ECOM30003/ECOM90003: Applied Microeconometric Modelling

Tutorial 2

1. Please read Hamermesh, D. and Biddle J. (1994), "Beauty and the Labor Market," *American Economic Review*, 84(5), pp. 1174-1194 and provide brief answers to the following questions.

   (a) What question does the paper seek to answer?

   (b) What data are used?

   (c) How are the key outcomes and explanators defined and constructed?

   (d) What other factors are controlled for in the empirical analysis?

   (e) What is the basic econometric model?

   (f) What are the (three) competing hypothesis being tested and how do they translate into restrictions on parameters?

2. Use *stata* and the data set BEAUTY.DTA which contains a subset of the variables (but more observations than in the regression) reported by Hamermesh and Biddle (1994) to answer the following questions.

   (a) Find the separate proportion of men and women that are classified as having (a) above average looks and (b) below average looks. For each gender, which is greater: the fraction rated as having above or below average looks?

   (b) Test the null hypothesis that the population fractions of above average looking men and women are the same (assume the variance of men and women are the same). Report the one-sided p-value that the fraction is higher for women.

[Hint: A simple way to test whether the difference is statistically significant is to run a simple regression of *abvavg* on an indicator for female and do a t-test (which is asymptotically valid).]

(c) Estimate the model

$$log(wage) = \beta_0 + \beta_1 belavg + \beta_2 abvavg + u$$

separately for men and women and report the results in the usual from (as set out in the textbook in Chapter 4). In each case, interpret the coefficient on *belavg*. Explain in words what the hypothesis $H_0 : \beta_1 = 0$ against $H_1 : \beta_1 < 0$ means. Find the p-values for men and women. What do you conclude regarding the hypothesis being tested?

(d) Is there convincing evidence that women with above average looks earn more than women with average looks? Explain.

(e) For both men and women, add the explanatory variables; *educ*, *exper*, *exper*^{2}, *union*, *goodhlth*, *black*, *married*, *south*, *bigcity*, *smllcity* and *service*. Do the effects of the looks variables change in important ways? Explain.