

Introduction to Statistics

lab 10

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Data

For this lab we will make use of the Irish National Election Study (INES) data from the 2007 general election. See Lab 6 for download and subset instructions.

Explaining support for Sinn Féin

In the survey, one question asks “How probable is it that you will ever give your first preference vote to the following parties?”, with one of the answer categories Sinn Féin. Respondents can provide their answer on a scale from 0 to 10. Table 2 provides the results of a series of regression models attempting to explain support for Sinn Féin using this variable. See Table 1 for an overview of variables used.

1. Produce a frequency table for the dependent variable. Are missing values correctly defined? Are there any?
2. Produce a box plot for the dependent variable. How would you describe this distribution?
3. Re-produce all regressions in Table 2.
4. Fully interpret the regression output.

Age	v0906
Union membership	v0936
Probability to ever vote Sinn Féin	v0192
Left-right self-placement	v0239
Attitude towards immigrants	v0248
Attitude towards Northern Ireland	v0253
Importance Northern Ireland issue	v0260

Table 1: Overview variables

	(1)	(2)	(3)	(4)	(5)
Left-right self-placement (LR, 0–10)		−0.146*** (0.047)	−0.181*** (0.044)	0.065 (0.093)	−0.555*** (0.173)
LR squared					0.032** (0.014)
Pro-immigrant attitude (0–10)		−0.034 (0.035)			
Member of trade union		−0.386* (0.204)	−0.362* (0.195)		−0.344* (0.195)
Pro-unification attitude (PUN, 0–10)			0.171*** (0.061)	0.586*** (0.098)	0.165*** (0.061)
Northern Ireland important (NII, yes/no)			−0.188 (0.454)		−0.208 (0.453)
PUN × NII			0.173** (0.079)		0.175** (0.079)
LR × PUN				−0.044*** (0.015)	
<i>intercept</i>	3.064*** (0.077)	3.821*** (0.349)	2.442*** (0.420)	0.855 (0.592)	3.429*** (0.609)
<i>N</i>	1,381	799	771	851	771
<i>R</i> ²	0.000	0.018	0.116	0.108	0.122
Adjusted <i>R</i> ²	0.000	0.014	0.111	0.105	0.115
Residual Std. Error	2.846	2.797	2.634	2.667	2.627
<i>F</i> -Statistic		4.849***	20.139***	34.216***	17.700***

Note:

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table 2: Linear regressions explaining probability to ever vote Sinn Féin