

# CLIMATE CHANGE COMMUNICATION INVESTIGATION

## STUDENT PAGE



The Yale Climate Opinion Maps (YCOM) help us compare Americans' beliefs about climate change across different parts of the country.

For this project, you will collect data in your community, just like the researchers at the Yale Program on Climate Change Communication who gathered data for the Yale Climate Opinion Maps.

### ACTIVITY

**INSTRUCTIONS:** Answer the questions and follow the prompts in order to conduct your research.

#### Pre-question 1

How does/will climate change impact your life and your community? (Hint: If you are not sure, check out resources like [climate.nasa.gov/effects](https://climate.nasa.gov/effects) and the [New York Times Climate Threats](#) map!)

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#### Pre-question 2

As scientists, it is important to leave our personal opinions aside when we conduct a study. If we do not, these opinions—biases—could potentially influence how we design the study and interpret our results. What biases do you have about climate change or your community that you will have to be aware of during this study?

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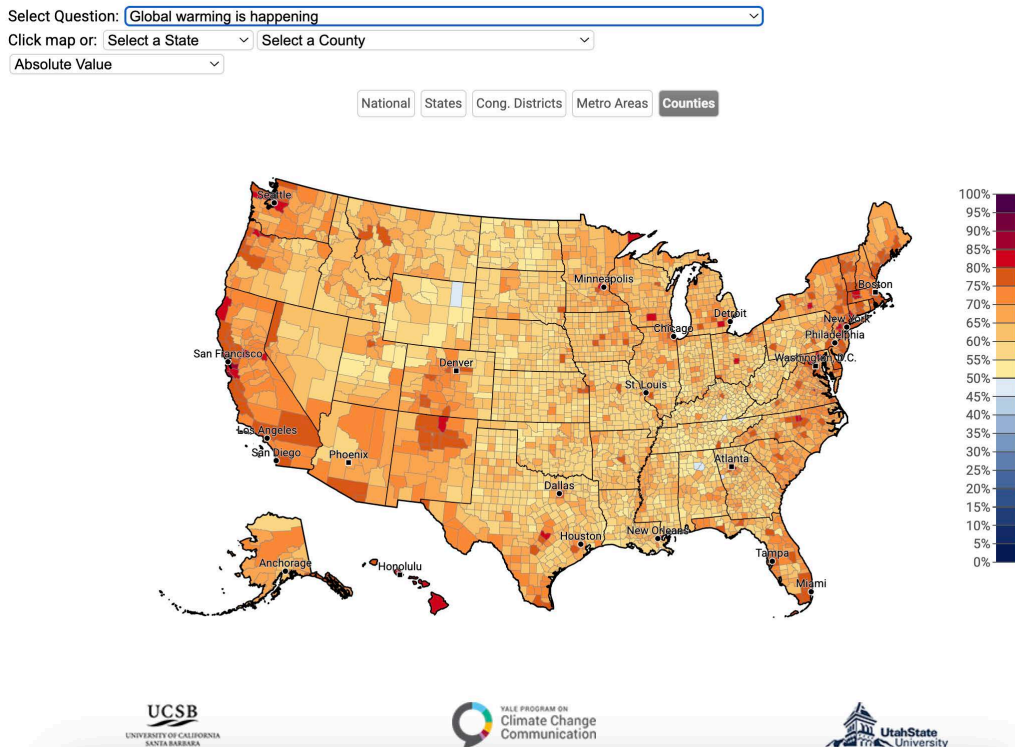
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Let's get started! First, navigate to the Yale Climate Opinion Maps page, at <https://climatecommunication.yale.edu/visualizations-data/ycom-us/>. Scroll down to where you see "Select Question" so that you can see all of the questions for which Yale researchers collected data.

**Estimated % of adults who think that global warming is happening (nat'l avg. 72%), 2024**



**1**

**QUESTIONS:** Decide on at least 3 of these questions that you would like to research within your own community. List them below. You can also come up with your own question about a climate change issue that matters a lot to you or that you are interested in learning about. If you choose to do this, make sure it is a "Yes or No" question.

Question 1: \_\_\_\_\_

Question 2: \_\_\_\_\_

Question 3: \_\_\_\_\_

Additional question: \_\_\_\_\_

Additional question: \_\_\_\_\_

1. Find the most recent Yale Climate Opinion Map data in YPCCC's Visualizations and Data tab.

These resources are in the creative commons. Please credit the [Yale Program on Climate Change Communication](#) and [Yale Climate Connections](#).

2

**HYPOTHESES:** Since you are a researcher, it is important to make a hypothesis (prediction) about what your results will be. What percentage of people that you interview do you think will answer “Yes” to each question?

For example, if you have selected the question “Global warming is happening,” your hypothesis might be that “70% of the people I interview will believe that global warming is happening because I live in a community where we are already feeling the impacts of global warming.”

Hypothesis for question 1: \_\_\_\_\_

\_\_\_\_\_

Hypothesis for question 2: \_\_\_\_\_

\_\_\_\_\_

Hypothesis for question 3: \_\_\_\_\_

\_\_\_\_\_

Hypothesis for additional question: \_\_\_\_\_



\_\_\_\_\_

Hypothesis for additional question: \_\_\_\_\_

\_\_\_\_\_

3

**DATA COLLECTION:** Now it is time to collect your data. To do this, interview people in your community; ask them the questions that you have selected. As you interview, tally the responses in Table 1. See an example below.

Question	Yes (tally)	No (tally)
Global warming is happening		



Suggestions for successful data collection:

- We recommend that you interview at least 10 people. These can be family members, teachers, peers, neighbors, people from your religious community, people who work in stores in your neighborhood, etc.
- Ease in to asking your interview questions. Instead of asking your questions right away, start off by saying something like “Hello! I’m \_\_\_\_\_ and I’m doing a research project for school about climate change. May I ask you a few ‘yes or no’ questions about your thoughts on climate change?”

Table 1.

Question	Yes (tally)	No (tally)
1.		
2.		
3.		

**4** DATA ANALYSIS: Let's convert our tally marks into percentages. See an example below.

Question	Yes (tally)	No (tally)
Global warming is happening		

- To calculate the percentage of people who responded “Yes,” do the following: Number of people who said yes ÷ total number of people interviewed x 100.

$$\frac{8}{10} * 100 = 80\%$$

This means that 80% of people responded “Yes,” global warming is happening.

- To calculate the percentage of people who responded “No,” do the following: Number of people who said no ÷ total number of people interviewed x 100.

$$\frac{2}{10} * 100 = 20\%$$

This means that 20% of people responded “No,” global warming is not happening.

Now it’s your turn! Don't forget to show your work:

Question	Yes (tally)	No (tally)
1.		
2.		
3.		

5

a. Graph your data below or on a separate sheet of paper to represent your results visually. What type of graph will you create (line graph, bar graph, pie chart, or something else)?

\_\_\_\_\_

b. Why are you choosing to represent your data with this style of graph?

\_\_\_\_\_

c. Make sure to label your x and y axes (if applicable) and to include a title.

X-axis: \_\_\_\_\_

Y-axis: \_\_\_\_\_

Title: \_\_\_\_\_



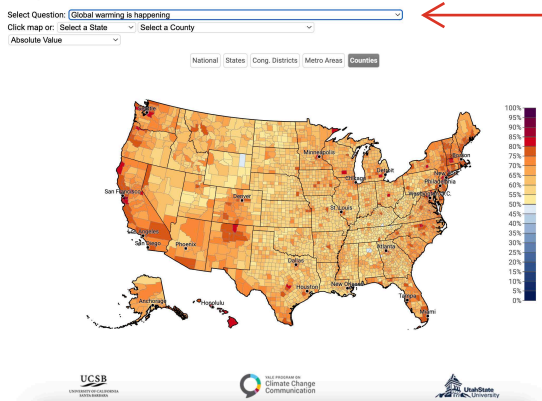
6 Does your data support or contradict your hypotheses? How do you know?

Three horizontal lines for student response.

7 a. Let's see how your data compares to the Yale Climate Opinion Maps' data. To do this, first navigate again to the Yale Climate Opinion Maps page.

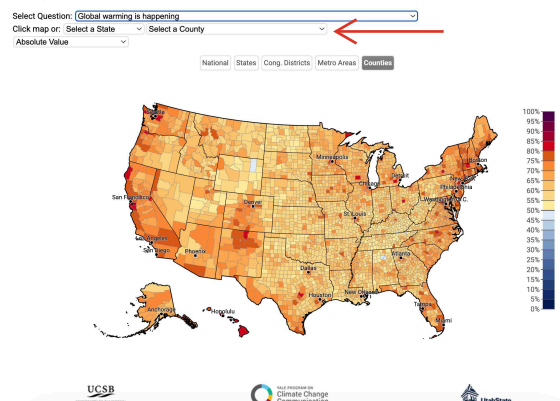
Select the first question for which you collected data.

Estimated % of adults who think that global warming is happening (nat'l avg. 72%), 2024



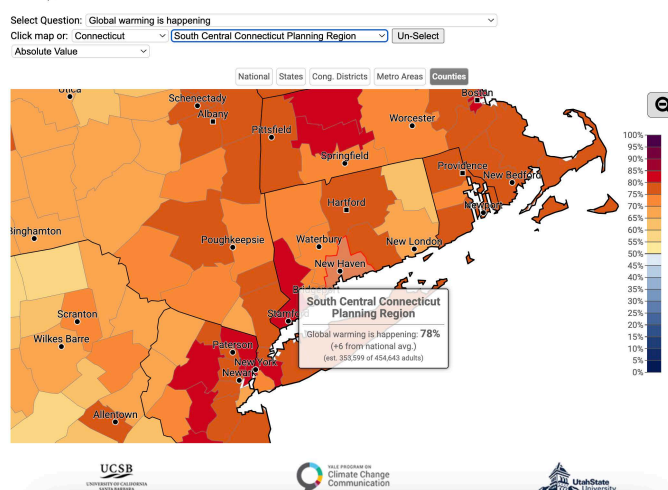
Next, select your state and county.

Estimated % of adults who think that global warming is happening (nat'l avg. 72%), 2024



c. Once you select your state and county, you'll see your county outlined in red. If you click or hover your mouse over your county, you will see the percentage of people in your county who agree with the question.

Estimated % of adults who think that global warming is happening (nat'l avg. 72%), 2024

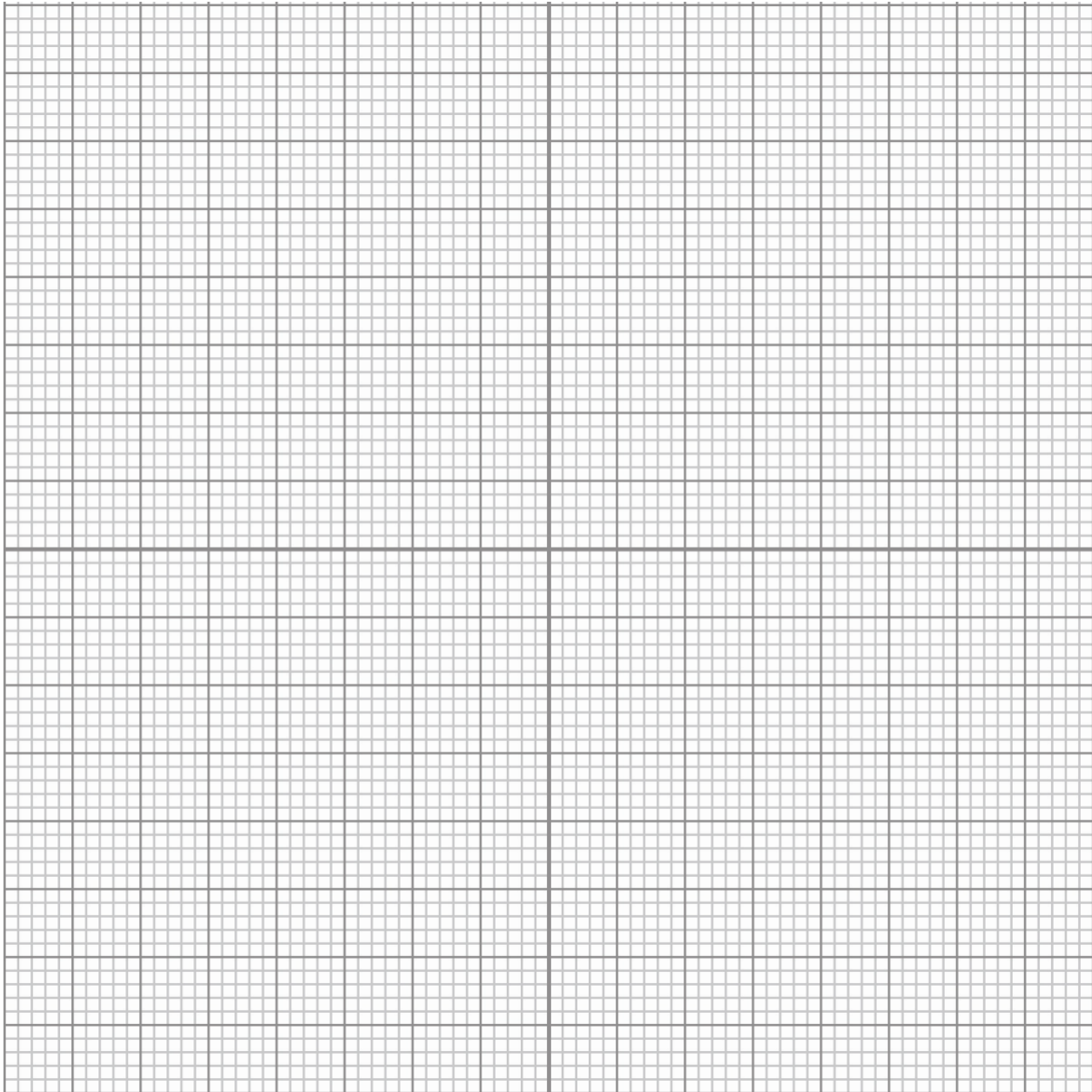


d. Record this percentage for your county in the table below:

Question	Your community (your own data!)	Your county	Your state	Whole country
Global warming is happening	80%	70%	70%	67%

8

Graph the data for one (or more) of the questions so you can compare your results to your county, state, and country's results. Make sure to label your x and y axes and to include a title.



**9** Choose one of your questions. Write 1-3 sentences comparing the data you collected to the YCOM data from your county, state, and country. Use specific numbers.

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**10** Are you surprised by how the data you collected compares to the YCOM data you found about your county, state, and country? Why or why not?

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**11** Which survey data do you think is more accurate (your data or data from the Yale Climate Opinion Maps) and why?

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**12** What are some sources of error (mistakes or things that would make your data unreliable) in your study? What are 2 things you could do to improve this study if you were to do it over again?

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Now that we have all of this data, what should we do about it? Come up with an idea for how to get more people in your community, county, state, or the country to agree with/answer yes to one of your questions. Be detailed in describing your idea.

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What other question(s) do you have about your community's climate change views and beliefs that you might like to explore in the future?

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## EXTENSION SUGGESTIONS



- Conduct this research with questions from the Americans' Interest in Climate News 2020 map, at <https://climatecommunication.yale.edu/visualizations-data/climateneews2020/>.
  - Other data that could be interesting to collect is demographic data (i.e. age, gender, race, level of education, conservative or progressive, income level, etc.).
  - In a few months, collect another round of data and see if your results are different.