

## Considering the Cost of Clean: Americans on Energy, Air Quality and Climate

*Conducted by the Program for Public Consultation, School of Public Policy, University of Maryland*

### Questionnaire: Additional States

**Field Dates:** Michigan, North Carolina, and Pennsylvania: April 16, 2016 – May 25, 2016

**Fielding Companies:** Nielsen-Scarborough

#### Sample Sizes/Margins of Error

**Michigan:** 301 (+/- 5.6%)

**North Carolina:** 258 (+/- 6.1%)

**Pennsylvania:** 310 (+/-5.6)

You will now go through a process that simulates the process a Member of Congress goes through in making a policy decision. You will:

- get a background briefing
- weigh a range of proposals, together with pro and con arguments for each
- finally, make a set of recommendations that make the most sense to you

Everything you will see has been reviewed by experts and congressional staffers, both Democrats and Republicans, so you can be assured that it is factual and balanced.

If at any time you find that you do not want to answer a question feel free to skip it and move on to the next one.

One of the challenges we face today is that the way we produce energy has some negative impacts on the environment.

In this survey, we would like to introduce some proposals for changing the way energy is produced and used to:

- reduce air pollution.
- reduce the production of greenhouse gases.

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. Your views will then be forwarded to your representatives in Congress and other agencies in the government, to give them a clearer sense of what the American people think should be done.

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.

Some forms of energy production—especially the burning of coal and to a lesser extent natural gas—contribute to soot and smog. These can contribute to increased asthma attacks, bronchitis, heart attacks and even premature deaths. These negative health effects also have economic consequences, as they result in lower productivity and lost workdays.

Over the last few decades, laws were passed, especially the Clean Air Act, which required these air pollutants to be reduced. As a result negative public health effects were reduced as well.

However, there is still significant air pollution that has negative health effects, with related economic consequences, which could be avoided with lower levels of pollution.

Here is an argument in favor of the position that it should be a **high priority** to further reduce air pollution.

Q1. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	37.9%	41.5%	<b>79.4%</b>	14.7%	5.2%	<b>19.9%</b>	0.7%
GOP	22.6%	35.3%	<b>57.9%</b>	32.2%	10.0%	<b>42.2%</b>	0.0%
Dem.	51.2%	39.4%	<b>90.6%</b>	5.0%	3.5%	<b>8.5%</b>	1.0%
<b>Pennsylvania</b>	31.4%	43.8%	<b>75.2%</b>	15.5%	7.8%	<b>23.3%</b>	1.5%
GOP	11.0%	45.8%	<b>56.8%</b>	27.1%	13.0%	<b>40.1%</b>	3.1%
Dem.	46.8%	43.9%	<b>90.7%</b>	7.1%	1.5%	<b>8.6%</b>	0.7%
<b>Michigan</b>	27.2%	46.1%	<b>73.3%</b>	15.1%	10.0%	<b>25.1%</b>	1.7%
GOP	9.5%	45.1%	<b>54.6%</b>	26.2%	17.7%	<b>43.9%</b>	1.5%
Dem.	43.6%	41.4%	<b>85.0%</b>	6.3%	6.1%	<b>12.4%</b>	2.5%

Here is an argument in favor of the position that it should be a **low priority** to further reduce air pollution.

Q2. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	11.9%	36.3%	<b>48.2%</b>	25.4%	25.7%	<b>51.1%</b>	0.7%
GOP	19.4%	42.7%	<b>62.1%</b>	24.9%	12.5%	<b>37.4%</b>	0.6%
Dem.	5.0%	27.3%	<b>32.3%</b>	33.4%	33.7%	<b>67.1%</b>	0.5%
<b>Pennsylvania</b>	16.0%	26.4%	<b>42.4%</b>	32.0%	24.2%	<b>56.2%</b>	1.4%
GOP	23.7%	41.9%	<b>65.6%</b>	24.3%	7.6%	<b>31.9%</b>	2.4%
Dem.	7.3%	16.2%	<b>23.5%</b>	39.5%	36.6%	<b>76.1%</b>	0.3%
<b>Michigan</b>	16.4%	32.4%	<b>48.8%</b>	27.2%	22.1%	<b>49.3%</b>	1.9%
GOP	36.4%	39.1%	<b>75.5%</b>	12.6%	10.7%	<b>23.3%</b>	1.1%
Dem.	5.9%	26.9%	<b>32.8%</b>	33.9%	30.8%	<b>64.7%</b>	2.5%

Q3. So now, please select how high a priority it is for you to reduce air pollution from energy production that has negative public health effects.

	Not at all a priority	Low priority	Not at all/Low priority	Somewhat high priority	Very high priority	Somewhat/Very high priority	Refused / Don't know
<b>North Carolina</b>	4.6%	14.6%	<b>19.2%</b>	46.9%	33.6%	<b>80.5%</b>	0.3%
GOP	9.2%	30.9%	<b>40.1%</b>	47.0%	12.9%	<b>59.9%</b>	0.0%
Dem.	1.8%	5.2%	<b>7.0%</b>	46.2%	46.7%	<b>92.9%</b>	0.0%
<b>Pennsylvania</b>	5.2%	22.2%	<b>27.4%</b>	39.4%	33.0%	<b>72.4%</b>	0.1%
GOP	9.0%	41.2%	<b>50.2%</b>	36.8%	12.9%	<b>49.7%</b>	0.0%
Dem.	2.2%	7.1%	<b>9.3%</b>	41.0%	49.4%	<b>90.4%</b>	0.3%
<b>Michigan</b>	4.9%	20.3%	<b>25.2%</b>	39.5%	34.8%	<b>74.3%</b>	0.4%
GOP	12.4%	42.1%	<b>54.5%</b>	31.8%	12.6%	<b>44.4%</b>	1.2%
Dem.	1.1%	7.6%	<b>8.7%</b>	41.2%	50.1%	<b>91.3%</b>	0.0%

Another debate is about how high a priority it should be to reduce the emissions from energy production, called greenhouse gases, such as carbon dioxide, which contribute to climate change.

In 2001, at the request of the administration of President George W. Bush, the National Academies of Science did a major study that concluded: “Greenhouse gases are accumulating in Earth’s atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise.”

Later in 2010 the National Academies of Science also reviewed and published a survey of 1,372 climate scientists and found that 97% agreed with this conclusion. These conclusions were also corroborated by the UN’s Intergovernmental Panel on Climate Change—a panel of over two thousand climate scientists from 154 countries around the world, often referred to as the IPCC.

The effect of the increase of greenhouse gases has been studied extensively. In 2014 a consortium of Federal agencies and outside experts produced a National Climate Assessment that concluded that as a result of increasing greenhouse gases, global average temperature has gone up significantly over the last few decades. As a result, there have been various negative consequences, such as Sea levels rising, which are projected to rise 1 to 4 feet by 2100

However, 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

Some members of Congress question whether reducing these gases will help reduce the problem of climate change, and some question whether climate change is a real problem that needs to be addressed.

While nearly all climate scientists say that climate change is a problem and that reducing gases from energy production is important, there are a small number of climate scientists who contest this view.

Nonetheless, the US government--in both the Bush administration and the Obama administration--has made it an objective to limit greenhouse gases that contribute to climate change.

The Supreme Court, in response to challenges, concluded that the evidence is ample that greenhouse gases are pollutants and thus the government should regulate them according to the Clean Air Act.

At the same time, there is still a debate within the government about *how high a priority* it should be to reduce greenhouse gases.

Here are two arguments in favor of the position that reducing greenhouse gases should be a **high priority**.

Q4. 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

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	41.2%	35.3%	<b>76.5%</b>	15.8%	7.8%	<b>23.6%</b>	0.0%
GOP	20.4%	43.7%	<b>64.1%</b>	18.6%	17.2%	<b>35.8%</b>	0.0%
Dem.	56.6%	33.2%	<b>89.8%</b>	6.9%	3.3%	<b>10.2%</b>	0.0%
<b>Pennsylvania</b>	38.5%	33.3%	<b>71.8%</b>	17.1%	10.1%	<b>27.2%</b>	1.0%
GOP	10.7%	37.5%	<b>48.2%</b>	32.6%	18.7%	<b>51.3%</b>	0.4%
Dem.	60.5%	29.2%	<b>89.7%</b>	4.5%	4.2%	<b>8.7%</b>	1.6%
<b>Michigan</b>	32.9%	35.3%	<b>68.2%</b>	16.0%	15.1%	<b>31.1%</b>	0.7%
GOP	10.4%	30.7%	<b>41.1%</b>	27.2%	31.7%	<b>58.9%</b>	0.0%
Dem.	48.8%	34.7%	<b>83.5%</b>	9.0%	6.7%	<b>15.7%</b>	0.9%

Q5. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	44.2%	36.1%	<b>80.3%</b>	14.5%	5.2%	<b>19.7%</b>	0.0%
GOP	28.2%	46.0%	<b>74.2%</b>	15.2%	10.6%	<b>25.8%</b>	0.0%
Dem.	52.9%	35.5%	<b>88.4%</b>	7.7%	4.0%	<b>11.7%</b>	0.0%
<b>Pennsylvania</b>	40.6%	32.8%	<b>73.4%</b>	16.0%	9.5%	<b>25.5%</b>	1.0%
GOP	19.4%	40.1%	<b>59.5%</b>	22.9%	16.9%	<b>39.8%</b>	0.6%
Dem.	59.1%	26.3%	<b>85.4%</b>	9.0%	4.0%	<b>13.0%</b>	1.6%
<b>Michigan</b>	33.7%	38.9%	<b>72.6%</b>	17.8%	7.7%	<b>25.5%</b>	1.9%
GOP	11.9%	44.3%	<b>56.2%</b>	32.4%	11.3%	<b>43.7%</b>	0.0%

Dem.	49.9%	33.4%	<b>83.3%</b>	7.6%	6.1%	<b>13.7%</b>	3.0%
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Here are some arguments for the position that reducing greenhouse gases should be a low priority:

Q6. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	13.0%	31.1%	<b>44.1%</b>	26.7%	28.0%	<b>54.7%</b>	1.2%
GOP	17.2%	49.5%	<b>66.7%</b>	21.4%	11.9%	<b>33.3%</b>	0.0%
Dem.	12.4%	21.5%	<b>33.9%</b>	26.7%	37.9%	<b>64.6%</b>	1.5%
<b>Pennsylvania</b>	11.8%	26.5%	<b>38.3%</b>	30.3%	30.2%	<b>60.5%</b>	1.2%
GOP	17.3%	39.8%	<b>57.1%</b>	27.3%	15.1%	<b>42.4%</b>	0.5%
Dem.	5.6%	19.9%	<b>25.5%</b>	27.7%	44.7%	<b>72.4%</b>	2.1%
<b>Michigan</b>	15.5%	28.4%	<b>43.9%</b>	28.3%	27.0%	<b>55.3%</b>	0.9%
GOP	36.2%	33.8%	<b>70.0%</b>	20.2%	9.8%	<b>30.0%</b>	0.0%
Dem.	2.4%	25.5%	<b>27.9%</b>	31.5%	39.7%	<b>71.2%</b>	0.9%

Q7. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	21.6%	26.3%	<b>47.9%</b>	23.9%	27.4%	<b>51.3%</b>	0.7%

GOP	30.7%	27.7%	<b>58.4%</b>	23.2%	18.4%	<b>41.6%</b>	0.0%
Dem.	14.6%	21.4%	<b>36.0%</b>	29.3%	34.6%	<b>63.9%</b>	0.0%
<b>Pennsylvania</b>	24.0%	23.0%	<b>47.0%</b>	19.9%	31.8%	<b>51.7%</b>	1.3%
GOP	44.3%	24.0%	<b>68.3%</b>	15.9%	15.7%	<b>31.6%</b>	0.0%
Dem.	5.2%	22.3%	<b>27.5%</b>	22.1%	47.9%	<b>70.0%</b>	2.6%
<b>Michigan</b>	29.0%	23.8%	<b>52.8%</b>	20.3%	26.4%	<b>46.7%</b>	0.5%
GOP	54.8%	29.8%	<b>84.6%</b>	8.1%	6.1%	<b>14.2%</b>	1.1%
Dem.	12.4%	19.3%	<b>31.7%</b>	24.9%	43.3%	<b>68.2%</b>	0.0%

Q8. So now, please select how high a priority it is for you to reduce greenhouse gases from energy production?

	Not at all a priority	Low priority	Not at all/Low priority	Somewhat high priority	Very high priority	Somewhat/Very high priority	Refused / Don't know
<b>North Carolina</b>	7.8%	14.4%	<b>22.2%</b>	40.9%	36.5%	<b>77.4%</b>	0.4%
GOP	15.1%	25.9%	<b>41.0%</b>	44.8%	12.9%	<b>57.7%</b>	1.2%
Dem.	3.7%	4.5%	<b>8.2%</b>	37.0%	54.8%	<b>91.8%</b>	0.0%
<b>Pennsylvania</b>	9.0%	20.9%	<b>29.9%</b>	39.8%	30.0%	<b>69.8%</b>	0.3%
GOP	18.0%	44.2%	<b>62.2%</b>	29.7%	8.1%	<b>37.8%</b>	0.0%
Dem.	1.4%	5.3%	<b>6.7%</b>	46.4%	46.4%	<b>92.8%</b>	0.5%
<b>Michigan</b>	10.1%	21.2%	<b>31.3%</b>	32.8%	35.4%	<b>68.2%</b>	0.4%
GOP	27.4%	35.1%	<b>62.5%</b>	26.8%	10.8%	<b>37.6%</b>	0.0%
Dem.	0.8%	12.0%	<b>12.8%</b>	33.3%	53.1%	<b>86.4%</b>	0.9%

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.

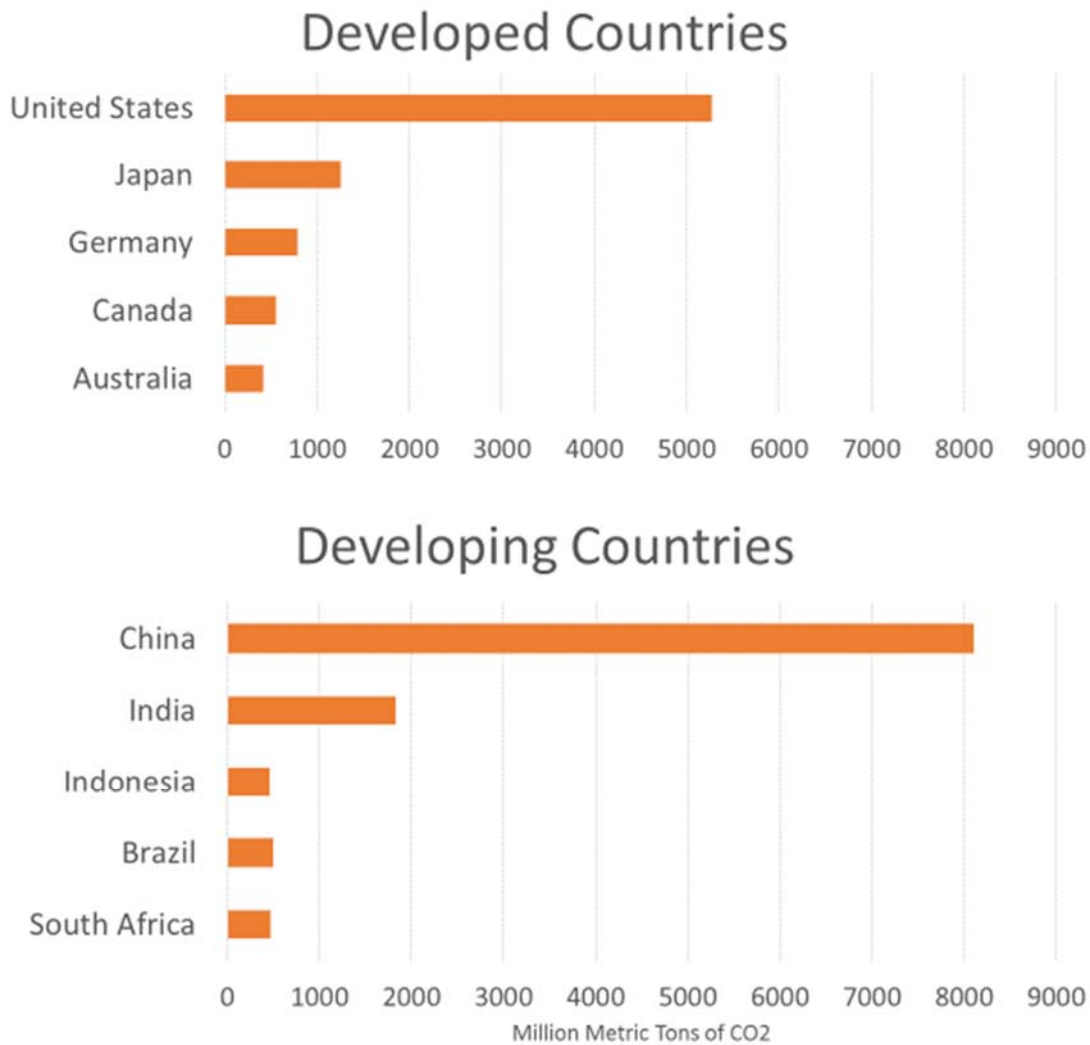
As you may know, one of the big debates in these international conferences is about whether the less wealthy developing countries should have to limit their greenhouse gases.

Developed countries, such as the US, have insisted that developing countries must limit and eventually reduce their gases, because the developing countries produce a large portion of all the greenhouse gases and are projected to produce an even larger portion in the future.

Here is a chart showing total emissions from some developed and developing countries:



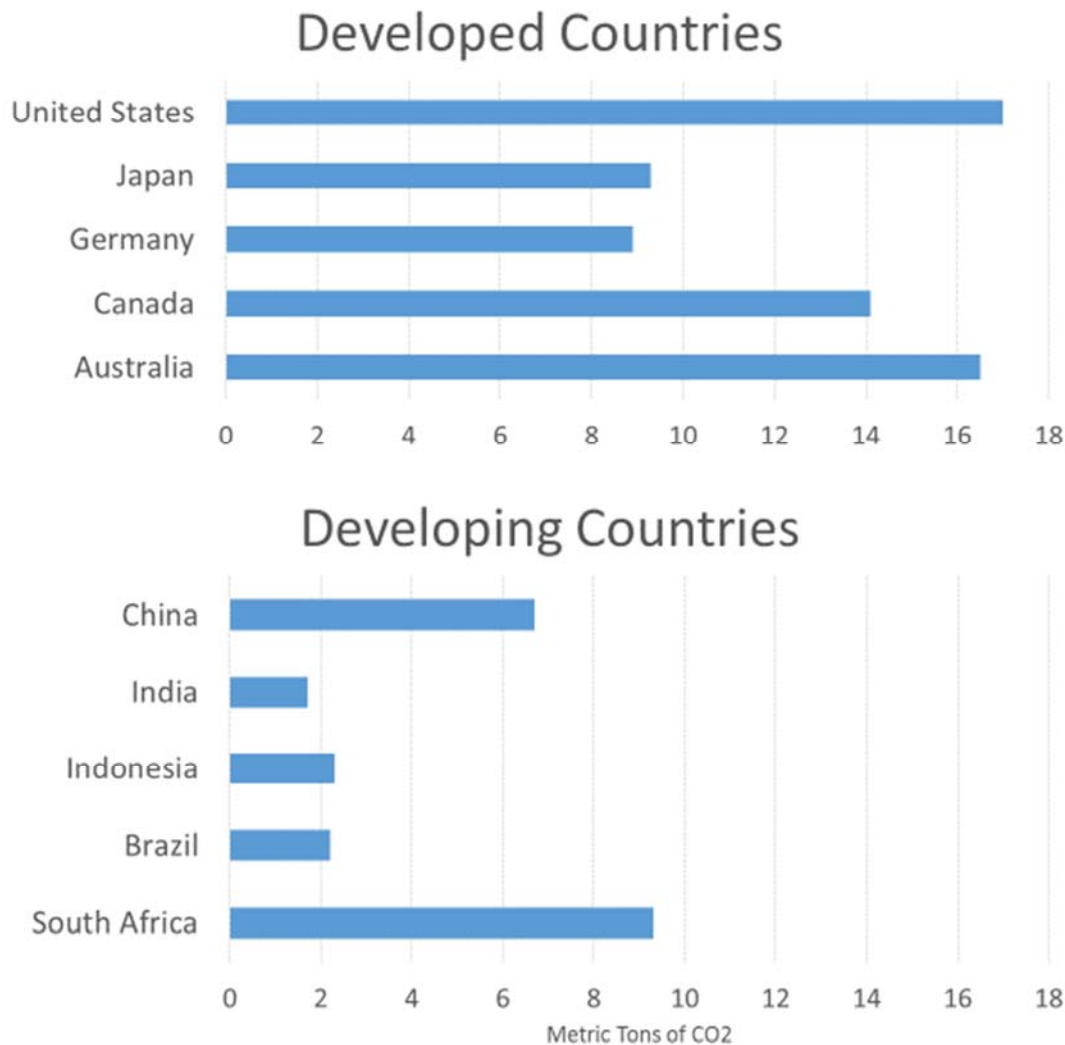
# Total Carbon Dioxide Emissions



However, developing countries have insisted that they should not have to limit their greenhouse gases because they are still growing out of poverty, and they produce far less greenhouse gases per person than developed countries.

Here is a chart that shows how countries compare in the amount of greenhouse gases they produce per person.

# Carbon Dioxide Emissions per Person



As you may know, this last December the most recent international conference was held in Paris and included about 200 nations. 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.

All the countries, including the US, presented their plans for limiting their greenhouse gases in line with this goal. While countries have not made legally binding commitments to meet this goal, the agreement requires that they have an action plan, periodically report on progress, and update this plan every five years.

This agreement refers to the IPCC’s assessment that to meet this goal, countries will need to reduce their greenhouse gases as much as 2% per year 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.

There is some debate about whether the US should continue participating in the international agreement to reduce greenhouse gases in pursuit of the goal of limiting the global temperature increase to no more than 3.4 degrees Fahrenheit.

Here is an argument **in favor** of US participation:

Q9. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	32.0%	44.7%	<b>76.7%</b>	13.4%	8.9%	<b>22.3%</b>	0.9%
GOP	18.9%	44.8%	<b>63.7%</b>	21.7%	14.5%	<b>36.2%</b>	0.0%
Dem.	45.4%	41.0%	<b>86.4%</b>	6.8%	5.7%	<b>12.5%</b>	1.1%
<b>Pennsylvania</b>	32.5%	38.7%	<b>71.2%</b>	15.5%	13.1%	<b>28.6%</b>	0.2%
GOP	8.3%	41.9%	<b>50.2%</b>	27.0%	22.2%	<b>49.2%</b>	0.5%
Dem.	51.0%	35.8%	<b>86.8%</b>	8.7%	4.6%	<b>13.3%</b>	0.0%
<b>Michigan</b>	32.8%	38.7%	<b>71.5%</b>	15.5%	12.6%	<b>28.1%</b>	0.3%
GOP	14.8%	36.7%	<b>51.5%</b>	26.2%	21.8%	<b>48.0%</b>	0.6%
Dem.	47.7%	35.3%	<b>83.0%</b>	7.9%	8.9%	<b>16.8%</b>	0.3%

Here is an argument **against** US participation:

Q10. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	21.2%	25.0%	<b>46.2%</b>	32.8%	20.5%	<b>53.3%</b>	0.5%
GOP	31.3%	23.8%	<b>55.1%</b>	32.6%	12.4%	<b>45.0%</b>	0.0%
Dem.	16.6%	26.3%	<b>42.9%</b>	30.7%	26.3%	<b>57.0%</b>	0.0%
<b>Pennsylvania</b>	18.6%	31.1%	<b>49.7%</b>	33.8%	15.8%	<b>49.6%</b>	0.6%
GOP	28.6%	41.4%	<b>70.0%</b>	24.8%	4.6%	<b>29.4%</b>	0.5%
Dem.	7.8%	21.5%	<b>29.3%</b>	44.4%	25.5%	<b>69.9%</b>	0.9%
<b>Michigan</b>	19.6%	33.4%	<b>53.0%</b>	27.3%	18.6%	<b>45.9%</b>	1.1%
GOP	35.6%	39.7%	<b>75.3%</b>	16.3%	5.8%	<b>22.1%</b>	2.7%
Dem.	9.3%	30.7%	<b>40.0%</b>	30.9%	28.7%	<b>59.6%</b>	0.4%

Q11. So, how do you feel about the US, as part of the international agreement reached in Paris, agreeing to reduce its greenhouse gases in pursuit of the goal of limiting global temperature increases to no more than 3.4 degrees Fahrenheit?

Please select how acceptable or unacceptable this proposal is to you on the scale below.

	Mean	Not Acceptable (0-4)	Just Tolerable (5)	Acceptable (6-10)	Refused / Don't know
<b>North Carolina</b>	6.4	18.1%	20.6%	60.2%	1.1%
GOP	5.0	30.8%	23.5%	45.0%	0.7%
Dem.	7.7	4.6%	15.1%	78.2%	2.1%
<b>Pennsylvania</b>	6.4	19.6%	18.1%	62.2%	0.1%
GOP	4.9	37.5%	19.1%	43.1%	0.3%
Dem.	7.7	5.4%	16.2%	78.5%	0.0%

<b>Michigan</b>	6.1	24.2%	21.0%	53.4%	1.4%
GOP	4.0	47.3%	25.5%	26.6%	0.6%
Dem.	7.6	10.8%	17.5%	69.1%	2.6%

Another issue is whether the US, together with other developed countries, should contribute to an international fund that will help poorer developing countries with the costs of reducing their greenhouse gases.

Some people argue the US **should** because:

- It is only fair, given that poorer developing countries emit so much less per person
- These poor countries can't afford to make their energy production cleaner
- When poor countries reduce their greenhouse gases it benefits the whole planet

Others argue that the US **should not** because:

- It is better to spend the money here at home
- The US already has its hands full reducing its own greenhouse gases
- Developing countries shouldn't be relying on us so much

Right now the US is planning on devoting about 2% of its foreign aid budget to this international fund, which would cover about 30% of the total fund. Other developed countries would provide the other 70%.

Q11a: Do you approve or disapprove of this plan for the US to contribute to an international fund to help poorer developing countries reduce their greenhouse gases?

	Strongly approve	Somewhat approve	Total approve	Somewhat disapprove	Strongly disapprove	Total disapprove	Refused / Don't know
<b>North Carolina</b>	18.5%	39.9%	<b>58.4%</b>	18.8%	22.2%	<b>41.0%</b>	0.6%
GOP	5.1%	32.0%	<b>37.1%</b>	25.9%	35.3%	<b>61.2%</b>	1.7%
Dem.	27.7%	40.9%	<b>68.6%</b>	20.3%	11.0%	<b>31.3%</b>	0.2%
<b>Pennsylvania</b>	20.6%	35.6%	<b>56.2%</b>	22.9%	20.2%	<b>43.1%</b>	0.7%
GOP	2.5%	28.5%	<b>31.0%</b>	29.5%	39.6%	<b>69.1%</b>	0.0%
Dem.	36.3%	38.8%	<b>75.1%</b>	17.8%	5.8%	<b>23.6%</b>	1.3%
<b>Michigan</b>	14.7%	36.9%	<b>51.6%</b>	23.5%	24.6%	<b>48.1%</b>	0.3%
GOP	3.5%	31.0%	<b>34.5%</b>	22.1%	42.8%	<b>64.9%</b>	0.6%
Dem.	25.4%	39.4%	<b>64.8%</b>	23.4%	11.3%	<b>34.7%</b>	0.4%

While we have been talking about reducing air pollution and greenhouse gases as distinct goals, in practice they are highly related.

For example, to reduce the biggest greenhouse gas, carbon dioxide, it is necessary to reduce the burning of coal, oil, and natural gas. Doing this also reduces the amount of soot and smog, which reduces negative health effects like asthma, heart attacks and premature deaths.

There are two basic strategies for reducing air pollution and thus pursuing these two goals of improving air quality and reducing greenhouse gases:

1. Producing energy in cleaner forms, that do not produce as much pollution;
2. Reducing the amount of energy used by increasing efficiency in the way energy is used.

You are now going to evaluate some specific plans for reducing air pollution and reducing greenhouse gases.

First, we are going to look at a plan for changing the way the US produces electricity. It is called the Clean Power Plan. Its primary focus is on power plants, which produce more than half of all air pollution and about one third of greenhouse gases.

Thus, while the Clean Power Plan seeks to reduce air pollution in the US, it is also a major part of the plan the US submitted at the UN conference for reducing its greenhouse gases.

Q12. How much have you heard about the Clean Power Plan?

	Nothing at all	Just a little	Some	A lot	Refused / Don't know
<b>North Carolina</b>	31.2%	35.9%	23.5%	7.4%	2.1%
GOP	28.6%	39.3%	21.5%	7.4%	3.2%
Dem.	35.5%	28.8%	25.0%	8.1%	2.6%
<b>Pennsylvania</b>	39.3%	34.3%	23.8%	2.7%	0.0%
GOP	43.5%	40.8%	14.6%	1.1%	0.0%
Dem.	34.6%	31.9%	29.2%	4.3%	0.0%
<b>Michigan</b>	36.1%	32.9%	23.7%	6.7%	0.6%
GOP	30.3%	40.8%	25.5%	2.8%	0.6%
Dem.	37.9%	25.1%	26.8%	9.4%	0.8%

The main focus of the Clean Power Plan is the reduction of carbon dioxide. However, as mentioned, the steps needed to reduce carbon dioxide will also result in the reduction of other pollutants that affect air quality, such as nitrogen oxide and sulfur dioxide.

The plan calls for each state in the US to reduce carbon dioxide from power plants by 2-3% a year. It does not specify the exact method, but rather lets each state come up with its own plan, as different methods may be easier and less expensive in different states.

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

Making these changes has both costs and benefits. We are first going to look at the costs.

The government estimates that, as a result of the money electric companies will have to spend on meeting the requirements of the Clean Power Plan, the price of electricity will initially increase by about 3%. Then, 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.

Q13. Hearing about these estimated price increases, are you:

	Surprised that they are so high	Surprised that they are so modest	Not surprised	Refused / Don't know
<b>North Carolina</b>	20.1%	29.0%	48.5%	2.4%
GOP	23.8%	25.3%	47.2%	3.7%
Dem.	19.4%	34.5%	44.3%	1.8%
<b>Pennsylvania</b>	16.1%	33.9%	50.1%	0.0%
GOP	24.8%	24.3%	50.8%	0.0%
Dem.	8.8%	44.4%	46.8%	0.0%
<b>Michigan</b>	13.1%	31.8%	54.7%	0.4%
GOP	18.2%	15.7%	64.9%	1.2%
Dem.	8.7%	43.3%	48.0%	0.0%

Another key economic cost is in terms of the effect on the economy. According to government analyses the effect of the Clean Power Plan, primarily because of the increased cost of electricity, would be to 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

It is also estimated there will be a significant number of jobs lost in certain sectors, such as the coal industry. On the other hand, jobs will be gained in new sectors that produce green energy. The overall net effect on the number of jobs is predicted to be quite small, though there will be disruption for some individuals.

Q14. Hearing about these estimated effects on the economy and jobs, are you:

	Surprised that they are so high	Surprised that they are so modest	Not surprised	Refused / Don't know
<b>North Carolina</b>	18.2%	25.0%	55.6%	1.2%
GOP	25.9%	21.4%	52.1%	0.6%
Dem.	16.6%	30.1%	52.0%	1.2%
<b>Pennsylvania</b>	10.8%	31.5%	57.7%	0.0%
GOP	12.8%	37.8%	49.4%	0.0%
Dem.	9.6%	28.9%	61.5%	0.0%
<b>Michigan</b>	9.2%	34.7%	55.3%	0.8%
GOP	15.5%	33.2%	50.7%	0.6%
Dem.	5.0%	39.4%	54.4%	1.2%

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

Q15. From your perspective, how valuable is this benefit?



	Not at all valuable	Just a little valuable	Somewhat valuable	Very valuable	Refused / Don't know
<b>North Carolina</b>	8.0%	12.2%	27.7%	51.1%	0.9%
GOP	10.0%	21.1%	29.0%	39.0%	0.9%
Dem.	3.5%	5.5%	26.4%	64.6%	0.0%
<b>Pennsylvania</b>	4.7%	15.9%	25.9%	53.6%	0.0%
GOP	10.7%	28.6%	23.6%	37.1%	0.0%
Dem.	1.0%	7.3%	22.3%	69.3%	0.0%
<b>Michigan</b>	5.8%	17.9%	28.1%	47.3%	0.9%
GOP	14.4%	34.0%	22.6%	26.2%	2.7%
Dem.	1.2%	8.6%	25.9%	64.2%	0.0%

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.

Q16. From your perspective, how valuable is this benefit?

	Not at all valuable	Just a little valuable	Somewhat valuable	Very valuable	Refused / Don't know
<b>North Carolina</b>	12.9%	12.9%	30.5%	43.3%	0.4%
GOP	23.4%	16.5%	37.0%	22.1%	1.0%
Dem.	2.6%	6.4%	25.2%	65.5%	0.3%
<b>Pennsylvania</b>	9.4%	17.6%	29.0%	43.5%	0.5%
GOP	21.2%	24.6%	34.5%	19.8%	0.0%
Dem.	1.4%	8.4%	26.5%	62.7%	0.9%
<b>Michigan</b>	13.2%	18.1%	30.5%	37.8%	0.3%
GOP	31.4%	30.7%	21.6%	15.8%	0.5%
Dem.	2.4%	13.3%	29.5%	54.4%	0.4%

We would now like you to evaluate some arguments that have been made for and against the Clean Power Plan.

Here is an argument **in favor** of the Clean Power Plan:

Q17. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	32.8%	35.6%	<b>68.4%</b>	16.5%	15.1%	<b>31.6%</b>	0.0%
GOP	12.9%	44.1%	<b>57.0%</b>	23.4%	19.5%	<b>42.9%</b>	0.0%
Dem.	50.1%	29.3%	<b>79.4%</b>	12.2%	8.4%	<b>20.6%</b>	0.0%
<b>Pennsylvania</b>	29.9%	35.4%	<b>65.3%</b>	18.0%	16.0%	<b>34.0%</b>	0.8%
GOP	6.8%	37.3%	<b>44.1%</b>	27.4%	26.3%	<b>53.7%</b>	2.2%
Dem.	48.3%	33.5%	<b>81.8%</b>	12.3%	5.9%	<b>18.2%</b>	0.0%
<b>Michigan</b>	23.6%	38.7%	<b>62.3%</b>	22.3%	15.0%	<b>37.3%</b>	0.4%
GOP	5.9%	30.2%	<b>36.1%</b>	35.6%	27.7%	<b>63.3%</b>	0.6%
Dem.	39.2%	40.3%	<b>79.5%</b>	11.5%	9.0%	<b>20.5%</b>	0.0%

Here is an argument **against** the Clean Power Plan:

Q18. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	24.0%	34.7%	<b>58.7%</b>	24.0%	17.0%	<b>41.0%</b>	0.4%
GOP	28.0%	42.8%	<b>70.8%</b>	22.2%	6.9%	<b>29.1%</b>	0.0%

Dem.	28.5%	28.8%	<b>57.3%</b>	21.5%	20.3%	<b>41.8%</b>	0.9%
<b>Pennsylvania</b>	24.6%	37.1%	<b>61.7%</b>	24.6%	13.6%	<b>38.2%</b>	0.0%
GOP	37.6%	38.3%	<b>75.9%</b>	21.5%	2.6%	<b>24.1%</b>	0.0%
Dem.	14.2%	33.8%	<b>48.0%</b>	31.8%	20.2%	<b>52.0%</b>	0.0%
<b>Michigan</b>	20.3%	38.2%	<b>58.5%</b>	26.7%	14.6%	<b>41.3%</b>	0.2%
GOP	34.0%	43.9%	<b>77.9%</b>	13.0%	8.4%	<b>21.4%</b>	0.6%
Dem.	5.8%	36.4%	<b>42.2%</b>	35.8%	22.0%	<b>57.8%</b>	0.0%

Q19. Now that you have considered these different perspectives, do you favor or oppose the Clean Power Plan?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	32.0%	37.8%	<b>69.8%</b>	18.2%	12.0%	<b>30.2%</b>	0.0%
GOP	9.9%	38.1%	<b>48.0%</b>	29.2%	22.8%	<b>52.0%</b>	0.0%
Dem.	50.6%	33.8%	<b>84.4%</b>	11.7%	3.8%	<b>15.5%</b>	0.0%
<b>Pennsylvania</b>	31.8%	39.3%	<b>71.1%</b>	16.2%	11.3%	<b>27.5%</b>	1.3%
GOP	7.3%	40.1%	<b>47.4%</b>	27.8%	21.4%	<b>49.2%</b>	3.4%
Dem.	54.0%	34.3%	<b>88.3%</b>	9.7%	2.1%	<b>11.8%</b>	0.0%
<b>Michigan</b>	31.6%	34.9%	<b>66.5%</b>	20.8%	11.9%	<b>32.7%</b>	0.8%
GOP	10.2%	21.0%	<b>31.2%</b>	39.3%	29.0%	<b>68.3%</b>	0.6%
Dem.	52.8%	36.5%	<b>89.3%</b>	9.5%	1.2%	<b>10.7%</b>	0.0%

As you may know, these days, the coal industry is under increasing competition, especially from natural gas. One concern about the Clean Power Plan is that it will put more pressure on coal, because burning coal creates so much more carbon dioxide than other energy forms. Thus, it could lead to even more coal plants shutting down.

There is a method being developed, however, for greatly reducing the carbon dioxide from coal. It is known as 'sequestration.' What it does is to capture the carbon dioxide from coal plants and store it underground in caverns and empty oil wells, rather than releasing it into the air.

The problem, though, is the only way it can be economical is if the government covers much of the cost of developing and building the technology.

Some people argue **in favor** of this idea saying:

- the government should subsidize sequestration, because otherwise coal, a major American resource, will be made commercially unviable.
- this wouldn't be fair because it puts the brunt on the coal industry, especially coal workers who would lose their jobs.
- if we develop this technology we can sell it to other countries and help them reduce their carbon dioxide too.

Others argue **against** this idea saying:

- sequestration technology is unproven and expensive.
- it's better to spend the money promoting cleaner forms of energy, such as solar and wind, which are now similar in cost or even cheaper than coal.
- it's better to create jobs in these new industries than to try to shore up a dying industry.

Q20. So now, 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?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	15.5%	30.9%	<b>46.4%</b>	26.5%	26.3%	<b>52.8%</b>	0.9%
GOP	6.0%	39.3%	<b>45.3%</b>	24.7%	29.0%	<b>53.7%</b>	0.9%
Dem.	25.1%	26.4%	<b>51.5%</b>	30.2%	18.2%	<b>48.4%</b>	0.0%
<b>Pennsylvania</b>	6.1%	33.5%	<b>39.6%</b>	32.7%	26.5%	<b>59.2%</b>	1.2%
GOP	2.4%	39.1%	<b>41.5%</b>	24.6%	33.9%	<b>58.5%</b>	0.0%
Dem.	9.3%	30.1%	<b>39.4%</b>	36.0%	22.3%	<b>58.3%</b>	2.3%
<b>Michigan</b>	13.2%	29.6%	<b>42.8%</b>	27.4%	28.8%	<b>56.2%</b>	1.0%
GOP	5.3%	24.7%	<b>30.0%</b>	33.9%	36.1%	<b>70.0%</b>	0.0%
Dem.	17.7%	34.9%	<b>52.6%</b>	21.5%	23.8%	<b>45.3%</b>	2.1%

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.

One possibility for helping people in the coal industry who lose their jobs is for the government to provide them support and training to make the transition to other employment. There is a bill in Congress that proposes this; it would cost about \$500 million in its first year.

Some 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.

Others say it is not the government’s job to take care of everyone affected by economic change and these programs are often not effective.

Q21. So now, do you favor or oppose government assistance to help coal workers who lose their jobs?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	33.2%	42.6%	<b>75.8%</b>	18.5%	5.0%	<b>23.5%</b>	0.8%
GOP	30.1%	42.4%	<b>72.5%</b>	22.3%	5.2%	<b>27.5%</b>	0.0%
Dem.	32.6%	45.7%	<b>78.3%</b>	14.9%	5.7%	<b>20.6%</b>	1.1%
<b>Pennsylvania</b>	25.2%	42.9%	<b>68.1%</b>	21.0%	10.3%	<b>31.3%</b>	0.6%
GOP	14.5%	36.5%	<b>51.0%</b>	30.8%	18.2%	<b>49.0%</b>	0.0%
Dem.	33.8%	48.4%	<b>82.2%</b>	13.4%	3.2%	<b>16.6%</b>	1.2%
<b>Michigan</b>	24.4%	42.0%	<b>66.4%</b>	23.8%	9.8%	<b>33.6%</b>	0.0%
GOP	9.4%	39.1%	<b>48.5%</b>	30.8%	20.7%	<b>51.5%</b>	0.0%
Dem.	33.9%	44.6%	<b>78.5%</b>	17.5%	4.0%	<b>21.5%</b>	0.0%

Q22. Suppose the government were to either:

--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?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	3.3%	9.9%	<b>13.2%</b>	2.9%	4.6%	<b>7.5%</b>	79.2%
GOP	2.2%	14.9%	<b>17.1%</b>	2.7%	13.2%	<b>15.9%</b>	67.1%
Dem.	3.5%	7.1%	<b>10.6%</b>	0.0%	1.5%	<b>1.5%</b>	87.8%
<b>Pennsylvania</b>	1.9%	7.4%	<b>9.3%</b>	6.5%	1.8%	<b>8.3%</b>	82.3%
GOP	4.3%	13.1%	<b>17.4%</b>	10.6%	4.9%	<b>15.5%</b>	67.1%
Dem.	0.7%	4.0%	<b>4.7%</b>	3.6%	0.0%	<b>3.6%</b>	91.7%

<b>Michigan</b>	1.4%	8.9%	<b>10.3%</b>	7.4%	3.4%	<b>10.8%</b>	78.9%
GOP	1.4%	14.7%	<b>16.1%</b>	15.7%	7.4%	<b>23.1%</b>	60.8%
Dem.	2.1%	3.2%	<b>5.3%</b>	2.2%	1.2%	<b>3.4%</b>	91.2%

Summary of Q19:Q22—Do you favor or oppose the Clean Power Plan?

	Initially favored	Favor with assistance provided to coal industry workers	Favor only with carbon sequestration	Total Favor	Oppose	Refused / Don't know
<b>North Carolina</b>	70%	11%	3%	<b>83%</b>	17%	0%
GOP	48%	16%	2%	<b>65%</b>	35%	0%
Dem.	84%	8%	3%	<b>95%</b>	5%	0%
<b>Pennsylvania</b>	71%	9%	1%	<b>81%</b>	19%	<1%
GOP	47%	15%	2%	<b>65%</b>	34%	1%
Dem.	88%	5%	0%	<b>93%</b>	7%	0%
<b>Michigan</b>	67%	7%	3%	<b>77%</b>	23%	1%
GOP	31%	13%	3%	<b>47%</b>	53%	0%
Dem.	89%	3%	2%	<b>95%</b>	5%	0%

As mentioned previously, the Clean Power Plan primarily deals with reducing carbon dioxide in the production of electricity. It 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.

One method the government can use to encourage people to reduce greenhouse gases and reduce air pollution is to provide them **tax incentives** such as deductions or credits. The government can provide incentives for purchasing energy-efficient cars, buildings and appliances or for using greener forms of energy.

Here is an argument **in favor** of the government providing such tax incentives.

Q23. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	20.0%	46.2%	<b>66.2%</b>	22.6%	11.0%	<b>33.6%</b>	0.3%
GOP	7.8%	38.9%	<b>46.7%</b>	29.2%	23.1%	<b>52.3%</b>	0.9%
Dem.	32.6%	48.9%	<b>81.5%</b>	14.3%	4.2%	<b>18.5%</b>	0.0%
<b>Pennsylvania</b>	21.0%	41.6%	<b>62.6%</b>	23.4%	13.1%	<b>36.5%</b>	0.8%
GOP	5.0%	37.6%	<b>42.6%</b>	32.7%	24.2%	<b>56.9%</b>	0.5%
Dem.	33.7%	44.4%	<b>78.1%</b>	19.3%	1.3%	<b>20.6%</b>	1.2%
<b>Michigan</b>	16.8%	47.4%	<b>64.2%</b>	19.0%	16.8%	<b>35.8%</b>	0.0%
GOP	3.9%	39.9%	<b>43.8%</b>	19.1%	37.1%	<b>56.2%</b>	0.0%
Dem.	24.7%	52.5%	<b>77.2%</b>	19.6%	3.2%	<b>22.8%</b>	0.0%

Here is an argument **against** the government providing such tax incentives.

Q24. 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	17.1%	41.4%	<b>58.5%</b>	27.6%	11.5%	<b>39.1%</b>	2.4%
GOP	30.4%	47.0%	<b>77.4%</b>	15.8%	5.7%	<b>21.5%</b>	1.1%
Dem.	14.0%	31.9%	<b>45.9%</b>	34.5%	14.6%	<b>49.1%</b>	5.0%
<b>Pennsylvania</b>	21.4%	39.1%	<b>60.5%</b>	30.5%	8.3%	<b>38.8%</b>	0.8%
GOP	35.8%	35.6%	<b>71.4%</b>	23.1%	5.5%	<b>28.6%</b>	0.0%

Dem.	8.9%	39.1%	<b>48.0%</b>	40.4%	10.0%	<b>50.4%</b>	1.6%
<b>Michigan</b>	19.8%	42.4%	<b>62.2%</b>	28.2%	8.8%	<b>37.0%</b>	0.8%
GOP	40.0%	36.9%	<b>76.9%</b>	17.3%	5.9%	<b>23.2%</b>	0.0%
Dem.	6.6%	45.3%	<b>51.9%</b>	34.2%	12.9%	<b>47.1%</b>	1.1%

Let us look at some specific tax incentives.

As you may know, for some years now the government has offered consumers and businesses tax credits for better insulating buildings, or for purchasing large appliance units that are highly efficient for heating, cooling, and heating water. These tax credits are only for highly efficient products and are scheduled to expire at the end of 2016.

Q25 a-c: Please select whether you favor or oppose the government continuing the tax credits beyond 2016 for:

Q25a. Paying to install fuel-efficient lighting, doors, windows and insulation for homes and businesses

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	43.2%	37.1%	<b>80.3%</b>	9.4%	7.8%	<b>17.2%</b>	2.5%
GOP	26.6%	42.3%	<b>68.9%</b>	12.7%	13.8%	<b>26.5%</b>	4.6%
Dem.	59.2%	28.3%	<b>87.5%</b>	8.9%	2.1%	<b>11.0%</b>	1.4%
<b>Pennsylvania</b>	40.4%	34.4%	<b>74.8%</b>	15.3%	9.3%	<b>24.6%</b>	0.6%
GOP	25.3%	35.3%	<b>60.6%</b>	21.6%	17.8%	<b>39.4%</b>	0.0%
Dem.	55.0%	30.8%	<b>85.8%</b>	11.1%	1.9%	<b>13.0%</b>	1.1%
<b>Michigan</b>	40.7%	28.9%	<b>69.6%</b>	10.0%	10.9%	<b>20.9%</b>	9.4%
GOP	29.2%	24.1%	<b>53.3%</b>	15.1%	27.4%	<b>42.5%</b>	4.3%
Dem.	47.6%	31.5%	<b>79.1%</b>	3.2%	1.9%	<b>5.1%</b>	15.8%

Q25b. Building new energy-efficient homes

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	49.5%	33.4%	<b>82.9%</b>	9.1%	4.7%	<b>13.8%</b>	3.3%
GOP	30.0%	37.7%	<b>67.7%</b>	18.9%	7.9%	<b>26.8%</b>	5.5%
Dem.	61.8%	30.5%	<b>92.3%</b>	4.2%	1.0%	<b>5.2%</b>	2.6%



<b>Pennsylvania</b>	40.6%	35.6%	<b>76.2%</b>	14.8%	8.2%	<b>23.0%</b>	0.7%
GOP	23.9%	40.3%	<b>64.2%</b>	21.9%	13.4%	<b>35.3%</b>	0.4%
Dem.	55.1%	31.1%	<b>86.2%</b>	9.7%	2.9%	<b>12.6%</b>	1.1%
<b>Michigan</b>	42.7%	28.9%	<b>71.6%</b>	9.9%	9.7%	<b>19.6%</b>	8.8%
GOP	33.3%	25.5%	<b>58.8%</b>	12.7%	24.2%	<b>36.9%</b>	4.3%
Dem.	50.3%	26.4%	<b>76.7%</b>	6.5%	1.7%	<b>8.2%</b>	15.1%

Q25c. Installing small residential wind and fuel cell micro-turbines to generate energy for homes

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	44.7%	29.9%	<b>74.6%</b>	13.3%	7.8%	<b>21.1%</b>	4.2%
GOP	22.9%	37.8%	<b>60.7%</b>	16.8%	14.1%	<b>30.9%</b>	8.4%
Dem.	56.4%	27.1%	<b>83.5%</b>	11.9%	2.0%	<b>13.9%</b>	2.6%
<b>Pennsylvania</b>	37.5%	33.8%	<b>71.3%</b>	18.1%	10.1%	<b>28.2%</b>	0.6%
GOP	21.1%	35.7%	<b>56.8%</b>	24.2%	19.1%	<b>43.3%</b>	0.0%
Dem.	51.3%	32.7%	<b>84.0%</b>	12.6%	2.2%	<b>14.8%</b>	1.1%
<b>Michigan</b>	41.6%	26.2%	<b>67.8%</b>	11.4%	11.3%	<b>22.7%</b>	9.5%
GOP	25.7%	26.6%	<b>52.3%</b>	16.1%	27.4%	<b>43.5%</b>	4.3%
Dem.	51.0%	25.0%	<b>76.0%</b>	5.4%	2.0%	<b>7.4%</b>	16.6%

Most of the ideas that we have explored so far focus on reducing carbon dioxide. Other ideas focus on reducing other greenhouse gases. One of these is methane, which is emitted by animal waste, landfills and other sources. Methane is responsible for a significant amount of climate change and--ton for ton--is 20 times more harmful than carbon dioxide.

One way to reduce methane (and also create renewable energy) is to convert the methane from animal waste into 'biogas,' which can be used for powering cars or generating electricity. This way methane does not go into the atmosphere as it normally does. Also, then the animal waste does not get dumped into rivers.

A bill in Congress calls for providing a tax credit equal to 30% of startup costs to farmers who build biogas facilities on their farms.

Q26. Do you favor or oppose the government offering a 30% tax credit to farmers to help them build biogas facilities on their farms?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	37.2%	45.5%	<b>82.7%</b>	9.9%	6.8%	<b>16.7%</b>	0.7%
GOP	21.9%	55.9%	<b>77.8%</b>	11.8%	10.4%	<b>22.2%</b>	0.0%
Dem.	42.4%	44.6%	<b>87.0%</b>	7.3%	4.1%	<b>11.4%</b>	1.6%
<b>Pennsylvania</b>	37.2%	43.5%	<b>80.7%</b>	9.4%	9.5%	<b>18.9%</b>	0.4%
GOP	25.9%	47.9%	<b>73.8%</b>	12.1%	14.1%	<b>26.2%</b>	0.0%
Dem.	49.0%	39.7%	<b>88.7%</b>	7.6%	2.7%	<b>10.3%</b>	0.9%
<b>Michigan</b>	31.3%	42.4%	<b>73.7%</b>	17.7%	7.9%	<b>25.6%</b>	0.6%
GOP	13.8%	43.7%	<b>57.5%</b>	24.6%	16.9%	<b>41.5%</b>	1.0%
Dem.	43.1%	44.1%	<b>87.2%</b>	12.1%	0.0%	<b>12.1%</b>	0.7%

Besides tax incentives, another method the government can use to reduce the amount of energy used is to require businesses to meet **higher efficiency standards** for new cars, trucks, buildings and appliances.

Q27. Here is an argument **in favor** of establishing higher energy 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	27.0%	46.0%	<b>73.0%</b>	20.0%	5.2%	<b>25.2%</b>	1.7%
GOP	12.0%	50.8%	<b>62.8%</b>	22.3%	13.3%	<b>35.6%</b>	1.5%
Dem.	36.6%	45.8%	<b>82.4%</b>	16.3%	0.6%	<b>16.9%</b>	0.7%
<b>Pennsylvania</b>	26.8%	42.0%	<b>68.8%</b>	21.5%	9.1%	<b>30.6%</b>	0.6%
GOP	11.0%	40.2%	<b>51.2%</b>	31.6%	17.2%	<b>48.8%</b>	0.0%
Dem.	40.9%	45.4%	<b>86.3%</b>	11.7%	0.8%	<b>12.5%</b>	1.2%

<b>Michigan</b>	21.1%	53.3%	<b>74.4%</b>	13.4%	10.4%	<b>23.8%</b>	1.8%
GOP	9.1%	38.8%	<b>47.9%</b>	23.0%	26.4%	<b>49.4%</b>	2.7%
Dem.	32.4%	59.0%	<b>91.4%</b>	6.6%	0.0%	<b>6.6%</b>	2.0%

Q28. Here is an argument **against** establishing higher energy 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	14.6%	36.1%	<b>50.7%</b>	27.5%	20.5%	<b>48.0%</b>	1.3%
GOP	23.1%	46.9%	<b>70.0%</b>	24.2%	4.9%	<b>29.1%</b>	0.9%
Dem.	10.5%	27.5%	<b>38.0%</b>	30.6%	31.2%	<b>61.8%</b>	0.2%
<b>Pennsylvania</b>	15.7%	31.1%	<b>46.8%</b>	33.9%	17.1%	<b>51.0%</b>	2.2%
GOP	25.6%	35.6%	<b>61.2%</b>	24.5%	10.6%	<b>35.1%</b>	3.6%
Dem.	6.2%	25.0%	<b>31.2%</b>	43.4%	24.3%	<b>67.7%</b>	1.2%
<b>Michigan</b>	20.3%	33.9%	<b>54.2%</b>	27.4%	16.0%	<b>43.4%</b>	2.4%
GOP	38.2%	42.9%	<b>81.1%</b>	15.3%	1.1%	<b>16.4%</b>	2.6%
Dem.	6.6%	29.6%	<b>36.2%</b>	34.8%	26.3%	<b>61.1%</b>	2.6%

Here is a government proposal for gradually raising the requirements for the **fuel efficiency of cars and light trucks**, starting in 2017:

By 2025, newly built cars and light trucks would be required to emit half the carbon dioxide of a 2010 model car or truck. This rule would ultimately 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.

Some say that this is a cost-effective way to reduce carbon dioxide, and requiring it ensures that it will happen sooner rather than later.

Others criticize this rule, because it increases the cost of light trucks and SUVs, which are critical to auto manufacturers' profits and are popular among many Americans.

Q29. Do you favor or oppose gradually raising the fuel efficiency of light cars and trucks, starting in 2017 and continuing through 2025?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	37.6%	37.3%	<b>74.9%</b>	18.1%	7.0%	<b>25.1%</b>	0.0%
GOP	20.0%	35.3%	<b>55.3%</b>	31.0%	13.7%	<b>44.7%</b>	0.0%
Dem.	47.7%	38.4%	<b>86.1%</b>	12.8%	1.1%	<b>13.9%</b>	0.0%
<b>Pennsylvania</b>	37.8%	35.4%	<b>73.2%</b>	16.8%	9.7%	<b>26.5%</b>	0.3%
GOP	21.1%	34.1%	<b>55.2%</b>	26.7%	18.0%	<b>44.7%</b>	0.0%
Dem.	52.0%	35.7%	<b>87.7%</b>	9.0%	2.8%	<b>11.8%</b>	0.6%
<b>Michigan</b>	29.8%	40.3%	<b>70.1%</b>	18.5%	10.3%	<b>28.8%</b>	1.1%
GOP	11.4%	36.5%	<b>47.9%</b>	28.2%	22.4%	<b>50.6%</b>	1.6%
Dem.	43.0%	42.7%	<b>85.7%</b>	10.2%	2.8%	<b>13.0%</b>	1.3%

The government is also proposing a new **fuel efficiency standard for heavy-duty trucks, vans, tractors and similar vehicles**, starting in 2018. This standard would require gradually greater fuel economy through the year 2027. By 2027, 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.

Some say that heavy-duty vehicles are major sources of air pollution and greenhouse gases and so this higher efficiency standard is necessary.

Others say that these vehicles are the workhorses of our economy and these regulations will drive up the costs of interstate commerce, which will hurt businesses and increase costs for consumers.

Q30. Do you favor or oppose a higher fuel efficiency standard on heavy-duty vehicles?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	34.1%	34.5%	<b>68.6%</b>	18.8%	10.1%	<b>28.9%</b>	2.5%
GOP	15.7%	39.2%	<b>54.9%</b>	28.4%	16.7%	<b>45.1%</b>	0.0%
Dem.	49.5%	26.9%	<b>76.4%</b>	16.0%	4.1%	<b>20.1%</b>	3.6%
<b>Pennsylvania</b>	38.2%	36.5%	<b>74.7%</b>	15.7%	8.7%	<b>24.4%</b>	0.8%
GOP	24.0%	37.4%	<b>61.4%</b>	21.3%	16.7%	<b>38.0%</b>	0.5%

Dem.	51.9%	32.0%	<b>83.9%</b>	13.2%	1.5%	<b>14.7%</b>	1.3%
<b>Michigan</b>	29.9%	34.4%	<b>64.3%</b>	23.5%	11.5%	<b>35.0%</b>	0.8%
GOP	13.4%	34.2%	<b>47.6%</b>	25.2%	26.0%	<b>51.2%</b>	1.2%
Dem.	43.9%	31.8%	<b>75.7%</b>	21.7%	1.7%	<b>23.4%</b>	0.9%

Another option is for government to require electric companies to have a minimum portion of their electricity come from renewable sources that produce little or no air pollution or greenhouse gases, such as solar, wind and bio-gas. State governments have established such minimums in 29 states, and the National Renewable Energy Laboratory estimates that currently they reduce greenhouse gases from power production for the entire US by 3.6%. The costs of these programs have been substantially passed on to consumers, increasing their price of electricity by 1 to 2 percent.

Q31. Do you favor or oppose your own state requiring that electric companies have a minimum portion of their electricity come from renewable sources such as solar, wind or bio-gas?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	39.2%	37.6%	<b>76.8%</b>	12.2%	9.1%	<b>21.3%</b>	1.9%
GOP	16.6%	40.6%	<b>57.2%</b>	22.2%	17.8%	<b>40.0%</b>	2.8%
Dem.	55.6%	33.7%	<b>89.3%</b>	7.0%	1.1%	<b>8.1%</b>	2.6%
<b>Pennsylvania</b>	31.8%	43.3%	<b>75.1%</b>	13.1%	11.1%	<b>24.2%</b>	0.6%
GOP	17.2%	46.9%	<b>64.1%</b>	16.0%	19.0%	<b>35.0%</b>	0.8%
Dem.	45.2%	38.7%	<b>83.9%</b>	11.7%	3.8%	<b>15.5%</b>	0.7%
<b>Michigan</b>	35.9%	36.4%	<b>72.3%</b>	17.2%	9.6%	<b>26.8%</b>	0.8%
GOP	11.7%	35.3%	<b>47.0%</b>	31.9%	20.0%	<b>51.9%</b>	1.1%
Dem.	53.4%	35.4%	<b>88.8%</b>	9.0%	1.2%	<b>10.2%</b>	1.0%

Another group of greenhouse gases are hydrofluorocarbons (or HFCs), which are used in air conditioning systems, refrigerators and freezers. In terms of producing climate change, HFCs are far more harmful than carbon dioxide or even methane. Ton for ton, HFCs are at least 400 times more harmful than carbon dioxide.

One proposal for regulating HFCs requires businesses to:

- ensure less leakage of HFCs.
- use HFCs more efficiently.

- meet new standards in the disposal of HFCs.
- gradually replace HFCs with alternatives (which are also more energy efficient).

This proposal would cost all affected businesses an overall total of \$63 million per year, but because the alternatives are more energy-efficient for the consumer, most of this cost can be offset.

Q32. So now, would you favor or oppose the proposal requiring businesses to gradually replace HFCs with alternatives, and to meet standards for the use and disposal of HFCs?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	34.7%	40.8%	<b>75.5%</b>	15.4%	7.3%	<b>22.7%</b>	1.8%
GOP	15.7%	49.1%	<b>64.8%</b>	21.2%	11.5%	<b>32.7%</b>	2.5%
Dem.	48.0%	33.8%	<b>81.8%</b>	11.9%	3.9%	<b>15.8%</b>	2.4%
<b>Pennsylvania</b>	32.2%	44.5%	<b>76.7%</b>	14.8%	7.3%	<b>22.1%</b>	1.1%
GOP	17.0%	45.7%	<b>62.7%</b>	23.4%	13.4%	<b>36.8%</b>	0.5%
Dem.	45.9%	44.9%	<b>90.8%</b>	6.4%	1.6%	<b>8.0%</b>	1.2%
<b>Michigan</b>	28.4%	47.2%	<b>75.6%</b>	14.9%	7.3%	<b>22.2%</b>	2.2%
GOP	8.1%	49.6%	<b>57.7%</b>	22.7%	16.6%	<b>39.3%</b>	2.9%
Dem.	43.0%	45.0%	<b>88.0%</b>	9.8%	0.8%	<b>10.6%</b>	1.5%

Besides tax incentives and regulations, another method the government can use to encourage people and companies to reduce their carbon dioxide is to put a tax on it. This is known as a **carbon tax**.

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.

Q33. Here is an 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	22.9%	37.3%	<b>60.2%</b>	22.1%	15.7%	<b>37.8%</b>	2.0%
GOP	8.5%	43.7%	<b>52.2%</b>	21.5%	25.3%	<b>46.8%</b>	0.9%
Dem.	29.0%	43.5%	<b>72.5%</b>	18.8%	7.0%	<b>25.8%</b>	1.7%
<b>Pennsylvania</b>	19.0%	39.6%	<b>58.6%</b>	22.5%	18.4%	<b>40.9%</b>	0.5%
GOP	5.1%	33.6%	<b>38.7%</b>	27.1%	34.2%	<b>61.3%</b>	0.0%
Dem.	31.5%	45.3%	<b>76.8%</b>	18.6%	3.6%	<b>22.2%</b>	1.0%
<b>Michigan</b>	19.0%	39.5%	<b>58.5%</b>	21.5%	17.8%	<b>39.3%</b>	2.2%
GOP	6.1%	26.9%	<b>33.0%</b>	32.0%	34.4%	<b>66.4%</b>	0.6%
Dem.	30.1%	50.4%	<b>80.5%</b>	12.1%	5.0%	<b>17.1%</b>	2.3%

Q34. Here is an 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.

How convincing do you find this argument?

	Very convincing	Somewhat convincing	Total convincing	Somewhat unconvincing	Very unconvincing	Total unconvincing	Refused / Don't know
<b>North Carolina</b>	26.3%	37.0%	<b>63.3%</b>	23.1%	12.0%	<b>35.1%</b>	1.6%
GOP	31.3%	46.9%	<b>78.2%</b>	14.0%	7.9%	<b>21.9%</b>	0.0%
Dem.	22.9%	35.0%	<b>57.9%</b>	28.4%	12.2%	<b>40.6%</b>	1.4%
<b>Pennsylvania</b>	27.8%	39.0%	<b>66.8%</b>	23.9%	9.3%	<b>33.2%</b>	0.0%
GOP	42.7%	30.8%	<b>73.5%</b>	19.6%	6.9%	<b>26.5%</b>	0.0%
Dem.	15.1%	45.0%	<b>60.1%</b>	27.4%	12.5%	<b>39.9%</b>	0.0%

<b>Michigan</b>	24.6%	41.8%	<b>66.4%</b>	21.3%	10.2%	<b>31.5%</b>	2.2%
<b>GOP</b>	41.2%	39.2%	<b>80.4%</b>	14.5%	2.9%	<b>17.4%</b>	2.2%
<b>Dem.</b>	10.8%	43.1%	<b>53.9%</b>	26.6%	18.5%	<b>45.1%</b>	1.0%

Q35. So now, having considered these arguments, do you favor or oppose having a carbon tax as a means of encouraging the reduction of carbon dioxide:

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	14.3%	35.0%	<b>49.3%</b>	28.7%	20.8%	<b>49.5%</b>	1.2%
<b>GOP</b>	6.0%	35.4%	<b>41.4%</b>	29.2%	29.5%	<b>58.7%</b>	0.0%
<b>Dem.</b>	17.1%	43.8%	<b>60.9%</b>	31.6%	7.1%	<b>38.7%</b>	0.4%
<b>Pennsylvania</b>	14.1%	34.2%	<b>48.3%</b>	27.6%	23.7%	<b>51.3%</b>	0.5%
<b>GOP</b>	3.3%	22.2%	<b>25.5%</b>	33.1%	40.5%	<b>73.6%</b>	0.9%
<b>Dem.</b>	26.0%	43.0%	<b>69.0%</b>	21.6%	9.1%	<b>30.7%</b>	0.3%
<b>Michigan</b>	13.3%	36.0%	<b>49.3%</b>	25.2%	23.7%	<b>48.9%</b>	1.8%
<b>GOP</b>	1.7%	19.5%	<b>21.2%</b>	32.1%	46.8%	<b>78.9%</b>	0.0%
<b>Dem.</b>	22.6%	50.2%	<b>72.8%</b>	21.2%	3.3%	<b>24.5%</b>	2.6%

Q36. One of the concerns about a carbon tax is that it disproportionately affects people with low to middle incomes. One proposal is to use the income generated by a carbon tax to give people in those income groups an offsetting tax credit. Do you favor or oppose this idea?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	21.4%	42.5%	<b>63.9%</b>	17.2%	17.1%	<b>34.3%</b>	1.8%
<b>GOP</b>	14.0%	38.7%	<b>52.7%</b>	15.9%	30.6%	<b>46.5%</b>	0.8%
<b>Dem.</b>	30.4%	46.6%	<b>77.0%</b>	19.2%	2.3%	<b>21.5%</b>	1.4%
<b>Pennsylvania</b>	22.6%	36.3%	<b>58.9%</b>	17.5%	21.7%	<b>39.2%</b>	1.9%
<b>GOP</b>	11.5%	27.6%	<b>39.1%</b>	21.7%	35.4%	<b>57.1%</b>	3.7%
<b>Dem.</b>	31.9%	42.6%	<b>74.5%</b>	15.9%	9.1%	<b>25.0%</b>	0.5%
<b>Michigan</b>	25.6%	36.0%	<b>61.6%</b>	18.5%	17.7%	<b>36.2%</b>	2.1%
<b>GOP</b>	13.8%	22.8%	<b>36.6%</b>	26.6%	32.2%	<b>58.8%</b>	4.6%



Dem.	34.2%	44.0%	<b>78.2%</b>	14.5%	5.9%	<b>20.4%</b>	1.4%
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Q36a. 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?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	4.0%	20.6%	<b>24.6%</b>	7.9%	17.9%	<b>25.8%</b>	49.6%
GOP	1.8%	18.6%	<b>20.4%</b>	7.6%	30.7%	<b>38.3%</b>	41.3%
Dem.	4.8%	19.9%	<b>24.7%</b>	7.8%	6.0%	<b>13.8%</b>	61.6%
<b>Pennsylvania</b>	0.9%	14.6%	<b>15.5%</b>	18.7%	17.0%	<b>35.7%</b>	48.7%
GOP	0.0%	18.6%	<b>18.6%</b>	22.9%	31.6%	<b>54.5%</b>	26.9%
Dem.	1.3%	10.3%	<b>11.6%</b>	16.1%	3.2%	<b>19.3%</b>	69.0%
<b>Michigan</b>	3.8%	14.0%	<b>17.8%</b>	14.0%	18.8%	<b>32.8%</b>	49.6%
GOP	4.0%	11.7%	<b>15.7%</b>	24.9%	37.6%	<b>62.5%</b>	21.7%
Dem.	5.1%	10.9%	<b>16.0%</b>	8.6%	2.4%	<b>11.0%</b>	73.0%

[Summary of Q35:Q36a:] Do you favor having a carbon tax as a means of encouraging the reduction of carbon dioxide?

	Initially favored	Favor with offsetting tax credits for low to middle incomes	Total Favor	Oppose	Refused / Don't know
<b>North Carolina</b>	49%	25%	<b>74%</b>	26%	0%
GOP	41%	20%	<b>62%</b>	38%	0%
Dem.	61%	25%	<b>86%</b>	15%	0%
<b>Pennsylvania</b>	48%	16%	<b>64%</b>	36%	0%
GOP	26%	19%	<b>44%</b>	56%	0%

Dem.	69%	12%	<b>81%</b>	19%	0%
<b>Michigan</b>	49%	18%	<b>67%</b>	33%	<1%
GOP	21%	16%	<b>37%</b>	63%	0%
Dem.	73%	16%	<b>89%</b>	11%	<1%

You have had a chance to assess some of the ways that the US can work to reduce its greenhouse gases. Now, let's consider the US setting the goal of reducing its greenhouse gases by about 2% each year as part of the international agreement reached in Paris.

Critics say:

- Pursuing this goal will require new regulations and increased costs of energy, putting a damper on the economy, slowing growth by up to ½ to 1 percent of GDP, and driving up unemployment, especially in areas of the economy like coal.
- The evidence for the negative effects of climate change is not strong enough, and even if they do happen, it is probably better to adapt to them rather than trying to make the painful shift to a low-carbon economy.

Supporters say:

- Even if pursuing this goal means a slight slowing of the economy for a few years, this would be far less damaging than the costs from rising sea levels, the loss of farming land, and more violent storms.
- Shifting to clean and more efficient energy is more likely to help the economy--generating many new jobs and ultimately saving money--in addition to improving health and even saving lives from cleaner air.

Q37. So, 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?

	Strongly favor	Somewhat favor	Total favor	Somewhat oppose	Strongly oppose	Total oppose	Refused / Don't know
<b>North Carolina</b>	32.1%	40.6%	<b>72.7%</b>	12.5%	13.2%	<b>25.7%</b>	1.6%
GOP	11.8%	42.5%	<b>54.3%</b>	20.7%	24.1%	<b>44.8%</b>	0.9%
Dem.	47.7%	38.6%	<b>86.3%</b>	7.6%	5.4%	<b>13.0%</b>	0.7%
<b>Pennsylvania</b>	31.8%	41.7%	<b>73.5%</b>	15.3%	10.7%	<b>26.0%</b>	0.4%
GOP	7.1%	45.2%	<b>52.3%</b>	26.1%	21.5%	<b>47.6%</b>	0.0%
Dem.	50.6%	40.6%	<b>91.2%</b>	6.8%	2.0%	<b>8.8%</b>	0.0%
<b>Michigan</b>	32.4%	36.0%	<b>68.4%</b>	16.0%	15.0%	<b>31.0%</b>	0.5%
GOP	6.7%	28.8%	<b>35.5%</b>	30.7%	33.8%	<b>64.5%</b>	0.0%
Dem.	55.7%	33.5%	<b>89.2%</b>	6.7%	2.9%	<b>9.6%</b>	1.1%

Q38. Has you or anyone in your family ever worked in or of the following industries:

Q38a. Coal industry

	Yes	No	Don't know/ Refused
<b>North Carolina</b>	7.1%	91.6%	1.3%
GOP	8.0%	89.3%	2.7%
Dem.	7.4%	92.6%	0.0%
<b>Pennsylvania</b>	8.2%	90.4%	1.3%
GOP	11.7%	85.7%	2.6%
Dem.	6.8%	92.9%	0.2%
<b>Michigan</b>	7.2%	89.4%	3.3%
GOP	3.9%	94.7%	1.4%
Dem.	8.5%	86.8%	4.7%

Q38b. Oil, gasoline

	Yes	No	Don't know/ Refused
<b>North Carolina</b>	8.4%	89.1%	2.4%
GOP	4.7%	90.3%	4.9%
Dem.	13.6%	86.4%	0.0%
<b>Pennsylvania</b>	7.7%	89.8%	2.5%
GOP	9.8%	85.1%	5.1%
Dem.	7.4%	91.9%	0.7%
<b>Michigan</b>	6.9%	88.1%	5.0%
GOP	5.7%	90.7%	3.6%
Dem.	6.0%	86.5%	7.5%

Q38c. Natural gas

	Yes	No	Don't know/ Refused
<b>North Carolina</b>	4.3%	91.5%	4.2%
GOP	2.3%	91.0%	6.8%
Dem.	4.7%	94.8%	0.4%
<b>Pennsylvania</b>	6.0%	92.5%	1.6%
GOP	6.4%	91.8%	1.8%
Dem.	7.3%	91.4%	1.3%
<b>Michigan</b>	5.9%	90.3%	3.8%
GOP	3.3%	94.7%	2.0%
Dem.	6.8%	87.1%	6.1%

Q38d. Renewable energy, such as solar and wind

	Yes	No	Don't know/ Refused
<b>North Carolina</b>	1.8%	96.2%	2.0%
GOP	0.7%	94.8%	4.5%
Dem.	1.7%	97.9%	0.4%
<b>Pennsylvania</b>	2.2%	94.7%	3.1%
GOP	1.4%	91.7%	6.9%
Dem.	3.5%	96.0%	0.6%
<b>Michigan</b>	2.5%	91.4%	6.1%
GOP	1.6%	92.7%	5.7%
Dem.	2.3%	90.2%	7.5%

Q39. Have you or anyone in your family ever installed a solar energy system or wind-turbine on your home or property?

	Yes	No	Don't know/ Refused
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<b>North Carolina</b>	7.3%	92.7%	0.0%
GOP	5.6%	94.4%	0.0%
Dem.	8.7%	91.3%	0.0%
<b>Pennsylvania</b>	5.2%	94.8%	0.0%
GOP	8.5%	91.5%	0.0%
Dem.	3.8%	96.2%	0.0%
<b>Michigan</b>	8.4%	90.1%	1.5%
GOP	8.7%	91.3%	0.0%
Dem.	6.3%	90.5%	3.3%

Q40. Do you currently drive a hybrid or electric car?

	Yes	No	Don't know/ Refused
<b>North Carolina</b>	4.6%	94.4%	0.9%
GOP	3.3%	96.7%	0.0%
Dem.	8.6%	91.4%	0.0%
<b>Pennsylvania</b>	6.9%	92.9%	0.2%
GOP	2.1%	97.9%	0.0%
Dem.	12.4%	87.2%	0.3%
<b>Michigan</b>	3.7%	96.1%	0.2%
GOP	4.4%	95.1%	0.5%
Dem.	4.6%	95.4%	0.0%