Hospital trips

1. People get taken to the hospital by two different methods: ambulance or helicopter. Consider the following (made-up) data table for a month at O.H.S.U.:

Method	Survived	Died	Total
Ambulance		66	683
Helicopter	25		
Total			733

   A. Fill in the missing cells in the table using addition and subtraction.
   B. What's the probability a patient survived if they were brought to the hospital by ambulance?

   C. What's the probability a patient survived if they were brought to the hospital by helicopter?

   D. Do your answers to (B) and (C) seem right to you? Why or why not?

   E. Do you have any initial thoughts about what is going on?

2. We're going to look at the same (made-up) data, but this time, it's going to be disaggregated (split apart) into two separate tables:

High-risk patients	Survived	Died	Total
Ambulance		58	60
Helicopter	21		
Total		83	

Low-risk patients	Survived	Died	Total
Ambulance			
Helicopter			
Total			

A. Fill in the missing cells in the table using addition and subtraction. You'll need to use the table in problem 1 to finish.
B. What's the probability a **high-risk** patient survived if they were brought to the hospital by ambulance?

C. What's the probability a **high-risk** patient survived if they were brought to the hospital by helicopter?

D. What's the probability a **low-risk** patient survived if they were brought to the hospital by ambulance?

E. What's the probability a **low-risk** patient survived if they were brought to the hospital by helicopter?

F. Which form of transportation—ambulance or helicopter—has a higher survival rate for **high-risk** patients?

G. Which form of transportation—ambulance or helicopter—has a higher survival rate for **low-risk** patients?

H. Explain what is going on in such a way that a non-statistician could understand it.

I. Name the spurious correlation.