Chapter 5 Computer Exercise

1. We will be working with a data set on a job placement experiment. Subjects in the program were either in a control group, given job training, or given an actual job. The actual study monitored each subject's job history over two years, but the response for this study will be whether each subject had a job at some time during the course of the experiment. In addition to the job training treatment, the program location (three possible cities) was recorded.

2. Save the SAS data set on a local drive. In SAS, select Create Library (look for the icon of a sparkly new file drawer), enter JOB as the library name, and use Browse... to select the Path (directory) containing the SAS data set as the library location. In the Explorer frame, you can select Libraries, then JOB, and the SAS data set should appear there. Click on it to open it up. It contains the variables treatment (0=control, 1=training, 2=job), city (1=Atlanta GA, 4=Grand Rapids MI, 7=Riverside CA), and job.

3. Copy the SAS code for this data set from the website. The variable "employed" creates a binary response from various job codes (if you wanted to save this change in a SAS data set, your data step could be, e.g., DATA JOB.UPDATE;). Run the code. The type3 option conducts the 2 df test for treatment; is the treatment significant? Interpret all model parameters.

4. To get a headstart on the next in-class exercise, re-run the above code with both city and treatment as factors in an additive model; also run the code with city as the only factor in the model.

5. The treatment factor could be viewed as ordinal. To see results from a Cochran-Armitage trend test, use the SAS code on the website to cross-tabulate the response and treatment in PROC FREQ with the option TREND. Is there a significant linear trend in the treatment?