More doctors smoke brand X than any other brand. Does that mean that smoking brand X is a healthy choice?

1. Yes
2. No

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This assumes that doctors take their own advice. If this were true, would they be smoking?

More car accidents occur in clear weather than foggy weather. We therefore conclude that it is safer to drive in the fog than in clear weather.

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2. No

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2. No

There is much more clear weather than foggy weather, thus more opportunity for accidents. Also, people are less inclined to drive when it's foggy.

It was reported that the death rate in the Navy during the Spanish-American war was 9 per 1000. The death rate in New York City during the Spanish-American war was 16/1000. Are we then to conclude, that during the late 19th century, it was safer to be in the Navy during a war than it was to live in New York City?

1. Yes
2. No

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1. Yes
2. No

It's apples vs oranges. Then as now, navy personnel were mostly young adult males who had been screened for health issues. The population of NYC included elderly, infants, chronic disease sufferers, etc.

There are more weddings in June than any other month. There are more suicides in June than any other month. Therefore, we conclude that weddings cause suicide.

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2. No

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2. No

Found statistics like this can only show a link. They tell you nothing of the nature of that link. Cause/effect is not the only kind of link!

Suppose I ask 100 people to estimate how much time they spent sitting at traffic lights in the past week. I add up their answers and get 171.3 hours. I report that the average person spends 1.713 hours per week sitting at traffic lights. Is this figure reliable?

1. Yes
2. No

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1. Yes
2. No

How accurately could you report how much time you spent sitting at traffic lights last week? Surveys are worthless if the participants can't reasonably be expected to give accurate information.

Racial Imbalance Persists at Elite Public Schools New York Times 11/08/2008. "at Stuyvesant...2% of blacks, 3% of Hispanics, 24% of whites and 72% of Asians were accepted. "

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The 100% total is suspicious. These are not parts of a pie so there is no reason for that total. The report should have said "among those accepted, 2% are blacks, 3% are Hispanics, 24% are whites and 72% are Asians." Since these are parts of the same "pie", they should total 100%.

Study says too much candy could lead to prison. AP 9/30/2009. "Of the children who ate candies or chocolates daily at age 10, 69 percent were later arrested for a violent offense by the age of 34."

Study says too much candy could lead to prison. AP 9/30/2009. "Of the children who ate candies or chocolates daily at age 10, 69 percent were later arrested for a violent offense by the age of 34." This is an incredible statistic. Do you believe eating candy daily can predict criminal behaviour 20 years in advance? No! The truth: 69% of respondents who were violent criminals by the age of 34 years reported that they ate confectionary nearly every day during childhood. The AP reversed the order: "69% of daily candy-eating kids became violent criminals by 34" is very different from "69% of violent criminals by age 34 had been daily candy-eaters as kids"

Portions were taken from "Short introduction to Statistical Literacy" - Milo Shields, www.statlit.org and from "Bad Use of Statistics and Polling" –Fred Worth