

Math 138: Statistics
Fall 2009

Turn-in Homework #1

Problem 1:

Note: For the purpose of this exercise, we will define Teatotaler as someone who has not had 4 or more alcoholic beverages in a row in the last year, and Lush to be someone who has.

Using the excel spreadsheet available on the course WISE site, examine the association (or lack there of) between gender and alcohol consumption for respondents to our class survey. Create a segmented bar graph showing the distribution of teatotalers and luses who are women and men, and a relative contingency table. Provide your segmented bar chart and your relative contingency table, and use them to answer the following questions:

1. How many respondents are teatotalers and women?
2. What percentage of female respondents are teatotalers?
3. What percentage of teatotaler respondents are women?
4. What percentage of respondents are women?
5. What percentage of lush respondents are men?
6. What percentage of respondents are both male and teatotalers?
7. Given a random teatotaler respondent, are they more likely to be a man or a woman?
8. Given a random lush respondent, are they more likely to be a man or a woman?
9. From the sample data, does it appear that men or women are more likely to be teatotalers? Briefly explain your answer.