Exercises

E13.1 Use the file Life Expectancy.xls.

a. Regress Life Expectancy on Population, GDP, and Health Expenditure as a pooled cross-section.

b. Regress Life Expectancy on Population, GDP, and Health Expenditure as a pooled cross-section controlling for the number of years.

c. Now regress Life Expectancy on GDP per Capita and Health Expenditure as a pooled cross-section, controlling for the number of years, and compare your results to what you found in parts (a) and (b). Which specification do you feel is a better fit?

E13.2 Use the file Life Expectancy.xls.

a. Use first differencing to estimate the regression of Life Expectancy on Population, GDP, and Health Expenditure.

b. Now use first-differencing to estimate the regression of Life Expectancy on GDP per Capita and Health Expenditure.

c. Compare your results to what you found in problem C13.1.

E13.3 Estimate a fixed-effects model using the NFL data with only using years 2007 and 2009. Comment on the results, and compare your estimates to the first-differenced estimates in Excel Regression Output 13.3.

E13.4 Estimate a random-effects model using the Olympics data. Comment on the results. Do you think that this is the best method to estimate this model? Explain.

E13.5 Use the file Life Expectancy.xls.

a. Estimate the model Life Expectancy on Population, GDP, and Health Expenditure using the dummy variable method of fixed effects.

b. Estimate the model Life Expectancy on Population, GDP, and Health Expenditure using the differencing method of fixed effects. Make sure your results match in parts (a) and (b).

c. Estimate the model Life Expectancy on Population, GDP, and Health Expenditure using random effects.

d. Comment on the differences.