

GV903: Advanced Research Methods

Class 17 More Discrete Choice Models

Ordered Data

Download the paper “*Rational Mediation: A Theory and a Test*” from Terris and Maoz (2005) and the replication data from <http://vanity.dss.ucdavis.edu/~maoz> . Load the data in R.

1. Create a subset of the dataset, keeping only the observations that don't have any missing information.
2. Replicate the model in first column from Table II in page 579, that is a regression of *Mediation*.
3. Replicate the model in fifth column from Table II in page 579, that is a regression of *Mediation intrusiveness*.
4. Calculate and plot the average marginal effects of Total CV for each of the two models using the functions we used last week.
5. Do the same separately for Alliance and No Alliance.
6. Get the predicted probabilities of the logit model and store them as an additional variable in the dataset. Check the first 6 rows. Do the same for the ordered logit.

Count Data

Load the dataset in R directly from the below link. Explore the dataset.
http://www.ats.ucla.edu/stat/stata/dae/nb_data.dta

1. Make a histogram of the days of absence. Which distribution would best describe the generation of this variable?
2. Fit a series of Poisson models and choose the best. How we can make the model more flexible and allow for overdispersion?
3. Calculate the marginal effect of gender for a student in Programme 1 with maths grade 50 points.
4. Calculate the average marginal effect of programme for boys.
5. Calculate the marginal effect of programme for a boy with the worst possible maths grade.
6. Calculate the marginal effect of programme for a boy with the best possible maths grade.