Name: Class quiz 3 September 15, 2017

I) In 2010, the Physicians Foundation conducted a survey of physician's attitude about health care reform, calling the report "a survey of 100,000 physician's." The survey was sent to 100,000 randomly selected physicians practicing in the United States: 40,000 via post-office mail and 60,000 via email. A total of 2,379 completed surveys were received.

a State carefully what population is sampled in this survey and what is the sample size.

b Could you draw conclusions from this study about all physicians practicing in the United States?Why or Why not?

c What is the rate of nonresponse for this survey?

II) Consider the following two way table detailing the trips of two truck drivers.

	Number of trips that invovled an accident	Number of trips that were accident free	Total
Driver 1	20	980	1000
Driver 2	25	975	1000
Total	45	1955	2000

i) Give the marginal distributions for the number of trips involving an accident and accident free.

ii) What percentage of the trips driver 1 took involved an accident, and what percentage were accident free?

iii) Do the same for drive 2.

The following two table split the data from the table above into two categories. One for the trips made in rain and another for trips in good weather.

Driving in rain	Number of trips that invovled an accident	Number of trips that were accident free	Total
Driver 1	10	90	100
Driver 2	20	230	250
Total	30	320	350

Driving under good weather	Number of trips that invovled an accident	Number of trips that were accident free	Total
Driver 1	10	890	900
Driver 2	5	745	750
Total	15	1635	1650

iv) What percentage of the trips driver 1 took in the rain involved an accident? what percentage of trips driver 1 took in good weather involved an accident?

v) Do the same for driver 2.

vi) What can you deduce about the safety of each of the drivers. Explain.

vii) Comparing the results from (ii)-(iii) and the results from (iv)-(v) What do we call this phenomenon?