Natural Hazards
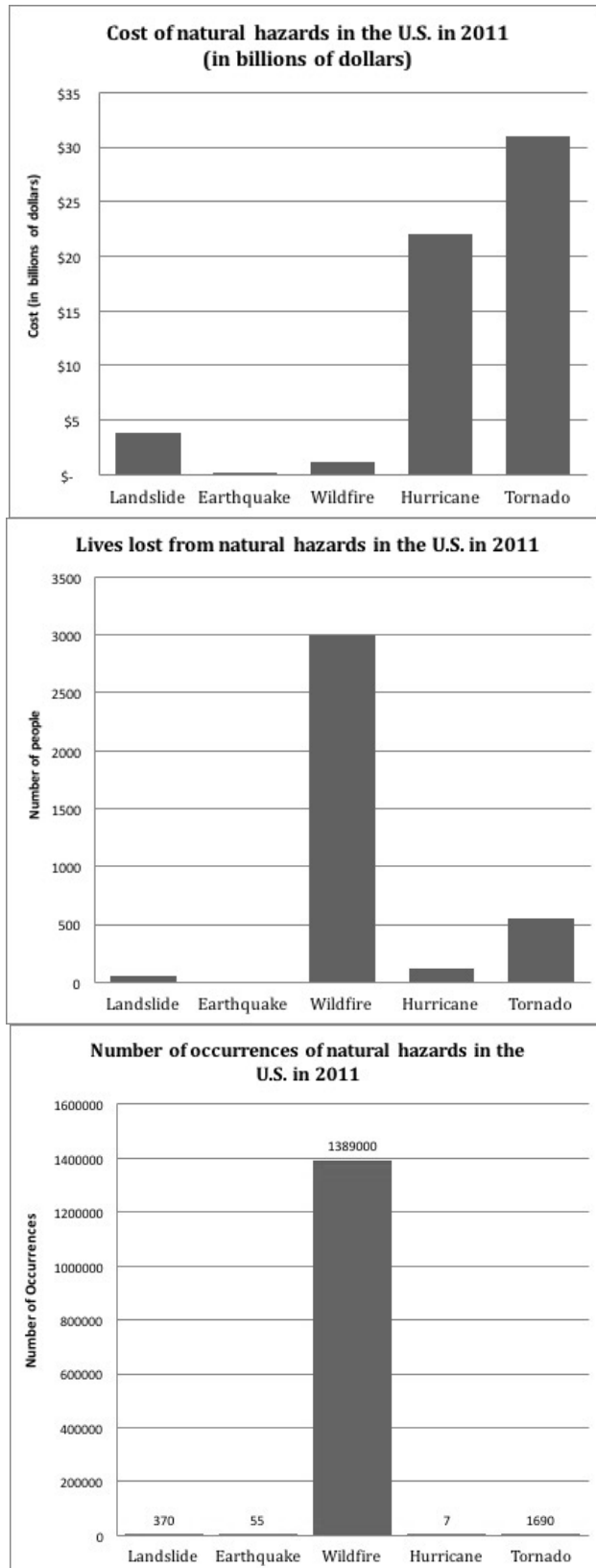
Below are three graphs showing data from <u>natural hazards</u> that occurred in the United States in 2011.

Cost of natural hazards in the U.S. in 2011 (in billions of dollars)

Lives lost from natural hazards in the U.S. in 2011

Number of occurrences of natural hazards in the U.S. in 2011

Your city needs to create an emergency plan for natural hazards. An emergency plan describes what a city will do to prepare for the impacts of natural hazards. You have been asked to show city leaders how data can be used to help.

1. Describe what the data show across the graphs. For example: *The graphs show that wildfires cost less than hurricanes and tornadoes, but they caused more deaths.* Write TWO more observations using information from <u>more than one</u> graph.

     1.

     2.

2. City leaders need help understanding how to interpret the data. To help them:
- Choose one of the hazards from the first column below and circle it.
- Use that hazard to complete the table.

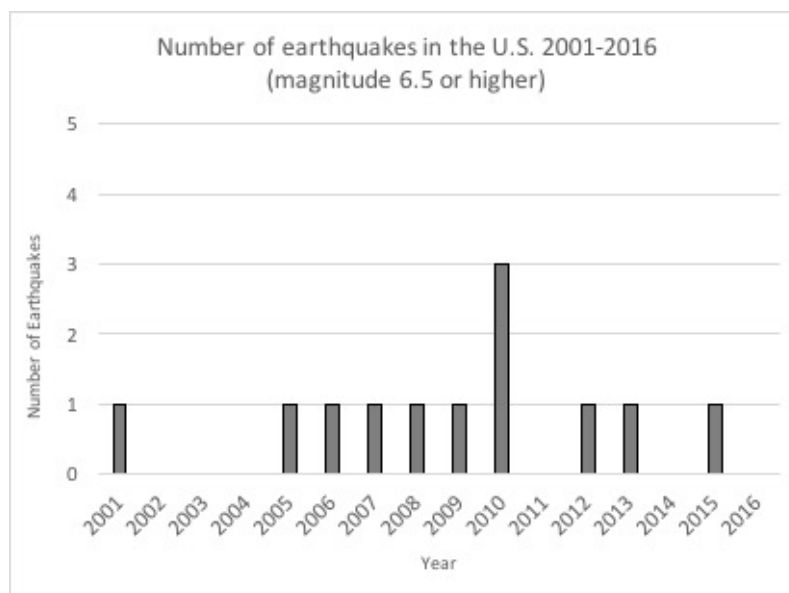| Circle the hazard you chose.	Describe what the graphs show about this hazard in 2011.	List at least 2 things that you know can cause this hazard.	List ways that you know this hazard impacts (affects) <u>humans</u> and the <u>environment.</u>
Landslide Earthquake Wildfire Hurricane			

3. Describe to the city leaders some ways the hazard you chose could affect their city. Use data from the graphs and other information from the table above to support your description.

For example, *tornadoes are rare and only happen in a few places in the US. When they do happen they destroy everything in their path, including entire town. This pattern could explain why the cost of tornadoes was the highest of any hazard even though there were fewer than most other hazards in 2011.*

4. You have found that you need to know a lot more about the natural hazards data than what is shown in the three graphs on Page 1.

Describe additional information about the graphs that city leaders would need before they could use the data to make decisions about solutions. Explain why leaders would need this additional information.

5. One of the city leaders has claimed that the graphs showed that it was not necessary to plan for the effects of earthquakes.

Data source: earthquake.usgs.gov

Do you agree or disagree with the city leader's claim? Explain why you agree or disagree using data from the graphs **and** what you know about earthquakes.

I ___agree/___disagree **because**