Gordon : In what Sense Left Behind? Supplementary Material

A. Maps for District Level Maps of UK 2016 Referendum Results: mainland Britain

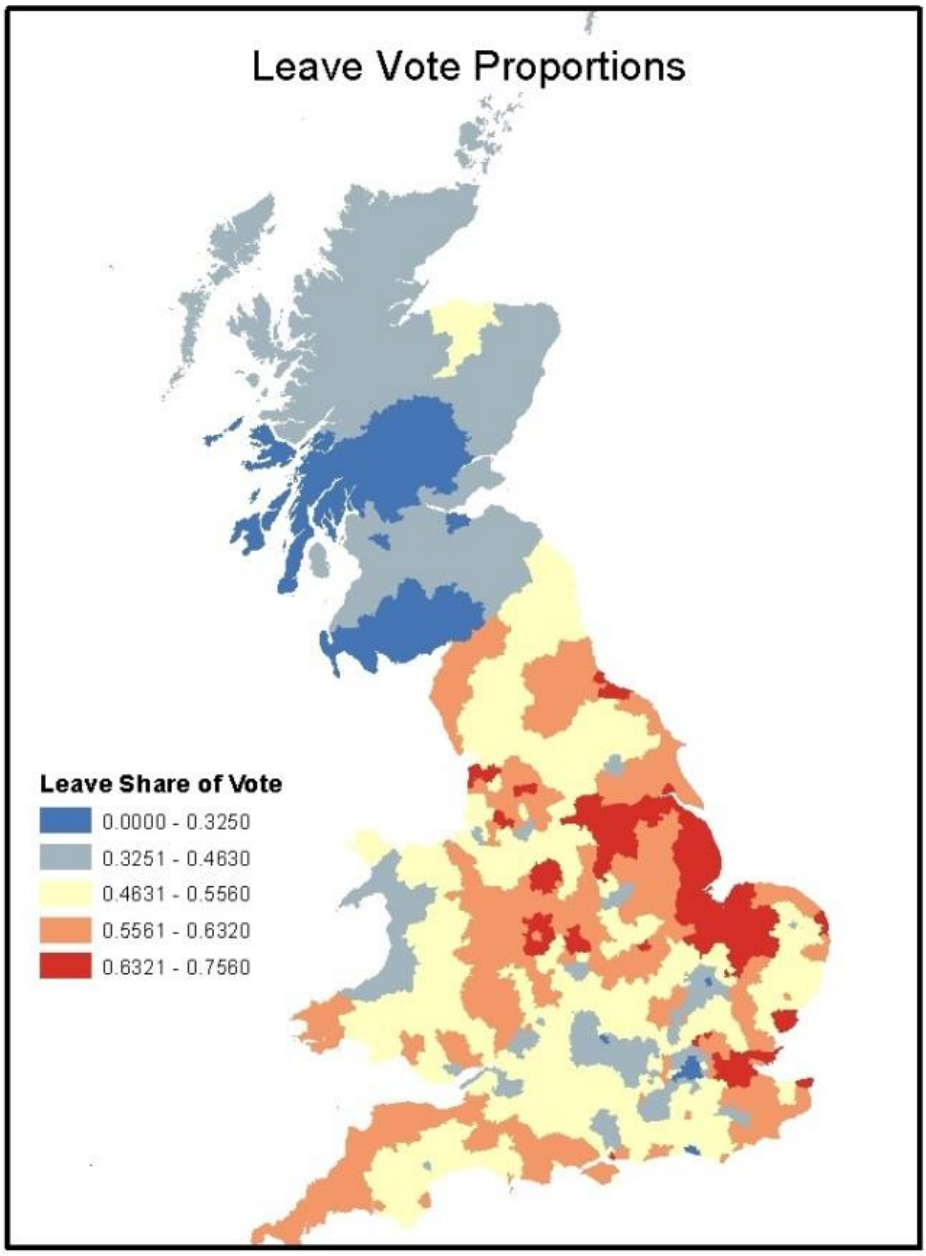
These maps relate to a version of the regression model presented in Table 1 of the main paper, with a single regional fixed effect for Scotland as a whole (not for Central Scotland, Wales or Merseyside, as in the tabulated version).

Map 1: Actual Leave vote share by districts

Map 2: Predicted Leaver Share vote

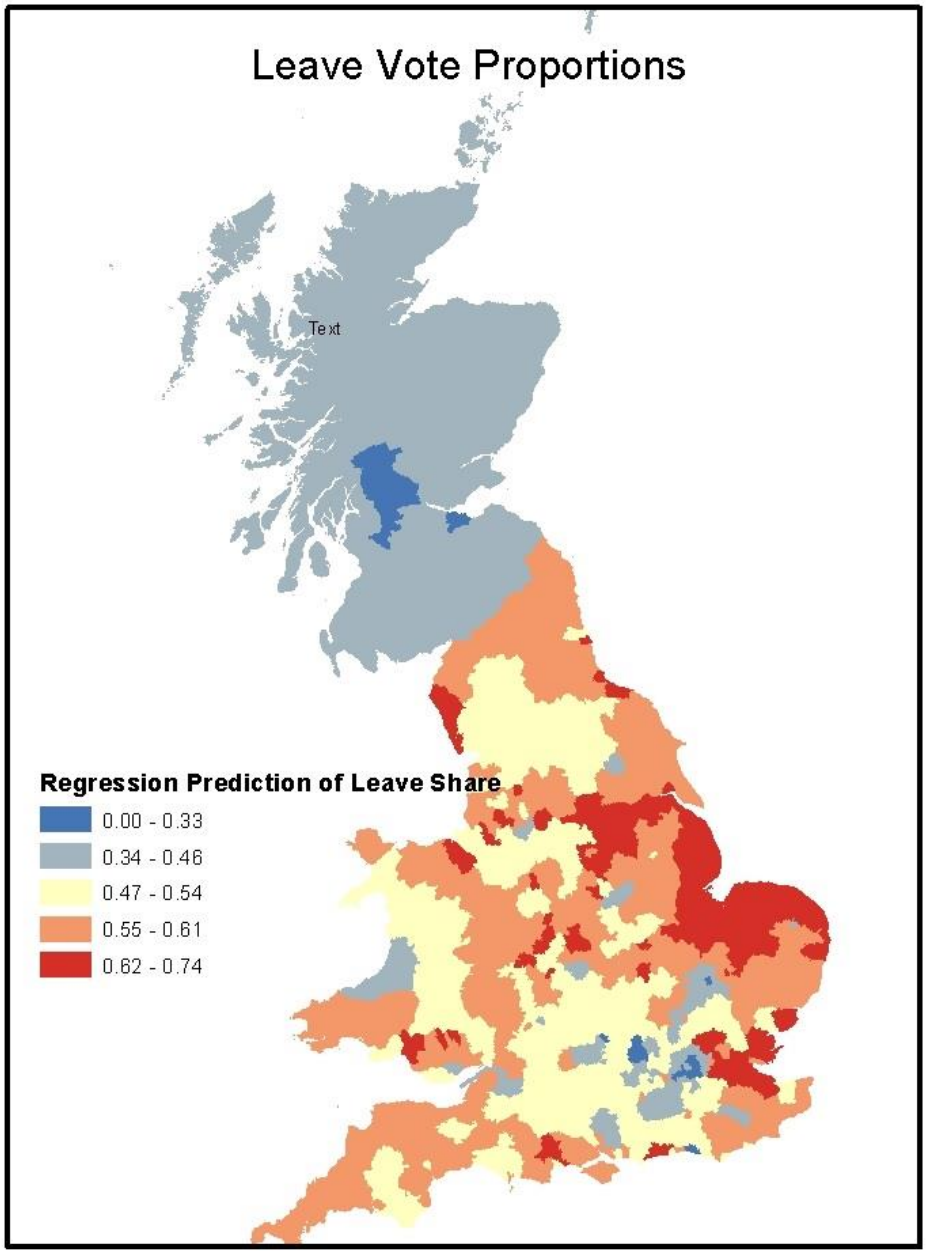
Map 3: Residuals from Regression Prediction

Map 1

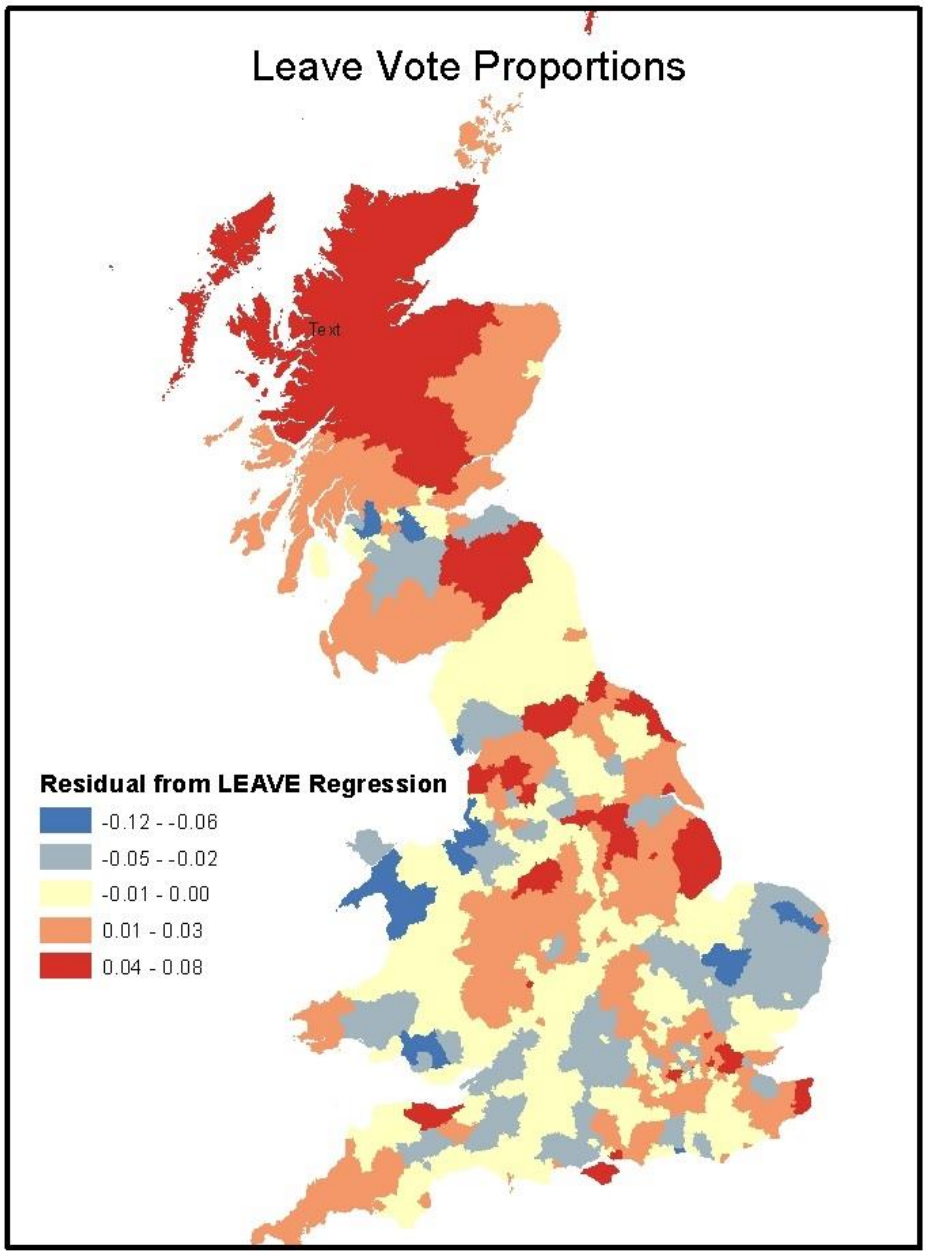

Leave Vote Proportions
Leave Share of Vote
0.0000 - 0.3250
0.3251 - 0.4630
0.4631 - 0.5560
0.5561 - 0.6320
0.6321 - 0.7560

Text

Map 2


Leave Vote Proportions
Text
Regression Prediction of Leave Share
0.00 - 0.33
0.34 - 0.46
0.47 - 0.54
0.55 - 0.61
0.62 - 0.74

Map 3


Leave Vote Proportions
Text
Residual from LEAVE Regression
-0.12 - -0.06
-0.05 - -0.02
-0.01 - 0.00
0.01 - 0.03
0.04 - 0.08

B. European Social Survey Data and Analyses: Sources and Methods

The survey data used in section 4 all come from the European Social Survey online database [http://www.europeansocialsurvey.org/], specifically ESS1-7, ESS Cumulative File Rounds 1-7, ed.1.0, which integrates data from the biennial surveys between 2002 and 2014.

This data-set adds one extra wave to that used by Inglehart and Norris, but the sample coverage has been restricted by excluding countries which constituted a single NUTS 2 region, together with specific waves for which no populist party was included among those for which data on voting and support was presented. Coverage was also restricted to national citizens aged 18+, while an extension of the list of variables further reduced the number of observations (to some 50 thousand for the analyses reported in the paper, out of a potential 332 thousand).

The 18 **countries** for which observations were retained (involving 4 waves on average, though ranging between 1 and 7) are:

Austria
Belgium
Bulgaria
Croatia
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Italy
Netherlands
Norway
Slovakia
Spain
Switzerland
UK

The regional units distinguished were NUTS2, where available, though for Belgium, France, Germany and the UK only a NUTS1 coding was available.

Parties for which respondents reported support were classified as populist, following Inglehart and Norris (2016), with a few additions for the 2014 wave. They in turn based these on the Chapel Hill Expert Survey analysis of party manifestos. No distinction was made between left and right wing populist parties, though in practice a clear majority of those identified were right wing.

The composite personal variables used in the Table 1 regression analysis (for Personal Background, Personal Attitudes and Labour Market Position) use weights which derive simply from a logistic regression of voting on just the variables identified with each of these. As such, this grouping essentially adds nothing to that regression. The point is to allow simple empirical exploration (without explicit theory) of how the significance of these (intuitively distinct) bundles would be affected by three simple ways of adding regional influences (and then of removing the attitudinal factor, as later analyses would.

The **'highly religious Catholic/Orthodox'** variable used in the regression analyses combined responses to a question about which (if any) religion/denomination the respondent belonged to, with another about how religious they were – distinguishing those answering 8 or above on a 10 point scale (coded 1, 2 or 3 against) for those reporting a lower level of religiosity. Choice of this threshold/coding, as well as restriction to those of Roman Catholic

or Orthodox Christian affiliation for the individual level variable was the outcome of experimentation. Scores have been rescaled to yield a mean value of 1.0 for those in the highly religious category.

These choices were simply carried over into the specification of aggregate variables, which were initially expected to capture (positive) external effects of individual dispositions in a particular faith group. The reality turned out to be more complex, with individual and aggregate/interactive effects working in opposite directions for the highly religious Catholic/Orthodox group. It is possible then that the presence of other religious groups whose individual members showed no particularly positive or negative disposition toward populist parties might also be significant in aggregate/interactive terms. This was not tested for, however, since the results for the combined Catholic /Orthodox group (accounting for two thirds of the highly religious in our ESS sub-sample), provided clear evidence that local engagement in such groups could significantly moderate support for populist parties.

References

European Social Survey (2014) *ESS1-7, ESS Cumulative File Rounds 1-7,* Data File Edition 1.0, ESS, NSD - Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS ERIC.

Inglehart, R.F. and Norris, P. (2016) 'Trump, Brexit and the Rise of Populism: economic have-nots and cultural backlash', *Faculty Research Working Paper* 16 – 026, Harvard Kennedy School, August.

Table A1

Baseline Model: Logistic Regression of Populist Party Support on Personal Background, Attitudes and Labour Market Position

Variable	Coefficient	t statistic	Statistical Significance
Personal Background: Age (years)	-0.019	18.9	***
Tertiary Education (dummy)	-0.419	9.9	***
Gender (male)	0.317	9.6	***
Highly religious Catholic or Orthodox Christian (scale)	0.343	7.6	***
Ethnic minority member	-0.661	6.0	***
Muslim	-1.001	3.5	***
Urban resident (urban/rural dummy)	-0.070	2.1	*
Trade union member	-0.155	3.7	***
Personal Attitudes: Anti-immigrant (I/N scale)	0.496	22.2	***
Tighten control on immigrants of different ethnicity	0.374	13.5	***
Trust in European Parliament (dummy)	-0.088	10.8	***
Trust/satisfaction with National government and politics (I/N scale)	-0.226	9.2	***
Satisfaction with state of national economy	0.068	7.3	***
Oppose gay/lesbian freedom	0.110	7.2	***
Importance of strong government, ensuring safety	0.103	6.9	***
Ease control on immigrants of same ethnicity	0.142	5.7	***
Importance of conforming to tradition/custom	0.073	5.6	***
Belonging to an 'other' group experiencing marked discrimination (not ethnic, age, gender, sexuality or disability-based)	0.476	5.0	***
Importance of understanding different people	-0.065	4.1	***
Labour Market Position: Proportion of vocationally qualified people in their occupation	0.747	5.2	***
Ever unemployed for more than 3 months	-0.097	2.6	**
Working in personal service, construction or cleaning occupation (PCC)	0.099	2.3	*
Employed in manufacturing	0.088	2.0	*
Working in establishment with fewer than 10 people	0.049	1.4	.
Fixed Effects: Country * Year	Yes	..	***
R^2 equivalent (Nagelkerke)	0.398		
N	49,661		

Source: European Social Survey Database, Rounds 1-7, 2002-2014

Note: Stars indicate levels of statistical significance: * = 5%, **=1%, ***=0.1%.

Table A.2: Logistic Regressions of Populist Support on Personal Characteristics, Aggregated (NUTs level) Variables and Interactions between these

Variables	Model 0	Model 1	Model 2	Model 3
Personal: Highly Religious Catholic/Orthodox	0.412 (9.8)***	0.410 (9.8)***	0.771 (12.7)***	0.820 (13.6)***
Trade Union Member	-0.206 (5.3)***	-0.195 (54.9)***	-0.009 (0.1)	-0.037 (0.6)
Tertiary Education	-0.704 (17.6)***	-0.674 (16.7)***	-0.657 (16.2)	-0.656 (16.6)***
Vocational. Qualif. intensity of occupation	1.530 (11.6)***	1.312 (9.5)***	0.451 (2.3)	0.435 (2.2)*
Manufacturing worker		0.116 (2.7)**	0.111 (2.5)*	0.099 (2.2)*
PCC workers		0.102 (1.8)	0.159 (2.8)**	0.155 (2.7)**
Age 60 plus		-0.082 (1.3)	-0.100 (1.5)	-0.091 (1.4)
Contextual Last 10 year migrant proportion		-1.199 (0.5)	. 0.302 (0.1)	2.838 (1.3)
Last 20 year migrant proportion		-6.077 (4.3)***	-5.075 (2.0)*	-10.542 (3.9)***
Muslim proportion		3.791 (3.0)**	11.455 (3.3)***	6.958 (1.8)
Industrial Job Change over 3 years (prop of all jobs)		2.303 (1.4)	2.183 (1.4)	2.384 (1.5)
Interactions 20 year migration * aged 60 plus		2.264 (2.4)*	2.418 (2.5)*	2.424 (2.4)*
Muslim Proportion * aged 60 plus		.289 (0.2)	.661 (0.4)	.463 (0.3)
10 year migration * working in small estab. (<10)		3.027 (3.4)***	2.355 (2.6)*	2.334 (2.6)*
10 year migration * PCC workers		2.681 (1.6)	0.464 (0.3)	0.410 (0.2)
Industrial Job Change * Manufacturing worker		-1.070 (0.4)	-0.843 (0.3)	-1.162 (0.5)
20 year migration * tertiary education			-9.147 (1.8)	8.136 (1.3)
20 year migration * vocational Intensity of occ'n			11.971 (3.1)***	12.489 (3.3)***
20 year migration * highly relig. Cath/Orthodox			-6.114 (4.8)***	-6.281 (4.8)***
Muslim Proportion * tertiary education			-28.911 (3.1)**	-30.296 (3.2)***
Muslim Proportion * vocational Intensity of occ'n			16.822 (2.4)*	15.136 (2.1)*
Muslim prop* highly relig. Cath/Orthodox			-8.402 (3.5)***	-7.362 (3.1)**

20 year migration * union member			-4.324 (3.4)***	-3.811 (2.8)**
Muslim Proportion * union member			0.978 (0.4)	0.896 (0.3)
Aggregate: Proportion of trade union members				-0.868 (1.9)
Proportion with tertiary education				-0.333 (0.8)
Average vocational intensity of local occupations				7.868 (4.0)***
Proportion of highly religious Catholic/Orthodox				-2.622 (6.5)***
R^2	0.314	0.317	0.322	0.325
N	49,661			

Source: as for Table A.1 plus employment change data from the European Labour Force Survey (via Eurostat Regional Database).

Notes: 1. other personal characteristics included in all models but not reported here are, age, gender, ethnic minority membership, Muslim faith and satisfaction with living standard; 2. All models also include country * year fixed effects; 3. Bracketed values are t statistics; 4. Stars indicate levels of statistical significance: * = 5%, **=1%, ***=0.1%.

Table A3: Stepwise Estimation of Logistic Populist Support Regression with All Interactions and Aggregate Variables (parsimonious version of Model 3)

Variable	Coefficient	t statistic	Significance
Personal age	-.013	-11.5	***
Gender (female)	-.386	-12.4	***
Member of an ethnic minority	.598	5.8	***
Difficulty of Living on present income	.091	4.4	***
Muslim	-1.362	-4.9	***
Highly Religious Catholic/Orthodox	.817	13.3	***
Tertiary Education	-.657	-16.2	***
Vocat. Qual intensity of occupation	.432	2.2	*
Manufacturing worker	.105	2.5	.*
PCC workers	.164	4.1	***
Contextual Last 10 year migrant proportion	-6.694	-4.3	***
Muslim proportion	7.765	2.2	.*
Interactions 20 year migration * aged 60 plus	1.920	2.9	**
10 year migration * employed in small (under 10) establishment	2.607	2.9	**

20 year migration * voc. qual. Intensity of occupation	12.495	3.3	***
20 year migration * highly relig. Cath/Orthodox	-6.389	-4.9	***
Muslim Proportion * tertiary education	-25.718	-3.6	***
Muslim Proportion * voc. qual. Intensity of occupation	15.524	2.2	.*
Muslim prop* highly relig. Cath/Orthodox	-7.367	-3.1	**
20 year migration * union member	-3.922	-5.6	***
Aggregate: Proportion of trade union members	-.914	-2.0	*
Proportion with tertiary education			
Average vocational intensity of local occupations	8.649	5.5	***
Proportion of highly religious Catholic/Orthodox	-2.460	-6.4	***
R^2	N		49,661

Sources as for Table A2. **Notes:** 1. the regression also included a full set of country*year fixed effects; 2. This table includes all (other) variables retained in a stepwise version of model 3 in the previous table (including the personal control variables noted as being omitted from that table).