**Homework 1: Due Wednesday by 12:00 pm, 2/11**

You will first need to run the SAS code (homework1\_data.sas) to create the SAS data set. The purpose of this study is to assess how job-related stress is related to hospital size (0=small, 1=medium, 2=large) and nurse’s job experience (years). Data are from nurses working in 25 hospitals. In each hospital, a sample of about 40 nurses is selected and given a test that measures job-related stress (coded on a scale of 0-7).

**Questions:**

1. Identify the type of the data structure (cross-sectional clustered, longitudinal, or clustered longitudinal).
2. Identify the variables at each level.
3. Graphically examine the association between job stress and nurse’s experience within each hospital. Refer to slides 8-11, lecture 2.
4. Use the model building strategies discussed in lecture 3 to select the best model for the data