



CLIMATE CHALLENGES AND OPPORTUNITIES

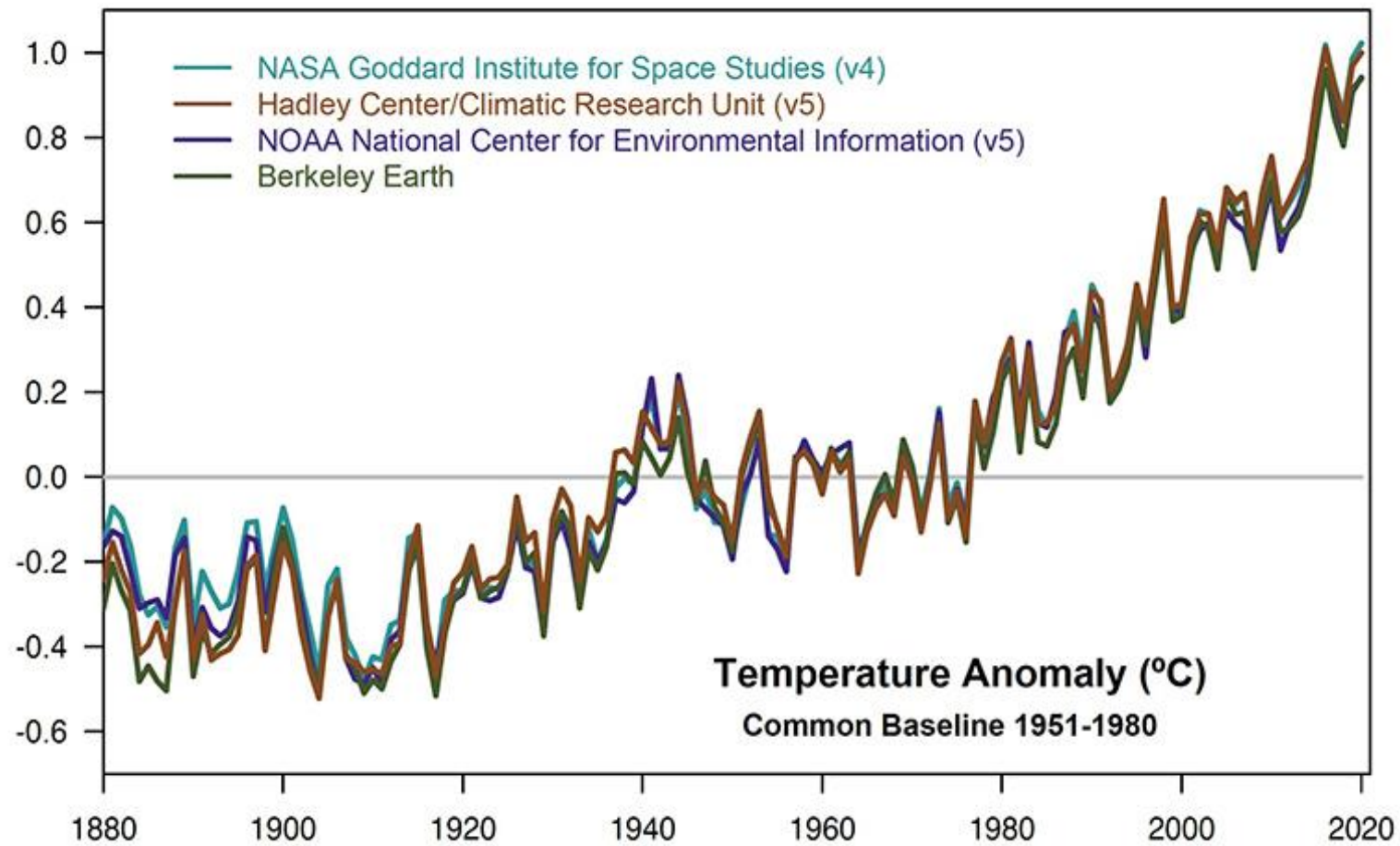
WHERE TO START



START WITH THE FACTS

- The Good News
 - Scientific Consensus: Climate Change is real and caused by human activity.
 - Public Opinion: Two-thirds of Americans believe that climate change is happening.
 - Desire for Action: A majority of Americans want the government and industry to do more to stop climate change.
 - The New Administration: On January 27, President Biden announced his Executive Order on Tackling the Climate Crisis at Home and Abroad

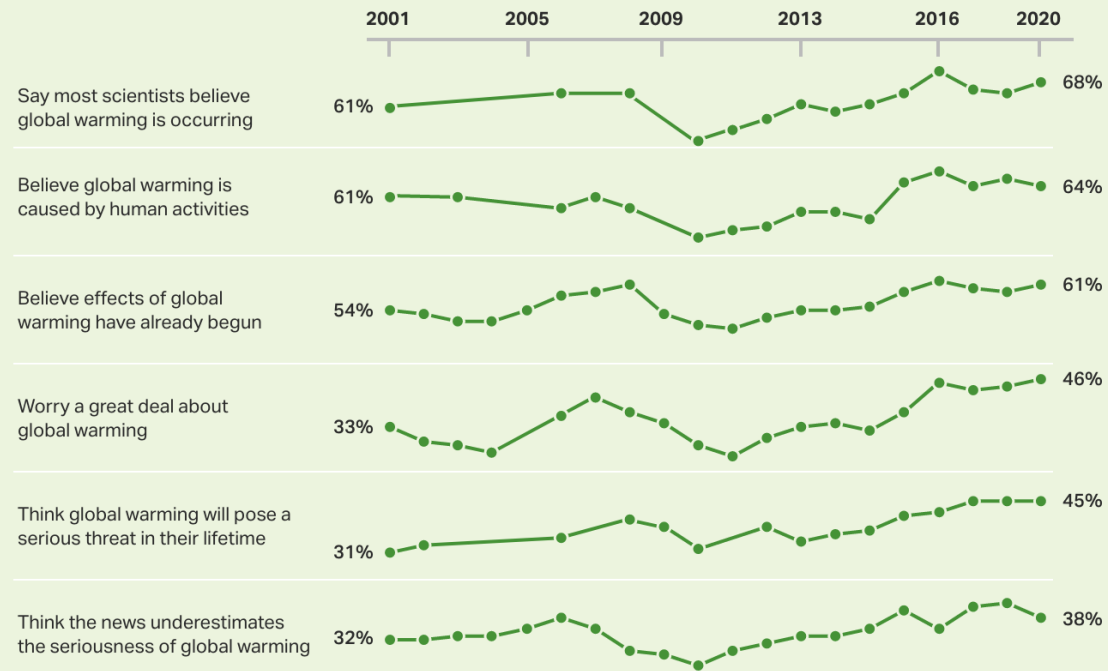
SCIENTIFIC CONSENSUS



PUBLIC OPINION

Summary of Americans' Views on Global Warming

● Responses collected



All polls conducted in March

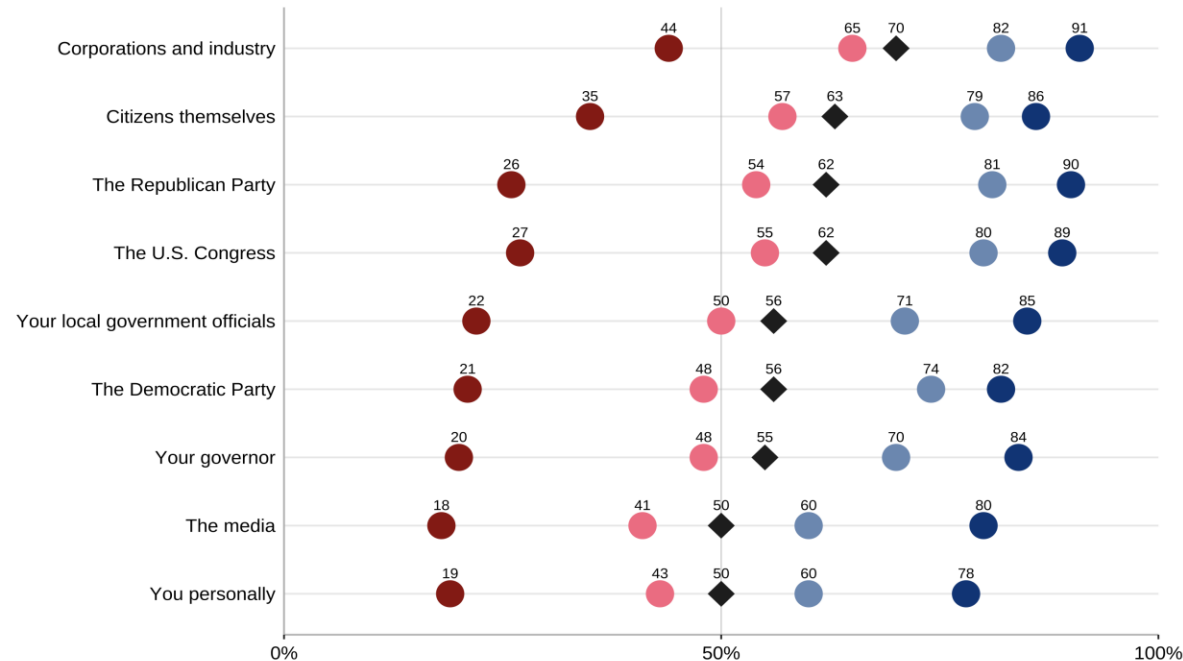
GALLUP

DESIRE FOR ACTION BY SECTOR

Seven in ten registered voters want corporations and industry to do more to address global warming

- % should be doing "much more" or "more" -

◆ All Reg Voters ● Lib D ● Mod/Con D ● Lib/Mod R ● Con R



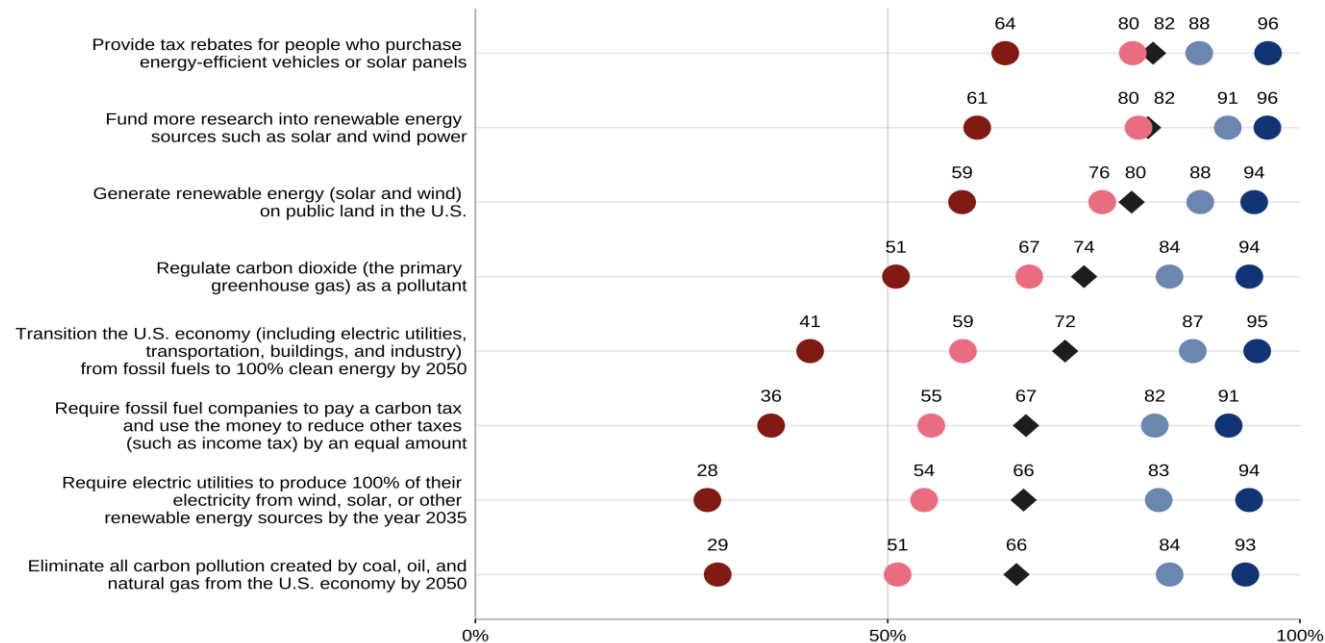
Do you think each of the following should be doing more or less to address global warming?
December 2020.

DESIRE FOR ACTION BY POLICY

Most registered voters, including Republicans, support climate-friendly energy policies

- % "strongly" or "somewhat" support -

◆ All Reg Voters ● Lib D ● Mod/Con D ● Lib/Mod R ● Con R



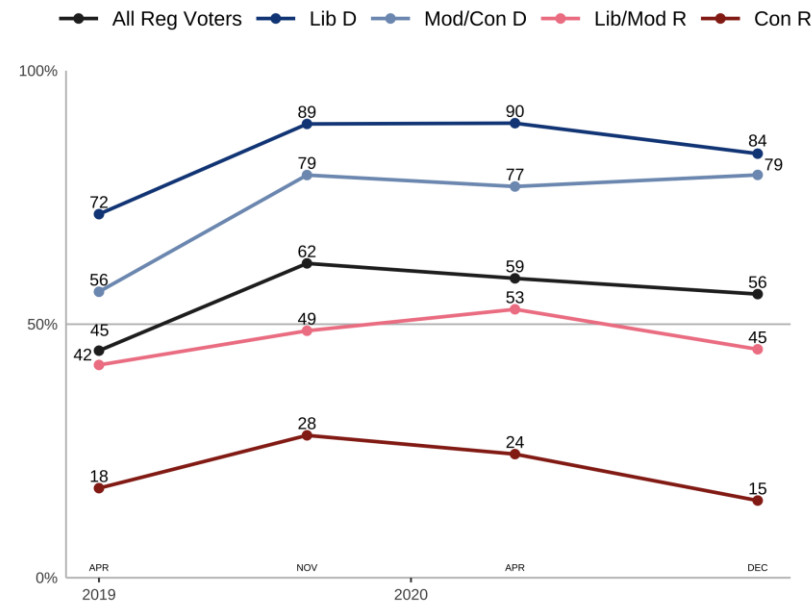
How much do you support or oppose the following policies?
December 2020.



AFFIRMATION OF PRESIDENT BIDEN'S CLIMATE INITIATIVES

A majority of registered voters would support a president declaring a national emergency to act on global warming

- % "strongly" or "somewhat" support -

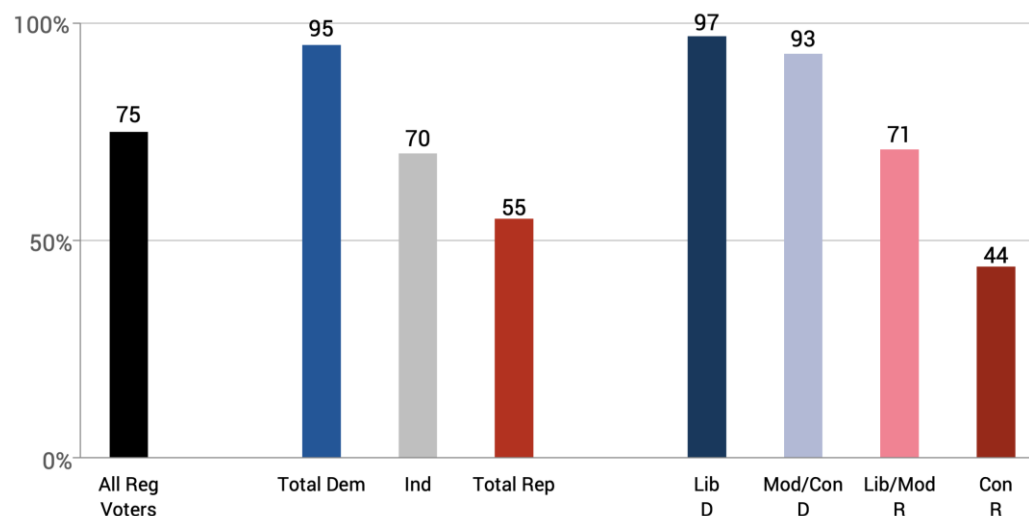


If Congress does not take action on global warming, how much do you support or oppose a U.S. president declaring a national emergency to act on it without Congress?
December 2020.



AFFIRMATION OF PRESIDENT BIDEN'S CLIMATE INITIATIVES

**There is bipartisan support for
U.S. participation in the Paris Climate Agreement**
- % "strongly" or "somewhat" support -



In 2015, the United States signed an international agreement in Paris with 196 other countries to limit the pollution that causes global warming. Do you strongly support, somewhat support, somewhat oppose, or strongly oppose the U.S.'s participation in the Paris Agreement?

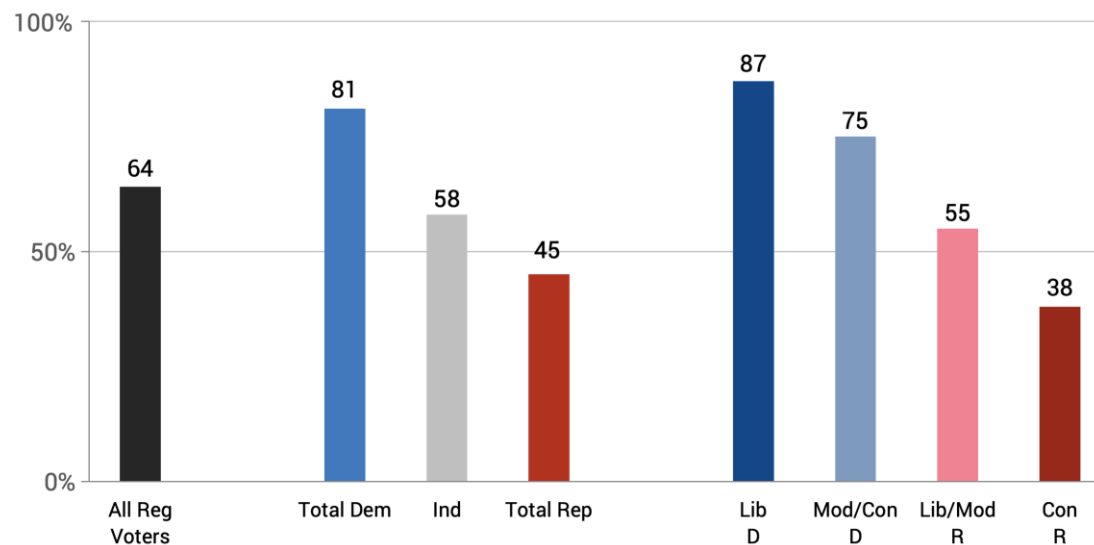
December 2020.



AFFIRMATION OF PRESIDENT BIDEN'S CLIMATE INITIATIVES

**Most registered voters say
the U.S. should reduce greenhouse gas emissions
regardless of what other countries do**

- % "The U.S. should reduce its greenhouse gas emissions...regardless of what other countries do" -



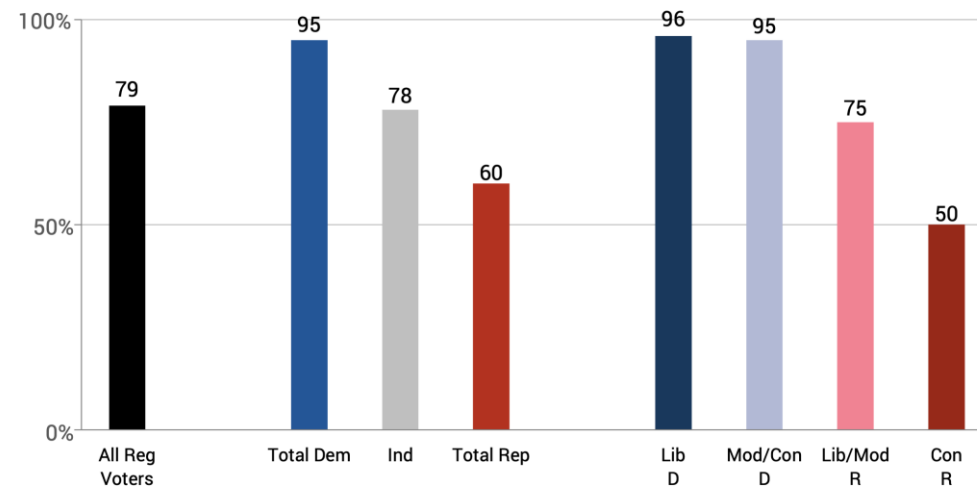
The United States should reduce its greenhouse gas emissions...(a) regardless of what other countries do; (b) only if other industrialized countries reduce their emissions; (c) only if other industrialized and developing countries reduce their emissions; (d) The U.S. should not reduce its emissions; (e) don't know.

December 2020.



AFFIRMATION OF PRESIDENT BIDEN'S CLIMATE INITIATIVES

**Registered voters support the U.S. president
hosting a meeting of world leaders
to urge them to do more to reduce global warming**
- % "strongly" or "somewhat" support -



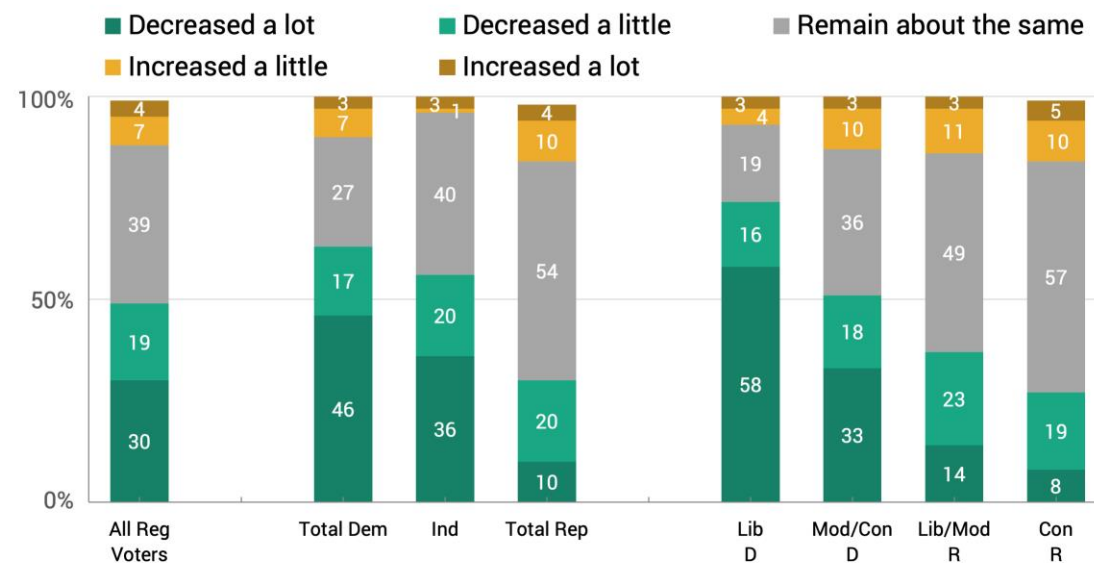
How much do you support or oppose the next U.S. president hosting a meeting of the leaders of large industrialized nations to urge them to do more to reduce global warming?

December 2020.



AFFIRMATION OF PRESIDENT BIDEN'S INITIATIVES

Half of registered voters think subsidies for the fossil fuel industry should be decreased

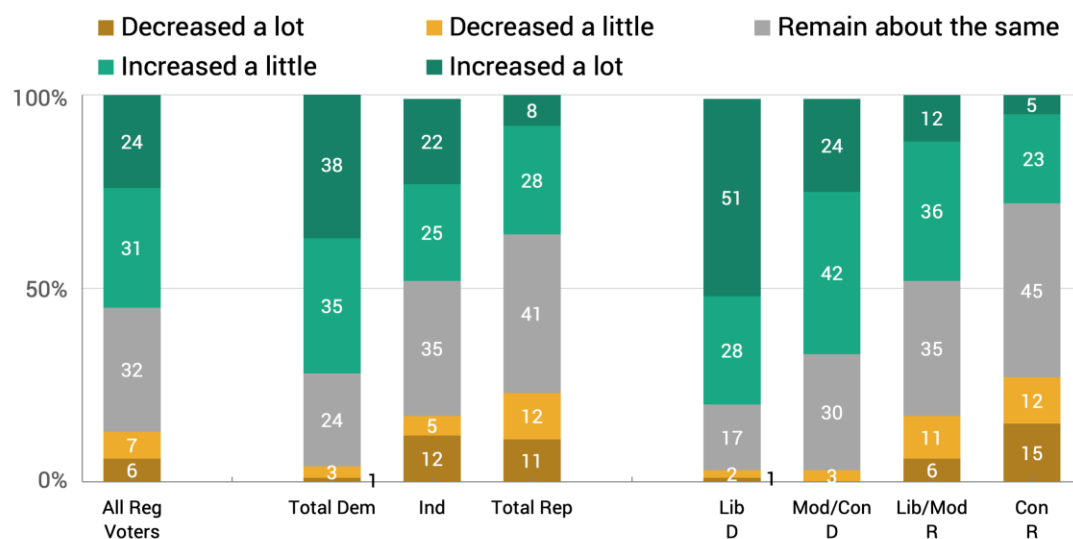


Do you think federal subsidies for the fossil fuel industry (coal, oil, and natural gas) should be increased, decreased, or remain about the same as they currently are?

December 2020.

AFFIRMATION OF PRESIDENT BIDEN'S INITIATIVES

More than half of registered voters think subsidies for the renewable energy industry should be increased



Do you think federal subsidies for the renewable energy industry (such as solar, wind, and geothermal) should be increased, decreased, or remain about the same as they currently are?

December 2020.



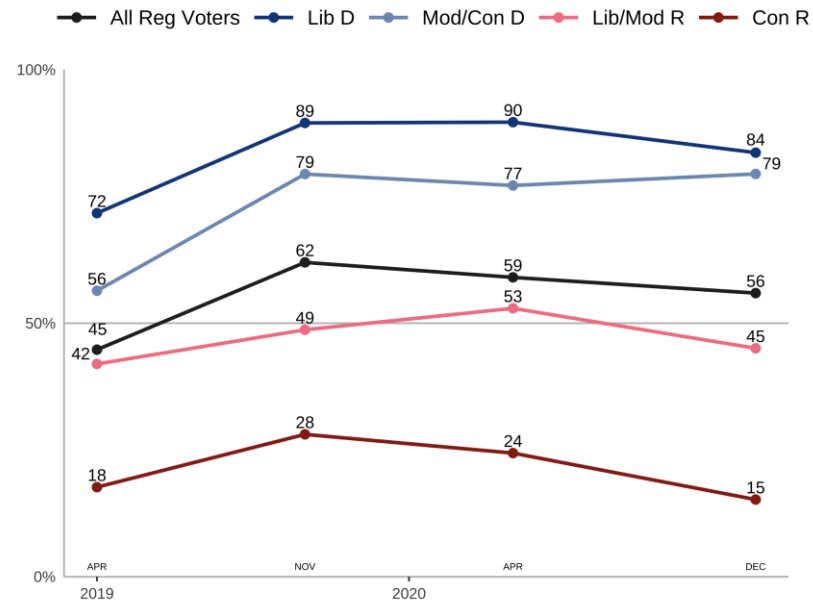
THE CHALLENGES

- The Bad News
 - Polarization: Climate change is one of the issues on which the public is most polarized.
 - Climate opinion is extremely polarized ... but conservative Republicans are outliers
 - Salience: Climate change is not at the top of the list of issues that determine how people vote.
 - People vote on issues *immediately* affecting their lives, such as the economy, health care, and education.
 - Discomfort: Climate change is a hard topic for most people to discuss.
 - Insecurity over a lack of scientific knowledge and conflict avoidance add to the hesitancy to engage.

POLARIZATION

A majority of registered voters would support a president declaring a national emergency to act on global warming

- % "strongly" or "somewhat" support -



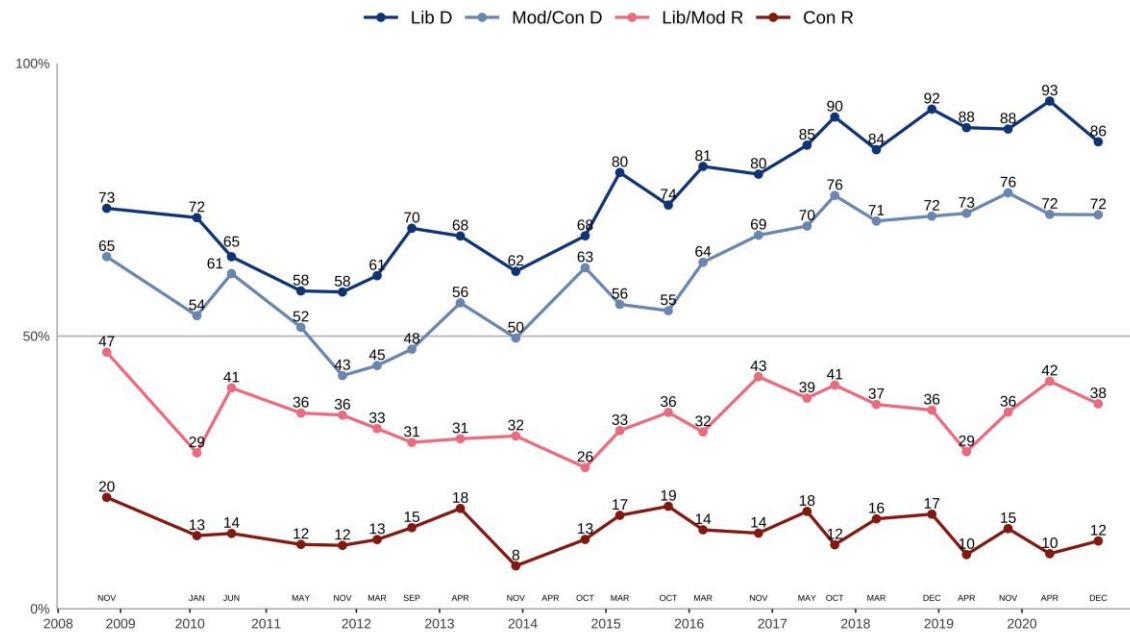
If Congress does not take action on global warming, how much do you support or oppose a U.S. president declaring a national emergency to act on it without Congress?
December 2020.



POLARIZATION

Most Democrats think global warming should be a "high" or "very high" priority for the president and Congress

- % "high" or "very high" priority -

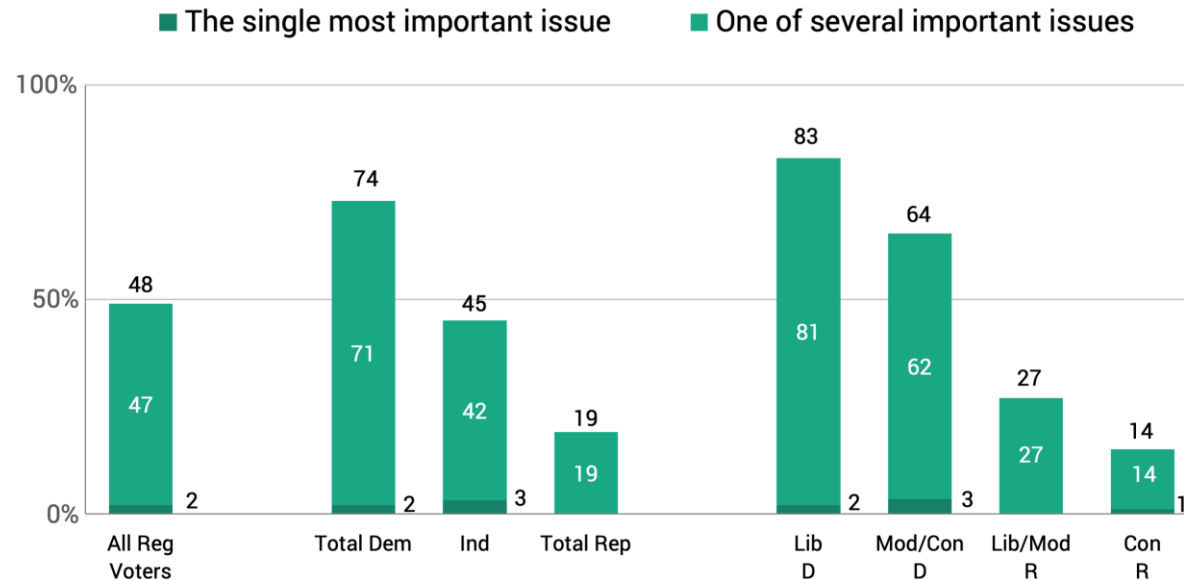


Do you think the following should be a low, medium, high, or very high priority for the president and Congress? [Global warming]
December 2020.



SALIENCE

About half of registered voters say the issue of global warming was important in determining their vote in 2020



How important was the issue of global warming when you decided how you would vote in the November election? (a) The most important single issue; (b) One of several important issues; (c) Not an important issue; (d) Don't know.

December 2020.



YALE PROGRAM ON
Climate Change
Communication



GEORGE MASON UNIVERSITY
CENTER for CLIMATE CHANGE
COMMUNICATION

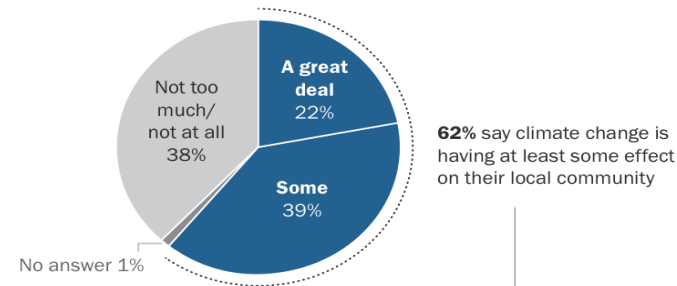
HOW DO WE CHANGE THE BAD NEWS TO GOOD?

- One of the ways to address polarization, salience, and discomfort is to *localize the conversation*.
 - The desire to solve local problems often brings people together.
 - Local concerns tend to be higher on people's list of issues that need to be solved by elected officials.
 - Discussion of observable situations reduce the insecurity that can arise from not feeling confident about the science.

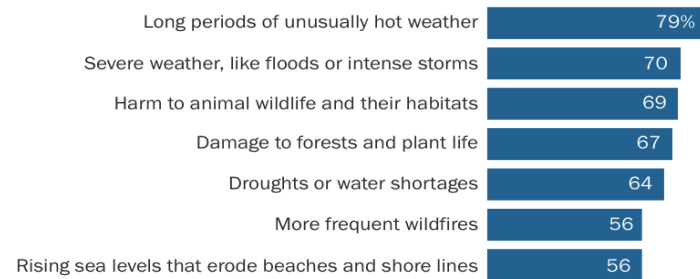
LOCAL IMPACTS

A majority of U.S. adults say climate change is affecting their local community at least some

% of U.S. adults who say global climate change is affecting their local community ...



Among this 62%, percent who say each of these is a major way that climate change is currently affecting their local community



Note: Top figure based on all adults. Bottom figure based on those who say that climate change is affecting their local community a great deal or some.

Source: Survey conducted Oct. 1-13, 2019.

"U.S. Public Views on Climate and Energy"

PEW RESEARCH CENTER

CLIMATE IMPACTS IN OHIO

- Changing weather patterns
- Agriculture is the largest single industry in Ohio
- 2019 was an especially challenging year for Ohio Farmers. The extremely wet and cool conditions during the spring months delayed planting and forced some farmers to switch crops.
 - As of mid-May, only 9% of corn had been planted in Ohio, the lowest figure for that stage of spring on record. Across the state, 1.5 million acres of farm fields did not have a cash crop planted on them in the spring as a result of the unprecedented amount of rainfall in the state. On some of those acres, farmers planted a cover crop, but many fields went bare and crop rotations were disrupted.
 - *Without curbing greenhouse gas emission, disruptions in the food supply will become more pronounced, food prices will rise, and we face the loss of more family farms that cannot adapt to the uncertainties.*

CLIMATE IMPACTS IN OHIO

- More Severe Storms
- As the severity of storms increases, runoff from farm fields into Lake causes significant toxic algal blooms.
 - In 2014, toxins from an algal bloom got into the drinking water systems of Toledo, Ohio. On August 2, more than half a million Toledo residents were ordered not to drink or even touch their water. The order lasted for nearly three days.
 - Each year since, nutrients in agricultural runoff have caused harmful algal blooms covering large portions of the western Lake Erie basin. This effect is heightened by the more severe storms that move through the area and cause soil erosion, runoff, and flooding.
 - Lake Erie is a significant economic driver of the Northwest Ohio region – not only a source of drinking water, but commercial and recreational fishing, boating and tourism.
 - *Without action on climate change, the water quality will be at risk of further deterioration, resulting in more drinking water contamination, loss of recreational opportunities, and economic disruption.*

CLIMATE IMPACTS IN OHIO

- Air Quality Alerts
- Restrictions based on air quality for those with pre-existing conditions become more frequent during the hot summer months.
 - Over the July 4th weekend in 2020, air quality alerts were issued for the Central Ohio counties of Delaware, Fairfield, Franklin, and Licking counties. These areas experienced ozone pollution levels that were unhealthy for sensitive groups.
 - Air quality conditions in Columbus for June 2020 were slightly worse than those during the same period in 2018 and 2019. On most of these days, warm temperatures, sunny skies, and light winds aided ozone formation.
 - In the 12-month period from November 2018-October 2019, eight months registered high than normal temperatures, with September 2019 coming in at 6 degrees above normal.
 - *Without a reduction in carbon, air quality alerts will become more frequent and more severe to the point where the air is unhealthy for everyone, not just sensitive populations.*

OHIO RESOURCES



THE GOALS OF THE CAMPAIGN ARE TO:



Reduce the carbon footprint
of local communities across Ohio.



Attract clean energy
development to the state to create
careers for Ohioans.



Implement equitable policy solutions
supported by local communities.



Reduce energy costs
for cities, businesses, and residents.

GREEN ENERGY OHIO

Green Energy Ohio (GEO) is a statewide nonprofit organization dedicated to promoting sustainable energy policies, technologies, and practices.



GREEN ENERGY OHIO OBJECTIVES

- **To promote sustainable energy policies**, technologies, and practices of value to Ohio's economy and environment.
- **To educate Ohioans** on the availability, use, and benefits of renewable resources and energy conservation and efficiency.
- **To represent a diverse membership**, including individuals, businesses, community and government entities, academic institutions, and nonprofit organizations who share GEO's mission.

GREEN ENERGY OHIO 20TH ANNIVERSARY


In 2020, Green Energy Ohio celebrated 20 years of serving Ohioans and promoting clean energy through education, outreach, and advocacy.



GREEN ENERGY OHIO MEMBERS AND PARTNERS

- **Individuals** committed to progress on renewable energy, energy efficiency, and the fight against climate change
- **Businesses** engaged in the clean energy economy and companies pursuing clean energy options
- **Academic Institutions** incorporating sustainability throughout their campuses and their curriculum
- **Communities** improving the quality of life for their citizens through renewable resources with goals of carbon neutrality
- **Nonprofit Organizations** working on the shared vision of a clean energy future for Ohio



GEO CLIMATE PROGRAMMING



Green Energy Ohio
Presents

Climate Change Book Club

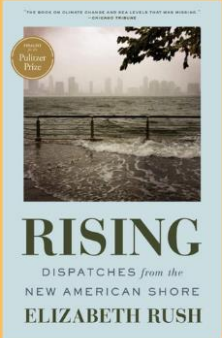
Because Knowledge is Power




Green Energy Ohio
Presents

Climate Cocktails & Conversation

Wednesday, February 24 • 7:00pm



CO-HOSTED BY
 Citizens' Climate Lobby
Cleveland

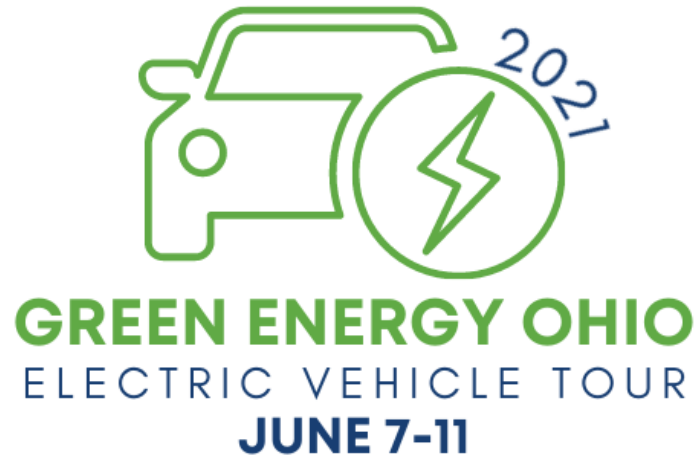
COCKTAILS BY
CLEVELAND
— WHISKEY —

GEO CLIMATE PROGRAMMING



- Climate Change & National Security
- A virtual conversation on Thursday, March 4, 12:15-1:15 pm
- Dr. Robert McCollister
- “The Secretary of Defense.....shall develop and submit to the President, within 120 days of the date of this order, an analysis of the security implications of climate change (Climate Risk Analysis) that can be incorporated into modeling, simulation, war-gaming, and other analyses.”

GEO CLIMATE PROGRAMMING



- Connecting clean energy generation with clean transportation
- Educating the public on EV infrastructure, availability, and use throughout Ohio
- Showcasing business and industry partners on the cutting edge of electric vehicle production
- Identifying an advocacy coalition at the nexus of clean energy and clean transportation
- Engaging policy-makers at the local, state, and federal levels
- Supporting career pathways in the clean transportation industry

FOR MORE INFORMATION

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