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ELECTING THE FIRST PARLIAMENT

Party Competition and Voter Participation in Scotland

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ABSTRACT

Theory regarding turnout in elections suggests that voters are more likely to vote when their vote could be decisive. The article provides a generalized test of the relationship between the likelihood of turning out and the closeness of elections. Data are single-member district (first-past-the-post) and regional (party list) constituency-level results from the Scottish Parliament election of 1999. Scotland provides an excellent case because the 1999 Scottish Parliament was elected using a combination of single-member districts, plus an additional member, regional list alternative vote system. In addition, the Scottish Parliament election was characterized by regional, multiparty competition. Controlling for other factors, the article finds that closeness counts and relates to higher levels of voter participation in the Scottish Parliament elections. This finding holds for single-member district (first-past-the-post) constituencies and additional member regional lists.

KEY WORDS ■ electoral competition ■ Scottish Parliament ■ voter turnout

In 1999, Scottish voters went to the polls for the first time to elect a Scottish Parliament. Although Scotland had a legislative body prior to the Treaty of Union of 1707, the new Parliament created in 1999 was the first democratically elected Scottish Parliament. Elections to the Scottish Parliament featured a deviation from the single-member district-plurality system (SMD-P) familiar to Scottish voters from other electoral contests. Instead, voters selected Members of the Scottish Parliament (MSPs) using an additional member system (AMS). Because AMS tends to deny any party an overall majority of seats in a legislature, the selection of AMS for the Scottish Parliament reflected an attempt to induce an era of coalition government and

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consensus policy-making in Scotland to contrast with the confrontation style prevalent at Westminster (Myles, 1999). Moreover, the choice of AMS reflects, according to Myles, recognition of the degree of multiparty competition that existed in Scottish local elections and in Scottish constituencies for the British Parliament. The AMS was designed to induce proportionality in the vote-to-seat ratio of Scottish Parliament elections.

Although the recognition of multiparty competition might be considered important, a more fundamental issue is the relationship between electoral competition and turnout under the new electoral system. Research on marginality, or closeness, of an electoral contest and turnout is based, in part, on Anthony Downs' (1957) work on electoral competition. According to Downs' economic model of voting, an individual voter casts a ballot in an election when the personal costs of casting a ballot are less than the personal benefits associated with casting the ballot. Because the probability of casting the deciding ballot is low, citizens derive little personal benefit from the act of voting. Citizens should choose to stay at home rather than incur the cost of casting a ballot, including travel to the polling place, the voter registration process, the potential loss of wages, the cost of gathering information, and so on. Therefore, a paradox exists; citizens who should rationally stay at home actually do show up in large numbers during an election, and participate at levels far higher than might be suggested by the Downsian equation.

Two possible solutions emerge in the literature. Riker and Ordeshook (1968) adapt Downs' model form to incorporate the concept of civic duty. Civic duty, essentially a psychological benefit from voting, refers to the obligation that citizens of a democratic society feel to participate in political life, including the act of voting. These psychological benefits, according to Riker and Ordeshook, are independent of the tangible benefit of casting the deciding ballot. However, the likelihood of casting the deciding ballot remains very small, so any civic duty component of the equation must be quite large to produce a net benefit of voting large enough to exceed the cost of voting. A second solution is found in Schwartz (1987). Schwartz relies upon other reasons beyond electoral competitiveness to explain voter turnout; other institutional pressures encourage voter participation beyond merely determining the winner of a race. Yet, Aldrich (1993) suggests that these criticisms of Downs' model may be overly narrow. In either case, the Downsian model still holds; electoral contests that are perceived to be close by the voters should produce higher rates of turnout, *ceteris paribus*. Moreover, this relationship should hold, regardless of the number of parties or candidates in the electoral contest.

At aggregate levels, such as electoral districts, higher rates of turnout may reflect mobilization efforts by political elites. Elites, aware of the probability of a close race at the district level, encourage supporters to vote when a higher turnout of their partisans is critical to electoral success (Aldrich, 1993; Caldeira and Patterson, 1982; Cox and Munger, 1989; Uhlaner,

1989). Efforts at mobilization including campaign expenditures on advertising as well as activities such as door-to-door canvassing are therefore aimed at energizing the party's or candidate's basis of support. Thus, closer electoral races should still produce higher turnout.

Although some studies of the Downsian model rely on individual-level data (Irvine, 1976; Pattie and Johnston, 1998), survey research on voting behavior in Britain often contains over-reporting of turnout by survey respondents (Swaddle and Heath, 1989). Furthermore, election districts may be the appropriate level of analysis for the link between electoral competition and turnout (Eagles, 1991: 4–7). Therefore, this study follows much of the literature on closeness in British elections and other political systems. Aggregate-level data are utilized.

The literature on turnout in British elections suggests that marginality, or closeness, at the level of the electoral constituency is strongly related to level of turnout. In their seminal work, Denver and Hands (1974) demonstrate the relationship between marginality and turnout in British elections. Subsequent work by these authors and their colleagues (Denver and Hands, 1985, 1997; Denver and Halfacree, 1992) confirm the relationship between marginality, as a measure of electoral competition, and turnout. In addition, attempts to explain turnout relying on sociological factors such as social class cohesion, housing tenure, etc., often include marginality (Lutz, 1991; Whiteley et al., 2001); such tests produce results favourable to an independent association between marginality and turnout in British elections. In a similar vein, research on English local elections provides evidence for the hypothesized relationship between marginality and turnout (Newton, 1972; Pimlott, 1973; Rallings and Thraser, 1990). Generally, the more marginal an electoral contest, the higher the rate of turnout, but what about the Scottish Parliament?

The relationship between the dependent variable, voter turnout, and the key independent variable, closeness of the race, depends in part on the methods through which each of these two variables is measured. In this study, the focus is on the 1999 election for the Scottish Parliament. The dependent variable is voter turnout. The primary independent variable is the closeness of the race between parties or candidates running for election to the Scottish Parliament. The unit of analysis is the electoral constituency. In this article, conclusions are drawn about elections, not individual voters.

Measuring Turnout and Closeness

Turnout (t) is the ratio of the number of voters who cast ballots in an election to those citizens who are eligible to vote. For any particular election district, voter turnout is defined by $t_j = v_j/r_j$, where j is the election district, v_j is the total number of ballots cast in the election district, and r_j is the

number of electors (either registered voters or age-eligible citizens) in the election district.[1]

The literature on closeness and turnout in elections contains a number of definitions of 'closeness'. Most often used in the context of British elections is marginality. Depending on the operational definition of marginality, this measure of closeness corresponds to either two-party margin or multiparty margin. Two-party margin is the difference between the first and second place parties divided by the sum of the voters for the first and second place parties, $(v_1 - v_2)/(v_1 + v_2)$, where v_1 is the total votes for the first-place party in an election district and v_2 is the total votes for the second-place party in the election district. Obviously, this measure of closeness considers only the top two parties (or candidates) in a given race. While this measure seems reasonable in a strict, two-party system of single-member districts, elections to the Scottish Parliament may not be the most appropriate environment for two-party margin. For example, Black (1978) suggests that the multiparty environment of Canada requires a different model of electoral competition.

An alternative, multiparty margin, incorporates the summation of votes across all parties in the constituency in the denominator, while retaining the difference between the first-place and second-place parties in the numerator, $(v_1 - v_2)/\sum(v_i)$, where v_1 is the total votes for the first-place party, v_2 is the total votes for the second-place party, and $\sum(v_i)$ is the total votes across all parties in the election district. This measure seems superior to two-party margin in a multiparty electoral environment such as the Scottish Parliament because multiparty margin allows for competition among the entire range of parties. Moreover, multiparty margin accounts for the dynamics of voter choice, either sincere or strategic voting.

Common in some of the literature on British elections is the use of previous marginality, either two-party or multiparty (Denver and Hands, 1974, 1985, 1997; Mughan, 1985; Pattie and Johnston, 1998). Previous marginality calculates the closeness of the race using election results from the previous election; typically such tests examine the relationship between previous marginality and the turnout rate from the current election. While previous marginality may be attractive at first glance, there are two reasons for rejecting the use of previous marginality in this study. In terms of theoretical robustness, Ferejohn and Fiorina (1974) suggest that voters' evaluation should be made in the context of an ongoing election. Party and elite activities to boost (or lower) turnout among their constituents occur in the current campaign. Calculating marginality using the previous election ignores the contemporary campaign completely. On a more practical issue, the Scottish Parliament election of 1999 is the first such election; no previous election exists. Given the relatively similar boundaries of the single-member districts for the British House of Commons and the Scottish Parliament, marginality might be calculated using results from the previous election to the British Parliament. However, this strategy ignores the fact

that the election to the Scottish Parliament is a different type of election in terms of level of government, electoral rules and campaign dynamics.

At least two additional measures of closeness may be employed. Cox (1988) offers raw vote margin, measuring the difference between the first-place and second-place parties, $(v_1 - v_2)$. In his critique of two-party margin, Cox suggests that two-party margin, and by default multiparty margin, produces spurious relationships between closeness and turnout, given that the numerator in turnout is highly correlated to the denominator in closeness. However, the raw vote margin again assumes a two-party election contest. Moreover, raw vote margin implicitly assumes the equal size of election districts. A measure of closeness must account for the differences in size of election district because the overall level of turnout and closeness is determined in part by the total number of electors in the election district. In the case of the Scottish Parliament, electoral districts (constituencies) range in size from 15,629 to 66,697 registered voters; thus, the largest district is more than four times the size of the smallest.

A final measure of closeness is the competitiveness index,[2] $c_{kj} = k^k \prod_{i=1}^{k} p_{ij}$, where k is the number of parties and p_{ij} is the proportion of votes received by the ith party in the jth electoral district. The competitiveness index incorporates all the k_j parties within each constituency. The competitiveness index is bounded by zero (in which case the party in kth place receives no votes) and one (when each of the k parties receives a share of votes equal to $1/k$), so that the more competitive the election contest, the larger the value of the competitiveness index. In addition, altering the number of parties in the calculation of the competitiveness index results in different values for the index. As a result, a two-party, three-party, or n-party index is possible.

Aside from the ability to incorporate the dynamics of a multiparty electoral environment, the competitiveness index shares with multiparty margin the inclusion of voter dynamics through sincere or strategic voting. However, the focus here is not on developing and testing the superior method of measuring closeness, but instead on the relationship between marginality and turnout in the Scottish Parliament election. Therefore, multiple measures of closeness will be developed to test the relationship between closeness and turnout.

The Scottish Electoral Environment

The elections to the Scottish Parliament offer an excellent opportunity to test the relationship between voter turnout and the closeness of an election in a multiparty system. Members of the first Scottish Parliament, elected in 1999, were selected through a two-ballot AMS. Some Members of the Scottish Parliament (MSPs) are elected by plurality vote within single-member districts. A total of 73 such seats exist; these seats are the same constituencies that Scottish voters use to select members for the British

Parliament in London, with one exception. The constituency of Orkney and Shetland for the British Parliament is divided into two constituencies of the Shetland Islands and the Orkney Islands for the Scottish Parliament.

An additional 56 members are selected by proportional representation from regional lists. For elections to the Scottish Parliament, Scotland is divided into eight regions. Each region contains between eight and ten of the single-member district seats, and each region selects seven additional members for the Scottish Parliament. Candidates for these regional seats are selected by each party; the party lists are drawn up by the parties in order of preference, so that candidates from the top of the list are elected before candidates near the bottom of the list. Candidates may stand for single-member district seats and party list seats. If a candidate is elected from a single-member district seat, his or her name is removed from the regional list.

Each voter, therefore, casts two ballots, one for a single-member district seat and one for a party list. To prevent confusion over the ballots, voters received two different coloured ballots. The final distribution of seats is determined for the party list ballots, and seats won via single-member districts are deducted from the party's total. Thus, the more seats that a party wins by single-member districts reduces the number of list seats it receives. The party list seats were apportioned using the d'Hondt system widely used across Europe, including in the Northern Ireland Assembly in the United Kingdom. The selection of the d'Hondt method, and the AMS, is, in general, aimed to compensate parties that do well in constituency-based elections but fail to win many seats.

By the time of the 1999 elections to the Scottish Parliament, the Scottish electoral environment had undergone massive changes since 1974. In 1974, the Scottish National Party achieved success in electing members to the British Parliament for the first time. Moreover, support for the Conservative Party in Scotland at the local and national (British) level of government began to erode; the Labour Party and the Scottish National Party benefited from the collapse of the Conservative Party in Scotland. By 1997, the election to the British Parliament, a landslide for Tony Blair's New Labour throughout the United Kingdom, saw the Labour Party winning 56 of Scotland's 72 seats, or 77.8 percent of the Scottish seats in the British House of Commons. However, Labour received only 45.6 percent of the popular vote in Scotland. The performance in Scotland of the Liberal Democrats was similar to previous elections, and the Scottish National Party won a total of 6 seats (8.3 percent of seats), yet the SNP received 22.1 percent of the popular vote and finished in second place in many constituencies. More importantly, the Conservative Party lost all 11 seats it held; the Conservatives were completely eliminated from Scotland despite winning 17.5 percent of the popular vote in Scotland.

As part of the Labour Party manifesto, the Blair government introduced legislation to conduct a referendum on devolution in Scotland. To pass, the items on the referendum ballot needed only a simple majority of the votes

cast.[3] On 11 September 1997, Scottish voters went to the polls to answer two referendum items. The first asked whether Scottish voters wanted to devolve selected powers from the British Parliament in London to a Scottish Parliament. On a 60.4 percent turnout, Scottish voters overwhelmingly approved the proposal for a Scottish Parliament; the 'yes' side won almost 75 percent of the votes cast. The second item asked whether the Scottish Parliament should be given taxation powers; 63.5 percent of the votes cast in the referendum were in favour of the taxation power.[4] During the campaign for the referendum, the Scottish Labour Party advocated devolution, consistent with party positions throughout the 1990s. The Liberal Democrats, who had long been proponents of devolution, joined the Labour Party in support of devolution. For the Scottish Nationalists, devolution was seen as a step toward an independent Scotland. Of the four major parties, only the Conservative Party in Scotland spoke against devolution.

The Scotland Act of 1998 created the modern Scottish Parliament. The Scottish Parliament exercises control over a wide range of policies including education, environmental policy, economic development, local government and health policy. Schedule 5 of the act reserves several areas of policy as the exclusive domain of the British Parliament in London; these areas encompass foreign policy, defense and security policy, financial and economic policy, immigration/citizenship policy and social security.

On 6 May 1999, the historic first election to the Scottish Parliament occurred. The Labour Party performed quite well in the single-member district seats, capturing 53 of 73 seats. The Scottish Nationalists picked up 7 of the seats, and the Liberal Democrats won 12 seats. An independent candidate, a former Scottish Labour Party member, also won a single-member district seat. Labour achieved this victory winning only 38.7 percent of the total Scottish vote for the single-member district seats.

The distribution of seats resulting from the AMS, in making the final allocation of all seats more proportional, denied the Labour Party an overall majority. Of the additional member seats, Labour picked up three more seats, for a total of 56 seats. The Scottish National Party received an additional 28 seats, while the Liberal Democrats won an additional five seats. Two seats went to individuals from 'minor' parties: the Scottish Socialist Party and the Green Party. The Conservative Party, unable to win any of the single-member district seats, won 18 additional member seats. In the final tally of seats, Labour had 56, or 43.4 percent of all seats, followed by the Scottish National Party with 35 seats (27.1 percent of seats). The Conservatives finished with the third largest total of seats, at 18 (14.0 percent of seats), and the Liberal Democrats held 17 seats (13.2 percent). As a result, the Labour Party ultimately formed a coalition government with the Liberal Democrats.

To be eligible to vote in the elections for the Scottish Parliament, the qualifications are the same as the qualifications for other elections in Scotland. The registration process is uniform throughout Great Britain;

Table 1. Party composition of the Scottish Parliament, 1999

	First ballot		*Second ballot*		*Total*	
Party	*Seats*	*Votes (%)*	*Seats*	*Votes (%)*	*Seats*	*Seats (%)*
Labour Party	53	38.7	3	33.6	56	43.4
Scottish National Party	7	28.7	28	27.3	35	27.1
Conservative Party	0	15.6	18	15.3	18	14.0
Liberal Democratic Party	12	14.2	5	12.4	17	13.2
Others	1	2.7	2	11.3	3	2.3

Source: BBC (1999).

registering to vote qualifies the voter to vote in all elections held in their community. Voter registration is by postcard; each household receives a registration form annually. Forms are returned to the registration officer in each constituency for the British House of Commons. Although returning the form is a legal requirement, some households fail to return the forms. Follow-up mailings and in-person visits are conducted. The forms are returned by 10 October throughout Great Britain; the voter registry takes effect the following February. The franchise is universal suffrage for all citizens 18 years of age. Absentee voting is allowed by filling out an application from the local election returning officer by a specified date before the election. Absentee voting is either by mail or by proxy; in the latter case, the applicant designates a person to vote in his or her behalf. Scottish residents living oversees are not eligible to vote in the election.

Turnout in the Scottish Parliament election of 1999 was 58.1 percent for the first ballot and 58.0 percent for the second. These figures are similar to the turnout for the referendum on the creation of the Scottish Parliament. Moreover, turnout in the election for the Scottish Parliament varied by region of Scotland. Using regions as defined for the regional party list seats for the Parliament, turnout was highest in the South of Scotland region, at 61.7 percent on the first ballot. Similar levels of turnout occurred in several other regions. However, turnout was much lower in the Northeast of Scotland (54.4 percent) and in Glasgow (48.1 percent). Turnout in terms of votes cast for the second, additional member ballot, was similar to the turnout rate for the first ballot.

Closeness and Turnout in the 1999 Scottish Parliament Election

The 1999 Scottish Parliament election is used as a case study to test the relationship between the closeness of an election and voter turnout. Data

Table 2. Voter turnout by region, Scottish Parliament election, 1999

Region	*Turnout – first ballot (%)*	*Turnout – second ballot (%)*
South of Scotland	61.7	61.6
West of Scotland	61.2	61.2
Lothians	61.1	60.8
Highlands and Islands	60.9	60.5
Central Scotland	59.3	59.1
Mid-Scotland and Fife	59.3	59.3
Northeast of Scotland	54.4	54.4
Glasgow	48.1	48.0
All of Scotland	58.1	58.0

for these variables come from election results reported by the BBC after the election and verified from other sources. In addition to voting for the Scottish Parliament, elections for local government councils were held simultaneously. The actual ballot for the local government election was separate from the ballot papers for the Scottish Parliament Election. Voter turnout is the official turnout rate reported by the Scottish Parliament. Turnout is measured as the total number of ballots cast in the single-member district races for the Scottish Parliament divided by the total number of electors (or registered voters) appearing on the official lists of electors. For closeness, the common path found in the literature is followed; closeness is measured from results after the ballots are counted. Table 3 summarizes the bivariate correlations between each 'closeness' measure defined above and voter turnout for the election.

In general, the two-party measures of closeness, two-party margin and raw vote margin, show little relationship to turnout. Although the sign for the relationship between turnout and both raw vote margin and two-party

Table 3. Correlation between closeness and turnout, Scottish Parliament, 1999

	First ballot	
Closeness measure	*r*	*p**
Raw vote margin	–0.08	0.50
Two-party margin	–0.21	0.07
Multiparty margin	–0.26	0.03*
Two-party competitiveness index	–0.27	0.03*
Three-party competitiveness index	0.51	0.00***
Four-party competitiveness index	0.43	0.00**

* Significant at 0.05 or lower. ** Significant at 0.01 or lower. *** Significant at 0.001 or lower.

margin is correct, neither measure of turnout is statistically significant. Multiparty margin shows a relationship to turnout, and the sign points in the correct direction. As the margin between the first-place and second-place parties became closer, turnout increased. However, the competitiveness index performs better than the other measures.

The competitiveness index shows that closeness relates to turnout in a multiparty system. The indices for three-party and four-party competition show strong correlation with turnout. When the third-place and fourth-place parties come close to the share of the first two parties, voter turnout is higher. However, at two parties, the index suggests that competition leads to lower levels of turnout, as indicated by the negative sign. While this is unexpected, the finding that, at the level of two-party competition, turnout declines seems plausible, and suggests that at the level of two parties, the number of effective parties in the Scottish election is not attained. Abstention may have occurred among voters supporting the second-place party when faced with an expected defeat in the single-member district race.

To verify that party competition is maximized at three-party competition in Scotland, the effective number of parties is calculated. The effective number of parties may be measured using the inverse of the Herfindahl index, or $1/\sum (p_i^2)$. While in comparative politics this measure is customarily applied to the effective number of parties in a legislature, here the index is calculated for each of the 73 single-member district constituencies. Table 4 presents the effective number of parties for the single-member district constituencies.

The index for the effective number of parties ranged from 2.03 parties in the constituency of Orkney Islands to 3.97 parties in the constituency of Gordon. The mean number of parties for all of Scotland for all constituencies was 3.10. By rounding the index to the nearest whole number for each constituency, the pattern of competition, in terms of the effective number of parties, in each constituency becomes more apparent. Only six of the constituencies contain two-party competition, accounting for around 8 percent of the constituencies. Approximately 70 percent of the single-member districts (71.2 percent or 52 constituencies) feature three-party competition. Almost one-fifth of the seats (15 constituencies or 20.6 percent) effectively have four-party competition. These results confirm the finding of the competitiveness index that competition in the Scottish Parliament

Table 4. Effective number of parties, single-member district seats, Scottish Parliament, 1999

Effective number of parties	*Constituencies*	*Percent of constituencies*
2	6	8.2
3	52	71.2
4	15	20.6

election is maximized at three parties. The finding that most of the single-member district seats contain three or four effective parties also helps to explain why some of the traditional measures of closeness, such as two-party margin and raw vote margin, do not correlate well with turnout.

Table 5 presents the estimates for OLS regression models predicting turnout using several measures of competition found in the literature. Two-party margin, raw vote margin and multiparty margin appear in separate equations. Another model uses the competitiveness index set at three-party competition. The use of a single measure of competitiveness, set at three-party competition, is justified from the findings above, including the bivariate correlations and the effective number of parties. Based on the bivariate correlations, the three-party competitiveness index held the highest correlation coefficient relative to turnout.

In the OLS regressions, three control variables are added. Data for all three control variables come from the 1995 British Census data for the House of Commons constituencies at the 1997 British General Election, the most recent data available as of this writing.[5] The first variable measures the percentage of the population in each constituency employed in professional or managerial occupations. The second variable measures the percentage of the population employed as skilled, manual workers. Finally, a third variable measures the percentage of the population that rent housing from local councils.[6] The models in Table 5 test for the independent effects of the independent variables on voter participation.

The results confirm the importance of party competition in promoting turnout in the 1999 Scottish Parliament election. However, they also suggest that the traditional measures of party competition, raw vote margin and two-party margin, are not related significantly to turnout. Given the bivariate correlations reported earlier, these findings are not surprising. In addition, multiparty margin lacks significance as well. In contrast, the competitiveness index, set at three parties, is significantly related to higher levels of turnout on the first ballot in the 1999 Scottish Parliament election, as indicated by the sign on the coefficient. The control variables also suggest a demographic basis to turnout, with the variables for percentage of population employed in skilled manual labour attaining statistical significance in all the models. As the percentage of the population employed in skilled manual labour increases, turnout also increases. For the variable measuring council renters, significance is also achieved in all four models. As indicated by the direction of the coefficient, an increase in the percentage of council renters is associated with lower levels of turnout. The percentage of the population in a constituency employed in professional or managerial positions lacks a significant relationship with turnout. More importantly, the effects of three-party competition are independent of demographic characteristics of the constituency.

To incorporate the potential effects of strategic voting, models of turnout in each constituency, including measures of closeness for the single-member

Table 5. Relationship between closeness measures and turnout, Scottish Parliament, 1999

	First ballot							
	b	*t*	*b*	*t*	*b*	*t*	*b*	*t*
Raw vote margin	0.00	0.14						
	(0.00)							
Two-party margin			–6.14	–1.12				
			(5.47)					
Multiparty margin					–9.25	–1.27		
					(7.25)			
Three-party competitiveness index							18.91	3.52***
							(5.37)	
Professional/Managerial	0.33	1.50	0.33	1.52	0.33	1.51	0.26	1.29
	(0.22)		(0.22)		(0.22)		(0.20)	
Skilled manual	0.86	2.16*	0.87	2.22*	0.87	2.23*	0.74	2.04*
	(0.40)		(0.39)		(0.39)		(0.36)	
Council renter	–0.25	–3.74***	–0.24	–3.56***	–0.23	–3.39**	–0.18	–2.93**
	(0.07)		(0.07)		(0.07)		(0.06)	
Intercept	38.59	2.54*	39.18	2.60*	39.03	2.60*	31.50	2.24*
	(15.20)		(15.06)		(15.01)		(14.07)	
R^2	0.280		0.293		0.297		0.394	
F	6.42***		6.85***		6.97***		10.72***	

N = 71.
*Significant at 0.05 level. **Significant at 0.01 level. ***Significant at 0.001 level.

district ballot and the additional member ballot, were developed. Because the additional member ballots are counted at the level of the region for the allocation of seats, measures of closeness were calculated at the regional level for each region.[7] The regional measures of closeness were then included with the single-member district constituency level data. An interaction term is developed to test the effects of closeness between both ballots on overall turnout in the constituency as well. The dependent variable remains turnout on the first (SMD) ballot.[8]

In Tables 6 and 7, among the commonly used measures of closeness found in the literature, the model for raw vote margin produces interesting results. Raw vote margin on the first ballot is not significant for turnout. However, raw vote margin on the second ballot is significantly related to turnout; moreover, the coefficient points in the expected, negative direction. The interaction term for raw vote margin between the two ballots is not significant. A similar pattern holds for two-party margin, where this closeness measure on the first ballot is not significant. For two-party margin on the second ballot, the coefficient is negative and significant, but the interaction term is positive and not significant. These findings suggest that as the gap between the first-place and second-place parties narrowed on the second ballot, voter turnout increased. The results are the same for multiparty margin; co-efficients are negative and significant for the second ballot.

In contrast, the results using the competitiveness index vary by number of parties used to calculate competition between parties. At two parties, the competitiveness index is unrelated to turnout. While the coefficients for the first and second ballot point in the expected direction, the coefficients lack significance. Moreover, the interaction term is not significantly related to turnout. At three parties, the competitiveness index is related to turnout on both ballots. The coefficient is positive, as expected, and significant. However, the competitiveness index, set at three parties, for the interaction term is not an important predictor of turnout. However, at four parties, the competitiveness index is positive and significant for both ballots. Moreover, the interaction term is also significantly related to turnout.

The traditional measures of closeness seem to suggest that party competition matters only on the second, additional member ballot. As the race for the additional member seats in each region became closer, turnout increased for the single-member district ballots. This finding suggests that Scottish voters saw the second ballot, a regional party list ballot, as important; Scottish voters appear to have recognized that a party finishing a close second place on the regional list ballots would be rewarded with seats. However, the finding that the interaction terms lack significance suggests little strategic interplay between voters trading off a vote for a more preferred party on the first ballot to vote for a less-preferred candidate from a party that was more likely to win and then voting for the more preferred party on the second ballot.

Yet, the findings from the models that use the competitiveness index as a

Table 6. Turnout and closeness – First and Second ballots, Scottish Parliament, 1999

	Both ballots					
	b	*t*	*b*	*t*	*b*	*T*
Raw vote margin 1st ballot	–0.00 (0.00)	–0.49				
Raw vote margin 2nd ballot	–0.00 (0.00)	–2.54*				
Raw vote interaction	0.00 (0.00)	0.72				
Two-party margin 1st ballot			–0.06 (0.09)	–0.65		
Two-party margin 2nd ballot			–0.43 (0.18)	–2.34*		
Two-party margin interaction			0.00 (0.01)	0.06		
Multiparty margin 1st ballot					–0.06 (0.10)	–0.57
Multiparty margin 2nd ballot					–0.50 (0.24)	–2.08*
Multiparty margin interaction					–0.00 (0.01)	–0.34
Intercept	63.78*** (2.55)	25.01***	65.14*** (2.47)	26.40***	63.94*** (2.05)	31.25***
R^2	0.194		0.296		0.316	
F	5.54**		9.69**		10.65***	

N = 73.
*Significant at 0.05. **Significant at 0.01. ***Significant at 0.001.

Table 7. Turnout and closeness – competitiveness index – 1st and 2nd ballots, Scottish Parliament, 1999

	Both ballots					
	b	*t*	*b*	*t*	*b*	*t*
2-party competiveness index 1st ballot	39.30 (38.51)	1.02				
2-party competiveness index 2nd ballot	34.07 (58.06)	0.59				
2-party competiveness index interaction	–132.37 (107.78)	–1.23				
3-party competiveness index 1st ballot			59.74 (23.91)	2.50*		
3-party competiveness index 2nd ballot			67.41 (28.16)	2.39*		
3-party competiveness index interaction			–104.61 (59.85)	–1.75		
4-party competiveness index 1st ballot					64.24 (11.23)	5.72***
4-party competiveness index 2nd ballot					41.13 (8.05)	5.11***
4-party competiveness index interaction					–107.84 (21.44)	–5.03***
Intercept	50.59 (20.30)	2.49*	23.18 (10.76)	2.16*	34.55*** (3.68)	9.38***
R^2	0.203		0.354		0.418	
F	5.85**		12.60***		16.50***	

N = 73.
*Significant at 0.05. **Significant at 0.01. ***Significant at 0.001.

measure of closeness present another interpretation. At two parties, clearly closeness does not lead to higher turnout, regardless of which ballot is considered; this finding seems reasonable, because the effective number of parties, even for the single-member district ballot, is maximized at three parties, as discussed above. More interesting results appear for the competitiveness index set for three parties. Because both the first and second ballots are significantly related to turnout, this suggests that when Scottish voters perceive the race to be close at the single-member district level, turnout increased. Scottish voters were also more likely to cast ballots when the second ballot race was close. This finding seems reasonable, because under the AMS a third place (or fourth place) party might secure seats in the parliament. However, the lack of a significant relationship between the interaction term and turnout, similar to two-party competition, suggests an absence of strategic voting across ballots. At four-party competitiveness, the results suggest not only that increased competition between parties led to higher turnout on both the first and second ballots but that strategic interaction occurred across ballots. Thus, even at the initial election under AMS, Scottish voters understood the system and voted strategically across the two ballots to reward their most preferred party.

Alternatively, the statistical significance associated with the second ballot in the models from Tables 6 and 7 suggests that if party competition is a proxy for mobilization efforts by elites, then these mobilization efforts matter. Because the second ballot, a party list ballot, induces proportionality in the allocation of seats, elites encourage supporters to vote. In turn, parties that mobilize their supporters to vote on the second ballot are rewarded by gaining seats from the elevated levels of turnout on the second ballot, regardless of the party's performance in the single-member district race. Thus, patterns of three-party and four-party competition on the second ballot are related to turnout. However, the traditional measures of party competition show a relationship between competition and turnout on the second ballot as well. Thus, the finding that party competition is related to turnout also holds for two-party competition, where the second-place party is similarly rewarded on the party list ballot for higher levels of turnout.

Discussion

This study provides an initial step toward understanding the relationship between the electoral competition and turnout in the Scottish Parliament. In addition, the multiparty competition provided an excellent environment to test the relationship beyond the simplistic two-party system; the two-ballot system preserved the single-member district level data found at the source of much of the literature on turnout and closeness in elections, including work on British elections. In addition, the inclusion of the second ballot, the additional member/regional party list ballot, in the analysis

allows extension of Downs' model to hybrid election systems. Finally, the use of the first election for the Scottish Parliament, under an election system that was new to Scottish voters, permitted investigation of the relationship in an electorate in which a 'learning curve' of strategic voting on the first and second ballots was at its minimum. Replication of this study after future elections of the Scottish Parliament might reveal interesting findings with respect to the dynamics of strategic voting in the context of closeness and turnout.

Measures of multiparty competition have other theoretical justifications as well. The emphasis on margins in much of the research literature promotes a bias toward two-party systems. Improved measures of closeness to model the voter's perceived likelihood of influencing the election draws us toward improved empirical understanding of mass behavior regarding the number of competitive parties and strategic voting. In this article, the inclusion of measures of closeness for the second, additional member ballot suggests that close races for additional member seats lead to higher rates of turnout. However, little evidence exists that there is strategic voting that occurs between the single-member district ballots and the additional member, regional list ballots unless the appropriate measures for closeness, including the competitiveness index set at four parties, is used. Then, closeness associates with higher levels of electoral turnout and indicates a degree of strategic voting across ballots.

If the closeness or competitiveness of electoral contests serves as a proxy for efforts by political elites to mobilize voters, then the findings in this study suggest that mobilization efforts may have worked. Clearly, turnout is related to greater competition among several parties, not just by those parties with the highest likelihood of winning the single-member district seats. Parties and elites that effectively mobilize supporters even when finishing in second, third or fourth place are rewarded with seats under an AMS. This suggests that, for example, the Conservative Party, unable to win in most of the single-member district seats, might consider efforts to educate the party faithful of the importance of the second ballot, ensuring that the party wins seats via the party list ballot.

Ultimately, the findings presented here establish that the theoretical literature linking closeness to voter turnout holds for a multiparty, hybrid electoral system. Using measures of closeness appropriate for multiparty settings, the findings help to explain turnout in the Scottish Parliament election. The finding suggests that a non-linear measure of turnout offers another step toward improved measurement of closeness and the linkage between turnout in two-party, single-member district systems on the one hand, and multiparty, hybrid systems on the other.

Table 8. Summary statistics

Variable	*Mean*	*Standard deviation*	*Minimum*	*Maximum*
% Turnout – first ballot	58.08	5.82	40.30	67.00
% Turnout – second ballot	57.95	5.78	40.30	67.10
Two-party margin – first ballot	21.69	12.66	0.09	62.41
Two-party margin – second ballot	13.55	7.02	4.25	26.54
Raw vote margin – first ballot	4890.00	2838.00	25.00	12192.00
Raw vote margin – second ballot	25347.00	14123.00	4562.00	47228.00
Multiparty margin – first ballot	16.20	10.08	0.07	51.79
Multiparty margin – second ballot	8.61	5.14	2.26	18.42
2-party competiveness index – first ballot	0.51	0.11	0.32	0.77
2-party competiveness index – second ballot	0.37	0.60	0.28	0.45
3-party competiveness index – first ballot	0.49	0.12	0.22	0.76
3-party competiveness index – second ballot	0.37	0.08	0.24	0.48
4-party competiveness index – first ballot	0.45	0.20	0.11	0.89
4-party competiveness index – second ballot	0.44	0.17	0.16	0.67
% Skilled manual	21.61	3.50	11.90	26.80
% Managerial and professional	27.97	1.92	26.20	32.10
% Council renters	38.19	12.92	12.90	62.50

Notes

1 Selection of the denominator is non-trivial. In a political system without automatic or mandatory registration, the difference between registered voters and age-eligible citizens may be substantial, as in the case of the United States.
2 For a detailed explanation of the competitiveness index and application in the case of Canada, see Endersby et al. (2002).
3 The requirement of a simple majority of votes cast was in stark contrast to the 1 March 1979 referendum on devolution requiring that the 'yes' vote constitute at least 40 percent of all eligible voters.
4 One week later, Welsh voters approved the creation of a Welsh Assembly. However, the Welsh voters were not asked whether the Assembly should have taxation powers. The absence of a referendum item on taxation power for the Welsh Assembly, and the use of 'Assembly' rather than 'Parliament' for the Welsh body, indicates the much more limited legislative powers for the Welsh Assembly compared with the Scottish Parliament.
5 The author acknowledges the availability of the census data as a component of The British Parliamentary Constituency Database, 1992–2000 by Pippa Norris.
6 Several models were conducted using various demographic characteristics of the constituencies; these variables are identified in the existing literature on *British* parliamentary elections (Denver and Halfacree, 1992; Denver and Hands, 1974, 1985, 1997; Lutz, 1991). However, many of the potential measures are highly associated and produce problems of multicollinearity. The selection of the three control variables reflects an attempt to limit multicollinearity.
7 An alternative method of testing strategic voting would be to build models using results for the additional member seat ballots cast in each single-member district constituency. Although available in other hybrid systems, for example the German Bundestag, these data are apparently unavailable for the Scottish Parliament. Official results from the Scottish Parliament list all parties that failed to win a single-member district seat as one category for reporting results on the first and second ballots. This practice is problematic for the study of electoral competition and turnout. For example, the Socialist Labour Party of Scotland finished in the top four parties in some of the additional member regions; yet the party's votes were lumped with all 'minor' parties.
8 Turnout on the first (SMD) ballot and the second (AMS) ballot is highly correlated ($r = 0.99$, $p = 0.001$).

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