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Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change

*But many foresee problems ahead with transition to renewables
and oppose breaking from fossil fuels altogether*

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How we did this

Pew Research Center conducted this study to understand Americans' views of climate, energy and environmental issues. For this analysis, we surveyed 10,329 U.S. adults from May 30 to June 4, 2023.

Everyone who took part in the survey is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way, nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the [ATP's methodology](#).

Here are the [questions used for this report](#), along with responses, and [its methodology](#).

Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change

But many foresee problems ahead with transition to renewables and oppose breaking from fossil fuels altogether

A new Pew Research Center survey finds large shares of Americans support the United States taking steps to address global climate change and back an energy landscape that prioritizes renewable sources like wind and solar. At the same time, the findings illustrate ongoing public reluctance to make sweeping changes to American life to cut carbon emissions. Most Americans *oppose* ending the production of gas-powered vehicles by 2035 and there's limited support for steps like eliminating gas lines from new buildings.

This report comes about a year after the 2022 Inflation Reduction Act introduced policies and incentives meant to dramatically reduce the country's reliance on fossil fuels, a signature part of the Biden administration's efforts on climate change. The survey takes stock of how Americans feel about related questions on climate, energy and environmental policy, including proposed changes to how Americans power their homes and cars and what to do about the impacts communities face from extreme weather.

The Pew Research Center survey of 10,329 U.S. adults conducted May 30 to June 4, 2023, finds:

- 74% of Americans say they support the country's participation in international efforts to reduce the effects of climate change.
- 67% of U.S. adults prioritize the development of alternative energy sources such as wind, solar and hydrogen power over increasing the production of fossil fuel energy sources.

By sizeable margins, Americans support a number of specific policy proposals aimed at reducing the effects of climate change through targeting greenhouse gas emissions and carbon in the atmosphere:

- Overwhelming majorities support planting about a trillion trees around the world to absorb carbon emissions (89%) and requiring oil and gas companies to seal methane gas leaks from oil wells (85%).
- 76% favor providing a tax credit to businesses that develop carbon capture technologies and 70% support taxing corporations based on their carbon emissions.

- 61% favor requiring power plants to eliminate all carbon emissions by the year 2040.

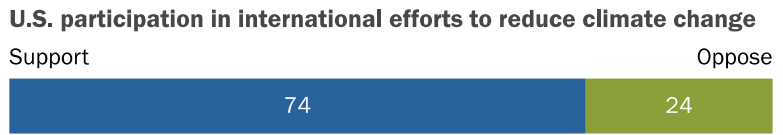
Still, there are limits to public support for major changes to the way homes, cars and the electrical grid are powered.

Only 31% of Americans currently support phasing out the use of fossil fuel energy sources altogether. Another 32% says the U.S. should eventually stop using fossil fuels, but don't believe the country is ready now. And 35% think the U.S. should *never* stop using fossil fuels to meet its energy needs.

Fewer than half of the public (40%) favors phasing out the production of gas-powered cars and trucks. Support for this policy is 7 percentage points lower than it was two years ago. And underscoring the strong feelings big changes to American life can engender, 45% say they would feel *upset* if gas-powered cars were phased out; fewer than half as many (21%) would feel *excited*.

Large shares of Americans support U.S. taking steps to address climate, prioritize renewable energy

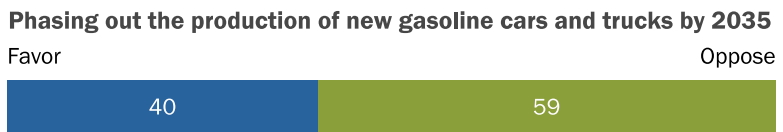
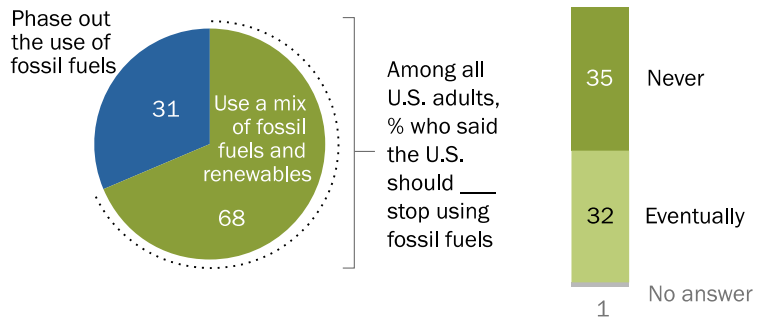
% of U.S. adults who say each of the following



More important energy priority for the U.S.



But there's limited support for phasing out fossil fuels completely, and 59% oppose ending the production of gas-powered vehicles by 2035



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
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When it comes to the construction of new buildings, slightly more Americans oppose (51%) than favor (46%) requiring most new buildings to run only on electricity, with no gas lines, a recent [flashpoint in state legislatures and national climate conversations](#).

Republicans and Democrats continue to offer competing visions on climate and energy issues. Deep Republican skepticism toward a renewable energy transition is a major factor behind much of the overall public's reluctance to make a sharp break from fossil fuels.

But views within both party coalitions defy simple categorization. And some of the most far-reaching policies aimed at addressing climate change and carbon emissions garner a less-than-enthusiastic response from Democrats, as well as outright opposition from Republicans.

A closer look at the two major party coalitions on climate and energy issues

Republicans and Republican-leaning

independents prioritize oil, coal and natural gas development over renewable energy sources and have deep concerns (especially around prices) about what a transition to renewable energy would mean for the country.

Some proposed changes, like phasing out new gas-powered vehicles provoke a strong negative response: 73% of Republicans say they would be upset by this. And stacked up against other national issues, climate change consistently [ranks as a low priority for Republicans](#).

But these attitudes do not preclude Republican support for climate policies and renewable energy altogether. Two-thirds favor a business tax credit for the development of carbon capture technologies and majorities support more solar panel and wind farms, when these energy sources are not placed in competition with fossil fuel development.

Within the GOP, moderates and young Republicans often offer the [most support for action on climate change and a shift toward renewable energy](#), though they make up a relatively smaller share of all Republicans and GOP leaners compared with conservatives and older Republicans.

Key views among Republicans

- 73% say they would be upset if gas-powered vehicles were phased out.
- 58% say expanding oil, coal and natural gas production should be the country's energy priority.

And yet ...

- 67% favor a business tax credit for developing carbon capture technologies.
- 70% support more solar panel farms and 60% favor more wind farms.

Within the GOP ...

- There are sizable differences in views on climate and energy between moderates and conservatives.
- Those under 30 express the least support for fossil fuel energy sources.

Democrats and Democratic-leaning independents overwhelmingly back the U.S. participating in international efforts to address global climate change. By a 90% to 10% margin, Democrats say renewable energy sources should be given priority over the development of oil, coal and natural gas.

Democrats, by and large, foresee benefits from an energy transition in the U.S., including better air and water quality, job opportunities in the energy sector and greater energy independence.

Despite this favorable stance toward climate action and renewable energy, 51% of Democrats oppose phasing out fossil fuels altogether, saying instead, that oil, coal and natural gas should continue to be part of the mix of energy sources the country relies on.

Within the Democratic Party, large majorities across age and ideological groups are generally supportive of shifting toward renewable energy and policies to address climate change.

Still, important differences do emerge, especially regarding the pace of an energy transition: 61% of liberals are ready to phase out the use of fossil fuels altogether, while 62% of moderates and conservatives say they should be part of a mix of sources for now, along with renewables. And while a large share of liberals (76%) back ending the production of new gas-powered vehicles by 2035, support among moderates and conservative is more limited (53%).

Key views among Democrats

- 94% support U.S. participation in international efforts to reduce the effects of climate change.
- 90% say renewable energy sources should be given priority over the production of fossil fuels.
- 80% expect a major transition to renewable energy would improve air and water quality.

Even so ...

- 51% oppose phasing out fossil fuels completely.

Within the Democratic coalition ...

- 61% of liberals are ready to phase out the use of fossil fuels altogether and 76% support ending gas-vehicle production.
- By contrast, 62% of moderates and conservatives think fossil fuels should be part of the energy mix and 53% support ending production of gas vehicles.

What role should government play in communities at high risk of extreme weather?

As communities across the country confront the risks posed by extreme weather, such as wildfires, severe storms and coastal erosion, Americans express an openness to some policy proposals for communities at high risk from these events.

- More say it's a good idea than a bad idea for the federal government to **limit new construction** in communities at high risk of extreme weather (54% to 19%). Another 27% say they are not sure of their views on this.
- 53% of Americans think it's a good idea for the federal government to **provide financial assistance to help communities rebuild** after extreme weather events. Far fewer (24%) call this a bad idea and 23% say they're not sure.
- By a 47% to 24% margin, more say it's a good idea than a bad idea for the federal government to **provide financial assistance for communities to relocate** from areas at high risk of extreme weather.
- But there's less public support for the federal government **requiring communities to relocate** from high-risk areas: 29% call this a good idea, compared with 33% who say it is a bad idea and 38% who say they're not sure.

When it comes to first-hand experiences with extreme weather and its connection with climate change:

- 69% of Americans say they've experienced at least one of five types of extreme weather in the past year: Long periods of unusually hot weather (45%), severe weather such as floods or intense storms (44%), droughts or water shortages (33%), major wildfires (18%) and rising sea levels that erode beaches and shorelines (16%).
- Majorities of Americans who say they've experienced extreme weather in the last year believe that climate change has contributed a lot or a little to these events.

How do Americans see Biden’s climate agenda today?

Overall, 45% of Americans say the Biden administration’s policies on climate change are taking the country in the right direction, while slightly more (50%) say they have the country headed in the wrong direction. This overall rating reflects a sharp partisan divide: 76% of Democrats see President Joe Biden’s climate policies as heading in the right direction; by contrast, 82% of Republicans say they’re taking the country in the wrong direction.

Within Biden’s own party, there are signs that Democrats aren’t completely satisfied with the administration’s actions on climate. Among the majority of Democrats who think Biden’s climate policies are pointed in the right direction:

- 59% say that Biden could be doing a lot more on climate change, compared with a smaller share (39%) who say he’s done as much as can be expected.
- And while 51% of Democrats who agree with Biden’s overall direction on climate say he’s taken about the right approach toward compromise, 34% say he has compromised too much on climate policy.

The recently approved Willow oil drilling project in Alaska garnered wide attention in energy and climate circles, but the Biden administration’s decision did not register widely with the public: 68% of Americans say they’ve heard nothing at all about this issue; 32% say they’ve heard at least a little about it.

The Biden administration’s decision to approve the Willow project is unpopular with Democrats who are aware of it: By 61% to 23%, more Democrats who have heard of the project oppose than favor it. Liberal Democrats aware of the issue are especially critical (74% oppose the decision).

Do Americans support government efforts to address environmental disparities across communities?

Most Americans support the federal government playing a major (46%) or minor (29%) role addressing differences across communities in their health risks from pollution and other environmental problems. A small share (8%) say the federal government should play no role in this, while 16% say they're not sure.

The issue of environmental health disparities across communities is fairly well known to the public: 77% of Americans say they've heard a lot or a little about this issue, while 22% say they haven't heard about it.

Large majorities of Democrats (68%) and those most familiar with the issue (73%) support the federal government playing a *major* role addressing community differences in health risks from pollution and environmental problems.

1. What Americans think about an energy transition from fossil fuels to renewables

Most Americans think the U.S. should prioritize the development of renewable energy over fossil fuel sources. At the same time, most say they are *not* ready to stop using fossil fuel energy sources altogether. And a sizeable share think the U.S. should never stop using fossil fuel sources.

Renewable sources, such as wind and solar, are expected to make up a [growing share of the U.S. energy supply](#) relative to fossil fuel sources such as oil, coal and natural gas in coming years. Last year renewable energy sources, including wind, solar and hydropower, [generated more electricity than coal in the U.S.](#) Legislation passed during the Biden administration, such as the Inflation Reduction Act, are [expected to increase the pace of an energy transition](#).

In the new survey, 67% of Americans say the U.S. should prioritize developing alternative energy sources, such as wind, solar and hydrogen technology, while 32% say the priority should be expanding the exploration and production of oil, coal and natural gas.

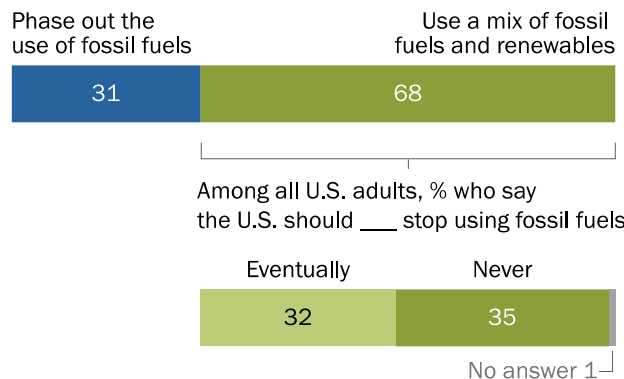
Read the [Appendix](#) for more on this question, including a shift away from renewables among Republicans that occurred at the outset of the Biden administration.

While the public prioritizes renewable energy development, just 31% say they are ready to phase out the use of oil, coal and natural gas completely. A much larger share (68%) say the U.S. should continue to use fossil fuels, alongside renewables, as part of the mix of energy sources the country relies on.

The roughly two-thirds of Americans who support using a mix of renewables and fossil fuels are closely divided over whether the U.S. should *ever* stop using oil, coal and natural gas: 32% of Americans favor a mix of sources now but think the U.S. should eventually stop using fossil fuel energy sources, while 35% favor using a mix of sources now and say the U.S. should *never* stop using oil, coal and natural gas.

35% of Americans think the U.S. should never stop using fossil fuels

% of U.S. adults who say the U.S. should ...



Note: Respondents who did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 30-June 4, 2023.
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Republicans and Democrats offer very different views on what role oil, coal and natural gas should play in the country’s energy landscape.

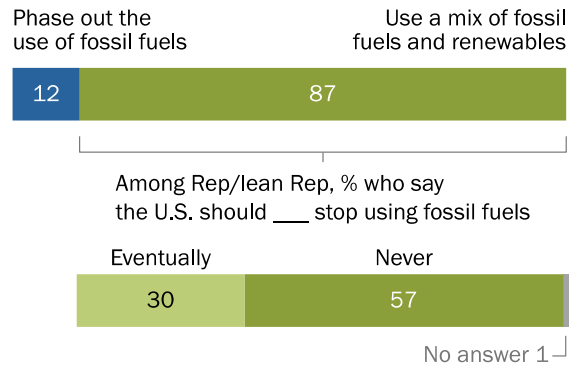
An overwhelming majority of Republicans and Republican leaners (87%) think the U.S. should use a mix of fossil fuel and renewable energy sources. Looking ahead, 57% of Republicans believe the U.S. should *never* stop using oil, coal, and natural gas.

In contrast, most Democrats and Democratic leaners think the U.S. should end the use of fossil fuels, but there are some differences in views over the timeline.

About half of Democrats (48%) are ready to phase out fossil fuels now; another 35% think they should be part of the mix currently, but that the country should eventually stop using them. A relatively small share of Democrats (15%) say the country should never stop using oil, coal and natural gas.

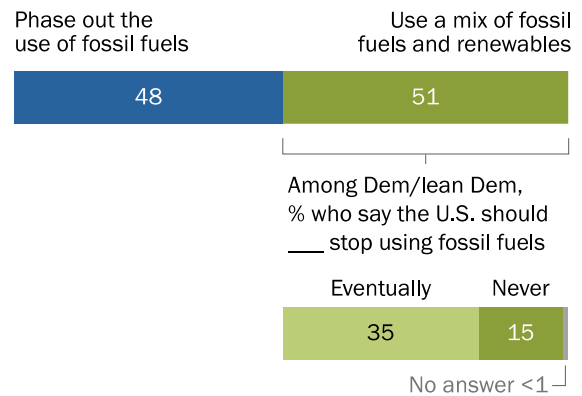
Majority of Republicans say the U.S. should never stop using fossil fuels

% of *Rep/lean Rep* who say the U.S. should ...



Democrats split over timeline for phasing out fossil fuels

% of *Dem/lean Dem* who say the U.S. should ...



Note: Respondents who did not give an answer are not shown.
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Public expectations on how a renewable energy transition would impact the country

Americans think a major shift from fossil fuels to renewable energy sources in the U.S. would come with some difficulties for the country. But they also see potential benefits, such as improved air and water quality and a more positive than negative impact on jobs in the energy sector.

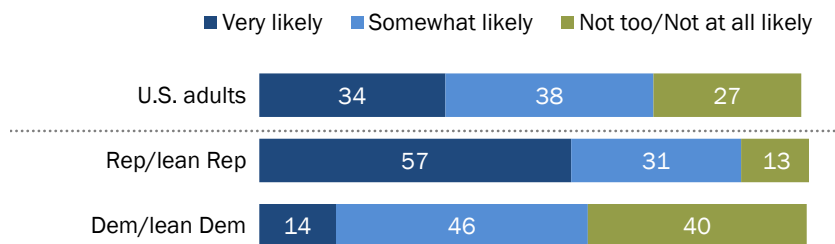
Still, many worry that an energy transition would push consumer prices higher. As with views on energy sources generally, Republicans and Democrats have quite different expectations for what a renewable energy transition would bring for the U.S.

Overall, 34% say the country would be very likely to encounter unexpected problems if the U.S. greatly reduces energy production from fossil fuels while increasing production from renewable sources; another 38% say unexpected problems would be somewhat likely.

Among Republicans, a majority (57%) think an energy transition to renewables would very likely lead to unexpected problems and 31% say this would make unexpected problems somewhat likely. A majority of Democrats also think unexpected problems from an energy transition would be at least somewhat likely (60%), but just 14% consider this *very* likely.

Majority of Americans see unexpected problems from an energy transition as at least somewhat likely

If the U.S. greatly reduces energy production from fossil fuel sources and increases energy production from renewable sources, % of U.S. adults who say it is ___ this transition would lead to unexpected problems



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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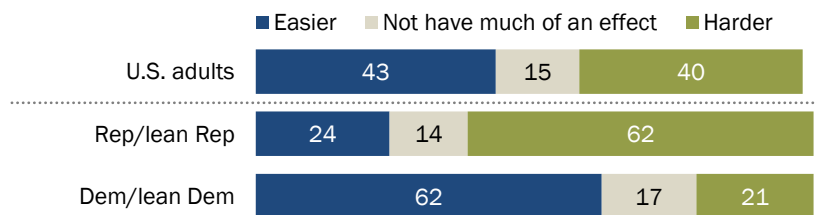
The new survey finds the public has mixed views about the likely effect of an energy transition on the country's energy independence: 43% think an energy transition would make U.S. independence from foreign energy sources easier and 40% say it would be harder.

A 2022 Center survey found a majority of Americans said reducing U.S. dependence on foreign energy sources should be a top priority for the country's energy policies.

A 62% majority of Republicans think that energy independence from other countries would be harder with a major shift to reliance on renewable energy sources. By contrast, 62% of Democrats think that energy independence would be easier.

Partisans differ over the likely impact of an energy transition on U.S. reliance on foreign energy sources

If the U.S. greatly reduces energy production from fossil fuel sources and increases production from renewable sources, % of U.S. adults who say it would make it ___ for the U.S. to produce most of its energy inside of the country



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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The Center survey asked about a number of potential consequences from shifting away from fossil fuels and toward renewable energy sources.

Americans are most optimistic about how an energy transition would impact environmental quality: 59% think that air and water quality would get better if the U.S. greatly reduced fossil fuel energy production and increased production from renewable sources. Three-in-ten say this energy transition would not have much effect on air and water quality, while 11% say it would make air and water quality worse.

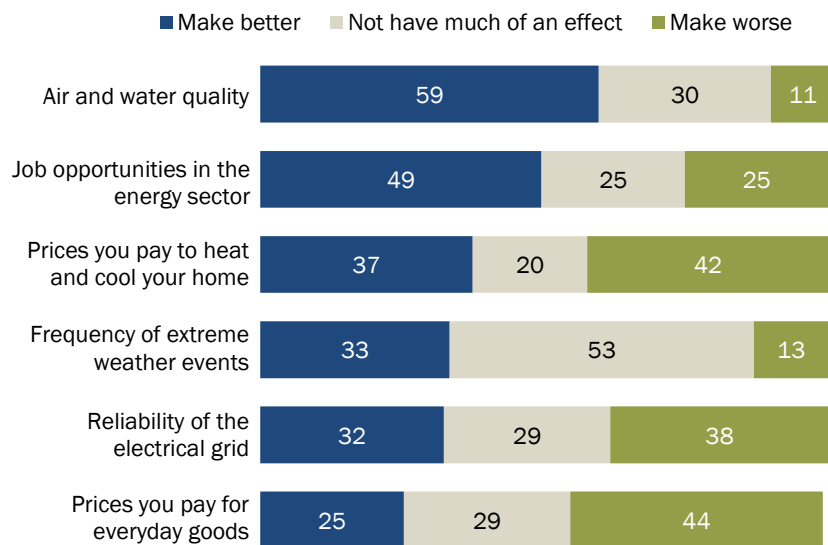
On balance, more Americans think a renewable energy transition would make local job opportunities in the energy sector better (49%) than worse (25%).

Concerns are more pronounced when it comes to prices.

Slightly more Americans think an energy transition would make the prices they pay to heat and cool their homes worse (42%) than better (37%). And by a wider margin (44% to 25%) Americans think such a transition would make prices for everyday goods worse than better.

Americans think an energy transition would have a more negative than positive impact on consumer prices

If the U.S. greatly reduces energy production from fossil fuel sources and increases production from renewable sources, % of U.S. adults who say it would ___ each of the following in their local area



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Democrats have a largely positive outlook on what an energy transition would mean for the country. Majorities think it would improve air and water quality (80%) and local job prospects in the energy sector (68%). And, on balance, more think it would help than hurt the frequency of extreme weather events, prices to heat and cool homes, and the reliability of the electrical grid.

Still, Democrats do have some reservations about the impact on consumer prices: 40% think a major shift toward renewable energy would make prices for consumer goods worse, compared with 35% who say this shift would make prices better.

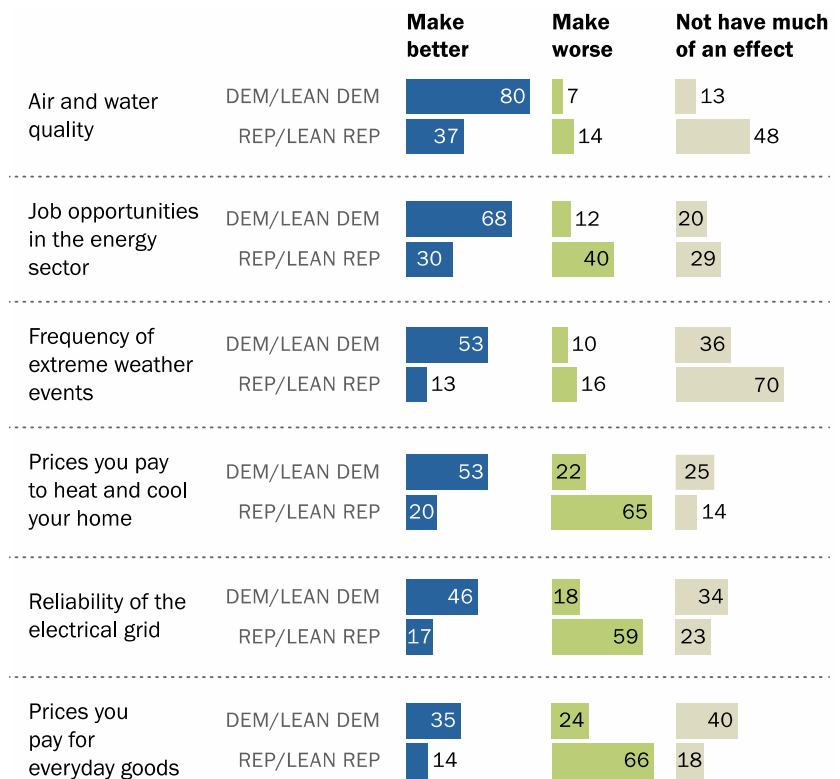
Republicans are largely pessimistic about the likely effects of an energy transition.

Two-thirds of Republicans (66%) think consumer prices would get worse, as would home heating and cooling costs (65%). Roughly six-in-ten Republicans (59%) expect the reliability of the electric grid to go down.

And there's skepticism toward environmental benefits: 48% say a transition would not have much effect on air and water quality, and 70% think there would be no effect on the frequency of extreme weather events.

Democrats far more likely than Republicans to see positive impacts from a potential energy transition

If the U.S. greatly reduces energy production from fossil fuel sources and increases production from renewable sources, % of U.S. adults who say it would ___ each of the following in their local area



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Republican support for increasing wind and solar power, while still a majority, continues to edge downward

Americans remain broadly in favor of expanding solar and wind power: 82% of U.S. adults favor more solar panel farms and 75% favor more wind turbine farms. A smaller majority of Americans (57%) favor expanding nuclear power. Support for expanding other energy sources is lower: Fewer than half support more offshore oil and gas drilling (47%), hydraulic fracturing (44%) or coal mining (38%). Refer to the [Appendix](#) for details.

Democrats and Republicans remain deeply divided over fossil fuel development. There's more common ground when it comes to renewables, though the partisan gap over expanding wind and solar power has been widening.

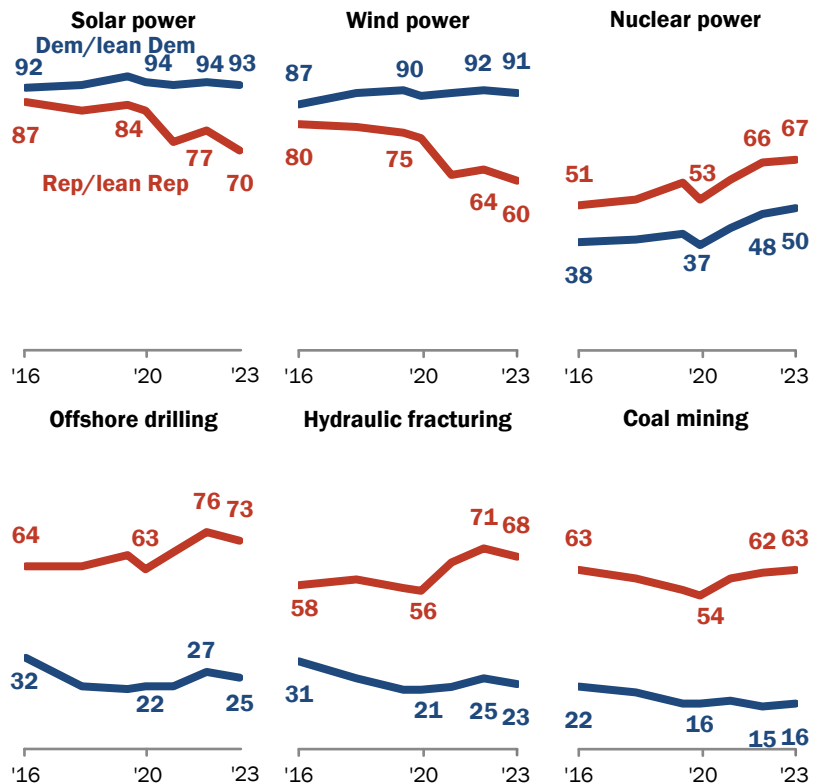
As of 2020, overwhelming majorities of both Democrats and Republicans were in favor of more solar and wind power. Since that time, Republican support has declined.

In the new survey, 93% of Democrats say they favor more solar panel farms, compared with 70% of Republicans. The share of Republicans who favor more solar power is down 14 percentage points since 2020 and 7 points since the survey last year.

Six-in-ten Republicans favor more wind power in the new survey, down 15 points since 2020 and 4 points in the last year. Meanwhile, 91% of Democrats favor more wind turbine farms.

Republicans and Democrats remain strongly divided over increasing fossil fuel energy sources

% of U.S. adults who favor more ...



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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The drop in support for solar and wind power has been especially pronounced among conservative Republicans. The share of conservative Republicans who favor more solar power is down 17 points from 2020 (from 80% to 63%) and the share who favor more wind power is down 18 points (from 69% to 51%) over the same time period.

Partisan differences remain wide over support for increasing fossil fuel energy sources. For example, 73% of Republicans favor more offshore oil and gas drilling, while just 25% of Democrats favor this.

There are similarly wide partisan differences over expanding hydraulic fracturing for oil and natural gas (68% of Republicans favor vs. 23% of Democrats) and coal mining (63% of Republicans vs. 16% of Democrats).

Republicans' levels of support for more hydraulic fracturing, offshore drilling and coal mining have all moved about 10 points higher since 2020.

Republicans remain more likely to favor expanding nuclear power plants than Democrats (67% vs. 50%). Support for nuclear power has increased in both party coalitions in recent years. Men also continue to be far more likely than women to favor expanding nuclear power plants (71% vs. 44%).

A majority of Republicans who have heard of the Willow oil-drilling project favor the Biden administration decision, while Democrats aware of the project oppose it

In March, the Biden administration approved the Willow oil drilling project on lands located in the federally owned National Petroleum Reserve in Alaska.

While the approval drew [wide criticism from climate activists](#), the Center survey finds limited familiarity with the project. Just 3% of Americans say they have heard or read a lot about it and 29% say they have heard or read a little. About seven-in-ten (68%) say they have heard or read nothing at all about the Biden administration approving the Willow project.

Among those with at least a little awareness of this, 44% say they favor the Biden administration approving the drilling project, while 41% oppose it. The remaining 14% say they are not sure of their view on this.

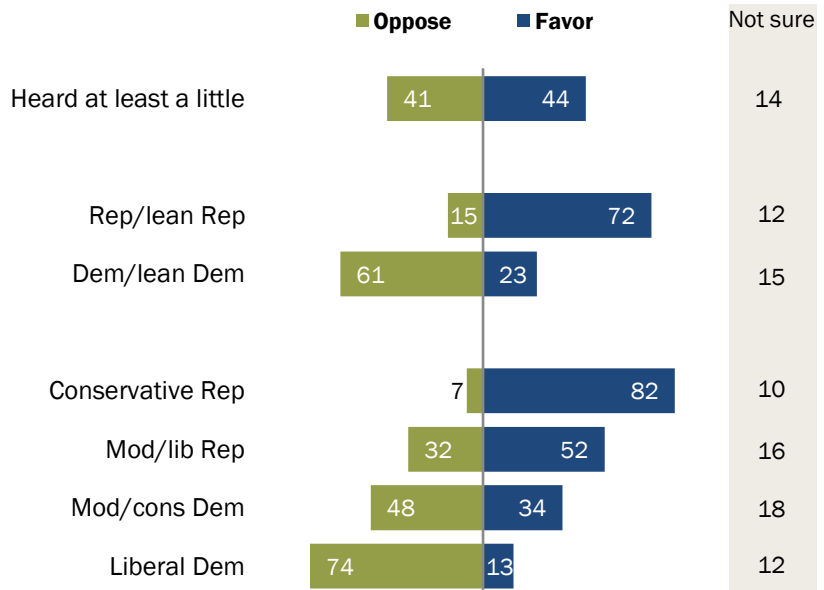
In contrast to public views of [Biden’s job approval and handling of other issues](#), a majority of Republicans (72%) with some awareness of the Willow project say they favor the decision.

A majority of Democrats familiar with the project oppose the Biden administration’s decision (61%).

These patterns are broadly in keeping with partisan views on energy priorities for the country and support for more offshore oil and gas drilling.

About six-in-ten Democrats who have heard of the Willow oil drilling project in Alaska oppose it

*Among U.S. adults who have **heard or read a lot or a little** about the Biden administration’s approval of the Willow oil drilling project, % who ___ the decision*



Note: Based on those who have heard or read a lot or a little about the Willow project. Respondents who did not give an answer are not shown.
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Differences among Republicans by ideology, age over views about fossil fuels and prioritizing renewable energy sources

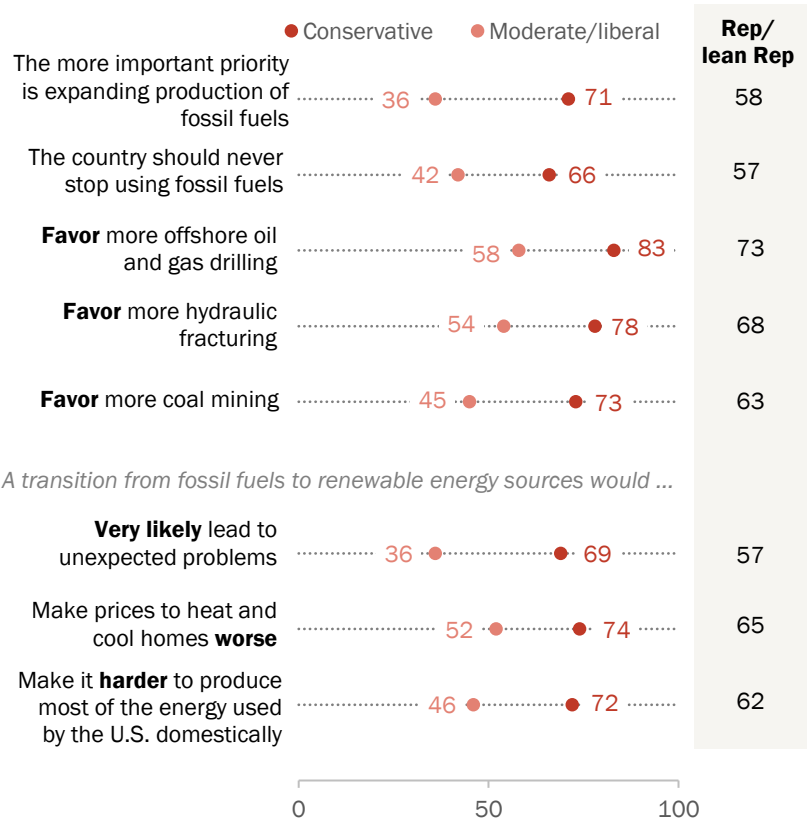
Views among Republicans about these issues are far from uniform. Conservative Republicans are far more likely than moderate or liberal Republicans to support expanding fossil fuel energy sources.

For example, 71% of conservative Republicans favor prioritizing the production of fossil fuels over the development of alternative energy sources. Moderate and liberal Republicans tilt the other direction, with 36% saying they would prioritize fossil fuels and a majority (63%) saying they would prioritize development of alternative energy sources.

Similarly, a 73% majority of conservative Republicans favor more coal mining while 54% of moderate and liberal Republicans oppose this.

Conservative Republicans skeptical of a transition to renewable energy

% of Republicans and Republican leaners who say the following



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted May 30-June 4, 2023. "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Age differences among Republicans are also common in views about energy issues, with older Republicans more likely than younger Republicans to support the continued use of fossil fuels. These differences hold even when controlling for ideology.

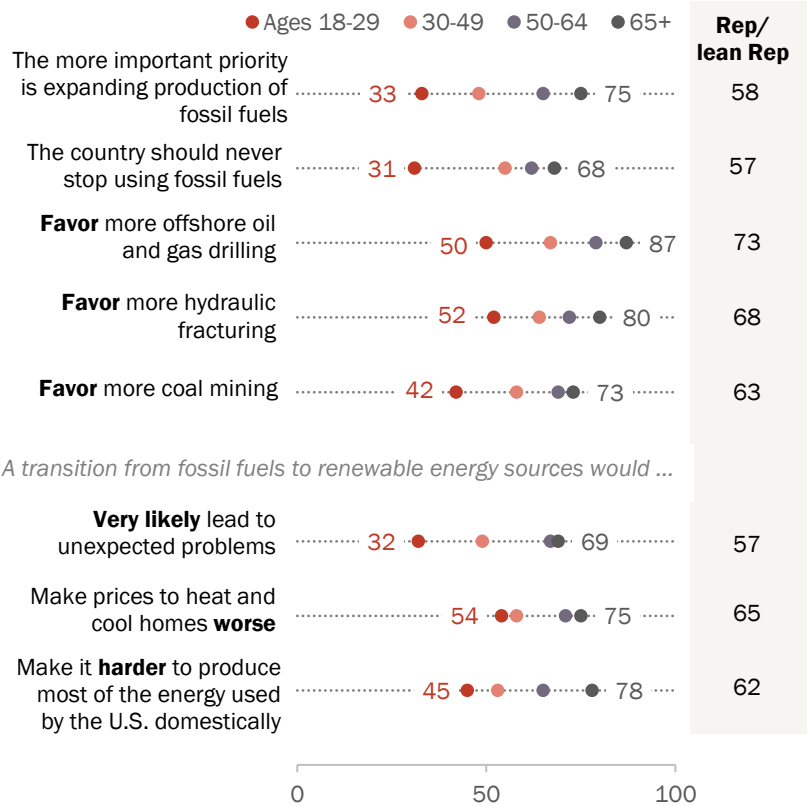
For example, 31% of Republicans ages 18 to 29 say the country should *never* stop using fossil fuels. In comparison, a majority of older Republicans (including 68% of Republicans ages 65 and older) say this.

Republicans under 30 are far less convinced that unexpected problems are ahead in a future energy transition that greatly reduces energy production from fossil fuel sources and increases production from renewable sources: 32% say unexpected problems are very likely, compared with 69% of Republicans ages 65 and older.

[Past Center surveys have also found large differences](#) between older and younger Republicans in views on energy issues and climate policy.

Younger Republicans are less likely than older Republicans to say the country should never stop using fossil fuels

% of Republicans and Republican leaners who say the following



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Majority of Americans continue to oppose phasing out gasoline cars and trucks by 2035

A majority of Americans remain opposed to phasing out gasoline cars and trucks by 2035. In the new survey, 40% of Americans favor this idea while 59% oppose it. The share of Americans who support phasing out gasoline cars and trucks is down 7 percentage points since 2021. Over this period of time, support for phasing out gasoline cars and trucks has ticked down among both Democrats and Republicans. Refer to the [Appendix](#) for this data.

When asked about their general reaction to the idea of phasing out the production of gas-powered vehicles, just 21% of Americans say they would be excited by the prospect. More than twice as many (45%) say they would be upset; 33% say their feelings would be neutral.

[The U.S. transportation sector](#) is the largest contributor to carbon emissions, and [a majority of those emissions](#) come from gasoline-powered passenger cars and trucks. In April, [the Biden administration proposed new emission limits](#) for automakers that would dramatically reduce the number of gasoline-powered cars and trucks automakers could sell. [Several states are planning to ban](#) the sale of gasoline cars and trucks after 2035.

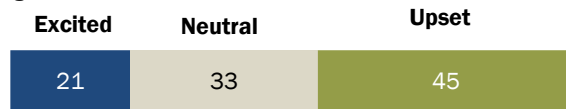
Majority of Americans oppose phasing out new gas-powered cars and trucks

% of U.S. adults who say they ...

Would ___ phasing out the production of new gasoline cars and trucks by 2035



Would feel ___ if the U.S. phased out production of new gasoline cars and trucks

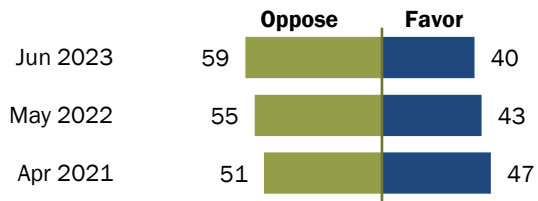


Note: Respondents who did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 30-June 4, 2023.
"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Opposition to phasing out gas-powered cars and trucks has risen

% of U.S. adults who say they ___ phasing out the production of new gasoline cars and trucks by 2035



Note: Respondents who did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 30-June 4, 2023.
"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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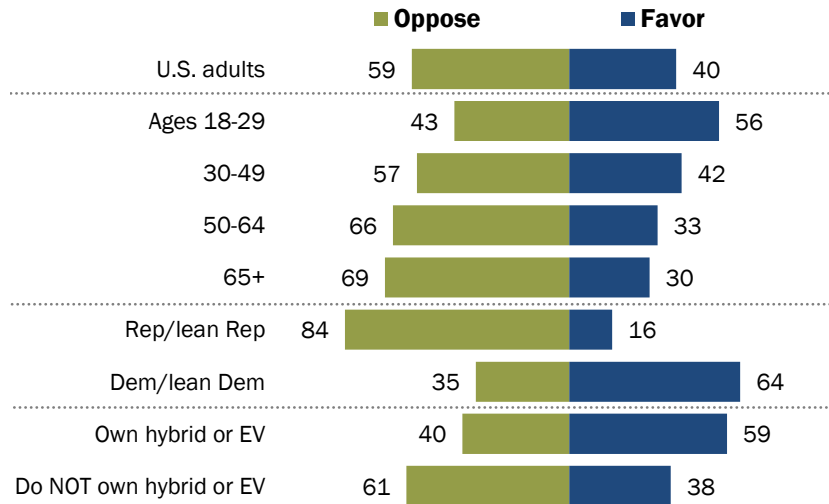
Republicans oppose phasing out gasoline cars and trucks by 2035 by a large margin (84% to 16%). But views among Democrats are largely supportive: 64% favor phasing out gasoline cars and trucks, while 35% oppose this idea.

Liberal Democrats are especially supportive of phasing out gasoline cars and trucks (76% favor), while moderate and conservative Democrats are more closely divided (53% favor, 46% oppose).

Across both parties, younger Americans are more supportive of this shift. Among all adults under age 30, a 56% majority favor phasing out gasoline cars and trucks by 2035, while 43% oppose this. By contrast, majorities of adults ages 30 and older oppose phasing out gasoline cars and trucks. For instance, among those ages 65 and older, 69% oppose this idea.

84% of Republicans oppose phasing out gasoline cars by 2035, while 64% of Democrats favor this

% of U.S. adults who say they ___ phasing out the production of new gasoline cars and trucks by 2035



Note: Respondents who did not give an answer are not shown. "EV" stands for electric vehicle.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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There are also wide differences in emotional reactions to the idea of phasing out the production of combustion-engine vehicles.

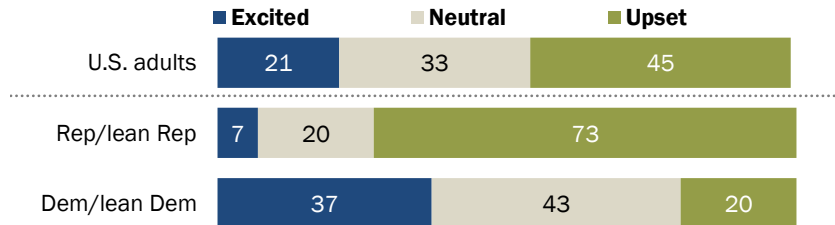
About three-quarters of Republicans (73%) say they would feel upset if gas cars were phased out. Among Democrats, a larger share say they would feel excited (37%) than upset (20%), while 43% of this group says they would feel neutral about the change.

While the Biden administration has attempted to develop electric vehicle (EV) infrastructure, Americans have limited confidence that the country will build a network of charging stations to support these vehicles.

Just 17% of Americans say they are extremely or very confident that the U.S. will build the necessary charging stations and infrastructure while 30% are somewhat confident; 53% say they are not too or not at all confident.

73% of Republicans say they would feel upset if the U.S. phased out new gasoline cars and trucks

% of U.S. adults who would feel ___ if the U.S. phased out the production of new gasoline cars and trucks

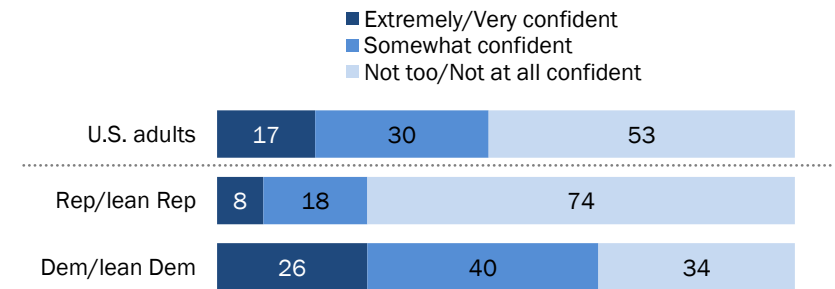


Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
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Few Republicans are confident that U.S. will build the necessary infrastructure to support electric vehicles

% of U.S. adults who say they are ___ that the U.S. will build the charging stations and infrastructure needed to support large numbers of electric vehicles on the roads



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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[Legislation passed during the Biden administration](#) set aside \$5 billion to build a network of charging stations. Many EV drivers find [the current public charging system difficult](#).

Republicans are particularly skeptical that the U.S. will build the charging stations and infrastructure needed to support EVs: 74% have not too much or no confidence this will happen.

38% of Americans would consider an electric vehicle for their next purchase; half say they would be unlikely to do this

Americans are cool to the idea of making an electric vehicle purchase in the near term. Half of U.S. adults say they are not too or not at all likely to seriously consider an EV the next time they purchase a car or truck.

By comparison, 38% of Americans say they are very (15%) or somewhat (23%) likely to seriously consider an EV for their next vehicle purchase.

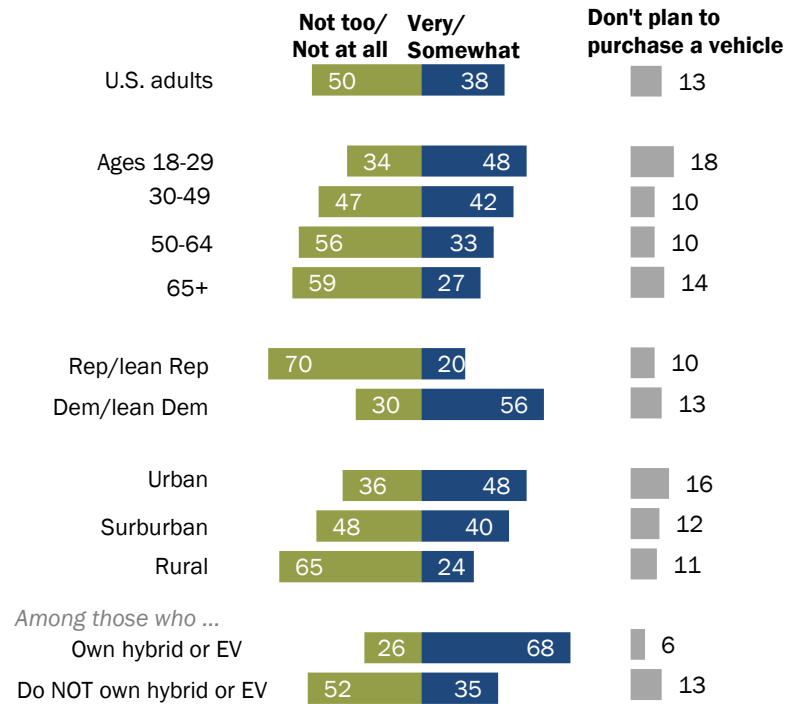
The public’s modest enthusiasm for purchasing an EV themselves is in line with their opposition to phasing out gas-powered vehicles. Interest in purchasing an EV is down 4 percentage points from when it was last measured in a [2022 Center survey](#).

Those most inclined to consider purchasing an electric vehicle in the future include the relatively small share of Americans (9%) who already own a hybrid or electric vehicle; 68% of this group says they are at least somewhat likely to seriously consider this, including four-in-ten who say they are very likely to do so.

Other groups who are more open to purchasing an EV in the future include Democrats (56% say they are at least somewhat likely to give this serious consideration), people who live in urban areas (48%), and young adults ages 18 to 29 (48%).

Democrats, younger adults and urban residents are more open to purchasing an electric vehicle

% of U.S. adults who say they are ___ likely to seriously consider purchasing an electric vehicle the next time they purchase a vehicle



Note: Respondents who did not give an answer are not shown. “EV” stands for electric vehicle.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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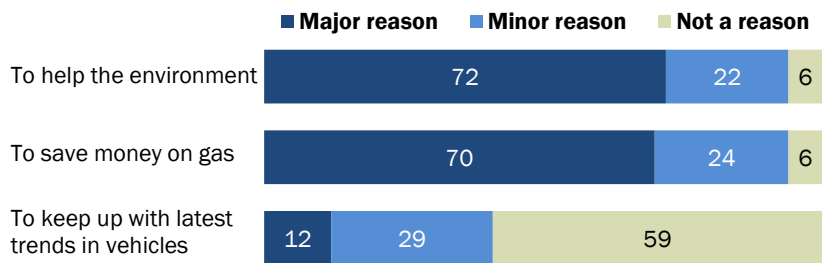
On the other hand, a majority of Republicans (70%), those who live in rural areas (65%) and adults ages 65 and older (59%) say they are not too or not at all likely to seriously consider an electric vehicle for their next purchase.

Americans who are at least somewhat likely to purchase an EV in the future say that both environmental benefits and cost savings are an attraction. About seven-in-ten of this group say that helping the environment (72%) and saving money on gas (70%) are major reasons to purchase an electric vehicle.

A much smaller share of those at least somewhat likely to consider purchasing an EV say that “keeping up with the latest trends in vehicles” is a consideration.

Most U.S. adults who are considering buying an electric vehicle cite helping the environment, saving money on gas as reasons why

Among those who are **very or somewhat likely** to consider purchasing an electric vehicle, % who say each of the following is a ___ reason why



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

“Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

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U.S. homeowners have a limited appetite for converting home systems to electric

There's modest interest among homeowners in steps that would improve the energy efficiency of their homes by doing things like converting gas stoves and water heaters to electric. Some steps garner more appeal than others, however, and many have considered upgrading (or have already upgraded) their home's insulation.

Three-in-ten homeowners say they have improved their home's insulation in the past and another 26% say they have seriously considered doing so in the past year. A third of homeowners say they have not seriously considered a home insulation upgrade and 10% say this does not apply to their situation.

About three-in-ten homeowners (28%) say they have seriously considered installing solar panels on their home in the past year; 7% of homeowners say they already have home solar panels.

Homeowners living in the West are more likely to say they have solar panels. Democratic

homeowners across all regions are more likely than their Republican counterparts to say they have seriously considered installing solar panels within the past year. These patterns are in keeping with a [2022 Center survey](#). (Note that the response options in the new survey include an option to specify that installing solar panels "does not apply to me," thus the percentages are not directly comparable across the two surveys.)

Majority of U.S. homeowners have seriously considered improving their home's insulation, or have already done this

% of U.S. homeowners who say they ___ the following changes to their home

	Already have this	Have seriously considered	Have not seriously considered	Does not apply	
Improving home's insulation	30	26	57	33	10
Installing solar panels	7	28	36	51	13
Replacing gas stove with electric or induction	28	7	35	46	18
Installing an electric heat pump system	20	11	30	55	13
Replacing gas water heater with electric	16	11	28	54	18

Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Relatively small shares of homeowners say they have seriously considered replacing their gas oven or stove with an electric or induction system (7%), installing an electric heat pump system to heat and cool their home (11%), or replacing their gas water heater with an electric system (11%).

2. How Americans see Biden’s climate policies

On balance, slightly more Americans say the Biden administration’s policies on climate change are taking the country in the wrong direction (50%) than the right direction (45%). As with most assessments of the administration, Republicans and Democrats offer opposing viewpoints on this question.

Climate change action has been a central goal of Biden’s administration. In 2022, he [signed the Inflation Reduction Act](#) into law, which included a host of policies designed to address climate change. The administration has also proposed EPA rules to address carbon emissions, such as

[requiring power plants to eliminate emissions by 2040](#) and [requiring oil and gas companies to seal methane leaks](#).

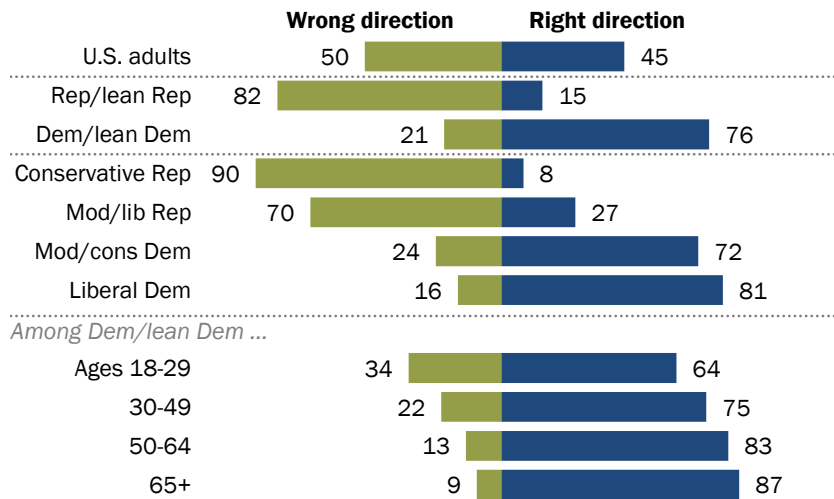
The administration has also moved forward with oil and gas projects, including the [approval of the Willow drilling project in Alaska](#) that attracted criticism from environmental activists.

About three-quarters of Democrats and those who lean to the Democratic Party (76%) say the Biden administration’s climate policies are taking the country in the right direction. Among Republicans and Republican-leaning independents, 82% say Biden is moving the country in the wrong direction. These numbers are little changed since the question was last asked in May 2022.

Democrats’ views differ by age. Younger Democrats offer less support for the administration than older Democrats. Among Democrats ages 18 to 29, 64% say Biden’s climate policies are moving the country in the right direction, compared with 87% among Democrats ages 65 and older.

Wide partisan gap on whether Biden’s climate policies are taking country in right or wrong direction

% of U.S. adults who say the Biden administration’s policies on climate change are taking the country in the ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-Jun. 4, 2023.

“Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

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About three-quarters of Democrats approve of Biden's direction on climate but many among this group think he could be doing more

Among the 76% of Democrats who say that Biden's climate policies are moving the country in the right direction, the survey finds signs that this constituency is not completely satisfied with the administration's efforts.

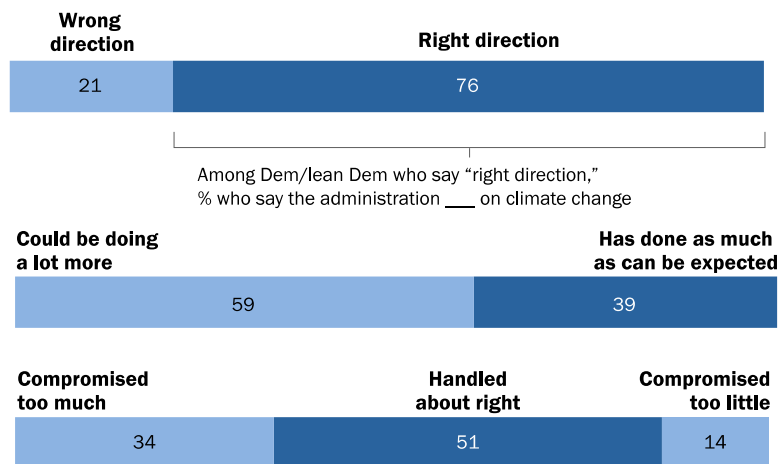
A majority (59%) of this group says that the Biden administration could be doing a lot more on climate change, while 39% say it has done as much as can be expected.

Among Democrats who say Biden's climate policies are moving the country in the right direction, 51% think he's handled compromise on climate policy about right, but 34% say he's compromised too much. Another 14% say he's compromised too little.

Most Liberal Democrats (81%) are in alignment with Biden on the direction of climate policy. Even so, among liberals who say his policies are moving the country in the right direction, 66% think he could be doing more and 44% say he has compromised too much on climate.

Among Democrats who say Biden's climate policies are taking the country in the right direction, majority say he could be doing more

% of Democrats and Democratic leaners who say the Biden administration's policies on climate change are taking the country in the ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-Jun. 4, 2023.

"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Public support for policies to address climate change

Americans' support for action on climate change is reflected in their views of some specific policy proposals.

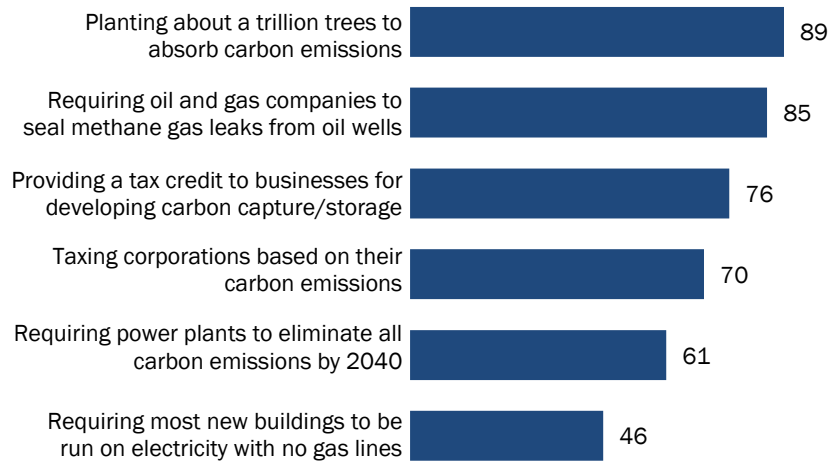
Roughly nine-in-ten (89%) favor planting about a trillion trees to absorb carbon emissions. Large majorities also favor requiring oil and gas companies to seal methane gas leaks from oil wells (85%), providing a tax credit for businesses for developing carbon capture and storage (76%) and taxing corporations based on their carbon emissions (70%).

A somewhat smaller majority of Americans support requiring power plants to eliminate all carbon emissions by 2040 (61%).

Requiring most new buildings to be run on electricity with no gas lines receives the least support of the items included in the survey: 46% favor this idea while 51% oppose it.

Majority of Americans support requiring power plants to eliminate all carbon emissions by 2040

% of U.S. adults who say they favor the following proposals to reduce the effects of climate change



Note: Respondents who gave other responses or did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 30-Jun. 4, 2023.
"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Large shares of Democrats and Republicans support planting about a trillion trees to absorb carbon emissions (91% and 87%, respectively).

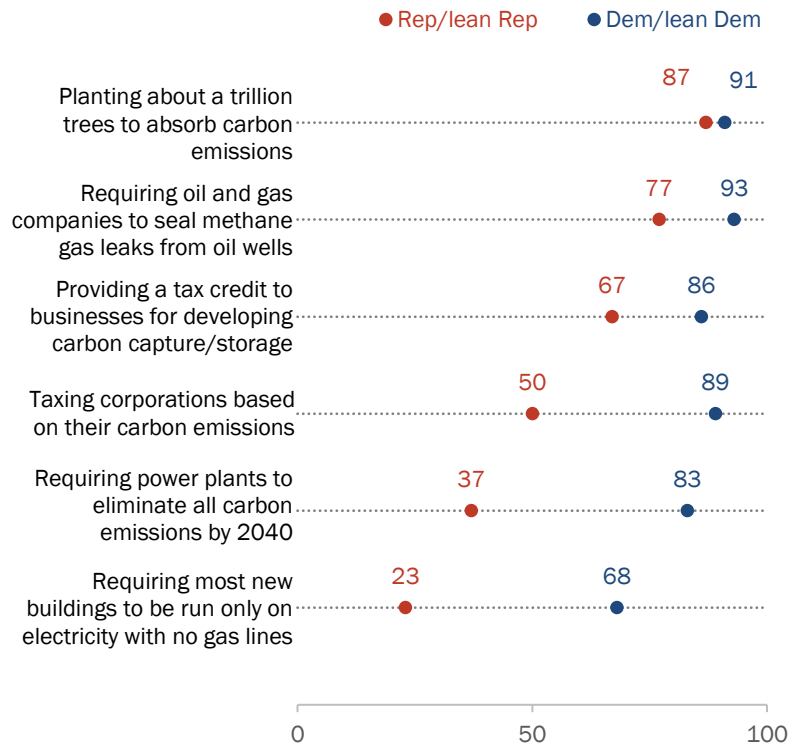
Majorities of both parties also support requiring oil and gas companies to seal gas leaks from oil wells and providing a tax credit to businesses for carbon capture and storage, though Democrats are still more likely than Republicans to support these proposals.

On other climate proposals, partisans are more divided. About nine-in-ten (89%) Democrats favor taxing corporations based on their carbon emissions, compared with half of Republicans.

And while majorities of Democrats support requiring power plants to eliminate carbon emissions by 2040 and requiring most new buildings to be run only on electricity, these proposals garner more opposition than support among Republicans.

Majority of Republicans favor providing a tax credit to businesses for developing carbon capture technology

% of U.S. adults who say they **favor** the following proposals to reduce the effects of climate change



Note: Respondents who gave other responses or did not give an answer are not shown.
Source: Survey of U.S. adults conducted May 30-Jun. 4, 2023.
"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Protecting the environment and low consumer costs are important considerations for the public in climate proposals

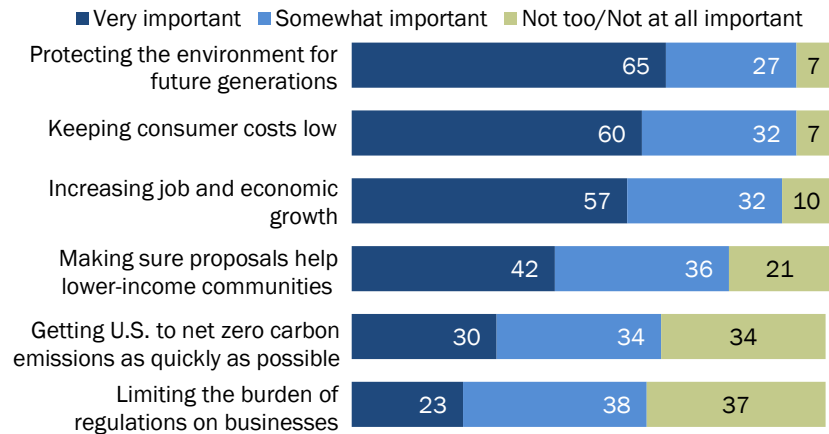
When asked what's important to them in proposals to reduce the effects of climate change, 65% of Americans say protecting the quality of the environment for future generations is a very important factor. Economic considerations also feature prominently: 60% say keeping consumer costs low is a very important consideration to them in climate proposals and 57% say increasing job and economic growth is very important to them.

Smaller shares place the highest level of importance on making sure climate proposals help lower-income

communities (42% very important) or getting the U.S. to net zero carbon emissions as quickly as possible (30%). Just 23% say that limiting the burden of regulations on businesses is very important to them personally when considering proposals to reduce the effect of climate change.

Majorities of Americans say environmental protection, economic factors are important in climate policy

% of U.S. adults who say each of the following is ___ to them personally when thinking about proposals to reduce the effects of climate change



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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Partisans have differing priorities when it comes to climate change proposals.

Among Democrats, protecting the quality of the environment for future generations is their clear top consideration (81% say this is very important), followed by making sure proposals help lower-income communities (57%).

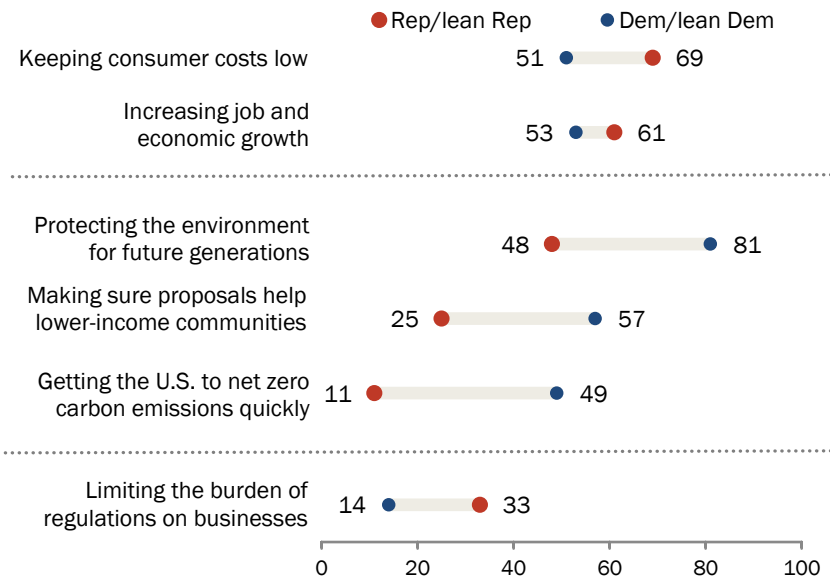
About half of Democrats say increasing jobs and economic growth (53%) and keeping consumer costs low (51%) are very important considerations to them personally.

By comparison, Republicans place greater emphasis on economic factors: 69% say keeping consumer costs low is

a very important consideration to them in climate proposals and 61% say increasing job opportunities and economic growth is very important. Protecting the environment for future generations is seen as a very important consideration by 48% of Republicans.

Democrats and Republicans offer different visions of what's important in climate policies

% of U.S. adults who rate ___ as **very important** when considering proposals to reduce the effects of global climate change



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Majority of Americans support U.S. participation in international climate efforts

In a global context, Americans offer broad support for U.S. involvement with international efforts to deal with climate change. But there's less consensus about how big a role the U.S. should play compared with other countries with large economies.

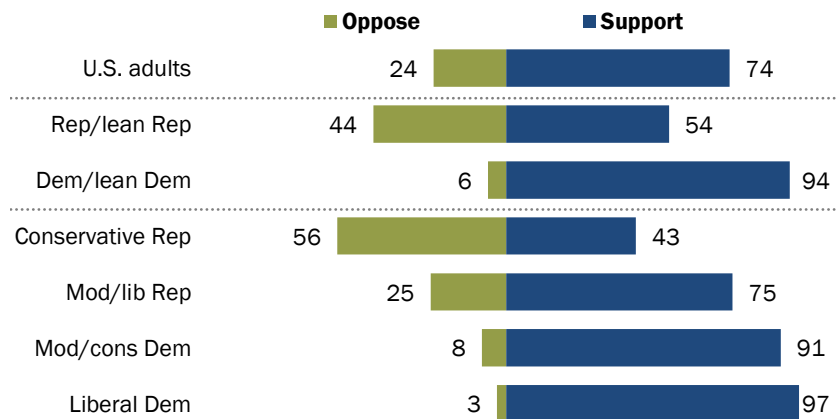
Overall, 74% support the U.S. participating in international efforts to help reduce the effects of climate change; just 24% say they oppose this.

An overwhelming share of Democrats (94%) back U.S. engagement with international efforts to address climate change. Views are less one-sided among Republicans; still, a narrow majority (54%) say they support this, while 44% are opposed.

There are sizable gaps within the GOP on this question. A majority of moderate and liberal Republicans (75%) support U.S. participation in international climate efforts. By contrast, 56% of conservative Republicans say they *oppose* this. Across age groups, younger Republicans ages 18 to 29 (71%) and 30 to 49 (58%) are more likely to support U.S. global efforts than Republicans ages 50 and older (48%).

74% of Americans support U.S. participation in international efforts to address climate change

% of U.S. adults who **strongly/somewhat** ___ the U.S. participating in international efforts to help reduce the effects of global climate change



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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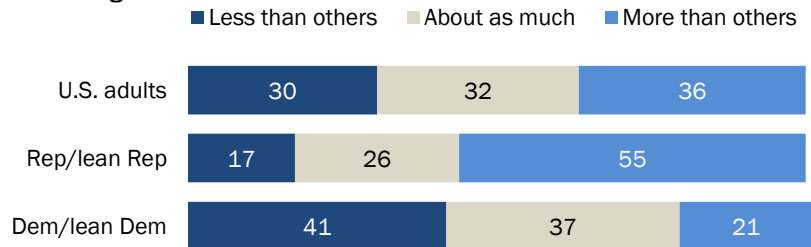
The public is divided over how much the U.S. is currently contributing to global efforts to deal with climate change. Overall, 36% think the U.S. is doing more than other countries with large economies to reduce the effects of climate change, compared with 32% who say the U.S. is doing about as much as others and 30% who think the U.S. is doing less than others.

Since January 2022, there's been a modest 4-point increase in the share of Americans who say the U.S. is doing more than other countries with large economies to deal with climate change and a corresponding 6-point decline in the share saying the U.S. is doing less than others.

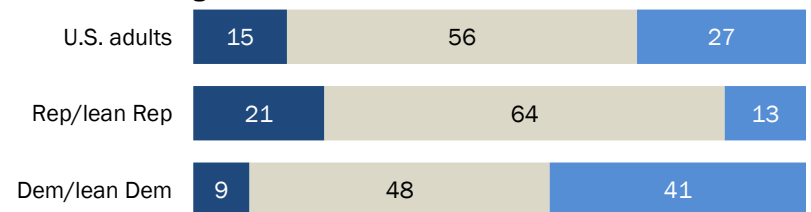
56% say the U.S. should do about as much as other large economies to help reduce climate effects

% of U.S. adults who say, compared with other countries with large economies, the U.S. is/should be doing ___ to help reduce the effects of global climate change

U.S. is doing ...



U.S. should be doing ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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There's more agreement among Americans when it comes to the role the U.S. *should* play internationally on climate change. Overall, 56% say the U.S. should do about as much as other countries with large economies to reduce the effects of global climate change. About a quarter (27%) say the U.S. should do more than other large economies, while 15% think it should do less.

Among Republicans, 55% think the U.S. is currently doing more than other countries with large economies to address climate change. As for the country's appropriate role, 64% of Republicans think it should do about as much as other large economies to address the issue.

Democrats hold varied perceptions of how much the U.S. is currently doing: 41% say it is doing less than other large economies to reduce the effect of global climate change, while 37% say it is doing about as much as others and 21% think the U.S. is doing more than other countries with large economies. There's also no consensus among Democrats over how much the U.S. should do.

Close to half (48%) think the U.S. should do about as much as other large economies to deal with the issue, but 41% think the U.S. should do more than others. A small share (9%) think the U.S. should do less than other countries with large economies.

Just 33% of Americans believe the U.S. and other countries around the world will do enough to avoid the worst impacts from climate change

Americans are not especially optimistic that efforts to address climate change will stave off its most serious impacts. A narrow majority (54%) say the U.S. and other countries around the world will probably or definitely *not* do enough to avoid the worst impacts of climate change. A much smaller share (33%) think the U.S. and others will likely do enough to avoid the worst impacts. About one-in-ten (11%) say they don't believe climate change impacts are a problem.

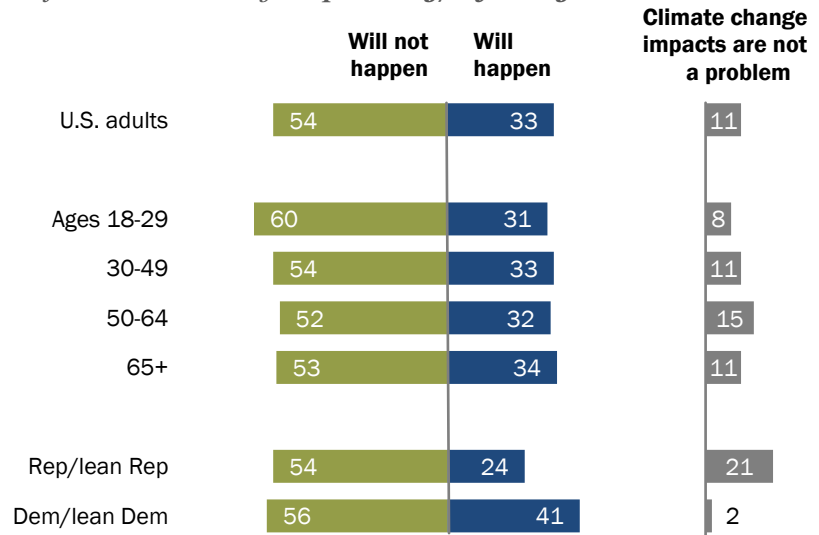
Republicans are significantly more likely than Democrats to say climate change impacts are not a problem (21% vs. 2%), but neither group is particularly optimistic that the U.S. and other countries around the world will do enough to avoid the worst impacts from climate change.

Young Democrats are particularly skeptical. A majority (64%) of Democrats ages 18 to 29 say the U.S. and other countries are unlikely to do enough to avoid the worst climate impacts. Older Democrats tend to be more evenly divided in their outlook on this question.

Americans unconvinced that U.S. and other countries will do enough to avoid worst climate change impacts

How likely is it that countries around the world, including the U.S., will do enough to avoid the worst impacts from climate change?

% of U.S. adults who say this **probably/definitely ...**



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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How Americans see the federal government’s role in communities at high risk of extreme weather

Extreme weather events, such as floods or droughts, are [expected to become more frequent and intense](#) in coming years due to climate change. Communities at high risk of these events face questions about how to confront challenges from extreme weather, including what role government should play.

Overall, 54% of Americans think it is a good idea for the federal government to limit new construction in communities at high risk of extreme weather, while 19% say this is a bad idea and another 27% are unsure. About half (47%) say it’s a good idea for the federal government to provide financial assistance for communities in high-risk areas to relocate; fewer (24%) call this a bad idea.

At the same time, the public is generally supportive of a federal role to help communities in high-risk areas rebuild: 53% say that it is a good idea for the government to provide financial assistance for communities to rebuild after an event occurs, compared with 24% who call this a bad idea.

There’s little enthusiasm for the federal government *requiring* communities to relocate from high-risk areas: 29% of U.S. adults say this is a good idea, compared with 33% who say it’s a bad idea and 38% who say they aren’t sure.

Majority of Americans say limiting construction in areas at risk of extreme weather is a good idea

% of U.S. adults who say it is a ___ for the federal government to do each of the following in areas at high risk of extreme weather

	Good idea	Bad idea	Not sure
Limit new construction	54	19	27
Provide financial assistance for communities to rebuild after extreme weather events	53	24	23
Provide financial assistance for communities to relocate	47	24	29
Require communities to relocate	29	33	38

Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

“Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

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Democrats are more supportive than Republicans of the federal government playing a role in communities at high risk of extreme weather.

About two-thirds of Democrats say it would be a good idea for the federal government to limit new construction in areas at high risk of extreme weather. Views among Republicans are more mixed: 42% say this is a good idea, compared with 31% who say it's a bad idea and 27% who say they're not sure.

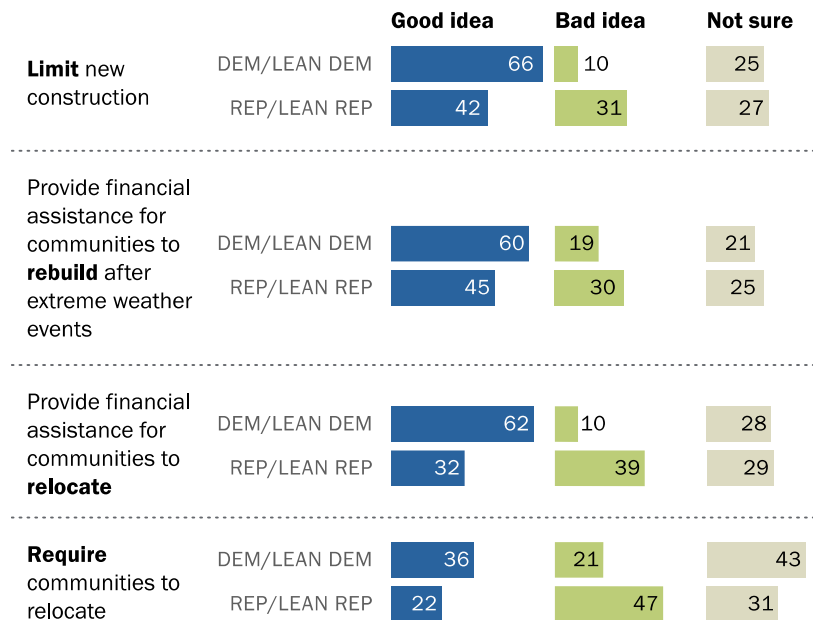
About six-in-ten Democrats (62%) say it's a good idea for the federal government to provide financial assistance for communities to relocate from areas at high risk of extreme weather. By contrast, Republicans are more likely to view this as a bad than good idea (39% vs. 32%).

While Democrats support federal efforts to limit construction and incentivize relocation, they also support federal assistance to help communities rebuild after extreme weather events. Overall, 60% of Democrats think it's a good idea for the federal government to financially assist communities with rebuilding after extreme weather events, compared with just 19% who say this is a bad idea. Among Republicans, 45% say this is a good idea, while 30% call it a bad idea and 25% say they're not sure.

Neither partisan group is particularly supportive of the federal government *requiring* communities at high risk of extreme weather to relocate, though a somewhat larger share of Democrats (36%) than Republicans (22%) says this is a good idea.

About two-thirds of Democrats say it's a good idea for the federal government to limit new construction in areas at risk of extreme weather

% of U.S. adults who say it is a ___ for the federal government to do each of the following in areas at high risk of extreme weather



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

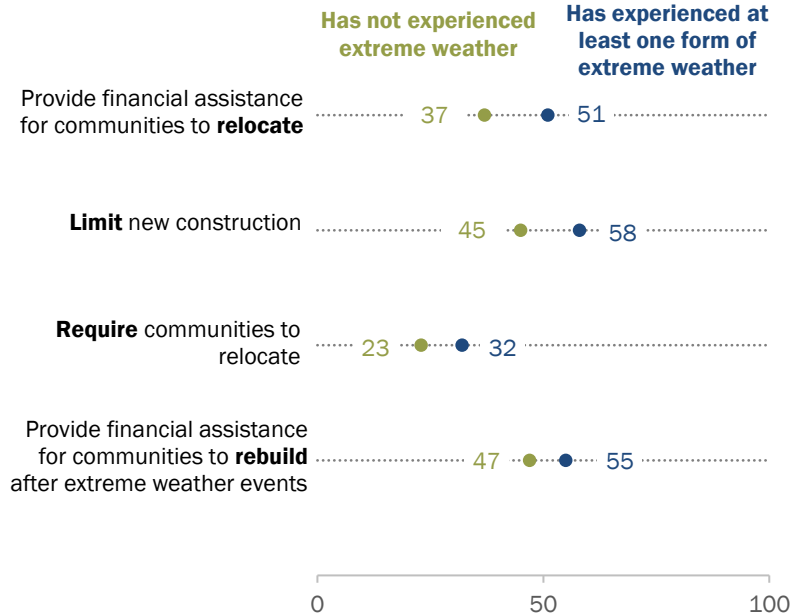
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There are some differences in views about the federal government’s role in communities at high risk of extreme weather between those who say they’ve experienced an extreme weather event themselves and those who say they have not.

For instance, 51% of those who say their area has faced an extreme weather event recently think it’s a good idea for the federal government to provide financial assistance to communities at high risk to relocate, compared with 37% of people who have not experienced an extreme weather event in the last year.

Experience with extreme weather and views on the federal government’s role in high-risk communities

% of U.S. adults who say that it is a good idea for the federal government to do each of the following in areas at high risk of extreme weather



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 “Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

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Experiences with extreme weather

A majority of Americans (69%) say they have experienced at least one of five types of extreme weather in their own community over the last year. Long periods of unusually hot weather and severe weather, like floods or intense storms, have been experienced by 45% and 44% of Americans, respectively. A third say they've experienced droughts or water shortages, while fewer say they have experienced major wildfires (18%) or rising sea levels that erode beaches and shorelines (16%).

These reports of extreme weather differ across regions in the country. The biggest differences are in the experiences of major wildfires – 46% of adults living in the West say they have experienced these in the past year compared with no more than 10% of adults living in other regions. Adults in the West are also the most likely to have experienced droughts or water shortages.

Partisanship also plays a role in perceptions of extreme weather. Democrats are more likely than Republicans to report their community has experienced extreme weather, a difference that holds when looking at people who live in the same geographic region.

Adults living in the West are more likely to report droughts and wildfires in their local community than those in other regions

% of U.S. adults who say that their local community has experienced each of the following in the past 12 months

	Long periods of unusually hot weather	Severe weather, like floods or intense storms	Droughts or water shortages	Major wildfires	Rising sea levels that erode beaches and shorelines
U.S. adults	45	44	33	18	16
Northeast	42	32	24	10	21
Midwest	39	36	26	7	8
South	45	50	26	10	18
West	53	48	57	46	18

Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Most Americans who have experienced extreme weather events see a connection to climate change

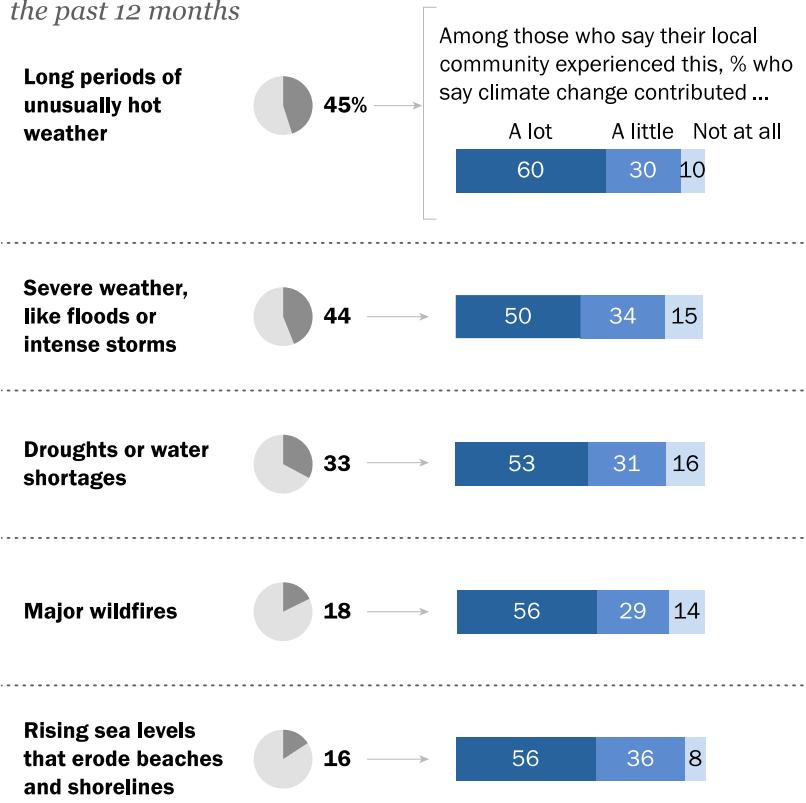
Among adults who report experiencing a form of extreme weather in the last year, most say climate change has contributed a lot or a little to these events.

For example, 90% of adults who have experienced long periods of unusually hot weather in the past year say that climate change contributed a lot (60%) or a little (30%) to this.

Similarly, more than eight-in-ten of those who have experienced coastal erosion, major wildfires, droughts and severe weather like floods or intense storms believe climate change has contributed to these events.

60% of adults who have experienced long periods of unusually hot weather in the past year say climate change contributed a lot

% of U.S. adults who say that their local community has experienced the following in the past 12 months



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

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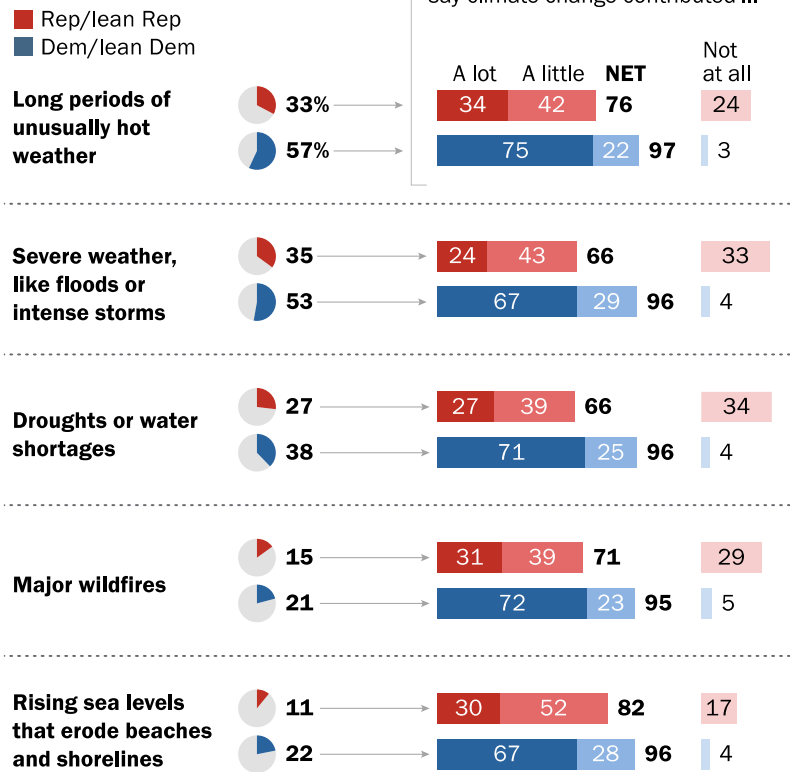
Majorities of Democrats and Republicans who report experiencing extreme weather within the last year believe that climate change has contributed to these events. However, larger majorities of Democrats than Republicans take this view and Democrats are much more likely than Republicans to think climate change has contributed *a lot*.

For instance, nearly all Democrats who have experienced long periods of unusually hot weather in the last year believe climate change has contributed at least a little to this, including 75% who think it has contributed a lot.

Among Republicans who say their community has experienced long periods of unusually hot weather, 76% think climate change has contributed at least a little to this, including 34% who say it has contributed a lot.

Majority of Republicans who report extreme weather experiences in their community say climate change has contributed to these events

% of U.S. adults who say that their local community has experienced the following in the past 12 months



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
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Perceptions of climate change's impact on extreme weather are roughly similar to those measured a year ago in May 2022, the last time the Center asked these questions.

3. Majorities of Americans say too little is being done on key areas of environmental protection

Majorities of Americans say that the federal government is doing too little to protect key areas of the environment.

Overall, 63% of U.S. adults say the federal government is doing too little to protect the quality of lakes, rivers and streams. Just 7% say too much is being done here, while 29% say the federal government is doing about the right amount in this area.

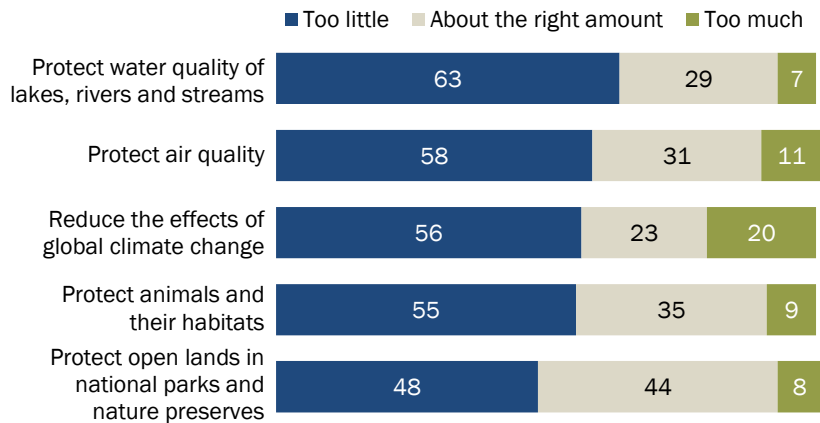
More than half of Americans also say that the federal government is doing too little to protect air quality (58%) and to protect animals and their habitats (55%).

When it comes to federal efforts on climate change, 56% say the government is doing too little on the issue, compared with 20% who say it is doing too much and 23% who say they are doing about the right amount.

About half (48%) think too little is being done to protect open lands in national parks and nature preserves, while 44% think the federal government is doing about the right amount in this area.

Majorities of Americans say the federal government is doing too little to protect water and air quality

% of U.S. adults who say the federal government is doing ___ to ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Majorities of Democrats see room for more federal action in areas of environmental protection

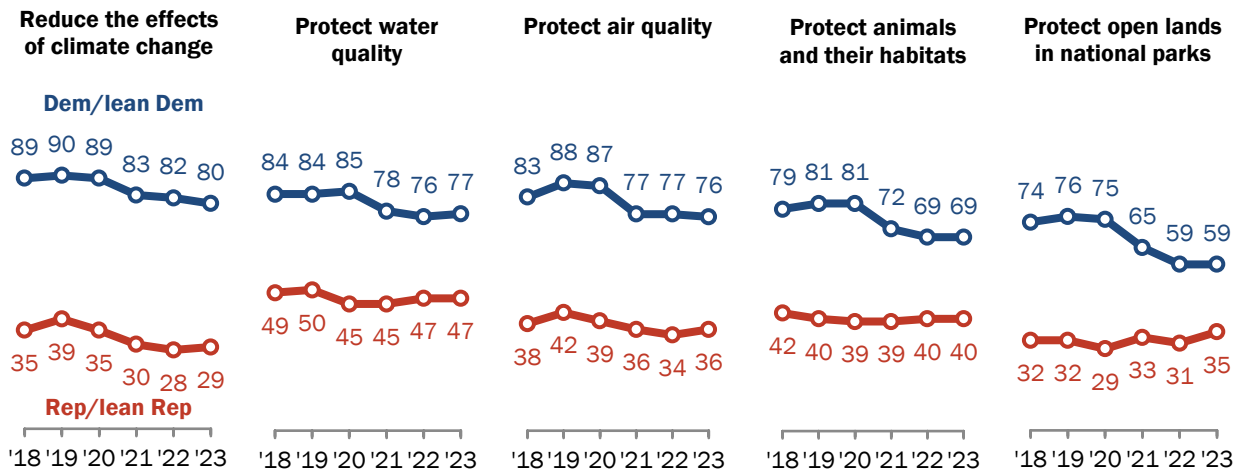
Democrats are much more likely than Republicans to say the federal government is doing too little across all five areas of environmental protection included in the survey.

For example, 77% of Democrats say the federal government is doing too little to protect water quality of lakes, rivers and streams, compared with 47% of Republicans who say the same.

The largest gap seen on this set of questions is over the federal role on climate change: 80% of Democrats say too little is being done here. By contrast, Republicans are more likely to say the federal government is doing too much (39%) rather than too little (29%) to reduce the effects of climate change.

Republicans and Democrats continue to be far apart in views of the federal government’s efforts protecting the environment

% of U.S. adults who say the federal government is doing *too little* to ...



Note: Respondents who gave other responses or did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Within the GOP, there are differences by political ideology over the federal government’s role in environmental protection.

Moderate Republicans are more likely than conservative Republicans to say the federal government is doing too little across each of the five areas included in the survey.

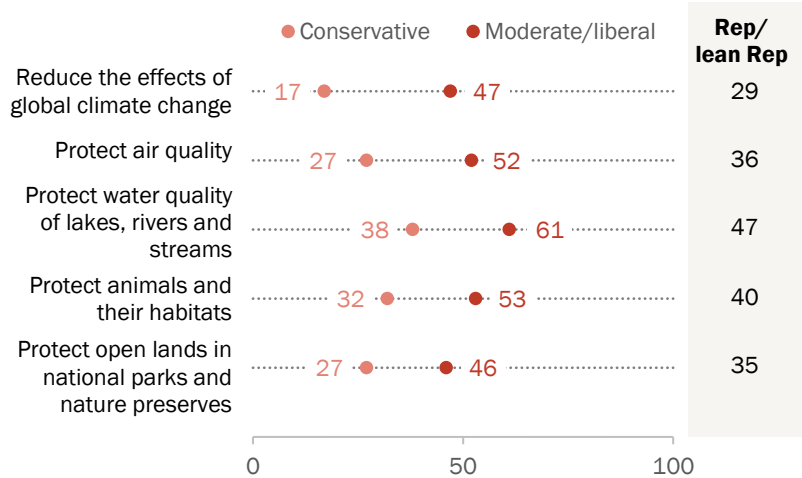
About six-in-ten moderate and liberal Republicans (61%) say the federal government is doing too little to protect lakes, rivers and streams. A smaller share of conservative Republicans hold this view (38%).

On climate change, 47% of moderate and liberal Republicans say too little is being done to reduce the effects of global climate change, compared with just 17% of conservative Republicans who say this.

Among Democrats, majorities of liberals as well as moderates and conservatives say the federal government is doing too little in most areas of environmental concern. Still, there are differences in how widely these views are held, with larger majorities of liberal Democrats saying the federal government is doing too little on environmental issues.

Moderate Republicans more likely than conservative Republicans to say the federal government is doing too little on key environmental protections

*% of Republicans and Republican leaners who say the federal government is doing **too little** to ...*



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted May 30-June 4, 2023.

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Most Americans see a role for the federal government addressing differences in environmental health risks across communities

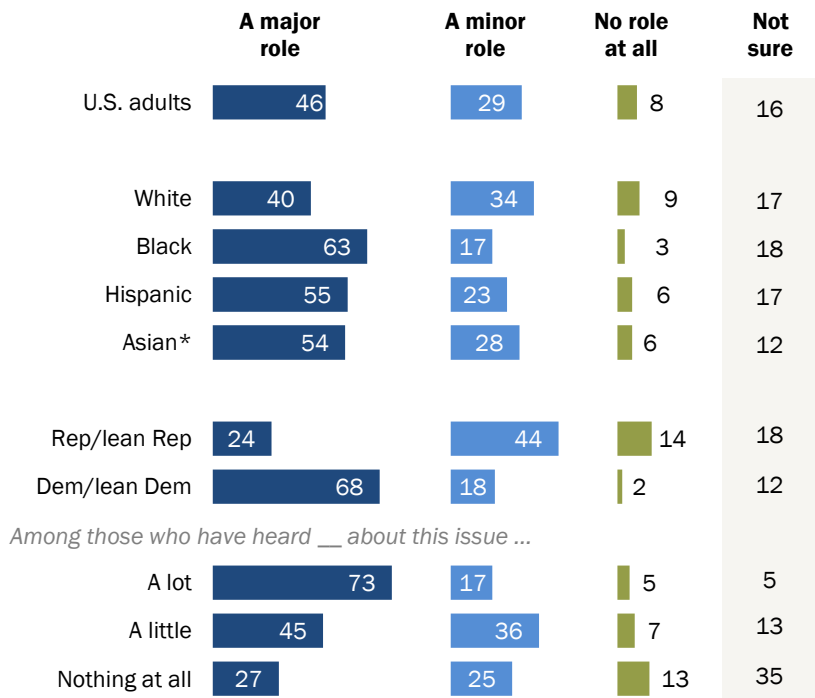
About three-quarters of Americans think the federal government should have a major (46%) or minor (29%) role addressing differences across communities in their health risks from pollution and other environmental problems. A small share (8%) say the government should play no role in this and 16% say they aren't sure.

Environmental factors such as [air and water quality differ across communities](#), as people with lower incomes and racial and ethnic minorities are more likely than others to live in areas with environmental risks.

Democrats are much more likely than Republicans to say the federal government should have a *major* role in this (68% vs. 24%). Still, a majority of Republicans say the government should have a least a minor role.

Majority of Americans think the federal government should have a role addressing differences in environmental health risks across communities

% of U.S. adults who say the federal government should have ___ in addressing differences across communities in their health risks from pollution and other environmental problems



* Estimates for Asian adults are representative of English speakers only.
 Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanic adults are of any race.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

Black, Hispanic and English-speaking Asian adults are more likely than White adults to say the federal government should play a major role in this issue. There are only modest differences by level of income, with majorities across groups supporting at least a minor role for the federal government addressing differences across communities in their environmental health risks.

Americans are generally aware of issues regarding disparities in environmental quality across communities: 77% say they have heard a lot or a little about this, compared with 22% who say they have not heard about this issue.

Those who say they are most familiar with the issue of different environmental health risks across communities are the most supportive of a federal role. Among those who have heard *a lot* about this issue, 73% say the federal government should play a *major* role addressing differences across communities in their health risks from pollution and other environmental problems.

Republicans and Democrats remain far apart over the value of environmental laws and regulations

Just over half (53%) of Americans say stricter environmental laws and regulations are worth the cost while slightly fewer (45%) say they cost too many jobs and hurt the economy.

Views on this question have changed little in the last two years, but positive views of environmental laws remain lower than in September 2019, when 65% said they were worth the cost.

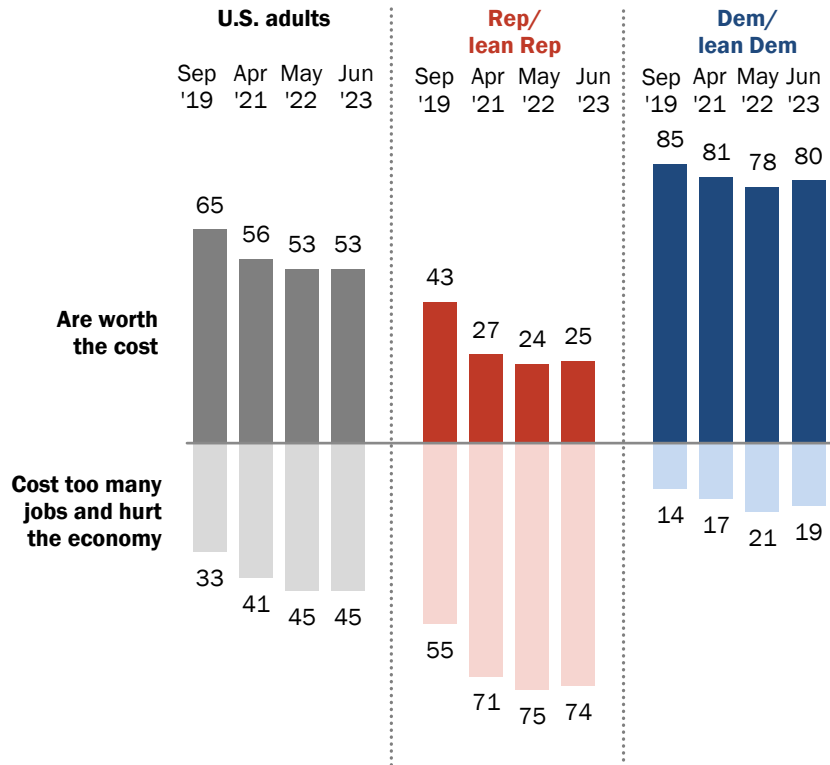
Eight-in-ten Democrats and Democratic leaners view environmental laws as worth the cost. By contrast, just 25% of Republicans and Republican leaners say this, while 74% say they cost too many jobs and hurt the economy.

Ratings of the impact of environmental laws among Republicans turned more

negative between September 2019 and April 2021, a period of time with a change in presidential administrations. This shift in views among Republicans drove the overall decline in public assessments of the value of environmental laws seen in that period.

80% of Democrats say environmental laws are worth the cost; majority of Republicans say economic costs outweigh the benefits

% of U.S. adults who say stricter environmental laws and regulations ...



Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
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Views of environmental laws differ by ideology within both parties.

Among Republicans and Republican leaners, 83% of conservatives say stricter environmental cost too many jobs and hurt the economy. This view is less widely held among moderate and liberal Republicans: 59% say environmental laws cost too many jobs and hurt the economy, compared with 40% who say they are worth the cost.

Among Democrats and Democratic leaners, 91% of liberals view stricter environmental laws as worth the cost. Among moderate and conservative Democrats, 70% say this while 29% think they cost too many jobs and hurt the economy.

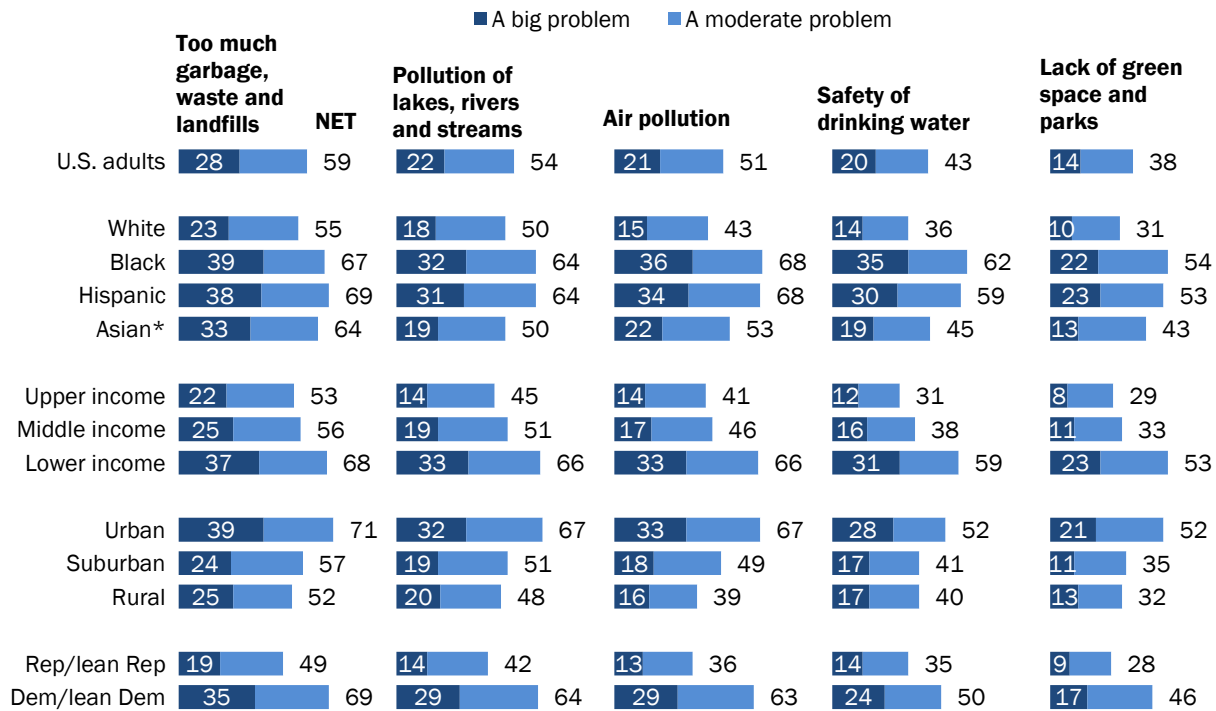
Which environmental problems do Americans see in their local area?

Many Americans see environmental problems in their own local communities, as adults with lower incomes and Black and Hispanic adults are especially likely to see problems in their area. Urban residents are also more likely to perceive environmental problems in their communities than those in suburban or rural areas.

Among all U.S. adults, 59% say their local community has a big or moderate problem with too much garbage and landfills; 54% say they have a big or moderate problem with the pollution of lakes, rivers and streams in their area. Roughly half (51%) say air pollution in their area is at least a moderate problem, while 43% say this about the safety of drinking water and 38% describe the lack of green space and parks in their community as a big or moderate problem.

Lower-income adults especially likely to report environmental problems in their local community

% of U.S. adults who say ___ is a **big/moderate problem** in their local community



* Estimates for Asian adults are representative of English speakers only.

Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanic adults are of any race. Family income tiers are based on adjusted 2021 earnings. Source: Survey of U.S. adults conducted May 30-June 4, 2023.

"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

Majorities of lower-income adults say most of the environmental problems in the survey are at least a moderate problem in their community. For instance, 66% of lower-income adults view air pollution as a big or moderate problem in their community and 59% say this about the safety of drinking water. Smaller shares of middle- and upper-income adults see specific environmental problems in their area.

Black and Hispanic adults are more likely than White adults to say each type of environmental problem is a big or moderate problem in their local communities. The largest differences are seen for the problems of safe drinking water and air pollution. For example, 62% of Black adults and 59% of Hispanic adults say the safety of drinking water is at least a moderate problem in their area, compared with 36% of White adults. Perceptions of local environmental issues among English-speaking Asian adults generally fall between those of White adults and Black and Hispanic adults. The survey sample primarily includes English-speaking Asian adults and, therefore, may not be representative of the overall Asian adult population.

Across community types, majorities of urban residents view too much garbage and landfills (71%), pollution of lakes, rivers and streams (67%) and air pollution (67%) as big or moderate problems in their community. While many in suburban and rural areas also report these issues, they do so at significantly lower rates. For example, 49% of people who live in suburban areas and 39% of those in rural areas say air pollution is at least a moderate problem where they live.

Acknowledgments

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pewresearch.org/science.

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Methodology

The American Trends Panel survey methodology

Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from ATP Wave 128, conducted from May 30 to June 4, 2023, and includes an [oversample](#) of Hispanic, non-Hispanic Asian, non-Hispanic Black, and 18- to 29-year-old adults in order to provide more precise estimates of the opinions and experiences of these smaller demographic subgroups. These oversampled groups are weighted back to reflect their correct proportions in the population.

A total of 10,329 panelists responded out of 12,178 who were sampled, for a response rate of 85%. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 3%. The break-off rate among panelists who logged on to the survey and completed at least one item is 2%. The margin of sampling error for the full sample of 10,329 respondents is plus or minus 1.5 percentage points.

American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	1,498
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	879
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	432
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	4,113
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,465
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,541
May 29 to July 7, 2021; Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	785
May 24 to Sept. 29, 2022	ABS	3,354	2,869	1,691
	Total	42,894	30,283	12,404

Note: RDD is random-digit dial; ABS is address-based sampling. Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to address-based recruitment. Invitations were sent to a stratified, random sample of households selected from the U.S. Postal Service's Delivery Sequence File. Sampled households receive mailings asking a randomly selected adult to complete a survey online. A question at the end of the survey asks if the respondent is willing to join the ATP. In 2020 and 2021 another stage was added to the recruitment. Households that did not respond to the online survey were sent a paper version of the questionnaire, \$5 and a postage-paid return envelope. A subset of the adults who returned the paper version of the survey were invited to join the ATP. This subset of adults received a follow-up mailing with a \$10 pre-incentive and invitation to join the ATP.

Across the five address-based recruitments, a total of 23,176 adults were invited to join the ATP, of whom 20,341 agreed to join the panel and completed an initial profile survey. In each household, one adult was selected and asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 30,283 individuals who have ever joined the ATP, 12,404 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service's Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.¹ The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

Sample design

The overall target population for this survey was noninstitutionalized persons ages 18 and older living in the U.S., including Alaska and Hawaii. It featured a stratified random sample from the ATP in which Hispanic, non-Hispanic Asian, non-Hispanic Black and 18- to 29-year-old adults were selected with certainty. The remaining panelists were sampled at rates designed to ensure that the share of respondents in each stratum is proportional to its share of the U.S. adult

¹ AAPOR Task Force on Address-based Sampling. 2016. "[AAPOR Report: Address-based Sampling](#)."

population to the greatest extent possible. Respondent weights are adjusted to account for differential probabilities of selection as described in the Weighting section below.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated test data that was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

Incentives

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

Data collection protocol

The data collection field period for this survey was May 30 to June 4, 2023. Postcard notifications were mailed to all ATP panelists with a known residential address on May 30.

Invitations were sent out in two separate launches: soft launch and full launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on May 30. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking sampled panelists were included in the full launch and were sent an invitation on May 31.

Invitation and reminder dates, ATP Wave 128

	Soft launch	Full launch
Initial invitation	May 30, 2023	May 31, 2023
First reminder	June 2, 2023	June 2, 2023
Final reminder	June 4, 2023	June 4, 2023

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All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists who consented to SMS messages received an SMS invitation and up to two SMS reminders.

Data quality checks

To ensure high-quality data, the Center’s researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, 19 respondents were removed from the survey dataset. An additional 70 respondents were removed from the survey due to a sample loading error which occurred during survey launch. All 89 ATP respondents were excluded from the data prior to weighting and analysis.

Weighting

The ATP data is weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at

different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey. These weights are then rescaled and adjusted to account for changes in the design of ATP recruitment surveys from year to year.

Finally, the weights are calibrated to align with the population benchmarks in the accompanying table to correct for nonresponse to recruitment surveys and panel attrition. If only a subsample of panelists was invited to participate in the wave, this weight is adjusted to account for any differential probabilities of selection.

Among the panelists who completed the survey, this weight is then calibrated again to align with the population benchmarks identified in the accompanying table and trimmed at the 1st and 99th

American Trends Panel weighting dimensions

Variable	Benchmark source
Age (detailed)	2021 American Community Survey (ACS)
Age x Gender	
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Census region x Metro/Non-metro	2021 CPS March Supplement
Volunteerism	2021 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation	2022 National Public Opinion Reference Survey (NPORS)
Frequency of internet use	
Religious affiliation	
<i>Additional weighting dimensions applied within Black adults</i>	
Age	2021 American Community Survey (ACS)
Gender	
Education	2018 CPS Voting and Registration Supplement
Hispanic ethnicity	
Voter registration	
Party affiliation	
Religious affiliation	

Note: Estimates from the ACS are based on noninstitutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population.

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percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and tests of statistical significance take into account the effect of weighting.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

Sample sizes and margins of error, ATP Wave 128

Group	Unweighted sample size	Plus or minus ...
Total sample	10,329	1.5 percentage points
Rep/lean Rep	4,716	2.1 percentage points
Dem/lean Dem	5,336	2.1 percentage points
Conservative Rep	3,158	2.6 percentage points
Mod/lib Rep	1,510	3.7 percentage points
Mod/cons Dem	2,657	3.0 percentage points
Liberal Dem	2,601	2.9 percentage points

Note: This survey includes oversamples of Hispanic, non-Hispanic Asian, non-Hispanic Black, and 18- to 29-year-old adults. Unweighted sample sizes do not account for the sample design or weighting and do not describe a group's contribution to weighted estimates. Refer to the Sample design and Weighting sections above for details.

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Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Dispositions and response rates

Final dispositions, ATP Wave 128

	AAPOR code	Total
Completed interview	1.1	10,329
Logged on to survey; broke off	2.12	186
Logged on to survey; did not complete any items	2.1121	100
Never logged on (implicit refusal)	2.11	1,467
Survey completed after close of the field period	2.27	7
Completed interview but was removed for data quality		89
Screened out		0
Total panelists sampled for the survey		12,178
Completed interviews	I	10,330
Partial interviews	P	0
Refusals	R	1,753
Non-contact	NC	7
Other	O	89
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		12,178
AAPOR RR1 = $I / (I+P+R+NC+O+UH+UO)$		85%
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Cumulative response rate as of ATP Wave 128

	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	71%
% of those agreeing to join who were active panelists at start of Wave 128	48%
Response rate to Wave 128 survey	85%
Cumulative response rate	3%
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Adjusting income and defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2021 family incomes were adjusted for differences in purchasing power by geographic region and household size. "Middle-income" adults live in families with annual incomes that are two-thirds to double the median family income in the panel (after incomes have been adjusted for the local cost of living and household size). The middle-income range for the American Trends Panel is about \$43,800 to \$131,500 annually for an average family of three. Lower-income families have incomes less than roughly \$43,800, and upper-income families have incomes greater than roughly \$131,500 (all figures are expressed in 2021 dollars).

Based on these adjustments, 29% of respondents in Wave 128 are lower income, 47% are middle income and 18% fall into the upper-income tier. An additional 6% either didn't offer a response to the income question or the household size question.

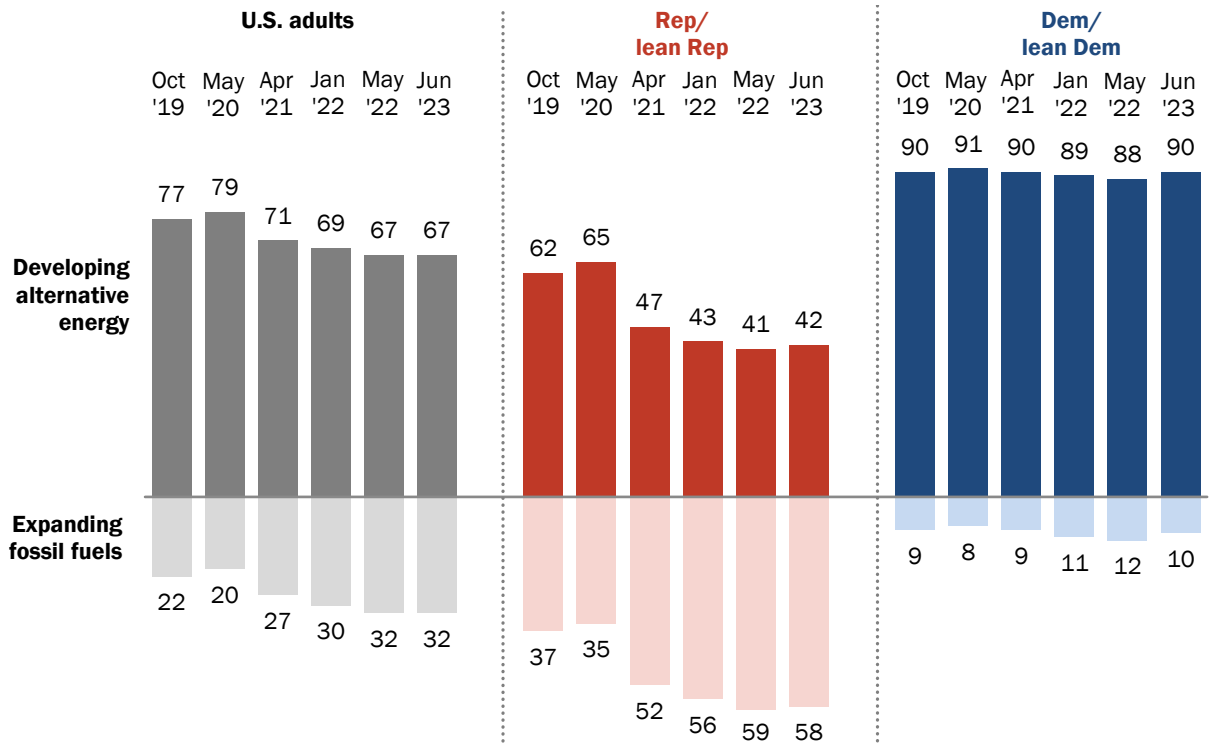
Here is more information about [how the income tiers were determined](#).

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Appendix: Detailed charts on climate, energy, environment

Two-thirds of Americans support prioritizing developing renewable energy sources such as wind and solar

% of U.S. adults who say the more important priority for addressing America's energy supply should be ...



Note: Respondents who did not give an answer are not shown.

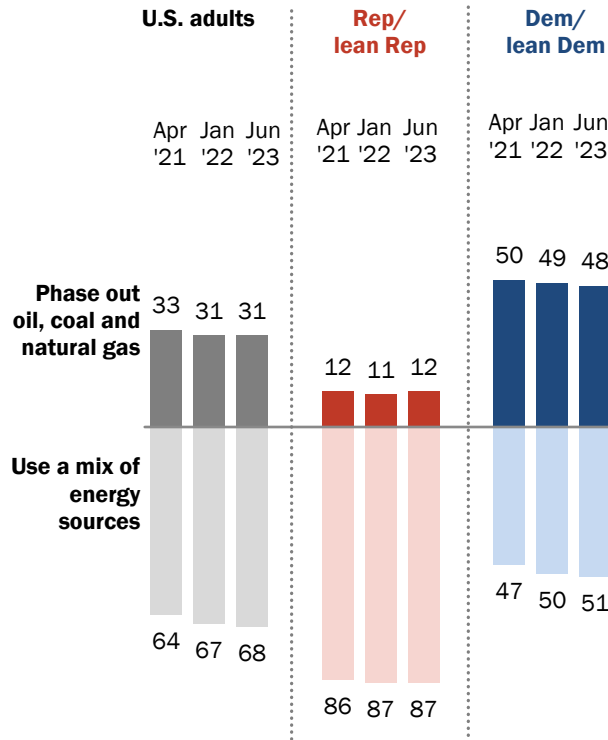
Source: Survey of U.S. adults conducted May 30-June 4, 2023.

“Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

PEW RESEARCH CENTER

Most Republicans continue to say the U.S. should use a mix of energy sources

% of U.S. adults who say the U.S. should ...

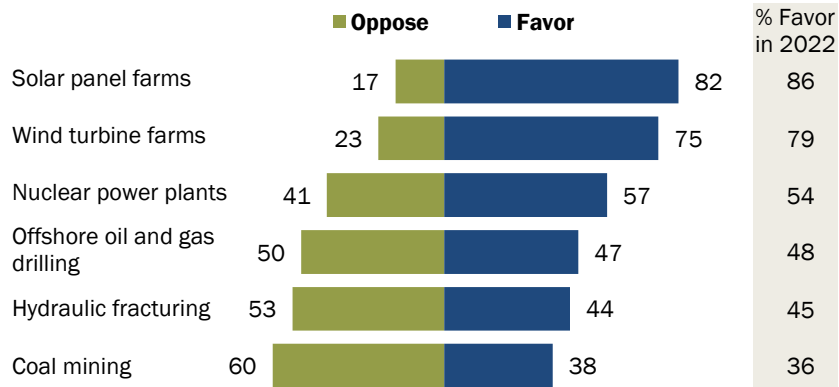


Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 “Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change”

PEW RESEARCH CENTER

Large majorities in U.S. continue to support more wind and solar power, but support for both down slightly

% of U.S. adults who say they ___ expanding each energy source



Note: Respondents who did not give an answer are not shown.

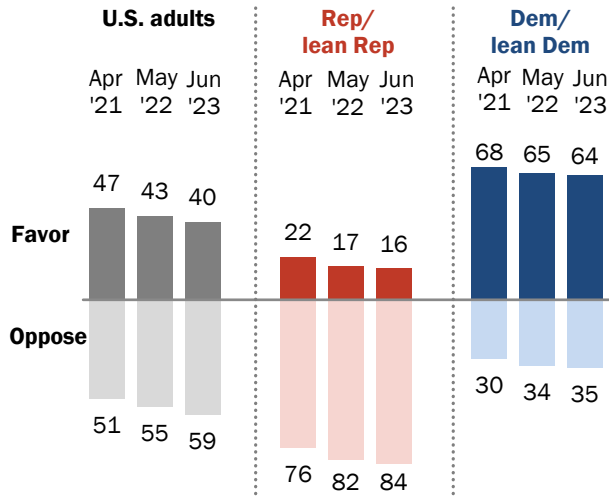
Source: Survey of U.S. adults conducted May 30-June 4, 2023.

"Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

PEW RESEARCH CENTER

Support for phasing out gasoline cars and trucks by 2035 has lowered over the past two years

% of U.S. adults who say they ___ phasing out the production of new gasoline cars and trucks by 2035

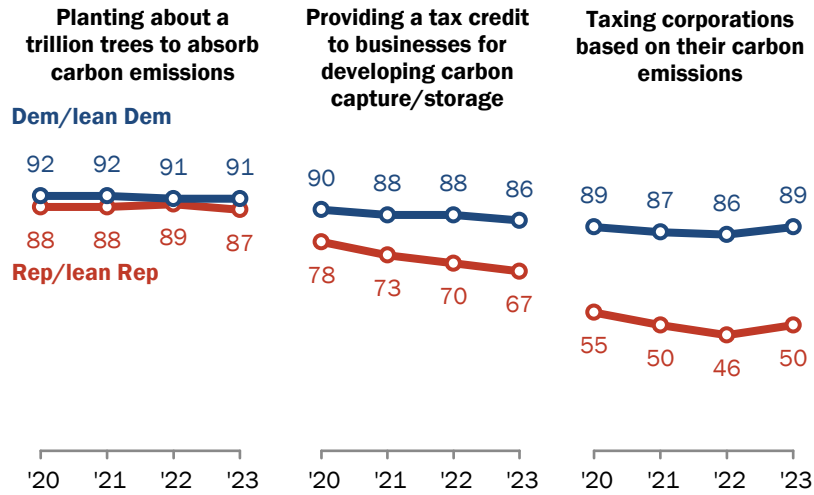


Note: Respondents who did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-June 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

PEW RESEARCH CENTER

Majority of Republicans favor a business tax credit for developing carbon capture technology, but support has declined in recent years.

% who say they favor the following proposals to reduce the effects of climate change



Note: Respondents who gave other responses or did not give an answer are not shown.
 Source: Survey of U.S. adults conducted May 30-Jun. 4, 2023.
 "Majorities of Americans Prioritize Renewable Energy, Back Steps to Address Climate Change"

PEW RESEARCH CENTER

Survey question wording and topline

**2023 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 128 – SCIENCE TOPLINE
May 30-June 4, 2023
N=10,329**

ASK ALL:

ENV2 Do you favor or oppose EXPANDING each of the following sources of energy in our country?
[RANDOMIZE ITEMS]

	<u>Favor</u>	<u>Oppose</u>	<u>No answer</u>
a. More offshore oil and gas drilling in U.S. waters			
May 30-Jun 4, 2023	47	50	2
May 2-8, 2022	48	50	2
Apr 20-29, 2021	43	55	3
Apr 29-May 5, 2020	40	58	2
Oct 1-13, 2019	42	56	1
Mar 27-Apr 9, 2018	39	60	1
May 10-Jun 6, 2016	45	52	3
b. More nuclear power plants to generate electricity			
May 30-Jun 4, 2023	57	41	2
May 2-8, 2022	54	44	2
Apr 20-29, 2021	50	47	3
Apr 29-May 5, 2020	43	55	2
Oct 1-13, 2019	49	49	2
Mar 27-Apr 9, 2018	44	54	2
May 10-Jun 6, 2016	43	54	3
c. More coal mining			
May 30-Jun 4, 2023	38	60	2
May 2-8, 2022	36	62	2
Apr 20-29, 2021	36	61	3
Apr 29-May 5, 2020	33	65	2
Oct 1-13, 2019	35	63	2
Mar 27-Apr 9, 2018	37	61	2
May 10-Jun 6, 2016	41	57	3
d. More solar panel "farms"			
May 30-Jun 4, 2023	82	17	1
May 2-8, 2022	86	13	1
Apr 20-29, 2021	84	14	2
Apr 29-May 5, 2020	90	9	1
Oct 1-13, 2019	92	8	1
Mar 27-Apr 9, 2018	89	10	1
May 10-Jun 6, 2016	89	9	2

ENV2 CONTINUED ...

	<u>Favor</u>	<u>Oppose</u>	<u>No answer</u>
e. More hydraulic fracturing, sometimes called "fracking," for oil and natural gas			
May 30-Jun 4, 2023	44	53	2
May 2-8, 2022	45	53	3
Apr 20-29, 2021	41	56	3
Apr 29-May 5, 2020	37	60	3
Oct 1-13, 2019	38	60	2
Mar 27-Apr 9, 2018	39	58	2
May 10-Jun 6, 2016	42	53	5
f. More wind turbine "farms"			
May 30-Jun 4, 2023	75	23	1
May 2-8, 2022	79	19	1
Apr 20-29, 2021	77	20	2
Apr 29-May 5, 2020	83	16	2
Oct 1-13, 2019	85	14	1
Mar 27-Apr 9, 2018	85	13	2
May 10-Jun 6, 2016	83	14	3

ASK ALL:

EN1

Right now, which ONE of the following do you think should be the more important priority for addressing America's energy supply? **[RANDOMIZE ORDER OF RESPONSE OPTIONS 1 AND 2]**

	<u>Developing alternative sources, such as wind, solar and hydrogen technology</u>	<u>Expanding exploration and production of oil, coal and natural gas</u>	<u>No answer</u>
May 30-Jun 4, 2023	67	32	1
May 2-8, 2022	67	32	1
Jan 24-30, 2022	69	30	1
Apr 20-29, 2021	71	27	1
Apr 29-May 5, 2020	79	20	1
Oct 1-13, 2019	77	22	1

TREND FOR COMPARISON:

Pew Research Center survey conducted by telephone: Right now, which ONE of the following do you think should be the more important priority for addressing America's energy supply **[READ AND RANDOMIZE]**?

	Developing alternative sources such as wind, solar and hydrogen <u>technology</u>	Expanding exploration and production of oil, coal and natural <u>gas</u>	(VOL.) Both should be given equal priority	(VOL.) DK/Ref
Jan 4-9, 2017	65	27	5	3
Dec 3-7, 2014	60	30	5	4
Feb 12-26, 2014	65	28	5	2
Sep 4-8, 2013	58	34	6	3
Feb 13-18, 2013	54	34	7	4
Oct 24-28, 2012	47	39	9	5
Mar 7-11, 2012	52	39	5	4
Feb 22-Mar 1, 2011	63	29	6	2

ASK ALL:

EN2 Thinking about the country's energy supply, do you think the U.S. should...
[RANDOMIZE ORDER OF RESPONSE 1 AND 2]

	Phase out the use of oil, coal and natural gas completely, relying instead on renewable energy sources such as wind and <u>solar power only</u>	Use a mix of energy sources including oil, coal and natural gas along with renewable <u>energy sources</u>	No answer
May 30-Jun 4, 2023	31	68	1
Jan 24-30, 2022	31	67	2
Apr 20-29, 2021	33	64	2

ASK IF "USE A MIX" (EN2=2) [N=7,151]:

EN3 And do you think that ... **[RANDOMIZE RESPONSE OPTIONS]**

May 30- Jun 4, <u>2023</u>	52	The country should never stop using oil, coal and natural gas
	47	The country should eventually stop using oil, coal and natural gas, but we aren't ready yet
	1	No answer

ASK ALL:

NRGPROB

If the U.S. greatly reduces energy production from fossil fuel sources such as oil, coal and natural gas, and increases energy production from renewable sources such as wind and solar...

How likely do you think it is that this transition would lead to unexpected problems for the country?

	<u>Very likely</u>	<u>Somewhat likely</u>	<u>Not too likely</u>	<u>Not at all likely</u>	<u>No answer</u>
May 30-Jun 4, 2023	34	38	23	3	1
Jan 24-30, 2022	30	40	25	4	1

ASK ALL:

Thinking about life in this country over the next 30 years...

NRGTRNST

If the U.S. greatly reduces energy production from fossil fuel sources such as oil, coal and natural gas, and increases production from renewable sources such as wind and solar, how do you think it would impact each of the following in your local area?

[RANDOMIZE ITEMS]

	<u>Make better</u>	<u>Make worse</u>	<u>Not have much of an effect</u>	<u>No answer</u>
a. The reliability of the electrical grid				
May 30-Jun 4, 2023	32	38	29	2
Jan 24-30, 2022	38	31	29	2
b. Job opportunities in the energy sector				
May 30-Jun 4, 2023	49	25	25	1
Jan 24-30, 2022	56	20	23	1
c. The prices you pay to heat and cool your home				
May 30-Jun 4, 2023	37	42	20	1
Jan 24-30, 2022	39	39	20	1
d. The prices you pay for everyday goods				
May 30-Jun 4, 2023	25	44	29	1
Jan 24-30, 2022	29	40	30	1
e. Air and water quality				
May 30-Jun 4, 2023	59	11	30	1
Jan 24-30, 2022	63	8	28	1
f. The frequency of extreme weather events				
May 30-Jun 4, 2023	33	13	53	1
Jan 24-30, 2022	37	11	50	1

ASK ALL:

NRGINDEP

If the U.S. greatly reduces energy production from fossil fuel sources such as oil, coal and natural gas, and increases production from renewable sources such as wind and solar... **[SPACE]**

Would it make it easier or harder for the U.S. to produce most of the energy it uses inside of the country?

May 30-

Jun 4,

2023

43

Easier

40

Harder

15

Not have much of an effect

1

No answer

ASK ALL:

WILLOWHRD

The Biden administration recently approved the Willow oil-drilling project in Alaska. How much have you heard or read about the Willow project?

May 30-

Jun 4,

2023

3

A lot

29

A little

68

Nothing at all

<1

No answer

ASK ALL:

WILLOWPJT

Do you favor or oppose the Willow project to drill for oil in Alaska?

May 30-

Jun 4,

2023

14

Strongly favor

14

Somewhat favor

14

Somewhat oppose

12

Strongly oppose

46

Not sure

<1

No answer

TREND FOR COMPARISON:

ARCTIC

Do you favor or oppose allowing oil and gas drilling in the Arctic National Wildlife Refuge in Alaska?

Apr 20-29,

2021

27

Favor

70

Oppose

3

No answer

ASK ALL:

EVCAR3

Do you favor or oppose phasing out the production of new gasoline cars and trucks by the year 2035?

	<u>Favor</u>	<u>Oppose</u>	<u>No answer</u>
May 30-Jun 4, 2023	40	59	1
May 2-8, 2022	43	55	2
Apr 20-29, 2021	47	51	3

ASK ALL:

EVEMOT

How would you feel if the U.S. phased out the production of new gasoline cars and trucks? **[RANDOMIZE OPTIONS 1 AND 2]**May 30-
Jun 4,
2023

21	Excited
45	Upset
33	Neutral
1	No answer

ASK ALL:

EVEREAD

How confident are you that the U.S. will build the charging stations and infrastructure needed to support large numbers of electric vehicles on the roads? **[RANDOMIZE ORDER OF RESPONSE OPTIONS 1-5 AND 5-1 FOR RANDOM HALF SAMPLE]**May 30-
Jun 4,
2023

5	Extremely confident
12	Very confident
30	Somewhat confident
26	Not too confident
27	Not at all confident
<1	No answer

ASK ALL:

LAWCOST

Which of these statements comes closer to your view, even if neither is exactly right? **[RANDOMIZE ORDER OF RESPONSE 1 AND 2]**

	Stricter environmental laws and regulations cost too many jobs and <u>hurt the economy</u>	Stricter environmental laws and regulations are <u>worth the cost</u>	<u>No answer</u>
May 30-Jun 4, 2023	45	53	2
May 2-8, 2022	45	53	2
Apr 20-29, 2021	41	56	3
Sep 3-15, 2019	33	65	2

TREND FOR COMPARISON:

Pew Research Center survey conducted by telephone: Which statement comes closer to your views, even if neither is exactly right? **[READ AND RANDOMIZE]**?

	<i>Stricter environmental laws and regulations cost too many jobs and hurt the economy</i>	<i>Stricter environmental laws and regulations are worth the cost</i>	(VOL.) <i>Both/Neither/DK /Ref</i>
Sep 5-16, 2019	35	61	5
Jan 9-14, 2019	30	63	6
Jun 8-Jul 9, 2017	37	59	5
Nov 30-Dec 5, 2016	34	59	7
Aug 23-Sep 2, 2016	39	54	7
Aug 27-Oct 4, 2015	36	59	4
Jan 23-Mar 16, 2014	39	56	5
Feb 22-Mar 14, 2011	39	53	7
November, 2007	27	63	10
July, 2006	31	57	12
March, 2006	29	65	6
December, 2005	37	56	7
December, 2004	31	60	9
September, 2000	31	61	8
August, 1999	28	65	7
October, 1996	30	63	7
October, 1995	35	61	4
April, 1995	39	57	4
October, 1994	32	62	6
July, 1994	33	62	5

ASK ALL:

ENVIR8

How much do you think the federal government is doing to... **[RANDOMIZE ITEMS]**

	<u>Too much</u>	<u>Too little</u>	<u>About the right amount</u>	<u>No answer</u>
a. Protect air quality				
May 30-Jun 4, 2023	11	58	31	1
May 2-8, 2022	8	58	33	1
Apr 20-29, 2021	9	59	31	1
Apr 29-May 5, 2020	4	65	30	1
Oct 1-13, 2019	4	67	28	1
Mar 27-Apr 9, 2018	8	64	27	1
b. Protect water quality of lakes, rivers and streams				
May 30-Jun 4, 2023	7	63	29	1
May 2-8, 2022	5	63	31	1
Apr 20-29, 2021	6	63	30	1
Apr 29-May 5, 2020	3	67	29	1
Oct 1-13, 2019	4	68	27	1
Mar 27-Apr 9, 2018	6	69	24	1
c. Protect animals and their habitats				
May 30-Jun 4, 2023	9	55	35	1
May 2-8, 2022	8	56	35	1
Apr 20-29, 2021	9	57	33	1
Apr 29-May 5, 2020	6	62	32	1
Oct 1-13, 2019	7	62	31	1
Mar 27-Apr 9, 2018	9	63	27	1
d. Protect open lands in national parks and nature preserves				
May 30-Jun 4, 2023	8	48	44	1
May 2-8, 2022	8	47	44	1
Apr 20-29, 2021	7	51	41	1
Apr 29-May 5, 2020	5	54	40	1
Oct 1-13, 2019	5	55	39	1
Mar 27-Apr 9, 2018	8	57	34	1
e. Reduce the effects of global climate change				
May 30-Jun 4, 2023	20	56	23	1
May 2-8, 2022	18	58	22	1
Apr 20-29, 2021	18	59	22	1
Apr 29-May 5, 2020	9	65	25	1
Oct 1-13, 2019	10	67	23	1
Mar 27-Apr 9, 2018	13	67	19	1

ASK ALL:

LOCENV

How much of a problem, if at all, do you think each of the following is in your local community? **[RANDOMIZE ITEMS]**

		<u>A big problem</u>	<u>A moderate problem</u>	<u>A small problem</u>	<u>Not a problem</u>	<u>No answer</u>
a.	Air pollution					
	May 30-Jun 4, 2023	21	29	27	22	<1
	May 2-8, 2022	20	29	28	22	1
	Apr 20-29, 2021	22	30	27	20	1
b.	Pollution of lakes, rivers and streams					
	May 30-Jun 4, 2023	22	32	29	16	1
	May 2-8, 2022	24	31	29	14	1
	Apr 20-29, 2021	26	33	26	13	<1
c.	Safety of drinking water					
	May 30-Jun 4, 2023	20	24	25	31	<1
	May 2-8, 2022	16	25	24	34	<1
	Apr 20-29, 2021	17	24	24	35	1
d.	Too much garbage, waste and landfills					
	May 30-Jun 4, 2023	28	31	23	18	1
	May 2-8, 2022	27	32	23	17	1
	Apr 20-29, 2021	29	34	22	15	1
e.	Lack of greenspace and parks					
	May 30-Jun 4, 2023	14	24	25	36	<1
	May 2-8, 2022	13	25	27	35	1
	Apr 20-29, 2021	15	25	26	34	1

ASK ALL:

ENVJUST1

How much have you heard or read about some communities in the U.S. facing greater health risks from pollution and other environmental problems than others?

May 30-
Jun 4,
2023

19	A lot
58	A little
22	Nothing at all
<1	No answer

ASK ALL:

ENVJUST2

How much of a role do you think the federal government should have in addressing differences across communities in their health risks from pollution and other environmental problems?

May 30-
Jun 4,
2023

46	A major role
29	A minor role
8	No role at all
16	Not sure
<1	No answer

ASK ALL:

ENVRMPCT

In the past 12 months, has your local community experienced the following?
[RANDOMIZE ITEMS]

	<u>Yes</u>	<u>No</u>	<u>No answer</u>
a. Droughts or water shortages			
May 30-Jun 4, 2023	33	67	<1
May 2-8, 2022	31	69	1
b. Long periods of unusually hot weather			
May 30-Jun 4, 2023	45	55	<1
May 2-8, 2022	42	57	1
c. Severe weather, like floods or intense storms			
May 30-Jun 4, 2023	44	56	<1
May 2-8, 2022	43	57	<1
d. Rising sea levels that erode beaches and shorelines			
May 30-Jun 4, 2023	16	83	1
May 2-8, 2022	16	83	1
e. Major wildfires			
May 30-Jun 4, 2023	18	82	<1
May 2-8, 2022	21	78	<1

ASK IF EXPERIENCED EVENT (ENVRMPCTa-e=1):

CCXTRW1 In the past 12 months, how much do you think climate change contributed to the following in your local community? **[DISPLAY ITEMS IN SAME ORDER AS ENVRMPCT, ONLY SHOW ITEMS MARKED AS YES (ENVRMPCTa-e=1)]**

		<u>A lot</u>	<u>A little</u>	<u>Not at all</u>	<u>No answer</u>
ASK IF EXPERIENCED (ENVRMPCTa=1) [N=3,340]:					
a.	Droughts or water shortages				
	May 30-Jun 4, 2023	53	31	16	<1
	May 2-8, 2022	54	32	13	<1
ASK IF EXPERIENCED (ENVRMPCTb=1) [N=4,736]:					
b.	Long periods of unusually hot weather				
	May 30-Jun 4, 2023	60	30	10	<1
	May 2-8, 2022	61	30	8	<1
ASK IF EXPERIENCED (ENVRMPCTc=1) [N=4,590]:					
c.	Severe weather, like floods or intense storms				
	May 30-Jun 4, 2023	50	34	15	<1
	May 2-8, 2022	49	35	15	<1
ASK IF EXPERIENCED (ENVRMPCTd=1) [N=1,823]:					
d.	Rising sea levels that erode beaches and shorelines				
	May 30-Jun 4, 2023	56	36	8	<1
	May 2-8, 2022	58	36	6	<1
ASK IF EXPERIENCED (ENVRMPCTe=1) [N=1,670]:					
e.	Major wildfires				
	May 30-Jun 4, 2023	56	29	14	<1
	May 2-8, 2022	58	28	13	<1

ASK ALL:

EWRESPONSE Do you think it is a good or bad idea for the federal government to do each of the following? **[RANDOMIZE ITEMS]**

		<u>Good idea</u>	<u>Bad idea</u>	<u>Not sure</u>	<u>No answer</u>
	ASK FORM 1 ONLY				
	[N=5,148]:				
HELP	Provide financial assistance for communities to relocate from areas at high risk of extreme weather				
	May 30-Jun 4, 2023	47	24	29	<1
	ASK FORM 2 ONLY				
	[N=5,181]:				
REQUIRE	Require communities to relocate from areas at high risk of extreme weather				
	May 30-Jun 4, 2023	29	33	38	<1
REBUILD	Provide financial assistance for communities in high risk areas to rebuild after extreme weather events				
	May 30-Jun 4, 2023	53	24	23	<1
LIMIT	Limit new construction in communities at high risk of extreme weather				
	May 30-Jun 4, 2023	54	19	27	<1

ASK ALL:

CLIM1A Which of these three statements about the Earth's temperature comes closest to your view? **[RANDOMIZE RESPONSES 1 AND 2 WITH 3 AND 4 ALWAYS LAST]**

	The Earth is getting warmer mostly because of human activity such as burning <u>fossil fuels</u>	The Earth is getting warmer mostly because of natural patterns in the Earth's <u>environment</u>	There is no solid evidence that the Earth is getting <u>warmer</u>	<u>Not sure</u>	<u>No answer</u>
May 30-Jun 4, 2023	46	26	14	14	<1
Apr 11-17, 2022	53	24	9	13	<1
Sep 3-15, 2019	52	17	21	9	<1
Mar 27-Apr 9, 2018	47	24	13	14	1
Dec 4-18, 2017	49	18	12	21	<1
May 10-Jun 6, 2016	45	26	14	14	1

**ASK ALL:
CCPOLICY**

Do you favor or oppose the following proposals to reduce the effects of global climate change? **[RANDOMIZE ITEMS A, B, C IN ONE BLOCK AND D, E, F IN SECOND BLOCK]**

	<u>Favor</u>	<u>Oppose</u>	<u>No answer</u>
a. Planting about a trillion trees around the world to absorb carbon emissions in the atmosphere			
May 30-Jun 4, 2023	89	10	1
May 2-8, 2022	90	9	1
Apr 20-29, 2021	90	9	2
Apr 29-May 5, 2020	90	9	1
b. Taxing corporations based on the amount of carbon emissions they produce			
May 30-Jun 4, 2023	70	28	2
May 2-8, 2022	68	30	1
Apr 20-29, 2021	70	28	2
Apr 29-May 5, 2020	73	25	1
c. Providing a tax credit to encourage businesses to develop technology which captures and stores carbon emissions so they do not enter the atmosphere			
May 30-Jun 4, 2023	76	21	2
May 2-8, 2022	79	20	1
Apr 20-29, 2021	81	17	2
Apr 29-May 5, 2020	84	15	1
d. Requiring power plants to eliminate all carbon emissions by 2040			
May 30-Jun 4, 2023	61	36	3
e. Requiring oil and gas companies to seal methane gas leaks from oil wells			
May 30-Jun 4, 2023	85	12	3
f. Requiring most new buildings to be run only on electricity with no gas lines			
May 30-Jun 4, 2023	46	51	3

ASK ALL:

BIDENC4

Overall, do you think the Biden administration's policies on climate change are taking the country in the right or wrong direction?

	<u>Right direction</u>	<u>Wrong direction</u>	<u>No answer</u>
May 30-Jun 4, 2023	45	50	5
May 2-8, 2022	49	47	4

ASK FORM 1 AND IF SELECTED RIGHT DIRECTION (XFORM=1 AND BIDENC4=1) [N=2,473]:

BIDENC5

When it comes to the Biden administration's efforts on climate change, which comes closer to your views? **[RANDOMIZE OPTIONS]**

	They have done about as much as can be <u>expected</u>	They could be doing a <u>lot more</u>	<u>No answer</u>
May 30-Jun 4, 2023	40	58	2
May 2-8, 2022	39	59	2

ASK FORM 2 ONLY [N=5,181]:

BIDENC6

On climate change, do you think the Biden administration has... **[RANDOMIZE RESPONSE OPTIONS 1 AND 2 WITH 3 ALWAYS LAST]**

May 30-
Jun 4,
2023

37	Compromised too much
30	Compromised too little
27	Handled this about right
6	No answer

ASK ALL:

CCPROP

Thinking about proposals to reduce the effects of global climate change, how important is each of the following considerations to you personally? **[RANDOMIZE ITEMS]**

	<u>Very important</u>	<u>Somewhat important</u>	<u>Not too important</u>	<u>Not at all important</u>	<u>No answer</u>
a. Getting the U.S. to net-zero carbon emissions as quickly as possible					
May 30-Jun 4, 2023	30	34	19	15	2
Apr 20-29, 2021	34	35	18	11	2
b. Making sure proposals help lower-income communities					
May 30-Jun 4, 2023	42	36	13	7	2
Apr 20-29, 2021	45	36	12	6	1
c. Limiting the burden of regulations on businesses					
May 30-Jun 4, 2023	23	38	25	12	2
Apr 20-29, 2021	24	38	25	11	2
d. Increasing job and economic growth					
May 30-Jun 4, 2023	57	32	7	3	1
Apr 20-29, 2021	60	31	6	2	1
e. Keeping consumer costs low					
May 30-Jun 4, 2023	60	32	5	2	1
Apr 20-29, 2021	52	39	7	2	1
f. Protecting the quality of the environment for future generations					
May 30-Jun 4, 2023	65	27	5	2	1
Apr 20-29, 2021	64	28	4	2	1

ASK ALL:

CCINTL

Do you support or oppose the U.S. participating in international efforts to help reduce the effects of global climate change?

	<u>Strongly support</u>	<u>Somewhat support</u>	<u>Somewhat oppose</u>	<u>Strongly oppose</u>	<u>No answer</u>
May 30-Jun 4, 2023	42	33	13	11	2
Jan 24-30, 2022	43	32	14	10	1

ASK FORM 1 ONLY [N=5,148]:

CLIMCOMP1 Compared to other countries with large economies, how much do you think the U.S. is doing to help reduce the effects of global climate change?

	More than other countries with <u>large economies</u>	Less than other countries with <u>large economies</u>	About as much as other countries with <u>large economies</u>	<u>No answer</u>
May 30-Jun 4, 2023	36	30	32	3
Jan 24-30, 2022	32	36	31	2

ASK FORM 2 ONLY [N=5,181]:

CLIMCOMP2 Compared to other countries with large economies, how much do you think the U.S. should be doing to help reduce the effects of global climate change?

	More than other countries with <u>large economies</u>	Less than other countries with <u>large economies</u>	About as much as other countries with <u>large economies</u>	<u>No answer</u>
May 30-Jun 4, 2023	27	15	56	2
Jan 24-30, 2022	31	14	54	1

ASK ALL:

CCEFFC How likely is it that countries around the world, including the U.S., will collectively do enough to avoid the worst impacts from climate change?

	Will definitely <u>happen</u>	Will probably <u>happen</u>	Will probably NOT <u>happen</u>	Will definitely NOT <u>happen</u>	Climate change impacts are not a <u>problem</u>	No <u>answer</u>
May 30-Jun 4, 2023	4	29	45	9	11	2
Jan 24-30, 2022	6	30	45	8	10	1

OTHER QUESTIONS HELD FOR FUTURE RELEASE**ASK ALL:**

EVCAR2 The next time you purchase a vehicle, how likely are you to seriously consider purchasing an electric vehicle?

	<u>Very likely</u>	<u>Somewhat likely</u>	<u>Not too likely</u>	<u>Not at all likely</u>	<u>I do not expect to purchase a vehicle</u>	<u>No answer</u>
May 30-Jun 4, 2023	15	23	22	28	13	<1
May 2-8, 2022	16	25	21	24	13	<1
Apr 20-29, 2021	15	24	24	23	14	<1

ASK IF VERY/SOMEWHAT LIKELY (EVCAR2=1,2) [N=4,209]:

EVCAR2B How much of a reason is each of the following for why you would consider purchasing an electric vehicle? **[RANDOMIZE ITEMS]**

	<u>Major reason</u>	<u>Minor reason</u>	<u>Not a reason</u>	<u>No answer</u>
a. To save money on gas				
May 30-Jun 4, 2023	70	24	6	<1
May 2-8, 2022	71	25	4	<1
b. To help the environment				
May 30-Jun 4, 2023	72	22	6	<1
May 2-8, 2022	73	23	4	<1
c. To keep up with the latest trends in vehicles				
May 30-Jun 4, 2023	12	29	59	<1
May 2-8, 2022	10	27	63	<1

ASK ALL:

EVCAR1 Do you currently have an electric or hybrid vehicle?

	<u>Yes</u>	<u>No</u>	<u>No answer</u>
May 30-Jun 4, 2023	9	90	<1
May 2-8, 2022	9	91	<1
Apr 20-29, 2021	7	93	<1

ASK IF HOMEOWNER (XOWNRENTMOD=1) [N=7,719]:

IRAHOME Have you given serious thought to making the following changes to your home within the past 12 months? **[ITEM SOLAR ALWAYS FIRST; RANDOMIZE ITEMS PUMP - WATER]**

		I have given serious thought to <u>this</u>	I have NOT given serious thought to <u>this</u>	I already have this in <u>my home</u>	Does not <u>apply to me</u>	<u>No answer</u>
SOLAR	Installing solar panels to generate electricity May 30-Jun 4, 2023	28	51	7	13	<1
PUMP	Installing an electric heat pump to heat and cool your home May 30-Jun 4, 2023	11	55	20	13	1
INSUL	Improving your home's insulation May 30-Jun 4, 2023	26	33	30	10	1
STOVE	Replacing a gas stove or oven with an electric or induction system May 30-Jun 4, 2023	7	46	28	18	1
WATER	Replacing a gas water heater with an electric heat pump system to heat your water May 30-Jun 4, 2023	11	54	16	18	1

TREND FOR COMPARISON:**ASK IF HOMEOWNER (XOWNRENTMOD=1):**

ENV4 Have you given serious thought to installing solar panels to generate electricity for your home within the past 12 months, or haven't you done this?

	<i>I have given serious thought to installing solar panels at home</i>	<i>I have already installed solar panels at home</i>	<i>I have not installed nor given serious thought to installing solar panels</i>	<i>No answer</i>
Jan 24-30, 2022	39	8	52	1
Oct 1-13, 2019 ²	46	6	47	1
May 10-Jun 6, 2016	40	4	54	1

² In 2016 and 2019, ENV4 was asked without the homeowner filter. The 2016 and 2019 numbers here for ENV4 were filtered by homeowner status so that they could be compared with the 2022 data.