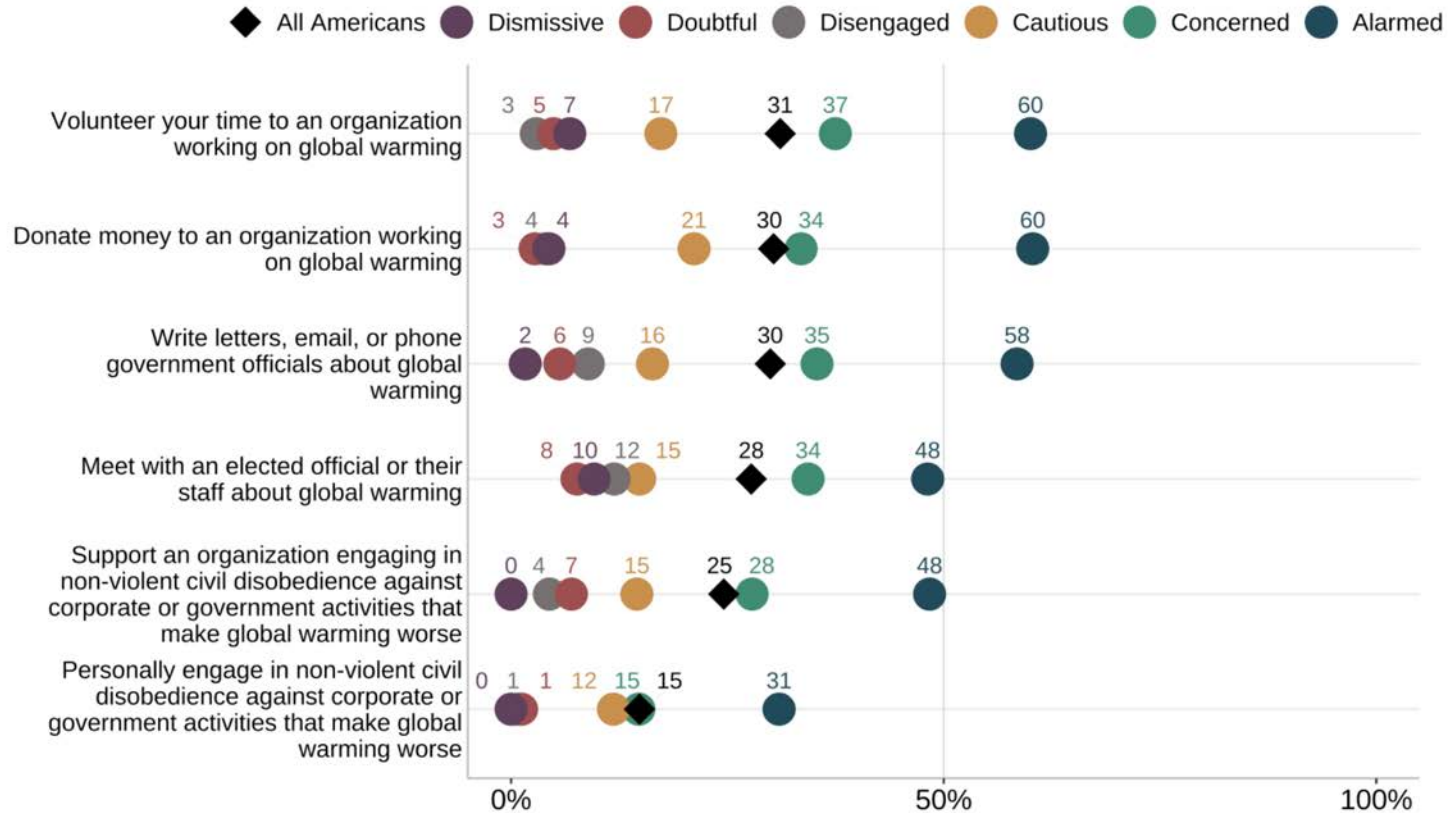
Estimated % of adults who are interested in news stories about actions that are being taken in your local community in response to global warming (76%), 2020



Ask People To Act

Many Americans are willing to take political actions to reduce global warming

- % "definitely" or "probably" would -



How likely would you be to do each of the following things if a person you like and respect asked you to?

December 2020.



Yale Climate Connections

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NEWSLETTER

Q

AUDIO

Better batteries key to more clean energy

Better batteries will be a game changer for the nation's electric system.

01 : 30

MIN SEC

▶

Better Batteries Key to More Clean Energy: Climate Connections takes a solutions-based approach to climate change and its impacts, with a focus on action...

00:00:00

libsyn

By Bridgett Ennis | Tuesday, June 16, 2015

Experts predict solar and wind could someday provide 20 percent or more of our total electricity. But until there's an affordable way to store power to use on cloudy, windless days, we'll likely rely on other forms of energy to keep the lights on. George Crabtree, a professor at the University of Illinois, Chicago, explains.

CRABTREE: "The problem is that batteries are now about 5 times the cost of a gas plant. So no one wants to invest that much money when there's an alternative available – I'll just build a gas plant."

So researchers are trying to develop batteries that can store more power at a lower cost than current technology. Crabtree says the research field is rich with possibilities.

Crabtree: "There's at least 50 to 100 batteries out there that you can look at."



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NEWSLETTER

Q

AUDIO

There's a low-energy alternative to cremation

Because even in death, your choices affect the planet.

01 : 30

MIN SEC

▶

A low-energy alternative to cremation: Because even in death, your choices affect the planet.

00:00:00

libsyn

By Eileen Mignott | Tuesday, May 1, 2018



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NEWSLETTER

Q

AUDIO

Water bills are going up. Climate change is part of the problem.

Our aging water systems aren't ready for droughts, floods, and extreme storms.

01 : 30

MIN SEC


▶

Why water bills are going up: Our aging water systems aren't ready for droughts, floods, and extreme storms.

00:00:00

libsyn

By Samantha Harrington | Thursday, August 3, 2017



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ARTICLES RADIO PROGRAM TOPICS ABOUT CONTACT US

NEWSLETTER

AUDIO

How Schaumburg, a Chicago suburb, made solar simple for residents

Now panels are going up across town.

01 : 30

MIN SEC

▶

How a Chicago suburb made solar simple for residents: Now panels are going up across town.

00:00:00

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ARTICLES RADIO PROGRAM TOPICS ABOUT CONTACT US

NEWSLETTER

AUDIO

How Los Angeles is cooling down hot asphalt

The city has found a tactic to reduce the temperature of streets by 10 degrees F.

01 : 30

MIN SEC

▶

Los Angeles is cooling down hot asphalt: The city has found a tactic to reduce the temperature of streets by 10°F.

00:00:00

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By Samantha Harrington | Friday, August 3, 2018



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ARTICLES RADIO PROGRAM TOPICS ABOUT CONTACT US


NEWSLETTER

ARTICLE

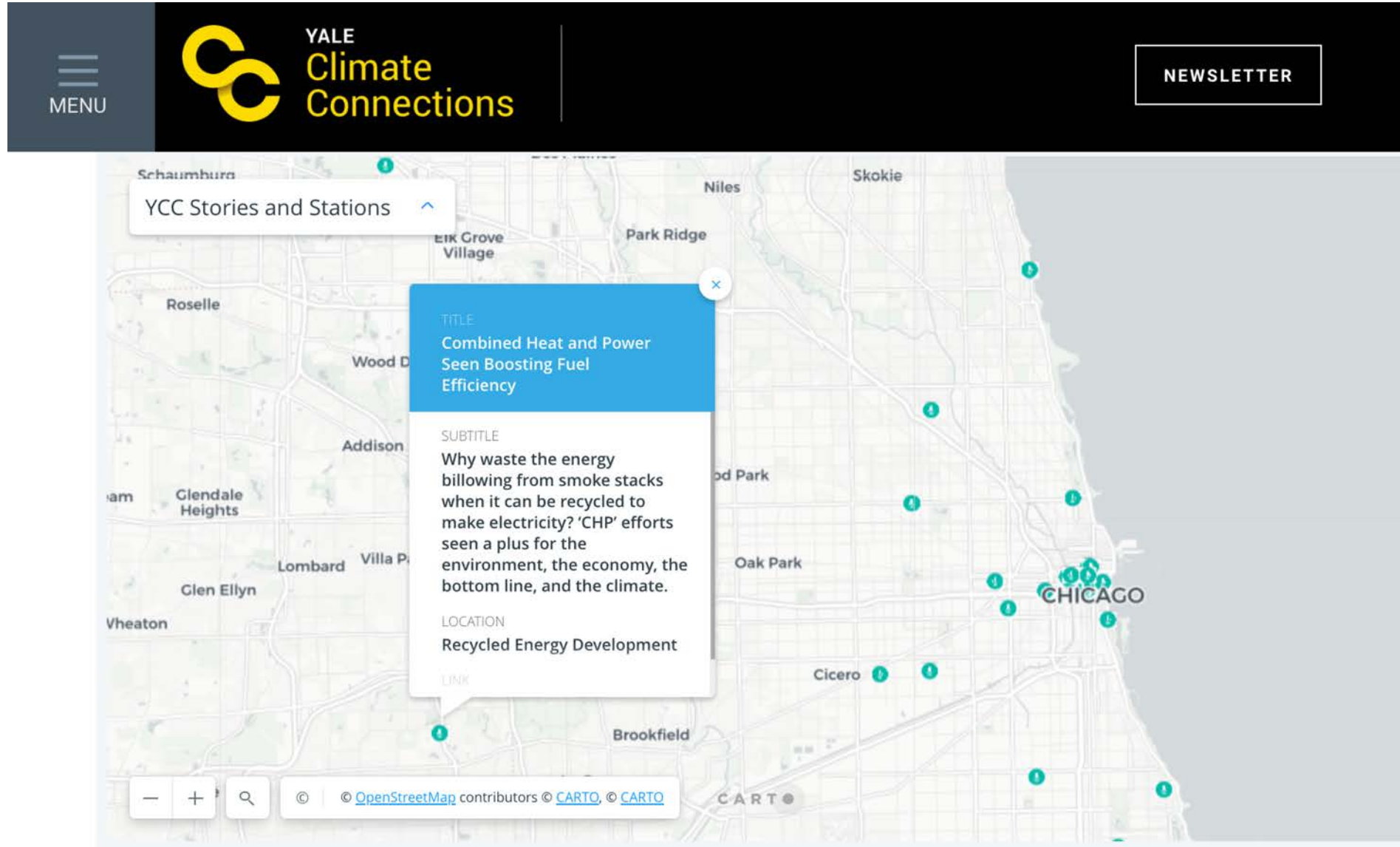
Some northern cities could be reborn as 'climate havens'

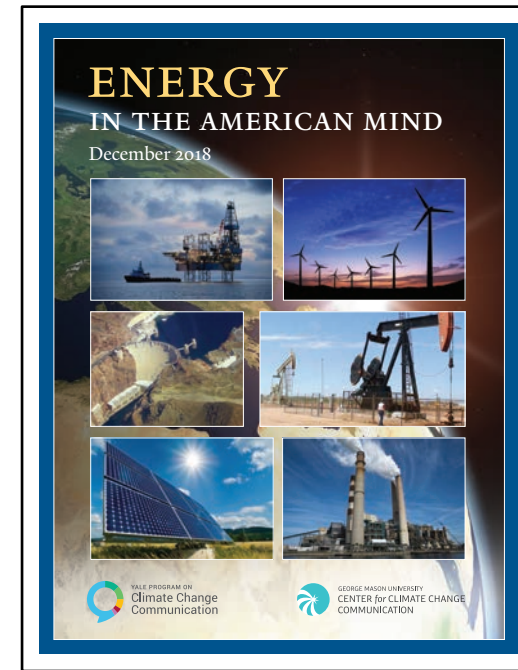
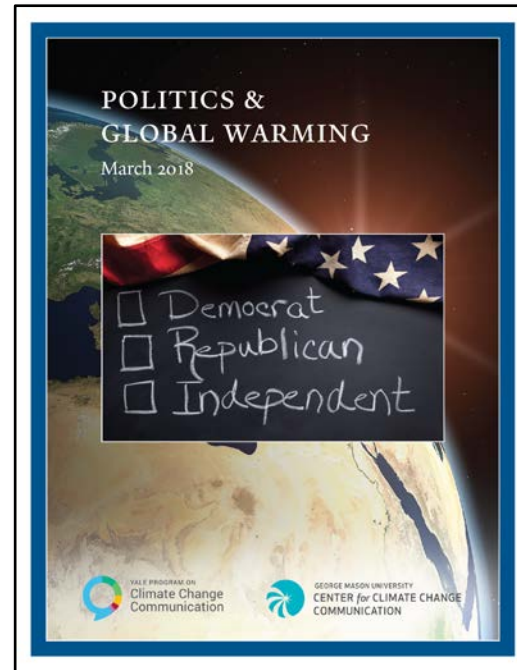
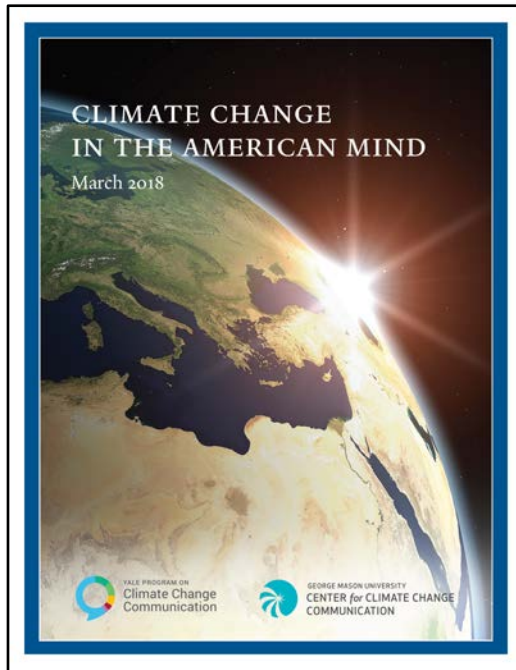
Buffalo, Cincinnati, and Duluth could become a new home for those fleeing from wildfires, hurricanes, and extreme heat in other places.

By Marcello Rossi | Wednesday, August 7, 2019



Yale Climate Connections – Locations (Link: <https://yaleclimateconnections.org/locations/>)





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