

Wagner, Aiko; Lichteblau, Josephine

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Germany Going Postal? Comparing Postal and Election Day Voters in the 2017 German Federal Election*

AIKO WAGNER and JOSEPHINE LICHTENBLAU 

The proportion of voters casting their votes by mail days or even weeks before election day has risen from initially five per cent to nearly thirty per cent in the 2017 German federal election. At the same time, the differences in election results between postal and election day voters are increasing, reaching a record at the Bundestag election in 2017. Against this background, it seems particularly surprising that there are only a small number of empirical studies on postal voting in Germany. For an evaluation (of the development) of postal voting, it is crucial to investigate the factors responsible for the different election results between the two voter groups. This requires more precise knowledge of postal voters and how they differ from voters who cast their ballots on election day. Using data from the German Longitudinal Election Study (GLES), we investigate in how far composition effects – differences between the voter types in the composition of factors potentially relevant for party choice – and association effects – differences regarding their vote functions or criteria applied for vote choice – can help to explain the different electoral outcomes. We conclude that the voter types do not differ substantially from each other with regards to their decision criteria but that their composition differs with regards to certain characteristics relevant for party choice.

INTRODUCTION

In order to strengthen the principle of universal suffrage, postal voting was introduced in Germany at the 1957 Bundestag elections. Voters unable to cast their vote at the polling station on election day should be enabled to vote by mail in advance. One of the main goals associated with the introduction of postal voting (and later of abandoning the necessity to state reasons when applying for postal ballot documents in 2008), was thus to increase voter turnout. Since then, postal voting in Germany has developed into a true success story. Since reunification in 1990, the proportion of postal voters has risen steadily, reaching a record high in the last Bundestag election in 2017, in which almost one third of all votes were cast by mail. At the same time, however,

*An earlier draft of this paper was presented at the 2018 convention of the German Political Science Association in Frankfurt.

differences in the election results of postal voters and those of ballot box voters are increasing. In this respect, too, the 2017 Bundestag elections present a record, the differences in the parties' shares of the second votes between the two electoral groups having been greater than in any previous Bundestag election. Against this background, it is rather surprising that there are hardly any empirical studies examining postal voting in Germany. In international research, postal voting is commonly analysed as one form of early voting or convenience voting. In this research strand, most studies deal with normative expectations asking whether early voting in fact leads to higher participation rates or reduces social selectivity in electoral participation and, thus, helps to reduce underrepresentation of certain groups' preferences.

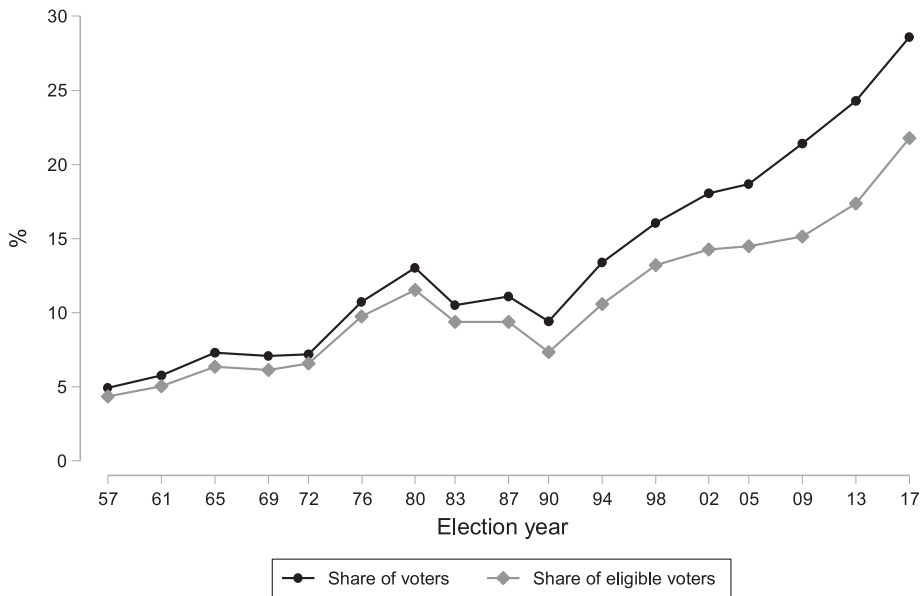
But how can we evaluate postal voting in Germany? The answer to this question depends largely on the factors responsible for the different election results between postal and election day voters. The objective of this article, therefore, is to develop and test an explanatory model for the differences in the parties' vote shares between the two groups of voters.

Explaining these behavioural differences requires more precise knowledge of postal voters and how they differ from election day voters. In principle, there are two types of effects that can cause the differences in voting behaviour or two aspects in which voter types are different. First, composition effects, i.e. differences in the composition of potentially decision-relevant features, can cause different voting decisions. Second, the literature on voter heterogeneity suggests that differences can also be the result of different decision criteria or vote functions. In this line of thinking the differences in party strengths can be attributed to so-called association effects.

To evaluate postal voting in Germany, we thus ask what role composition and association effects respectively play for explaining differences in party choice between postal and election day voters. First, we briefly discuss the current state of research on early voting in Germany and, based on that, consider which criteria can be used to evaluate postal voting in Germany in a normative sense. In this context, we present our explanatory model for the different election results in more detail. We use data from the post-election survey of the German Longitudinal Election Study 2017 to test our explanatory model. In a first step, we investigate possible composition effects. To that end, we compare the two types of voters in terms of factors that influence both voting type and party choice in order to shed light on the question of whether postal voters are simply a different subset of the electorate than election day voters. Second, we examine which parties benefit from which factors associated with an increased probability of postal voting. In a third step, we analyse and compare the decision criteria or vote functions of the two groups of voters to see whether association effects can help explain the different election results in 2017.

The results of our analyses suggest that postal and election day voters do not differ substantially from each other with regards to the criteria they apply for vote choice. The differences in vote shares between the two groups seem compositional in nature: As some sociodemographic characteristics are related to both an increased probability of postal voting and to an increased probability of voting for particular parties, these parties perform better among postal than election day voters.

FIGURE 1
DEVELOPMENT OF POSTAL VOTING IN GERMANY

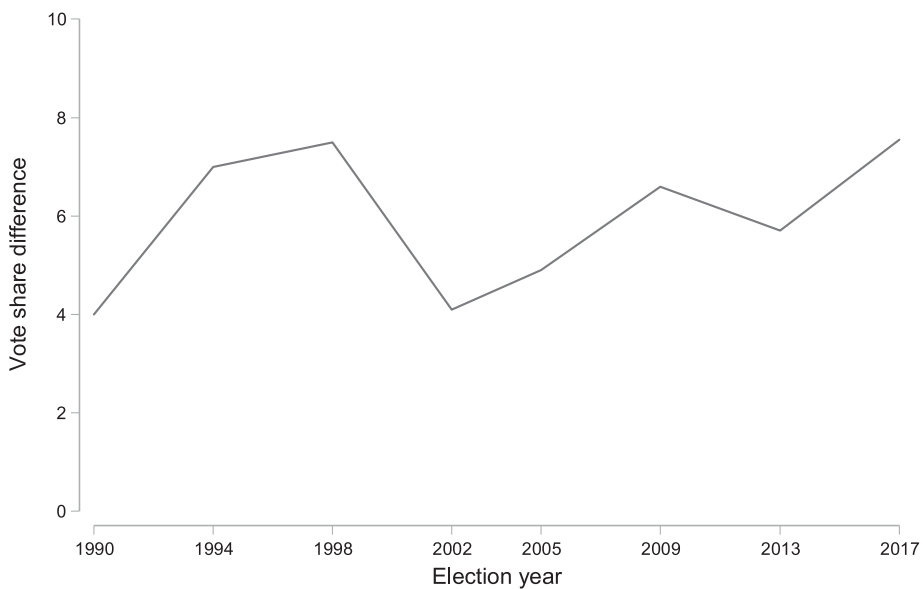


Source: Bundeswahlleiter (2017b).

THE SIGNIFICANCE OF POSTAL VOTING IN GERMANY, STATE OF RESEARCH AND THEORETICAL CONSIDERATIONS

The significance of postal voting in Germany and for German voters can be illustrated by looking at how it has been used since its introduction in 1957. Figure 1 shows this development. Starting at five per cent in 1957, the proportion of voters who cast their votes by mail before election day¹ (black line) rose continuously until 1980, fell slightly until 1990, and has risen again in every election ever since. In 2008, the necessity to justify the use of postal voting was abandoned. Afterwards, the proportion of postal voters rose to one-fifth in the 2009 Bundestag elections, then again to one-quarter in 2013, and in the 2017 Bundestag elections nearly 30 per cent of voters used the postal vote option. As a result, postal voting should by now be considered an essential part of German electoral law. Another interesting finding becomes apparent when comparing the development of the proportion of postal voters among all voters with the development of the proportion among all eligible voters represented by the grey line. The two lines remain close until reunification but diverge afterwards. Between 2002 and 2009, for example, the proportion of postal voters among eligible voters remained stable at around 15 per cent, i.e. there was neither a decline in participation nor an increase in participation among postal voters. However, there was an increase in the proportion of all voters, as voter turnout had fallen. Thus, the comparatively weaker increase in the grey line indicates that voter turnout among postal voters has increased since 1990 relative to voter turnout at election day.

FIGURE 2
DIFFERENCES IN THE VOTING BEHAVIOUR OF POSTAL AND BALLOT BOX VOTERS SINCE 1990

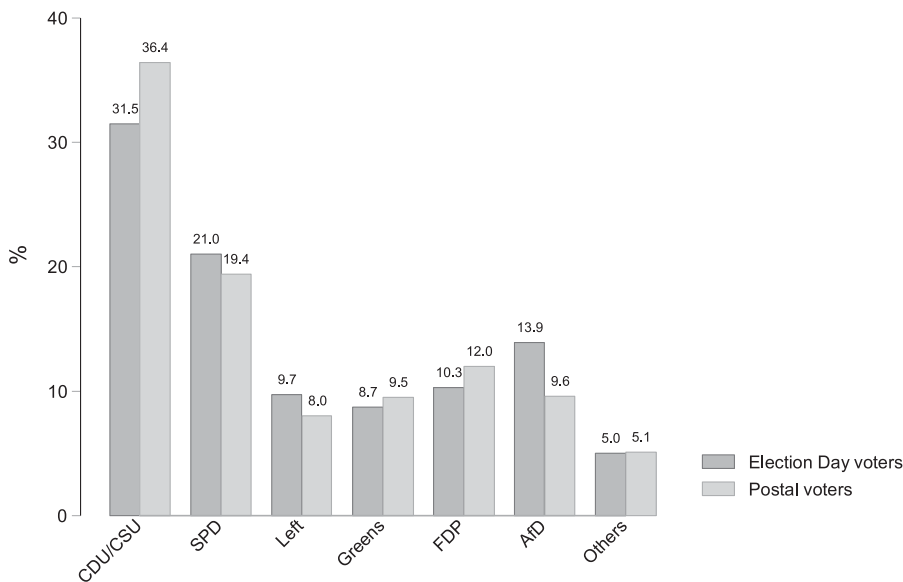


Source: own calculations based on data from the Bundeswahlleiter (2015, 2017a).

The significance of postal voting in Germany in general and of the increase in usage in particular becomes even clearer when comparing election results between election day voters and postal voters. Figure 2 shows the difference index for the distributions of list votes between postal and election day voters since reunification. For each Bundestag election, the absolute differences in election results between postal and election day voters were added up for all parties and subsequently divided by two (since the gains of one party are the losses of the other). While the two electoral groups became more dissimilar with regard to their vote choices from election to election until 1998, they converged in the 2002 election. Since then, however, there has again been an increase in the diversity index, with – as in the case of usage of the postal voting option – the highest value in the 2017 Bundestag elections. This means that, at least since the 2002 Bundestag elections, postal and election day voters increasingly differ in their party preferences, with the differences in the 2017 Bundestag elections being even larger than in 1998 and thus representing a new maximum.

Consequently, in Figure 3, we take a closer look at the 2017 distribution of votes as well as at which parties were affected by the differences in voting decisions between postal voters and ballot box voters. For most parties, the proportions of second votes are rather similar with differences between postal and election day voters usually below two percentage points. However, in the case of the Christian democrats (CDU/CSU) and the right-wing populist AfD, more relevant differences can be discerned. While the CDU/CSU won 36.4 per cent of postal voters, it only gained 31.5 per cent among election day voters (5 percentage points less). The opposite is true for the AfD:

FIGURE 3
SECOND VOTE SHARES BY VOTER TYPE IN THE 2017 BUNDESTAG ELECTIONS

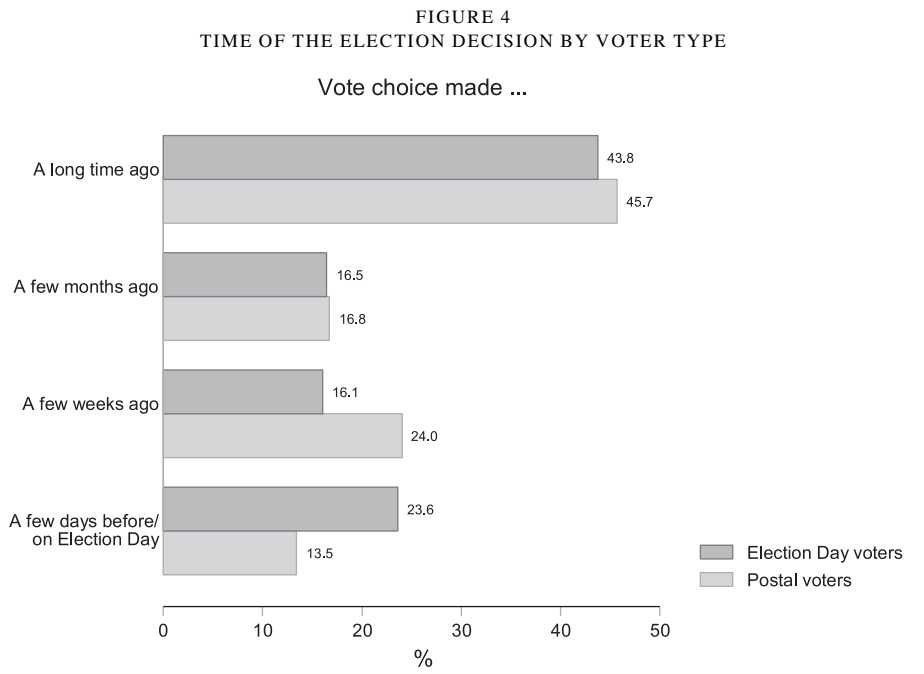


Source: Bundeswahlleiter (2017a).

it only received slightly less than ten per cent of the second votes of postal voters but was able to secure almost 14 per cent of the votes on election day – a plus of 4.3 percentage points, corresponding to about 45 per cent. The CDU/CSU thus benefited from the postal voting option. Albeit at a lower level, the same is true for the FDP and the Greens. The SPD and the Left were slightly more successful among election day voters.²

Another point to consider when assessing (the significance of) postal voting is the timing of the election decision. Obviously, people who cast their vote weeks before the election cannot take into account the developments of the last days of the election campaign. Events shortly before the election, such as changes in the political situation, e.g. new information from polls and related strategic voting calculations or mobilisation strategies of the parties, can thus no longer influence postal voters’ election decision (cf. Sheppard and Beauregard 2018). Based on those considerations, Figure 4 shows the extent to which the two voter groups differ with regard to the time of the election decision in 2017.

For almost two-thirds of both groups, the election decision was made a long time or months ago – well before a postal vote was possible. Almost a quarter of election day voters made their decision in the last few days before or on election day itself, whereas this was the case for less than 14 per cent of postal voters. Conversely, significantly more postal voters than election day voters made their decision in the weeks before the election (24 compared to 16 per cent). On average, election day voters decide later than postal voters which party to vote for. The former are, thus, more susceptible



Source: GLES post-election cross-section survey 2017 (Roßteutscher et al., ‘Post-Election Cross Section,’ 2018).

for events in the last days of the campaign whereas those events cannot have an impact on a ballot already cast, of course.

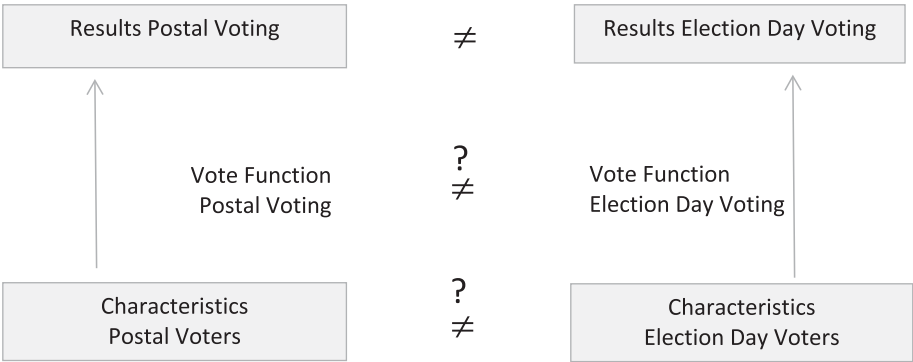
In short, a large (and growing) proportion of voters in Germany make use of the postal voting option. They do not only differ from ballot box voters in terms of their voting behaviour, but also tend to arrive at their vote choice earlier. While postal voters are an empirically relevant phenomenon, there has been surprisingly little research on this segment of the electorate in Germany so far. Internationally, there is an established research strand on options that facilitate the act of voting or reduce its costs by enabling citizens to cast their vote in advance and outside the polling station – generally referred to as early or convenience voting. Normative arguments for such voting options usually refer to the assumption that they increase voter turnout and thus strengthen the equality principle of democracy, since citizens who, for example due to employment or lack of mobility cannot cast their vote at the polling station on election day, are enabled to do so by other means. Furthermore, advocates point out that convenience voting options can counteract the social selectivity of electoral participation, since lower costs would encourage those segments of the population that would otherwise tend to stay away from the election (Gronke et al. 2008). Empirical studies testing these assumptions suggest that the introduction of absentee and advance voting does indeed increase voter turnout at the national and sub-national level (e.g. Garnett 2018; Goodman and Stokes 2018; Luechinger, Rosinger, and Stutzer 2007; Magleby 1987; Southwell 2000). So far, however, there is no evidence that convenience

voting reduces the social selectivity of voting. Some studies find no or only minor differences in the composition of presence and convenience voters with regard to participation-relevant socio-demographic characteristics (McAllister and Muller 2018; Neeley and Richardson 2001). Other studies show that absentee or advance voting options are increasingly used by the socio-economically better-off, more highly educated and politically interested people (Dyck and Gimpel 2005; Ellermann 2004; Giebler 2014; Lichteblau and Wagner 2019; McAllister and Muller 2018). Such observations suggest that convenience voting might even increase rather than decrease social selectivity (Berinsky 2005), implying that they might in fact fail to achieve the desired normative goals.

But how reasonable are the general normative expectations regarding postal voting in the context of Germany? Due to the comparatively strict requirements for applying for and filling in postal ballot documents, it does not seem plausible to expect a compensatory effect against the social selectivity of voter turnout. Not surprisingly, Ellermann (2004) concludes in her study of the 2002 Bundestag elections that postal voting is most widespread among people with high formal education, high professional status (civil servants and the self-employed) and from urban residential areas. Giebler (2014) comes to similar conclusions in his study on postal voters in the 2013 federal elections.

For a normative evaluation of postal voting in Germany, it is necessary to ask how the different election results of postal and ballot box voters come about.³ What is the difference between postal voters and ballot box voters in Germany? Figure 5 illustrates the explanatory model for differences in election results between postal voters and election day voters which forms the basis of this paper. As we know from Figures 2 and 3, the election results are unequal. On the one hand, this can be caused by composition effects of voter characteristics; this is why knowledge of possible differences between voter groups with regard to the factors influencing the election decision is relevant: If differences can be found in the characteristics that determine party choice, then different election results are inevitable. If, for example, people with a more leftist

FIGURE 5
EXPLANATORY MODEL FOR DIFFERENT ELECTION RESULTS OF POSTAL AND ELECTION DAY VOTERS



political leaning increasingly used postal voting, it would not be surprising if left-wing parties scored better among postal voters.

On the other hand, research on voter heterogeneity shows that citizens use different decision-making strategies: While for some persons economic policy issues can be decisive for their vote, others are more strongly guided by their assessment of the leading politicians. Thus, voters with identical preferences might in the end support different parties (Blumenstiel and Plischke 2015; Rivers 1988). In this line of research, Bartle (2005) showed for the British case that more politically sophisticated voters rely more strongly on their evaluation of policy issues than on the evaluation of the political personnel. The crucial point in light of our question is thus that voter groups have heterogeneous motives for voting, in other words, that their vote functions vary. Accordingly, it seems plausible to ask whether the different party strengths between postal and election day voters (also) result from them applying different decision criteria or vote functions. Therefore, in the following we will also ask to what extent the differences in party choice can be attributed to association effects. These association effects are shown in Figure 5 by the vertical arrows pointing upwards. Even if the distribution of voter characteristics that are potentially relevant for party choice was identical between election day and postal voters, heterogeneous decision criteria could help explain the different election results in the two groups. Referring to the example above, let us assume that the left-right attitudes between the two groups do not differ substantially and that political attitudes are generally similar. If postal voters rely more strongly on long-term, stable ideological left-right positions for their vote choice, while for election day voters, the evaluation of top candidates is more relevant, this might lead to differences in party strengths. In the end, it is also possible that both the vote functions and the distribution of characteristics vary between the two groups of voters.

Considering the differences between election day and postal voters regarding the timing of their vote choice (Figure 4), it seems plausible that those differences are a potential source of both compositional as well as associational differences. If events shortly before election day, e.g. political scandals, dramatically change the evaluation of the incumbent, we should expect compositional differences regarding the evaluation of the incumbent – better evaluations of postal voters as many of them already decided weeks before the election and worse evaluations of election day voters many of whom decided only shortly before the election day – leading to differences in vote shares between the two groups. If major external events, such as a nuclear disaster, happen in the last days before the election and change the relevance of certain motives of electoral behaviour, we should discover differences in the association effects – in this case greater relevance of attitudes on nuclear power for election day voters than for postal voters who already made their choice. Consequently, the timing of the vote choice might have a significant impact on the distribution of relevant characteristics and on the vote function of postal and election day voters.⁴

DATA AND METHOD

To investigate the causes of different election results between postal and election day voters, we use data from the post-election cross-section survey 2017 of the German

Longitudinal Election Study (GLES, cf. Roßteutscher et al., 'Post-Election Cross Section,' 2018). The share of postal voters in the sample was 29.4 per cent, which corresponds almost exactly to the real value of the Bundestag election 2017. Our empirical analysis consists of three steps. As a first step, we examine whether compositional differences can help explain the differences in election outcomes. For this purpose, we compare postal and election day voters with regards to several socio-demographic and socio-structural characteristics as well as to political attitudes which previous studies have shown to be relevant for vote choice and regarding which absentee and ballot box voters differ.

Firstly, the occupational status is considered to be relevant for party choice in general and in Germany in particular. Workers and employees are especially important for the electoral fortune of the SPD, whereas self-employed people are considered more likely to vote for the FDP and CDU/CSU (Weßels 2014). Secondly, religious affiliation or, more specifically, the group ties created by visiting a church (or another place of worship) on a regular basis increases the likelihood to vote for the Christian Democratic parties. Moreover, trade union membership leads to solidarity with social democratic parties (ibid.).

With regard to political attitudes – especially considering the clear deviations of votes shares for the right-wing populist AfD – we assume that the two groups of voters might differ with regards to satisfaction with democracy since (right-wing) populist parties were found to be particularly attractive for people dissatisfied with the state of democracy (Krause, Spittler, and Wagner 2017). Moreover, party identification has turned out to be an important, if not the most important, characteristic relevant for party choice (Schäfer and Schmitt-Beck 2014). On that account, it can be assumed that voters with a strong party identification do not have to consider the developments of the last days of the election campaign in order to come to a decision and are therefore more inclined to use the postal voting option. In addition, we compare postal and ballot box voters' positions regarding the left-right dimension structuring political competition, which is known to have a decisive influence on vote choice (Roßteutscher and Scherer 2014).

Finally, studies have shown that early voting options are increasingly used by socio-economically better-off, more educated and politically interested people and, in the German case, by West German voters (Lichteblau and Wagner 2019; McAllister and Muller 2018). Hence, we additionally compare the two voter types in terms of income, education, political interest and region.

The comparison of postal and election day voters with regard to socio-demographic and socio-structural characteristics and political attitudes is carried out by means of logistic regression.⁵ Here, the type of voting (postal or election day) is regressed on the factors discussed above. The variable description is presented in Table 1.

In the second step of our analysis, we ask whether the factors that increase the likelihood of postal voting indeed influenced party choice in 2017. If, for example, higher educated people were more likely to use the postal voting option but had no particular inclination to vote for (or against) a specific Bundestag party⁶, educational differences between postal and election day voters cannot account for the different election outcomes of the two groups. Therefore, we estimate logistic vote choice models for each party, in which the choice for or against a certain party (1/0) is regressed on the variables

TABLE 1
VARIABLE DESCRIPTION – COMPOSITIONAL EFFECTS

Variable	Coding
Type of voting (DV)	1 = postal voting, 0 = election day voting
<i>Sociodemographic and social structure</i>	
Gender	1 = male, 0 = female
West	1 = West Germany, 0 = East Germany
Occupational status	1 = blue collar workers, 2 = civil servants/ white collar, 3 = self-employed, 4 = Pensioners, 5 = Pupils/ Students
Education	1 = low (no graduation/lower secondary education), 2 = medium (O level), 3 = high (A level)
Income (log)	Logarithm of household income (weighted by household size)
Urban residential area	1 = yes (city/ suburbs), 0 = no (country side/ rural area/ small towns)
Church attendance	1 = never, 2 = once/ few times a year, 3 = once a month/ more often
Union member	1 = yes, 0 = no
<i>Political attitudes</i>	
Polarity of left-right position	Absolute distance of ego's self-placement from mean
Party identification (PID)	1 = very strong/ strong/ moderate, 0 = very weak/ weak/ no PID
Political interest	1 = (very) strong, 2 = somewhat 3 = weak/ none
Satisfaction with democracy	1 = (very) satisfied, 2 = neither/ nor, 3 = not very/ not at all satisfied

previously identified as influencing the voter type. Only if a variable meets both criteria – influence on the likelihood of a postal vote and influence on the likelihood to vote for a certain party – it can help to explain the different election results. It is only in this case that compositional effects can be considered responsible for the parties’ different electoral strengths in the two groups.

In the final step of our analysis, we examine potential differences of postal and election day voters with respect to their criteria for vote choice, thereby investigating in how far associational effects can account for the differences in vote shares. Here, we

TABLE 2
VARIABLE DESCRIPTION – ASSOCIATIONAL EFFECTS

	Coding
Party identification (PID)	1 = very strong/ strong/ moderate, 0 = very weak/ weak/ no PID
Left-right distance	Squared left/right distance between ego and perceived party position
Evaluation top candidates	From 1 = ‘strongly dislike’ to 11 = ‘strongly like’
Problem solving competence (most important national problem in ego’s perception)	1 = party is seen as competent, 0 = party is not seen as competent
Evaluation government performance	From 1 = ‘completely dissatisfied’ to 11 = ‘completely satisfied’; reversed for opposition parties

Note: All metric independent variables were standardised by dividing them by 2 standard deviations (Gelman 2008).

calculate conditional logistic regression models to compare the two voter groups with regards to the criteria they apply when making up their minds about which party to vote for (cf. Table 2 for a variable description). Taking into account the *funnel of causality* used to describe the vote choice process, those criteria are comprised of evaluations and attitudes located near the end of the decision-making process (cf. Dalton 1996). In addition to generalised government performance evaluations in the sense of retrospective voting (Fiorina 1981), we include party identification as a key variable of the social psychological model (Campbell et al. 1960) and the left-right distance as the central determinant of party utility according to the rational choice approach (Downs 1957) in our model. Furthermore, according to saliency theory (Budge and Farlie 1983), the issues addressed by the election campaign and the respective competences associated with the different parties are a relevant criterion for party choice. For that reason, we also consider the respective parties' ability to solve the (subjectively perceived) most important problem. In addition, we take evaluations of the parties' top candidates into account, as research has shown that such orientations are decisive for voters (Wagner and Weßels 2012).

RESULTS

In order to identify potential compositional effects (see Figure 3), we examine the extent to which postal and election day voters differ significantly from each other with regards to factors responsible for both, voter type and party choice at the Federal Elections 2017.

FIGURE 6
RESULTS OF LOGISTIC REGRESSION MODEL FOR POSTAL VOTING (AVERAGE MARGINAL EFFECTS)

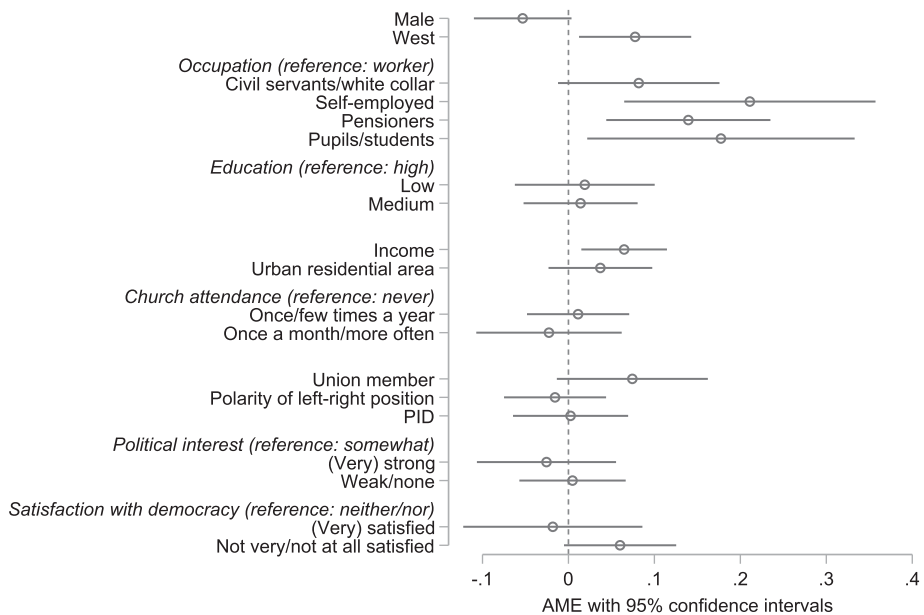


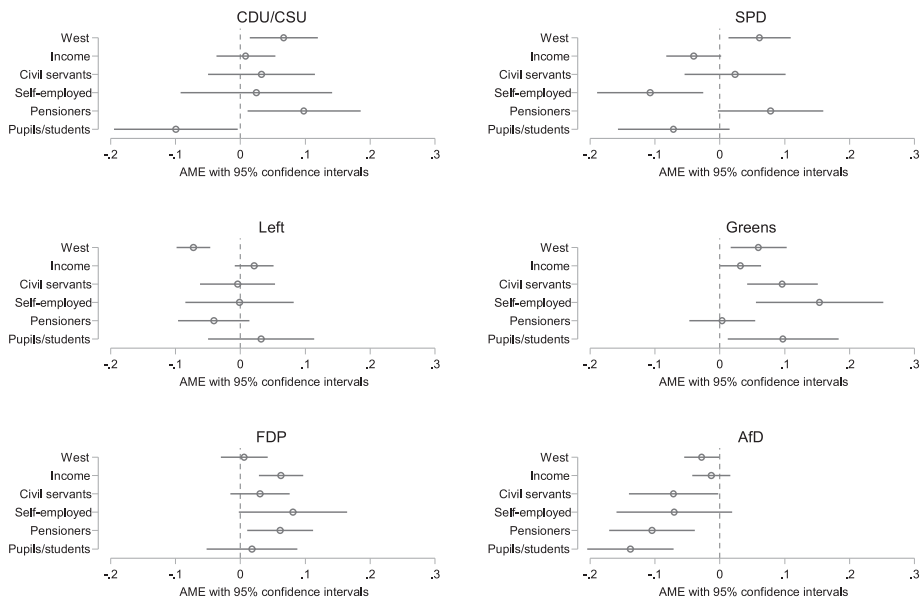
Figure 6 shows the average marginal effects of the socio- and regional-structurally weighted results of the logistic regression.

The model identifies three variables – region, occupation and income – as statistically significant covariates of the ballot type. West Germans and people living in households with a higher income are more likely to vote by mail, while financially disadvantaged people and East Germans tend more strongly to vote on election day. In particular the occupational status shows a considerably large effect: For self-employed people, the probability to vote by mail is about 20 percentage points higher than for workers. The same applies to pupils/students. Similarly, pensioners have a 15-percentage point higher probability of voting by mail than workers.⁷

The remaining factors have no statistically reliable effect on the probability of postal voting. However, the model’s low explanatory power – only about 33 per cent of postal voters are correctly predicted as such by the model (true positive rate or sensitivity) – indicates that the search for the causes of the decision to vote by mail (or not) at federal elections is by no means complete.

As a next step, it is necessary to ask whether those variables that significantly influence the ballot type actually had an influence on the party choice in 2017. If, for example, West Germans are more likely to vote by mail than East Germans, but West and East Germans did not differ in their voting behaviour, the results would not help to understand the differences in vote shares between the two groups. Conversely, if church attendance is positively linked to the likelihood of voting for the Christian Democrats, but not related to the ballot type (i.e. the composition of postal and election

FIGURE 7
RESULTS OF LOGISTIC REGRESSION MODELS FOR VOTE CHOICE (AVERAGE MARGINAL EFFECTS)



day voters does not differ with regards to church attendance), church attendance cannot help explain vote share differences between the two groups either. Hence, we regressed vote choice for the respective party (0/1) on region (East/West), occupational status and income. As we are interested in the covariates of the differences in the vote shares of the major parties between postal and election day voters, we estimated a logistical model for each party in the German Bundestag to arrive at party-specific explanatory patterns. The results can be found in [Figure 7](#).

Although all three variables show significant effects on party choice in general, none of them affects the likelihood to vote for all of the parties. At the same time, for none of the parties do all three factors show reliable effects. The Left and the AfD are stronger in East Germany whereas West German voters are more likely to vote for the CDU/CSU, SPD and the Greens. Employees show a higher voting propensity for the Greens rather than the AfD. Pensioners are more likely to vote for the CDU/CSU and the FDP than workers, and less for the AfD. Compared to workers, self-employed people have a lower tendency to vote for the SPD but are more likely to do so for the Greens. With regards to income, people from high-income households have a higher probability to vote for the FDP than people from lower-income households. [Table 3](#) summarises these results and shows the statistically significant effects for each explanatory variable and party.

How do the results presented above contribute to an understanding of the differences in election outcomes between postal and election day voters? As stated earlier, in particular the CDU/CSU, but also the FDP and the Greens, were able to achieve better election results among postal voters. Considering the regression results presented in [Figure 6](#) and [Table 3](#), we can make sense of those differences as follows: More West than East Germans use the postal voting option and West Germans are more likely to vote for the CDU/CSU, which explains why this party is stronger among postal voters. Furthermore, pensioners are more likely to vote by mail than workers and are also more likely to vote for the CDU/CSU or the FDP. The same is true for people with higher income with regard to postal voting and the probability of voting for the FDP. Since the Greens are stronger in West Germany and among self-employed people and school pupils/students, and these three groups have an increased likelihood to vote by mail, this party's electoral advantage among postal voters also becomes

TABLE 3
SUMMARY OF RESULTS OF VOTE CHOICE MODELS

Party	Elements					
	West	White collar	Self-employed	Pensioners	Pupils/ students	Income
CDU/CSU	+			+	-	
SPD	+		-			
Left	-					
Greens	+	+	+		+	
FDP				+		+
AfD	-	-		-	-	

Note: ‘+’ = positive effect; ‘-’ = negative effect on the probability to vote.

plausible. Thus, from the perspective of composition differences, the CDU/CSU's, Greens' and FDP's better postal voting results make sense.

Similar causal chains can be constructed for parties that achieved worse results among postal than election day voters: The Left has a lower electoral appeal in the West and West German voters use the postal voting option more often than voters from the East, which makes the lower vote share for the Left among postal voters reasonable. For the SPD, the results are mixed: the fact that the self-employed are less likely to vote for the SPD than workers, but more likely to use postal voting, is in line with the poorer electoral performance of the Social Democrats among postal voters. However, the fact that the SPD is weaker in the East and that East Germans tend to vote in person on election day contradicts the observed differences in vote shares between voter types. The results of our analysis for the AfD – the party with the second highest absolute difference in vote shares (and the highest relative difference) between postal and election day voters – are again plausible: the AfD is stronger in the East than in the West and also weaker among postal voters. On top of that, the right-wing populists' weakness among pensioners and school pupils/students – both groups which, compared to workers, have a relatively high affinity towards postal voting – helps to explain the AfD's relatively weaker performance among postal voters.

Considering the results of the preceding analyses, we can state that some of the differences in vote shares between postal and election day voters can be comprehensibly ascribed to compositional differences between both groups of voters: some (socio-demographic) characteristics are associated with an increased likelihood to vote both by mail and for specific parties, resulting in a better performance of those parties among postal than election day voters – and vice versa.

The remaining part of our analysis deals with the question of whether the different party strengths between postal and election day voters also result from them applying different decision criteria. How important are association effects for explaining the differences in party choice? We estimated a conditional logistic model on the basis of a stacked data set in which each observation corresponds to a respondent-party relation. The dependent variable is party choice, the explanatory factors include both retrospective assessments of government performance (of the Grand Coalition 2013–2017) and prospective problem-solving capacity (regarding the subjectively perceived most important problem in Germany), party identification, the evaluation of the top candidate of the respective party and the squared distance between the respondent's own and the perceived party position on the super issue left-right. In order to assess possible associational differences between postal and election day voters, we included the ballot type as a moderator for all five predictors of party choice. [Table 4](#) shows the results.

With regards to the main effects of our explanatory variables, we can state that a (very strong to moderate) party identification increases and a greater left-right distance decreases the likelihood to vote for the respective party for election day voters. The insignificant interaction terms suggest that the effect sizes of these variables are not any different for postal voters. Positive evaluations of the top candidate as well as the attribution of problem-solving competence increase the likelihood to vote for the respective party for both groups equally, too. Comparing the results of two separate

TABLE 4
RESULTS OF CONDITIONAL LOGIT MODELS FOR VOTE
CHOICE (LOGIT COEFFICIENTS)

	Vote choices
PID	1.75*** (0.17)
Left/Right distance	-0.04*** (0.01)
Evaluation top candidates	0.34*** (0.03)
Problem solving competence	0.76*** (0.11)
Evaluation government performance	0.07*** (0.02)
<i>Postal voter x</i>	
PID	-0.14 (0.31)
Left/Right distance	-0.02 (0.02)
Evaluation top candidates	0.11 (0.07)
Problem solving competence	0.19 (0.21)
Evaluation government performance	-0.03 (0.04)
Observations	8,401
Pseudo R-squared	0.47

Note: Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

models also reveal similar average marginal effects of our five predictors for both voter groups (see Figure A1 and Table A5 in the Appendix C). The only difference concerns the relevance of retrospective government performance evaluations: While it reaches the usual five-percent significance threshold for election day voters, it does not for postal voters (with similar point estimates of the effect’s strength). The difference is, however, (a) quite small and (b) possibly driven by the lower number of postal voters (and the resulting larger standard errors), which is why it should not be over-interpreted. Therefore, our conclusion with regard to the differences in the decision criteria is negative – postal and election day voters base their party choice on a similar set of criteria.

CONCLUSION AND OUTLOOK

The significance of postal voting in Germany has clearly increased in recent decades. By now, almost a third of the voters cast their ballot before election day. Moreover, the differences in electoral behaviour between postal voters and election day voters are considerable with regards to some parties as the share of second votes differs by up to five percentage points between the voter groups. Against this background, it seems particularly surprising that there are only few empirical-analytical studies on postal voting in Germany, making the postal voter a largely unknown being. The international literature

on early voting focuses primarily on possible effects on voter turnout – and finds mixed results. As far as we are aware, there is hardly any research dealing with the question presented in this paper as to how the differences in vote shares between postal and election day voters can be explained. For this purpose, we examined the two types of voters with respect to both, potentially different characteristics (composition effects) and potentially different motives for party choice (association effects). Based on survey data from the GLES, we conclude that postal and election day voters do not differ substantially from each other with regards to the criteria they apply for vote choice. The vote functions of both groups hardly vary, hence, association effects cannot contribute to an explanation of the different election outcomes. However, the composition of the voter groups with regards to certain characteristics differs. Among postal voters, West Germans, economically better-off, self-employed people as well as pensioners and pupils/students are overrepresented. Since these characteristics are also related to party choice, we can conclude that to some extent the differences in voting behaviour stem from those compositional differences.

The political implications of the increased use of the postal voting option are clear and serious. If parties and candidates are no longer able to win over a large part of the electorate in the last days or weeks of the election campaign, they need to address those voters earlier. For this reason, among others, targeting becomes more demanding for parties in Germany. In addition, postal voters are not able to consider the events of the final phase of the election campaign for their vote choice. While this might not have been relevant for explaining the differences in second vote shares between election day and postal voters in the German parliamentary elections in 2017, the earlier timing of the vote choice of the latter sets limits to short-term retrospective voting in case of e.g. political scandals during the last days of the campaign.⁸

Moreover, the similarity of vote functions of postal and election day voters implies that the type of ballot used did not change the overall election result: As both voter types relied on a similar set of evaluation criteria, voting behaviour itself seems not to have been affected by postal voting. Rather, we observe a self-selection of certain groups of citizens into absentee voting, but the type of ballot itself does not impact party choice.

On the basis of our preliminary results – especially considering the moderate explanatory power of our model predicting the voter type – we see need for further research in three directions: Firstly, existing studies analysing the reasons why people decide to vote by mail have primarily focused on the certainty of vote choice – people with fixed, strong party preferences can cast their votes without any further need for information provided by the election campaign. However, many election day voters are certain about their decision months before the election takes place, too. This may help explain the (in some cases) small differences between groups (both regarding their characteristics and their vote functions). Here, further differentiation is needed in future research. Secondly, aspects of mobility, such as the distance to the polling station in combination with a person's physical condition could not be adequately analysed so far. Similarly, aspects of convenience, such as the use of postal voting due to possible spontaneous holidays or the avoidance of potential collisions of planned activities, could not be investigated on the basis of existing data. Thirdly, the causal mechanisms are not equally obvious or cannot be sufficiently theorised in all cases. Questions concerning the

reasons as to why, for example, West Germans use postal voting much more frequently than East Germans, have not been at the centre of previous studies. In view of the normative, practical-political and political-scientific relevance of the subject, it is worth opening up this field of research systematically along these suggested lines.

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ABOUT THE AUTHORS

Aiko Wagner is a research fellow at the WZB Berlin Social Science Center in the department 'Democracy & Democratization'. He is a member of the German Longitudinal Election Study (GLES).

Josephine Lichteblau is a research fellow at the WZB Berlin Social Science Center in the department 'Democracy & Democratization'. She is associated with the German Longitudinal Election Study (GLES).

NOTES

1. Following the Federal Returning Officer (Bundeswahlleiter), we subsume all types of early voting as postal voting.
2. The differences in second vote shares between postal and election day voters in the sample are based on are very similar to those based on the official election results reported by the Bundeswahlleiter (cf. Appendix A).
3. While Ellermann (2004) only mentions the differences in election results between postal and election day voters, Giebler (2014) concludes that the socio-demographic differences he found between the groups alone can hardly explain the different vote shares.
4. Using data from the 2017 GLES' Rolling Cross Section (Roßteutscher et al., 'Rolling Cross Section Campaign Study,' 2018), we tested whether the differences in the vote shares of CDU/CSU and AfD between postal and election day voters are simply a function of the timing of the decision making. Therefore, we regressed individual vote intention on the number of days until the election day for the last month of the campaign. The results reveal that the number of days until the election did not have an effect on the vote intentions for these two parties. We take this as an indication that the better result of the AfD among election day voters compared to postal voters is not a mere reflection of the party's positive trend in the last weeks and days of the campaign and vice versa for the CDU/CSU (cf. Appendix B).
5. We use regional and socio-structural post-stratification weights in all our analyses.
6. The sister parties CDU and CSU are treated as one party.
7. Although strongly correlated with occupation (esp. pensioners and pupils/students), we included age as a control variable in a separate model, too (cf. Table A3 in the Appendix C). However, including the age of a

respondent has neither a significant impact on the likelihood of voting by mail nor does it change the magnitude or significance of one of the other explanatory variables.

8. However, the same also applies to election day voters who make their decision on which party to vote for long before election day.

ORCID

Josephine Lichteblau  <http://orcid.org/0000-0002-9699-6791>

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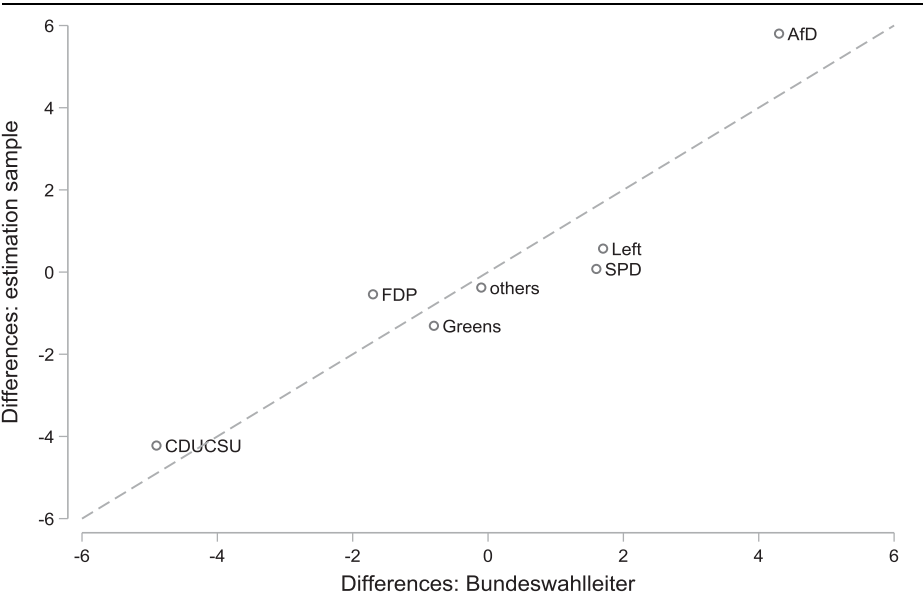
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APPENDIX A

TABLE A1
DIFFERENCES IN SECOND VOTE SHARES BETWEEN POSTAL AND ELECTION DAY
VOTERS IN THE ESTIMATION SAMPLE (BASED ON SELF-REPORTED VOTE CHOICE)



Note: Differences in percentage points. Negative values depict a higher vote share among postal than election day voters.

APPENDIX B

In order to test whether the considerable differences in the vote shares of CDU/CSU and AfD between postal and election day voters are simply a function of the timing of the decision making, we regressed individual vote intention on the number of days until the election day for the last month of the campaign using data from the GLES Rolling Cross Section Campaign Study. Table A2 displays the results. The time variable neither has an statistically significant effect on the likelihood to vote for the CDU/CSU nor the likelihood to vote for the AfD. Hence, it seems unlikely that the AfD’s better result and the CDU/CSU’s worse result among election day voters was merely due to parties’ positive or negative trends in the last weeks and days of the campaign.

TABLE B1
LOGIT MODELS FOR PREDICTING VOTE CHOICE FOR THE CDU/CSU AND AfD BY THE
NUMBER OF DAYS UNTIL THE ELECTION (LOGIT COEFFICIENTS)

	CDU/CSU	AfD
Field day	−0.01 (0.01)	−0.01 (0.02)
Constant	−0.18 (0.46)	−0.33 (0.70)
Observations	2,570	2,570
Pseudo R-squared	0.00	0.00

Note: Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Socio- and regional-structural weights applied.
Source: GLES rolling cross-section survey 2017 (Roßteutscher et al., ‘Rolling Cross Section Campaign Study,’ 2018).

APPENDIX C

TABLE C1
RESULTS OF LOGISTIC REGRESSION PREDICTING THE VOTING TYPE (POSTAL VOTING = 1)

	Main model	Main model including age
Age	–	0.23 (0.27)
Male	−0.27 (0.15)	−0.27 (0.15)
West	0.40* (0.17)	0.40* (0.17)
<i>Occupational status (reference: workers)</i>		
Civil servants/white collar	0.49 (0.32)	0.51 (0.32)
Self-employed	1.11** (0.40)	1.09** (0.40)
Pensioners	0.78* (0.31)	0.66* (0.32)
Pupils/students	0.96* (0.43)	1.08* (0.45)
<i>Education (reference: high)</i>		
Low	0.10 (0.21)	0.05 (0.22)

Continued

TABLE C1
CONTINUED.

	Main model	Main model including age
Medium	0.07 (0.17)	0.05 (0.17)
Income	0.33* (0.13)	0.32* (0.13)
Urban residential area	0.19 (0.15)	0.19 (0.15)
<i>Church attendance (reference: never)</i>		
Once/a few times a year	0.06 (0.15)	0.05 (0.15)
Once a month/more often	-0.12 (0.23)	-0.13 (0.23)
Union member	0.36 (0.21)	0.36 (0.21)
Polarity of left-right position	-0.08 (0.16)	-0.08 (0.16)
PID	0.01 (0.18)	0.00 (0.18)
<i>Political interest</i>		
(Very) strong	-0.13 (0.22)	-0.12 (0.22)
Weak/none	0.02 (0.16)	0.01 (0.16)
<i>Satisfaction with democracy (reference: neither/nor)</i>		
(Very) satisfied	-0.10 (0.31)	-0.08 (0.31)
Not very/not at all satisfied	0.31 (0.18)	0.31 (0.18)
Constant	-2.36*** (0.42)	-2.60*** (0.50)
Observations	1,319	1,318
Pseudo R-squared	0.04	0.04

Note: Logit coefficients. Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

TABLE C2
RESULTS OF LOGISTIC REGRESSIONS PREDICTING PARTY CHOICE WITH REGION,
OCCUPATIONAL STATUS AND INCOME

	CDU/CSU	SPD	Left	Greens	FDP	AfD
West	0.37* (0.14)	0.42* (0.17)	-0.97*** (0.19)	0.62** (0.22)	0.07 (0.20)	-0.39 (0.21)
Occupational status (reference: workers)						
Civil servants/white collar	0.19 (0.25)	0.17 (0.30)	-0.05 (0.34)	1.14* (0.48)	0.44 (0.38)	-0.69* (0.30)
Self-employed	0.14 (0.35)	-1.29* (0.55)	-0.02 (0.50)	1.54** (0.54)	0.94* (0.47)	-0.67 (0.48)
Pensioners	0.52* (0.26)	0.51 (0.30)	-0.60 (0.36)	0.07 (0.50)	0.76* (0.38)	-1.21*** (0.32)
Pupils/students	-0.78 (0.40)	-0.69 (0.44)	0.33 (0.42)	1.15* (0.54)	0.28 (0.53)	-2.22*** (0.66)
Income	0.05 (0.13)	-0.28 (0.15)	0.28 (0.20)	0.33* (0.17)	0.70*** (0.20)	-0.19 (0.21)
Constant	-1.98* (0.89)	-0.05 (1.04)	-3.54** (1.36)	-5.76*** (1.24)	-7.81*** (1.42)	-0.05 (1.45)
Observations	1,573	1,573	1,573	1,573	1,573	1,573
Pseudo <i>R</i> -squared	0.02	0.03	0.03	0.06	0.03	0.04

Note: Logit coefficients. Robust standard errors in parentheses. ****p* < 0.001, ***p* < 0.01, **p* < 0.05.

TABLE C3
RESULTS OF SEPARATE CONDITIONAL LOGIT MODELS PREDICTING PARTY CHOICE

	Election day voters	Postal voters
PID	0.14*** (0.17)	1.61*** (0.27)
Left-right distance	-0.04*** (0.01)	-0.07** (0.02)
Evaluation of top candidates	0.34*** (0.03)	0.45*** (0.06)
Problem solving competence	0.76*** (0.11)	0.95*** (0.18)
Evaluation government performance	0.07*** (0.02)	0.04 (0.04)
Observations	5,928	2,419
Pseudo <i>R</i> -squared	0.46	0.51

Note: Logit coefficients. Standard errors in parentheses. ****p* < 0.001, ***p* < 0.01, **p* < 0.05.

FIGURE C1
RESULTS OF SEPARATE CONDITIONAL LOGIT MODELS FOR VOTE CHOICE (AVERAGE
MARGINAL EFFECTS, AME)

