Statistics 659 - Assignment 10
(due Friday, April 22, 2016, 11:59pm)

Instructions:

- Whether you write out the solutions by hand or in a text document, be sure that they are *neat, legible and in order* (even if you choose to solve them in a different order).
- **Type** your name, email address, course number, section number and assignment number at the top of the first page (or cover page).
- Either scan or print your solutions to a **PDF** file under 15MB in size. It must be in a *single* file, not separate files for separate pages. Name the file using your name (for example, I could use twehrly659hw01.pdf) to avoid confusion with other students and/or assignments. *Do not* take a photo of each page and then paste them into a document – this will make your file too big and the results will generally not be very readable anyway.
- Login to your WebAssign account to upload your file. You must do this by **11:59 pm U.S. Central time**, *according to the WebAssign server*, on the due date. We highly recommend that you start the upload at least 15 minutes earlier. You can make multiple submissions but *only the last submission will be graded*.

This assignment covers the material from Chapters 7 discussed in Lectures 31-34.

Answer the following problems from Agresti:

7.3, 7.4, 7.6, 7.7, 7.8, 7.9, 7.10, 7.14, 7.16, 7.19, 7.20, 7.22

7.24
Also, for the data in problem 7.24, fit the row effects model, the column effects model, and the row and column effects model. Construct a table of deviances and *df* for these models in addition to the independence, $L \times L$, and saturated models. Determine which model is most appropriate for this set of data.

Additional Problem:

I. For the soft-drink data from Chapter 2 SAS Files, determine the most reasonable loglinear model.

II. Determine the graphical models corresponding to the models in the following problems:

   A. 7.20 (a)
   B. 7.20 (b)
   C. 7.22

(Only for students having taken STAT 414, 610 or STAT 630) 7.25, 7.26