

The Impact of Voter Turnout on Referendum Outcomes

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Why Turnout Matters for Election Outcomes

- People who vote infrequently appear to be systematically different from people who always vote
 - ▶ The Labor Party in Australia benefit from compulsory voting (Fowler, 2013)
 - ▶ Higher turnout benefits the Democratic Party in the US (Gomez et al., 2007)
- Greater voter turnout benefits left-leaning political parties / candidates / policies

What we do

- Estimate the causal impact of voter turnout on referendum outcomes in Ireland
- We explore heterogeneous effects of turnout by referendum type (social issues v 'regime related' issues)

Why is Ireland Interesting?

- Ireland appears well suited for this analysis
 - ▶ Extensive experience of the referendum as a decision making tool (Barrett, 2017)
 - ▶ Suitable from a methodological point of view (García-Rodríguez and Redmond, 2020)
- Mix of 'social' issues and 'regime-related' issues
 - ▶ Recent 'moral-social' referenda show a 'clear rupture with past values' (Elkink et al., 2020)
 - ▶ Ireland is notable as the only country to ratify EU treaties by referendum

Methodology I

- The problem - endogeneity
- Reverse causality
 - ▶ In perceived close elections, the voter's value of voting (and hence turnout) increases (Hansford and Gomez, 2010; Artés, 2014)
 - ▶ An expected close outcome incentivises parties and candidates to mobilise voters (Cox, 1988; Arnold and Freier, 2016)
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- The proposed solution - instrumental variables (IV)
- Use rainfall as an instrument for voter turnout
- A valid instrument affects the referendum outcome only through its effect on voter turnout

Methodology II

- Two-stage least squares (2SLS)

① $Turnout_{i,r} = \alpha + \beta Rainfall_{i,r} + X'_{i,r} \theta_x + \sum_{\rho=r_2}^R \delta_{\rho} I_{\rho} + \epsilon_{i,r}$

- Use the **predicted values**, \hat{T} , from (1) in the second stage

② $\%Yes_{i,r} = \alpha + \beta \hat{T}_{i,r} + X'_{i,r} \theta_x + \sum_{\rho=r_2}^R \delta_{\rho} I_{\rho} + \epsilon_{i,r}$

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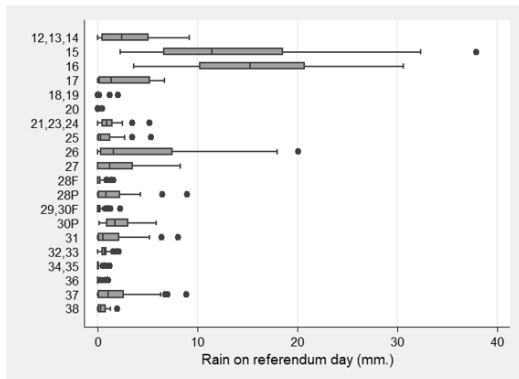
- Using rainfall to instrument turnout has support in the literature on general elections (Artes, 2015; Arnold and Freier, 2016; Hansford and Gomez, 2010)

Data I

- 28 referenda from 1992 to 2019
 - ▶ Includes voter turnout and referenda outcomes (% Yes)
 - ▶ Source: 'Referendum Results 1937-2019, Constitution of Ireland'
- Constituency-level socio-demographic variables
 - ▶ Unemployment; Education; Income; % Retired; % Farmers; Herfindahl Index
 - ▶ Source: Census of the Population Small Area Population Statistics (SAPS)
- Referendum-day rainfall in mm
 - ▶ Source: Met Éireann historical weather data

Rain on Referendum Days

Figure 1: Box Plot of Rain on Referendum Day (in mm) by Constituencies



Sources: Met Éireann Data, Authors' Calculations.

Figure

Data II

- We categorize referenda into 'social' and 'regime-related' issues
 - ▶ Guided by Barrett (2017) and Sinnott (1995)

Categorization of Referenda

Social	Regime-related
Referendum 12 -- Right to Life -- 1992	Referendum 16 -- Bail -- 1996
Referendum 13 -- Limits on Travel for Abortion -- 1992	Referendum 17 -- Cabinet Confidentiality -- 1997
Referendum 14 -- Abortion Information -- 1992	Referendum 18 -- Amsterdam Treaty -- 1998
Referendum 15 -- Dissolution of Marriage- 1995	Referendum 19 -- British-Irish Agreement -- 1998
Referendum 21 -- Prohibition of Death Penalty -- 2001	Referendum 20 -- Local Government -- 1999
Referendum 25 -- Protection of Human Life in Pregnancy -- 2002	Referendum 23 -- International Criminal Court -- 2001
Referendum 31 -- Children -- 2012	Referendum 24 -- Nice Treaty 1 F -- 2001
Referendum 34 -- Marriage Equality -- 2015	Referendum 26 -- Nice Treaty 2 P -- 2002
Referendum 36 -- Termination of Pregnancy -- 2018	Referendum 27 -- Citizenship -- 2004
Referendum 38 -- Dissolution of Marriage -- 2019	Referendum 28F -- Lisbon Treaty 1 F -- 2008
	Referendum 28P -- Lisbon Treaty 2 P -- 2009
	Referendum 29 -- Judges' Remuneration -- 2011
	Referendum 30F -- Houses of Oireachtas Inquiries -- 2011
	Referendum 30P -- Stability, Coordination and Governance in EMU -- 2012
	Referendum 32 -- Abolition of Seanad -- 2013
	Referendum 33 -- Court of Appeal -- 2013
	Referendum 35 -- Age of Eligibility Election of President -- 2015
	Referendum 37 -- Repeal of Blasphemous Matter -- 2018

Figure

Data II

- We categorize referenda into 'social' and 'regime-related' issues
 - ▶ Guided by Barrett (2017) and Sinnott (1995)
- Our main outcome variable is '% Yes'
 - ▶ For social issues, interpreted as endorsement for progressively liberal social policies
 - ▶ Exceptions are the 12th and 25th proposed amendments seeking to strengthen the prohibition on abortion. For these, we use (1-%Yes)

Results I

Table 3: 2SLS First Stage Results

VARIABLES	(1) Social	(2) Regime
Rainfall (Daily, mm)	-0.191** (0.078)	-0.186*** (0.059)
Real Income (1,000 Euro)	0.323* (0.175)	0.776*** (0.120)
Unemployment Rate	-0.267** (0.130)	0.099 (0.093)
% Retired	0.127 (0.120)	0.455*** (0.078)
% Farmers	0.075** (0.036)	0.196*** (0.036)
Socioeconomic Group Homogeneity	-0.056 (0.150)	-0.336* (0.173)
% Post 2nd Level Education	0.030 (0.048)	0.111*** (0.029)
Constant	45.316*** (4.440)	16.828*** (3.401)
Referendum fixed effects	Yes	Yes
Observations	403	742
R-squared	0.914	0.848
First Stage F	6	10

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results II

Table 4: 2SLS Second Stage Results by Referendum Type (Social v Regime)

VARIABLES	(1) Social	(2) Regime
Voter Turnout (%)	1.600** (0.623)	0.680* (0.374)
Real Income (1,000 Euro)	0.003 (0.343)	0.133 (0.310)
Unemployment Rate	0.711*** (0.242)	0.369*** (0.113)
% Retired	-0.471** (0.209)	-0.446** (0.181)
% Farmers	-0.370*** (0.063)	0.128* (0.077)
Socioeconomic Group Homogeneity	0.595** (0.264)	0.0514 (0.181)
% Post 2nd Level Education	0.262*** (0.078)	0.134** (0.053)
Constant	-16.17 (28.90)	30.17*** (7.577)
Referendum fixed effects	Yes	Yes
Observations	403	742
R-squared	0.595	0.921

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

In Summary

- Voter turnout matters for referendum results
- Especially for social issues, where higher turnout leads to greater support for liberal policies

Related Literature

- Closest work is Rudolph (2020)
 - ▶ Focus on the Brexit referendum
 - ▶ Higher turnout lead to an increase in the 'Leave' vote
- A related strand of literature investigates the determinants of referendum outcomes
 - ▶ See, e.g., Elkind et al. (2020); Simon et al. (2018)