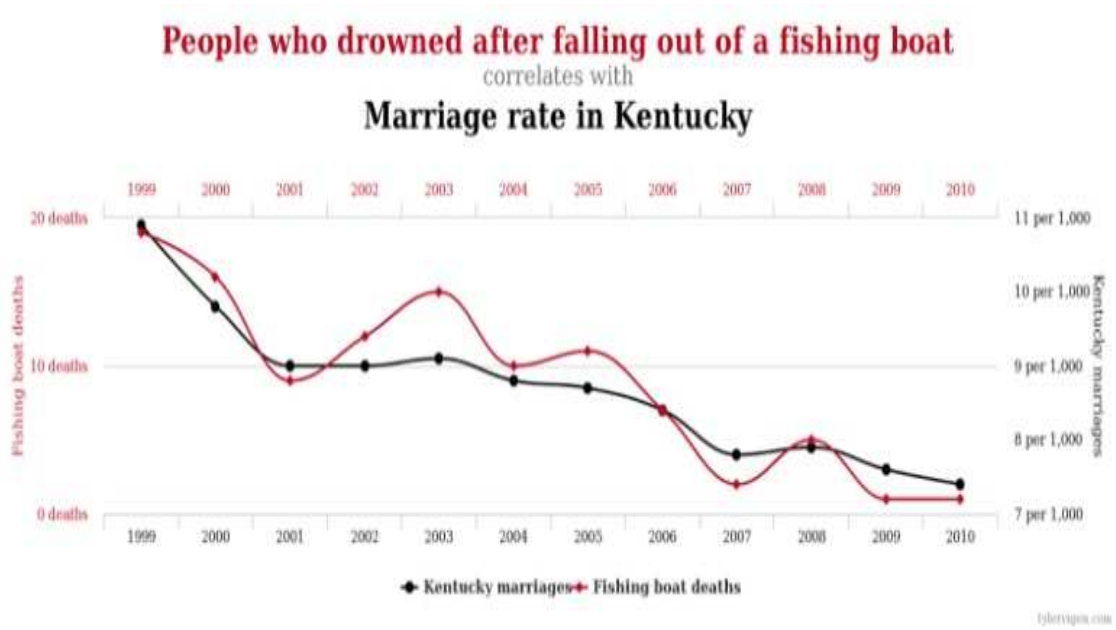
Homework 3.2

Review this graph and then respond to the prompt below.



ESSAY

Status

This assignment is in progress. You still need to complete the peer assessment step.

Your Response due Jan 1, 2029 08:00 +08 (in 9 years, 7 months)

✔ COMPLETE

Status

Your response has been submitted. You will receive your grade after all steps are complete and your response is fully assessed. You still need to complete the peer assessment step.

The question for this section

> The above graph shows the number of people who drowned after falling out of a fishing boat, compared with the marriage rate in Kentucky (a state in the US), from 1999 to 2010. How would you describe the correlation between the two quantities? Given your answer to the previous question, do you think they have any causal relationship? Answer in no more than 200 words.

Your response

To answer thus question, I will list down steps I took.

1. Create a table in Excel file listing Year, Marriage and Deaths.

2. The arrangement look like this in csv format:

Year: 1999, 2000, 2001,2002,2003,2004,2005,2006,2007,2008,2009,2010
Marriage:
0.011,0.01,0.009,0.009,0.009,0.0088,0.0087,0.0085,0.008,0.008,0.0075,0.0072
(divided by 1000)
Deaths: 19,16,10,12,15,10,11,8,3,5,2,2

3. Excel has CORREL function to calculate correlation factor (r) = 0.946895702.

4. I exported the csv file to Azure ML and ran the Correlation module gives also similar answer.

5. In summary, there is a positive correlation between the 2 variables (number of people who drowned vs marriage rate).

6. There is obviously a linear relationship for these 2 variables.

Assess Peers due Jan 1, 2029 08:00 +08 (in 9 years, 7 months) IN PROGRESS (1 OF 2)

Read and assess the following response from one of your peers.

The question for this section

> The above graph shows the number of people who drowned after falling out of a fishing boat, compared with the marriage rate in Kentucky (a state in the US), from 1999 to 2010. How would you describe the correlation between the two quantities? Given your answer to the previous question, do you think they have any causal relationship? Answer in no more than 200 words.

Your peer's response to the prompt above

> The graph shows a relationship that which has some alignment, possibly even a strong correlation. However, given that at face value, the subjects in the graph appear unrelated, I believe there is no causal relationship. It is more likely that it is either coincidence or that there is a third confounding variable which is causing a false association to be made.

Fact 1: There is a positive correlation (as one quantity increases, so does the other).

Fact 2: Correlation does not imply causation (we cannot infer from this visual, and our understanding of the world, that an increase in one quantity causes an increase in the other).

- ○ **A - Fully correct answer.**

  Both facts above must be clearly noted, along with at least a brief explanation---at least as much as in the provided answer.

  5 POINTS

- ○ **B - Correct answer, insufficient reasoning.**

  Both facts clearly noted, but one or both facts are not fully and clearly supported by an explanation.

  4 POINTS

- ○ **C - Only 1 fact correctly noted.**

  Only one of the two facts is noted correctly. The other is missing, or wrong. If reasoning is poor or missing, give 2 points, otherwise 3 points.

  3 POINTS

○ **D - Minimal effort.**

Although the student has written something, it does not correctly note either of the 2 facts.

1 POINTS

Comments

(Optional) What aspects of this response stood out to you? What did it do well? How could it be improved?

I think that this response...

Submit your assessment and move to response #2

Your Grade: Not Completed