



PROGRAM FOR PUBLIC CONSULTATION
SCHOOL OF PUBLIC POLICY, UNIVERSITY OF MARYLAND

CONSIDERING THE COST OF CLEAN Americans on Energy, Air Quality and Climate



An in-depth survey of the National Citizen Cabinet

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INTRODUCTION

The United States has had a longstanding tension between its needs for energy and for environmental quality and the challenge of finding the right balance between these priorities has been a perennial of the policymaking process. Recently, though, several developments—the Clean Power Plan and the COP21 agreement on climate recently reached in Paris—have raised this issue to a uniquely high profile. These developments have been led by the Executive Branch and have engendered tremendous debate in Congress. While the Executive Branch has taken key steps independently, ultimately Congress will have the capacity to further or thwart these efforts.

Consistent with the vision of the Founders of a republic guided by the people, this is a moment that warrants consultation with the American people on how policymakers should prioritize the needs for energy and environmental quality and more specifically on the various plans being pursued. The complexity of these issues makes them unsuitable for conventional polling and requires instead the in-depth process of public consultation that is possible with a Citizen Cabinet survey.

The Clean Power Plan (CPP) was unveiled by the Obama administration in August 2015. Under the authority of the Clean Power Act, it seeks to regulate and lower the carbon dioxide emissions of the country's power plants. While the focus is on carbon dioxide emissions, the steps taken to reduce those emissions would concurrently reduce other air pollutants with negative health effects. Thus the administration is putting forward CPP as a means of achieving both these health outcomes and a reduction of greenhouse gases contributing to climate change. The CPP puts requirements on each state to lower its emissions, either by submitting its own plan or accepting a plan designed for it by the Environmental Protection Administration (EPA). The reductions are set at levels tailored to each state, depending on its existing energy mix and its options for flexibility, and may take into account reductions from other sources than power plants. Ultimately, according to the Obama administration, these regulations have the power of current law. Twenty-four states have sued the EPA, claiming the EPA is overreaching beyond the Clean Air Act. Oral arguments will begin before the Supreme Court on June 2.

In December 2015 in Paris, the Conference of the Parties to the UN Framework Convention on Climate Change (COP 21)—comprising the United States and about 200 nations—came to an agreement to seek to limit their greenhouse gas emissions such that temperatures do not rise above 3.4 degrees Fahrenheit between now and 2050. This level is what the UN's scientific body on climate change (the International Panel on Climate Change, or IPCC) has determined will be necessary to avoid catastrophic warming of the planet. To reach it would require reductions in greenhouse gas emissions that would average two percent a year.

The Paris agreement—coming after several other international conferences that had adjourned without producing significant results—was a difficult compromise between the developed and the developing countries. It entailed each country submitting its own plan for what contribution it could



make to the general goal, in an intermediate term—from 2016 to 2030 in most cases. These plans are not legally binding, but commitments to make the plan, revise it, and report on its progress are.

These two developments—the CPP and the Paris climate agreement—are highly intertwined for the United States, as the CPP is a major part of its plan for meeting the requirements of the Paris climate agreement. However the CPP only deals with power plants, and thus there are other steps, over and above the CPP, that the US would need to take to meet its Paris commitments.

Because these issues are complex it is often assumed that the American public cannot really play a role in the collective deliberation. However, the issue’s potential impact on all members of the public may prove extraordinary. The choice at hand is whether or not to accelerate a transition in the way that the country produces and uses energy. There are potential effects on the public’s health; on the risks it experiences from climate change in coming decades; and on US competitiveness with other countries in all parts of the energy sector.

To find out what Americans would recommend when given facts and arguments, the Program for Public Consultation at the University of Maryland developed an in-depth survey instrument called a ‘policymaking simulation’ to be used for a Citizen Cabinet survey—a survey of a representative panel of registered voters. The idea is to put the respondents in the shoes of a policymaker such that they get a briefing, hear competing arguments and ultimately make recommendations in a context where they must be aware of tradeoffs. To ensure that the policymaking simulation accurately reflects the current debates, the content of the entire simulation was vetted with experts on both sides of the issue and with a Congressional staffer from each party.

DEVELOPING THE POLICYMAKING SIMULATION

Data sources: Details, historical trends, and economic and health impacts for the Clean Power Plan were drawn from the Environmental Protection Agency’s Regulatory Impact Analysis of the Clean Power Plan Final Rule. The information regarding future rules on car and truck emissions and regulation of hydrofluorocarbons came from EPA impact analyses and other materials. Legislative proposals, such as those regarding methane, or legislation set to expire—in the case of tax incentives for efficiency upgrades—were also consulted. The National Renewable Energy Laboratory’s retrospective of renewable portfolio standards was consulted on the topic of renewable energy regulations.

The 2014 National Climate Assessment and the Second Biennial Report of the United States to the UN Framework Convention on Climate Change (UNFCCC) provided historical trends in greenhouse gas emissions in the United States. On a global scale, the Intergovernmental Panel on Climate Change’s Fifth Assessment was consulted for information on global climate change trends and impacts, as well as for projections for mitigation scenarios. Comparative national data on emissions was drawn from World Bank reports. U.S. goals in the Paris agreement are described in the U.S. Intended Nationally Determined Contribution (INDC).



Vetting: The simulation was reviewed by and modified in response to comments from Democratic and Republican Congressional staffers to ensure accuracy and balance, and to ensure that the arguments are the strongest ones within Congressional discourse. The simulation was also reviewed by a former Environmental Protection Agency official, and experts at the U.S. Chamber of Commerce, the World Resources Institute, and the University of Maryland's School of Public Policy.

Design of the Policymaking Simulation: See Appendix B

FIELDING OF SURVEY

The policymaking simulation was fielded as a survey with the national Citizen Cabinet, a citizen advisory panel consisting of a probability-based representative sample of registered voters. The national Citizen Cabinet panel was recruited from the larger panel of Nielsen-Scarborough, which is recruited by telephone and mail. The survey itself was conducted on-line.

TOTAL RESPONDENTS: 4,394 adult registered voters

Margin of Error: +/- 1.6% **Fielding Company:** Nielsen-Scarborough

Field Dates: April 16, 2016-April 26, 2016

The sample was subsequently weighted by age, income, gender, education and race with benchmarks from the Census' 2014 Current Population Survey of Registered Voters.

SUMMARY OF FINDINGS

Priority of Reducing Health Effects of Air Pollution

Three in four respondents said that it is a high priority to reduce air pollution from energy production that has negative public health effects. This includes a slight majority of Republicans and nine in ten Democrats.

Concern for Climate Effects of Greenhouse Gases

Seven in ten said it is a high priority to reduce greenhouse gases from energy production. This includes just under half of Republicans and nine in ten Democrats.

US Participation in International Climate Agreement

After a briefing and assessment of arguments pro and con, seven in ten approved of the US participating in the international agreement recently negotiated in Paris and signed in New York, and thereby adopting the goal of reducing its greenhouse gases approximately 2% a year. Nine in ten Democrats approved, as did two in three independents. Among Republicans a bare majority approved, but six in ten said it was at least tolerable. The argument in favor of US participation was found convincing by three in four, including six in ten Republicans. The argument against was found convincing by a bare majority overall, but by seven in ten Republicans. A modest majority, overall, approved of the US providing aid to help developing countries reduce their greenhouse gases as part of the larger Paris agreement, though a majority of Republicans were opposed.



The Clean Power Plan

After a briefing on the Clean Power Plan (CPP) and assessment of pro and con arguments, seven in ten said they favored it. This included nine in ten Democrats and but just under half of Republicans. While seven in ten said they saw significant value in the CPP for reducing greenhouse gases, almost eight in ten saw it as having value for the health benefits of cleaner air. In states whose governments are challenging the CPP before the Supreme Court, two thirds support the CPP—just a slightly lower margin than for the rest of the country. Among respondents who are in, or have a family member in, the coal industry, six in ten support the CPP—also a bit lower than the rest of the country.

Mitigating Clean Power Plan Effects on Coal Industry

Respondents were presented two options for mitigating the effects of the Clean Power Plan on the coal industry. The option of providing government assistance to help coal workers who lose their jobs was favored by seven in 10, including 6 in 10 Republicans as well as 8 in 10 Democrats. However, the option of the government subsidizing the development and building of new technologies for sequestering carbon dioxide was supported by less than half, overall and among both parties. Asked how they would feel about the CPP if either of these measures were to be applied, support for the CPP rose eight points to nearly eight in ten, while Republican support rose 14 points to six in ten.

Tax Incentives for Reducing Carbon Dioxide

Respondents considered options for tax incentives to promote the reduction of carbon dioxide, over and above the reductions in power plant emissions called for in the Clean Power Plan. Large bipartisan majorities favored extending tax credits to consumers and businesses for installing fuel-efficient lighting, doors, windows and insulation, building new energy efficient homes, and installing wind and fuel cells.

Regulations to Reduce Carbon Dioxide

Large bipartisan majorities favored government regulations requiring higher fuel efficiency standards for light cars and trucks, and heavy duty vehicles, and requiring electric companies to have a minimum portion of their electricity come from renewable sources.

Carbon Tax

Initially only a bare majority favored having a tax on carbon. However, six in ten favored the idea of using the income generated by a carbon tax to offset the impact of a carbon tax on people with low to middle incomes, and on this condition, the number favoring a carbon tax rose to two thirds. This support, though, was not bipartisan.

Dealing With Other Greenhouse Gases: Methane and Hydrofluorocarbons

In addition to carbon dioxide, large majorities approved of measures to reduce other greenhouse gases. Large bipartisan majorities approved of tax credits for building biogas facilities on farms, which would reduce methane. Equally large bipartisan majorities favored requiring businesses to gradually replace hydrofluorocarbons with alternative refrigerants.



DETAILED FINDINGS

Priority of Reducing Health Effects of Air Pollution

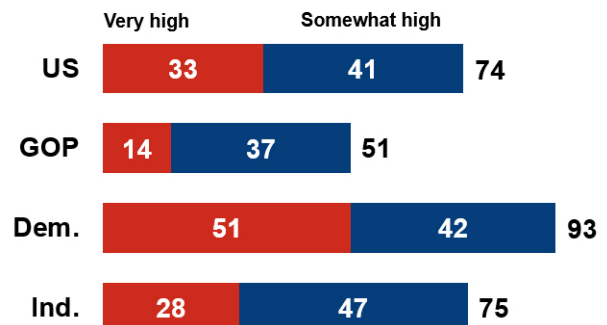
Three in four respondents said that it is a high priority to reduce air pollution from energy production that has negative public health effects. This includes a slight majority of Republicans and nine in ten Democrats.

Respondents were given a briefing on the issue of health effects of air pollution and evaluated arguments for and against making the reduction of air pollution a high priority. Asked to make a judgment about how high a priority reducing air pollution from energy production was for them, about three quarters (74%) gave it a high priority (very high, 33%). This included 51% of Republicans and 9 in 10 Democrats. Independents were in between, with three quarters giving it a high priority.

Overall, 21% said it should be a low priority (Republicans 39%, Democrats 6%), and 5% said it should not be a priority at all (Republicans 9%, Democrats 1%).

Prioritizing Reducing Air Pollution

How high a priority is it for you to reduce air pollution from energy production that has negative public health effects?



Briefing

Respondents were initially told that they would be evaluating proposals for changing the way energy is produced and used so as to reduce negative impacts on the environment. They were told that “We will give you some background on these issues, introduce you both sides of the debate on these proposals, and then give you a chance to make your recommendations.”

They were told that, “One debate is about how high a priority it should be to change the way we produce and use energy so as to reduce the air pollution that has negative public health effects.” Respondents were told that power plants’ energy production from fossil fuels creates chemical byproducts hazardous to health, but also that several decades of legislation has brought down such pollution and made a major impact on the problem.

They were then asked to consider how high a priority it should be to make efforts to reduce air pollution further, and they evaluated arguments for and against more efforts.



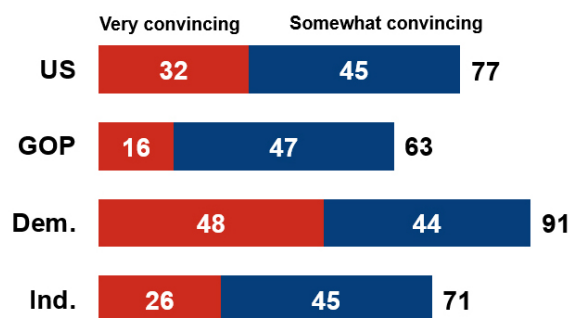
Assessing Arguments

The argument for making it a high priority asserted a responsibility to aid the elderly and children most prone to pollution-related ailments, and said the reductions would come at an affordable cost since they would produce long-term savings. This argument was convincing to 77% (32% very), including 63% of Republicans and 91% of Democrats.

The argument that further efforts should be a low priority pointed out the results achieved by the laws in place for decades, and argued that extra benefits would be minor, but expensive. This argument was not very successful, however. Only 48% found it convincing while a modest 51% majority found it unconvincing (23% very). Seven in ten Republicans, though, did find it convincing.

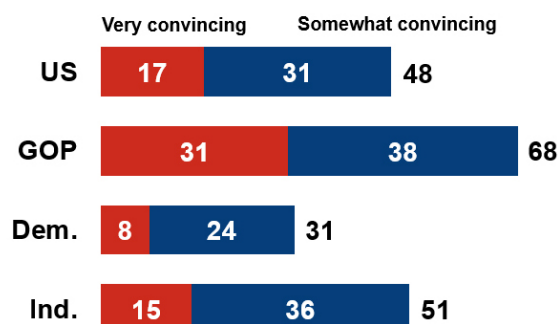
Argument: High Priority to Reduce Air Pollution

We have a responsibility to try to improve the conditions of thousands of people, especially the elderly and children, who are suffering from the health effects of poor air quality. The costs of improving air quality are not really all that high, especially when we consider that we are avoiding the economic costs of lower productivity and increased healthcare that result from these health effects. Furthermore, reducing smog improves the quality of life for all of us.



Argument: Low Priority to Reduce Air Pollution

There is already a lot of legislation in place that has improved air quality and will keep improving it for the next decade. Smog has been decreasing steadily: it is down 18 percent since 2000 and 33 percent since 1980. Meanwhile, government bureaucrats keep moving the goal posts and imposing new regulations. All this ends up costing a lot—hurting the economy and costing jobs. Trying to reduce air pollution further would only produce very minor benefits and it is simply not worth the extra cost.



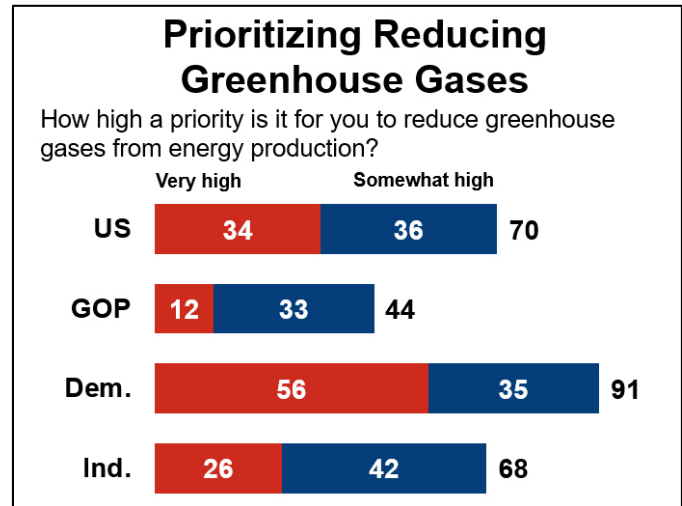


Concern for Climate Effects of Greenhouse Gases

Seven in ten said it is a high priority to reduce greenhouse gases from energy production. This includes just under half of Republicans and nine in ten Democrats.

Respondents were given a briefing on the issue of greenhouse gases and their impact on climate and evaluated arguments for and against making the reduction of these gases a high priority. After evaluating the arguments, respondents were asked to specify how high a priority they placed on reducing greenhouse gases from energy production. Seven in ten (70%) chose a high priority (very high, 34%). Nine in ten Democrats, two thirds of independents, and but only 44% of Republicans made it a high priority.

Twenty-one percent set it as a low priority, including 39% of Republicans and 7% of Democrats. Just 9% said it should not be a priority at all, including 17% of Republicans and 2% of Democrats.



Briefing

Respondents were briefed on the debate over how high a priority it should be to reduce greenhouse gases. First they were given some background on the scientific issues. They were told that in 2001, at the request of the George W. Bush administration, the National Academy of Sciences (NAS) conducted a major study which concluded that greenhouse gases from human activity are causing air and ocean temperatures to rise; that subsequent surveys of climate scientists by the NAS confirmed that this is a consensus position among scientists in the field; and that a large international panel of scientists has confirmed this as well. It was noted, though, that there continue to be some debates, such as:

- how much climate change is occurring,
- how much risk it poses,
- how much it is due to the gases from human energy production as opposed to natural weather cycles,
- how effective it is to reduce greenhouse gases, especially carbon dioxide, and whether doing so is economically feasible

It was also noted that some members of Congress and a small minority of climate scientists question whether climate change is an important problem that needs to be addressed, though both the Bush and Obama administration have made it an objective to limit greenhouse gases.



Assessing Arguments

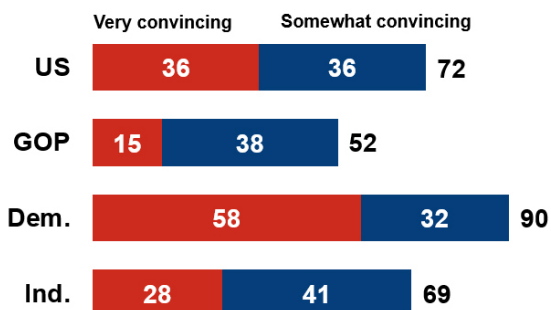
Respondents were then asked to evaluate arguments for and against making it a high priority to reduce greenhouse gases. They evaluated two arguments for making it a high priority, and two for making it a low priority.

The first argument was the most standard one, emphasizing the scientific consensus that greenhouse gases contribute to climate change which will produce major negative consequences from flooding and damage to farming, while the costs of mitigating action are moderate and offset by increases in energy efficiency. Seven in ten (72%) found this argument convincing (36% very), while 28% did not. Slightly more than half of Republicans found it convincing (52%).

Interestingly, a less standard argument that did not emphasize the negative consequences did a bit better. It stressed that clean energy is an economic winner now and in the future, and that the US should be in the lead on it. This argument was convincing to three in four (76%; very, 38%) and three in five Republicans (63%) plus nine in ten Democrats (89%). Only about one in four (23%) found it unconvincing.

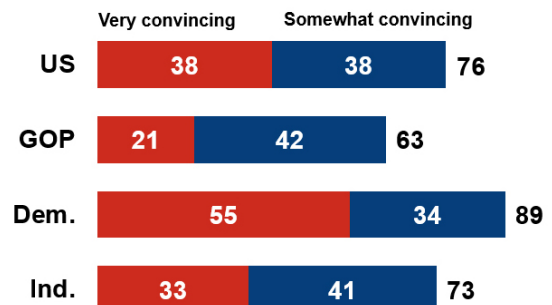
Argument: High Priority to Reduce Greenhouse Gases

The overwhelming majority of climate scientists agree greenhouse gases contribute to climate change and this poses major threats. Eventually, rising sea levels will flood coastal areas. Rising temperatures will hurt crops in major farming areas. Without action, government analysts predict these changes will cause the US economy to contract by several percent. On the other hand, taking action will benefit the economy by increasing energy efficiency. Clearly, we should put a high priority on limiting greenhouse gases to slow the process of climate change.



Argument: High Priority to Reduce Greenhouse Gases

Over and above the need to reduce greenhouse gases, there are many good reasons for the US to make a strategic investment in clean energy. Cleaner energy results in cleaner air, which is important for health and the quality of life. It brings down health costs. Other countries like China are investing twice as much as the US in green energy technologies and it is important for the US to stay competitive in what's clearly going to be a major industry in the future. The world is moving to greener energy and the US should be ahead of the curve, not dragging behind.



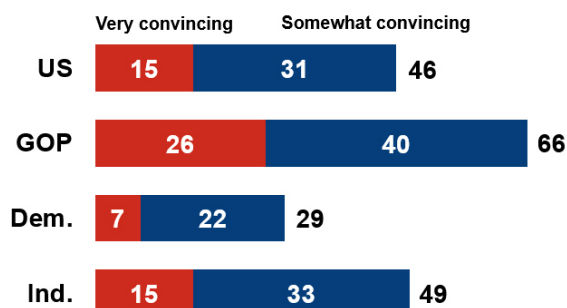


Respondents then evaluated two arguments for setting the priority low. The most standard argument led off by underscoring the doubts of “some scientists who question how much climate change is occurring, how much human energy production contributes to it and whether the risk is important enough to warrant major action.” It went on to insist on the economic disruption of increasing the cost of energy, including loss of jobs. Only 46% found it convincing, while 53% found it unconvincing. Among Republicans two in three did find it convincing. A slight majority of independents found it unconvincing (51%), as did seven in ten Democrats.

Interestingly, another argument that is less common but highly promoted by some members of Congress did a bit better. It framed the effort to achieve reductions as basically a means to expand the role of government. A majority of 53% found it convincing, while 46% found it unconvincing. It did very well with Republicans, three in four of whom found it convincing, as well as 59% of independents, but was rejected by two in three Democrats.

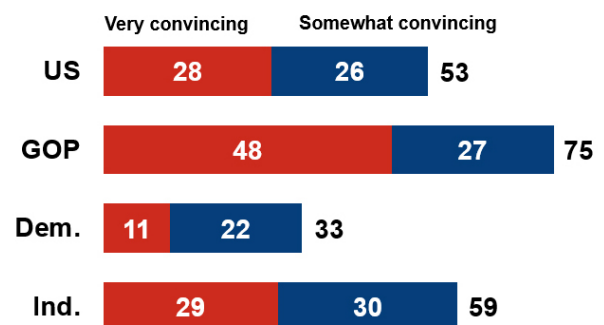
Argument: Low Priority to Reduce Greenhouse Gases

There are some scientists who question how much climate change is occurring, how much human energy production contributes to it and whether the risk is important enough to warrant major action. Therefore it would be premature to take economically costly steps to change the way we produce energy. US energy costs are relatively low and increasing the cost of energy would undermine an American competitive advantage, harm the economy and cost jobs. It would also hurt people in specific sectors, like the coal industry, much more than others, which would not be fair. Rather, we should continue to research the issue and at the most only take steps that are low in cost.



Argument: Low Priority to Reduce Greenhouse Gases

The whole effort to reduce carbon dioxide will result in an expanded role for government. There will be more government bureaucrats who will make new rules and insert themselves into every corner of the economy, telling large and small businesses what they can and cannot do. What is clearly driving this movement is a desire to make government bigger. We need to resist this effort.



US Participation in International Climate Agreement

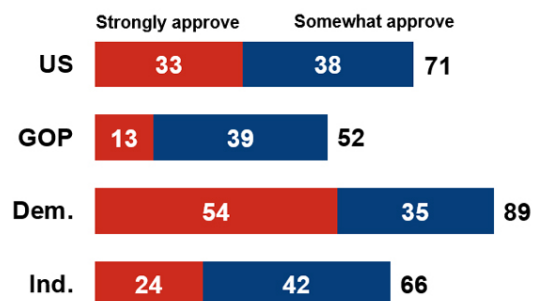
After a briefing and assessment of arguments pro and con, seven in ten approved of the US participating in the international agreement recently negotiated in Paris and signed in New York, and thereby adopting the goal of reducing its greenhouse gases approximately 2% a year. Nine in ten Democrats approved, as did two in three independents. Among Republicans a bare majority approved, but six in ten said it was at least tolerable. The argument in favor of US participation was found convincing by three in four, including six in ten Republicans. The argument against was found convincing by a bare majority overall, but by seven in ten Republicans. A modest majority, overall, approved of the US providing aid to help developing countries reduce their greenhouse gases as part of the larger Paris agreement, though a majority of Republicans were opposed.

Respondents were given a briefing on the international negotiations leading up to the agreement in Paris, and evaluated arguments for and against US participation in the agreement, with the US adopting the goal of reducing greenhouse gases by approximately 2% a year. After evaluating arguments, respondents were asked, on a 0-to-10 scale, whether they felt US participation to be acceptable (6-10), just tolerable (5), or completely unacceptable (0-4). Over three in four (77%) felt participation was at least tolerable, and three in five (60%) found it acceptable. Among Republicans, three in five said participation was at least tolerable; among Democrats this was about nine in ten.

At the end of the survey—after respondents had evaluated a range of concrete steps aimed at reducing US greenhouse gases—they were provided a summary of the arguments for and against US participation in the agreement, and finally were asked whether they approved or disapproved of the US setting the goal of reducing its greenhouse gases by about 2% each year, “as part of the international agreement reached in Paris.” Seven in ten (71%) approved of the goal, while 28% disapproved. Those approving included 52% of Republicans, 89% of Democrats, and 66% of independents. Support was especially high among 18-24 year-olds, who favored it by 81%, while those 65 and over had the lowest level of support at 65%.

Final Recommendation: Adopting the Goal of 2% a Year Reductions

In conclusion, as part of the international agreement reached in Paris, do you approve or disapprove of the US setting the goal of reducing its greenhouse gases by about 2% each year?





Briefing

In the briefing, respondents were introduced to the international framework for addressing climate change by noting that:

Scientists that study atmospheric changes emphasize that climate change is a global problem. The temperature changes that occur are for the planet as a whole and the greenhouse gases that each nation generates contribute to the global problem. As a result there have been numerous efforts, sponsored by the UN, to try to arrive at an international agreement for reducing greenhouse gases. A series of international conferences have been held.

They were then introduced to a debate in these conferences that has posed a major obstacle to achieving an international agreement: whether the developing countries should be required to limit their greenhouse gases. Illustrated with charts, it was explained that developed countries, such as the US, argue that developing countries now produce large total amounts of emissions, while developing countries argue that they are still growing out of poverty and produce much lower levels of emissions per capita.

It was then explained that at the December 2015 conference of 200 countries in Paris, for the first time all of the countries—including developing countries as well as developed countries—came to an agreement to seek to limit the increase in global temperatures to no more than 3.4 degrees Fahrenheit.

Respondents also learned that:

- All countries, including the US, presented their national plans for limiting their greenhouse gases in line with this goal
- The countries have not made legally binding commitments to meet this goal, but the agreement does require them to:
 - Have an action plan
 - Periodically report on progress
 - Update this plan every five years
- The agreement refers to the assessment of the International Panel on Climate Change (IPCC) that meeting the goal of limiting temperature increases to 3.4 degrees will require 2%-a-year reductions on average between now and 2050
- While developed countries like the US have submitted plans for reducing greenhouse gases right away, developing countries, such as China and India, have submitted plans for a more gradual path of first slowing, and then within several years beginning to reduce their gases.



Assessing Arguments

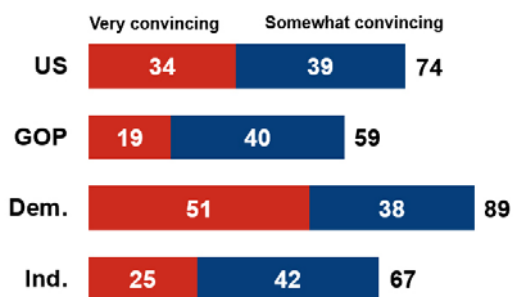
They were then told that there is some debate about whether the US should continue participating in the international agreement to reduce its greenhouse gases in pursuit of the goal of limiting the global temperature increase to no more than 3.4 degrees Fahrenheit.

They first evaluated an argument in favor of participation that pointed out that China and India have agreed for the first time to plans to limit and reduce their greenhouse gases, but that follow-through was unlikely if the US did not lead. Three in four found this argument convincing (74%, 34% very), including six in ten Republicans, nine in ten Democrats, and two thirds of independents. Only 26% found it unconvincing.

The argument against participation expressed doubt that China, India and Russia would follow through on their plans, adding that if they did not, they would reap a competitive advantage. It also called working through the UN a bad idea. This argument got a bare majority of 52% finding it convincing and 47% finding it unconvincing. Republicans and Democrats were nearly mirror images of each other: seven in ten Republicans found it convincing, and three in five Democrats unconvincing.

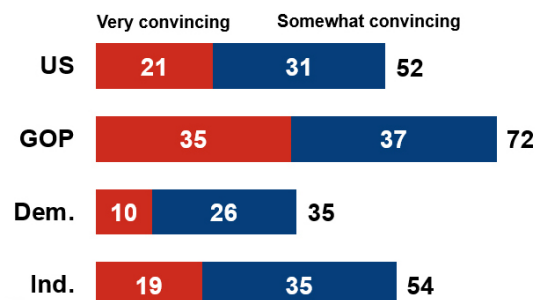
Argument: In Favor of US Participation in Paris Agreement

The problem of climate change is an international problem that requires an international solution. The December conference in Paris produced a breakthrough because developing countries, like China and India, for the first time agreed to a plan to limit and reduce their greenhouse gases. If the US does not take the lead and do its part, the other countries will not do theirs and the whole effort will fall apart. Through working together with other countries, our efforts will help leverage a global effort.



Argument: Against US Participation in Paris Agreement

While the agreement from Paris might look nice on paper, it has lots of problems and it won't reduce emissions very much. We cannot be sure that countries like China, India, and Russia will actually follow through on their plans. If they don't, this will give them a competitive advantage over countries like the US that will follow through. The US will end up with relatively higher energy costs, leading industries to leave the US, taking their jobs with them. Some analysts conclude that it could slow US economic growth by ½ to 1 percent. Furthermore, working through the UN is a bad idea: we should not have the other countries coming around and complaining if they somehow think the US is not fulfilling its commitments.





Climate Aid to Poorer Developing Countries

Part of the Paris agreement involves the developed countries providing funds for poorer developing countries, as the latter work to execute the national plans they have submitted.

Respondents were told about the international fund set up for this purpose and given arguments for the US contributing to it: that doing so is fair, because poorer developing countries' emissions per person are so low; that these countries have little capital to use for changing their energy production; and that the greenhouse gas reductions will benefit the planet as a whole. Respondents also got counter-arguments: that it is better to spend the money here at home; that the US has its hands full reducing its own greenhouse gases; and that developing countries shouldn't rely on the US so much.

Finally, respondents were told that the US plans on devoting about 2% of its foreign aid budget to this fund. The US would cover 30% of the fund while other developed countries would cover 70%.

Asked whether they approved or not of the US contributing in this way to "help poorer developing countries reduce their greenhouse gases," a clear but partisan majority (55%) approved. Four in ten (44%) disapproved, including two thirds of Republicans. Eight in ten Democrats approved along with 51% of independents.

The Clean Power Plan

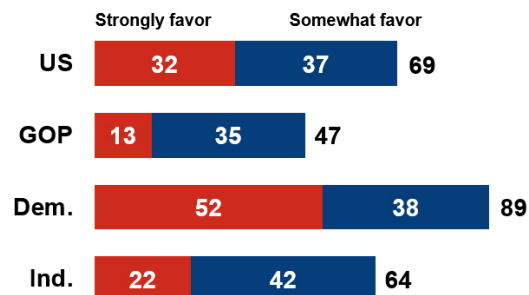
After a briefing on the Clean Power Plan (CPP) and assessment of pro and con arguments, seven in ten said they favored it. This included nine in ten Democrats and but just under half of Republicans. While seven in ten said they saw significant value in the CPP for reducing greenhouse gases, almost eight in ten saw it as having value for the health benefits of cleaner air. In states whose governments are challenging the CPP before the Supreme Court, two thirds support the CPP—just a slightly lower margin than for the rest of the country. Among respondents who are in, or have a family member in, the coal industry, six in ten support the CPP—also a bit lower than the rest of the country.

Respondents were given an in-depth briefing on the Clean Power Plan and asked to evaluate arguments for and against. When they were finally asked whether they favored or opposed it, 69% favored it (32% strongly), including 89% of Democrats and 64% of Independents. Thirty percent opposed it (14% strongly). Just under half of Republicans (47%) favored it with 52% opposed.

Briefing

Final Recommendation: Clean Power Plan

Now that you have considered these different perspectives, do you favor or oppose the Clean Power Plan?



The Clean Power Plan (CPP) is not a household word in America just yet. When asked “How much have you heard about the Clean Power Plan,” seven in ten (69%) said they had heard just a little or nothing at all; only 30% said they had heard some (24%) or a lot (6%). There were virtually no differences between Republicans, Democrats and independents on this question.

Respondents were provided a briefing in which they learned that while the CPP’s main focus is on reducing carbon dioxide, the steps to do this will also reduce pollutants such as sulfur dioxide. They learned that the plan calls for each state in the US to reduce carbon dioxide from power plants by 2-3% a year. Each state is to come up with a plan suited to its circumstances and energy mix.

These reductions can be achieved through:

- Reducing the use of energy sources that emit carbon dioxide, especially coal
- Increasing the use of alternative energy sources, such as solar and wind, that emit little or no carbon dioxide
- Using new technologies to make energy use more efficient

Costs

Respondents were then given information about the likely economic impact and given opportunities to react. First they were told about the estimated costs of the CPP, learning that the price of electricity



will increase initially by about 3%. After 5-10 years, the price will go down to less than 1% higher than it would otherwise be. In some states, it will take longer for the price to come down.

Asked whether they found these estimates surprising, half (50%) said they were not surprised; 32% were surprised the increases were so modest; and 18% were surprised the increases were so high.

They were then told that according to government analyses, the CPP would slow economic growth so that:

- In 2020, the US economy (or GDP) would be one-third of one percent less than it would otherwise be;
- In 2030 it would be one-sixth of one percent less;
- While the net effect on jobs would be small, there would be significant losses in sectors like the coal industry.

Asked whether these estimated impacts were surprising to them, over half (56%) said they were not; 29% were surprised the increases were so modest; and 14% were surprised they were so high. Partisan differences were very minor, in both this and the previous question.

Benefits

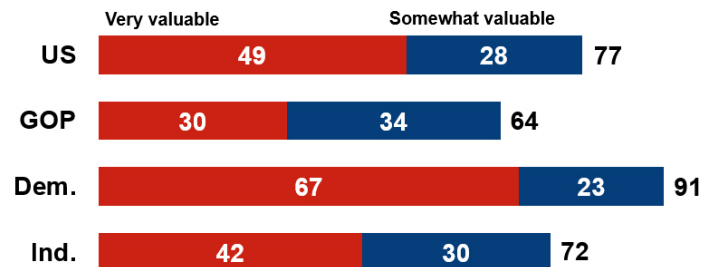
Respondents then got information about projected benefits of CPP, in terms of health effects and greenhouse gas reductions. They were told:

Because the Clean Power Plan will reduce air pollution—reducing soot and smog—this will have health benefits. According to government analyses, these benefits will increase each year so that by the year 2030 it will result in the following benefits for that year:

- 300,000 fewer missed work days and school days, due to a drop in pollution-related illnesses
- 90,000 fewer asthma attacks
- 1,700 fewer heart attacks
- 3,600 fewer premature deaths

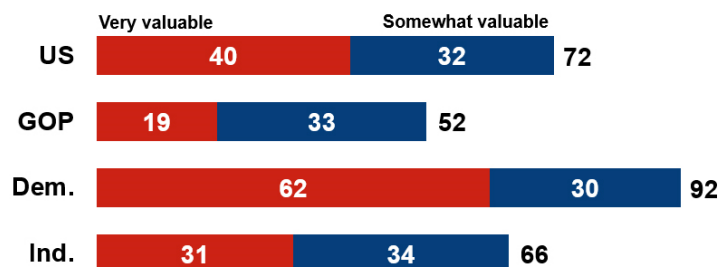
Clean Power Plan - Health Benefits

From your perspective, how valuable is this benefit: Not at all valuable; just a little valuable; somewhat valuable or very valuable?



Clean Power Plan - Climate Benefits

From your perspective, how valuable is this benefit: Not at all valuable; just a little valuable; somewhat valuable or very valuable?





Asked how valuable the health benefit was from their perspective, three in four (77%) viewed it as somewhat or very valuable (very, 49%). Among Republicans, three in five saw it as valuable; among Democrats almost all did; among independents seven in ten did.

Respondents were also told about the benefits relative to greenhouse gases, as follows:

Another benefit from the Clean Power Plan is that it helps the US meet the goal it set, together with other countries, to reduce its greenhouse gases by about 2% a year in an effort to slow the process of climate change.

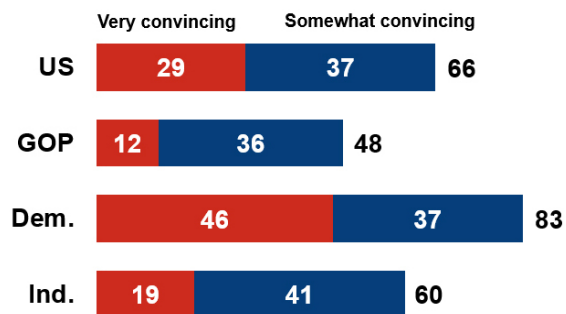
Seven in ten (72%) saw this benefit as somewhat or very valuable (very, 40%), while 27% saw it as just a little or not at all valuable. Among Republicans, about half saw it as valuable; among Democrats almost all did; among independents two thirds did.

Assessing Arguments

After the briefing, arguments for and against the CPP were presented. The argument in favor declared that the expected costs of the plan are much smaller than the public health and climate costs of not acting (see box). Two thirds (66%) found this convincing (29% very), including almost half of Republicans.

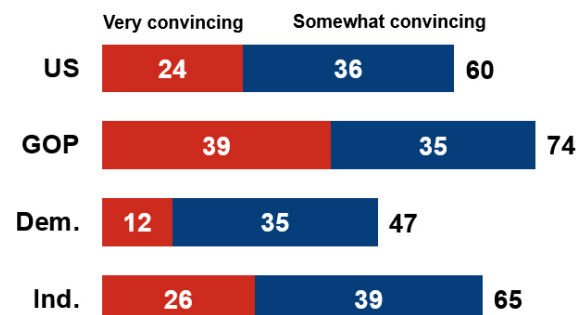
Argument: In Favor of Clean Power Plan

Given the importance of improving air quality and reducing greenhouse gases, it is worth it for us to accept a slight increase in electricity bills for a few years. These costs are minor compared to the effect of air pollution on people's health and the likely costs of rising sea levels, lost farmland, and more violent storms. Furthermore, this is a good investment because in the long run, more efficient methods and technologies will save us money.



Argument: Against Clean Power Plan

It is easy for some people with good incomes to say that these increased energy costs are not very high. But it will have a big impact on low-income people, for whom energy costs are a big part of their expenses. And all these promises about the costs coming down in the future are just that—promises. It is really risky to assume these new methods and technologies are going to save money and, even if they do, whether the utility companies are going to really pass those savings on to consumers.





The argument against the CPP focused on whether ordinary people would be able to handle the increased costs, and whether these costs would ever come down as promised (see box). This argument also was convincing to a majority (60%), while four in ten found it unconvincing. Three in four Republicans found it convincing, and also over four in ten Democrats, plus three in five independents.

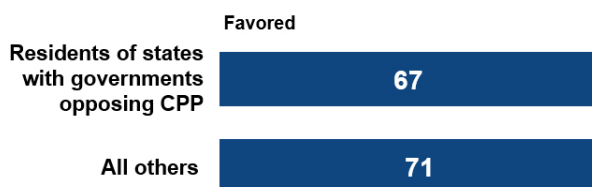
Attitudes in States Challenging the CPP Before the Supreme Court

Twenty-four states have filed lawsuits against the Environmental Protection Administration (EPA), claiming that the Clean Power Plan overreaches the authority delegated to the EPA by the Clean Air Act. This raises the question of how public attitudes may differ in those states suing the EPA compared to those that are not.

In the states with lawsuits, 67% favored the CPP while 32% were opposed. This was only slightly lower than in states not suing the EPA, where 71% favored the CPP while 28% were opposed.

Similarly, in the states with lawsuits, 70% approved of the US setting the goal of reducing its greenhouse gases by about 2% a year; in the states that are not suing, this was 72%. Various other questions were examined and also showed only minor differences.

Support for Clean Power Plan in States Opposing It



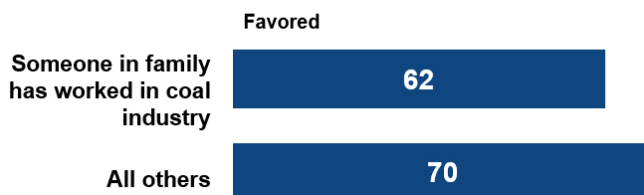
Attitudes Among Those with Family Member in Coal Industry

Naturally, a key question is how people who work in the coal industry feel about the CPP, given that there is a significant possibility it would have a negative impact on the coal industry. Indeed, members of Congress from states with large coal industries have been some of the strongest opponents of the CPP and have branded the CPP as part of a 'war on coal.'

All respondents were asked "Have you or anyone in your family ever worked in...the coal industry?" Six percent of respondents said 'yes' to this question.

Support for the Clean Power Plan was a bit lower in this group, but still a large majority. Sixty-two percent favored the Clean Power Plan, with 24% opposed—eight points lower than in the rest of the sample.

Support for Clean Power Plan Among Those in Coal Industry



On the Paris agreement, about two thirds (65%) of this group approved of the US setting a goal of reducing its greenhouse gases by about 2% each year; a third were opposed. This is six points lower than support in the rest of the sample.



Mitigating Clean Power Plan Effects on Coal Industry

Respondents were presented two options for mitigating the effects of the Clean Power Plan on the coal industry. The option of providing government assistance to help coal workers who lose their jobs was favored by seven in 10, including 6 in 10 Republicans as well as 8 in 10 Democrats. However, the option of the government subsidizing the development and building of new technologies for sequestering carbon dioxide was supported by less than half, overall and among both parties. Asked how they would feel about the CPP if either of these measures were to be applied, support for the CPP rose eight points to nearly eight in ten, while Republican support rose 14 points to six in ten.

In both briefings and arguments, respondents had already been made aware that the Clean Power Plan might lead to job losses concentrated in certain industries, notably coal. They were next given the opportunity to evaluate two options for mitigating this effect and finally asked how their implementation would affect their attitudes about the CPP.

Sequestration of Carbon Dioxide

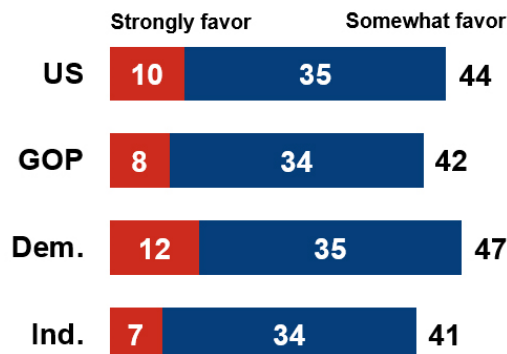
Respondents received a briefing on the sequestration of carbon dioxide from burning coal, often referred to as 'clean coal.' They learned that sequestration is a process to capture the released carbon dioxide and store it underground, typically in areas used in the past for oil production. They were told this is a technology still under development, and currently it can only be economical if the government subsidizes much of the cost.

Respondents also read brief arguments, showing how proponents and opponents of sequestration make their cases. On the pro side proponents were described as arguing that coal is a major American resource, coal workers should not bear the brunt of the energy transition, and once the technology is developed, it can be sold to other countries that use coal for energy. Opponents were described as arguing that this technology is unproven and costly, and public investment should instead go into clean energy sources to help create new industries and jobs there. After this briefing, respondents were asked whether they favored or opposed

"the federal government providing subsidies for developing and building new technologies to capture and store carbon dioxide from coal plants." Just 44% were in favor with 55% opposed. Among Republicans 57% were opposed, and among Democrats this was 52%.

Carbon Sequestration

Do you favor or oppose the federal government providing subsidies for developing and building new technologies to capture and store carbon dioxide from coal plants?





Adjustment Assistance to Coal Industry Employees

Respondents were then asked to consider the problem from the workers' standpoint. They were told that "Whether or not the government provides subsidies for sequestration, it is likely that some older coal plants will be shut and unlikely that new ones will be built, because cleaner forms of energy are now less expensive."

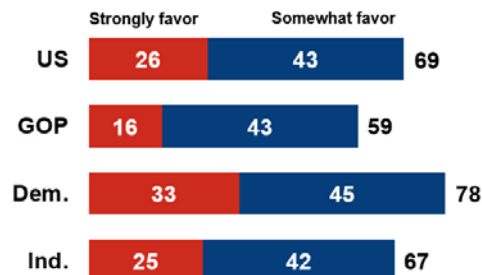
They were then told about a bill in Congress to provide coal industry employees who lose their jobs federal support and training to make the transition to other employment. They learned that, if enacted, this would cost \$500 million in its first year.

They were told that proponents "say it is not fair for coal workers to take the brunt of the changes that come with changing energy sources, and thus they should get help," while opponents "say it is not the government's job to take care of everyone affected by economic change and these programs are often not effective."

When asked if they favored the plan, seven in ten (69%) favored it, with 30% opposed. The idea was favored by about six in ten Republicans and eight in ten Democrats.

Adjustment Assistance to Coal Industry Workers

Do you favor or oppose government assistance to help coal workers who lose their jobs?



Effect of Possible Mitigation on Support for CPP

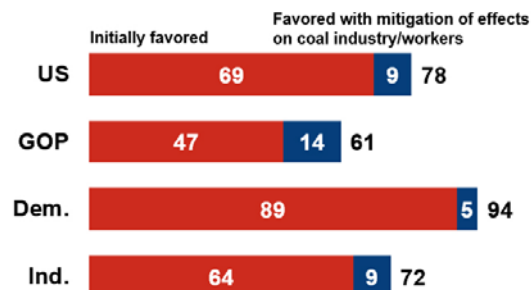
Those who had opposed the CPP were then asked how they would feel about the plan if the government put one or both of these mitigation measures into place. Nine percent of the whole sample, and 14% of Republicans, said they would favor the CPP under those conditions. This would bring support to 78% overall, and to 61% among Republicans. Thus it appears that much of the opposition to the CPP appears related to concerns about workers who would lose jobs in the course of an energy transition, particularly those in the coal industry.

Mitigating Effects of CPP on Coal Industry/Workers

Suppose the government were to:

- provide support to the coal industry to enable it to sequester carbon dioxide and/or
- provide assistance to coal industry workers who lose their jobs.

How would you then feel about the Clean Power Plan?







Tax Incentives for Reducing Carbon Dioxide

Respondents considered options for tax incentives to promote the reduction of carbon dioxide, over and above the reductions in power plant emissions called for in the Clean Power Plan. Large bipartisan majorities favored extending tax credits to consumers and businesses for installing fuel-efficient lighting, doors, windows and insulation, building new energy efficient homes, and installing wind and fuel cells.

Respondents were told that the Clean Power Plan primarily deals with power plants and therefore only covers about one third of the goal the US has set of reducing all greenhouse gases by about 2% a year, and thus they would now look at additional methods for reducing greenhouse gases, which will also reduce air pollution.

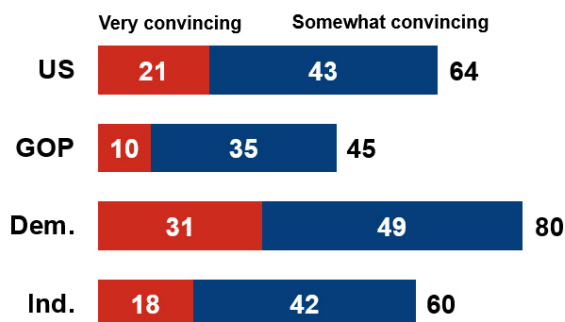
The first method to be examined was the use of tax credits as incentives for purchasing greener technology or using greener forms of energy.

Assessing Arguments

Respondents evaluated general arguments for and against using tax credits in this way. The argument in favor focused on the idea that since the reductions in greenhouse gases and other pollutants from energy-efficient machines and buildings benefit everyone, for the government to cover part of the extra cost is fair (see box). About two thirds (64%) found this convincing (21% very), while 35% did not.

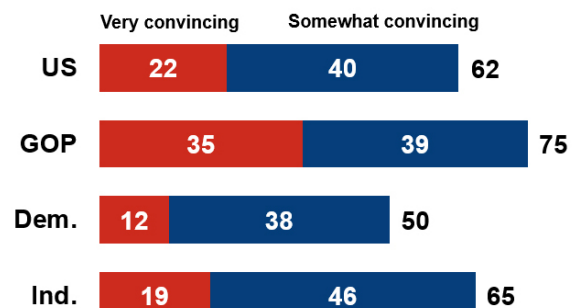
Argument: In Favor of Tax Incentives

Energy-efficient cars, buildings, and appliances cost more to make and thus are more expensive at first. But when people buy them, we all benefit from reducing carbon dioxide and other air pollutants. To encourage people to buy them more, and to make it fairer, the government should cover part of the extra cost of making the cars, buildings, and appliances more energy-efficient.



Argument: Against Tax Incentives

We need to remember that the government's energy-related incentives are not free—taxpayers pay for them. Furthermore, artificially lowering the prices of a product distorts the market. It gives an unfair advantage to the producer, who never needs to develop it so it can stand on its own feet. And the purchasers are typically the better-off, benefiting from price breaks paid for by the rest of us. If they are really any good, energy-efficient products will do fine in the market.



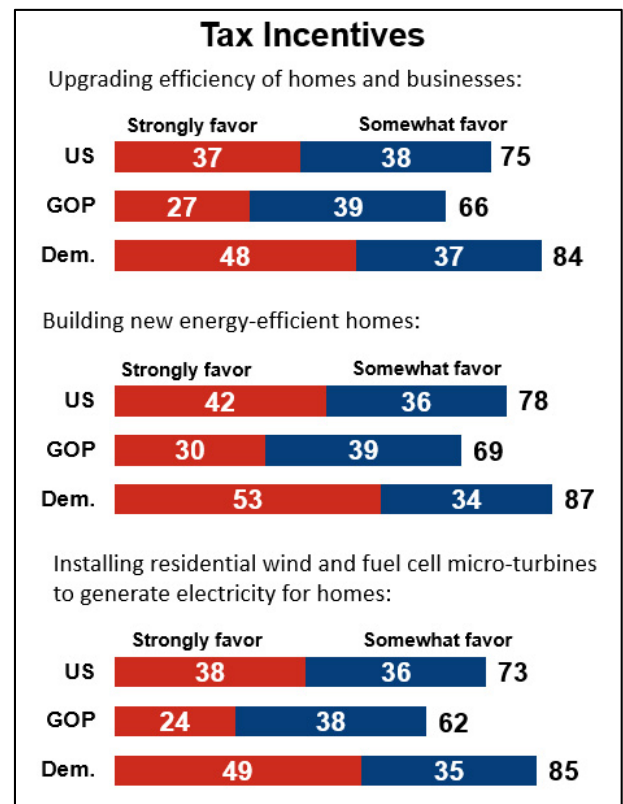
Four in five Democrats found it convincing. Among Republicans, less than half (45%) found it convincing with 54% unconvinced.

The opposing argument made the case that tax credits only distort the market by artificially lowering prices, giving advantages to producers who are then less likely to refine the product to make it fully competitive (see box). This argument did basically as well as the pro argument, with 62% finding it convincing (22% very) and 37% unconvincing. It was convincing to three in four Republicans, while Democrats were divided (50% convincing).

Evaluating Specific Tax Incentives

Respondents were then asked whether they favored or opposed three tax credits available for upgrading homes and businesses in energy-efficient ways. They were informed that all three tax credits are in place now, but will expire at the end of 2016 unless Congress renews them. All three got support for renewal from large, bipartisan majorities.

- “Paying to install fuel-efficient lighting, doors, windows and insulation for homes and businesses” was favored by 75% (37% strongly), including 66% of Republicans
- “Building new energy-efficient homes” was favored by 78% (42% strongly), including 69% of Republicans
- “Installing small residential wind and fuel cell micro-turbines to generate energy for homes” was favored by 73% (38% strongly), including 62% of Republicans.





Regulations to Reduce Carbon Dioxide

Large bipartisan majorities favored government regulations requiring higher fuel efficiency standards for light cars and trucks, and heavy duty vehicles, and requiring electric companies to have a minimum portion of their electricity come from renewable sources.

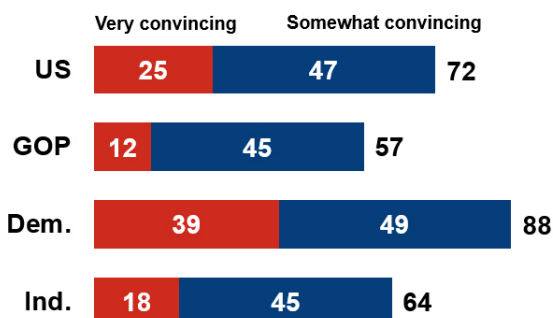
Next respondents were asked to think about using government regulations as a means for reducing carbon dioxide, primarily through raising efficiency standards, but also by requiring greater use of renewable energy sources.

First they evaluated arguments for and against regulatory standards in general. The argument in favor of imposing standards focused on how they require all businesses and consumers to bear part of the cost of reducing carbon dioxide and other pollutants, and thus can be viewed as more fair (see box). While 72% found this argument convincing, only 25% found it very convincing—a little lower level of enthusiasm than for incentives (see prior section). But the positive response was bipartisan, including 57% of Republicans and nine in ten Democrats.

The argument against regulatory standards said they create inefficient bureaucracies and restrict customers' right to choose (see box). This was convincing to a modest 53% majority, while 46% found

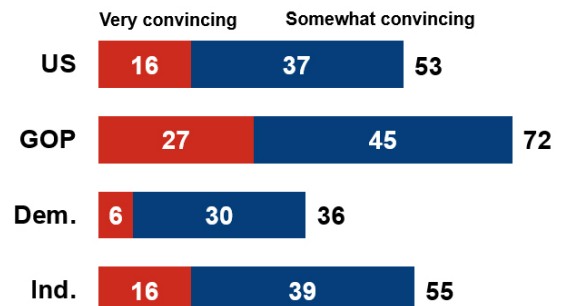
Argument: In Favor of Higher Efficiency Standards

Having higher energy efficiency standards is the quickest and most direct way to reduce carbon dioxide and other pollutants. We can't rely on businesses to increase short-term costs and make the necessary long-run changes on their own accord. It is fairer because all businesses and consumers bear the costs equally. When everyone is required to meet higher standards, it prevents some companies from getting a free ride on the efforts of environmentally responsible businesses. Furthermore, it's good for everyone because it prompts businesses to take steps that save consumers and other businesses money in the long run.



Argument: Against Higher Efficiency Standards

Having the government require businesses to follow strict standards creates expensive and inefficient bureaucracies, and it can restrict consumers' right to choose what they want to buy. It is better to let the market guide the process. Since there is money to be made in creating more efficient products and buildings, well-run businesses will take these steps on their own, and in the most cost-effective way.





it unconvincing. It also showed partisan differences: seven in ten Republicans found it convincing, but only a third of Democrats did.

Evaluating Options for Regulations

Respondents then weighed in on three specific sets of regulatory standards.

Fuel Efficiency in Cars and Light Trucks

The first set concerned the fuel efficiency of cars and light trucks: these requirements are scheduled to go up over 2017 through 2025. Respondents were told that carbon dioxide emissions would be cut by 2025 to half of their 2010 levels. This would add \$1,800 to the cost of the vehicle, but the owner would save an estimated \$5,700 on gasoline over the car's lifetime. Respondents read brief arguments, including the objection that it would increase prices on the very vehicles—light trucks and SUVs—that many Americans prefer.

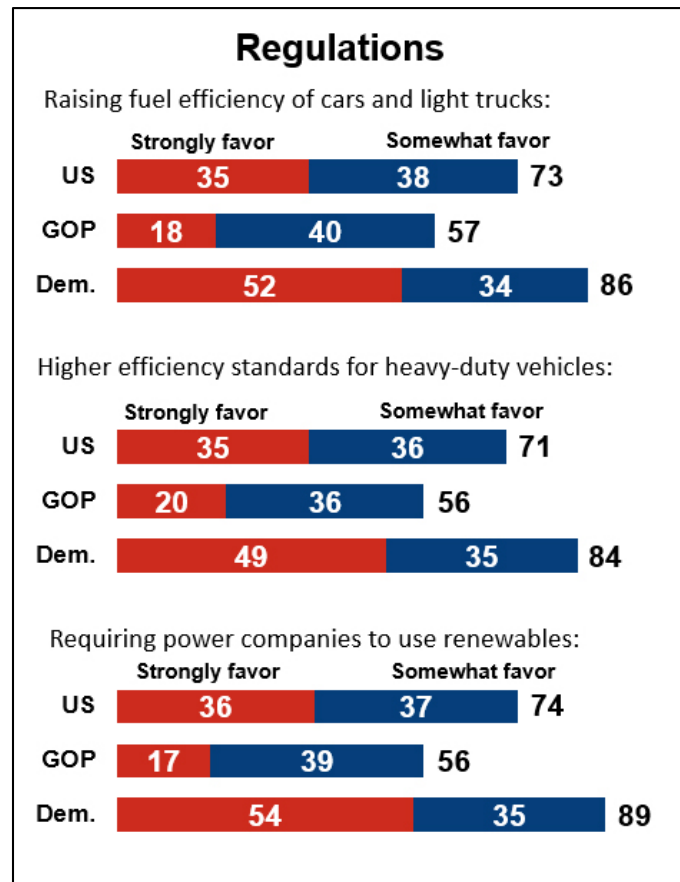
Three in four (73%) favored imposing these higher standards, with 26% opposed. Among Republicans, almost three in five (57%) favored it; among Democrats it approached nine in ten.

Fuel Efficiency in Heavy-Duty Vehicles

The second set of regulatory standards concerned heavy-duty trucks, vans, tractors and similar vehicles, starting in 2018 and increasing through 2027. By 2027, respondents learned, a new vehicle in this class would cost an extra \$1,855 but would save the owner about \$400-500 annually in lower fuel costs.

Respondents read brief arguments, including the objection that since these vehicles are the workhorses of our economy, new regulations will drive up the costs of interstate commerce, hurting businesses, increasing consumers' costs.

Seven in ten (71%) favored the higher standards, with 28% opposed. Among Republicans 56% were in favor; among Democrats, this was 84%.





Requiring Power Companies to Use Renewable Energy

Respondents were informed about the policies of 29 state governments, requiring electric utilities to have a minimum portion of their electricity come from renewable sources. They were told that these state policies are estimated to currently lower greenhouse gases from power production for the entire US by 3.6% from what it would otherwise be. They also learned that the costs have been substantially passed on to consumers, increasing their price of electricity by 1 to 2%.

Asked whether they favored such a policy in their own state, three in four supported it (74%, 36% strongly) with a quarter opposed. Among Republicans, 56% supported it; among Democrats this was nine in ten.

Respondents in the 29 states that currently require utilities to include renewables were compared with those living in the states that do not require it. In both groups of states, over seven in ten favored the requirement; the differences were not statistically significant.

Carbon Tax

Initially only a bare majority favored having a tax on carbon. However, six in ten favored the idea of using the income generated by a carbon tax to offset the impact of a carbon tax on people with low to middle incomes, and on this condition, the number favoring a carbon tax rose to two thirds. This support, though, was not bipartisan.

While a few states are considering implementing carbon taxes, this method for lowering emissions is much less familiar to Americans than tax incentives and regulations. The carbon tax was introduced in this way:

- Another method the government can use to encourage people and companies to reduce their carbon dioxide is to put a tax on it.
- Research has shown that when the cost of energy that pollutes is increased, this leads people and companies to both use that energy more efficiently and to switch more readily to cleaner forms of energy.
- A carbon tax would apply to coal, natural gas, gasoline, diesel and jet fuels. Each fuel would be taxed according to the level of carbon dioxide it releases when burned.

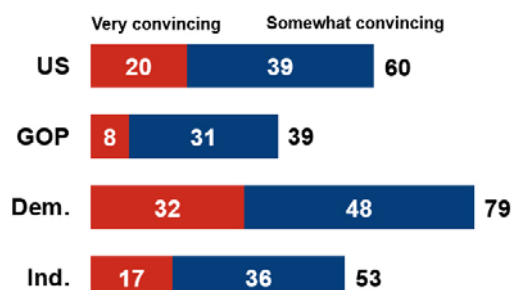
Assessing Arguments

Respondents then evaluated arguments for and against a carbon tax. The argument in favor pointed out that at present, companies that do nothing about reducing their carbon dioxide have a short-term advantage over companies that do make reductions. It urged the carbon tax as a simple, market-based solution to controlling emissions (see box).

Three in five overall found this argument convincing, but three in five Republicans rejected it. Four in five Democrats found it convincing, as did a slim majority of independents. The argument against a carbon tax pointed out that fossil fuels currently make up 85% of US energy. Thus, it said, a carbon tax will burden every part of the economy, and this burden will primarily affect people with low to middle incomes (see box). This argument did slightly better than the pro argument, with 64% finding it convincing and a third finding it unconvincing. Four in five Republicans found it convincing, but so did a bare majority of Democrats.

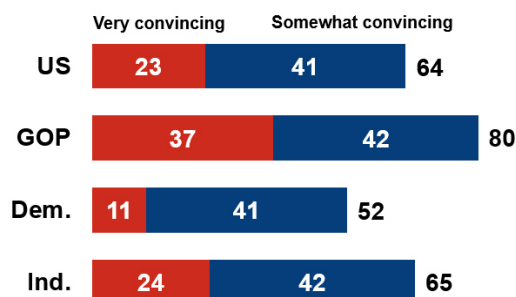
Argument: In Favor of a Carbon Tax

Carbon dioxide is bad for society, resulting in air pollution and negative effects on health and climate. But right now there are few consequences for people and companies that create a lot of carbon dioxide. Some companies may reduce their carbon dioxide because they care about the environment, but companies that don't will have an unfair, short-term economic advantage. Regulations can help, but they are complicated and expensive to enforce. It's so much simpler if we just have a carbon tax. Then people and companies will be creative—finding new ways to use energy more efficiently and developing low-carbon alternatives—and the market will reward them.



Argument: Against a Carbon Tax

Energy sources that produce carbon dioxide—especially coal, natural gas, and oil—make up 85% of US energy, so a carbon tax would burden every part of the economy. Alternative types of energy are growing, but they have nowhere near the capacity to power the whole United States. A carbon tax will just slow down the economy. Furthermore, a carbon tax would be extra hard on people with low to middle incomes, because they spend a relatively large portion of their income on their energy bills. Some also have long commutes and would pay more at the gas pump. This would be unfair.





Evaluating Options

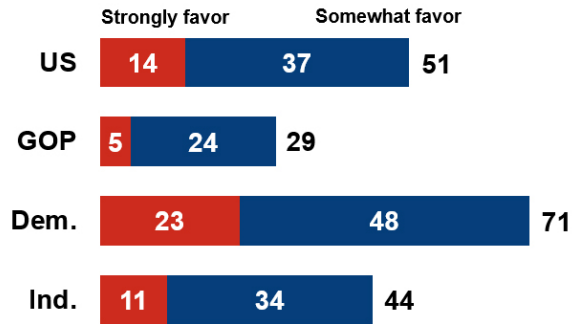
Asked whether they favored a carbon tax as a means of encourage carbon dioxide reductions, a bare majority of 51% favored it (only 14% strongly) while 48% opposed it (23% strongly). Seven in ten Republicans opposed it while seven in ten Democrats favored it; a modest majority of independents was opposed.

Respondents were then asked about a proposal to give an offsetting tax credit to those with low and middle incomes—a credit paid for in the budget by carbon tax revenue. Sixty percent favored it with 39% opposed. Three in four Democrats were in favor, and a modest majority of independents (54%) agreed with them. Among Republicans, though, only 40% favored it with three in five opposed.

Those who had opposed a carbon tax (or had not answered) were then asked how they would look on a carbon tax that included an offsetting tax credit for people with low and middle incomes. Under this condition, 15% of the full sample changed their view, resulting in a rise to two thirds (66%) in favor. Among Republicans a majority was still opposed, though support rose from 29% to 44%. Democratic support rose from 71% to 86%; independents' support rose from 44% to 59%.

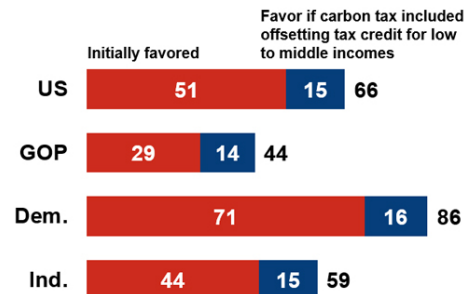
Carbon Tax

Do you favor or oppose having a carbon tax as a means of encouraging the reduction of carbon dioxide?



Carbon Tax with Offset for Low to Middle Incomes

Assuming that a carbon tax would include an offsetting tax credit for people with low to middle incomes, would you favor or oppose having a carbon tax as a means of encouraging the reduction of carbon dioxide?





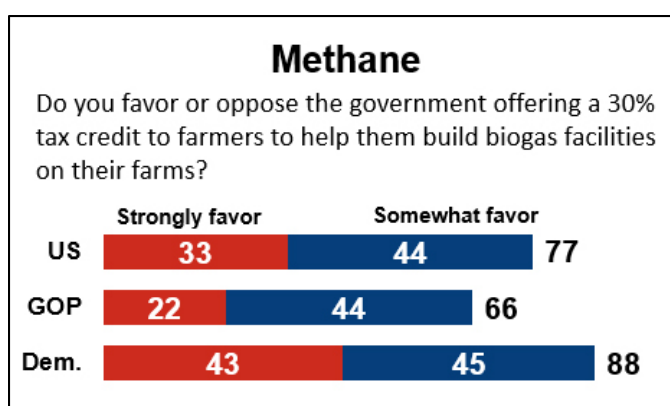
Dealing With Other Greenhouse Gases: Methane and Hydrofluorocarbons

In addition to carbon dioxide, large majorities approved of measures to reduce other greenhouse gases. Large bipartisan majorities approved of tax credits for building biogas facilities on farms, which would reduce methane. Equally large bipartisan majorities favored requiring businesses to gradually replace hydrofluorocarbons with alternative refrigerants.

While carbon dioxide is the most foreground greenhouse gas in discussions of climate change, there are other greenhouse gases that are actually considerably more potent, even if they are less prevalent. Two of these were explored in the survey.

Methane

The role of methane in climate change was presented to respondents, telling them it is emitted by animal waste, landfills and other sources, and that, ton for ton, it is 20 times more harmful as a greenhouse gas than carbon dioxide. They were told of a bill in Congress to widen the use of tax credits that help fund farmers' building of biogas facilities, converting methane from animal waste into biogas (and also keeping the waste out of rivers). The tax credit would be equal to 30% of the farmer's startup costs.

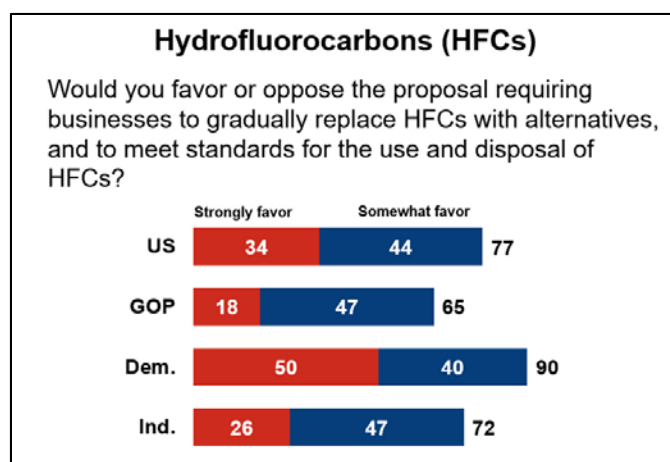


Majority support for this methane-related tax credit was large and bipartisan: 77% overall, including two in three Republicans and nine in ten Democrats.

HFCs

Respondents were also introduced to the issue of hydrofluorocarbons, used in air conditioning systems, refrigerators and freezers, and were told that HFCs are at least 400 times more harmful than carbon dioxide.

They learned of a pending regulation that would require businesses to gradually replace HFCs with more energy-efficient alternatives and meet new standards in the disposal of HFCs. They were told the overall cost to all affected businesses would be \$63 million a year, though most of the cost would be offset by energy savings. Majority support for this new regulation was at just the same level as for the biogas proposal—77%, including two thirds of Republicans and nine in ten Democrats.





APPENDIX A:

Variations Among Supporters of Different Presidential Candidates

Respondents were asked which candidate they favored for the US presidency, providing the opportunity to compare similarities and differences among the supporters of different candidates.

Majorities of all candidate supporters favored efforts to reduce carbon dioxide by providing tax credits for installing fuel-efficient lighting, doors, windows and insulation, building new energy-efficient homes, and installing wind and fuel-cell microturbines. Majorities of all groups favored requiring businesses to gradually replace hydrofluorocarbons (HFCs) with alternative refrigerants.

Majorities of all candidate supporters, except Cruz supporters (who were in all cases divided), favored requiring higher fuel efficiency standards for light cars and trucks, and heavy duty vehicles, and requiring electric companies to have a minimum portion of their electricity come from renewable sources.

Majorities of all candidate supporters, except Cruz supporters, approved of the US participating in Paris climate agreement by which the US has agreed to pursue the goal of reducing its greenhouse gases by 2% a year (half of Cruz supporters said this was tolerable). After considering the health benefits of these reductions, majorities of all groups (including Cruz supporters) said these were somewhat or very valuable. After considering the benefits relative to climate change, majorities in all groups except Cruz supporters said these were somewhat or very valuable.

As a general principle, majorities of all candidate supporters, except Cruz supporters, said that reducing air pollution is at least a somewhat high priority. But when it came to the priority of reducing greenhouse gases, Trump supporters joined Cruz supporters in diverging from the general view that it is at least a somewhat high priority.

Cruz and Trump supporters also diverged from other candidate supporters in opposing the Clean Power Plan. However, majorities of all groups converged in their support for government assistance for coal workers who lose their jobs, and in their opposition to government funding of sequestration. If such mitigating steps are taken to protect coal workers and/or the coal industry, a majority of Trump supporters and just over 50% of Cruz supporters say they would then support the Clean Power Plan.

One of the more divisive issues was a carbon tax. Large majorities of supporters of Democratic candidates favored it, while large majorities of supporters of Republican candidates opposed it. If the income generated by a carbon tax were used to offset the impact of a carbon tax on people with low to middle incomes, support for a carbon tax becomes a very slight majority among Kasich supporters, but not among Trump or Cruz supporters.



APPENDIX B:

DESIGN OF POLICYMAKING SIMULATION

Initial Briefing: Respondents were told about the debate over energy production as it relates to the environment, and that the survey would “introduce some proposals for changing the way energy is produced and used to reduce air pollution [and] reduce the production of greenhouse gases.” The first part of the initial briefing concerned air quality and health. Respondents learned about the Clean Air Act and its beneficial results for air quality, and evaluated arguments for and against making further efforts in this direction. The second part concerned greenhouse gases. Respondents were briefed on the scientific background that has led to the government’s conclusion that atmospheric and oceanic temperatures are warming. They evaluated arguments for and against making reduction of greenhouse gases a priority.

US Participation in the Paris Climate Agreement: Respondents were given a briefing on the international negotiations leading up to the agreement in Paris. This included the debate between developed and developing countries over whether the latter should limit their emissions. They saw graphs comparing total and per-capita emissions of developed and developing countries. It was spelled out that that US participation in the agreement entailed the US setting the goal of reducing greenhouse gases by approximately 2% a year. They evaluated arguments pro and con and made a first assessment of how acceptable they found US participation. They also selected whether they favored or opposed climate-related aid to poorer developing countries.

Clean Power Plan: Respondents were briefed on the CPP’s main focus—reducing carbon dioxide—and learned its steps will also reduce pollutants such as sulfur dioxide. They were told the plan calls for each state in the US to reduce carbon dioxide from power plants by 2-3% a year. Each state is to come up with a plan suited to its circumstances and energy mix. On costs, they received information about estimated increases to the price of electricity, and estimated slowing effects on the US economy, and were asked for their reaction. On benefits, they received information about estimated improvements to public health, and the importance of the CPP as a factor in the US meeting its goal for reducing greenhouse gases, and were asked for their reaction. They evaluated arguments pro and con and finally selected whether they favored or opposed the CPP.

Mitigating CPP’s Effects on Coal Industry: Respondents were briefed on “clean coal” or sequestration of carbon dioxide from coal-burning power plants, and the debate on its costs and potential benefits. They selected whether they favored or opposed the US government subsidizing sequestration facilities. Turning to coal workers, they were briefed on a bill currently in Congress that would provide adjustment assistance for industry workers who lose their jobs, and selected whether they favored or opposed it. If they had already expressed opposition to the CPP, they were now asked whether, if the government went forward with either mitigation measure, how they would view the CPP.



Tax Incentives to Reduce Greenhouse Gases: Respondents were informed that the CPP only covers about one third of the goal the US has set of reducing all greenhouse gases by about 2% a year. “Thus, it is necessary to look at other methods for reducing greenhouse gases, which will also reduce air pollution.” They evaluated pro and con arguments about tax incentives as a general method for these purposes. Then they were offered three current efficiency-related tax incentives due to expire in 2016, and were asked whether Congress should renew these incentives. They were also introduced to a current bill in Congress that would widen tax credits for farmers who build converters to turn methane (from animal waste) into biogas, and were asked whether they favored or opposed it.

Regulations to Reduce Greenhouse Gases: Respondents evaluated pro and con arguments about requiring businesses to meet higher efficiency standards. They then were asked to evaluate specific proposals for raising fuel efficiency standards for on cars and light trucks, on heavy trucks. They were also asked about state regulations requiring utilities to include a minimum of renewable sources in their energy portfolios and regulations on hydrofluorocarbons (HFCs) used in refrigeration.

Carbon tax: Respondents were introduced to the idea of a carbon tax, asked to evaluate arguments for and against it, and then select whether they favored or opposed it. They were then asked whether they would favor an offsetting tax credit for middle and lower-income people, funded by the carbon tax. Those who had opposed a carbon tax were asked whether they would view a carbon tax if the offsetting tax credit were included.

Conclusion: Respondents, now familiar with a range of methods that would be employed, were asked a final question: whether they approved or disapproved of the US setting the goal, in line with the Paris agreement, of reducing greenhouse gas emissions by an average of 2% a year. Before they answered, the key points in previous arguments, pro and con, were recapitulated for them once more.



Voice Of the People is a non-partisan organization that seeks to re-anchor our democracy in its founding principles by giving ‘We the People’ a greater role in government. VOP furthers the use of innovative methods and technology to give the American people a more effective voice in the policymaking process.

VOP is working to urge Congress to take these new methods to scale so that Members of Congress have a large, scientifically-selected, representative sample of their constituents—called a Citizen Cabinet—to be consulted on current issues and providing a voice that accurately reflects the values and priorities of their district or state.



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SCHOOL OF PUBLIC POLICY, UNIVERSITY OF MARYLAND

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