
Layers of Inequality

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Economic inequality and civic participation

Economic inequality in Western Societies is discussed with respect to its impact on social and political outcomes for society.

- A central point: the relationship of macroeconomic inequality and civic participation as basis of a democratic society and social cohesion (Putnam, 2000; Solt, 2008)

Previous findings:

- Negative effects of country-level economic inequality on civic participation (Lancee and van der Werfhorst, 2012; Schröder and Neumyr, 2023)
- Importance of the local level for individual participation behaviour (Bonomi Bezzo and Jeannet, 2023)

Evidence on the effect of local inequality on civic participation is inconclusive

- Depressing effect (Lim and Sander, 2013)
- Boosting effect (van Holm, 2018)

Research idea

Regional contexts are embedded in national contexts

and hence impact participation behaviour not just directly but depending on broader, national contexts.

⇒ How important is regional level inequality for civic participation?

⇒ To what extent does it depend on national level economic inequality?

Contribution:

- Novel comparative and longitudinal country, region, and individual data set
- Allows to analyse between-region and between-country inequality levels as well as within region, within country dynamics & cross-level interactions
- Aim to make sense of mixed evidence by disentangling the impact and interplay of different layers of inequality
- Accounting for differences of two dimensions of civic participation

Theoretical considerations (general and group specific)

Negative relationship:

- **Social disintegration hypothesis**
Inequality erodes social cohesion, increases segregation and reduces social contacts ⇒ reduction of civic participation for all (Uslaner & Brown, 2005; Alesina & La Ferrara, 2000)
- **Resource hypothesis**
Inequality reduces resources within countries or communities for engagement possibilities generally & particularly for disadvantaged individuals (Solt, 2008; Lancee & Van der Werfhorst, 2021)
- **Relative power hypothesis**
Increase of economic inequality creates feelings of powerlessness for disadvantaged individuals, who disengage from civic activities (Solt, 2008)

Positive relationship:

- **Conflict hypothesis**
Increasing economic inequality creates conflicts between social classes/groups and mobilizes disadvantaged individuals/groups to engage for more redistribution, might also increase engagement of well-off persons in response (Mc Veigh, 2006; Duncan, 2010)
- **Inequality aversion hypothesis**
With rising economic inequality well-off individuals increase charity and donations to reduce inequality (Duquette & Hargaden, 2019)

(For an overview see also: Schröder & Neumayr, 2023)

Region-national level interaction

The regional context is closer to the individual, more tangible.

The national context contains regional inequality, is comprised of it.

⇒ Regional context more impactful for individual participation behaviour.

⇒ National context might be a comparative lense/ standard for expectations, forms attitudes about welfare and redistribution.

Region	Country	
	Equal	Unequal
Equal	positive effects	Comparative (dis-)advantage ⇒ could activate or depress
Unequal	Comparative (dis-)advantage ⇒ could activate or depress	Double-neg. effects ⇒ reinforces disengagement

Comparing regions across countries and over time

NUTS - *Nomenclature des unités territoriales statistiques*

- determined by population size
- Scheme defines population thresholds
⇒ Sometimes NUTS 1 corresponds to entire country

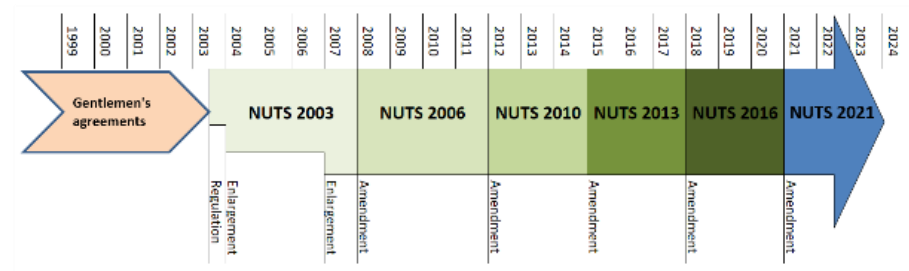
Level	Minimum	Maximum
NUTS 1	3 000 000	7 000 000
NUTS 2	800 000	3 000 000
NUTS 3	150 000	800 000

NUTS Harmonization

To the latest scheme of 2021

3 types of changes:

- Renaming of units
⇒ manually changed names
- Splitting of units
- Restructuring of units
⇒ In case of splitting or restructuring, information on the lower NUTS level is used, if not available a unit is randomly assigned taking population proportions into account.



Construction of multi level data set

Gini disposable and market incomes (2000-2021)

- At country level (Eurostat)
- At NUTS 1, 2 & 3 levels, 2021 scheme (LIS, EU-Silc)

GDP per capita (2000-2021)

- At country level (Eurostat)
- At NUTS 1 & 2 levels, 2021 scheme (Eurostat)

European Social Survey (ESS)

- Round 1-4: country-specific regional variables ⇒ harmonized to NUTS 2021 scheme
- Following round 5: NUTS based regional variable ⇒ harmonized to NUTS 2021 scheme
- Countries vary in the available NUTS level (1, 2, 3) ⇒ Lowest available level
- Changes of NUTS level within one country over time ⇒ Lowest available level

ESS individual level variables

Two aspects/dimensions of civic participation:

- **Voluntary engagement** binary (yes/no)
Harmonization of 2:
 - Worked in another [non-political] organisation or association last 12 months (wave 1-9)
 - Volunteered for not-for-profit or charitable organisation (wave 10)

- **Political participation**
Index from 1-4 of:
 - Signed petition last 12 months (wave 1-10)
 - Boycotted certain products last 12 months (wave 1-10)
 - Worn or displayed campaign badge/sticker last 12 months (wave 1-10)
& harmonized
 - Taken part in public demonstration last 12 months (wave 1-9)
 - Taken part in lawful public demonstration last 12 months (wave 10)

Controls:

- Age, age2, gender, education, HH equivalent income, employment status

Modelling strategy

Effect of the **Gini of disposable incomes** for our 2 outcomes (voluntary & political engagement):

Random Effects Within-Between Model

- Individuals nested in regions nested in country-years
- estimating both between-region and between-country inequality levels as well as within-region and within-country inequality dynamics
- interaction: between-country inequality X between-region inequality // between-country inequality X within-region inequality

Region Fixed Effects Model

- individuals nested in country-years, with region FE
- within-region and within-country dynamics
- interaction: within-country inequality X within-region inequality

Controls:

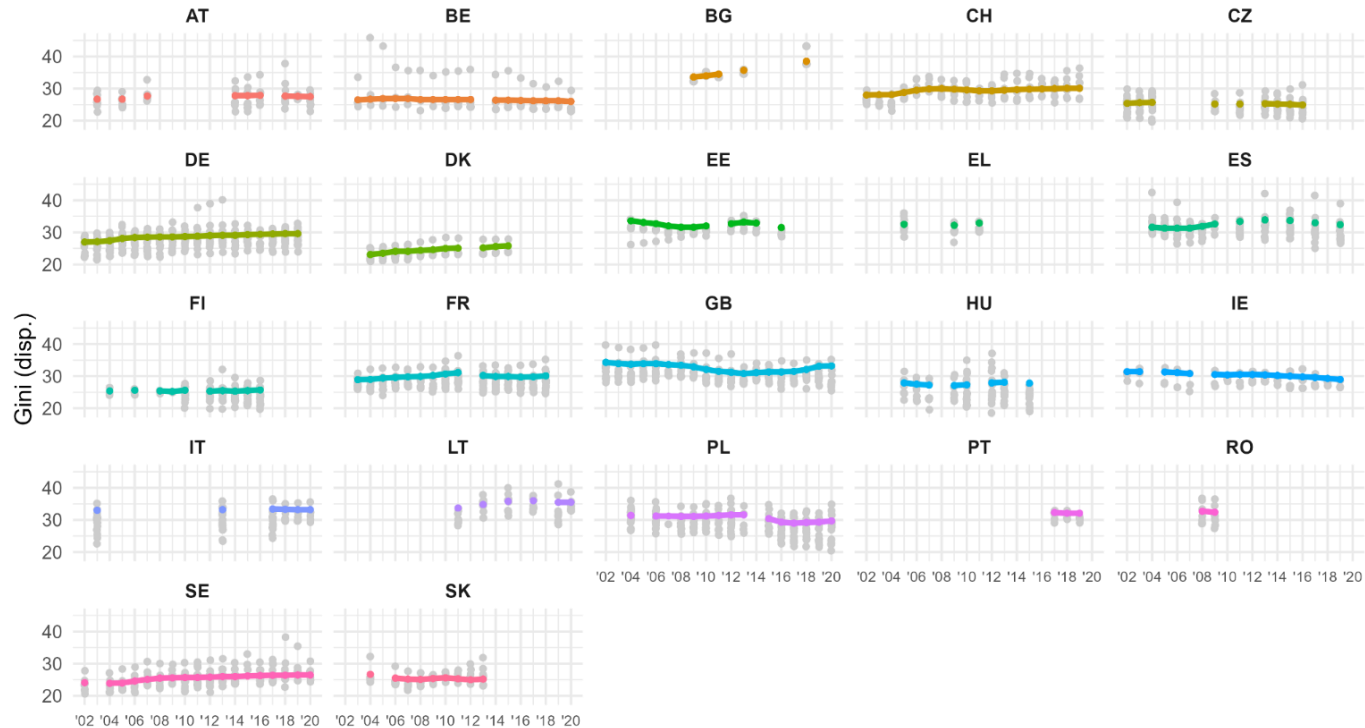
- Individual SES
- Country-level GDP
- Time trends (year dummies)

Number of countries: 24

Number of regions: 358

Number of years: 20

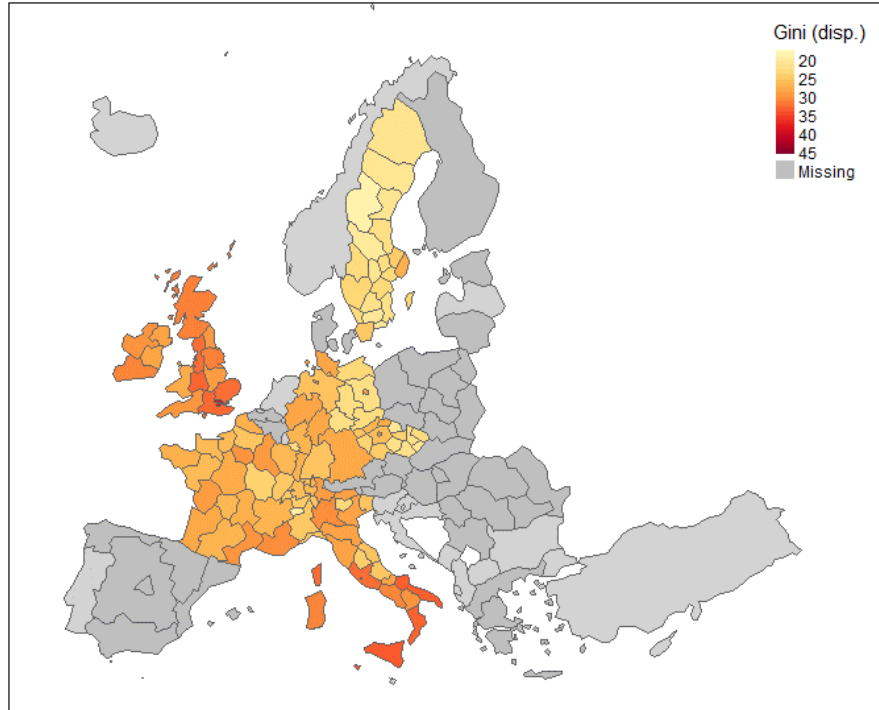
Regional and country inequality over time in ESS countries



Coloured dots represent country-level Ginis.
 Grey dots represent regional-level Ginis in the respective country.

Regional inequality over time in Europe

2002



Effects on voluntary engagement

Increasing inequality:

- Negative effect of regional level
- Positive effect of country level (stronger)

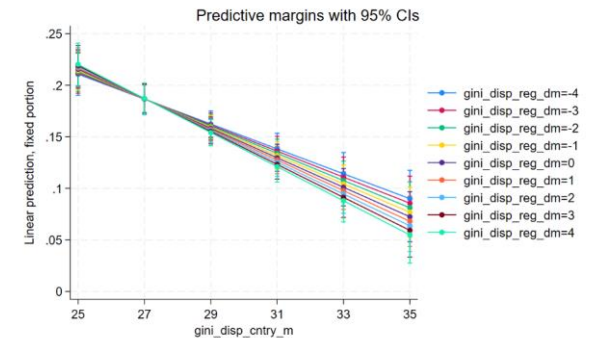
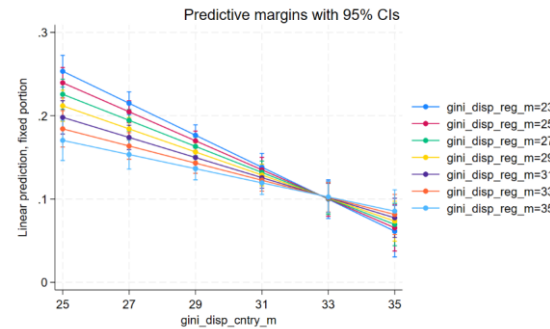
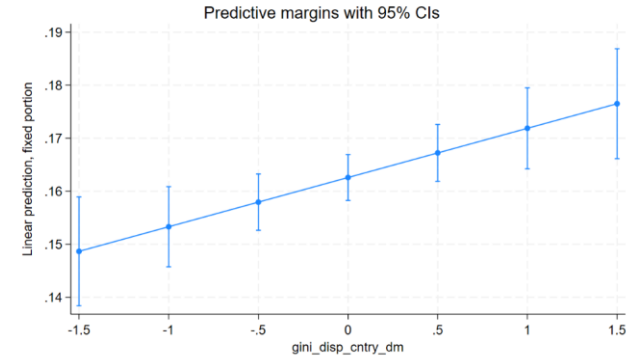
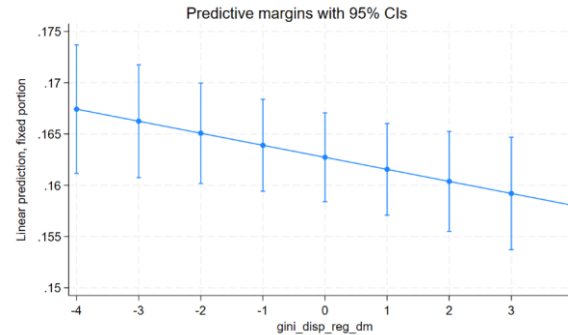
Interactions:

Between country # between region

- Stronger variation when country inequality is low
- Higher participation in equal regions within equal countries

Between country # within region ⇒ only tendency

- Stronger variation when country inequality is high
- Lowest participation in regions with increasing inequality in unequal countries



Effects on political engagement

Increasing inequality:

- No significant effects
- Tendency of decreasing participation for both levels of changing inequality

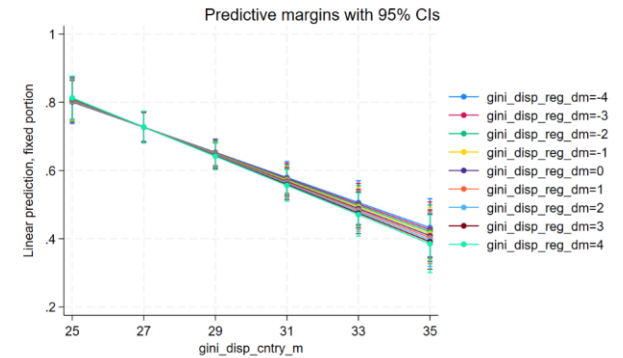
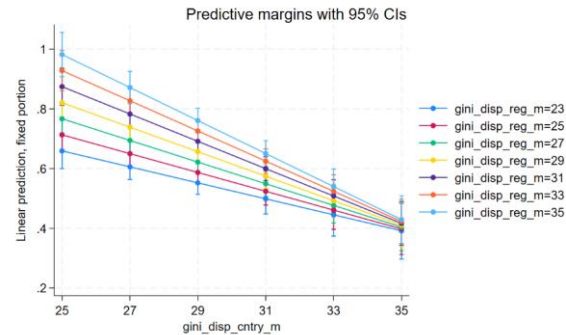
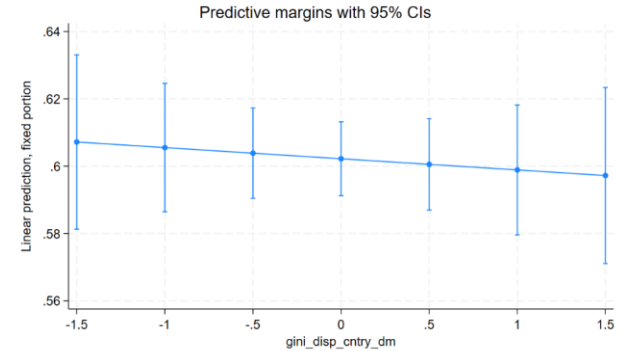
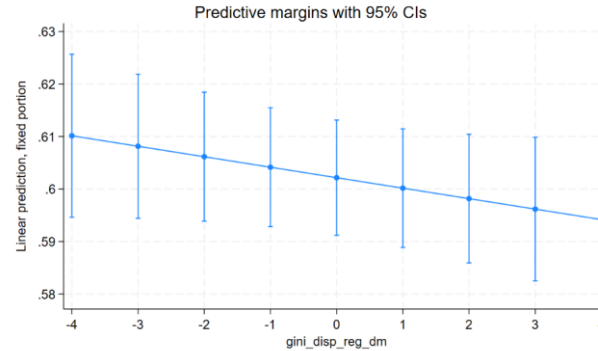
Interactions:

Between country # between region

- Stronger variation when country inequality is low
- Higher participation in equal regions within equal countries

Between country # within region ⇒

- No 'visible' interaction



Concluding remarks

Changes of country level inequality more influential than regional, contrary to our expectations.

Comparing the voluntary and political dimension of participation

- **Regional** inequality more influential for civic dimension of participation than for political
- **Country** level inequality tends to depress political and enhance voluntary engagement

Does the effect of regional inequality depend on national level inequality?

- Mainly between interactions significant

Next steps: Exploring welfare state & wealth

- Comparison of market and disposable income gini
- Welfare regime effects (post-socialist context with low inequality and low participation)

Thank you for your attention!

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Cottbus, 29.02.2024

Tables - results of multilevel models

Voluntary engagement	Within & between	Reg FE's	Between interaction	Within interaction + reg FE's	Political participation	Within & between	Reg FE's	Between interaction	Within interaction + reg FE's
gini_disp_reg_m	-0.00338***		-0.0292***		gini_disp_reg_m	0.0175***		0.0863***	
gini_disp_reg_dm	-0.000858	-0.00117*	0.0151*	-0.00138*	gini_disp_reg_dm	-0.00120	-0.00199	0.0200	-0.00157
gini_disp_cntry_m	-0.0137***		-0.0397***		gini_disp_cntry_m	-0.0412***		0.0279	
gini_disp_cntry_dm	0.0135	0.00928**	0.0156*	0.00948**	gini_disp_cntry_dm	0.00927	-0.00332	0.00813	-0.00373
gini_disp_reg_m # gini_disp_cntry_m			0.000892***		gini_disp_reg_m # gini_disp_cntry_m			-0.00238***	
gini_disp_reg_dm # gini_disp_cntry_m			-0.000557*		gini_disp_reg_dm # gini_disp_cntry_m			-0.000739	
gini_disp_reg_dm # gini_disp_cntry_dm				0.000845	gini_disp_reg_dm # gini_disp_cntry_dm				-0.00177
REG Dummies	No	Yes	No	Yes	REG Dummies	No	Yes	No	Yes
Year Dummies	Yes	Yes	Yes	Yes	Year Dummies	Yes	Yes	Yes	Yes
Individual SES	Yes	Yes	Yes	Yes	Individual SES	Yes	Yes	Yes	Yes
Ins1_1_1	0.557***	0.173***	1.305***	0.172***	Ins1_1_1	1.091***	0.155*	-0.894	0.157*
Ins2_1_1	-2.565***	-3.555***	-2.559***	-3.553***	Ins2_1_1	-1.392***	-2.619***	-1.410***	-2.619***
Insig_e	-3.376***		-3.395***		Insig_e	-2.095***		-2.099***	
Constant	-1.058***	-1.057***	-1.058***	-1.057***	Constant	-0.180***	-0.177***	-0.180***	-0.177***
Observations	227096	227096	227096	227096	Observations	225734	225734	225734	225734
* p<0.05, ** p<0.01, *** p<0.001					* p<0.05, ** p<0.01, *** p<0.001				

Regional Inequality Dataset

Country	Country code	Coverage ESS*	Coverage LIS	Imputation LIS	NUTS level
Austria	AT	2002-2020	2004-2021	2002	2
Belgium	BE	2002-2020	2003-2021	2002	1; 2 (from 2010)
Bulgaria	BG	2006-2012; 2018, 2020	<i>*EU-SILC</i>	/	1
Czechia	CZ	2002, 2004; 2008-2020	2002, 2004, 2007, 2010, 2013, 2016	2008, 2012, 2014, 2018, 2020	3; 2 (ESS 2008)
Denmark	DK	2002-2014; 2018	2004, 2007, 2010, 2013, 2016	2002, 2006, 2008, 2012, 2014, 2018	3; 2 (from 2008)
Estonia	EE	2004-2020	2004, 2007, 2010, 2013, 2016	2006, 2008, 2012, 2014, 2016, 2018, 2020	3
Finland	FI	2002-2020	2004, 2007, 2010, 2013, 2016	2002, 2006, 2008, 2012, 2014, 2018, 2020	2; 3 (from 2010)
France	FR	2002-2020	2002-2018	2020	1; 2 (from 2010)
Germany	DE	2002-2020	2002-2020	/	1
Greece	EL	2002, 2004, 2008, 2010; 2020	2004, 2007, 2010, 2013, 2016	2002, 2008, 2020	2; 1 (from 2013)
Hungary	HU	2002-2020	2005, 2007, 2009, 2012, 2015	All ESS waves except 2012	2; 3 (from 2010)
Ireland	IR	2002-2020	2002-2019	2020	2
Italy	IT	2002, 2004, 2012; 2016-2020	2002-2016, 2020 (2 yr. gap)	2018	2; 1 (from 2018)
Lithuania	LT	2008-2020	2009-2020	2008	3
Poland	PO	2002-2020	2004-2021	2002	2
Portugal	PT	2018, 2020	<i>*EU-SILC</i>	/	2
Romania*	RO	2008, 2018	2006-2020	/	2
Serbia	RS	2018, 2020	2006, 2010, 2013, 2016	2018, 2020	2
Slovakia	SV	2004-2012, 2018-2020	2004, 2007, 2010, 2013-2018	2006, 2008, 2012, 2020	3
Spain	ES	2002-2020	2004-2019	2002, 2020	2
Sweden	SW	2002-2020	2002-2020	/	2
Switzerland	CH	2002-2020	2002, 2004, 2006-2019	2020	2
United Kingdom	UK	2002-2020	2002-2020	/	1

Total of 23 available countries

**ESS collects its data every two years;*

**EU-SILC is utilized to compute regional inequality measures, when LIS data is not available.*

**Romania may be excluded from the final dataset due to insufficient individual data from the ESS.*

Codebook - ESS Round 10

ASK ALL

There are different ways of trying to improve things in [country] or help prevent things from going wrong⁹. During the last 12 months, have you done any of the following?
Have you... **READ OUT...**

[Display before items B16-B18: (IF NECESSARY: During the last 12 months, have you...) **READ OUT...**]

		Yes	No	(Refusal)	(Don't know)
B15	...contacted a politician, government or local government official?	1	2	7	8
B16 ¹⁰	...donated to or participated in a political party or pressure group ¹¹ ?	1	2	7	8
B17	...worn or displayed a campaign badge/sticker?	1	2	7	8
B18	...signed a petition?	1	2	7	8

And still thinking about different ways of trying to improve things in [country] or help prevent things from going wrong¹², during the last 12 months, have you done any of the following?
Have you... **READ OUT...**¹³

[Display before items B20-B22: (IF NECESSARY: During the last 12 months, have you...) **READ OUT...**]

		Yes	No	(Refusal)	(Don't know)
B19 ¹⁴	...taken part in a public demonstration?	1	2	7	8
B20	...boycotted certain products?	1	2	7	8
B21	...posted or shared anything about politics online, for example on blogs, via email or on social media such as Facebook or Twitter ¹⁵ ?	1	2	7	8
B22 ¹⁶	...volunteered for a not-for-profit or charitable organisation?	1	2	7	8

Codebook - ESS Round 09

ASK ALL

There are different ways of trying to improve things in [country] or help prevent things from going wrong⁸. During the last 12 months, have you done any of the following?

Have you... **READ OUT...**

		Yes	No	(Refusal)	(Don't know)
B15	...contacted a politician, government or local government official?	1	2	7	8
B16	...worked in a political party or action group?	1	2	7	8
B17	...worked in another organisation or association?	1	2	7	8
B18	...worn or displayed a campaign badge/sticker?	1	2	7	8
B19	...signed a petition?	1	2	7	8
B20	...taken part in a lawful public demonstration?	1	2	7	8
B21	...boycotted certain products?	1	2	7	8
B22	...posted or shared anything about politics online, for example on blogs, via email or on social media such as Facebook or Twitter ⁹ ?	1	2	7	8