Does Inequality Harm Democracy? The Inclusion and Representation of the Poor in Europe

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Abstract

Political observers have been concerned by two important challenges regarding socio-economic inequality and democracy: the poor abstain more than the rich (problem of inclusion), and abstainers would vote differently than the rest of the population if they turned out (problem of representation). In this paper, we evaluate the severity of these problems in European democracies. To do so, we use a novel fully non-parametric design, based on Coarsened Exact Matching, to impute the vote choice of abstainers in 30 elections and 15 countries between 1998 and 2014 ($N \approxeq 55,000$). We show that socio-economic inequality translates into a severe problem of inclusion, but that it only weakly affects the representation of the electoral outcome.

1 Introduction

Socio-economic inequality is one of the major challenges for modern democracies. It raises two hierarchically related problems: *inclusion* and *representation*. This 'double trouble' is well-know to political scientists (e.g., Lijphart 1997). Since voting is voluntary and costly, the poor tend to abstain more than the rich. This is the problem of *inclusion*, in the sense of inclusion of all social groups in the electoral process. Subsequently, and given that political preferences are (at least partly) driven by the socio-economic status (SES), the electoral outcome tend to be biased against the poor who vote less. This is the problem of the *representation* of the poor in the electoral outcome.

In this paper, we seek to gauge the importance of this double trouble in modern democracies. On the one hand, it is a stylized fact that individuals with a low SES are less likely to turn out (e.g., Brady et al 1995). On the other hand, evidence is at best mixed regarding the problem of representation. The conventional wisdom is that if poor abstainers voted, they would vote for the 'left-of-center' party (Pacek and Radcliff 1995). However, different empirical studies, in the United States and in Europe, show that different parties would benefit from high turnout depending on the country and election (e.g., Bernhagen and Marsh 2007, Kaufman et al 2008).

Most of the empirical studies on the topic use parametric imputation (e.g., Nagel and McNulty 1996). They estimate a vote-choice model with voters, and then impute what would be the vote choice of abstainers based on the estimated model. A major problem of parametric methods is that out-of-sample predictions tend to be extremely sensitive to the model selected. This can further conflate results, especially when the counterfactuals of interest (here: abstainers) are extreme compared to the analyzed sample (here: voters) (King and Zeng 2006).

Some more recent studies utilize historical abolishments of compulsory voting to estimate the effect of full turnout on electoral outcomes. Bechtel et al (2016) find evidence that compulsory voting in Swiss cantonal referendums increased support for leftist options by up to 20%. However, Miller and Dassonneville (2016) finds that it is the center-right party that suffered the most from the abolishment of compulsory voting in the Netherlands in 1970, and Ferwerda (2014) finds no effect of the abolishment of compulsory voting on the party system of Austrian municipalities in early 1990s.

Mixed evidence in case studies calls for systematic comparative analysis. In this paper, we use Coarsened Exact Matching (CEM) to study what would be the vote choice of abstainers in 15 European democracies and 30 elections between 1998 and 2014 ($N \approx 55,000$). CEM has been rapidly gaining popularity in political science (Iacus et al 2012). This fully non-parametric method can be used to calculate average treatment effects with observational data. In this paper, we use it to im-

pute the vote choice of abstainers. Our imputation method is superior to parametric imputation, as it exactly matches abstainers and voters on the covariates that engender imbalance between them, and in particular variables regarding the SES of individuals. Importantly, it also constitutes a good compromise between simplicity and low model dependence.

Our results indicate that socio-economic inequality systematically translates into a problem of inclusion. In most of the elections covered in this paper, education and income levels are strongly imbalanced between voters and abstainers. However, we also show that the representation of the electoral outcome is only weakly threatened by abstention. In 80% of the elections, the score of the left-of-center party would not be significantly different if abstainers voted. In the remaining 20%, abstainers would be equally likely to give an advantage than a disadvantage to this party. The same applies to opposition parties: they would only rarely benefit from from the vote of abstainers.

Our contribution is threefold. First, from a normative point of view, we confirm the presence of a problem of inclusion in modern European democracies. Individuals with low SES are more likely to abstain than those with a medium or high SES. However, we also show that the problem of representation is limited: abstainers in Europe would not vote drastically differently from voters if they turned out. Second, from a positive point of view, we document the strength of the partisan effect of turnout for left-of-center and incumbent parties in 30 elections and 15 democracies. We give an updated account compared to the previous studies that use a parametric method to impute the vote choice of abstainers (Bernhagen and Marsh 2007; Pacek and Radcliff 1995). Third, from a methodological point of view, we explain how CEM can be used to impute missing values. To our knowledge, our study is the first one to use the method for that purpose.

2 Data and identification

We analyze the voting behavior of $56,037$ survey respondents of the European Social Survey (ESS). The ESS regularly conducts face-to-face surveys on representative national samples. For the sake of comparability, we restrict our data to the 15 countries that were members of the European Union before the enlargement of 2004 (their party system is very similar). In each of them, we analyze the two latest national elections available in the data. It is important to mention that we only include national elections because: (1) the ESS lacks of systematic data for other elections, and (2) vote choice at regional and European elections tend to be biased by the second-order nature of these elections (Reif and Schmitt 1980). Also, as to minimize memory problems, we only analyze the surveys that directly followed national elections. The number of abstainers in our data sums up to $11,009$. Table 1 shows

	1st Election				2nd Election			
	Year	N	Real	Sample	Year	N	Real	Sample
Austria (**AT**)	2008	1703	78.8	72.0	2013	1483	74.9	73.8
Belgium (**BE**)	2007	1416	89.3	91.1	2014	1514	88.5	89.8
Germany (**DE**)	2008	2395	70.8	78.3	2013	2570	71.5	81.8
Denmark (**DK**)	2007	1432	86.5	93.9	2011	140	87.7	93.5
Spain (**ES**)	2008	1933	73.9	80.3	2011	1609	68.9	72.9
Finland (**FI**)	2007	1719	67.9	80.9	2011	1815	70.4	82.5
France (**FR**)	2007	1690	60.2	74.2	2012	1608	57.2	65.9
Great Britain (**GB**)	2005	2170	61.4	70.6	2010	2212	65.1	70.5
Greece (**GR**)	2007	1558	74.1	83.6	2009	2528	70.9	78.4
Ireland (**IE**)	2007	1575	67.0	78.7	2011	2297	70.0	71.9
Italy (**IT**)	2001	740	81.4	82.6	2013	725	75.2	73.9
Luxembourg (**LU**)	1999	972	86.5	58.4	2004	1121	91.4	70.2
Netherlands (**NE**)	2010	1722	74.7	82.9	2012	1707	74.3	82.7
Portugal (**PT**)	2009	1541	59.7	65.7	2011	1556	58.1	58.9
Sweden (**SE**)	2010	1556	84.6	90.4	2014	1579	85.8	91.0

Table 1: Countries included in the study

the elections covered in the paper, the proportion of abstainers in the survey, and the proportion of abstainers in reality.[1]

Our design aims at testing whether the SES affects their decision to turn out and whether the conjectured vote choice of abstainers differs from the vote choice of actual voters. As to achieve these two goals, we use CEM. We start by selecting a set of covariates that are known to predict the turnout decision. We select the typical SES variables including: age (0-99), income decile (0-10), highest education attainment (0-7), degree of urbanisation of the area of residence (0-4), gender (male or female), household status (married or not), employment status (unemployed or not), and whether the individual or her parents are immigrants.[2]

The first step consists in gauging the magnitude of the inclusion problem. To do so, we test, for each election and for each country, whether the distribution of the SES covariates is imbalanced between voters and abstainers using to Scott-Prescott method (we follow the step-by-step procedure set up by

[1]Although the reported turnout rate is always higher than the actual turnout rate, the differences between the two are small. The ESS face-to-face survey samples are much less skewed towards politically interested respondents and frequent voters than traditional election survey samples (Ansolabehere and Hersh 2012). The largest difference between the reported and actual turnout is in Finland (13%-points). The average difference is 4.45%-points in the first election, and 3.2%-points in the second one. Even in Belgium that uses compulsory voting, the proportion of abstainers is substantial. Note that Luxembourg is a strong outlier, as the actual turnout is higher than the reported turnout. This probably due to the high proportion of non-citizens living in the country.

[2]We acknowledge that SES is not the only determinant of turnout. Other determinants include civic duty and interest in politics. Focusing on SES has a crucial advantage: the SES variables have less missing values than political preferences and attitudes variables. It is important to minimize the number of missing values as we need to include as many individuals as possible to perform CEM. In the ESS, the SES variables are filled in by the interviewer (instead of being self-reported by the respondent). Hence, we have virtually no missing values. As a matter of comparison, around 13% of the individuals did not respond to the question regarding their left-right self-placement. Also, we cannot include too many covariates, as we need to match individuals that are exactly identical on these covariates. Including too many covariates would threatened the possibility to form groups of matched voters and abstainers.

Blackwell et al 2009). If none of the SES covariates display significant imbalance, there is no problem of inclusion. Conversely, the larger the imbalance, the more severe the inclusion problem. It is worth noting that a covariate can be significantly imbalanced even when its mean is similar across voters and abstainers. This happens, for instance, when higher moments of the distribution are substantially different. This is another advantage of CEM compared to parametric methods: it does not only capture differences in means. We provide a full analysis by country in the online appendix, and summarize the main results in the next section.

From there, we match, for each election and for each country, voters and abstainers with equal scores on the imbalanced covariates. Given the large number of individuals in our data, we are able to impose exact matching on all the covariates that show significant imbalance. The only exception concerns age, which is a continuous variable. We then coarsen age by professional age-categories (15-24, 25-34, 35-44, 45-54, 55-64, and 65+). Further, we impute the vote choice of abstainers so that, within groups of matched individuals, the vote share of each party remains the same. Suppose that we matched one abstainer and three voters, two voting for Party A, and one voting for Party B, we would impute the vote choice of the abstainer as being Party A with a probability of 2/3, and Party B with a probability of 1/3.

The second step consists in evaluating the severity of the representation problem. This problem arises when the distribution of the imputed vote choice of abstainers is significantly different from the distribution of the actual vote choice of voters. A difference can be calculated for each party. However, in an attempt to keep results synthetic, we restrict ourselves to two types of parties: the main social-democratic parties (i.e., the left-of-center parties) and the opposition parties (i.e., those that are not in the governing coalition). As mentioned above, the conventional wisdom in the literature is that abstainers, because they are on average poorer than voters, would vote for the left-of-center party if they turned out. The second line of division is motivated by the theoretical work of DiNardo (1980) who claims that a low turnout should give an advantage to the current majority party(-ies) because 'out-group' individuals are more likely to abstain.[3] To calculate the significance of these differences, we run a simple test of difference in means with unequal variances.

It is important to highlight that the identification strategy of our design is very similar to the one of the aforementioned studies that utilize the historical abolishment of compulsory voting in some countries/regions to estimate the partisan effect of high turnout. In applying CEM, we actually identify three types of individuals, based on their likelihood to turn out: (1) the *certain voters* who have a SES

[3]Note that our data do not allow to test whether abstainers would be more likely to support extremist parties. In most elections and countries, there are too few extremist voters to apply CEM and match them with abstainers. This small-N problem would be similar had we used parametric imputation.

such that they are never matched with abstainers, (2) the *certain abstainers* who have a SES such that they are never matched with voters, and (3) the *marginal voters*/*abstainers*. This last group contains voters and abstainers who share equal scores on key SES covariates.[4] Marginal voters are those who sometimes vote, sometimes not, but for whom the turnout decision is driven by an exogenous factor. In matching abstainers and voters who are exactly similar on imbalanced SES covariates, we are treating the turnout decision as conditionally random: in a world where the turnout decision is entirely determined by the SES, marginal voters/abstainers have equal *ex-ante* turnout probability. In total, we are able to match 73.1% of the abstainers of the data. The remaining 26.9% can be seen as individuals who would never vote under no circumstances (i.e., certain abstainers). It is also important to note that we do not restrict the number of matches.

3 Results

The first results of this study comes from the second step of CEM, for which we identify imbalances between voters and abstainers. Similarly to other studies on the topic (e.g., Brady et al 1995), we find that SES covariates are highly imbalanced. The differences between *ex-ante* and *ex-post* $\mathcal{L}_1$ is large in all countries and in all elections. Tables 1 and 2 in the online appendix reports the detailed imbalance analysis. It shows that the strongest imbalances are due to income and education.[5]

Figure 1 reports the value of the imbalance of education and income for each country and for each election. The larger the values on the y- and x-axis, the larger the imbalance. Two observations can be made from this figure. First, it reveals that the two imbalances are strongly correlated: when income imbalance is large, education imbalance is also large, and vice-versa. Second, we observe differences between countries. We see that imbalances are large in Germany, Netherlands and Sweden, and small in Greece, Portugal, and Ireland. This finding has to be interpret in view of the proportion of individuals who have low revenues and education attainments in these two groups of countries. In Germany, the Netherlands and Sweden, the low SES population is smaller than in other countries, and mostly include abstainers. This creates large imbalances. In Greece, Portugal and Ireland, the low SES population is larger, and is composed of a mix of voters and abstainers. This in turn diminishes imbalance.

The most important results comes form the second step of CEM, for which we impute the vote

[4]The expression 'marginal voter' comes from Fowler (2015), where he studies of the partisan effect of turnout in the United States.

[5]The full imbalance analysis reveals that age is always significant ($p < .01$). Immigration background and gender is significant in most elections. Household status, urban environment, and employment status are occasionally significant.

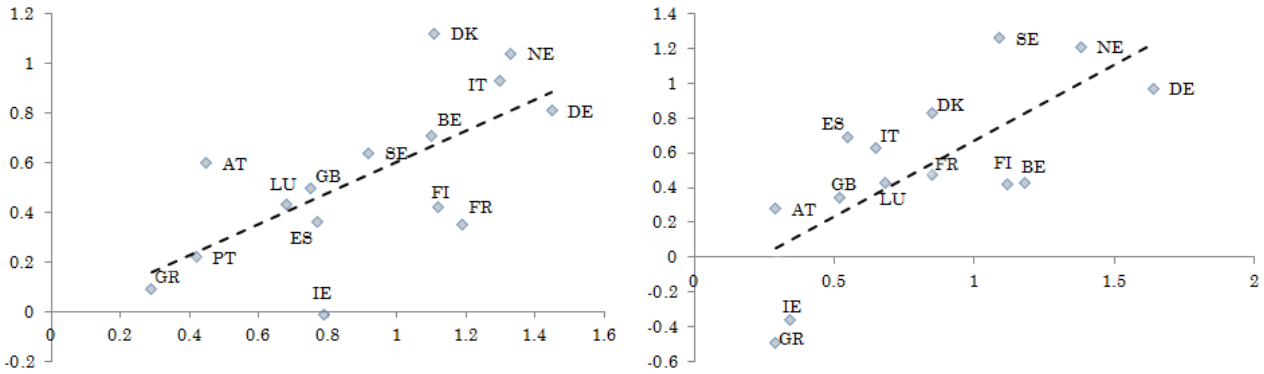

Figure 1: Imbalances in turnout decision: income (y-axis) and education (x-axis)

choice of abstainers based on the vote choice of voters with whom they are (exactly) matched. On the left-panel of Figure 32, we look at what would be the score of the main social-democratic party if abstainers voted.[6] Figure 2 only includes the elections for which the difference is significant at a level of $p < .01$.[7] Two observations can be made from this figure. First, the difference is not significant in 80% of the 30 elections of the analysis. This means that in a vast majority of elections in Europe the score of the main social-democratic party would be the same if abstainers voted. Second, the difference is small in the remaining 20%, and is as often in favor of the main social-democratic than against it. The largest difference is in the 2011 Spanish election, but even there, the gain of the PSOE would not exceed 6%-points. It is important to note that in none of these elections, the vote of abstainers would have changed the winner.

In the right-panel of Figure 2, we also calculate what would be the score the incumbent and opposition parties if abstainers voted. We observe that the score of incumbent/opposition parties would not be very different. The difference is significant in only a third of the 30 elections of the analysis (at a level of $p < .01$). However, the opposition parties would have a better score in a majority of the elections for which there is a significant difference (between 4 and 10%-points, the maximum being for the 2011 Danish election). The picture is thus slightly clearer regarding the incumbent parties than it is regarding the main social-democratic party. However, none of the differences of the right panel of Figure 2 are large enough to profoundly impact the electoral results.[8]

[6]The main social-democratic parties are: SPÖ (Austria), PS and SPa (Belgium), SF (Denmark), SDP (Finland), PS (France), SPD (Germany), SPG (Greece), Labour (Ireland), PD (Italy), LSAP (Luxembourg), PvdA (Netherlands), PS (Portugal), PSOE (Spain), SSDP (Sweden), and the Labour (Great Britain).

[7]The full results, including the non-significant differences are in the online appendix (Table 3).

[8]It is worth noting that in Figure 2, we also show whether the main social-democratic is an incumbent party (left panel), and whether the governing coalition included the main social-democratic party (right panel). The interaction of these two criteria does not give a clearer picture.

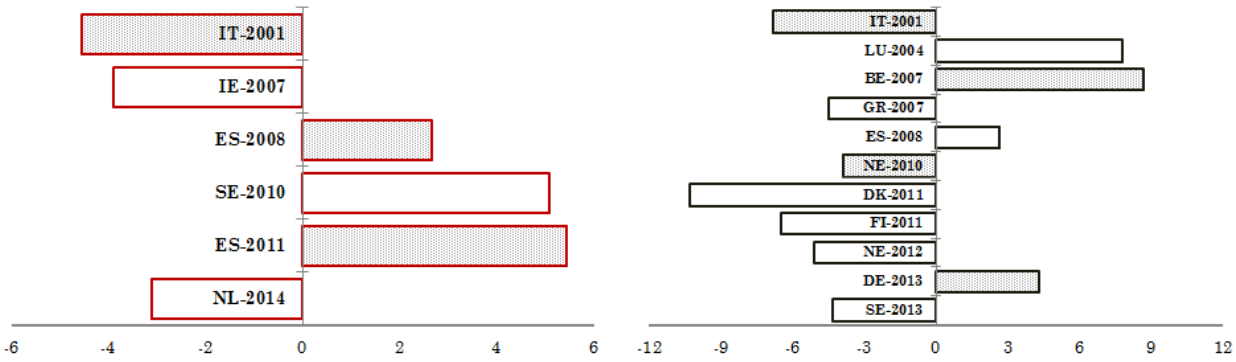

Figure 2: Differences in the electoral outcome with abstainers. Left panel: Difference in the score of the main social-democratic party (in %-points). Shaded bars indicate that the main social-democratic party was in the government. Right panel: Difference in the score of the incumbent parties (in %-points). Shaded bars indicated the the main social-democratic party was in the government. Only significant differences are shown ($p < .01$).

4 Conclusion

Does social-inequality harm democracy? This question has attracted a lot of attention from political scientists and pundits. Social-inequality produces two important normative problems for elections. First, if people coming from a poor socio-economic background abstain more than the rest of the population, there is a problem of inclusion. In an ideal democracy, all groups of the society should be equally involved in the electoral process. Second, in a related manner, if abstainers are poorer than voters, it is reasonable to think that they would vote differently if they turned out. This is the problem of representation. In an ideal democracy, the electoral outcome should not be affected by the level of turnout.

The evidence from the empirical literature on the topic is mixed. Also, it is essentially based on parametric imputation, which suffers from model dependence and conflated out-of-sample predictions. With this paper, we bring systematic comparative evidence from 30 elections in 15 European countries between 1998 and 2014 in using a non-parametric method: CEM. To our knowledge, this is the first time that the method is used for the purpose of imputing missing data.

Our results show that in most of the electionsthere is a problem of inclusion. Individuals with a low SES are systematically more likely to abstain than others. However, we show that this biased abstention is only weakly affecting the representation of the electoral outcome. In most European democracies, the left-of-center party would not obtain a better score if abstainers voted. The difference is small (maximum 6%-points) and rarely significant. What is more, we show that opposition parties would not benefit from hight turnout either. The extent to which low turnout bias electoral outcomes

is therefore limited in modern European democracies.

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Online appendix

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Online appendix

Tables 1 and 2 provide, for each election, the turnout rate as reported in the surveys and the actual turnout rate. Also, it gives the results of the pre-treatment matching stage, which includes: (1) the mean difference between treated (voters) and untreated individuals (abstainers), the statistical significance of the univariate imbalance, the level of multivariate imbalance *ex-ante* and *ex-post*, and the number of matched individuals among voters and abstainers. Table 1 reports this information for the first election covered in each country; Table 2 reports it for the second election covered in each country. Comparing the results of two elections in each country, we see that there is an coherence both in terms of imbalances and in terms of number of matches. This is an evidence that the method is robust.

Table 3 reports the main results of our analysis, including countries for which results are not significant. An example helps reading the table. Take Great Britain (GB) in 2005. The 'L' below 'Election year' means that the the main socio-democratic party (the Labour) was in the governing coalition. In the 'Left-wing party' column, we compare the proportion of voters and voters + abstainers voting for the main socio-democratic party. In GB 2005, the Labour obtained 42.5% among voters and would have, according to our method, would obtain slightly more votes (43.5%) if abstainers voted. The difference (1%) is however not significant. In this specific case, the results reported in the 'Incumbent' column are exactly the same as the Labour party was the only party in government. Take Italy (IT) in 2001. The main socio-democratic party (the predecessor of the Democratic Party) is in the governing coalition ('L' below 'Election year'). However, until 2001, it was in government with several other center and left-wing parties. For this reason, the columns 'Left-wing party' and 'incumbent' does not contain the same values.

	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NE	PT	SE
Turnout	78.8	89.3	70.8	86.5	73.9	67.9	60.2	61.4	74.1	67.0	81.4	86.5	74.7	59.7	84.6
Sample	72.0	91.1	78.3	93.9	80.3	80.9	74.2	70.6	83.6	78.7	82.6	58.4	82.9	65.7	90.4
Income (0-10)	.29*	1.18*	1.64*	.85*	.55*	1.12*	.85*	.52*	.29*	.34*	.65*	.68*	1.38*	.NA	1.09 *
Education (0-7)	.28*	.43*	.97*	.83*	.69*	.42*	.47*	.34*	-.49*	-.36*	.63*	.43*	1.21*	.15*	1.26*
Female (binary)	-.06	.04*	-.02	.13	-.05	.05*	-.02	-.03	-.09	.02	-.11	-.02	.05	-.03	-.01
Age (0-99)	7.24*	.90*	5.45*	7.67*	.98*	8.30*	8.14*	11.85*	8.49*	14.94*	-4.27*	6.62*	4.02*	9.23*	8.43*
Children (binary)	-.10*	-.06	.06	-.20*	.00	.03	.06	.04	-.13	-.01	-.20*	.19*	.01	.03	-.04
Immigrant (binary)	-.14*	-.33*	-.11	-.12	-.03	-.09	-.07	-.04	-.05	-.31*	.03*	-.52*	-.13	-.08	-.16*
Unemployed (binary)	-.01	-.10	.00	-.01	-.02	.00	-.05	-.11	-.01	-.12	-.03	.01	-.11	-.02	-.06
Urbanization (0-4)	.25*	.50*	-.04	-.28	-.10	-.11	-.01	.09*	.27*	.58*	.01	.25*	.05	.05*	-.04
N. Untreated	477	126	520	87	452	328	436	637	255	335	129	404	295	529	150
N. Matches	285	42	455	59	430	327	377	550	181	106	104	82	259	493	107
N. Treated	1226	1290	1875	1345	1481	1391	1254	1533	1303	1240	611	568	1427	1012	1406
N. Matches	490	85	1305	176	1090	1280	837	1288	523	218	281	115	776	916	381
Ex-ante $\mathcal{L}_1$	.92	.98	.90	.99	.91	.95	.95	.91	.93	.97	.97	.98	.97	.58	.87
Ex-post $\mathcal{L}_1$	.39	.31	.28	.22	.29	.38	.38	.32	.28	.53	.29	.22	.34	.21	.41

$\mathcal{L}_1$: absolute difference over all the cell values (See Blackwell et al, 2009).

$*$: Univariate imbalance is significant according to Scott-Prescott method.

Table 1: Imbalance analysis, 1st election.

	AT	BE	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	NE	PT	SE
Turnout	74.9	88.5	71.5	87.7	68.9	70.4	57.2	65.1	70.9	70.0	75.2	91.4	74.3	58.1	85.8
Sample	73.8	89.8	81.8	93.5	72.9	82.5	65.9	70.5	78.4	71.9	73.9	70.2	82.7	58.9	91.0
Income (0-10)	.45*	1.10*	1.45*	1.11*	.77 *	1.12*	1.19*	.75 *	.29*	.79*	1.30*	.68*	1.33*	.42*	.92 *
Education (0-7)	.60*	.71*	.81*	1.12*	.36*	.42*	.35*	.50*	.09*	-.01	.93*	.43*	1.04*	.22	.64*
Female (binary)	-.05	.04	-.06*	-.08*	-.02*	-.05*	-.03	-.00	.01	-.02	-.09*	-.02	.00	.01	.02
Age (0-99)	8.36*	-1.65*	5.29*	11.07*	6.34*	8.30*	11.58*	10.75*	4.78*	11.12*	.24*	6.62*	5.52*	5.61*	6.17*
Children (binary)	-.00	.03	.03	-.10	-.06	.03	.10	.06	-.08	.04	-.11	.19*	-.05	-.00	-.03
Immigrant (binary)	-.15*	-.35*	-.11	-.11	-.22*	-.09	-.06*	-.08	-.15	-.24*	-.16	-.52*	-.09	-.04	-.18*
Unemployed (binary)	.02	.00	.00	.00	-.00	.00	.01	.00	.03	.02	-.05	.01	-.01	.00	-.05
Urbanization (0-4)	.31	.21*	-.02	.12*	.02	-.11	-.09	.06	.51*	.24*	.06	.25*	.02*	.05	.04
N. Untreated	389	154	469	92	436	317	548	653	546	645	189	334	295	640	142
N. Matches	289	63	327	30	165	255	377	553	492	478	124	97	199	635	95
N. Treated	1094	1360	2101	48	1173	1498	1060	1559	1982	1652	536	787	1412	916	1437
N. Matches	667	146	886	28	289	659	627	1116	1029	1210	195	114	394	900	279
Ex-ante $\mathcal{L}_1$	.92	.98	.92	.99	.92	.95	.94	.92	.90	.94	.96	.98	.96	.79	.87
Ex-post $\mathcal{L}_1$	.31	.30	.42	.10	.35	.39	.39	.37	.33	.38	.24	.35	.42	.15	.37

$\mathcal{L}_1$: absolute difference over all the cell values (See Blackwell et al, 2009).

$*$: Univariate imbalance is significant according to Scott-Prescott method.

Table 2: Imbalance analysis, 2nd election.

Country	Year	Left-wing party			Incumbent			year	Left-wing party			Incumbent		
		Voter	Abstainer	Δ	Voter	Abstainer	Δ		Voters	Abstainer	Δ	Voter	Abstainer	Δ
AT	2008	.372	.402	.030	.640	.653	.013	2013	.324	.345	.021	.613	.642	.029
	L+R[1]	(.483)	(.491)		(.480)	(.476)		L+R	(.468)	(.476)		(.487)	(.479)	
BE	2007	.255	.259	.004	.772	.859	.087**	2014	.211	.232	.021	.576	.610	.034
	L+R	(.436)	(.440)		(.420)	(.350)		L+R	(.408)	(.424)		(.494)	(.490)	
DE	2008	.329	.337	.008	.454	.446	-.008	2013	.268	.283	.015	.638	.681	.043**
	L+R	(.470)	(.473)		(.498)	(.497)		L+R	(.443)	(.450)		(.481)	(.467)	
DK	2007	.268	.278	.010	.164	.131	-.033	2011	.271	.250	-.021	.166	.063	-.103***
	R	(.443)	(.449)		(.371)	(.338)		R	(.445)	(.438)		(.372)	(.245)	
ES	2008	.506	.533	.027*	.506	.533	.027*	2011	.278	.332	.054**	.420	.457	.037
	L	(.500)	(.499)		(.500)	(.499)		L	(.448)	(.472)		.494)	(.499)	
FI	2007	.226	.225	-.001	.492	.491	-.001	2011	.191	.214	.023	.561	.496	-.065***
	L	(.419)	(.418)		(.500)	(.500)		R	(.393)	(.410)		(.496)	(.500)	
FR	2007	.334	.326	-.008	.325	.308	-.017	2012	.316	.306	-.010	.286	.263	-.023
	R	(.472)	(.469)		(.469)	(.462)		R	(.465)	(.461)		(.452)	(.441)	
GB	2005	.425	.435	.010	.425	.435	.010	2010	.314	.333	.019	.314	.333	.019
	L	(.494)	(.496)		(.494)	(.496)		L	(.464)	(.472)		(.464)	(.472)	
GR	2007	.413	.434	.021	.315	.270	-.045**	2009	.472	.486	.014	.261	.263	.002
	R	(.492)	(.496)		(.465)	(.444)		R	(.499)	(.500)		(.439)	(.440)	
IE	2007	.095	.064	-.031**	.433	.459	.026	2011	.147	.140	-.007	.318	.312	-.006
	R	(.294)	(.246)		(.496)	(.499)		R	(.350)	(.347)		(.466)	(.464)	
IT	2001	.273	.227	-.046*	.452	.384	-.068**	2013	.379	.405	.026	.448	.461	.013
	L	(.446)	(.420)		(.498)	(.487)		R	(.486)	(.492)		(.498)	(.500)	
LU	1999	.276	.330	.054	.567	.556	-.011	2004	.220	.263	.043	.685	.763	.078**
	L+R	(.448)	(.472)		(.496)	(.499)		R	(.414)	(.442)		(.465)	(.427)	
NE	2010	.188	.174	-.014	.272	.311	-.039**	2012	.249	.218	-.031*	.505	.454	-.051**
	L	(.391)	(.380)		(.445)	(.463)		R	(.433)	(.414)		(.500)	(.499)	
PT	2009	.425	.445	.020	.425	.445	.020	2011	.374	.376	.002	.374	.376	.002
	L	(.495)	(.497)		(.495)	(.497)		L	(.484)	(.485)		(.484)	(.485)	
SE	2010	.359	.409	.050**	.492	.459	-.033	2014	.295	.333	.038	.452	.409	-.043*
	R	(.478)	(.492)		(.500)	(.499)		R	(.456)	(.472)		(.498)	(.492)	

Two sample t-test on equal mean is significant at .01(*), .005(**) or .001(***).

[1] Type of incumbent: L=includes the main socio-democratic party, R=does not include the main socio-economic party, L+R: include both the main socio-democratic party and the main centre-right party including both.

Table 3: Left-wing and (anti)-incumbent differences when abstainers are included.