



PartiRep Exit-Poll 2012

Technical Report

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1. Introduction

How citizens vote and how they choose parties has always been a central question in political science research. Processes of dealignment over the last decade have eroded the bonds between parties and voters and have caused voting behavior to become increasingly unstable and volatile. As a consequence, the question how voters decide what party to vote for is becoming even more relevant.

A major shortcoming of most voter surveys investigating these questions is that post-electoral surveys are only in the field a couple of weeks after election day. Because of the time elapsed since the election, we can expect recall errors to affect voters' responses. Furthermore, how voters report their voting behavior and the vote choice process in a post-electoral survey is influenced by the media coverage of the election results. As a result, in these types of voter surveys, we can expect responses to be biased not only by the actual election results but also by how results are interpreted by analysts and politicians. In order to avoid these types of bias, ideally voters are questioned on their voting behavior and political attitudes right after they leave the polling booth. That is exactly why we decided to organize an exit-poll voter survey on the occasion of the local elections in Belgium, organized on October 14th 2012.

Within the framework of the Interuniversity Attraction Pole PartiRep, several Belgian universities and university colleges (KU Leuven, ULB, UAntwerpen, VUB, Hogeschool Gent and UHasselt) collaborated on the organization of the exit-poll survey. The fieldwork has resulted in the 'PartiRep Exit-poll 2012'-dataset, containing information on a representative sample of 4,591 Belgian voters. An additional 124 voters are included in order to oversample the municipalities Antwerpen and Saint-Josse-ten-Noode, in which there was particular interest from the research team.

A major innovation of the PartiRep exit-poll was the combination of a traditional questionnaire with a mock-ballot. This method of surveying vote choices has previously been employed in the Irish National Election Studies (Marsh & Sinnot, 2007). Especially given the open list electoral system in Belgium and the frequency of preference votes therein, this mock-ballot design is a perfect tool to record voting behavior taking into account preferential voting.

2. PartiRep Exit-poll 2012

2.1. Questionnaire

Because of the exit-poll format, in which voters were interviewed after leaving the polling station, the questionnaire had to be as short as possible. We tried to find a balance between having sufficient questions in the survey to answer the research questions of all collaborators in the exit-poll survey and limiting the length of the questionnaire. Eventually, the questionnaire consisted of 24 questions, except for the municipality of Antwerp, where the survey contained two additional questions.

Because municipalities in the entire country were sampled (in Flanders, Brussels and Wallonia), both a Dutch and a French version of the questionnaire were made. The questionnaire was first drawn up in Dutch and then translated into French by Francophone colleagues and read through by natives as well afterwards.

The first part of the questionnaire contained a number of items allowing to investigate the socio-demographic profile of respondents (gender, year of birth, occupation, level of education, nationality of parents, housing, length of living in the municipality). From question eight onwards, the core part of the survey starts, with questions on voting behavior, voting motives, political attitudes, campaign information and opinions on the local government. The third part of the questionnaire consists of questions on preference voting more specifically. Only voters who indicated to have casted one or more preference votes were asked to respond to these questions. Antwerp voters, finally, also had a fourth part of the questionnaire, with questions on the referendum organized in the municipality in 2011. The full questionnaires in Dutch, in French and the Antwerp extended questionnaire are included in appendix.

2.2. Mock-ballot

The questionnaire was combined with the use of a mock-ballot for measuring voting behavior. With the use of the mock-ballot we aimed to have information not only on what list respondents voted for but also to which candidates on the list they gave preferential votes.

In the municipalities sampled, two modes of voting were employed; in some municipalities voting was electronically, in other municipalities voters casted their vote on paper. All

respondents received a paper mock-ballot to repeat their votes as done in the polling booth. The mock-ballot was designed as a booklet with on a first page an overview of all lists on the ballot in that particular community and subsequently all lists in the order as appearing on the actual ballots.¹ The overview of lists first resembles the general overview presented to voters voting electronically. Most lists were on separate pages, a number of small and incomplete lists (up to three) were combined on a single page. The lay-out of lists on the mock-ballot closely resembled how lists are presented on paper ballots, with all candidates in the exact same order as on official ballots. Furthermore, since in municipalities where voting is electronically, long lists are split in two to three columns of candidates, this lay-out as well was copied exactly. Doing so, we ensure that respondents who have voted for e.g. the first candidate of the second column are visually reminded of this choice. For a number of municipalities where voting was on paper, lists were too long to fit on a single column on an A4-page. In these cases, lists were split applying the same official rules as for electronic voting. A couple of examples of mock-ballots for different municipalities are included in appendix.

After administering the face-to-face survey, respondents were asked to fill out the mock-ballot as well. The booklets could be handed in separately and were not skimmed through by interviewers. In order to link survey and mock-ballot, both were provided of an identification number.

2.3. Selection of municipalities

The aim of the PartiRep exit-poll was to carry out a nationally representative survey. This aim implies that every voter in Belgium had to have an equal chance of being sampled in the exit poll. In order to select the 40 municipalities in the sample, a two-step stratified procedure was followed.

Based on the Dexia typology (socio-economic clusters) we decided how many municipalities in each group of the Dexia typology had to be included in the sample. This decision was based on the proportion of inhabitants each cluster represents within Belgium (10,951,266). Furthermore, since the Dexia-typology distinguishes different socio-economic clusters in the three Belgian regions (Flanders, Wallonia and Brussels-capital region), the sample is stratified both on region and on socio-economic community-clusters.

¹ This was possible through a co-operation with UGA, which is a printing office in charge of printing official election ballots. Therefore, they have access to information on candidates and their order on the lists.

Table 1. Number of municipalities in sample by Dexia-typology

Socio-economic cluster	Population (P)	(Population/Total population)*40	Municipalities in sample (N)
Woongemeenten	1,320,975	4.82	5
Landelijke gemeenten	1,046,239	3.82	4
Gemeenten met concentratie van economische activiteit	658,153	2.40	2
Semistedelijke gemeenten/agglomeratiegemeenten	848,469	3.10	3
Centrumgemeenten	2,287,852	8.36	8
Toeristische gemeenten	144,950	0.53	1
Communes résidentielles	644,386	2.35	2
Communes rurales	333,533	1.22	1
Communes avec concentration d'activités économiques	520,443	1.9	2
Communes semi-urbaines ou d'agglomération	451,656	1.65	2
Communes "centre"	1,575,613	5.75	6
Woongemeenten Bxl	375,483	1.37	1
Sterk verstedelijkte centrale gemeenten Bxl	743,605	2.72	3
Total	10,951,266		40

Sources: http://statbel.fgov.be/nl/modules/publications/statistiques/bevolking/population_-_chiffres_population_1990-2011.jsp and <https://www.dexia.be/Nl/smallites/research/PublicFinance/typo/>

After the number of municipalities to be drawn from each cluster was decided, the municipalities were randomly drawn. First, municipalities within each cluster were sorted by NIS-code. Second, a random number (R) between 1 and the total number of voters living in a particular cluster (P) was drawn. The community in which the Rth inhabitant of a particular cluster lives, was the first community in that particular subsample. Next, N jumps in the data were made of each time P/N.

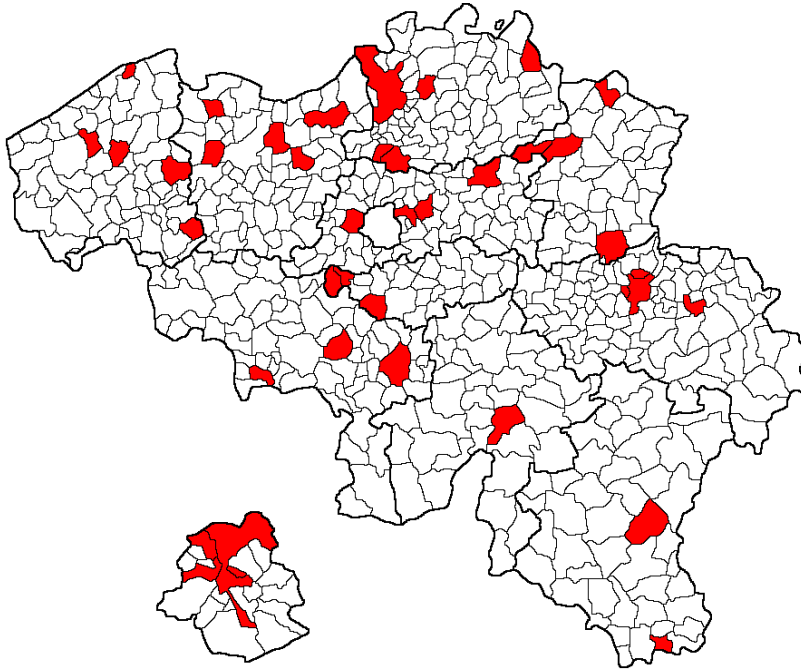
Table 2. Municipalities in sample

Socio-economic cluster	Municipalities in Sample	Voting
Woongemeenten	Schilde	ELEC
	Dilbeek	ELEC
	Zaventem	ELEC
	Kortenberg	ELEC
	Nevele	ELEC
Landelijke gemeenten	Arendonk	ELEC
	Koekelare	PAPR
	Lochristi	PAPR
	Neerpelt	ELEC

Gemeenten met concentratie van economische activiteit	Anzegem	PAPR
	Tessengerlo	ELEC
Semistedelijke gemeenten/agglomeratiegemeenten	Beringen	ELEC
	Berlare	ELEC
	Willebroek	ELEC
Centrumgemeenten	Eeklo	PAPR
	Sint-Niklaas	ELEC
	Tongeren	PAPR
	Antwerpen	ELEC
	Mechelen	ELEC
	Aarschot	PAPR
	Torhout	PAPR
	Tielt	PAPR
Toeristische gemeenten	Blankenberge	PAPR
Communes résidentielles	Musson	PAPR
	Rebecq	PAPR
Communes rurales	Vaux-sur-Sûre	PAPR
Communes avec concentration d'activités économiques	Tubize	PAPR
	Herstal	ELEC
Communes semi-urbaines ou d'agglomération	Saint-Nicolas	ELEC
	Dour	PAPR
Communes "centre"	La Louvière	PAPR
	Liège	ELEC
	Verviers	PAPR
	Dinant	PAPR
	Nivelles	PAPR
	Charleroi	PAPR
Woongemeenten Bxl	Jette	ELEC
Sterk verstedelijkte centrale gemeenten Bxl	Sint-Joost-ten-Node	ELEC
	Sint-Jans-Molenbeek	ELEC
	Brussel stad	ELEC

Because data were sorted by NIS code, the equal jumps assured a geographical spread of the municipalities within each Dexia-cluster (see Figure 1).

Figure 1. Municipalities in Exit-poll sample



2.4. Selection of polling stations

Once municipalities were randomly selected, what polling stations within these municipalities as well had to be decided on. This decision as well was based on a random sampling procedure. We had 100 teams of two interviewers to be allocated to polling stations in the 40 municipalities in the sample.

A first step in the selection process was to decide how many teams were sent to each of the municipalities. For this decision we took into account the population size of the municipalities while also ensuring that all municipalities were covered by at least one team of interviewers using the following procedure:

Table 3. Allocating teams to municipalities

Size of municipality	# teams
$\leq 15,000$ inhabitants	1 team
$\leq 30,000$ inhabitants	2 teams
$\leq 60,000$ inhabitants	3 teams
$\leq 120,000$ inhabitants	4 teams
$\leq 240,000$ inhabitants	5 teams
$> 240,000$ inhabitants	6 teams

The number of teams of interviewers sent to each of the communities in the sample is listed in Table 4. Besides the random allocations, two additional teams were allocated to Antwerpen and Sint-Joost-ten-Noode. This limited oversample allows researchers to investigate some research questions in these particular communities.

Table 4. Teams of interviewers by community

Community	# Teams	Community	# Teams
Aarschot	2	Mechelen	4
Antwerpen	6+2	Musson	1
Anzegem	1	Neerpelt	2
Arendonk	1	Nevele	1
Beringen	3	Nivelles	2
Berlare	1	Rebecq	1
Blankenberge	2	Saint-Nicolas	2
Brussel stad	5	Schilde	2
Charleroi	5	Sint-Jans-Molenbeek	4
Dilbeek	3	Sint-Joost-ten-Node	2+1
Dinant	1	Sint-Niklaas	4
Dour	2	Tessengerlo	2
Eeklo	2	Tielt	2
Herstal	3	Tongeren	3
Jette	3	Torhout	3
Koekelare	1	Tubize	2
Kortenberg	2	Vaux-sur-Sûre	1
La Louvière	4	Verviers	3
Liège	5	Willebroek	2
Lochristi	2	Zaventem	3

Subsequently, for every municipality the exact polling station covered by teams of interviewers, was randomly drawn.

2.5. Fieldwork

For the 40 communities in the sample, information had to be gathered on the addresses of the polling stations sampled. In order to obtain this information we contacted the local administrations in charge of the organization of elections in each of the 40 municipalities. Additionally, we informed the mayor and the president of the main polling station in each of the communities on the organization of the exit-poll and precautions taken not to intervene in the election procedure.

To do the fieldwork, we relied on jobstudents who were recruited on all of the universities and university colleges participating in the practical organization of the exit-poll. In the week before election day (8th to 12th of October 2012), jobstudents were extensively trained in training sessions organized at their home institutions.

On election day, 205 students² were at the polling stations they were assigned to. Because we can expect characteristics of voters voting early to be different from voters voting late, students were at the polling station for the full period the polling stations were opened. This implies they were interviewing from 8am to 1pm where paper ballots were used, to 3pm where voting was electronically and to 4pm in municipalities in the Brussels region.

In order to randomize the selection of respondents, interviewers were instructed to approach every fifth voter leaving the polling station and ask the voter to participate. Refusals and gender of voters refusing were noted down on a response form (see Appendix xx). For voters agreeing to participate, a face-to-face interview running through the questionnaire was done, after which voters were asked if they were willing to fill out the mock-ballot as well. Either after noting down a refusal or after completing (part of) the survey and/or mock-ballot, interviewers started counting again and approached the fifth voter.

2.6. Response rates

Fieldwork has resulted in a total of 4,715 respondents in the whole country who agreed to participate and completed at least part of the questionnaire. Combined with 7,742 refusals noted down by interviewers, the response rate (RR2) is therefore 37.9%. Furthermore, 3,981 respondents indicated their voting behavior on the mock-ballot as well, which is 84.4% of all respondents. Of all respondents, 4,211 indicated their voting behavior on the open-ended question on the list voted for in the core survey, which is 89.3%. Therefore, response rate on the mock-ballot, which came after 24 questions in the face-to-face interview, was only 5 percentage points lower than the regular voting behavior question.

As Table 5 indicates, response rates vary quite a bit by region. Response rate was lowest in Flanders (36.4%), a bit higher in Wallonia (39.2%) and highest in Brussels (41.4%).

² We had planned 100 teams of two students + three teams of two for oversampling. 206 students were therefore needed and trained, but one student did not show up.

Table 5. Response rates by region

	RR2	Response rate on Mock-ballot	Refusals
Flanders	36.4% (2,644)	31.0% (2,253)	4,623
Brussels	41.4% (696)	35.1% (590)	986
Wallonia	39.2% (1,375)	32.4% (1,138)	2,133
Belgium	37.9% (4,715)	32.0% (3,981)	7,742

Interviewers not only noted down the number of refusals, but also gender of voters not willing to participate. As is clear from the comparison in Table 6, across all regions, about 52% of voters refusing to participate was male, about 48% was female.

Table 6. Non-response by gender

	Male	Female
Flanders	52.2%	47.8%
Brussels	52.1%	47.9%
Wallonia	51.8%	48.2%
Belgium	52.0%	48.0%

2.7. Coding

Surveys and mock-ballots were coded by jobstudents. These jobstudents received an elaborate explanation on how to code and a codebook. As a first packages, students got a small number of surveys + mock-ballots (about 25) to be coded in an excel file. File validations alerts were used to avoid coding mistakes out of the range of possible answers. After entering the surveys in the excel file, coding was controlled by a researcher and students could take more surveys and mock-ballots home for coding. The open-ended questions were coded in a number of categories according to a coding scheme. Open-ended questions were systematically coded twice to calculate inter-coder reliability on this questions. Finally, the whole dataset was inspected on outliers.

In order to have an assessment of intercoder reliability we calculated Cohen's Kappa (κ). We did so for the first code given by the first coder and the first code given by the second coder for respondents' answers on the open-ended question on voting motives. Both coders could give up to three codes by respondent, but for intercoder reliability we only take into account the first. This implies that we calculate a conservative estimate of agreement among coders. Not only the same coding is tested but also whether both coders considered the same element as the most important one (and therefore coded this one first).

Agreement on the first code assigned to responses was 64.45%, while expected agreement was 12.25%. This gives us a κ -value of 0.59, which indicates a moderate agreement on coding categories between two independent coders (Landis & Koch, 1977).

2.8. Weighing

In a next step, we assessed the representativeness of the data by comparing distributions of respondents by gender, region and age groups in the data with distributions in the population. The population encompasses all voters on the voters lists for the local elections of October 14th; i.e. all Belgians over 18 years old and registered non-Belgians over 18 years old. Because lists of voters are not publicly available, we make use of statistics on the Belgian population as a proxy (this includes non-Belgians who were not registered for voting as well).

Statistical information of the Belgian population comes from the FPS Economy, SMEs, Self-Employed and Energy (<http://bestat.economie.fgov.be/BeStat/BeStatMultidimensionalAnalysis>). Data on the structure of the population on January 1st 2011 are used.

Three steps are taken, resulting in three weights included in the dataset. For calculating weights and assessing representativeness of the dataset, we do not take into account the oversample in Antwerpen and Saint-Josse-ten-Noode. Only the 4,582 respondents in the main dataset for whom gender was coded are therefore used in the analyses below. As a first step, the distribution by gender in the dataset and in the population is compared. As is clear from weighing coefficients in Table 7, there is a slight oversample of male respondents in the dataset.

Table 7. Weighing coefficient by gender

	N in population	% in population	N in sample	% in sample	Weight
Women 18+	4,490,347	51.49%	2,211	48.25%	1.07
Men 18+	4,229,886	48.51%	2,371	51.75%	0.94
Total	8,720,233	100.00%	4,582	100.00%	

In a second step, besides gender we also take into account the population size of the three regions sampled for the exit-poll (Flanders, Brussels and Wallonia). As clear from Table 8, especially the Brussels region is overrepresented in the dataset, hence the need to down weigh respondents living in Brussels' municipalities. Especially Flemish and Walloon women are underrepresented in the PartiRep exit-poll dataset.

Table 8. Weighing coefficients by gender and region

	N in population	% in population	N in sample	% in sample	Weight
Flemish women 18+	2,590,739	29.71%	1,256	27.41%	1.08
Flemish men 18+	2,483,780	28.48%	1,297	28.31%	1.01
Brussels women 18+	455,145	5.22%	301	6.57%	0.79
Brussels men 18+	415,255	4.76%	356	7.77%	0.61
Walloon women 18+	1,444,463	16.56%	654	14.27%	1.16
Walloon men 18+	1,330,851	15.26%	718	15.67%	0.97
Total	8,720,233	100.00%	4,582	100.00%	

As a third step, we additionally take age groups into account, we distinguish between voters younger than 65 and voters over 65 years old. Weighing coefficients in Table 9 indicate that the oldest age group (65+) is underrepresented in all three regions. Especially elder women are underrepresented and have to be weighted upwards in the dataset.

Table 9. Weighing coefficients by gender, region and age group

	N in population	% in population	N in sample	% in sample	Weight
Flemish women 18-64	1,940,488	22.25%	1,027	22.41%	0.99
Flemish women 65+	650,251	7.46%	229	5.00%	1.49
Flemish men 18-64	1,980,683	22.71%	1,047	22.85%	0.99
Flemish men 65+	503,097	5.77%	250	5.46%	1.06
Brussels women 18-64	362,108	4.15%	265	5.78%	0.72
Brussels women 65+	93,037	1.07%	36	0.79%	1.36
Brussels men 18-64	355,792	4.08%	325	7.09%	0.58
Brussels men 65+	59,463	0.68%	31	0.68%	1.01
Walloon women 18-64	1,101,624	12.63%	546	11.92%	1.06
Walloon women 65+	342,839	3.93%	108	2.36%	1.67
Walloon men 18-64	1,096,733	12.58%	623	13.60%	0.92
Walloon men 65+	234,118	2.68%	95	2.07%	1.29
Total	8,720,233	100.00%	4,582	100.00%	

3. References

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