COMPUTER ASSIGNMENT EVALUATION
Statistics 135, Spring ’03

Please answer the following questions thoughtfully and constructively. Your input will be considered in future design decisions.

Screen shots of each of the computer exercises appear interspersed throughout the evaluation form. They are there to help you remember the graphical user interfaces (GUIs), and to allow you to write comments on them.

Thank you for taking the time to complete this survey.

THIS EVALUATION MUST BE HANDED IN BY NOON ON WEDNESDAY MAY 21 IN ORDER TO RECEIVE CREDIT. YOU MAY EITHER HAND IT DIRECTLY TO ME (PROFESSOR NOLAN) OR YOU MAY WRITE YOUR NAME ON IT AND PLACE IT UNDER MY OFFICE DOOR (395 EVANS).
The Sampler GUI

What did you think was the main point of this computing exercise?

What statistical lesson did you learn from the using the GUI?

Please compare the computing exercise to the material presented in the book and lecture. How were they similar/different?

What features of the sampler GUI did you find were easy to use?

What did you find confusing or frustrating about the exercise?

Please give ideas that you have for improving the interface.
The Experimental Design GUI

What did you think was the main point of this computing exercise?

What statistical lesson did you learn from the using the GUI?

Please compare this computing exercise to the material presented in the book and lecture. How were they similar/different?

What features of the GUI did you find were easy to use?

What did you find confusing or frustrating about the exercise?

Please give ideas that you have for improving the interface.
Fluid resuscitation for patients with gun shot and stab wounds

The study was conducted in Houston, from November 1, 1986 to December 22, 1986. During this time, a total of 1000 patients with stab wounds or gunshot wounds to the torso were transported to the Ben Taub General Hospital. Of these 1000 patients, 508 were over 16, had systolic blood pressure under 90 mm Hg, and had a major injury that required surgery. These patients were enrolled in the study.

Patients that were injured on even numbered days of the month were given immediate resuscitation, and those injured on odd numbered days did not receive IV resuscitation until they reached the operating room. The surgeons were informed as to whether the patient received IV resuscitation prior to surgery, as it impacted the surgical procedure.

The overall rate was significantly higher for those patients not receiving immediate resuscitation. It was found that 70 percent of these patients died in comparison to 62 percent in the immediate resuscitation group. The p-value for this difference is 0.04.
The simple regression GUI

What did you think was the main point of this computing exercise?

What statistical lesson did you learn from the using the GUI?

Please compare this computing exercise to the material presented in the book and lecture. How were they similar/different?

What features of the GUI did you find were easy to use?

What did you find confusing or frustrating about the exercise?

Please give ideas that you have for improving the interface.
The Radon Map

In this exercise, you were to compute county percentages via a spreadsheet and import them into the colorMap GUI. You also were to compute a state estimate and confidence interval.

Did you find that using the spreadsheet reinforced the statistical concepts behind stratified sampling or not? Please explain.

Did you find the spreadsheet computations easy to make?

What did you find confusing or frustrating about the spreadsheet calculations?

What features of the colorMap GUI did you find were easy to use?

What did you find confusing or frustrating about the colorMap GUI?

Please give ideas that you have for improving the interface.
The DNA pattern GUI

In this exercise, you were to compute chi-square tests for the uniform and Poisson distributions via a spreadsheet. You also were to analyze the locations and gaps of the palindromes via special graphics such as the sliding bin plot and exponential quantile plots.

Did you find that using the spreadsheet reinforced the statistical concepts behind goodness-of-fit tests or not? Please explain.

Did you find the spreadsheet computations easy to make?

What did you find confusing or frustrating about the spreadsheet calculations?

What features of the graphing GUI did you find were easy to use?

What did you find confusing or frustrating about the graphing GUI?

Please give ideas that you have for improving the interface.
The Data Analysis GUI

The data analysis GUI evolved over the course of the semester. It was used three times: to analyze birth weights of babies born to smokers and nonsmokers; to analyze premolt and postmolt size of crab shells; to analyze the snow gauge data.

Some features were added to the GUI and others were changed as the semester progressed.

1. For the birth weights, an instruction sheet appeared in the top right panel of the GUI. The instruction sheet did not appear the next two times the GUI was used. Did you find it was helpful to have it, or did it not matter if it was there or not? What improvements to the sheet might have made it more useful?

2. In the first lab, the transcript of numerical output appeared on top of the plots, and in the next two labs, it appeared next to the plots. Do you have a preference for where it should be located? Why?

3. The DNA lab provided a table that you could fill with up to 4 plots. Would you prefer this interface to this one where you have one plot per page but an unlimited number of plots that can be made?

4. Please comment on the interface for choosing variables to be analyzed.
5. Please comment on the annotate plot feature where you can place a curve on a scatter plot. What other types of annotations would you like to have available?

6. Please comment on any other features of the GUI. What did you find useful, easy-to-use, confusing, not useful. What additional features would you like to have?
Maternal Smoking and Infant Health

How do babies born to smokers compare to babies born to non-smokers?

To answer this question, you are provided the birth weights of all baby boys born in one year at the Kaiser Hospital in Oakland. The babies weights are reported in ounces (16 ounces to the pound and 35 ounces to the kilogram). These data are split into two groups:

- babies born to women who smoked during their pregnancy
- babies born to women who have never smoked.

For now, we will ignore the group of babies born to women who used to smoke but quit while pregnant.

Answer the following questions. Print any 4 plots that you used in answering the questions, and print a copy of the transcript that records your computations. Include these plots and the
Transcript
- Mean of density in Gauge. Value = 0.221
- SD of density in Gauge. Value = 0.229
- Histogram of density in Gauge.
- MultiBoxplot
  - density in Gauge
  - gain in Gauge
  - density in Gauge
  - gain in Gauge
  - density in Gauge
  - gain in Gauge
Please provide any overall comments that you have on:

1) The use of case studies to teach mathematical statistics.

2) The use of computing in the mathematical statistics course to address statistical concepts such as the central limit theorem.

3) The use of the computer in the mathematical statistics course to apply the statistical concepts and analyze data.

4) Other Comments:
About you:

_______ Male  _______ Female

_______ Years at Berkeley  _______ Standing (i.e. junior, senior, graduate)

_______ Grade you expect in STAT 135

_______ Major

Describe your experience with the following software and operating systems. Use the scale

0 = Never used/ No experience
1 = Little experience
3 = Comfortable with the basics
5 = Proficient

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THANK YOU for completing this survey!!!