

## **Polar, Environment, and Science Questions on August 2016 POLES Survey**

Interviewers asked the following questions, along with background information, in 704 POLES survey telephone interviews conducted in August 2016. Responses are shown below with probability-weighted percentages. People could also respond that they did not know, or give no answer, so the percentages might not add to 100. Where appropriate, interviews rotated the order of response choices to avoid bias.

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Which do you think should be a higher priority for the future of this country, increased exploration and drilling for oil (23%), or increased use of renewable energy sources such as wind and solar (71%)?

Next, I'd like to ask a few general questions on your views about science.

Do you agree or disagree that we believe too much in science and not enough in feelings and faith? (coded from 1 = strongly agree (18%), to 5 = strongly disagree (33%); mean 3.3)

Do you agree or disagree that scientists do not put enough effort into informing the public about new developments in science and technology? (coded from 1 = strongly agree (25%), to 5 = strongly disagree (16%); mean 2.8)

Do you agree or disagree that scientists adjust their findings to get the answers they want? (coded from 1 = strongly agree (16%), to 5 = strongly disagree (25%); mean 3.1)

Next, I would like to ask you some questions about the issue of global warming or climate change. How much do you feel you understand about this issue — would you say a great deal (24%), a moderate amount (57%), only a little (17%), or nothing at all (3%)?

Which of the following three statements do you think is more accurate?

- Climate change is happening now, caused mainly by human activities (63%)
- Climate change is happening now, but caused mainly by natural forces (30%)
- Climate change is NOT happening now (3%)

Which of the following two statements do you think is more accurate?

- Most scientists agree that climate change is happening now, caused mainly by human activities (66%)
- There is little agreement among scientists whether climate change is happening now, caused mainly by human activities (26%)

As a source of information about climate change, would you say that you trust, don't trust, or are unsure about...

Political leaders of your party? (22% trust)

Religious leaders of your faith? (27% trust)

Internet websites you follow? (32% trust)

Fox TV news? (24% trust)

Science agencies such as NASA that study the climate? (72% trust)  
Friends and family? (36% trust)

Do you agree or disagree that discussions about climate change would benefit from the inclusion of spirituality? (coded from 1 = strongly agree (18%), to 5 = strongly disagree (33%); mean 3.2)

Which of the following three statements do you think is more accurate: Scientists use the term “greenhouse effect” to describe...

- A hole in the earth’s ozone layer, which allows more sunlight to get through (21%)
- The heat-trapping properties of certain gases, such as carbon dioxide or CO<sub>2</sub> (62%)
- The warming effect of pavement and cities (9%)

Which of the following three statements do you think is more accurate? Scientific measurements have confirmed that in recent decades, the concentration of CO<sub>2</sub> or carbon dioxide in the Earth’s atmosphere is ...

- Decreasing (7%)
- Staying about the same (12%)
- Increasing (72%)

Reports about conditions in the north and south polar regions sometimes make the news, so we’d like to hear what you think.

Which of these best describes the North Pole?

- Ice a few feet or yards thick, floating over a deep ocean (39%)
- Ice more than a mile thick, over land (40%)
- A mainly rocky, mountainous landscape (13%)

Which of these best describes the South Pole?

- Ice a few feet or yards thick, floating over a deep ocean (23%)
- Ice more than a mile thick, over land (48%)
- A mainly rocky, mountainous landscape (15%)

Which of the following countries has territory with thousands of people living north of the Arctic Circle? United States (18%), China (6%), Estonia (8%), Great Britain (3%), or none of these (45%)?

Which of the following possible changes would, if it happened, do the most to raise sea levels? -

- Melting of sea ice on the Arctic Ocean (39%)
- Melting of land ice in Greenland and the Antarctic (33%)
- Melting of glaciers in the Himalaya and Alaska (15%)

Which of the following three statements do you think is more accurate? Over the past few years, the ice on the Arctic Ocean in late summer ...

- Covers less area than it did 30 years ago (70%)
- Declined but then recovered to about the same area it had 30 years ago (12%)
- Covers more area than it did 30 years ago (10%)

If the Arctic region becomes warmer in the future, do you think that will have no effects (5%), minor effects (25%), or major effects (65%) on the weather where you live?

For each of the following, please tell me whether you think this is an important problem now, will be an important problem within the next 40 years, will be an important problem within the next few centuries, or will never be an important problem.

Rising sea levels caused by climate change (39% now)

Extreme weather events such as severe floods or droughts caused by climate change (65% now)

Human health impacts caused by warmer conditions and insect-borne diseases connected with climate change (58% now)

Increasing migration, caused by climate change impacts such as crop failures, water scarcity, or rising sea levels (47% now)

Some people have suggested that public investment in renewable energy such as wind and solar power could help to reduce risks of climate change. Do you think that renewable energy development should be a high priority (64%), medium priority (22%), low priority (6%), or not a priority at all (5%) for the U.S.?

Others have suggested that changes in lifestyles and consumer behavior, to use less energy, could help to reduce risks of climate change. Do you think that reducing personal energy use should be a high priority (55%), medium priority (26%), low priority (9%), or not a priority at all (7%) for the U.S.?

One policy step that has been proposed is a “carbon tax” on the production and use of fossil fuels, with revenue returned to consumers through “carbon dividend” tax reductions. Do you think that a carbon tax of this type should be a high priority (22%), medium priority (30%), low priority (15%), or not a priority at all (26%) for the U.S.?

Another policy step that has been proposed is a “cap and trade” system, which sets a limit on carbon emissions but allows for trading between companies. Do you think that a cap and trade system should be a high priority (23%), medium priority (35%), low priority (14%), or not a priority at all (15%) for the U.S.?