"Is Grinnell College a Good Value?"
Due Wednesday, May 7 by 5 p.m.

This project is to be done individually.

Project Overview

This final project provides another chance to put into practice your newfound knowledge about doing statistical analyses and writing up the results.

Your task is write an S+B article addressing the question, "Is Grinnell College a good value?" In other words, given the nature and quality of a Grinnell education, is the tuition here in line with that of other schools of its type, or is Grinnell more or less expensive? To answer this question, you will use the information from a dataset compiled from the *U.S. News and World Report* college rankings. The dataset is called LIBERALARTSCOLLLEGEDATA.mtw in the USNEWS2007 folder in SCI_MATHLAB. For information about the variables in the dataset, go to this website:

http://colleges.usnews.rankingsandreviews.com/usnews/edu/college/rankings/about/weight_print .htm

You will be using regression equations and other descriptive statistics to predict one or the other of these two response variables: *Tuition* or *CompFee* (comprehensive fee). You should use at least two quantitative explanatory variables to predict your response variable. You should discuss where Grinnell College falls in each of these regression models. You should also enrich your analysis by examining the relationship between your response variable and either *Region* or *Student-faculty Ratio* used as a categorical explanatory variable. Locate Grinnell within any displays you produce for these analyses.

Your goal is to write a paper that would be interesting for friends, family members, or other students to read. You should write a very short report, no more than one or two double-spaced pages of prose not including graphs or tables. The quality of your writing and the correctness of your statistics will determine the assessment of your report.

Form of the Report

Your final paper should include the following parts (but not necessarily labeled as such):

1. *Informative Title.* This reflects what the report is about and gives an indication of the findings.

2. *Introduction.* A short paragraph which provides your **thesis** and explains why the issues you are addressing are interesting (preferably without explicitly using the word interesting).

3. *Information about the data itself.* Source of the data, description of the sample, the meaning of variables analyzed, and an explanation of any recoding or other changes you have made to

the variables. **Do NOT provide a narrative of your investigations or explain inessential things, like the fact that you used *Minitab* to do regression analyses.**

4. *Discussion and Conclusions.* A brief summary of what you have learned and what it might mean. Relate your findings to Grinnell College, noting how Grinnell does or does not fit the main trends that you found. Support your conclusions using a combination of your fine prose and elegant statistical graphs and summary statistics. **Do not over-use numbers in your text. Let the graphs and tables incorporated in your text do some of the work.**

5. *Graphs.* Refer to any supporting graphs in text using sequential figure numbers given parenthetically (Figure 1). Be sure to label each graph with a figure number and description. Make a separate series for tables (Table 1).

6. *Acknowledgments:* As in any academic paper, you should append a note describing any help you received in preparing this report (*e.g.,* from a classmate, a Math Lab tutor, a Writing Lab instructor, or your course instructor) and thanking the individual or individuals who helped you.

The write-up of your data analysis is due by 4:00 p.m. on Wednesday, May 7 via email (kamp@grinnell.edu). Early papers are appreciated.