

# WINTER 2022

## National Surveys on Energy and the Environment

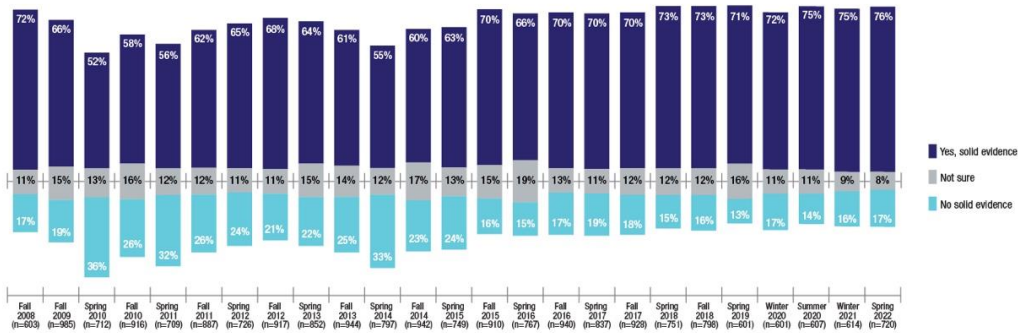
### Key Findings Report

The following report summarizes the key findings from the Winter 2022 wave of the National Surveys on Energy and the Environment (NSEE). This survey wave marks the 25<sup>th</sup> in the series, dating back to the project’s origin in 2008, under a partnership between Muhlenberg College and the University of Michigan. Beginning in 2020, the NSEE has been produced exclusively by the Muhlenberg College Institute of Public Opinion.

#### KEY FINDING ONE: American Acceptance of Global Warming Reaches Highest Level on Record

The results from the Winter 2022 NSEE indicate that 76% of adult Americans believe there is solid evidence that temperatures on the planet have risen over the last four decades. This 76% mark is the highest level of acceptance recorded since the inception of the NSEE in 2008. The most recent survey marks the 10th consecutive survey wave, dating back to 2016, in which at least 70% of Americans indicated there was solid evidence of global warming. This consistently high level of acceptance of climate change indicates increasingly durable views among Americans regarding this matter.

American views on evidence of global warming, 2008-2022

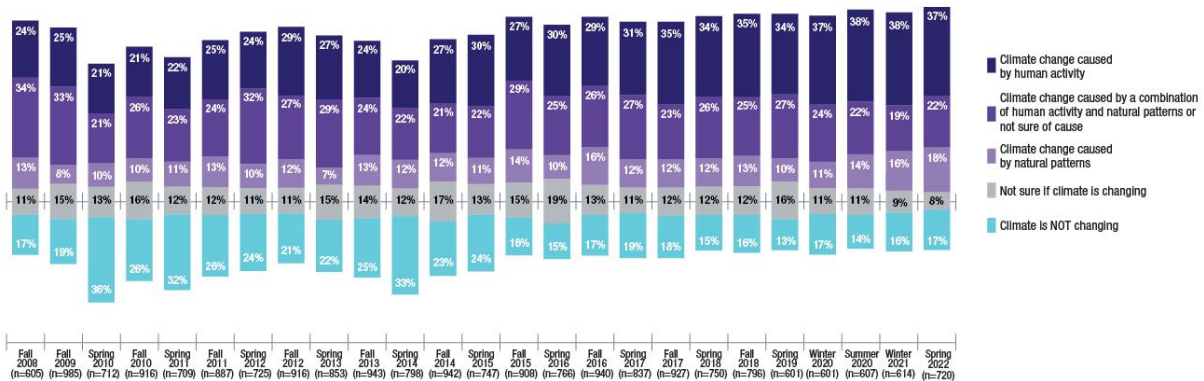


Source: Muhlenberg College Institute of Public Opinion, National Surveys on Energy and Environment. Margin of error: +/- 5%.

## KEY FINDING TWO: A Solid Majority of Americans Attribute Global Warming at Least Partially to Human Activity

The latest NSEE results show that just under 6 out of 10 Americans (59%) think that there is solid evidence of global warming and that the warming is being at least partially caused by human activity. This result marks the 12<sup>th</sup> consecutive NSEE wave, dating back to 2015, in which a majority of adult Americans expressed the view that human activity is altering the planet’s climate. In the 2022 findings, 37% of Americans indicated that there is solid evidence of a warming planet, and that the warming is caused primarily by human activity. An additional 22% of Americans agreed there is solid evidence of global warming, and that humans are at least partially responsible for these changes. Notably, nearly 1 in 5 adult Americans (18%) indicate that while there is solid evidence of global warming, the warming is the result of a natural cycle. The 18% level marks the highest portion of Americans to fall into this category since the inception of the NSEE in 2008.

**American views on the existence and causes of climate change, 2008-2022**



Source: Muhlenberg College Institute of Public Opinion, National Surveys on Energy and Environment. Margin of error: +/- 5%.

## KEY FINDING THREE: A Majority of Americans Report Feeling the Effects of Climate Change

Are Americans experiencing climate change in their daily lives? An expanding body of scientific research indicates that the impacts of climate change are becoming evident in the United States.<sup>1</sup> The results of the latest NSEE wave show a majority (57%) of adult Americans agree that they have personally felt the effects of climate change. Individuals living in the northeast and western United States were the most likely to report experiencing climate change, with 61% of northeasterners, and 60% of westerners indicating they have personally experienced climate change effects.

<sup>1</sup> The United States Environmental Protection Agency (2022) <https://www.epa.gov/climatechange-science/impacts-climate-change>

### Level of Agreement with the Statement, “I have personally felt the effects of climate change.”

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Not Sure
OVERALL	30%	27%	16%	25%	2%
Northeast	34%	27%	13%	25%	1%
South	29%	26%	15%	26%	3%
Midwest	24%	26%	19%	27%	3%
West	34%	26%	17%	21%	2%

### KEY FINDING FOUR: Americans Continue to Prioritize Mitigation as an Element of Climate Policy

As Americans have overwhelmingly accepted the existence of a warming planet, and most say they have personally experienced the effects of the changing climate, efforts to curb U.S. greenhouse emissions have not produced major success. Given the struggles in mitigating climate change, have Americans concluded that the climate policy focus should turn to adapting to a warming planet? Over the past decade, the NSEE has tested this proposition. When asked if they agree that, “Instead of trying to stop global warming from occurring we should focus on adapting to a warmer climate,” 61% of Americans disagreed with this option in 2022. This result is very similar to the 2011 findings, when 66% of Americans disagreed with this proposition. The similarity in results suggests that despite a decade of mounting evidence of climate change, and limited mitigation policy achievements, most Americans do not yet believe it’s time to walk away from mitigation as a priority of the nation’s climate policy.

### Level of Agreement with the Statement, “Instead of trying to stop global warming from occurring, we should focus on adapting to a warmer climate.”

	2011	2022
Strongly Agree	6%	12%
Somewhat Agree	23%	22%
Somewhat Disagree	30%	21%
Strongly Disagree	36%	40%
Not Sure	5%	5%

### KEY FINDING FIVE: Most Americans View Climate Change as a Public Health Emergency

A growing body of research points to significant public health impacts from climate change. From exacerbated heat-related illnesses to increased exposure to vector-borne diseases and natural disasters, scientific evidence increasingly links climate change with diminished public health conditions.<sup>2</sup> The NSEE results indicate that a majority (56%) of Americans agree that climate change is a public health emergency, with over a third (37%) strongly agreeing with this characterization. As with many aspects of public opinion regarding climate matters, partisanship is demonstrated to be a key determinant of American views on the public health challenges associated with climate change. Over 8 out of 10

<sup>2</sup> Fourth National Climate Assessment (2018) <https://nca2018.globalchange.gov/>

Democrats (82%) agree that climate change is a public health emergency, compared to only about 1 in 4 Republicans (27%) that maintain this opinion.

**Level of Agreement with the Statement, “Climate change is a public health emergency.”**

	<b>Strongly Agree</b>	<b>Somewhat Agree</b>	<b>Somewhat Disagree</b>	<b>Strongly Disagree</b>	<b>Not Sure</b>
OVERALL	37%	19%	15%	27%	3%
Democrat	63%	19%	7%	9%	2%
Republican	14%	13%	21%	50%	3%
Independent	31%	25%	15%	25%	4%

**METHODS:**

The following report contains the results of a telephone survey of 720 adult residents of the United States between January 13 and February 8, 2022. Respondents were interviewed in English on both landlines (202) and cell phones (518). With a randomly selected sample of respondents, the margin of error for the surveys is +/- 5% at a 95% level of confidence. Margins of error for questions with smaller sample size will be larger. In addition to sampling error, one should consider that question wording and other fielding issues could introduce error or bias into survey results. The sample data has been weighted by gender, race, age, income and educational attainment to reflect national population characteristics as reported by the United States Census Bureau in 2022. The calculation of sampling error takes into account design effects due to the weighting identified above. In order to reach a representative sample of adult residents of the United States, both landlines and cell phones are called up to 5 times. The sample for the project was generated by the Marketing Systems Group in Horsham, Pennsylvania. The response rate for this survey as calculated using the American Association of Public Opinion Research (AAPOR) RRII formula is approximately 6%. Due to rounding, the totals provided in the frequency report may not total 100%. The survey instrument, presented in its entirety in the following section, was designed by Dr. Christopher P. Borick, Director of the [Muhlenberg College Institute of Public Opinion](#) (MCIPO), and Professor of Political Science, in conjunction with Dr. Erick Lachapelle of the University of Montreal. The survey was funded exclusively by Muhlenberg College. For more detailed information on the methods employed, please contact the MCIPO at 484-664-3444 or email Dr. Borick at [christopherborick@muhlenberg.edu](mailto:christopherborick@muhlenberg.edu).

**WINTER 2022 NSEE**

**SURVEY INSTRUMENT AND  
FREQUENCY REPORT**

**Fielding Dates: January 13– February 8, 2022**  
**Sample Size: 720 Adults in the United States**  
**Method: Telephone (72% Cell and 28% Landline)**  
**Margin of Error: +/- 4.5%**  
**AAPOR Response Rate (II): 6%**  
**Totals may not equal 100% due to rounding**

Hello. We are conducting a research project regarding environmental issues in the United States. Would you be able to help us by answering a few questions?

Yes.....1  
No.....2 (Thank and terminate)  
Not sure.....98 (Thank and terminate)  
Refused..... .99 (Thank and terminate)

Q1. Thank you. Can you please tell me in which year you were born? (GROUPED INTO CATEGORIES)

18-29.....21%  
30-44.....25%  
45-64.....30%  
65 and Older.....25%

Q2. What state do you currently reside in? (GROUPED INTO REGIONS)

Northeast,,,,,,,,, 22%  
South.....34%  
Midwest.....25%  
West.....19%

Q3. Next, I would like to ask you a few questions on the issue of global warming. From what you've read and heard, is there solid evidence that the average temperature on earth has been getting warmer over the past four decades?

Yes .....76%  
No ..... 17% (SKIP TO Q8)  
Not Sure (Volunteered)..... 8% (SKIP TO Q10)

**QUESTIONS 4 THROUGH 7 ARE ANSWERED ONLY BY INDIVIDUALS WHO INDICATED THERE IS SOLID EVIDENCE OF GLOBAL WARMING (“Yes” in Question Three)**

Q4. How confident are you that the average temperature on earth is increasing? Are you very confident, fairly confident, not too confident or not confident at all that the average temperature on earth is increasing?

Very confident.....63%  
Fairly confident.....29%  
Not too confident..... 5%  
Not confident at all..... 2%  
Not Sure (Volunteered)..... 1%

Q5. Is the earth getting warmer mostly because of human activity such as burning fossil fuels, or mostly because of natural patterns in the earth’s environment?

Human activity..... 49% Skip to Q7  
Natural patterns.....22% Skip to Q7  
A combination (Volunteered)..... 24% Go to Q6  
Not Sure (Volunteered).....5% Skip to Q7

Q6. I know you say it’s a combination, but if you had to choose, would you say that temperatures on earth are rising *mostly* because of human activity or *mostly* because of natural patterns?

Human activity.....65%  
Natural patterns.....18%  
Equal (Volunteered).....16%  
Not Sure (Volunteered)..... 2%

Q7. What is the primary factor that has caused you to believe that temperatures on earth are increasing? **OPEN ENDED QUESTION: RESPONSES CODED INTO THE FOLLOWING CATEGORIES**

Human Activity..... 26%  
Warmer Temperatures Observed..... 19%  
Scientific Research..... 15%  
Weather Changes..... 14%  
Natural Patterns..... 6%  
Melting Glaciers/Polar Ice..... 5%  
Media Coverage..... 5%  
Ocean Changes..... 1%  
Wildfires..... 1%  
Declining Species..... 1%  
Not Sure/Other..... 6%

**QUESTIONS 8 and 9 ARE ANSWERED ONLY BY INDIVIDUALS WHO INDICATED THERE IS NOT SOLID EVIDENCE OF GLOBAL WARMING (“No” in Question Three)**

Q8. How confident are you that the average temperatures on earth are NOT increasing? Are you very confident, fairly confident, not too confident or not confident at all that the average temperature on earth is NOT increasing?

Very confident .....	45%
Fairly confident.....	30%
Not too confident .....	14%
Not confident at all.....	10%
Not Sure (Volunteered) .....	2%

Q9. What is the primary factor that makes you believe that temperatures on earth are not increasing?

**OPEN ENDED QUESTION: RESPONSES CODED INTO THE FOLLOWING CATEGORIES**

Personal Observations.....	38%
Natural Patterns/Cycles.....	28%
Evidence Disproves.....	12%
Religious Factors.....	5%
Political Factors.....	5%
Lack of Evidence.....	4%
Media has Misled.....	2%
Not Sure/Other.....	6%

**\*\*ALL RESPONDENTS\*\***

Q10. In your view is global warming a very serious problem, somewhat serious, not too serious, or not a problem?

Very serious.....	49%
Somewhat serious.....	20%
Not too serious.....	15%
Not a problem.....	15%
Not Sure (Volunteered).....	1%

**QUESTIONS 11 and 12 WERE ROTATED**

Q11: How much do you think climate change will harm YOU PERSONALLY? (READ LIST)

A great deal.....21%  
A moderate amount.....26%  
Only a little..... 23%  
Or not at all..... 29%  
Not Sure (Volunteered)..... 1%

Q12: How much do you think climate change will harm PEOPLE LIVING IN THE UNITED STATES? (READ LIST)

A great deal.....36%  
A moderate amount.....27%  
Only a little..... 16%  
Or not at all..... 17%  
Not Sure (Volunteered)..... 4%

Q13: When do you think climate change will start to harm people living in the United States? (READ LIST)

In 10 years..... 9%  
25 years..... 8%  
50 years..... 7%  
100 years..... 7%  
Never..... 17%  
Or do you think climate change is already harming people in the United States?..... 48%  
Not Sure (Volunteered)..... 4%

Q14: Over the past year have you personally seen any significant changes in weather patterns where you live?

Yes.....60%  
No.....38% (SKIP TO Q16)  
Not Sure (Volunteered)..... 2% (SKIP TO Q16)



Q15: What changes have you seen personally?

**OPEN ENDED QUESTION: RESPONSES CODED INTO THE FOLLOWING CATEGORIES**

Increased Temperatures.....	25%
Extreme Weather and Storms.....	11%
Milder Winters.....	10%
Hurricane/Tornado Activity.....	7%
Drought and Decreased Rainfall.....	7%
Less Snow.....	7%
Change in Seasons.....	6%
Increased Rain and Flooding.....	5%
Colder/More Snow.....	5%
Weather Differences.....	4%
Temperature Fluctuation and Changes....	4%
Wildfires.....	3%
Miscellaneous Changes.....	3%
Changes in Flora and Fauna.....	1%
Ocean Related Changes.....	1%
Generally Different/Not Sure.....	1%

Q16: In general, how would you describe the overall weather in your area this past YEAR?

Would you say it was:

A LOT warmer than usual .....	20%
SLIGHTLY warmer than usual .....	33%
SLIGHTLY cooler than usual .....	7%
A LOT cooler than usual.....	4%
Or about the same as usual? .....	34%
Not sure (Volunteered) .....	2%

**QUESTIONS Q17 to Q26 WERE ROTATED RANDOMLY**

Please identify your level of agreement with the following statements. For each statement, please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree. First,

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Not Sure (Vol)
Q17: Climate change is a public health emergency.	37%	18%	14%	28%	3%
Q18: Americans will not make major changes in their lifestyles, so the best way to reduce greenhouse gases will be through technological advancements.	30%	31%	11%	17%	11%
Q19: Removing large amounts of carbon dioxide from the atmosphere and storing the gas underground should be a major goal of United States climate policy.	15%	17%	11%	29%	28%
Q20: I have personally felt the effects of climate change.	30%	27%	16%	25%	2%
Q21: If global warming does take place, I have confidence that scientists would be able to find ways to alter the climate in a way that limits problems.	15%	25%	19%	32%	9%
Q22: Attempts to reduce global warming by adding materials to the atmosphere will cause more harm than good for the environment.	43%	19%	8%	6%	24%
Q23: If human activity leads to global warming, then humans will also be able to find ways to reduce temperatures on the planet through atmospheric engineering methods.	13%	27%	13%	26%	22%
Q24: Instead of trying to stop global warming from occurring we should focus on adapting to a warmer climate.	12%	22%	21%	40%	5%
Q25: Humans will be able to adapt to a hotter climate without making significant changes to their lifestyles.	10%	24%	20%	40%	5%
Q26: If we don't act now, climate change is going to cost a lot more later.	55%	14%	7%	20%	3%

Q27: NASA recently reported that 2021 was the fourth hottest year on the planet since record keeping began in 1880. Which of the following best describes your view on the NASA report that 2021 was the fourth hottest year since 1880? (READ LIST)

- 1. The record heat is evidence that global warming is happening and is caused primarily by human activity.....55%
- 2. The record heat is evidence that global warming is happening but it caused primarily by a natural cycle.....26%
- 3. Or the NASA temperature report is based on flawed measurements and global warming is not occurring.....12%
- 98. Not Sure (Vol).....7%

Q28: Next I'm going to read you a list of actions that the United States may take to address climate change. Which of the actions do you believe is the MOST important action the United States should take? [READ LIST]

- 1. Promote greenhouse gas reductions to try and limit climate change.....42%
- 2. Learn to adapt to a warmer world that is the result of climate change.....13%
- 3. Promote geoengineering and scientific fixes to counter climate change ....20%
- 4. All equally important (VOLUNTEERED).....10%
- 5. None are important (VOLUNTEERED).....10%
- 98. Not Sure (VOLUNTEERED).....5%

Q29: If it required you to pay extra money each year in order for more renewable energy to be produced, how much would you be willing to pay? Would you be willing to pay... [READ LIST]

- Nothing each year.....42%
- 1 to 50 dollars per year..... 14%
- 50 to 100 dollars a year..... 13%
- 100 to 250 dollars a year..... 9%
- 250 to 500 dollars a year..... 6%
- Over 500 dollars a year..... 11%
- Not Sure (Volunteered)..... 5%

Q30: One way of reducing greenhouse gases and addressing climate change is to put a CARBON TAX on fuels such as coal, oil and natural gas. Do you strongly support, somewhat support, somewhat oppose or strongly oppose this policy?

- Strongly support.....22%
- Somewhat support.....19%
- Somewhat oppose.....11%
- Strongly oppose.....42%
- Don't know [DO NOT READ]..... 6%

Q31: Finally, a few questions about yourself. Which of the following categories best describes your racial identity? Are you... **[READ LIST]**

White/Caucasian.....	60%
African-American.....	12%
Hispanic/Latino.....	15%
Asian.....	5%
Native American.....	2%
Mixed race.....	5%
Other .....	2%

Q32: Which of the following categories best describes your religious affiliation? Are you... **[READ LIST]**

Protestant.....	31%
Catholic.....	25%
Jewish.....	3%
Muslim .....	1%
Hindu.....	1%
Other religion (including agnostic) .....	30%
Atheist.....	5%
Not Sure (Volunteered).....	4%

Q33: Which of these statements comes closest to describing your feelings about the Bible? **[READ LIST]**

The Bible is the actual word of God and is to be taken literally, word for word.....	28%
The Bible is the inspired word of God but not everything in it should be taken literally, word for word .....	43%
The Bible is an ancient book of fables, legends, history, and moral precepts recorded by men.....	24%
Not Sure (Volunteered).....	5%

Q34: What is your highest level of education? **[READ LIST]**

Less than High School Graduate.....	4%
High School Graduate.....	29%
Some college or technical school.....	27%
College graduate.....	25%
Graduate or professional degree.....	16%

Q35: Which of the following best describes your political party affiliation? **[READ LIST]**

Democrat..... 33%  
Republican.....26%  
Other party..... 6%  
Independent ..... 31%  
Not Sure (Volunteered)..... 3%

Q36: Which of the following best describes your political beliefs? **[READ LIST]**

Very Conservative.....16%  
Somewhat Conservative.....20%  
Moderate.....33%  
Somewhat Liberal.....14%  
Very Liberal.....13%  
Not sure (Volunteered) ..... 5%

Q37: Which of the following categories best describes your family income? Is it... **[READ LIST]**

Less than 20,000.....13%  
20,000-40,000.....14%  
40,000-60,000.....20%  
60,000-80,000.....16%  
80,000-100,000.....14%  
Over 100,000..... 22%  
Not Sure (Volunteered) ..... 2%

Q38: What is the zip code of your current residence?

(Response) \_\_\_\_\_

Q39: Finally, to which gender identity do you most identify? (READ LIST)

Male.....49%  
Female.....51%  
Transgender Male..... 0%  
Transgender Female.....<1%  
Or you do not identify as male or female .....<1%