

WSSR WORKSHOPS ON SOCIAL SCIENCE RESEARCH

Logistic Regression

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9:00am – 4:30pm

Summary

Social scientists and policy analysts frequently wish to study categoric variables such as the choices that people make in economic, political and social settings. This applied workshop teaches researchers how to conduct statistical analyses with categoric dependent variables using the popular Stata and R programs.

Starting with the linear regression model, the workshop focuses on binomial logit models, ordinal logit models, the multinomial logit model and the mixed logit model. Examples using national survey data on voting in the 2016 UK Brexit referendum, the 2015 Canadian federal election and the 2016 US presidential election are presented.

Assuming only familiarity with introductory statistics, the workshop emphasizes how to do multivariate analyses of categoric dependent variables with real-world data, to interpret results and present them in informative graphs.

Outline

1. Regression Models: The Basics
Reading: Kellstedt and Whitten, chs. 8, 9, 10
2. Dichotomous Choices: Binomial Logit and Probit Models
Reading: Long and Freese, ch. 5
3. Interpreting and Presenting Results
Reading: Long and Freese, chs 4 and 6
4. Ordered Choices: Ordinal Logit and Probit Models
Reading: Long and Freese, ch. 7
5. Unordered Choices: The Multinomial Logit Model
Reading: Long and Freese, ch. 8
6. Examples: Modeling Electoral Choice in Canada, Britain and the United States
Reading: Clarke, Goodwin and Whiteley, Brexit, ch. 7
 - a. Clarke et al. "It's Spring Again!" The 2015 Canadian Federal Election, ch. 13
 - i. Clarke, Stewart and Borges "Hillary's Hypothesis: Attitudes Towards Womens' Roles and Voting in the 2016 US Presidential Election"
 - b. Clarke, Elliott and Stewart, "Green Choices"



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Required Readings*

Harold D. Clarke, Matthew Goodwin and Paul Whiteley. 2017. Brexit – Why Britain Voted to Leave The European Union. Cambridge: Cambridge University Press, ch. 7. p.146-174

<http://reserves.concordia.ca/ares/ares.dll/plink?14EF2224>

Harold D. Clarke et al. 2016. "It's Spring Again! Voting in the 2015 Federal Election." In Jon H. Pammett and Christopher Dornan, eds. The Canadian Federal Election of 2015. Toronto: Dundurn Press, ch. 13.

<http://reserves.concordia.ca/ares/ares.dll/plink?14EF21D3>

J. Scott Long and Jeremy Freese. 2014. Regression Models for Categorical Dependent Variables Using Stata. 3rd edition. College Station, TX: Stata Press. *Available at Webster Course Reserve Room (3 hour loan)*

Additional Resources

Harold D. Clarke, Marianne C. Stewart and Walter Borges. 2018. "Hillary's Hypothesis: Attitudes Towards Women and Voting in the 2016 Presidential Election." Unpublished Manuscript.

Clarke, Harold D., Euel Elliott and Marianne C. Stewart. 2016. "Heuristics, Heterogeneity and Green Choices: Voting on California's Proposition 23." Political Science Research and Methods, 5: issue 4.

Paul Kellstedt and Guy Whitten. 2013. The Fundamentals of Political Science Research. Cambridge: Cambridge University Press, chs. 8, 9, 10.

Monogan, Jamie. 2016. Political Analysis Using R. New York: Springer.

Tomz, Michael, Jason Wittenberg and Gary King. 2003. "Clarify: Software for Interpreting and Presenting Statistical Results." Cambridge, MA: Harvard University. Department of Government

*If you are registered for non-credit and are unable to access these readings, please send us an email at wssr@concordia.ca and we will do our best to assist you.

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