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Akarca, Ali T.

University of Illinois at Chicago

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Inter-party vote movements in Turkey between 1999 and 2002: A statistical analysis using cross-provincial election data

Ali T. Akarca *

*Department of Economics (mc 144), University of Illinois at Chicago, 601 S. Morgan Street,
Chicago, Illinois 60607-7121, USA*

Abstract

In the 2002 Turkish parliamentary election, more than half of the voters cast their ballots for a party different than the one they chose in 1999. The outcomes of these elections are analyzed at the provincial level, through a system of regression equations. The results obtained indicate that votes moved from the Virtue, Nationalist Action, Motherland and True Path parties to the Justice and Development Party, from the Democratic Left Party to the Republican People's and Young parties, and from the Democratic Left, Nationalist Action and Motherland parties to the True Path Party. The Justice and Development Party, the ruling party since 2002, is found to have captured all of the far-right Islamist, about half of the far-right nationalist, and half of the center-right votes.

Keywords: Elections; Voter behavior; Party preference; Turkey

1. Introduction

The outcome of November 3, 2002 parliamentary election in Turkey was such a shock that journalists and academicians who analyze it often refer to it using terms such as landslide, meltdown, earthquake and tsunami. As it can be observed from Table 1, in that election the aggregate vote share of the three incumbent parties, the Democratic Left Party (DSP), the Nationalist Action Party (MHP) and the Motherland Party (ANAP), dropped to 14.7 percent from 53.4 percent in the previous election held in April 18, 1999. Akarca and Tansel (2006) estimated that 24.6 of the 38.7 percentage point drop in the vote share of the incumbent parties can not be explained by the incumbency and economic conditions prevailing at that time, if the elections held since 1950 are any guide.

In addition to the voters which deserted the incumbent parties, 2.5 percent of the voters left the True Path Party (DYP), one of the opposition parties. Furthermore, the

* Tel: +1- 312-996-1416; fax: +1-312-996-3344.
E-mail address: akarca@uic.edu

closing of the main opposition Virtue Party (FP) by the Constitutional Court in 2001, forced 15.4 percent of the electorate which voted for this party in 1999, to make another choice in 2002. In short, in the 2002 election, more than half of the Turkish voters cast their ballots for a different party than they did in 1999.

The voters who migrated from the five political parties mentioned above moved essentially to one of the following three parties: the Justice and Development Party (AKP), the Republican People's Party (CHP) and the Young Party (GP). The Justice and Development Party (AKP), one of the two parties which emerged from the banned Virtue Party (FP), received the lion's share. Its proportion of the vote was more than twice that of the Virtue party (FP) in 1999, indicating that it has attracted votes also from other parties, and giving credence to the assertion of its leaders that they are not a continuation of the Virtue Party (FP). The Felicity Party (SP), the other party with roots in the Virtue Party (FP) however, received only 2.5 percent of the vote, perhaps due to towing the Islamist line of the old Virtue Party (FP), unlike its rival Justice and Development Party (AKP), which disavowed it. The Republican People's Party (CHP) was able to more than double its vote share. However, the party's vote gain was about half the size of the votes lost by the other center-left party, the Democratic Left Party (DSP). This hints that some of the vote traffic which occurred was from the parties on the left to the parties on the right. The Young Party (GP), formed a few months before the 2002 election, by a young business tycoon with no previous political experience, was the third magnet for the voters dissatisfied with the existing parties. It is remarkable that such a party, running on a populist and nationalistic platform, was able to get more votes than two of the incumbent parties and almost the same as the third one. The party came fifth in the 2002 election, only slightly behind the third and fourth place finishers.

At the end, none of the parties which entered the parliament in 1999 were able to do so in 2002, failing to exceed the ten percent national threshold required to be represented in the Turkish Grand National Assembly. Only two parties, the newly formed Justice and Development Party (AKP), and the Republican People's Party (CHP) which was left out of the parliament in 1999 due to falling below the ten percent mark then, were able to get in the parliament.

The purpose of this paper is to model the inter-party vote movements in Turkey between the 1999 and 2002 elections. Determining the origins and destinations of the migrated voters will help us bring out the bases on which the political parties depend now. This in turn will enable analysts to assess the stability of the parties and explain the reasons behind the positions they take. In particular, determining what type of a coalition the Justice and Development Party (AKP), the ruling party since 2002, is based upon will help us gauge the stability of the government, understand the rationale of the policies it pursues, and figure out which parties are likely to benefit from its dissolution. The results obtained will also aid us in determining which parties are seen by the electorate as substitutes for each other, and how mobile are the votes between the left and right wing parties. It should be noted however that finding the causes of the inter-party vote transfers is beyond the scope of the present study. Some of the studies which address that issue are Çarkoğlu (2002), Çağaptay (2002), Özel (2003), Önis and Keyman (2003),

Bacik (2004), Başlevent, et al. (2005), Öniş (2006), Akarca and Tansel (2006) and Sayarı (2007).

2. Method and data

The inter-party vote shifts which occurred between the 1999 and 2002 elections are modeled as a system of regression equations. Each equation in this system expresses 2002 vote share of a major party as a function of the 1999 vote shares of the parties which participated in that election. Some socio-economic and dummy variables are added to the regressions to control for local conditions. The vote equations are considered for the following parties: the Justice and Development Party (AKP), the Republican People's Party (CHP), the Young Party (GP), the Democratic Left Party (DSP), the Nationalist Action Party (MHP), the Motherland Party (ANAP) and the True Path Party (DYP). As can be seen from table 1, the 2002 vote shares of these parties summed to 85.2 percent of the valid votes cast in Turkey.

The parties whose 1999 vote shares entered the equations as independent variables are the following: the Virtue Party (FP), the Republican People's Party (CHP), the Democratic Left Party (DSP), the Nationalist Action Party (MHP), the Motherland Party (ANAP) and the True Path Party (DYP). These parties received collectively 89.5 percent of the valid votes cast in 1999, as can be observed from table 1. Entering 1999 vote shares of all of the parties on the right hand side of the equations would lead to multi-collinearity. Consequently some of them need to be excluded to make estimation feasible. Fortunately, it is quite reasonable to assume that the Republican People's Party (CHP) did not lose any votes to other parties between 1999 and 2002 and that almost all of the Virtue Party's 1999 voters have switched to the Justice and Development Party (AKP) in 2002. The Republican People's Party (CHP) not only increased its vote share between 1999 and 2002 in total but it did so in every province as well. Its 1999 vote share was unusually low by historical standards anyway, which resulted in the party being left out of the parliament. Similarly, the Justice and Development Party (AKP), not only received more votes than the Virtue Party (FP) in total, but its vote share was substantially higher than that of the party from which it emerged, in every single province as well. The Felicity Party (SP), the other party to emerge out of the Virtue Party (FP), received only a negligible amount of the votes, as mentioned in the previous section. Thus the 1999 vote share of the Republican People's Party (CHP) is eliminated from all equations except its own, and the 1999 Virtue Party (FP) vote share is eliminated from all equations except that of the Justice and Development Party (AKP). Furthermore, it is very unlikely that any vote traffic has occurred between the extreme-right Nationalistic Action Party (MHP) and the left wing Republican People's Party (CHP). For that reason, the 1999 vote share of the former is dropped from the vote equation of the latter too. These exclusions resulted in the elimination of two major parties from the right hand side of each equation, except for the one representing the Justice and Development Party (AKP), which had one party dropped.

The socio-economic variables entered the equations were mean years of schooling for people over age 6, urbanization rate, and proportion of women in non-agricultural employment. The dummy variables are considered for the following eight provinces: Bayburt, Kilis, Malatya, Osmaniye, Rize, Sakarya, Bartın, and Yalova. In the first two of these, independent candidates received considerable amount of votes. In the first one, in addition, the Felicity Party (SP) made an unusually strong showing, receiving a vote share which was almost five times its nationwide share of 2.5 percent. In the third one, the votes which went to an independent candidate in 1999 returned to the political parties. Osmaniye, Rize and Sakarya are the home provinces of the leaders of the Nationalist Action Party (MHP), the Motherland Party (ANAP) and the Young Party (GP), respectively. Their favorite son candidacies in these provinces brought to their parties extra votes. Other party leaders did not have such a strong identification with any particular province. The dummy variables for Bartın and Yalova are included because these observations constitute outliers. Even though the Nationalist Action Party (MHP) experienced a vote loss between 1999 and 2002 elections, in every other province, its vote share in Bartın and Yalova increased. Substantial amount votes went to an independent candidate in Elazığ and to a minor regional party in Sivas as well, but dummy variables were not considered for these provinces because that was the case in 1999 as well.

The vote equations described above are estimated as a system, utilizing cross-provincial data and the “seemingly unrelated regressions (SUR)” method of Zellner (1962). The method selected, by taking into account the correlations between the shocks affecting different parties, yields more efficient estimates. The approach used allows estimation of vote movements between parties jointly. In other words, the vote movement between any two parties is estimated, controlling for all other inter party vote shifts and socio-economic factors. This is superior to the method used in many studies in which vote shifts and socio-economic factors are typically examined one at a time, using descriptive statistics. Another advantage of the method employed in this paper is its reliance on actual vote data rather than survey data collected at a different time than the election and in which no-response and undecided categories are often quite large.

The provinces in which the Kurdish-nationalist Democratic People’s Party (DEHAP) has received more than 10 percent of the vote in 2002, are excluded from the sample. This eliminated 17 provinces (out of 81), all from the eastern and south eastern sections of the country. The behavior of voters in these provinces is considerably different than in the rest of the country. It is largely ethnic based and is affected a lot by the terror events in this region and the governments response to them. The eliminated provinces are listed in the notes of tables 2 and 3. As can be observed from table 2, the proportion of votes received by the Kurdish-nationalist parties, the People’s Democracy Party (HADEP) in 1999 and the Democratic People’s Party (DEHAP) in 2002, in this region was about ten times their vote share in the rest of the country. While the Motherland Party (ANAP) and the True Path Party (DYP) managed to get about the same proportion of votes in this region as in the rest of the country, the vote shares of the Nationalist Action Party (MHP), the Justice and Development Party (AKP), the Republican People’s Party and the Young Party (GP) were 35-80 percent lower in the

excluded region. Also, the proportion of votes cast for independent candidates in the latter region was 7-10 times higher than the corresponding figure in the remaining provinces. Most of these independent candidates were either tribal leaders or actually members of parties which were not expected to make the ten percent nationwide threshold. In short, different dynamics were at play in the 17 provinces which were excluded. Due to small number of observations, a separate analysis is not carried out for these provinces. It should be noted that only 9.1 percent of the registered voters in 2002 resided in the eliminated provinces. The 2002 vote shares of the political parties considered sum to 88.2 percent of the votes cast in the provinces included in our sample. Thus there was no need to restrict the sum of dependent variables to 100 percent. The sources of all data are given in Table 3 notes.

3. Empirical results

Estimated regressions mentioned in the previous section are presented in Table 3. In the table, the 2002 vote shares of the Justice and Development Party (AKP), the Republican People's Party (CHP), the Young Party (GP), the Democratic Left Party (DSP), the Nationalist Action Party (MHP), the Motherland Party (ANAP), and the True Path Party (DYP) are represented by the symbols: AKP02, CHP02, GP02, DSP02, MHP02, ANAP02 and DYP02, respectively. The 1999 vote shares of the Virtue Party (FP), the Republican People's Party (CHP), the Democratic Left Party (DSP), the Nationalist Action Party (MHP), the Motherland Party (ANAP) and the True Path Party (DYP) are represented by the symbols: FP99, CHP99, DSP99, MHP99, ANAP99 and DYP99, respectively. The symbols S, U, and W are used to represent the mean years of schooling, the urbanization rate, and the proportion of women in non-agricultural employment, respectively. The latter two variables are measured in percentage units. Province names are used to represent the dummy variables, which take the value of one for the named province and zero for all others.

The regressions in Table 3 reveal the sources of votes received by the major parties which participated in the 2002 election. It appears that the Justice and Development Party (AKP) received all of the votes that went to the far-right Islamist Virtue Party (FP) in 1999 and almost half of the votes that went to far-right Turkish-nationalist National Action Party (MHP) and half of the votes that went to the center-right Motherland and True Path parties (ANAP and DYP). The Party captured even more votes in provinces with high urbanization and low education levels. It should be noted that while the estimated coefficient of the FP99 variable exceeds unity, it is not significantly different than one.

The Republican People's Party (CHP) appears to have kept all of its 1999 voters and captured about a quarter of the voters who preferred the other center-left party, the Democratic Left Party (DSP), in the previous election. The party's vote gain was more than that in provinces with high education and low urbanization levels. It is worth noting that the estimated coefficient of the party's lagged vote share is significantly higher than

unity, but this is offset by the significantly high and negative constant term in the party's equation.

The source of the votes cast in favor of the new center-right Young Party (GP) was the center-left Democratic Left Party (DSP). The former party appears to have captured about a third of the latter party's 1999 votes. The latter was able to keep only about 7 percent of its supporters in the previous election, even less in more urbanized and less conservative provinces. It pulled no votes from the other parties.

The far-right Turkish-nationalist Nationalist Action Party (MHP) retained 42 percent of the voters who supported it in 1999, and was not able to capture any voters from other parties. The center-right Motherland Party (ANAP) kept one-fifth of its vote share in the previous election plus 5.7 percent. However, the party's vote share was significantly less than that in urbanized areas. This party too was unable to attract any voters from other parties.

The True Path Party lost about half of its supporters in 1999 but was able to capture a quarter of the supporters of the center-right Motherland Party (ANAP), a quarter of the center-left Democratic Left Party (DSP) voters and one-seventh of the far-right Nationalist Action Party (MHP) voters. The party's gains were significantly less and losses significantly more than these in urbanized areas. The coefficient of the party's previous vote share, considered by itself, implies a loss of only a fifth of its 1999 supporters, but when taken into account together with the significantly negative constant term in the party's equation and the estimated coefficient of the DYP99 variable in the Justice and Development Party (AKP) equation, one reaches the conclusion that the True Path Party was able to retain only about a half of voters who voted for it in 1999.

The origins and the destinations of the migrated voters can be observed more clearly, reading table 3 row-wise. The votes cast for the Virtue Party in 1999 ended up almost all in the Justice and Development Party (AKP) in 2002. The voters who cast their ballots for the Republican People's Party (CHP) in 1999 did so in 2002 as well. Only 7 percent of those who supported the Democratic Left Party in 1999 continued to do so in 2002, 28 percent of them went to the Republican People's Party (CHP), 37 percent to the Young Party (GP) and 26 percent to the True Path Party (DYP). Of the voters who cast their ballots for the Nationalist Action Party (MHP) in 1999, 42 percent remained with the party, 44 percent moved to the Justice and Development Party (AKP), and 14 percent to the True Path Party (DYP). While about 21 percent of the supporters of the Motherland Party (ANAP) in 1999 voted again for the party in 2002, 52 percent deserted it for the Justice and Development Party (AKP), and 27 percent of it for the True Path Party (DYP). The True Path Party (DYP) appears to have lost about half of its supporters to the Justice and Development Party (AKP) and retained the remainder.

The education level in a province appears to have a negative impact on the votes received by the Justice and Development Party (AKP) and a positive impact on those received by the Republican People's Party (CHP). An increase in the urbanization rate on the other hand, appears to help the Justice and Development Party (AKP) and hurt the

Republican People's, Democratic Left, Motherland and the True Path parties (CHP, DSP, ANAP and DYP).

Finally, an analysis of the dummy variable coefficients reveal that in Bayburt, the independent candidate and the Felicity Party which had an unusually strong showing, got their votes at the expense mainly of the Justice and Development Party (AKP) and to some extent, at the expense of the Motherland Party (ANAP). The large number of votes that went to an independent candidate in Kilis would have gone mainly to the Justice and Development Party (AKP) and at a lesser extent, to the Republican People's, Young and Democratic Left parties (CHP, GP, and DSP), had he not run. The votes which went to an independent candidate in Malatya in 1999, ended up in 2002 with the True Path Party (DYP) and perhaps also with the Justice and Development Party (AKP). Because of its leader's candidacy, the Nationalist Action Party (MHP) received an extra 13 percent of the vote in Osmaniye. Had he not been a candidate there, these votes would have gone to the Justice and Development Party (AKP). The 18 percentage points of extra votes brought to the Motherland Party by its leader in his home province Rize, most likely would have gone to the Justice and Development Party (AKP), and perhaps also to the Nationalist Action and True Path parties (MHP and DYP), if he was not running. The Young Party (GP) received an extra 19 percent of the vote in Sakarya due to its leader running as a candidate in that province. This seems to have come from votes that would have gone mainly to the Republican People's Party (CHP) and the True Path Party (DYP). In Bartın and Yalova the Nationalist Action Party received 7-8 percent more votes, due to local factors. In the former province, the Democratic Left Party (DSP) captured an extra 2.5 percent of the vote as well. These votes came at the expense of the True Path Party (DYP) and the Young Party (GP) in Bartın, and the True Path Party (DYP), in Yalova.

4. Conclusions

In 2002 elections more than half of the voters cast their ballots for a different party than the one they chose in 1999. Two new parties, formed shortly before the election received more than two fifths of the votes. Another party, which was left outside the parliament during 1999-2002, received about a fifth of the votes, more than doubling its share in the previous election. Votes moved from the Virtue, Nationalist Action, Motherland and True Path parties (FP, MHP, ANAP and DYP) to the Justice and Development Party (AKP), from the Democratic Left Party (DSP) to the Republican People's and Young parties (CHP and GP), and from the Democratic Left, Nationalist Action and Motherland parties (DSP, MHP and ANAP) to the True Path Party (DYP). More than 10 percent of the votes moved from the left to the right parties but no votes flowed in the reverse direction. The votes were more mobile among the right-wing parties than among the left-wing parties and among the left and right parties.

The Justice and Development Party (AKP) captured all of the far-right Islamist, about half of the far-right nationalist, and half of the center-right voters, which allowed it to form a single-party government. In other words, close to two-fifths of the party's

supporters in 2002 were people who voted for the center-right parties in 1999. About two-fifths of its supporters came from those who voted in 1999 for the far-right Islamist party. One-fifth of them were supporters of the far-right nationalist party in the previous election. The coalition assembled by the Justice and Development party (AKP), under the leadership of Recep Tayyip Erdoğan, resembles the one built by the Motherland Party (ANAP) in 1983 under the leadership of Turgut Özal. The Motherland Party (ANAP) held power in single party governments until 1991, in coalition governments it led in 1996 and during 1997-1999, and in a coalition government as a minor partner during 1999-2002. It lost its representation in the parliament in 2002 and practically disappeared after the 2007 election in which it did not even participate. This shows how difficult it is to maintain a coalition involving groups from different segments of the political spectrum. To avoid the same faith or to prolong it, the Justice and Development Party (AKP) will need to emphasize goals common to all of the groups it represents and accomplish compromises when the goals and priorities clash. There is no doubt that the party's distancing of itself from political Islam, and its disavowal of the anti-Western stance taken by the Virtue Party (FP) from which it emerged, has given it political legitimacy in the eyes of centrist voters and played an important role in its capturing of the center-right voters. The stability of the coalition the party has built depends on the continuation of this as well.

The only other party to pull together voters from different parts of the political spectrum in the 2002 election was the True Path Party (DYP). This center-right party attracted parts of the voters who cast their ballots in 1999 for one of the center-left parties, for the other center-right party and for the far-right nationalist party. However, the center-right and far-right votes the party was able to attract were considerably less than what the Justice and Development Party was able to do. Also, the True Path Party (DYP) lost a substantial part of its own supporters and captured none of the Islamist vote. Consequently, its vote share in 2002 was not even sufficient to be represented in the parliament, despite the votes it transferred from other parties.

The results obtained show further that, contrary to the general belief among the pundits, the votes received by the Young Party (GP) did not come from the Nationalist Action Party (MHP). The Democratic Left Party (DSP) was the sole source of these votes. The Democratic Left, the Nationalist Action, and the Motherland parties (DSP, MHP and ANAP) were able to keep only a fraction of their 1999 supporters while capturing no votes from other parties. The estimated depreciation in the political capitals of the ruling parties between 1999 and 2002 was substantially higher than what Akarca and Tansel (2007) found for the period 1991-1995.

It appears that the performance of the Justice and Development Party (AKP) was worse in provinces with high education levels, but that of the Republican People's Party (CHP) better. A rise in the urbanization rate of a province on the other hand, seems to have raised the vote share of the Justice and Development Party (AKP) but lowered those of the Republican People's, the Democratic Left, the Motherland, and the True Path parties (CHP, DSP, ANAP and DYP). The vote share of the Democratic Left Party (DSP) was slightly but significantly lower in less conservative areas.

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Table 1**Political parties and their vote shares in 1999 and 2002 elections in Turkey**

POLITICAL PARTIES ^a	INCUMBENCY IN 2002	POLITICAL ORIENTATION	1999 (%)	2002 (%)
Democratic Left Party (DSP)	Incumbent	Left	22.19	1.22
Nationalist Action Party (MHP)	Incumbent	Right	17.98	8.36
Motherland Party (ANAP)	Incumbent	Right	13.22	5.13
True Path Party (DYP)	Opposition	Right	12.01	9.54
Virtue Party (FP)	b	Right	15.41	b
Justice & Development Party (AKP)	Opposition	Right	c	34.28
Republican People's Party (CHP)	Opposition	Left	8.71	19.39
Young Party (GP)	Opposition	Right	c	7.25
People's Democracy Party (HADEP)	b	Left	4.75	b
Democratic People's Party (DEHAP)	Opposition	Left	c	6.22
Other Parties			4.86	7.61
Independents			0.87	1.00

Table 1 notes:

a/ In paranthesis are the Turkish acronyms of political parties.

b/ The party was closed by the Constitutional Court prior to the 2002 election.

c/ The party was founded after the 1999 election.

Source:

The vote shares are computed using the data provided by the State Institute of Statistics (Prime Ministry, the Republic of Turkey). The Left-Right classification employed matches those used by Özbudun (2006) and Açikel (2003).

Table 2
Vote shares of political parties in 1999 and 2002 elections in Turkey

POLITICAL PARTIES ^a	WEST-NORTH-SOUTH- CENTRAL (64 provinces) ^b		EAST-SOUTH EAST (17 provinces) ^b	
	1999 (%)	2002 (%)	1999 (%)	2002 (%)
Democratic Left Party (DSP)	23.66	1.24	6.06	1.00
Nationalist Action Party (MHP)	19.00	8.67	6.96	5.10
Motherland Party (ANAP)	13.28	5.00	12.55	6.56
True Path Party (DYP)	11.68	9.54	15.59	9.57
Virtue Party (FP)	15.32	d	16.35	d
Justice & Development Party (AKP)	c	35.60	c	20.29
Republican People's Party (CHP)	8.97	20.35	5.83	9.51
Young Party (GP)	c	7.78	c	1.59
People's Democracy Party (HADEP)	2.72	d	26.92	d
Democratic People's Party (DEHAP)	c	3.55	c	34.51
Other Parties	4.81	8.26	5.53	6.15
Independents	0.56	0.55	4.21	5.72

Table 2 notes:

a/ In paranthesis are the Turkish acronyms of political parties.

b/ The East-South East region includes seventeen provinces in which Democratic People's Party received more than 10 percent of the vote in 2002. These are the following provinces: Adıyaman, Ağrı, Bingöl, Bitlis, Diyarbakır, Hakkari, Kars, Mardin, Muş, Siirt, Tunceli, Şanlıurfa, Van, Batman, Şırnak, Ardahan and Iğdır. Only 9.1 percent of the registered voters resided in these provinces in 2002. The West-North-South-Central region includes the remaining 64 provinces.

c/ The party was founded after the 1999 election.

d/ The party was closed by the Constitutional Court prior to the 2002 election.

Source:

The vote shares are computed using the data provided by the State Institute of Statistics (Prime Ministry, the Republic of Turkey).

Table 3
Regressions estimated

Independent Variables	Equations ^a						
	AKP02	CHP02	GP02	DSP02	MHP02	ANAP02	DYP02
Constant	11.94 (1.17)	-14.54 ^b (4.25)	-2.65 (0.79)	2.11 ^b (2.89)	-4.10 (0.85)	5.68 ^c (1.81)	-11.01 ^c (2.26)
FP99	1.20 ^b (10.18)						
CHP99		1.28 ^b (18.00)					
DSP99	-0.06 (0.42)	0.28 ^b (6.71)	0.37 ^b (8.66)	0.07 ^b (7.22)	0.10 (1.55)	0.03 (0.82)	0.26 ^b (4.16)
MHP99	0.44 ^b (3.35)		0.05 (0.97)	-0.01 (0.66)	0.42 ^b (6.11)	0.03 (0.74)	0.14 ^c (1.88)
ANAP99	0.52 ^b (2.48)	0.09 (1.01)	-0.08 (1.02)	0.00 (0.22)	0.13 (1.12)	0.21 ^b (2.93)	0.27 ^c (2.38)
DYP99	0.47 ^b (2.60)	0.02 (0.22)	0.02 (0.38)	-0.00 (0.23)	-0.04 (0.38)	0.04 (0.70)	0.79 ^b (8.48)
S	-4.15 ^b (2.44)	2.87 ^b (3.88)	-0.13 (0.21)	-0.14 (1.04)	0.63 (0.69)	-0.36 (0.15)	1.09 (1.18)
U	0.17 ^b (2.59)	-0.05 ^c (1.64)	0.03 (1.17)	-0.01 ^c (2.30)	-0.02 (0.49)	-0.07 ^b (4.17)	-0.08 ^c (2.25)
W	-0.16 (0.63)	0.15 (1.39)	-0.01 (0.07)	-0.04 ^c (1.93)	-0.05 (0.34)	0.08 (0.92)	-0.07 (0.51)
BAYBURT	-35.07 ^b (6.30)	0.16 (0.07)	2.30 (1.12)	-0.27 (0.60)	1.69 (0.57)	-6.85 ^b (3.57)	-0.01 (0.00)
KILIS	-10.15 ^c (1.82)	-4.24 ^c (1.76)	-4.97 ^b (2.41)	-1.10 ^c (2.44)	1.71 (0.57)	-1.94 (1.00)	-1.71 (0.57)
MALATYA	7.45 (1.43)	-2.58 (1.18)	1.22 (0.63)	0.21 (0.49)	-1.15 (0.41)	-0.57 (0.31)	7.21 ^b (2.56)
OSMANIYE	-13.39 ^b (2.63)	0.52 (0.25)	-1.26 (0.67)	0.19 (0.45)	13.06 ^b (4.75)	2.23 (1.25)	0.31 (0.11)
RIZE	-9.74 (1.16)	-3.25 (0.90)	1.50 (0.48)	-0.06 (0.09)	-4.33 (0.95)	17.65 ^b (6.03)	-5.01 (1.11)
SAKARYA	-4.84 (1.00)	-5.50 ^b (2.69)	19.45 ^b (11.04)	-0.56 (1.45)	-3.14 (1.22)	-1.60 (0.97)	-6.00 ^c (2.34)
BARTIN	4.37 (0.82)	-3.38 (1.49)	-4.17 ^c (2.12)	2.48 ^b (5.80)	7.04 ^b (2.46)	-1.20 (0.65)	-5.02 ^c (1.76)
YALOVA	0.44 (0.08)	-1.16 (0.52)	0.70 (0.36)	-0.17 (0.41)	7.83 ^b (2.77)	-1.49 (0.82)	-6.56 ^c (2.33)

Table 3 notes:

- a/ For the definitions of variables, see Section 3. The sample includes 64 provinces, excluding the following 17 provinces: Adıyaman, Ağrı, Bingöl, Bitlis, Diyarbakır, Hakkari, Kars, Mardin, Muş, Siirt, Tunceli, Şanlıurfa, Van, Batman, Şırnak, Ardahan and Iğdır. Only 9.1 percent of the registered voters resided in the latter provinces in 2002. In 1999 the administrative division of the country was slightly different. The structure prevailing in 2002 is used. The equations are estimated as a system of Seemingly Unrelated Regressions, using the procedure of Zellner (1962). The system weighted R-square is 0.90. The numbers in parentheses are the t-values in absolute value.
- b/ Significant at 1 percent level (one-tail test) .
- c/ Significant at 5 percent level (one-tail test).

Source:

Regressions are computed by the author. The vote shares of political parties are computed using the data provided by the State Institute of Statistics (Prime Ministry, the Republic of Turkey) on the results of the 1999 and 2002 elections. S, U, and W variables are computed utilizing the 2000 Census data provided by the State Institute of Statistics (Prime Ministry, the Republic of Turkey). In computing mean years of schooling (S) for each province, 15, 11, 8, and 5 years of schooling are attributed respectively, to university, high school, middle school, and primary school graduates in the province. Two years worth of schooling is assumed for those who are literate but not a graduate of any school.