

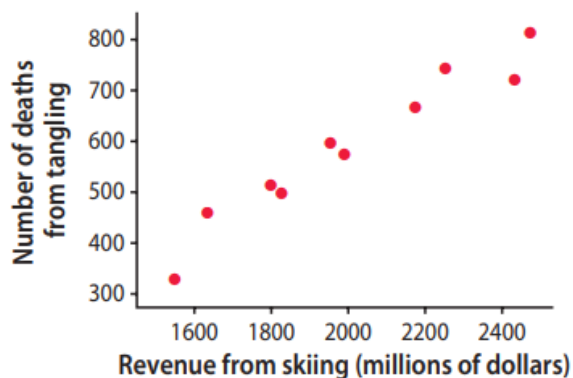
2.3 Correlation (Part 3)

While the correlation is a good way to measure the strength and direction of a linear relationship, it has limitations.

Most importantly, correlation doesn't imply causation.

In many cases, two variables might have a strong correlation, but changes in one variable are very unlikely to cause changes in the other variable.

Example: For the years 2000-2009, the correlation between total revenue generated by skiing facilities in the United States and the number of people who died by becoming tangled in their bedsheets is $r = 0.97$. Does the strong correlation between these two variables suggest that an increase in skiing revenue causes more people to die by becoming tangled in their bedsheets? Explain.



No, these variables do not effect each other. More revenue at a ski resort does not effect how many people die tangled in sheets.