

# Pre-electoral coalitions and voter turnout

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Party Politics  
2015, Vol. 21(5) 726–737  
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sagepub.co.uk/journalsPermissions.nav  
DOI: 10.1177/1354068813499868  
ppq.sagepub.com



## Abstract

Research on comparative voter turnout has produced a puzzling set of findings: proportional representation (PR) electoral systems increase turnout, but multiparty systems decrease turnout. This paper provides new evidence to resolve these conflicting findings by developing and testing the hypothesis that the presence of a pre-electoral coalition (PEC) increases voter turnout by reducing uncertainty about the possible government that will form after the election. PECs provide credible signals to voters about the commitment of participating parties to govern together, making the election more decisive as a mechanism for selecting the government by clarifying the possible electoral outcomes. This increased electoral decisiveness increases voters' incentives to turn out. This hypothesis is tested on a data set of 223 national legislative elections in 19 parliamentary democracies between 1970 and 2002, with the results indicating that the presence of a PEC increases turnout on average by more than 1.5 percentage points. This finding provides support for the argument that the electoral context and strategic party behavior have important effects on voter participation.

## Keywords

Turnout, pre-electoral coalition, parliamentary democracy

Comparative studies of voter turnout have produced two important findings about the effects of electoral systems and party systems on voter participation. Proportional representation (PR) electoral systems have a positive effect on participation, presumably by increasing the incentives of parties to mobilize and of citizens to vote (Blais, 2000; Blais and Carty, 1990; Blais and Dobrzynska, 1998; Jackman, 1987; Jackman and Miller, 1995; Karp and Banducci, 1999). However, proportionality also appears to have an indirect and negative effect by facilitating the development of multiparty systems (Cox, 1997; Lijphart, 1994). Multipartyism reduces voter turnout by necessitating the formation of coalition governments, which reduce the decisiveness of the election by limiting voters' ability to influence the party composition of the cabinet that emerges after the election (Blais, 2000; Blais and Dobrzynska, 1998; Brockington, 2004; Franklin, 2004; Jackman, 1987; Jackman and Miller, 1995). These conflicting findings create an interesting puzzle about the effects of electoral institutions and context on voter turnout, which research thus far has not resolved.

This apparent tradeoff in electoral and party system arrangements also poses important questions for students of representation. Systems featuring higher levels of electoral proportionality may have various beneficial qualities,

including closer correspondence between the preferences of voters and government policies (Powell, 2000), increased satisfaction with democracy (Anderson and Gullory, 1997), and better performance on various social and economic indicators (Lijphart, 1999). That such systems may also produce elections in which voters have less incentive to participate is an important tradeoff, making it important to clarify the relationship between electoral proportionality, party systems, and voter turnout.

Recent scholarship has examined the dynamics surrounding the formation of pre-electoral coalition agreements (PECs) (Golder, 2006). These agreements reflect credible and public commitments by parties prior to an election to govern together if the election results permit. PECs may reduce the uncertainty associated with multiparty elections by giving voters a clearer sense of the

Paper submitted 19 January 2013; accepted for publication 11 June 2013

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possible governments that may (or may not) form after the election. The presence of PECs in multiparty elections may offer voters this increased clarity about the election outcome without reducing the level of electoral proportionality in that political system.

In this paper, I develop and test the hypothesis that the presence of PECs in parliamentary elections increases voter turnout. I test this hypothesis on data from 223 national legislative elections in 19 parliamentary democracies between 1970 and 2011. The evidence is consistent with the argument that the presence of a PEC raises the level of turnout in that election. The results indicate that the presence of a PEC increases turnout by more than 1.5 percentage points relative to an election in the same political system without a PEC, and the magnitude of the effect is higher for PECs receiving larger shares of the vote that are more likely to be able to form the government.

This paper's findings make several important contributions to the comparative literature on voter turnout and representation. First, this paper strengthens our understanding of the puzzling set of findings regarding proportionality, multipartism, and voter turnout. This paper's findings lend support to the theorized claim that multipartism decreases turnout by reducing the potential decisiveness of elections. The results of this paper indicate that greater clarity about the possible outcomes of the government-formation process increase turnout, highlighting the importance of the character of elections for turnout (Blais, 2006; Franklin, 2004). Second, this paper sheds light on the set of electoral conditions that may facilitate higher levels of turnout, an important normative goal for many students of representation (Lijphart, 1997). This paper's results suggest that it may be possible to maximize voter turnout by combining PR with other institutions that facilitate increased electoral decisiveness. Third, this paper highlights the importance and potential influence of PECs in electoral politics. Parties choose to participate in PECs for strategic reasons, but the presence of PECs may have the beneficial effect of increasing electoral decisiveness and thus turnout.

## **Electoral systems, party systems, and voter turnout**

The comparative study of voter turnout has generated a puzzling set of findings about the relationship between the electoral system, party system, and voter turnout. One set of findings demonstrates that PR electoral systems foster increased turnout—or, alternatively, that single-member district electoral rules depress turnout (Blais, 2000; Blais and Carty, 1990; Blais and Dobrzynska, 1998; Fisher et al., 2008; Jackman, 1987; Jackman and Miller, 1995; Karp and Banducci, 1999; Kostadinova, 2003; Selb, 2009; but see Fornos et al., 2004). However, another set of results (and in some cases the same studies) show that increasing multipartism decreases turnout (Blais and Carty, 1990; Blais and Dobrzynska, 1998; Jackman, 1987;

Jackman and Miller, 1995; Kostadinova, 2003). These results are puzzling when one considers that PR electoral rules facilitate the formation of multiparty systems (Cox, 1997; Lijphart, 1994), suggesting that there are two distinct mechanisms at work. While scholars have advanced plausible explanations for these conflicting results, the implications of these proposed explanations for these results have rarely been tested, leaving us uncertain as to whether either one is correct (see Brockington, 2004 for an exception).

The claim that electoral proportionality increases electoral turnout is well supported in the literature. Drawing upon Jackman's (1987) pioneering work, a number of studies have replicated this finding (Geys, 2006), though some studies—particularly of developing democracies—have reported a weaker or no relationship (Blais and Dobrzynska, 1998; Fornos et al., 2004). There are several related arguments as to why PR increases turnout. First, disproportional electoral systems disadvantage smaller parties due to the high effective threshold needed to win seats (Lijphart, 1994), creating a disincentive for these parties' supporters to turn out to vote for them (Jackman, 1987: 408). This effect generates strategic incentives for voters and elites to coalesce around a limited number of relatively centrist parties (Cox, 1997; Downs, 1957), limiting the options available to voters and making voting a less attractive option for those who do not support the centrist parties. Because PR facilitates the electoral survival of small and/or extreme parties, it does not create the disincentive to vote that exists for supporters of such parties in single-member district systems, leading to higher turnout among these supporters (Karp and Banducci, 1999). Second, PR systems eliminate the uncompetitive electoral districts that are often a feature of single-member district electoral systems. Uncompetitive electoral districts create a disincentive for voters to turn out if the outcome of the district-level election is not in doubt (Blais and Carty, 1990; Franklin, 2004). Similarly, elites have less incentive to mobilize voters in uncompetitive electoral districts (Cox, 1999). Much of the reduced turnout in majoritarian electoral systems is due to low turnout in uncompetitive districts (Selb, 2009). Thus, PR systems stimulate turnout by creating greater incentives for parties to mobilize voters throughout the electorate and for citizens to turn out to vote.

There are a number of studies that find evidence of a negative relationship between multiparty systems and voter turnout (Blais and Carty, 1990; Blais and Dobrzynska, 1998; Jackman, 1987; Jackman and Miller 1995; Kostadinova 2003). The arguments linking multipartism to reduced turnout emphasize the added uncertainty and reduced decisiveness created by multiparty systems. Multiparty systems rarely produce electoral majorities, meaning that the election will result in the formation of either a multiparty coalition or a minority government. Voters cannot be certain about the government that will result from the election,

as post-election bargaining may unanticipated results. Additionally, the lower clarity of responsibility resulting from multiparty situations may hinder the ability of voters to sanction incumbents, reducing the incentive to cast a retrospective vote (Taylor, 2000; Tillman, 2008). The result, according to Downs (1957), is that this reduces incentives for citizens to vote: "Some citizens abstain in bewilderment, others take the plunge and vote in spite of uncertainty, and still others shift their view of elections and treat them as expressions of preference" (153). In short, citizens are less likely to vote as the number of parties increases.<sup>1</sup>

This set of conflicting findings is puzzling due to the relationship between electoral proportionality and multipartyism. PR electoral rules facilitate the development of multiparty systems (Cox, 1997; Lijphart, 1994), meaning that the two often appear together, and over 70% of elections held under PR rules lead to the formation of coalition government (Katz, 1997: 162). These conflicting results indicate that the same factor that increases turnout (PR electoral rules) also indirectly decreases turnout through its facilitation of a multiparty system.

The claim that multipartyism decreases turnout by reducing electoral decisiveness yields a clear implication: any mechanism that increases the clarity of possible government outcomes in a multiparty election (all else equal) should offset some of the turnout decline caused by multipartyism. This argument suggests that multiparty elections in which there is more certainty among voters about the resulting governing coalitions that would result from a particular electoral outcome should increase the perceived decisiveness of the election and thereby increase turnout. To date, this claim has been tested only using relatively blunt indicators of whether the resulting government was single-party or coalition (e.g. Blais, 2000; Blais and Carty, 1990; Blais and Dobrzynska, 1998) or of the overall historical pattern of government formation within a country (Brockington, 2004). By this logic, turnout should be higher when elections produce a single-party majority government, which provides the clearest and most decisive outcome for voters. By contrast, oversized coalition governments produce the least decisive result, which should generate the lowest turnout. Tests of this implication have produced mixed results. While Brockington's (2004) study of cross-national survey data finds that voter participation is depressed in countries in which oversized coalitions are more common, several studies of aggregate data fail to find any evidence that single-party majority or coalition governments affect turnout (Blais, 2000; Blais and Carty, 1990; Blais and Dobrzynska, 1998).

The mixed results of previous studies may be the result of limitations of their empirical strategies. Predicting turnout on the basis of a measure of the government type that formed after the election is problematic because there is no indication of whether voters anticipated this particular

result when deciding to vote. The strategy of using historical patterns is better in that it includes information that would be available to voters (Armstrong and Duch, 2010) and is particularly valuable for cross-national analysis, but it is not a dynamic measure and cannot explain turnout change within a given country. The best strategy for testing whether multipartyism decreases turnout by reducing electoral decisiveness is to use indicators that are both specific to each election (and thus dynamic) and that would be available to voters when making the decision of whether to vote. The presence or absence of a PEC provides an appropriate measure that gets directly to the core of the theoretical and empirical puzzle under question. Blais (2006: 118) suggests this strategy in a recent review of the comparative turnout literature: "If it is the decisiveness of the outcome that matters, then we should look at the (anticipated) presence or absence of deals after the election."

### Pre-electoral coalitions and voter turnout

A PEC is a "collection of parties that do not compete independently in an election, either because they publicly agree to coordinate their campaigns, run joint candidates or joint lists, or enter government together following the election" (Golder, 2006: 12). Despite being an important feature of many parliamentary systems and occurring relatively frequently (Golder, 2006), PEC agreements have until recently been largely ignored by scholars. Two key parts of the definition are that a PEC can only exist between distinct parties and that a PEC must be publicly stated. Additionally, this study only considers PECs that operate at the national level. PECs have interesting effects on democratic representation. A multiparty election with PECs preserves the range of party choices available for voters and the degree of electoral proportionality while providing greater clarity of choices and possible outcomes for voters. This combination led Golder (2006: 138) to suggest that PECs "combine the best elements of the majoritarian vision of democracy... with the best elements of the proportional representation vision of democracy."

An important element of this argument is that PECs are credible to voters. By entering into a PEC, participating parties send a signal to voters of their intentions to govern together. Indeed, parties may enter into PECs in order to send a signal to voters about their post-election intentions (Golder, 2006; Klingemann et al., 1994; Roberts, 1988). It is very rare for parties to fail to honor a PEC in post-election bargaining (Golder, 2006: 28; Laver and Schofield, 1998; Martin and Stevenson, 2001; Strøm et al., 1994), and parties entering into PECs are significantly more likely to form the government after the election than parties that are not in a PEC (Golder, 2006). Thus, voters should treat PECs as credible signals that the participating parties will govern together after the election if possible,

and even that parties participating in the PEC are more likely to become part of the government.

I argue that the presence of a PEC increases electoral decisiveness. Citizens can anticipate that a vote for one party within the PEC will effectively serve as a vote for that potential governing coalition, providing more clarity about the effect of their vote on the government process. An important motivation for voting is to select the next government, so the benefits of voting are higher when there are fewer and clearer electoral alternatives. The existence of a PEC also clarifies matters for potential supporters of parties outside of the PEC, as it decreases the possibility of a government forming between a party in the PEC and one outside of it.<sup>2</sup> Thus, the presence of a PEC reduces the set of possible outcomes, giving voters greater certainty about the potential outcome of the election and about what effect their vote would have upon the government-formation process. By making the election more decisive as a mechanism of selecting the prospective government, the presence of a PEC gives voters a greater incentive to vote (Downs, 1957: 154).

The formation of a PEC does not come with other tradeoffs associated with increased electoral decisiveness. For example, plurality electoral systems produce decisive elections by reducing the number of viable electoral alternatives (Cox, 1997), limiting the opportunity for citizens to vote sincerely. The presence of a PEC does not reduce the electoral alternatives available to the voters.<sup>3</sup> Participating parties normally remain on the ballot as distinct alternatives, allowing voters to select a specific party within a PEC in order to strengthen its position and ability to influence policy within the potential coalition (Kedar, 2005). Thus, a PEC should have turnout-stimulating effects without generating tradeoffs that might simultaneously reduce the incentive to vote.

As an illustration of this paper's argument, consider the three Swedish general elections taking place in 2002, 2006, and 2010. The basic structure of these elections was the same: the Social Democrats won the most seats but did not obtain a parliamentary majority. The center-right vote was split between four parties—the Moderate Party, Center Party, Liberal People's Party, and Christian Democratic Party. In each election, the combined seat share of the center-right parties was larger than that of the Social Democrats, so the potential existed for a four-party center-right coalition. Meanwhile, the Social Democrats had the option as the largest party either to seek to govern alone in a minority cabinet or to pursue a coalition agreement with various parties (including two smaller left-wing parties).

The presence or absence of PECs changed the context of the three election campaigns. In 2002, there were no PECs among any of the parties, and the Social Democrats ultimately formed a minority cabinet. The situation changed prior to the 2006 election, as the four center-right parties formed the "Alliance for Sweden", a PEC that included shared policy commitments and a joint Prime Minister

candidate in Moderate Party leader Fredrik Reinfeldt. The Alliance formed the government after the 2006 election. Prior to the 2010 election, the three parties of the left chose to match the Alliance for Sweden by forming the Red-Green Alliance. Every party (except for the far-right Sweden Democrats, who entered parliament for the first time) was part of one of the two PECs that presented itself as a potential future government. Thus, Swedish voters in 2010 had a much clearer picture of how their vote could translate into a resulting government, whereas in 2002 the situation was far more uncertain.

How did this changing political context affect the incentive to vote? In 2002, the high degree of uncertainty about the post-election bargaining situation would have decreased the incentive to vote. The presence of the Alliance for Sweden (one PEC) in 2006 would have provided a credible signal of the intent to govern, increasing the motivation to vote for or against this prospective government. In addition, the fact that the four parties in the PEC remained independent would not decrease the incentive to vote, as a vote for a specific party within the PEC could push its overall ideology or positions on specific issues in that party's direction (Kedar, 2005). This vote-stimulating effect remained in 2010 and potentially was stronger in 2010 with the presence of two rival PECs. Leaving aside the many confounding factors that affect turnout, one would expect turnout to be higher in 2006 and in 2010 than in 2002, which was what happened.

Drawing on this logic, I argue that the presence of a PEC in an election campaign should increase voter turnout. By increasing the clarity of choices and possible outcomes, the presence of a PEC should provide citizens a greater incentive to vote. The presence of a PEC clarifies the possible post-election government outcomes and provides a more direct link between the vote and the ensuing government, increasing the incentive to vote as a means of choosing the next government (Blais, 2006: 118; Downs, 1957). Further, the presence of a PEC may reduce some of the informational costs concerning the stakes of the election and others' likelihood of voting, which will also increase the incentive to vote (Franklin, 2004: 49–55). Thus, the presence of a PEC increases the rewards associated with voting by linking the vote more directly to the post-election government. However, the presence of a PEC does not generate any offsetting effects that would reduce turnout. In particular, parties participating in a PEC remain independent, so voters do not lose any of the party choices available to them, which might reduce their motivation to vote. Because PECs should increase the rewards of voting without increasing any of the costs of voting, the paper's main research hypothesis is: *The existence of a PEC prior to a national election should result in increased voter turnout at that election.*

Note that this paper's hypothesis is dynamic and focused on change within political systems. It predicts that changes in the presence of a PEC across elections within a given

**Table 1.** Pre-electoral coalitions by country and election.

Country	Elections with PEC	Elections without PEC
Austria	1986, 1990, 1994, 1995	1971, 1975, 1979, 1983, 1999, 2002, 2006, 2008
Belgium	1971, 1974, 1977, 1978, 1981, 1985, 1987, 1991, 1995, 1999, 2003	2007, 2010
Denmark	1973, 1975, 1977, 1990, 1994, 1998, 2001, 2005, 2007, 2011	1971, 1979, 1981, 1984, 1987, 1988
Finland	1983, 1999	1972, 1975, 1979, 1987, 1991, 1995, 2003, 2007, 2011
France	1973, 1978, 1981, 1986, 1988, 1993, 1997, 2002, 2007	
Germany	1972, 1976, 1980, 1983, 1987, 1990, 2002	1994, 1998, 2005, 2009
Greece	1977, 1981, 1985, 1989, 1989, 1990	1993, 1996, 2000, 2004, 2007, 2009
Iceland	1974, 1991, 1999	1971, 1978, 1979, 1983, 1987, 1995, 2003, 2007, 2009
Ireland	1973, 1977, 1981, 1982, 1982, 1997	1987, 1989, 1992, 2002, 2007, 2011
Israel	1973, 1977, 1981, 1984, 1988, 1992, 1996, 1999, 2003, 2006, 2009	
Italy	1994, 1996, 2001, 2006, 2008	1972, 1976, 1979, 1983, 1987, 1992
Japan	1993	1972, 1976, 1979, 1983, 1986, 1990, 1996, 2000, 2003, 2005, 2009
Netherlands	1971, 1972, 1977, 1986, 1989, 1998	1981, 1982, 1994, 2002, 2003, 2006, 2010
New Zealand	1990, 1999, 2011	1972, 1975, 1978, 1981, 1984, 1987, 1993, 1996, 2002, 2005, 2008
Norway	1973, 1977, 1981, 1985, 1989, 1997, 2001, 2005, 2009	1993
Portugal	1979, 1980, 1983, 1985, 1987, 1991, 1995, 1999, 2002	1976, 2005, 2009, 2011
Spain	1977, 1979, 1982, 1986, 1989, 1993, 2000	1996, 2004, 2006, 2011
Sweden	1973, 1976, 1979, 1985, 1991, 2006, 2010	1970, 1982, 1988, 1994, 1998, 2002
United Kingdom	1983, 1987	1970, 1974, 1974, 1979, 1992, 1997, 2001, 2005, 2010

country affect turnout. In other words, turnout should be higher in a given election that includes a PEC than at an election without a PEC within the same country. Thus, the main predictive value of PECs should be on changes in turnout between elections within a given political system. By contrast, the presence of a PEC (or the relative frequency of PECs) does not explain cross-national differences in turnout, as those are the result of other institutional and socioeconomic factors that vary across states.

Alternative perspectives would suggest that there should be no relationship between the presence of a PEC and voter turnout. It is possible that PECs do not increase the decisiveness of the election. If voters already anticipate the likely patterns of coalition formation due to historical patterns within their political system (Armstrong and Duch, 2010), then the presence of a PEC may not give voters any clearer understanding of the possible government outcomes. Recent scholarship suggests that voters in multi-party settings can and do vote in order to select a potential coalition (Blais et al., 2006; Duch et al., 2011) or to tilt future policy in a particular direction (Kedar, 2005). However, these studies have not considered or accounted for the effects of PECs on the electoral environment or on the individual decision to vote. Thus, a failure to find evidence that PECs increase turnout would be consistent with the argument that PECs do not inform voters by increasing electoral decisiveness.

## Data and variables

In order to test this paper's research hypothesis, I collect data on 223 parliamentary elections in 19 established democracies between 1970 and 2011 (the data series starts with the first democratic election in Greece, Portugal, and Spain). I build on prior data collection by Golder (2006) and extend her data set on PECs through 2011, adding 2–3 additional elections to each country in the data set. This paper's research design necessitates that there be variation in the presence of PECs within each country across elections, which results in the elimination of several possible country cases in which there were no PECs.<sup>4</sup> This cross-national and temporal coverage of this data set should be appropriate for a hypothesis test that will produce generalizable findings. The data are aggregate, allowing for a test of whether the presence of a PEC increases the overall level of turnout. Table 1 provides a listing of each country and election in the data set as well as whether there was a PEC during that election, and Table 2 provides further information about the mean size and range of PECs and turnout in each country included in this analysis.

The dependent variable is the percentage of registered voters who voted in that election. This measure is preferable to one based on the voting-age population, as the latter incorporates more measurement error by including residents who are not eligible to vote in the denominator (Blais

**Table 2.** Mean and range of pre-electoral coalition vote share and turnout by country.

Country	Mean PEC Vote Share (Minimum, Maximum)	Mean Turnout (Minimum, Maximum)
Austria	19% (0, 89.2)	86.43% (78.5, 92.9)
Belgium	16.85% (1.5, 50.2)	92.31% (89.3, 95.1)
Denmark	20.31% (0, 100)	86.65% (82.8, 88.7)
Finland	7.71% (0, 67.2)	71.69% (65.3, 81.4)
France	79.25% (65.9, 94.8)	71.23% (64.4, 81.3)
Germany	33.67% (0, 56.1)	82.76% (70.8, 91.1)
Greece	14.43% (0, 86.6)	79.52% (70.9, 84.5)
Iceland	3.02% (0, 26.8)	87.99% (83.6, 91.4)
Ireland	26.42% (0, 84.8)	70.98% (62.6, 76.6)
Israel	40.39% (7.3, 75)	75.11% (63.5, 79.7)
Italy	29.14% (0, 96.4)	88.08% (81.4, 93.4)
Japan	3.68% (0, 47.9)	67.39% (59, 74.6)
Netherlands	24.91% (0, 71.3)	80.88% (73.2, 88)
New Zealand	7.14% (0, 48.4)	85.55% (74.2, 93.7)
Norway	37.16% (0, 88.6)	79.42% (75, 84)
Portugal	18.95% (0, 93.4)	71.01% (58.0, 87.5)
Spain	17.79% (0, 48.34)	73.41% (68.1, 79.8)
Sweden	26.36% (0, 92.97%)	86.96% (80.1, 91.8)
United Kingdom	4.79% (0, 25.37)	71.39% (59.4, 78.9)

and Dobrzynska, 1998). The most preferable measure, the percentage of the voting-eligible population (McDonald and Popkin, 2001), is available for only a small number of countries in this analysis, making it impractical. Given these limitations, measuring turnout as the percentage of registered voters is the most appropriate choice.

The main independent variable *PEC* indicates the presence of a PEC during that election campaign. This variable is coded 1 if there was a PEC and 0 otherwise. The coefficient for this variable should be positive and significant. For the purposes of this study, I make one important change to the Golder (2006) data. In Germany, there is in effect a permanent coalition between the Christian Social Union (CSU) (which competes only in Bavaria) and the Christian Democratic Union (CDU) (which competes in the rest of Germany). The presence of this perpetual (during the time coverage of this analysis) coalition makes it impossible to estimate its effect on turnout due to the lack of variation. Moreover, the two parties did not compete electorally during the coverage of these data, so voters never had a choice to vote between those two parties. For the purposes of this study, the CDU and CSU were effectively a single party rather than two parties in a long-standing agreement. As a result, it is inappropriate to code these as cases of PECs. Accordingly, I recode the German data to set all instances of CDU/CSU coalitions as 0, meaning that I only code a German case as 1 if a PEC involving other parties formed.

A second point of interest concerns PECs between minor parties that even in combination have no reasonable chance of forming the government. These PECs generally combine to win only a small portion of the vote (often less

than 10%). Usually, such parties form PECs in order to maximize the chances of overcoming electoral thresholds, rather than to present a potential governing alternative to voters (Golder, 2006; Spoon, 2007). A representative example is the alliance between the Communist Party, Radical Party, and Evangelical People's Party in the 1989 Dutch election, which combined to win 4.1% of the vote. For the purposes of this study, such PECs are less relevant as they do little to clarify the choice of potential governments for voters. Nonetheless, they may still have a minor effect on turnout by encouraging supporters of these small parties to vote in the hopes of winning seats and potentially increasing bargaining power in future coalition negotiations. PECs between parties commanding a larger share of the vote are more likely to increase the perceived decisiveness of the election and should have the greatest effect on turnout. To distinguish between these different types of PECs and their potential effects on turnout, I estimate models using several different measures of PECs. The basic measure is coded 1 if there is any PEC in that election campaign and 0 otherwise. A more restrictive measure is coded 1 only if the participating parties combine to receive 20% of the national vote.<sup>5</sup> I also measure PECs as the percentage of the vote received by all PECs in the election. Finally, I estimate a model in which PECs among parties receiving less than 40% (*Small PEC*) of the vote are distinguished from those receiving 40% or more (*Large PEC*). Using these various measures of PECs should increase confidence that any observed relationship between PECs and turnout is robust to different measurement strategies. As shown in Table 1 and Table 2, PECs occurred in about 47% of all elections in the sample, though this percentage drops to 32% respectively if one considers only those with over 20% of the national vote. PECs were a more common feature of the political landscape in some of the countries examined here than in others (see Golder (2006) for an examination of these differences), though there is sufficient variance (particularly when the restrictive measures are applied) to estimate the effect of PECs on turnout.

I include a number of control variables to account for the wide variety of other factors that have been shown to influence changes in voter turnout within countries. Given the importance of arguments about the conditional effects of electoral system proportionality and the party system, I include variables measuring each. *PR* is coded 1 if the election was held using PR electoral rules and 0 otherwise. *Plurality* is coded 1 if the election is held using single-member district plurality electoral rules, and 0 otherwise.<sup>6</sup> *Disproportionality* measures the degree of electoral disproportionality in that election (i.e. the difference between vote share and seat share for each party in an election) using Gallagher's (1991) least-squares formula. Blais and Dobrzynska (1998) suggest that disproportionality only affects turnout under proportional electoral rules, so I also include an interaction term between *PR* and

**Table 3.** Descriptive statistics.

Variable	Mean	Standard Deviation	Minimum	Maximum
Turnout	80.10	8.92	58.0	95.1
PEC	0.52	0.51	0	1
PEC > 20%	0.34	0.48	0	1
Vote % of PECs	22.41	30.50	0	100
Small PEC	0.23	0.42	0	1
Large PEC	0.28	0.45	0	1
Parties	4.40	1.64	2.27	10.29
PR	0.83	0.37	0	1
Disproportionality	4.84	4.39	0.41	23.39
Plurality	0.20	0.40	0	1
Closeness	9.42	7.25	0	32.19
Economic Growth	2.12	2.58	-7.12	12.15
Income	17816.06	9400.81	7.77	40584.24

*Disproportionality* to account for this possibility. Following the literature, I expect that the presence of PR electoral rules should increase turnout, but increased electoral disproportionality should decrease turnout. If the effect of disproportionality exists only or is greater within PR systems, then the interaction term should be negative. To account for the effect of multipartism, I measure the effective number of electoral parties (Laakso and Taagepera, 1979) in that election. I expect that this variable (*Parties*) will be negative.

I control for the closeness of the election, which has consistently been shown to affect turnout (Blais, 2006; Geys, 2006). *Closeness* is calculated as the gap in the national vote share between the largest and second-largest parties in that election. Closer elections should stimulate higher turnout, meaning that *Closeness* should have a negative coefficient. However, the closeness of the election may only matter in single-member district elections (Franklin, 2004). To account for this possibility, I include an interaction term between *Closeness* and *Plurality*. I expect that the interaction term should be negative, indicating that a wider gap between the vote shares of the first two parties decreases turnout in single-member district systems.

Two variables control for important socio-economic factors. *Economic Growth* measures the country's annual GDP growth rate in the year of the election. Prior studies have suggested a relationship between the state of the economy and turnout, though this effect may be moderated by other institutional or policy factors (Taylor, 2000; Tillman, 2008). *Income* measures the national GDP per capita in the year of the election. Higher income levels may increase turnout by providing citizens with more resources to participate in politics (Blais, 2006: 116–117).

This combination of variables provides reasonable control of confounding factors shown to influence turnout in previous studies. Importantly, it includes variables relating to the socio-economic environment, political institutions,<sup>7</sup> and the electoral context. Descriptive statistics appear in Table 3.

## Analysis and results

Cross-national studies of voter turnout vary in their analytical focus. Many early studies sought to explain differences in average turnout levels across countries (e.g. Blais and Carty, 1990; Jackman, 1987; Jackman and Miller, 1995; Powell, 1986). The present study seeks to explain change in turnout within a country across elections, as the hypothesis is that the presence of a PEC in an election raises turnout compared with other elections in that country without a PEC. However, there is no reason to expect that the presence of a PEC predicts cross-national differences in turnout. Thus, this study attempts to explain within-country differences in turnout rather than between-country differences.

The best choice given this analytical focus is the fixed-effects regression estimator. In this estimation technique, the values on each variable at each election are treated as deviations from the country mean, with the coefficients showing the effect of each independent variable in explaining these deviations in the dependent variable. This technique mitigates the potential for bias in estimates resulting from unobserved differences between countries (Green et al., 2001; Hsiao, 2003), making it is an appropriate technique for studying the dynamics of turnout change (Franklin, 2004). The fixed-effect regression estimator eliminates the need to include variables that are constant within countries over time, as these would drop out of the model due to a lack of variation within each country panel. Instead, the effect of these institutional variables are effectively captured within country fixed effects, and thus do not bias the results presented here. Thus, I do not include many institutional variables normally found in cross-national studies of voter turnout. The most prominent excluded institutional variable is the presence of compulsory voting laws, which have been shown to increase turnout by up to 15 percentage points relative to countries with no such laws (Blais, 2006). As a result, the only institutional variables included in the model are those that are interacted with dynamic variables, creating the variation necessary for their inclusion.

The results of the fixed-effects analysis are presented in Table 4. I present estimates drawn from a baseline model including only control variables followed by four models using different measures of PECs. In each model, I estimate Huber–White robust standard errors clustered by country to account for heteroskedasticity.

Model 1 presents the results of a baseline model including all of the control variables but no measure of PECs for reference. The main results of interest are presented in Models 2–5. Model 2 includes *PEC*, which is coded 1 for any instance of a PEC in that election campaign. The coefficient for *PEC* is positive and significant, which is consistent with the paper's research hypothesis that the presence of a PEC stimulates higher turnout. The coefficient of 1.64

**Table 4.** Fixed-effects regression results.<sup>a</sup>

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
PEC		1.64 <sup>b</sup> (.682)			
PEC > 20%			2.29 <sup>b</sup> (.923)		
Vote % PEC				.038 <sup>b</sup> (.017)	
Small PEC					.458 (1.03)
Large PEC					2.20 <sup>b</sup> (.940)
Parties	−1.31 <sup>b</sup> (.444)	−1.32 <sup>b</sup> (.446)	−1.27 <sup>b</sup> (.437)	−1.28 <sup>b</sup> (.450)	−1.23 <sup>b</sup> (.462)
Disproportionality	.080 (.159)	.112 (.171)	.137 (.188)	.178 (.197)	.132 (.188)
PR	4.27 (2.72)	4.88 <sup>c</sup> (2.74)	5.25 (3.06)	6.31 <sup>c</sup> (3.47)	5.21 (3.07)
PR × Disproportionality	−.785 (.565)	−.745 (.557)	−.821 (.578)	−.845 (.578)	−.831 (.609)
Plurality	−3.99 (2.53)	−4.19 <sup>c</sup> (2.23)	−4.55 <sup>b</sup> (2.06)	−4.37 <sup>b</sup> (1.84)	−4.62 <sup>b</sup> (1.91)
Closeness	.056 (.086)	.054 (.083)	.067 (.087)	.095 (.090)	.071 (.090)
Plurality × Closeness	−.193 (.168)	−.225 (.166)	−.211 (.164)	−.249 (.157)	−.195 <sup>c</sup> (.159)
Economic Growth	.188 (.135)	.166 (.133)	.163 (.133)	.137 (.140)	.175 (.136)
Income	−.769 <sup>c</sup> (.428)	−.705 (.413)	−.669 (.424)	−.701 (.424)	−.679 (.425)
Constant	90.05 <sup>b</sup> (3.56)	89.96 <sup>b</sup> (3.49)	88.18 <sup>b</sup> (4.06)	87.18 <sup>b</sup> (4.37)	88.20 <sup>b</sup> (4.04)
Observations	226	226	226	222	226
R <sup>2</sup>	0.24	0.26	0.28	0.28	0.27
F	46.27 <sup>b</sup>	45.52 <sup>b</sup>	33.91 <sup>b</sup>	48.43 <sup>b</sup>	34.88 <sup>b</sup>
Rho	0.78	0.78	0.79	0.78	0.78

<sup>a</sup>Cell entries are fixed-effects regression coefficients with standard errors in parentheses.

<sup>b</sup> $p < 0.05$ .

<sup>c</sup> $p < 0.1$ , two-tailed test.

provides a straightforward interpretation that the presence of a PEC increases turnout by 1.64 percentage points on average relative to elections in that country without a PEC. One might object that this is not a substantially large effect. However, it is important to remember that the mean turnout in this study's sample is slightly more than 80%, so an increase in turnout of 1.64 percentage points is equivalent to more than 5% of the non-voters on average turning out to vote.

Models 3–5 present estimates using alternative measures of *PEC*. Model 3 presents the results when *PEC* is restricted only to those cases in which the participating parties received more than 20% of the national vote. The results hold up from Model 2, and now the coefficient is slightly larger at 2.29. This finding shows that the positive effect of PECs on turnout is slightly stronger for larger PECs, which is consistent with the argument that PECs stimulate turnout by increasing the decisiveness of the election. Model 4 presents the results when the *PEC* is modeled directly as its vote share. The coefficient of 0.036 indicates that the presence of a PEC obtaining 50% of the vote would raise turnout by about 1.8 percentage points, which is slightly smaller but consistent with the findings from Model 3.

Model 5 presents an analysis with two dummy variables, the first indicating small PECs (those with less than 40% of the vote) and large PECs (those with more than 40% of the vote). If PECs increase turnout by increasing electoral decisiveness, then there should be a considerable difference in the effect of PECs that are large enough to obtain a parliamentary majority compared with those that are not. The variable measuring large PECs should have a larger substantive effect on turnout while smaller PECs should little

or no effect. The results of Model 5 show that the large PECs have a bigger effect on turnout than relatively small PECs. While the presence of a small PEC does not have a significant effect, the presence of a PEC that is large enough to pose as a genuine government alternative increases turnout by over 2 percentage points. This finding provides further evidence that PECs increase turnout by increasing the decisiveness of the election.

### Robustness tests

The analyses thus far generate results consistent with the paper's hypothesis that the presence of a PEC increases turnout. However, there are various potential confounding factors that should be considered before accepting the results. To probe this finding further, I conduct three further analyses as a robustness check. If the results presented in Table 4 remain in these robustness checks, then it increases our confidence in this paper's findings. The results of these robustness tests are presented in Table 5.

The first test examines whether the inclusion of the French cases affects the results. There are conceptual and empirical reasons to expect that France could be an outlier. France is unusual in that every election included at least one PEC, and many elections included more than one PEC. The frequency of PECs in France is a result of its majority run-off electoral system, which creates strong incentives for a wide range of parties to cooperate electorally and run joint candidacies (Golder, 2006; Spoon, 2007). Because of these strong incentives, France may produce unusual results. Accordingly, I re-estimate the model presented in



**Table 5.** Robustness tests.

Variable	Model 1	Model 2	Model 3
PEC	1.39 <sup>a</sup> (.657)	1.27 <sup>b</sup> (.612)	1.37 <sup>a</sup> (.644)
Parties	-1.47 <sup>a</sup> (.487)	-1.20 <sup>a</sup> (.554)	-1.21 <sup>a</sup> (.469)
Compulsory Voting	—	—	11.11 <sup>a</sup> (4.29)
Disproportionality	.234 (.203)	-.006 (.217)	.097 (.160)
PR	4.41 (2.72)	5.57 <sup>b</sup> (3.12)	6.89 <sup>a</sup> (2.92)
PR × Disproportionality	-1.10 <sup>b</sup> (.583)	-.893 (.593)	-1.04 <sup>a</sup> (.525)
Plurality	-3.78 (3.04)	-4.96 <sup>a</sup> (2.15)	-1.95 (2.27)
Closeness	.110 (.074)	.054 (.088)	.072 (.079)
Plurality × Closeness	-.190 (.156)	-.183 (.169)	-.290 <sup>b</sup> (.149)
Economic Growth	.122 (.134)	.191 (.134)	.164 (.134)
Income	-.550 (.356)	-.755 <sup>b</sup> (.441)	-.471 (.327)
Constant	88.87 <sup>a</sup> (4.17)	88.88 <sup>a</sup> (4.26)	83.21 <sup>a</sup> (4.57)
Observations	215	226	226
R <sup>2</sup>	0.28	0.24	0.22
F	894.23 <sup>a</sup>	408.60 <sup>a</sup>	276.62 <sup>a</sup> (Wald Chi-2)
Rho	0.79	0.77	0.65

<sup>a</sup>*p* < 0.05.<sup>b</sup>*p* < 0.1, two-tailed test.

Table 3, Model 2 without the French cases. The coefficient for *PEC* is substantively unchanged when the French cases are excluded, reducing concern that the unique nature of the French case drove the observed results.<sup>8</sup>

The second robustness check uses an alternative measure of the party system. Whereas the main analyses in Table 4 use a measure of the effective number of electoral parties, a measure of the effective number of parliamentary parties may be more appropriate. This latter indicator only measures those parties actually in the national legislature, which is possibly more relevant to voters when they consider their electoral options. By contrast, the measure of electoral parties can generate a relatively larger number if a disproportional electoral system causes a party that obtains a large number of votes to obtain very few parliamentary seats. This analysis is presented in Model 2. Although the results of the model are slightly weaker than in Table 4, *PEC* remains positive and significant with the coefficient only changed slightly.

Another potential concern in the analyses presented above is the omission of key institutional variables. I examine whether the results are robust to the inclusion of a dummy variable indicating the presence of compulsory voting laws is included. Though a conceptual link between compulsory voting and *PECs* is not clear, it may be that the effect of *PECs* on turnout disappears when this crucial institutional variable is included. Compulsory voting is measured as a dummy variable that is 0 in the absence of such laws and 1 when such laws exist. Including this variable requires an alternate estimation strategy, as it variable drops out of the fixed-effects model due to the fact that it is constant in each country over time in this sample. Accordingly, I estimate a random-effects regression model. The results in Model 3 show that *PEC* continues to have a positive, significant

effect even when compulsory voting laws are included in the model. The coefficient for this latter variable of 10.06 suggests that the presence of compulsory voting laws increases turnout by roughly 10 percentage points, a finding consistent with other studies (Blais, 2006). This result should increase confidence that this paper's findings are not simply the result of omitted institutional variables.

In summary, the analyses find support for the hypothesis that *PECs* increase turnout. This effect is robust to several alternative measurement strategies and model specifications. The finding that *PECs* accounting for a larger share of the vote have a significant effect on turnout while small *PECs* do not provides further evidence in support of the hypothesized relationship between *PECs* and turnout. In short, the evidence suggests that *PECs* increase the decisiveness of the election by clarifying the set of possible post-election outcomes, which in turn increases voters' incentives to participate in the election.

## Discussion

This paper tests two hypotheses about the effect of *PECs* on voter turnout. An analysis of 223 legislative elections in 19 advanced democracies generates support for the first hypothesis, suggesting that the existence of a *PEC* increases turnout by more than 1.5 percentage points, and by a greater amount if one considers only electorally large *PECs* that may have the most effect upon the decisiveness of the election. The remainder of the paper considers the implications of these findings and suggests directions for future research.

Research on comparative voter turnout has produced conflicting findings. Higher levels of electoral proportionality appear to increase turnout by giving voters more incentives to vote, but multipartism (which is one common

result of proportional electoral systems) tends to reduce turnout, apparently because it reduces electoral decisiveness and leads to greater uncertainty about the identity of the future government. However, it is still unclear as to whether these proposed explanations are correct (Blais, 2006). This paper examined the effect of PECs on turnout as a test of the decisiveness argument. The findings that PECs increase turnout and that their effect increases for larger PECs is consistent with the decisiveness explanation. This result improves our understanding of the sources of voter turnout and brings us closer to an understanding of these conflicting findings about proportionality, multipartism, and turnout. In a broader sense, evidence that certain features of elections can increase turnout is important, given the broader democratic problems created by unequal political participation (Lijphart, 1997).

This paper's findings also contribute to broader debates about institutional design and democratic representation. PR electoral systems are more compatible with consensus democracy, which apparently produces desirable outcomes, such as closer congruence between voters and governments (Powell, 2000), greater satisfaction with democracy (Anderson and Guillory, 1997), and an overall "kinder, gentler" democracy (Lijphart, 1999). That multipartism—typically a by-product of PR—tends to reduce turnout indicates a potential tradeoff to proportional electoral systems. This set of findings about PR, multipartism, and turnout highlights a fundamental tradeoff in questions of institutional design. This paper's finding that PECs increase (or at least mitigate the decline in) turnout suggest that it may be worthwhile to identify certain institutional settings that promote the formation of PECs and other arrangements that maintain proportionality while promoting electoral decisiveness. Indeed, Golder (2006: 138) suggests that PECs may allow for a combination of the "best elements" of the majoritarian and consensus visions of democracy (Lijphart, 1999; Powell, 2000). The results presented here appear to be consistent with that argument, and

should motivate research into other possible institutional arrangements that could produce similar outcomes.

This paper's findings are consistent with the view that dynamic elements of the electoral context have an important marginal effect on turnout. Previous studies have identified institutional arrangements (Blais and Carty, 1990; Blais and Dobrzynska, 1998; Jackman, 1987) and dynamic elements that alter electoral decisiveness (Blais, 2000; Franklin, 2004; Franklin and Hirczy de Mino, 1998). This paper's findings are consistent with this body of work, suggesting that the character of the election (in this case, the potential set of coalitions that could result from the election) has a fairly substantial impact on voter turnout. This paper's findings also speak to debates about methods of increasing electoral turnout. Many electoral reforms seek to increase turnout by making voting "easier" (e.g. postal voting), or by inculcating the habit of voting by lowering the voting age to 16 (Franklin, 2004). While this paper's findings do not dispute the value of those efforts, they highlight the point that citizens are more likely to vote when they consider elections to be important and to offer them meaningful choices. Efforts to increase electoral choice and clarity are likely to increase voter interest in elections.

Finally, this paper's findings may provide new insights for scholars interested in party choice in multiparty systems. Recent studies have suggested that voters may be able to account for potential PECs (Armstrong and Duch, 2010) and to vote in order to achieve a specific coalition outcome (Duch et al., 2010; Kedar, 2005). By providing greater clarity about post-election outcomes, the presence of PECs may alter voter incentives to support specific parties. Evidence from the 2003 Israeli general election (Blais et al., 2006) and from an experimental study of German regional elections (Meffert and Gschwend, 2011) demonstrates that voters consider potential coalitions when choosing which party to support. Neither study incorporated PECs. Future work should examine the effects of PECs upon the incentive to vote strategically for or against prospective coalition governments.

## Appendix A. Data sources

Variable	Source
Turnout	International Institute for Democracy and Electoral Assistance ( <a href="http://www.idea.int">http://www.idea.int</a> )
PEC	Golder (2006), data from 2003–2011 from various sources
Parties	Various sources; calculated using Gallagher's Election Indices (available at <a href="http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/index.php">http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/index.php</a> ) (Gallagher and Mitchell, 2008)
PR	Golder's "Democratic Electoral Systems Around the World" data set (available at <a href="http://homepages.nyu.edu/~mrg217/elections.html">http://homepages.nyu.edu/~mrg217/elections.html</a> ) (Golder, 2005); updated through 2011 from various sources
Plurality	Golder's "Democratic Electoral Systems Around the World" data set (available at <a href="http://homepages.nyu.edu/~mrg217/elections.html">http://homepages.nyu.edu/~mrg217/elections.html</a> ) (Golder, 2005); updated through 2011 from various sources
Disproportionality	Various sources; calculated using Gallagher's Election Indices (available at <a href="http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/index.php">http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/index.php</a> )
Closeness	Calculated using data provided by Blais and Dobrzynska (1998) and from various sources
Economy	World Bank, World Development Indicators
Income	World Bank, World Development Indicators
Compulsory Voting	International Institute for Democracy and Electoral Assistance ( <a href="http://www.idea.int">http://www.idea.int</a> )

## Funding

I thank Christopher Petro for research assistance and the College of Liberal Arts and Social Sciences at DePaul University for funding this project.

## Notes

1. There is substantial related literature showing that electoral decisiveness affects voter turnout. Turnout is higher in elections in which control of the executive is at stake than in “off-year” elections (Fornos et al., 2004; Franklin and Hirczy de Mino, 1998; Tavits 2009). Voters are less likely to turn out to vote for European Parliament (EP) elections due to the perception that the EP has little institutional power and that its elections do not determine control of the executive at the European level (Reif and Schmitt, 1980; van der Eijk and Franklin, 1996). Institutional arrangements that divide policymaking power between rival branches or levels of government reduce turnout by making elections to any of these branches less decisive (Franklin, 2004; Jackman, 1987). There are dynamic factors that may affect changes in turnout across elections within countries. Turnout rises in response to the closeness of an election (Blais, 2000, 2006; Franklin, 2004; Indridason, 2008) because a citizen is more likely to perceive that her vote could be decisive in a close election. By contrast, voting may seem less worthwhile in an uncompetitive election in which the result appears to be a foregone conclusion. Divided government decreases turnout in the United States relative to periods of single-party control of Congress and the Presidency (Franklin and Hirczy de Mino, 1998). Finally, party cohesiveness positively affects turnout by influencing the degree to which the majority party can actually implement its policy agenda (Franklin, 2004; Powell, 1986). In short, the argument that multipartism decreases turnout by reducing electoral decisiveness is grounded within a much larger body of findings in the comparative study of voter turnout.
2. Parties can also issue anti-coalition statements in which they commit not to govern with a certain party. These typically occur when a mainstream party rules out a coalition with an extremist party (Golder, 2006; Strøm et al., 1994), and they reduce the likelihood of the involved parties governing together (Martin and Stevenson, 2001).
3. Some PECs involve parties running joint lists or candidacies, typically among smaller parties that combine lists in order to overcome formal electoral thresholds. Parties in France’s single-member district system also similarly run joint candidacies across different electoral districts (Golder, 2006). As will be seen below, the results are robust to the exclusion of French data points or the exclusion of PECs between parties receiving small shares of the national vote.
4. Elections before 1970 are not included due to the lack of necessary control variables.
5. I also estimated models in which the restriction was set other values such as 10% or 30%, and found no substantively interesting differences in the results. Of course, this is a measure based on the post-election result, but presumably voters would

be sufficiently aware of the relative vote potential of each party or PEC for this measure to be meaningful.

6. Mixed electoral systems employing both single-member plurality districts and PR are coded as 1 for both variables because both variables are used in interaction terms that incorporate elements of each electoral system type.
7. As explained in the next section, variables for certain institutional variables such as compulsory voting laws are not included in the fixed-effects regression presented below because they do not vary across time within countries. Alternative analyses including these variables using other methods (see Table 5, Model 3) found that these institutional variables increase turnout as expected, but *PEC* remains positive and significant.
8. I also tested whether five cases that featured two or fewer elections either with (Finland, Japan, and the UK) or without (Belgium and Norway) a PEC had an effect on the results. It could be argued that, when PECs are so common (or so rare), the absence (presence) of one indicates something unusual about the political context—such as a crisis—that might independently affect both the presence of a PEC and turnout. By estimating the models presented in Table 4 without these cases, I can examine whether they had an effect on the results. They did not.

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