STCC201 Objectives for Class # 5 (01/30/07)

After today’s class you will be better able to:

1) Define the following terms

<table>
<thead>
<tr>
<th>A) Location statistic</th>
<th>E) Robust or resistant</th>
<th>I) Percentile</th>
<th>M) 5-Number summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>B) Median</td>
<td>F) Outlier</td>
<td>J) Q1</td>
<td>N) Point Estimate</td>
</tr>
<tr>
<td>C) $\bar{x}$</td>
<td>G) M</td>
<td>K) Q2</td>
<td></td>
</tr>
<tr>
<td>D) M</td>
<td>H) Quartile</td>
<td>L) Q3</td>
<td></td>
</tr>
</tbody>
</table>

2) State the mean and the median are both measures of the center of a data set

3) Describe the median as the center value in a set of “n” observations

4) Discuss the effect that outliers have on the mean and median

5) Compute the median when “n” is odd

6) Compute the median when “n” is even

7) State that the sample median is the point estimator for the true population median

8) State the formula for computing a quartile rank

9) Use the formula to compute the first quartile

10) Describe a strategy for computing the rank of Q3 given the rank of Q1

11) Use the strategy to compute the rank of Q3

12) State the connection between quartiles and percentiles

13) State the connection between the 5-Number summary and boxplots

Over for Class Notes
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Class Notes

A) DUE Tuesday February 6 by 8:00 AM: Your second on-line assignment is up and ready to take. This assignment can be done – theoretically – from anywhere that allows you access to http://www.iLrn.com. Hopefully you all received instructions about registering for iLrn® and are already a part of the correct class roster.

B) For those who do not have their own PC/MAC: there are several machines available for general student use in 001 Statistics as well as Weber 205/206. You will need to obtain yet another username and password in order to log onto these machines. Either myself or your lab instructor can provide these to you. These are free, but again, mildly inconvenient.

C) Quiz 1: is this Friday February 9. Topics will include graphics, variables and variable types, terminology, and computing a mean or median.
   1) Given a setting, determine the appropriate graphic (see the warm-ups for today’s class and class #4). We have graphics for both qualitative and quantitative variables so be sure to review all of these.
   2) Given a setting, determine the variable of interest and characterize it as quantitative or qualitative. Further classify it as discrete, continuous, ordinal or nominal.
   3) Be able to distinguish between and give examples of variables at different levels of measurement
   4) Give a setting with corresponding data, compute various location and dispersion statistics.
   5) Cheat sheets: You may bring an 8 ½ x 11 cheat sheet (front side only) with you to help you remember things that you might, otherwise, forget. The only stipulation is that your notes must be hand written.

D) Sample Quiz: I’ve posted a sample quiz on the class web page to help you focus your studies. Go to http://www.stat.colostate.edu/~gumina and follow the “Lecture Materials” link.