**Stata Regression Homework**

You will be using the Ischemic Heart Disease Dataset (again) for this homework. The dataset and a codebook (with description of the dataset) are on the course website (see Feb 16). Please paste all relevant figures asked in the questions below into the homework document and answer all questions in words as appropriate. Paste your do file at the end.

Refer back to the questions from the previous homework (assigned on Feb 16) and use your transformed variable of totalcost (i.e., transcost) as the outcome variable.

1. Fit a regression model of transcost on the indicator of complications (>0 vs. =0).
2. Fit a regression model of transcosts on the ervisits
3. Fit a multiple regression model using complications indicator and ervisits as covariates. Comment on the statistical significance of covariates.
4. Generate a residual plot of the model in 3.
5. Fit a model with the interaction between complications and ervisits. Is it significant?
6. Use the ‘lincom’ command to estimate the following from the model fit in 5:
   1. The estimated difference in transcost for a person who had no ervisits and no complications vs. a person who had 3 ervisits and 1 complication. Also report the 95% confidence interval and the pvalue for the test that the true mean difference is 0.
   2. The estimated difference in transcost for a person who had 3 ervisits and 1 complication vs. a person who had 3 ervisits and no complications. Also report the 95% confidence interval and the pvalue for the test that the true mean difference is 0.