Differences in Voting Behavior

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Abstract: This paper deals with voting behavior and how voters act differently when they express their opinion in national, local elections or referenda. As a case study, we deal with the Cyprus referendum on the Anan plan and compare citizens' attitudes between referendum and national elections. We also compare the behavior of the electorate between national and local elections in Greece to determine how Greek citizens differentiate their vote between these two types of elections. Both case studies indicate that there is a significant difference in voting behavior between the various types of elections under study.

Keywords: voting behavior, ecological inference, Cyprus referenda, Greece

Introduction

The quality of a democracy depends on the success of a well informed electorate to express its will in free, fair and unbiased elections and referendums. In most democratic countries, the national (general) elections offer the opportunity for the citizens to vote for preferred political parties to act as representatives in government. For each citizen the decision is usually based on the degree of agreement with the party's general political views. On the other hand, in regional and local elections the citizens should vote for the candidates who are best for their area without regard to the endorsements of the political parties. Finally, a referendum is a mechanism in which the electorate is asked to either accept or reject a specific proposal. The referendum voters should be able to make their own decisions which can be different from the political posture of the political party they support. The purpose of this paper is to examine if the voters act according to the requirements of the various types of elections in which they participate. We deal with the Cyprus referendum on the Anan

plan and compare citizens' attitudes between referendum and national elections. We also compare the behavior of the electorate between national and local elections in Greece to determine how Greek citizens differentiate their vote between these two types of elections. Research data are based on election and referendum results. Exit poll or survey data are not preferred because these data offer the possibility of estimating with satisfactory precision particular characteristics of the voters at the national level, but they are useless with regard to the estimation of the differences that exist in smaller geographic, administrative and electoral units. On the other hand, using ecological inference techniques on election results offers the opportunity of local level estimates. In the following sections using ecological inference we analyze the differences in voting behavior between various types of elections.

Cyprus referenda

One of the most important worldwide political issues in 2004 has emerged at 24 April 2004. Cypriots have expressed their opinion about the well-known Annan plan[i] on the reunification of Cyprus in two simultaneous referenda. The United Kingdom and the United States were two of the strongest supporters of the Annan plan which was supposed to terminate the long-term Cyprus dispute. The adverse side claimed that the plan would "cement rather than overcome divisions on the island, dividing rather than uniting the different communities"[ii]. The other two countries with strong interest on the referenda outcomes followed a different approach: The Greek Government held a neutral position while Turkey Government supported the plan.

In this paper we will attempt a political analysis of the Greek Cypriot referendum results. For this analysis someone needs to understand the Cyprus political status at

that time. In the following sections, we present the power of the Cypriot political parties, their attitudes towards the Annan plan, the general political scene and the feelings of the Greek Cypriots about the referendum.

Cyprus National Authorities

There are two types of national elections in Cyprus: the presidential and the legislative elections. The candidate who collects more than 50% of the valid votes in the presidential elections is elected as President (the Head of State) of Cyprus for a five year term. The House of Representatives is also elected for a five year term with the legislative elections. The House of Representatives consists of 80 seats. Of these 56 members are elected by the Greek Cypriot Community by proportional representation and 24 seats are allocated to the Turkish community but remain empty.

Cyprus political parties

Cyprus has a multi-party system. There are three strong parties that represent more than 80% of the electorate. Progressive Party of Working People is a member of the European United Left - Nordic Green Left in the European Parliament. Democratic Party is a centrist political party and is led by Tassos Papadopoulos, the current President of Cyprus. Democratic Rally is a conservative political party and a member of European People's Party in the European Parliament. At the referendum time there were eight political parties with seats in the House of Representatives. These parties are presented in Table 1.

Table 1. Cyprus House of Representatives election results (27 May 2001)

Parties	Votes	%	Seats
Progressive Party of Working People (AKEL)	142648	34.71%	20
Democratic Rally (DISY)	139721	34.00%	19
Democratic Party (DIKO)	60986	14.84%	9
Movement for Social Democracy United Democratic Union of Centre (EDEK)	26767	6.51%	4
New Horizons (NEO)	12333	3.00%	1
United Democrats (EDH)	10635	2.59%	1
Fighting Democratic Movement (ADHK)	8860	2.16%	1
Ecological and Environmental Movement (OIKO)	8129	1.98%	1
Total	410987	100.0	**56**

Cyprus President

The current Cyprus President, Tassos Papadopoulos was elected at 16 February 2003 winning Glafcos Clerides on the first round who had served as President for 10 years after winning the presidential elections in 1993 and in 1998. Tassos Papadopoulos won the 2003 presidential election with a campaign based on his claims that he would achieve a better deal over the Cyprus dispute than Glafcos Clerides.

Clerides was backed up by his own party, Democratic Rally, and two other political parties: United Democrats and Fighting Democratic Movement. On the other hand, he had to deal with the inner party issues of the attorney general Alekos Markides disagreeing with his party and running as an independent candidate.

Papadopoulos was supported by Democratic Party, Progressive Party of Working People, Ecological and Environmental Movement and Movement for Social Democracy - United Democratic Union of Centre. The latter party joined the coalition after his leader lost the initial Democratic Rally support as a candidate.

Finally, there were seven other candidates including Nikos Koutsou who was backed up by New Horizons. The presidential election results are presented in Table 2.

Table 2. Cyprus Presidential election results (16 February 2003)

Candidates	Votes	%
Tassos Papadopoulos	213353	51.51%
Glafcos Clerides	160724	38.80%
Alekos Markides	27404	6.62%
Others	12712	3.07%
Total	414193	100.0

Cyprus Referendum results

For many Greek Cypriots the Annan plan had a lot of disadvantages[iiiiv]: The plan was excessively oriented towards a bi-zonal situation in the sense of creating permanent ethnic and legal separation. The central government would be weak and both political entities would enjoy extensive local autonomy. The plan did not contain ironclad provisions for the implementation of the agreement and the security of Greek Cypriots. Instead, it contained provisions for Turkish troops to remain on the island for some time after a settlement would came into force. Greek Cypriots were not satisfied with the plan's provisions on the Turkish settlers and the return of refugees

to their properties. Finally, the Annan plan was modified on core issues and it was continuously revised to address last-minute amendments by the Turkish Cypriots; this was giving the impression that people were being asked to vote on something they had not even seen: "*On 29 March 2004, the UN Secretary General presented a revised version of his plan, containing numerous amendments, including changes on core issues and reopening substantial trade-offs, previously agreed, and requested the comments of the parties within less than 24 hours. In addition to the Foundation Agreement, the revised version consisted of over 9000 pages, including 131 laws, covering, for example, the important issues of citizenship / settlers, the Federal Central Bank, international treaties, etc.*"[v]

Political leaders also influenced the Greek Cypriot vote by strongly opposing the plan. Tassos Papadopoulos, president of the Republic of Cyprus, in a speech delivered on 7 April live on television called on Greek Cypriots to reject the plan, declaring "*I received a state; I will not deliver a community*". The Progressive Party of Working People firstly requested the postponement of the referendums and two days before the referendums they decided to reject the Annan Plan because it did not provide sufficient security guarantees. The Movement for Social Democracy - United Democratic Union of Centre, New Horizons, Fighting Democratic Movement and Ecological and Environmental Movement also opposed the plan. Finally, some members of Democratic Rally split from the party and formed a new party named "For Europe" which opposed the plan.

Endorsement of the plan was voiced by Democratic Rally leadership and the United Democrats. Glafcos Clerides also supported the plan: "*I am 85 years old*", said the

former President of the Republic, "*I would rather pass away, than seeing the end of fights of the Cypriot people*"[vi].

The question the electorate faced on decision day was as follows: "*Do you approve the Foundation Agreement with all its Annexes, as well as the constitution of the Greek Cypriot/Turkish Cypriot State and the provisions as to the law to be in force to bring into being a new state of affairs in which Cyprus joins the European united?*" The referendum results are displayed in Table 3.

Table 3. Cyprus Referenda results (24 April 2004)

Electorate	Yes	No
Greek Cypriots	24.17%	75.83%
Turkish Cypriots	64.90%	35.09%

Data in Table 3 show that the Annan plan was accepted by about two thirds of the Turkish Cypriot electorate and by only one out of four Greek Cypriot voters. This resounding rejection of the plan among Greek Cypriots was the result of a general perception that the Annan Plan was unbalanced and unfair to Greek Cypriots.

Analysis of the Greek Cypriots vote

Analysis of the Greek Cypriots vote has been offered by exit polls conducted on the day of the referenda, and other opinion polls conducted at that time. For instance, Ann-Sofi Jakobsson Hatay (2004) reports: "*these polls have indicated that the rejection of the reunification proposal was particularly strong among the younger generation in the Greek Cypriot community*"[vii] and she comments that this finding fits

with the very active and vocal participation of young voters to the pre-referendum no-campaign. These national surveys with random interviews of isolated individuals can provide useful information on nationwide characteristics of Greek Cypriots vote but the geographic component of the results is ignored. For instance, Cyprus is divided in 6 districts: Paphos, Limassol, Larnaca, Nicosia, Kyrenia and Famagusta. Paphos and Limassol Districts are the only districts that are controlled by the internationally recognized government of Cyprus. Kyrenia District is the smallest district of Cyprus, and it has been occupied by the Turkish army since 1974. The rest three districts are divided by the Green Line. The northern part of Nicosia District, a small part of Larnaca District and the vast majority of Famagusta District have been occupied by the Turkish army since 1974. From exit poll results we have some idea about the percentage of voters who voted "NO" from the supporters of each political party in nationwide level, but we do not know how this percentage varies in each district.

Ecological inference

The ecological inference problem could be described with Table 4.

Table 4. Presidential - Referendum results

	No	Yes
Papadopoulos	B^b	51,51%
Other		48.49%
	75.83%	24.17%

The unknown quantity B^b represents the percentage of Papadopoulos' voters who voted NO at the referendum. Using the inequalities known in the literature as the

method of bounds, B^b could have any value in the range [53.08%, 100%] without contradicting its row and column sums. Thus, additional information should be used to narrow the range of B^b. For instance, additional information is available for Nicosia Municipality. The additional data are presented in Table 5.

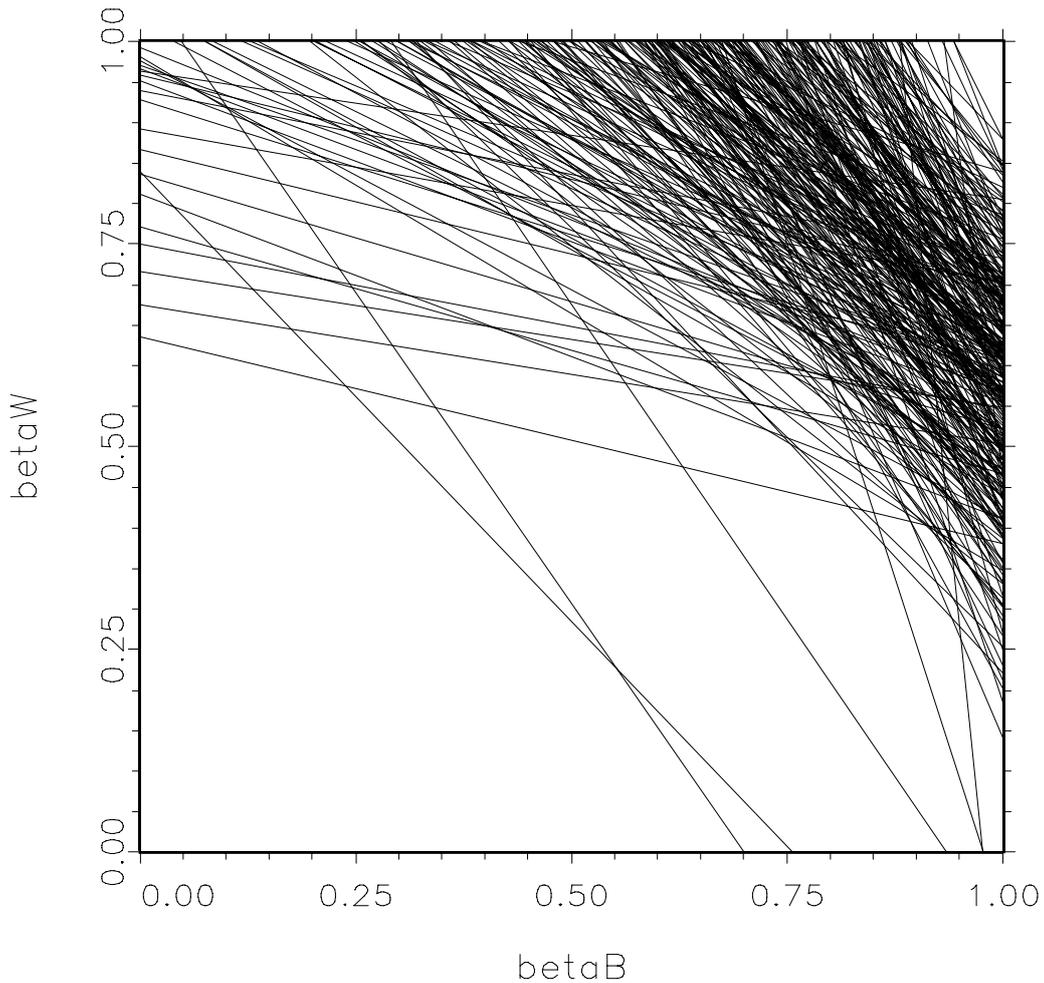**Table 5. Presidential - Referendum results in Nicosia Municipality**

	No	Yes
Papadopoulos	b_i^b	46.88%
Other	b_i^w	53.12%
	70.20%	29.80%

For Cyprus the election results are available for 334 units (municipalities and communities). Applying the deterministic information from the method of bounds to these 334 units provides very substantial improvements on the estimation of b_i^b (the percentage of Papadopoulos' voters who voted "NO") and b_i^w (the percentage of voters who have not vote Papadopoulos for President and who voted "NO") in the i unit. By treating each unit in isolation, we use all available information to give a range of possible values for each b_i^b and b_i^w for i=1, 2, …, 334. This information is presented in a plot named tomography plot. Then, we use King's statistical model[viii] that uses the information from all the other units in the data set to give the probable location of each true b_i^b within its known deterministic bounds.

The tomography plot for the total of the 334 units is presented in Diagram 1. Each line corresponds to one unit and traces out all possible pairs of values b_i^b and b_i^w. This data summary is useful for the interpretation of the data. Looking at Diagram 1,

someone would expect that the unknown value of B^b should be located nearest to 1 than to 0. With King's method we can fit a truncated bivariate normal distribution to the data and using this fitted distribution we can estimate a posterior distribution of the unknown quantities for each unit.

Diagram 1 Tomography plot: Papadopoulos voters and NO voters

With this method we are able to estimate b_i^b i.e. the percentage of Papadopoulos' voters who voted "NO" in each of the 334 units, and B_i^b i.e. the percentage of Papadopoulos' voters who voted "NO" in total. The estimated value of B_i^b is 0.905. This means that 90.5% of Papadopoulos' voters agreed with their President on

rejecting the Annan plan. The estimated percentages for each district are presented in Map 1.

Using King's method we estimate the percentage of Clerides' voters who voted "NO" in total. The estimated value of B_i^b is 0.671. This means that 67.1% of Clerides' voters disagreed with their preferred candidate for President and they rejected the Annan plan. The estimated percentages for each district are presented in Map 2.

Finally, we estimate the percentage of Markides' voters who voted "NO" in total. The estimated value of B_i^b is 0.346. This means that 34.6% of Markides' voters disagreed with their preferred candidate for President and they rejected the Annan plan. The estimated percentages for each district are presented in Map 3.

From the results presented in Maps 1-3 it seems that the rejection of the Annan plan was influenced by the political leaders and their campaigns but it was also relevant to spatial differences among the Cyprus districts. Greek Cypriots have not followed their leaders with the same way in each district. Famagusta citizens are those who present the smaller percentages of rejection. On the other hand Paphos citizens are those who rejected the plan with greater strength.

Conclusions

The Greek Cypriots' vote analysis indicates the following: Papadopoulos' supporters formed a compact group; the vast majority of them followed their leader's encouragement to reject the Annan Plan. Clerides' campaign was not adequate to convince the independents and the swing groups. The campaign was not even

successful in keeping intact Democratic Rally grass roots. As a result, the majority of Clerides' supporters voted against the Annan plan. On the other hand, Markides' supporters seem to come from a narrower subset of the party loyalists and their majority followed the party's official position on the Annan plan.

The Thessaloniki Prefecture results show that the percentage of citizens who voted for New Democracy's candidate at local elections and at the following national elections preferred a new political party has gone up to about 10% in some Municipalities.

The above findings indicate that there are significant differences in voters' behavior between different types of elections. People vote with different criteria when the use their rights in presidential, legislative, local elections or in a referendum.

Another important issue with the above results seems to be the magnitude of spatial differences in people's vote. In some cases spatial differences are more important than other factors. A comparison between Paphos and Famagusta Districts provides enough evidence for the importance of spatial factors. Spatial differences should be taken into account in every attempt for the political analysis of any elections results and ecological inference could help towards this direction.

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