Use the data in LOANAPP.xls for this exercise. The binary variable to be explained is approve, which is equal to one if a mortgage loan to an individual was approved. The key explanatory variable is white, a dummy variable equal to one if the applicant was white.

i To test for discrimination in the mortgage loan market, a linear probability model can be used:

$$approve = \beta_1 + \beta_2 white \tag{1}$$

Regress approve on white and report the results in the usual form. Interpret the coefficient on white. Is it statistically significant?

ii Estimate a probit model of approve on white. Is the estimated coefficient statistically significant. Find the estimated probability of loan approval for both whites and nonwhites.

iii Estimate a logit model of approve on white. Is the estimated coefficient statistically significant. Compare the coefficient on white to the probit estimate.