Table Number:_____ Group Name: _____

Group Members:_____ _____ _____

What is Typical?

Part I: Making Predictions

For each of the following variables measured on the *Student Survey* (your section), make a prediction for a ***typical value*** *for all students enrolled in your statistics class this term*. A typical value is a single number that summarizes the class data for each variable.

1. Write that prediction in the *First Prediction* column.

Attribute from Student Survey	First Prediction	Revised Prediction	Statistics from *StatCrunch*	
			Mean	Median
Age				
Credit hours this semester				
Number of states visited				
Height				
Number of siblings				
Hours a week spent studying				
Hours a week spent working at a paying job				

Open MyMathLab and click on the *StatCrunch* link in the menu on the left. Click on the link "Stat Crunch Website,"

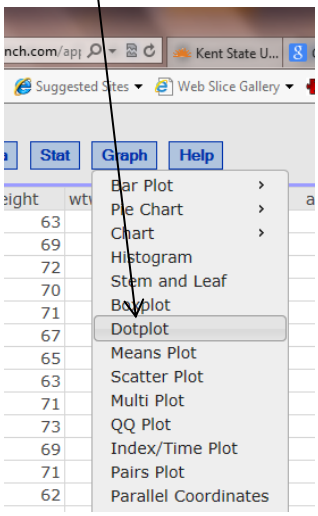
View the data sets from your textbook in StatCrunch.

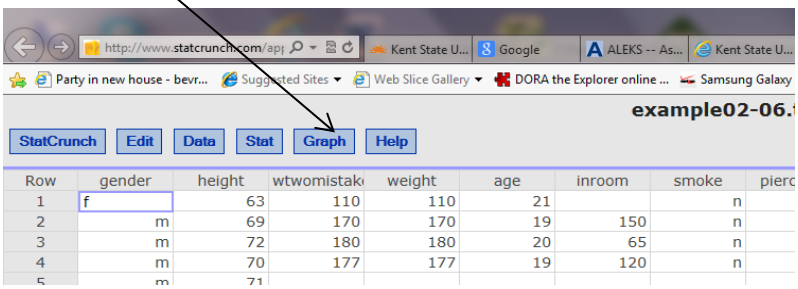
Visit the StatCrunch website to perform complex analyses with the StatCrunch statistical software, search shared data sets, take online surveys, and more.

then "**My Groups.**" Click on our group, then under the "Preview Data," click on "Class data."

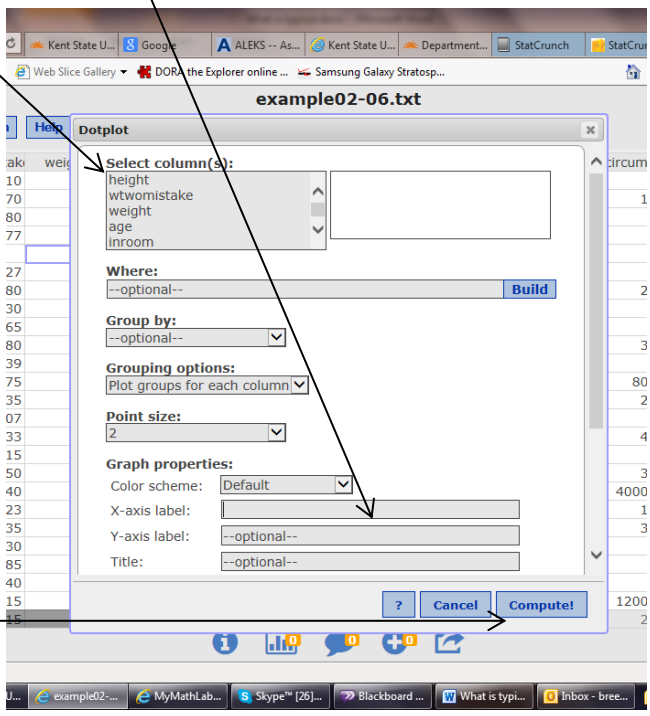
2. Now use *StatCrunch* to create dot plots of each variable to see if your original predictions seem reasonable. Based on the dotplots, make revised predictions for the typical value for each of the variables.

3. To make a dot plot in *StatCrunch*, click on the **Graph** button at the top of the spreadsheet, choose Dotplot.





4. Choose the column of interest, label the axes, then click on "Compute!" at the bottom of the page.



5. Write these new predictions in the *Revised Prediction* column in the table.

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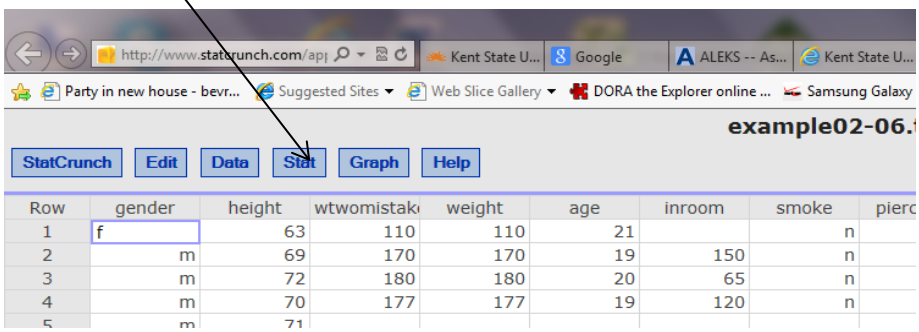
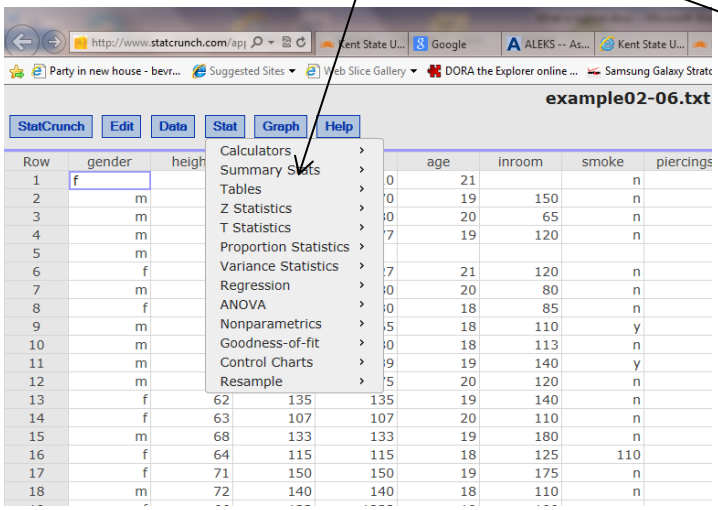
Part II: Test Your Conjectures

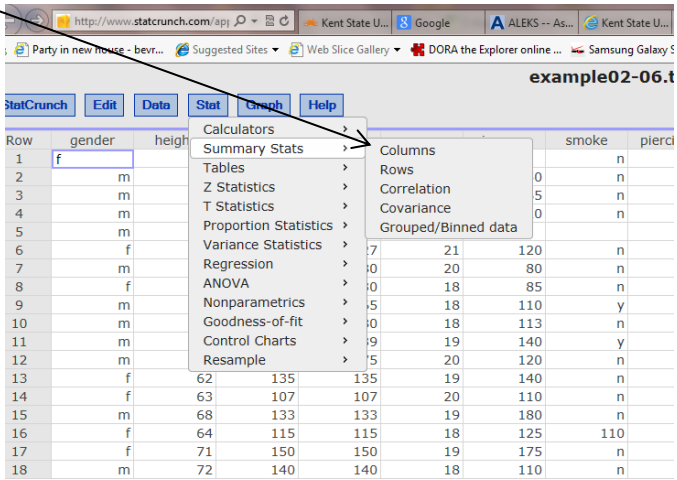
Use *StatCrunch* to find the mean and median for each of these variables. (Follow the directions below.)

1. Click the Stat button.

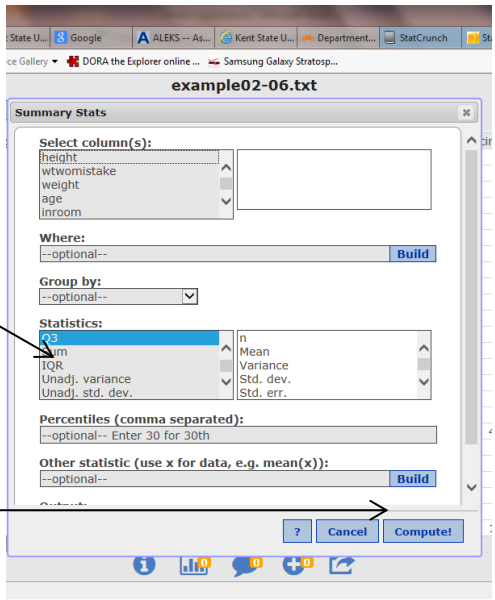


2. Click on "Summary Stats," then "Columns." Choose the columns of interest. You can select more than one by holding down the Ctrl key on your keyboard.





3. Click on the stats you want. You can choose more than one by holding down the Ctrl key on your keyboard
4. Click "Compute."



6. How close were your *revised predictions* to the "typical" values produced in *StatCrunch*? For which attributes were your predictions most accurate?

7. What was most surprising to you? Why?

8. In general, were your *revised predictions* closer to the means or medians?

Things to Consider

- How close were your predicted typical values?
- Which measure of center were your guesses closer to, the mean or median?
- What information do means and medians tell us about a distribution?
- How do we decide whether to use the mean or median to summarize a data set?
- In statistics, what do we mean by what is typical?

Reference

Adapted from AIMS http://www.tc.umn.edu/~aims/aimstopics.htm