

Unit I Case Study:

Task: You will ask two statistical questions. To answer each question, you will use either the day one survey results or data you collected by yourself. Any data collection must first be approved by your teacher.

Question 1: Must be answered by using the following tools as evidence:

- Back-to-back stem-leaf plots on the same scale
- One other appropriate visual display done on Fathom
- Appropriately chosen numerical measures of center/spread.

You will then write a clear and concise paragraph that uses your visual and numerical evidence to compare distributions and answer the question posed.

Question 2: Must be answered by using the following tools as evidence:

- A two-way table
- Segmented bar charts comparing two groups.
- Appropriately chosen conditional distributions.

You will then write a clear and concise paragraph that uses your visual and numerical evidence to compare distributions and answer the question posed.

On the next page see the grading rubric for this project. This rubric will be used to grade your assignment, so look at the criterion carefully.

Value: $\frac{1}{2}$ of your Unit 1 test/project grade, equal to in-class test for Unit I.

Due Date: _____

Late deduction: 2 points on the 20 point scale **per day** after due date.

Rubric: Analyzing data in the day one survey

Note: Top scores in each category correspond to error free work on your part. Any lapses in understanding / clarity errors will likely result in deductions.

SPECIFIC FEATURES	0	1	2	Comments	
For each question, the <i>best</i> numerical and visual evidence was presented, and preferred in the analysis.					
Two Way table / segmented bar graph: correctly constructed, labeled, and accurately done.					
Stem-leaf plot: correctly constructed, labeled, etc. Rounding, splitting stems incorporated if necessary. Key included.					
Plot #2: correctly constructed, labeled, on equal scales, done in Fathom.					
OVERALL QUALITIES OF REPORT	0	1	2	3	4
Analysis: clearly and correctly analyzes the distribution of each variable, in context. Uses appropriate numerical summaries, features of the graph to support their conclusions. At least once in their analysis, deals with something "interesting," requiring a beyond-the basics analysis.					
Conclusions: Student makes actual comparisons, not descriptions in parallel. Appropriately achieved, come from the data, not speculation. Student makes real conclusions, doesn't equivocate or leave vagueness, ambiguity in their response. Also, conclusions are not reaching too far.					
Communication: Sentences are clear, correct. Good grammar and mechanics are used. Use of language, especially statistical terms/concepts is correct, precise.					
Overall score out of 20:					Grade book grade: