ANALYZING THE GREEK ELECTIONS RESULTS OF 2000 UNDER DIFFERENT SPATIAL STRUCTURES.°

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Abstract
The paper attempts to empirically explain the vote shares received by political parties across municipalities in Greece during the national elections of 2000, in terms of demographic, educational, occupational and other factors under two territorial specifications: one based on the conventional sub-regional organization of the country, the other based on that spatial patterns of the residuals. It finds that by departing from the approach which relies on typical spatial dummies (a) the regression-fit improves considerably, and (b) a good number of spatial effects which might ordinarily be blurred within conventional partitions may be important and, at the very least, their distinct impact ought to be considered. The lesson is probably useful to readers interested in identifying through statistics, health, education, crime or other policy areas.

Keywords: electoral preferences, political parties, disaggregated data, delineation of micro-regional policy areas
JEL classification: C31, D72, R10

1. Introduction

The purpose of this paper is to analyze the national election results of 2000 in Greece, and advance the study of disaggregated observations through the use of spatial information extracted from the data.

Methodologically, it sets out to empirically explain within a seemingly unrelated regression (SUR) framework the vote shares received across the country's municipalities by the four political parties that entered parliament. Inherently, the aforesaid econometrical framework is deemed more appropriate for analyzing elections in multiparty systems compared to the standard ordinary least squares (OLS) model (Jackson, 2002; Tomz et al., 2002; Doyle and Walsh, 2007), though in this case (a case that will rely on data pertaining to the whole population rather than a sample) the difference is probably of little consequence as the need to estimate standard errors for parameters diminishes.

To ease the reader into the topic we cast it in terms of the phenomenon under examination. Firstly, we match the disaggregated information contained in two datasets: one providing the election results, the other providing a good number of explanatory variables that feature in the relevant literature, namely, gender, age, education, occupation, sectoral employment, unemployment, community density and the presence of children, in order to rationalize the former in terms of the latter (Pattie and Johnson, 1997; Dow, 1998; Leigh, 2005; Kaniovski and Mueller, 2006; Doyle and Walsh, 2007). Then, like most empirical socio-economic analyses that take into account the spatial dimension, we consider the use of dummy variables standing for conventional territorial partitions (such as provinces, regions, counties, cantons), in this case, prefectures. Yet, bearing in mind that these formations are often drawn after geographic, historical, gerrymandering, geometric or other factors, and that there is a good chance they are internally heterogeneous, hence, not as appropriate controls as generally

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thought to be,[1] an attempt is made to delineate spatial units that are almost certainly more homogeneous internally, and distinctly different from surrounding areas in ways which are relevant to the matter under consideration (in this case, electoral preferences). Obviously, the new strain of estimated spatial coefficients can be interpreted like conventional spatial coefficients in typical econometric analyses. However, it may also be preferable to conventional spatial coefficients insofar as it: (a) Provides a superior econometric fit (i.e., explains a larger portion of variation in the data). (b) Enables analysts to concentrate on the territorial formations identified in order to explore (deduce) via field surveys or other means what the additional source of the disparity may be. (c) Permits policy-makers, stakeholders and the like to undertake better-informed, spatially-targeted interventions. In the context of the application considered in the paper: to address the concerns of crucial constituencies, design better-tailored promotional campaigns, etc. At the same time the paper contributes to the fledging literature regarding Greek elections (e.g., Athineos, 1983; Zafiropoulos and Chadjipadelis, 2001; Valasaki and Photis, 2005).

The material is organized as follows: Section 2 describes the country's morphology and introduces the data, namely the disaggregated April 2000 election results, and the disaggregated March 2001 Census population statistics. Section 3 analyzes the former in terms of the latter under the conventional zoning regime (Model I), and Section 4 analyzes the vote shares that the political parties received across the country's municipalities in terms of the population statistics without spatial regressors (Model II). Section 5 considers the spatial patterns produced by the residuals, describes a procedure for devising territorial groupings from the spatial information born by the residuals, and identifies a number of seemingly homogeneous districts, on the basis of which Section 6 explains the votes shares in terms of both the new spatial and the other available regressors (Model III) and discusses the results. In the end, Section 7 offers the conclusions.

2. A Few Words On The Country's Morphology, The Data, And The Variables Considered

Situated at the edge of southeastern Europe, Greece spans an area of 132 thousand square kilometers; and at the time under consideration was inhabited by about 10.934 million people (2001 Census) living in 1,034 municipalities.

The terrain is dominated by high mountain-chains (42.2% of the country's surface), small valleys traversed by rivers or inlayed with lakes, narrow coastal strips, a multitude of islands (35.1% of the surface),[2] and a very jagged coastline. These natural features greatly fragment the country into a host of tiny places, giving rise to the notorious patchwork of city-states and self-governing tribes in classical antiquity, and the mosaic of jurisdictional cantons (armatolics, semi-independent and other areas) in early modern times. Obviously, the splintering impact of the landscape is, to some extent, tempered by the effectiveness of the transportation network now linking these districts (coastal strips, plateaus, and islands). On the other hand, the terrain is sufficiently irregular to critically impede the spatial representation of the country's localities via contiguity or proximity weight matrices.

The election result which we are about to analyze, was shaped by 6.868 million valid ballots; and the parties that entered into the Parliament were the Socialist Party (43.8%), Conservative Party (42.7%), Communist Party (5.3%) and Confederation of the Left (3.2%). The numbers in parentheses denote the percentage of the national vote received by the parties in question. The aggregate figures of the datasets regarding (a) the demographic, educational, and occupational characteristics of the population, and (b) the electoral following of each

[1] Depending on the relevance of the territorial divisions employed, both the type of the analysis carried out and the quality of the findings or implications may vary. For instance, in the case of economic analysis, conventional territorial groupings such as counties modeled after ancient or medieval demarcations, may constitute poor proxies for contemporary economic areas. Metaphorically speaking, it is like trying to fit a certain body into an inherited suit and analyze it based on the seams, colors and other features of the suit. In our view, it is essential to search for an alternative approach that groups localities in manner that is more likely to agree with the data or phenomenon under consideration.

[2] Though three islands, namely, the Peloponnese (16.2% of the country's surface), Euboea (2.8%), Lefkas (0.2%), are also joined to the mainland by fixed links (bridges): the former at two places, each of the other two at one.

political party are provided in Tables 1 and 2, respectively. For the most part, both are accessible at the same level of disaggregation; and in a few places that they are not (for the ballots cast in a number of very small communities on the northern Pindos mountain-range were counted along with the ballots of neighboring villages), the population data are amalgamated accordingly. Furthermore, the monastic community of the Holy Mountain in Central Macedonia is excluded from the analysis. (It does not participate in the electoral process.) This permits the explanation of local voting preferences in terms of the demographic and other features of 1,022 local populations.

To empirically explain the 2000 election results in terms of:

- population characteristics, we will assume that the demographic and socio-economic conditions recorded in the 2001 Census conducted across the country's municipalities, had remained roughly the same in the months that intervened; and
- each locality's representative household, we will standardize (i) the total number of votes the political parties collectively received, and (ii) the total resident population figure (i.e., the overall gender-and-age, education, and labor force participation and abstention numbers) in each locality, to one.

Table 1: The March 2001 census

a. *Area: 132 thousand square kilometres.* *Number of municipalities: 1,034.*

b. *Population composition in thousands of persons*

Age	Men	Women
0-14	857 (7.8%)	804 (7.4%)
15-24	818 (7.5%)	744 (6.8%)
25-34	878 (8.0%)	840 (7.7%)
35-44	780 (7.1%)	785 (7.2%)
45-54	694 (6.3%)	707 (6.5%)
55-64	569 (5.2%)	631 (5.8%)
65-74	539 (4.9%)	630 (5.8%)
≥ 75	279 (2.5%)	380 (3.5%)
Total	10,934 (100%)	

Level of formal education	Men	Women
Little or none	1,011 (9.2%)	1,297 (11.9%)
Primary school certificate	1.531 (14.0%)	1,609 (14.7%)
Lower secondary school cert.	636 (5.8%)	523 (4.8%)
Upper secondary school cert.	1,391 (12.7%)	1,308 (12.0%)
Post-secondary school cert.	159 (1.5%)	203 (1.9%)
Bachelor degree	631 (5.8%)	552 (5.0%)
Postgraduate degree	54 (0.5%)	29 (0.3%)
Total	10,934 (100%)	

c. *Employment structure in terms of thousands of persons*

	Men	Women
Non-participants	2,394 (21.9%)	3,659 (33.5%)
Unemployed	280 (2.6%)	233 (2.1%)
Employers	372 (3.4%)	132 (1.2%)
Employees, paid	1,751 (16.0%)	1,140 (10.4%)
family members	48 (0.4%)	175 (1.6%)
Self-employed	569 (5.2%)	182 (1.7%)
By profession		
Managers, etc.	269 (2.5%)	109 (1.0%)
Science & art professionals	258 (2.4%)	251 (2.3%)
Technicians	172 (1.6%)	170 (1.6%)
Clerks	162 (1.5%)	255 (2.3%)
Service & sales workers	330 (3.0%)	274 (2.5%)
Skilled primary-sector workers	322 (2.9%)	233 (2.1%)
Craft workers	594 (5.4%)	71 (0.6%)
Plant & machine operators, assemblers	275 (2.5%)	33 (0.3%)
Unskilled workers	228 (2.1%)	169 (1.5%)
Inadequately described	129 (1.2%)	63 (0.6%)

By sector	Men	Women
Agriculture etc.	358 (3.3%)	240 (2.2%)
Fishing	13 (0.1%)	5 (0.0%)
Mines & quarries	11 (0.1%)	1 (0.0%)
Manufacture	369 (3.4%)	162 (1.5%)
Energy & water	31 (0.3%)	7 (0.1%)
Construction	364 (3.3%)	12 (0.1%)
Trade-repairs	392 (3.6%)	251 (2.3%)
Hotel, restaurants	155 (1.4%)	118 (1.1%)
Transport etc.	238 (2.2%)	48 (0.4%)
Finance etc.	55 (0.5%)	54 (0.5%)
Business activit. & real estate	127 (1.2%)	124 (1.1%)
Public. admin.	222 (2.0%)	109 (1.0%)
Education	97 (0.9%)	161 (1.5%)
Health etc.	66 (0.6%)	126 (1.2%)
Other services	79 (0.7%)	67 (0.6%)
Priv. households	4 (0.0%)	58 (0.5%)
Extraterritorial	1 (0.0%)	1 (0.0%)
Not specified	159 (1.5%)	83 (0.8%)

Source: National Statistical Service of Greece. Provided at the municipal level in mid-2004.
Note: Included are four thousand 10-to-14 year-olds reporting to have joined the workforce. Numbers in parentheses are percentages.

Consequently, the voter and population figures (i.e., the explained and explanatory elements) of the individual observations in each party's function lie between zero and one. Also, in the places in which the actual number of votes cast exceeds the number of residents, we will make an attempt to trace the impact produced by the non-resident (or out-of-district) voters.[3] To proxy this we construct a dummy variable that takes (a) the value of one when the total number of votes received exceeds by 4% the number of residents aged 20 years or older reported at the time of the Census, and (b) the value of zero otherwise.[4]

Table 2: Outcome of the April 2000 national elections

Allocation of votes				
Socialists	Conservatives	Communists	Confed. of Left	Others (21 parties)
3,007,596 (43.8%)	2,935,196 (42.7%)	379,454 (5.5%)	219,880 (3.2%)	325,885 (4.7%)

Source: Ministry of the Interior. Provided at the municipal level in mid-2006.
Notes: Polling stations: 18,959. Valid ballots: 6,868,011. Invalid ballots: 158,516 (2.3% of all ballots)
The numbers in parentheses supply the percentages of the valid ballots.

As the out-of-district-voter dummy is negatively correlated with population density (r = -28%), we will replace the population density regressor with a measure that is net of the out-of-district-voter effect. Indeed, in order to altogether avoid a situation whereby part of the explained variance is accounted by two or more regressors (which makes it hard to disentangle the effects) the explanatory variables will be made orthogonal to each other. In essence, instead of regressing the explained variable, say, y on arguments w, x and z (e.g., the out-of-district or spatial dummies on population density and education or age etc., respectively), we will first regress x on w, predict x' and estimate an orthogonal $\chi = x - x'$, then regress z on w and χ, predict z', and estimate an orthogonal $\zeta = z - z'$. Thus, we will be explaining y in terms of w, χ and ζ; effectively, separating the influences of the regressors and minimizing the effects caused by collinearities.[5]

We commence our analysis by considering a model that relies on the country's conventional territorial partitions (Model I), and then move on to juxtapose it to a model that relies on territorial partitions extracted from the data (Model III).

3. An Empirical Analysis Of The Electoral Results Based On The Conventional Territorial Division Of The Country And The Characteristics Of The Population

In Table 3, we endeavor to explain the vote shares that each of the four parties received across the country's municipalities in terms of a common set of available factors within a SUR system, by taking into account the conventional grouping of districts. The results are associated with modest levels of fitness (the R^2 values range between 50.4 and 53.90%); and are read in reference to the population share of males aged 35-44 who lack primary school diplomas, engage in paid work as employees or are self-employed in the Table's unlisted sectors and occupations, and vote in the Athens prefecture. In view of the underlying assumption that all equations are interrelated, the expression that pertains to the vote-share of the political parties that participate in the election but do not enter parliament serves as the complementary equation, and is recovered from the other four. (See Table's final column.) In

[3] In Greece, many voters (estimated to over 1.2 million people at the time of the 2000 election) owing to sentimental attachment to their place of origin (own birthplace or village of their ancestors) opt to retain their voting rights in their place of origin instead of transferring to the place of residence: usually Athens or some other urban center.

[4] The age-ranges which are supplied at the disaggregated level in the Census data do not allow a closer correspondence to the minimum age for eligibility to vote in Greece (18 years old) at the time of the election. The measure of 4% provides the best fit in a good number of preliminary econometric experiments.

[5] The only correlations left are those between the two sets of dummies: the highest being observed in the cases of out-of-town voters and the localities forming the prefectures of Athens (r = -26.63%), East Attiki (r = -25.08%), and somewhat lower in the cases of Trikala (r = 12.20%), Ioannina (r = 11.69%), Piraeus (r = - 11.53%), Arkadia (r = 11.31%), Serre (r = 11.25%) Thessaloniki (r = -11.20%), Karditsa (r= 10.67%), Samos (r = -10.66) etc.

this setting, the estimated territorial coefficients with values in excess of ±0.01, and the estimated coefficients of the modified covariates with values in excess of ±2, seem to suggest the following:

Table 3: The seemingly unrelated system of the 2000 election percentage results with prefectural regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
1	Constant	0.43*	0	0.38*	0	0.08*	0	0.05*	0	0.06*
2	Out-of-town (dummy)	0.01	0.18	0.01	0.08	-0.01*	0.001	-0.01*	0	-0.00
	Spatial factors									
	Attiki									
3	Athens pref. (reference)									
4	East Attiki pref.	-0.03*	0.002	0.09*	0	-0.03*	0	-0.02*	0	-0.01*
5	Piraeus pref.	0.01	0.404	0.04*	0.009	-0.02*	0.001	-0.02*	0	-0.01
6	West Attiki pref.	0.01	0.701	0.01	0.737	-0.01	0.197	-0.02*	0	0.01
	C. Greece & Euboea									
7	Boeotia pref.	0.02	0.138	0.05*	0.002	-0.03*	0	-0.03*	0	-0.02
8	Euboea pref.	0.03	0.024	0.04	0.016	-0.03*	0	-0.02*	0	-0.02
9	Evritania pref.	0.01	0.56	0.11*	0	-0.05*	0	-0.04*	0	-0.03
10	Fokis pref.	-0.03	0.076	0.11*	0	-0.03*	0	-0.03*	0	-0.02
11	Fthiotis pref.	0.00	0.98	0.10*	0	-0.04*	0	-0.04*	0	-0.03
	C. Macedonia									
12	Halkidiki pref.	-0.03	0.054	0.12*	0	-0.04*	0	-0.03*	0	-0.02
13	Imathia pref.	0.01	0.65	0.06*	0.002	-0.03*	0.001	-0.03*	0	-0.01
14	Kilkis pref.	-0.07*	0	0.13*	0	-0.01	0.091	-0.03*	0	-0.01
15	Pella pref.	-0.03	0.136	0.11*	0	-0.04*	0	-0.04*	0	-0.00
16	Pieria pref.	-0.04	0.028	0.11*	0	-0.03*	0	-0.03*	0	-0.02
17	Serre pref.	-0.05*	0	0.15*	0	-0.04*	0	-0.03*	0	-0.02*
18	Thessaloniki pref.	-0.02	0.091	0.06*	0	-0.01	0.056	-0.03*	0	-0.00
	Crete									
19	Hania pref.	0.11*	0	-0.04*	0.007	-0.02*	0	-0.03*	0	-0.01*
20	Iraklio pref.	0.16*	0	-0.08*	0	-0.04*	0	-0.03*	0	-0.01*
21	Lasithion pref.	0.18*	0	-0.07*	0.004	-0.06*	0	-0.03*	0	-0.03*
22	Rethimnon pref.	0.09*	0	0.01	0.514	-0.04*	0	-0.03*	0	-0.03
	E. Macedonia & Thrace									
23	Drama pref.	-0.03	0.147	0.13*	0	-0.05*	0	-0.04*	0	-0.01
24	Evros pref.	0.01	0.4	0.08*	0	-0.05*	0	-0.04*	0	-0.01
25	Kavala pref.	-0.01	0.42	0.10*	0	-0.04*	0	-0.03*	0	-0.02
26	Rodopi pref.	0.07*	0	-0.02	0.433	-0.05*	0	0.02*	0	-0.02
27	Xanthi pref.	-0.01	0.526	0.11*	0	-0.05*	0	-0.03*	0	-0.01
	Epiros									
28	Arta pref.	-0.05*	0.001	0.09*	0	-0.02*	0.007	-0.02*	0	0.01*
29	Ioannina pref.	0.00	0.795	0.06*	0	-0.01	0.016	-0.03*	0	-0.02
30	Preveza pref.	-0.02	0.374	0.09*	0	-0.02	0.06	-0.03*	0	-0.03
31	Thesprotia pref.	0.03	0.092	0.05	0.017	-0.04*	0	-0.03*	0	-0.01
	Ionian Islands									
32	Kefallinia pref.	0.01	0.755	-0.00	0.923	0.04*	0	-0.03*	0	-0.01
33	Kerkira pref.	0.01	0.708	0.05*	0.004	-0.01	0.186	-0.03*	0	-0.02
34	Lefkas pref.	0.03	0.167	-0.02	0.331	0.03*	0.002	-0.02*	0	-0.02
35	Zakinthos pref.	-0.01	0.701	0.03	0.189	0.03*	0.007	-0.02*	0	-0.03
	Thessaly									
36	Karditsa pref.	-0.02	0.117	0.09*	0	-0.00	0.623	-0.03*	0	-0.03
37	Larisa pref.	-0.03	0.011	0.07*	0	0.01	0.294	-0.03*	0	-0.02
38	Magnesia pref.	-0.01	0.275	0.08*	0	-0.02*	0.007	-0.03*	0	-0.02
39	Trikala pref.	-0.00	0.928	0.06*	0	-0.01	0.429	-0.03*	0	-0.02
	N. Aegean Islands									
40	Hios pref.	0.07*	0	0.03	0.225	-0.04*	0	-0.03*	0	-0.03
41	Lesvos pref.	-0.01	0.553	-0.02	0.356	0.06*	0	-0.01*	0	-0.02
42	Samos pref.	-0.05*	0.008	-0.05	0.024	0.12*	0	0.01	0.121	-0.02

Table 3 (continued): The seemingly unrelated system of the 2000 election percentage results with prefectural regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	S. Aegean Islands									
43	Cyclades pref.	0.05*	0	0.04*	0.002	-0.05*	0	-0.03*	0	-0.01*
44	Dodekanese pref.	0.10*	0	0.00	0.761	-0.05*	0	-0.03*	0	-0.03
	S. & E. Peloponnese									
45	Argolis pref.	-0.02	0.113	0.12*	0	-0.04*	0	-0.03*	0	-0.02
46	Arkadia pref.	0.02	0.155	0.06*	0	-0.03*	0	-0.03*	0	-0.02
47	Korinthia pref.	0.02	0.287	0.08*	0	-0.05*	0	-0.03*	0	-0.02
48	Lakonia pref.	-0.07*	0	0.17*	0	-0.04*	0	-0.04*	0	-0.03*
49	Messenia pref.	-0.02	0.189	0.11*	0	-0.03*	0	-0.03*	0	-0.03
	W. Greece									
50	Aetolia-Akarnania	0.02	0.062	0.06*	0	-0.03*	0	-0.04*	0	-0.01
51	Ahaia pref.	0.09*	0	0.00	0.9	-0.04*	0	-0.03*	0	-0.02
52	Ilis pref.	0.04*	0.009	0.04*	0.006	-0.05*	0	-0.02*	0	-0.01*
	W. Macedonia									
53	Florina pref.	-0.02	0.196	0.12*	0	-0.04*	0	-0.04*	0	-0.02
54	Grevena pref.	0.01	0.509	0.05	0.044	-0.01	0.241	-0.03*	0	-0.02
55	Kastoria pref.	-0.07*	0	0.15*	0	-0.04*	0	-0.03*	0	-0.01*
56	Kozani pref.	-0.01	0.677	0.08*	0	-0.03*	0	-0.03*	0	-0.02
	Population density (net of effects numbered 2-56)									
57	People/km^2	0.00*	0.002	-0.00*	0	0.00*	0	0.00*	0	0.00*
58	People/km^2 - square	-0.00	0.088	0.00*	0	-0.00*	0.001	-0.00	0.035	-0.00
	Demographic composite-on (net of effects numbe-red 2-58)									
59	% aged 0-14 years	0.21	0.494	0.02	0.965	-0.15	0.304	-0.13	0.051	0.05
60	% women aged 15-24	0.18	0.573	-0.10	0.785	-0.06	0.701	-0.10	0.145	0.08
61	% men aged 15-24	0.23	0.402	-0.00	0.996	-0.20	0.132	-0.10	0.07	0.07
62	% women aged 25-34	0.37	0.349	-0.46	0.309	0.11	0.575	-0.00	0.963	-0.01
63	% men aged 25-34	-0.23	0.502	0.81	0.04	-0.36	0.03	-0.15	0.037	-0.07
64	% women aged 35-44	-0.34	0.394	0.36	0.434	-0.08	0.682	0.11	0.19	-0.05
65	% men aged 35-44 (ref.)									
66	% women aged 45-54	-0.80	0.02	0.61	0.126	-0.06	0.723	0.16	0.033	0.10
67	% men aged 45-54	1.20*	0.002	-0.77	0.082	-0.34	0.068	-0.20	0.015	0.10
68	% women aged 55-64	-0.16	0.65	0.26	0.512	-0.13	0.413	-0.03	0.654	0.06
69	% men aged 55-64	0.53	0.145	-0.29	0.489	-0.06	0.718	-0.13	0.083	-0.05
70	% women aged 65-74	0.69	0.047	-0.51	0.201	-0.08	0.631	-0.09	0.211	-0.01
71	% men aged 65-74	-0.21	0.556	0.40	0.315	-0.22	0.197	-0.12	0.1	0.14
72	% women aged ≥ 75	-0.06	0.86	0.12	0.743	-0.07	0.628	-0.02	0.725	0.03
73	% men aged ≥ 75	0.28	0.447	0.09	0.83	-0.19	0.282	-0.06	0.462	-0.12
	Education composition (net of effects numbered 2-73)									
74	% w/o qualification (ref.)									
	% are women with									
75	6-year school cert.	-0.30	0.021	-0.09	0.549	0.26*	0	0.06	0.024	0.06
76	9-year school cert.	-0.37	0.224	0.11	0.759	0.27	0.06	-0.03	0.654	0.02
77	12-year school cert.	-0.68*	0.002	0.48	0.059	0.15	0.157	-0.01	0.825	0.06
78	post-secondary cert.	-0.58	0.326	-0.32	0.642	0.47	0.096	0.32*	0.009	0.10
79	bachelor degree	-0.30	0.384	-0.75	0.062	0.77*	0	0.13	0.081	0.15
80	postgraduate degree	-6.22*	0.007	3.97	0.132	1.55	0.161	0.68	0.158	0.03

Table 3 (continued): The seemingly unrelated system of the 2000 election percentage results with prefectural regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	Education composition (net of effects numbered 2-73)									
	% are men with									
81	6-year school cert.	0.49*	0.005	-0.06	0.77	-0.31*	0	-0.09	0.013	-0.04
82	9-year school cert.	0.13	0.591	-0.00	0.99	-0.16	0.186	0.03	0.515	-0.01
83	12-year school cert.	0.70*	0	-0.47	0.034	-0.21	0.022	-0.04	0.276	0.03
84	post-secondary cert.	-0.04	0.941	0.77	0.245	-0.49	0.08	-0.09	0.458	-0.15
85	bachelor degree	0.51	0.107	0.15	0.681	-0.57*	0	0.04	0.589	-0.12
86	postgraduate degree	2.50	0.054	0.95	0.523	-2.26*	0	-0.80*	0.003	-0.39
	Workforce involvement (net of effects numbered 2-86)									
	% are women									
87	not participating	0.18	0.075	-0.08	0.514	-0.04	0.392	-0.06*	0.007	-0.01
88	unemployed	0.62	0.082	-0.56	0.173	0.03	0.858	-0.16	0.037	0.06
89	empl. in hotels etc.	0.35	0.158	-0.07	0.797	-0.23	0.052	0.04	0.445	-0.09
90	empl. in priv. h/holds	0.67	0.525	-1.79	0.138	0.28	0.576	0.41	0.066	0.43
	% are men									
91	not participating	0.23	0.054	-0.24	0.069	-0.05	0.341	0.08*	0.002	-0.00
92	unemployed	-0.66	0.024	0.42	0.213	0.14	0.301	0.16	0.011	-0.06
93	empl. in trade etc.	0.04	0.888	-1.12*	0.001	0.59*	0	0.14	0.025	0.34
94	empl. in transport etc.	-0.41	0.15	0.25	0.444	0.14	0.317	-0.07	0.213	0.10
95	empl. in finance etc.	2.42	0.147	0.45	0.812	-2.06*	0.01	-0.17	0.624	-0.64
96	empl. in education	3.51*	0	-3.03*	0.001	0.19	0.61	0.12	0.457	-0.80
97	empl. in priv. h/holds	-13.89*	0	22.27*	0	-2.37	0.197	-3.14*	0	-2.86
	Workforce involvement (net of effects numbered 2-97)									
	% are women occupied									
98	as clerks	0.08	0.889	-0.72	0.295	0.59	0.041	0.04	0.769	0.01
99	as craft workers	-0.45	0.448	0.66	0.331	0.02	0.934	-0.20	0.103	-0.03
	% are men occupied									
100	as technicians	1.13	0.06	-2.10*	0.002	0.67	0.02	-0.06	0.617	0.37
101	as craft workers	0.21	0.143	-0.63*	0	0.15	0.03	0.09*	0.003	0.17
102	as unskilled workers	-0.16	0.324	0.08	0.656	-0.03	0.703	0.02	0.478	0.08
	(net of effects numbered 2-102)									
	% are classified as									
103	female employers	0.88	0.033	-0.53	0.264	-0.30	0.126	-0.10	0.264	0.05
104	male employers	-0.48	0.033	0.59	0.023	-0.10	0.357	0.04	0.385	-0.05
105	employees & self-employed, and/or involved in other sectors and occupations (ref.)									
	Statistics: χ^2	1098.24		1031.69		1173.94		1166.53		
	R^2	0.5181		0.5043		0.5366		0.5390		

Note: Asteristcs (*) denote rejection of the hypothesis of equality to zero at the 1% margin of error, as estimated in analyses that rely on samples. In the last column asterisks indicate confidence for the signs of the residual function's coefficients on account of the high z-statistics obtained in all previous regressions.

The Socialist party's intercept is set at 43% of the vote. At the same time the party's performance improves substantially in the Hania, Iraklion and Lasithion prefectures of Crete, the neighboring Dodekanese, and areas with higher-than-average population shares of men with postgraduate qualifications or employed in the financial and education industries; and deteriorates in constituencies possessing higher-than-average population shares of women with postgraduate qualifications and men employed in private households.

The Conservative party's intercept is set at 38% of the vote. The party's performance improves substantially in the Central Greek prefectures of Evritania, Fokis, and Fthiotis, the Peloponnesian prefectures of Argolis, Lakonia, and Messenia, the Macedonian prefectures of Drama, Florina, Halkidiki, Kastoria, Kavala, Kilkis, Pella, Pieria, and Serre, the neighboring prefecture of Xanthi, and areas with higher-than-average population shares of women with postgraduate qualifications and men employed in private households; and deteriorates in constituencies possessing higher-than-average population shares of men employed in the education industry or as technicians.

The Communist party's intercept is set at 8% of the vote. The party's performance improves substantially in the insular prefecture of Samos, and deteriorates in constituencies possessing higher-than-average population shares of men with postgraduate qualifications or employed in private households and the financial sector; while the intercept regarding the Confederation of the Left is set at 5% of the vote, and the party's performance deteriorates in areas with a higher-than-average population shares of men employed in private households.

Acknowledging that the aforementioned spatial dummies may also absorb or reflect to some or considerable extent the impact of demographic and other factors considered, and bearing in mind the reasoning for exploring and incorporating the spatial patterns of the omitted variables (developed in the Introduction), we turn to an alternative approach in which no spatial determinants are assumed or regressors used (at least in the first stage): Model II.

4. An Empirical Analysis Of The Electoral Results Based On The Characteristics Of The Population But No Spatial Regressors

Like before, we analyze the vote shares that each party received across the country's municipalities within a SUR framework. The results are presented in Table 4, and, once again, men aged 35-39 with minimal school qualifications employed in the same sectors and occupations serve as the reference population. Understandably, in the absence of spatial arguments (conventional or other), the coefficients produced are likely to be more biased than those recovered via Model I.[6] So the reader who is interested in the more refined, final results may skip to Section 5. The one who peruses the findings will note that (a) the statistical fits of the estimated functions are rather low (the R^2 values range between 18.7 and 36.0%), and (b) a small number of coefficients (actually, nine) associated with modified covariates become quite more prominent compared to the previous model. In this setting:

The Socialist party's intercept is set at 44% of the vote; the party's performance improves substantially in areas with higher-than-average population shares of men aged 45-54 years, 75 and older, in possession of postgraduate qualifications or employed in education and finance or as technicians; and deteriorates in constituencies with higher-than-average population shares of women with postgraduate qualifications or employed as craft-workers, and men employed in private households.

The Conservative party's intercept is set at 43% of the vote. The party's performance improves substantially in areas with a modest or high out-of-town voter element, and higher-than-average population shares of women with postgraduate qualifications or employed as craft-workers, and men employed in private households; and deteriorates in constituencies possessing higher-than-average population shares of men aged 45-54 years, 75 or older, employed in the education industry or as technicians, and women employed as clerks.

The Communist party's intercept is set at 6% of the vote, and the intercept regarding the Confederation of the Left at 3%. Again, the former party's performances deteriorates in constituencies possessing higher-than-average population shares of men with postgraduate qualifications or employed in private households and the financial sector; while the latter party's performance deteriorates in areas with a higher-than-average population shares of men employed in private households.

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[6] Regrettably, in both cases, data limitations prevent us from considering factors, such as the presence of social groups with particular sensitivities or issues: religious, linguistic, historical, refugee or other.

Turning our attention to the residuals, we note that: (a) The Socialist party attracts an inordinately high percentage of the voting public in two municipalities in north-western Peloponnese, namely, Tritea and Kalentzion (the homeland of the party's founder); three municipalities in eastern Crete (Itanos, Lefki and Sitia), and a municipality situated on a neighboring cluster of South Aegean islands (Olympos-in-Karpathos). Obviously, the party's overall overall performance in these places cannot be adequately explained by the factors

Table 4: The seemingly unrelated system of the 2000 election percentage results without spatial regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
1	Constant	0.44*	*0*	0.43*	*0*	0.06*	*0*	0.03*	*0*	0.05
2	Out-of-town (dummy)	0.00	*0.381*	0.03*	*0*	-0.01*	*0*	-0.01*	*0*	-0.01
	Population density (net of the previous effect)									
3	People/km^2	0.00	*0.97*	-0.00*	*0*	0.00*	*0*	0.00*	*0*	0.00
4	People/km^2 - square	0.00	*0.973*	0.00*	*0*	-0.00*	*0*	-0.00*	*0*	0.00
	Demographic composition (net of effects numbered 2-4)									
5	% aged 0-14 years	1.43*	*0*	-1.66*	*0*	0.18	*0.309*	-0.05	*0.435*	0.11
6	% women aged 15-24	1.07*	*0.004*	-1.07*	*0.01*	-0.06	*0.758*	-0.01	*0.926*	0.06
7	% men aged 15-24	1.11*	*0*	-1.37*	*0*	0.19	*0.203*	-0.01	*0.841*	0.08
8	% women aged 25-34	1.58*	*0.001*	-1.91*	*0*	0.31	*0.182*	0.01	*0.95*	0.01
9	% men aged 25-34	0.91	*0.021*	-0.80	*0.072*	-0.06	*0.776*	-0.08	*0.313*	0.02
10	% women aged 35-44	-0.23	*0.62*	-0.11	*0.836*	0.15	*0.513*	0.18	*0.047*	0.00
11	% men aged 35-44 (ref.)									
12	% women aged 45-54	-0.08	*0.84*	-0.91	*0.033*	0.35	*0.069*	0.40*	*0*	0.23
13	% men aged 45-54	2.46*	*0*	-2.40*	*0*	-0.02	*0.935*	-0.19	*0.028*	0.14
14	% women aged 55-64	0.96	*0.011*	-1.46*	*0.001*	0.34	*0.078*	0.08	*0.29*	0.07
15	% men aged 55-64	0.62	*0.139*	-0.48	*0.31*	0.01	*0.975*	-0.13	*0.117*	-0.02
16	% women aged 65-74	0.83	*0.034*	-0.95	*0.03*	0.30	*0.13*	-0.15	*0.06*	-0.03
17	% men aged 65-74	0.38	*0.332*	-0.52	*0.239*	-0.08	*0.689*	-0.03	*0.74*	0.24
18	% women aged ≥ 75	0.90	*0.014*	-1.36*	*0.001*	0.43	*0.021*	0.04	*0.542*	-0.02
19	% men aged ≥ 75	2.31*	*0*	-2.35*	*0*	-0.02	*0.928*	0.11	*0.173*	-0.05
	Education composition (net of effects numbered 2-19)									
20	% w/o qualification (ref.)									
	% are women with									
21	6-year school cert.	-0.06	*0.643*	-0.34	*0.015*	0.26*	*0*	0.08*	*0.001*	0.06
22	9-year school cert.	0.27	*0.398*	-0.15	*0.67*	0.02	*0.891*	-0.23*	*0*	0.09
23	12-year school cert.	-0.12	*0.607*	-0.09	*0.731*	0.17	*0.171*	-0.02	*0.733*	0.06
24	post-secondary cert.	-1.39	*0.04*	-0.15	*0.843*	1.05*	*0.002*	0.21	*0.12*	0.28
25	bachelor degree	-0.53	*0.145*	-0.35	*0.387*	0.76*	*0*	-0.08	*0.275*	0.19
26	postgraduate degree	-4.88	*0.077*	3.71	*0.231*	0.45	*0.752*	0.85	*0.125*	-0.12
	% are men with									
27	6-year school cert.	0.46*	*0.01*	0.04	*0.826*	-0.33*	*0*	-0.13*	*0*	-0.05
28	9-year school cert.	-0.22	*0.413*	0.48	*0.103*	-0.19	*0.156*	0.01	*0.91*	-0.08
29	12-year school cert.	0.38	*0.068*	-0.07	*0.751*	-0.21	*0.05*	-0.09	*0.024*	0.00
30	post-secondary cert.	0.58	*0.387*	-0.24	*0.754*	-0.23	*0.497*	0.10	*0.465*	-0.21
31	bachelor degree	0.54	*0.11*	0.18	*0.63*	-0.63*	*0*	0.11	*0.1*	-0.20
32	postgraduate degree	2.31	*0.143*	0.95	*0.592*	-2.21*	*0.006*	-0.79	*0.012*	-0.26
	Workforce involvement (net of effects numbered 2-32)									
	% are women									
33	not participating	0.01	*0.943*	-0.02	*0.863*	0.04	*0.459*	-0.07*	*0.003*	0.04
34	unemployed	-0.05	*0.898*	-0.03	*0.957*	0.16	*0.435*	-0.24*	*0.004*	0.15
35	empl. in hotels etc.	1.58*	*0*	-1.19*	*0*	-0.24	*0.053*	0.03	*0.481*	-0.18
36	empl. in priv. h/holds	0.64	*0.602*	-1.82	*0.188*	0.15	*0.808*	0.71*	*0.004*	0.32

Table 4 (continued) : The seemingly unrelated system of the 2000 election percentage results without spatial regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. ofl Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	Workforce involvement (net of effects numbered 2-32)									
	% are men									
37	not participating	0.34	*0.011*	-0.34	*0.02*	-0.08	*0.251*	0.08*	*0.002*	0.00
38	unemployed	-0.53	*0.102*	0.45	*0.22*	0.03	*0.842*	0.15	*0.018*	-0.10
39	empl. in trade etc.	-0.35	*0.295*	-0.91	*0.014*	0.66*	*0*	0.12	*0.063*	0.47
40	empl. in transport etc.	-0.11	*0.711*	-0.30	*0.371*	0.41*	*0.008*	-0.04	*0.485*	0.05
41	empl. in finance etc.	4.66	*0.011*	0.23	*0.911*	-4.05*	*0*	-0.12	*0.743*	-0.71
42	empl. in education	3.70*	*0*	-3.37*	*0.001*	0.32	*0.499*	0.10	*0.592*	-0.75
43	empl. in priv. h/holds	-12.95*	*0.004*	20.81*	*0*	-3.50	*0.128*	-2.65*	*0.003*	-1.71
	(net of effects numbered 2-43)									
	% are women occupied									
44	as clerks	1.36	*0.035*	-2.15*	*0.003*	0.36	*0.276*	0.19	*0.138*	0.24
45	as craft workers	-2.12*	*0*	3.09*	*0*	-0.54	*0.079*	-0.40*	*0.001*	-0.02
	% are men occupied									
46	as technicians	2.40*	*0*	-2.00*	*0.007*	-0.35	*0.305*	-0.21	*0.117*	0.15
47	as craft workers	0.08	*0.61*	-0.37	*0.047*	0.06	*0.504*	0.09*	*0.005*	0.13
48	as unskilled workers	-0.45	*0.013*	0.58*	*0.004*	-0.11	*0.237*	-0.04	*0.323*	0.01
	(net of effects numbered 2-48)									
	% are classified as									
49	female employers	1.01	*0.036*	-0.28	*0.6*	-0.76*	*0.002*	-0.14	*0.136*	0.17
50	male employers	-0.71*	*0.006*	0.74	*0.011*	0.09	*0.515*	0.01	*0.801*	-0.13
51	employees, self-employed, and/or involved in other sectors and occupations (ref.)									
	Statistics: χ^2	355.67		357.68		221.06		520.20		
	R^2	0.2582		0.2687		0.1867		0.3602		

Note: Asteristcs (*) denote rejection of the hypothesis of equality to zero at the 1% margin of error, as estimated in analyses that rely on samples. In the last column asterisks indicate confidence for the signs of the residual function's coefficients on account of the high z-statistics obtained in all previous regressions.

considered in the regression or factors which are highly correlated with them. (b) The Conservative party attracts an inordinately high percentage of the vote in two mountainous districts in western and southern Epiros (Fourka and Anogion, respectively), as well as in three municipalities in the south-eastern and eastern Peloponnese (Itilon, Molai, Ahladokampos). (c) The Communist party attracts an inordinately high percentage of the vote on the island of Ikaria and two municipalities on the island of Lesvos (Mandamadou and Agiasos); (d) the Confederation of the Left in a municipality in Thrace (Arriana); and (e) the parties that do not enter into parliament in a municipality in Epiros (namely, Melissourgi, birthplace of the leader of the fifth largest party, an offshoot of the Socialist party), and a municipality in north-western Peloponnese (Foloi).

As these localities and several localities around them exhibit similar, though smaller, residuals, it is worth considering if each such cluster might constitute a territorial formation or part of broad territorial formation that is differentiated from other localities in terms of some feature which is missing from the analysis. Next we attempt to construct a set of fresh spatial arguments molded from the clues supplied from the residuals of this Model. Understandably, the residuals are orthogonal to the demographic and other regressors.

5. An Algorithm For Devising Fresh Territorial Regressors After The Residuals

The procedure developed hereinafter both deviates from and blends aspects of the two main empirical approaches that deal with space: (a) The approaches that rely on the use of dummy variables standing for territorial partitions but make no attempt to exploit the spatial information held in the data, as if the latter is properly (perpetually?) captured by the established, conventional partitions. (b) The approaches that utilize the spatial structure of the data by integrating it in the regression via a weight matrix in order to correct the non-spatial coefficients (e.g., coefficients regarding age, education, etc.) but may not be easily or properly employed in Greece due to the country's irregular, very idiosyncratic terrain.[7]

This said, it falls in with the belief that nearby things may exhibit similar behavior (or may be more important in affecting behavior) compared to more distant things. Yet, it also recognizes that (i) not all nearby things exhibit similar behavior (or are always important in affecting behavior), and (ii) not all phenomena (attitudinal, environmental, income and employment or specialization-related or other) spill over in space in the same manner. Indeed, it is agnostic in this respect, and refrains from modeling the information contained in the data as a smooth function of space. So while it looks into the features of the adjacent or neighboring observations, it also by-and-large lets the patterns provided by the data guide the grouping or indicate the structure. There is good rationalization for the occurrence of these patterns. If relevant factors are missing (see note 6), then their impact, including their spatial concentrations and dispersions, is channeled in the error term. A suggestion expressed by Nass and Garfinkle (1992) serves as point of departure. In dealing with an omitted variable, they proposed the incorporation of a proxy that tracks the spatial pattern displayed by the extreme positive or negative residuals. Yet, instead of searching for such a proxy or resorting to assumptions regarding its source, here it is devised. For if the spatial patterns of the residuals (whether positive or negative) reflect the impact of the omitted factors, why not treat the issue of missing information, associations or underlying relationships among localities as a *black box*, the features of which may be discovered with the help of algorithms and econometrics? Essentially, a binary proxy (a dummy variable) is constructed in order to indicate the presence of a locality (observation) or cluster of localities that exhibit a preference (towards one or two or more political parties) that cannot be explained by the available factors; and then inserted in the regression so that the analyst, at the very least, may explore (or experiment with) it. Constructing dummies tailored to the spatial imprints of the (unexplained) portion of the regression is not only the simplest solution one can try before turning to other answers;[8] but also allows the analyst to:

- Capture the spatial component of the unknown or missing factors and reduce the gap caused from their unavailability.
- Estimate (a) the level of dissimilarity of the identified territorial formations from the intercept as in conventional models (e.g., Model I), as well as (b) the impact and significance of the spatial component (or the spatial dimension) of the omitted variable(s) across space. This is especially attractive if it does not consume many degrees of freedom compared to the conventional model.

We outline the process of grouping localities into wider spatial formations in the following steps:

[7] The contiguity or proximity weight matrix, is often considered in empirical analyses in a good number of countries and cases with particular morphological features, such as the contiguous states of the USA, in order to provide a spatial representation of the territorial units (with the off-diagonal elements of the matrix capturing the contiguity or proximity of the observations) so that all units are connected with at least one other unit. Thus, there can be no "islands". In our view, the contiguity matrix is not suited to handle the country's striking polynesian feature; while the proximity matrix is likely to mix Euclidean land with sea distances and assume they are the same; when, in fact, we may not really know how connections are made. Using simulations techniques and relying on the map coordinates of Greece, Tsimpanos et al. (2012) cast doubts as to whether the seemingly improved (in relation to the OLS) results of the geographically weighted regression are not in fact spurious (misleading).

[8] To illustrate via a contraposition, we can turn to McMillen's (2003) fairly straightforward simulation revolving around the existence of a spatial dummy (conspicuous if the residuals were projected on a map) which the empirical analyst fails to notice, thus ending up with an incorrectly specified model seemingly suffering from spatial autocorrelation, which not even a spatially autoregressive, as well as a locally weighted regression model can eradicate. In a way, the recovery of a problematical result as a consequence of a wrong assumption, serves as a sobering reminder to look for simple answers first, in spite of the capacity to treat complex problems with sophisticated solutions.

I. Run the five regressions without spatial regressors, as in Model II. (The regressors are modified so as to be orthogonal towards each other, for the reasons mentioned in the penultimate paragraph of Section 2.)

II. Estimate the residual values in each of the five equations. (The outcome is the one described in the penultimate paragraph of Section 4). Hence, each locality (voting district) is now characterized (even differentiated from other observations) by the values and combination of values of its five residuals.[9]

III. Assign the same dummy to localities situated in close proximity (including localities on opposite coasts, separated/linked by water) if each of the five residuals associated with one locality are similar to the respective residuals of the other locality: similar with regard to exceeding or not a certain threshold (here this threshold is initially set to 0.04).[10] Assign different dummies to distinct groupings (formations) and to isolated localities.

IV. Re-run the four SURs in terms of the said spatial dummies, and the other available regressors. (As in Step I, modify the covariates so that they are orthogonal towards the dummies and to each other). Examine separately each and every observation’s inclusion in a grouping to ensure the formation’s homogeneity. If the observation’s exclusion boosts the coefficient’s significance then the observation is excluded from the grouping. The spatial dummies associated with coefficients which are statistically different from zero at the 1% level are retained.

V. Estimate the residual values in each of the five equations. As in Step II assign the same spatial dummy to localities in close proximity if each of the five residuals associated with one locality are similar tothe respective residuals of the other: similar with regard to exceeding or not a lower threshold (here set to 0.025) in all five equations, is the same.[11] Assign different dummies to distinct groupings (formations). Repeat step IV.

VI. Repeat step V for the remaining observations (i.e., those associated with smaller positive residual values).

VII. Band together neighboring formations identified in the previous steps if their coefficients (across regressions) are similar by replacing their initial dummies with a new (common) dummy.[12] Naturally, the degrees of freedom increase. Re-estimate the SUR system with the new dummies.

Eventually, the procedure yields 55 spatial formations, one of which serves as the reference area and the rest correspond to micro-regions (clusters or districts) and outliers. To visual aid the reader the formations are displayed in Map 2. The map reveals a number of spatial voting preference patterns or concentrations which (a) are attributable to the unknown (unavailable) factors; and (b) bear little or no connection to the country’s thirteen broad regional and 54 narrow sub-regional (prefectorial) partitions along the lines of which the parliamentary seats are allocated (see Map 1). The second observation is striking considering the interest of candidates, elected officials and political parties in resolving matters and building loyalties over the years, along these particular territorial scales. Indeed, it seems that if a spatial organization is not imposed on the data, it may not pop up at all; and if questioned,

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[9] For instance, one locality may exhibit (be associated with) a large positive residual value in the first equation, another locality may exhibit large positive residuals values in both the first and third equations, a third locality may exhibit a large positive residual value in the third equation and a large negative residual value in the fourth equation, and so on.

[10] The threshold value is not arbitrary. Commencing from observations that exhibit an unexplained high preference of 0.04 or more ensures the consideration of a modest number of territorial cores or formations. See also next note.

[11] We find that: (a) Observations associated with at least one residual value in excess of 0.04 turn out to be associated with a statistically significant positive coefficient. (b) A good number of observations the residuals of which range between 0.025 and 0.04 also turn out to be associated with statistically significant coefficients, while other observations associated with residual values in the same range turn out to be associated with less significant coefficients in all four equations. (c) As a rule, observations with smaller residuals (<0.25) turn out to be associated with coefficients of low significance in all four equations. One suspects that in empirical analyses involving different phenomena and data, the thresholds will vary. Observations associated with high residuals values in the fifth equation are also given a dummy.

[12] In this fashion, a number of contiguous localities in Thrace associated with large positive residuals in both the first and fourth equations (which translates to high, yet otherwise unexplained, local support for both the first and the fourth political parties) are assigned the same dummy variable and treated as a potential territorial cluster.

as in this exercise, it may vanish. Last but not least, from a statistical point of view, we cannot but note that though the number of spatial arguments (55 − 1 = 54) is about the same as the number of formations employed in the prefectural model (53), the equation's fitness improves considerably.

6. A Regression With Spatial Dummy Variables That Capture Omitted Information

The empirical results generated by the new specification are presented in Table 5. (In the interest of brevity, a few secondary comments regarding the determinants are provided in note 13.) We notice that (a) the estimated intercepts resemble those obtained via Model II; (b) the R^2 values of the four functions reveal higher levels of explained overall variation (ranging between 65.1% and 77.4%) compared to Models I and II; (c) a small number of coefficients (four and one, respectively) associated with modified covariates, now become prominent while other coefficients (three and eight, respectively) become less prominent.

In this setting the Socialist party attracts a high percentage of the vote in the areas which are indicated in Map 2 with green, purple and yellow,[14] esp. in the north-western Peloponnese (a district that includes (encircles) the homeland of the party's founder and tends to favor the party even when it is not performing well nationwide, e.g., in the 2004 and 2007 elections); parts of western and central Crete, most of the eastern half of Crete and the south-eastern Aegean islands (i.e., districts which the party for a long time tended to win, election after election); a cluster of small islands in the central-eastern Aegean; and the districts of Agion Miron, Varikon and Orini on the island of Hios, in West and Central Macedonia, respectively. Likewise the Conservative party is favored in the areas that are indicated in Map 2 with blue (see note 14), esp. the western slopes of the central Pindos mountain-range; a succession of clusters encircling the western plain of Thessaloniki, Mt.Vermion and lake Vegoritis; the district of Pikrolimni on the eastern plain of Thessaloniki; a part of central Macedonia running from the eastern suburbs of Thessaloniki to mountains Falakron and Paggeon (including the birthplace of the party's founder); pockets of municipalities along the mid-course of the Kompsatos river on the Western Rodopi mountains; the districts of Nimfeon and Ktimenion in West Macedonia and Central Greece, respectively; and a pair of small islands on the north-western extremities of Greece. At the same time the Communist party enjoys a high percentage of the vote in the areas indicated in Map 2 with red, pink and purple (see note 14), esp. the islands of Lesvos, Inouse, Ikaria, and the municipality of Marathokampos on the west side of the island of Samos; the Confederation of the Left in the areas indicated with orange, yellow, pink and brown; and the other parties in the areas indicated in Map 2 with black and brown, esp. the municipalities of Agnanta and Melissourgi on the western slopes of the Athamanian mountains, and Foloi in north-western Peloponnese.

Overall, a good number of geographic power bases is delineated, as well as (gray-colored) areas where support is soft, for which party-strategists might have to compete. The yellow patch in the northern part of the Rodopi prefecture see (Model 3, #45) matches the zone inhabited by the Muslim community, rather than the whole prefecture (Model 1, #26). The red blots in the Ionian islands, Thessaly, the neighboring regions (Model 3, #22, 28) and elsewhere, reveal a solid pro-communist sub-stratum that hardly ever shows up in typical maps of election results and, apparently, is only partly evident in Model 1 (#32, 34-35, 37). The presence of high support in the birthplaces of the socialist and conservative party-founders and

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[13] The highest correlations between dummies are observed between the out-of-town dummy variable and the localities of (a) the southern Pindos mountain-range (r = 15.57%), (b) Athens and a string of localities extending to the south Attic peninsula (r = -13.17%), and (c) the eastern slopes of the central Pindos mountain-range and its eastern extensions (r = 10.51%). Since the coefficients associated with the 6th and 7th regressors of the preliminary version of the model (Table 4) are most similar, in order to conserve degrees of freedom the variables are merged into variable 61. There is no loss in the information conveyed.

[14] The meaning of the colors used in Map 2 is as follows: green indicates an inordinately high electoral percentage favoring the Socialist party, blue stands for favoring the Conservative party, red for favoring the Communist party, orange for favoring the Confederation of the Left, black for favoring the parties that did not enter into parliament, purple for favoring both the Socialist and Communist parties, yellow for favoring both the Socialist party and the Confederation of the Left, pink for favoring both the Communist party and the Confederation of the Left, brown for favoring the Confederation of the Left and the other parties.

the neighboring localities suggests that localism (or a party-related home-state or home-town advantage) may endure long after a politician's passing.

Table 5: The seemingly unrelated system of the 2000 election percentage results with micro-regional regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
1	Constant	0.44*	0	0.43*	0	0.05*	0	0.03*	0	0.05
2	Out-of-town (dummy)	0.01*	0	0.02*	0	-0.01*	0	-0.01*	0	-0.01
	Spatial factors									
3	Athens, environs, belt extending from S. Peloponnese to C. Aegean	-0.05*	0	0.08*	0	-0.02*	0	-0.00*	0	-0.01
4	E. Athenian suburb of Zografou	-0.02	0.61	-0.04	0.329	0.02	0.35	0.03*	0.003	0.01
5	E. Athenian suburbs of Kesariani and Viron	-0.02	0.551	-0.10*	0	0.07*	0	0.04*	0	0.01
6	S. Athenian suburb of Ellinikon	-0.01	0.85	-0.09	0.025	0.07*	0.001	0.02	0.087	0.01
7	S. tip of Attica penins.	0.03	0.202	-0.10*	0	0.00	0.776	0.05*	0	0.01
8	String of W. Athenian suburbs	0.01	0.291	-0.12*	0	0.06*	0	0.02*	0	0.02
9	Cluster of NW. Athenian suburbs	0.02	0.339	-0.10*	0	0.02	0.092	-0.01	0.176	0.07
10	Cluster of N. Athenian suburbs	-0.03	0.14	-0.02	0.254	0.00	0.777	0.04*	0	0.01
11	N. Athenian suburb of Krionerion	-0.01	0.718	-0.08	0.046	0.08*	0	0.01	0.15	0.01
12	NW. Edge of Attica	-0.04	0.107	0.01	0.863	0.00	0.754	0.03*	0	0.00
13	Area by Mt. Elikon	0.01	0.781	-0.08*	0.009	0.06*	0	0.01	0.179	0.00
14	N. Euboean gulf	0.04*	0	-0.02	0.058	-0.01	0.057	-0.00	0.174	-0.01
15	NE. Euboea, Skopelos	-0.02	0.21	-0.06*	0.004	0.05*	0	0.04*	0	-0.01
16	Orei distr. in Euboea	-0.04	0.285	-0.02	0.56	0.07*	0.001	0.00	0.694	-0.01
17	Sourpi distr. in SW. Thessaly	-0.07	0.081	0.00	0.99	0.08*	0	-0.00	0.844	-0.01
18	Nea Ionia distr. in SW. Thessaly	0.01	0.719	-0.10	0.02	0.06*	0.006	0.03*	0.005	-0.00
19	Area between Paggasaean - Corinthian gulfs	-0.05*	0	0.08*	0	-0.02*	0	-0.01*	0.001	-0.01
20	NW. Peloponnese	0.11*	0	-0.07*	0	-0.02*	0	-0.01*	0	-0.01
21	Foloi dist. in NW. Peloponnese	-0.45*	0	-0.03	0.476	-0.01	0.55	0.01	0.127	0.48
22	String across Ionian Sea, Ambrakian gulf	-0.02	0.043	-0.04*	0	0.06*	0	0.00	0.03	-0.01
23	Pair of N. Ionian isles	-0.04	0.126	0.12*	0	-0.03	0.019	-0.02*	0.007	-0.02
24	Isles between Lefkas isl. and Akarnania	0.10*	0	-0.13*	0	0.03*	0.006	0.00	0.834	-0.01
25	Area by S. Valtos Mts.	0.05*	0.002	-0.02	0.201	-0.01	0.088	-0.01	0.02	-0.00
26	Ktimenion distr. in NW. Central Greece	-0.08	*0.039*	0.14*	*0.001*	-0.03	*0.123*	-0.01	*0.165*	-0.01
27	S. Pindos Mts., upper Pinios course	-0.07*	*0*	0.09*	*0*	-0.01	*0.014*	-0.01*	*0*	-0.01
28	SW. plain of Thessaly, lower Pinios course	-0.04*	*0*	-0.02	*0.04*	0.06*	*0*	-0.00	*0.942*	-0.01
29	E. mid-Pindos Mts.	0.05*	*0*	-0.05*	*0*	0.01	*0.246*	-0.00	*0.259*	-0.00
30	W. Athamanian Mts.	-0.02	*0.366*	-0.14*	*0*	0.03	*0.069*	0.01	*0.209*	0.13
31	W. Ioannina plateau	-0.02	*0.317*	-0.07*	*0*	0.08*	*0*	0.01	*0.142*	0.00
32	W. mid-Pindos Mts.	-0.13*	*0*	0.16*	*0*	-0.01	*0.339*	-0.00	*0.376*	-0.01
33	Distraton distr. in W.	-0.02	*0.546*	-0.02	*0.691*	0.07*	*0.001*	-0.01	*0.262*	-0.02

Table 5 (continued) : The seemingly unrelated system of the 2000 election percentage results with micro-regional regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	Spatial factors									
34	Varikon distr. in W. Macedonia	0.14*	0	-0.13*	0.001	-0.00	0.96	-0.01	0.501	-0.00
35	Nimfeon distr. in W. Macedonia	-0.21*	0	0.24*	0	0.00	0.923	-0.01	0.375	-0.02
36	Ring about the W.Thessalonian plain-Mt.Vermion-lake Vegoritis	-0.08*	0	0.11*	0	-0.02*	0	-0.01*	0	-0.00
37	W. Krousia Mts.	-0.07*	0	0.04	0.082	0.05*	0	-0.00	0.315	-0.00
38	Pikrolimni distr. on the E. Thessalonian plain	-0.15*	0	0.13*	0.001	0.02	0.45	-0.01	0.546	0.00
39	String of E. Thessalonian suburbs	-0.00	0.942	-0.15*	0	0.08*	0	0.03*	0	0.04
40	Area between the Thessalonian plain and Falakron-Paggeon Mts.	-0.08*	0	0.10*	0	-0.02*	0	-0.01*	0	-0.00
41	Orini distr. on Menikion Mt.	0.12*	0.002	-0.09	0.034	-0.01	0.79	-0.01	0.149	-0.02
42	Rodolivos on Paggeon Mt.	-0.10	0.011	0.02	0.634	0.05	0.013	0.03*	0.001	-0.01
43	Kotili distr. on the W. Rodopi Mts.	0.01	0.847	-0.01	0.831	-0.01	0.628	0.03*	0.002	-0.02
44	Satre and Seleron districts on the W. Rodopi Mts.	-0.14*	0	0.19*	0	-0.02	0.12	-0.02	0.021	-0.01
45	E. Rodopi Mts.	0.07*	0	-0.10*	0	-0.03*	0	0.07*	0	-0.01
46	Mid-Evros course	-0.04*	0.007	0.07*	0	-0.02	0.021	-0.01*	0.001	0.00
47	Thasos isl, western Limnos isl., Agios Efstratios isl. in N. Aegean	-0.02	0.453	-0.04	0.063	0.07*	0	0.00	0.564	-0.01
48	Belt along N. Aegean from Thrace to Euboea	0.07*	0	-0.06*	0	-0.01*	0.008	-0.00	0.308	0.00
49	Lesvos isl., Ikaria isl, western Samos isl. in the Mid-NE. Aegean	-0.06*	0	-0.09*	0	0.13*	0	0.03*	0	-0.01
50	Agios Miron distr. on Hios isl.	0.19*	0	-0.15*	0	-0.02	0.289	-0.01	0.138	-0.00
51	Nea Ionia distr. on Hios isl.	0.03	0.483	-0.04	0.339	0.00	0.885	0.03*	0.002	-0.02
52	Panormos distr. in the Cyclades	0.09	0.016	-0.22*	0	0.01	0.557	0.03*	0.009	0.09
53	Fourni, Patmos and Donousa islands	0.13*	0	-0.14*	0	0.03*	0.005	0.00	0.754	-0.02
54	Suburbs of Iraklion	0.11*	0	-0.15*	0	0.04*	0.001	0.01	0.262	-0.01
55	E. Crete, SE. Aegean	0.15*	0	-0.11*	0	-0.03*	0	-0.00	0.267	-0.01
56	Parts of W. Crete	0.11*	0	-0.10*	0	-0.00	0.806	-0.00	0.277	-0.00
57	Rest of the country (ref.)									
	Population density (net of effects numbered 2-57)									
58	People/km^2	0.00	0.551	-0.00*	0	0.00*	0	0.00*	0	0.00
59	People/km^2 - square	0.00	0.922	0.00*	0	-0.00*	0	-0.00*	0	-0.00

Table 5 (continued) : The seemingly unrelated system of the 2000 election percentage results with micro-regional regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	Demographic composition (net of effects numbered 2-59)									
60	% aged 0-14 years	0.74*	0	-0.78*	0	-0.01	0.95	-0.14*	0.008	0.19
61	% aged 15-24	0.64*	0	-0.68*	0	0.02	0.871	-0.09	0.041	0.12
62	% women aged 25-34	1.10*	0	-1.31*	0	0.10	0.51	0.08	0.275	0.03
63	% men aged 25-34	0.22	0.372	-0.13	0.612	-0.13	0.314	-0.10	0.091	0.15
64	% women aged 35-44	-0.60	0.034	0.31	0.31	0.03	0.866	0.10	0.141	0.16
65	% men aged 35-44 (ref.)									
66	% women aged 45-54	0.03	0.906	-0.56	0.02	0.02	0.864	0.21*	0	0.31
67	% men aged 45-54	1.61*	0	-1.62*	0	-0.06	0.701	-0.17	0.014	0.24
68	% women aged 55-64	0.34	0.139	-0.51	0.041	-0.01	0.963	-0.00	0.956	0.17
69	% men aged 55-64	0.14	0.572	-0.07	0.788	0.10	0.477	-0.16	0.011	-0.01
70	% women aged 65-74	0.99*	0	-0.74*	0.004	-0.12	0.364	-0.17*	0.005	0.04
71	% men aged 65-74	0.01	0.968	-0.23	0.375	-0.01	0.938	-0.08	0.176	0.31
72	% women aged ≥ 75	0.30	0.187	-0.38	0.117	0.06	0.621	0.00	0.994	0.02
73	% men aged ≥ 75	1.36*	0	-1.52*	0	0.05	0.726	0.04	0.524	0.07
	Education composition (net of effects numbered 2-73)									
74	% w/o qualification (ref.									
	% are women with									
75	6-year school cert.	-0.02	0.813	-0.18	0.025	0.13*	0.001	0.04	0.043	0.03
76	9-year school cert.	0.17	0.387	-0.27	0.202	0.13	0.218	0.05	0.316	-0.08
77	12-year school cert.	-0.02	0.895	0.04	0.759	-0.02	0.817	0.02	0.528	-0.03
78	post-secondary cert.	-0.55	0.165	-0.58	0.171	0.56*	0.009	0.36*	0	0.22
79	bachelor degree	-0.12	0.579	-0.36	0.119	0.37*	0.002	0.02	0.75	0.10
80	postgraduate degree	-7.41*	0	6.77*	0	0.28	0.757	0.52	0.215	-0.16
	% are men with									
81	6-year school cert.	0.14	0.158	0.03	0.758	-0.11	0.039	-0.07	0.011	0.00
82	9-year school cert.	-0.14	0.326	0.20	0.198	-0.02	0.773	0.01	0.766	-0.04
83	12-year school cert.	0.20	0.08	-0.25	0.038	0.06	0.335	-0.05	0.059	0.05
84	post-secondary cert.	-0.71	0.053	0.69	0.075	-0.04	0.835	0.09	0.308	-0.04
85	bachelor degree	0.13	0.487	-0.00	0.988	-0.18	0.074	0.08	0.082	-0.03
86	postgraduate degree	2.87*	0.002	-0.67	0.51	-1.22	0.017	-0.56	0.02	-0.42
	Workforce involvement (net of effects numbered 2-86)									
	% are women									
87	not participating	0.12	0.067	-0.06	0.423	-0.05	0.188	-0.01	0.521	-0.01
88	unemployed	0.21	0.393	-0.19	0.48	-0.06	0.684	-0.04	0.541	0.07
89	empl. in hotels etc.	0.50*	0.001	-0.15	0.461	-0.18	0.027	0.02	0.599	-0.21
90	empl. in priv. h/holds	1.01	0.196	-2.87*	0.001	0.96	0.024	0.71*	0	0.21
	% are men									
91	not participating	0.21*	0.008	-0.31*	0	0.01	0.872	0.08*	0	0.02
92	unemployed	-0.53*	0.008	0.44	0.041	0.13	0.225	0.06	0.205	-0.10
93	empl. in trade etc.	-0.18	0.365	-0.79*	0	0.44*	0	0.15*	0.003	0.38
94	empl. in transport etc.	0.04	0.845	-0.21	0.266	0.17	0.097	-0.05	0.298	0.07
95	empl. in finance etc.	3.89*	0	-0.64	0.589	-2.45*	0	0.06	0.819	-0.86
96	empl. in education	2.08*	0	-1.53	0.012	0.16	0.611	-0.02	0.862	-0.68
97	empl. in priv. h/holds	-8.40*	0.009	15.15*	0	-3.53	0.041	-2.26*	0.005	-0.96

Table 5 (continued) : The seemingly unrelated system of the 2000 election percentage results with micro-regional regressors, in terms of the 2001population characteristics across Greece's 1,022 localities

	Dependent variables:	Socialists		Liberal-Conserv.		Communists		Confed. of Left		Others
	Explanatory variables	coef. (1)	P>|z|	coef. (2)	P>|z|	coef. (3)	P>|z|	coef. (4)	P>|z|	residual of functions (1)-(4)
	Workforce involvement (net of effects numbered 2-96)									
	% are women occupied									
98	as clerks	1.57*	0	-2.23*	0	0.10	0.656	0.25	0.014	0.31
99	as craft workers	-1.69*	0	2.18*	0	-0.33	0.103	-0.28*	0.003	0.12
	% are men occupied									
100	as technicians	2.12*	0	-1.49*	0.001	-0.33	0.129	-0.21	0.004	-0.10
101	as craft workers	0.15	0.135	-0.46*	0	0.14*	0.009	0.09*	0.001	0.07
102	as unskilled workers	-0.43*	0	0.54*	0	-0.08	0.172	0.00	0.997	-0.03
	(net of effects numbered 2-101)									
	% are classified as									
103	female employers	0.68	0.019	-0.40	0.2	-0.34	0.032	-0.02	0.742	0.08
104	male employers	-0.38	0.017	0.62*	0	-0.17	0.053	0.01	0.931	-0.08
105	employees & self-employed, and/or involved in other sectors and occupations (ref.)									
	Statistics: χ^2	3012.49		3432.28		2222.41		1766.28		
	R^2	0.7467		0.7741		0.6891		0.6505		

Asteristcs (*) denote rejection of the hypothesis of equality to zero at the 1% margin of error, as estimated in analyses that rely on samples. In the last column asterisks indicate confidence for the signs of the residual function's coefficients on account of the high z-statistics obtained in all previous regressions.

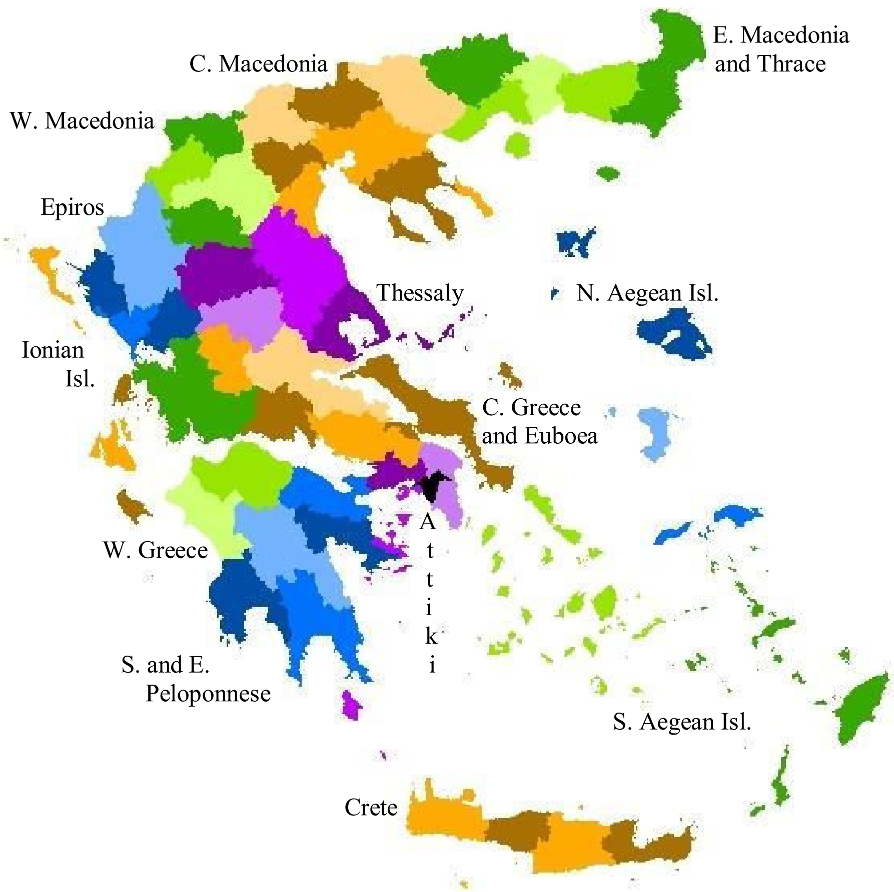
The limited extent of the socialist-green spots in the northwestern Peloponnese and parts of Crete, compared to the large tracks of the country covered in conservative-blue, is in reverse proportion to the votes cast in the particular election; however indicates a rather narrow (extended) geographic support for the socialists (conservatives) if changes in policy-orientation due to deterioration in economic or other conditions, undermined the loyalties of sectoral, professional or other groups.

The remaining results suggest that the Socialist party's performance improved substantially in areas with a modest or high out-of-town voter element, and higher-than-average population shares of men with postgraduate qualifications, employed in education and finance or as technicians; and deteriorated in constituencies possessing higher-than-average population shares of women with postgraduate qualifications and men employed in private households. The Conservative party's performance improved substantially in areas with higher-than-average population shares of women with postgraduate qualifications or employed as craft-workers, and men employed in private households; and deteriorated in constituencies possessing higher-than-average population shares of women employed in private households or as clerks. The Communist party's performance deteriorated in areas with higher-than-average population shares of men employed in finance; and both the Communist party's and the Confederation of the Left's performance deteriorated in areas with higher-than-average population shares of men employed in private households.

7. Summary And Conclusions

In closing, the paper proposes a methodology for incorporating the spatial patterns of the residuals in the regression, on the grounds they may capture unobserved characteristics and improve the explanatory capacity of the empirical analysis. In essence, localities are grouped or not grouped together in spatial formations, in a manner that fits the data. This may be especially handy in analyses dealing with irregular or idiosyncratic terrains, in which cases the conventions employed to treat spatial association may seem inappropriate or inconsistent.

Map 1: The regional and sub-regional organization of Greece



Key for colors (commencing from north-west, moving clockwise)

Ionian Islands
- Kerkira prefecture
- Lefkas prefecture
- Kefallinia prefecture
- Zakinthos prefecture

Epiros
- Thesprotia prefecture
- Ioannina prefecture
- Arta prefecture
- Preveza prefecture

West Macedonia
- Kastoria prefecture
- Florina prefecture
- Kozani prefecture
- Grevena prefecture

Central Macedonia
- Pella prefecture
- Kilkis prefecture
- Serre prefecture
- Thessaloniki prefect.
- Halkidiki prefecture
- Holy Mt. peninsula
- Pieria prefecture
- Imathia prefecture

East Macedonia and Thrace
- Drama prefecture
- Xanthi prefecture
- Rodopi prefecture
- Evros prefecture
- Kavala prefecture

North Aegean Islands
- Lesvos prefecture
- Hios prefecture
- Samos prefecture

South Aegean Islands
- The Cyclades
- The Dodekanese

Crete
- Hania prefecture
- Rethimnon prefecture
- Iraklion prefecture
- Lasithion prefecture

Attiki
- Western Attiki prefecture
- Athens prefecture
- Eastern Attiki prefecture
- Piraeus prefecture

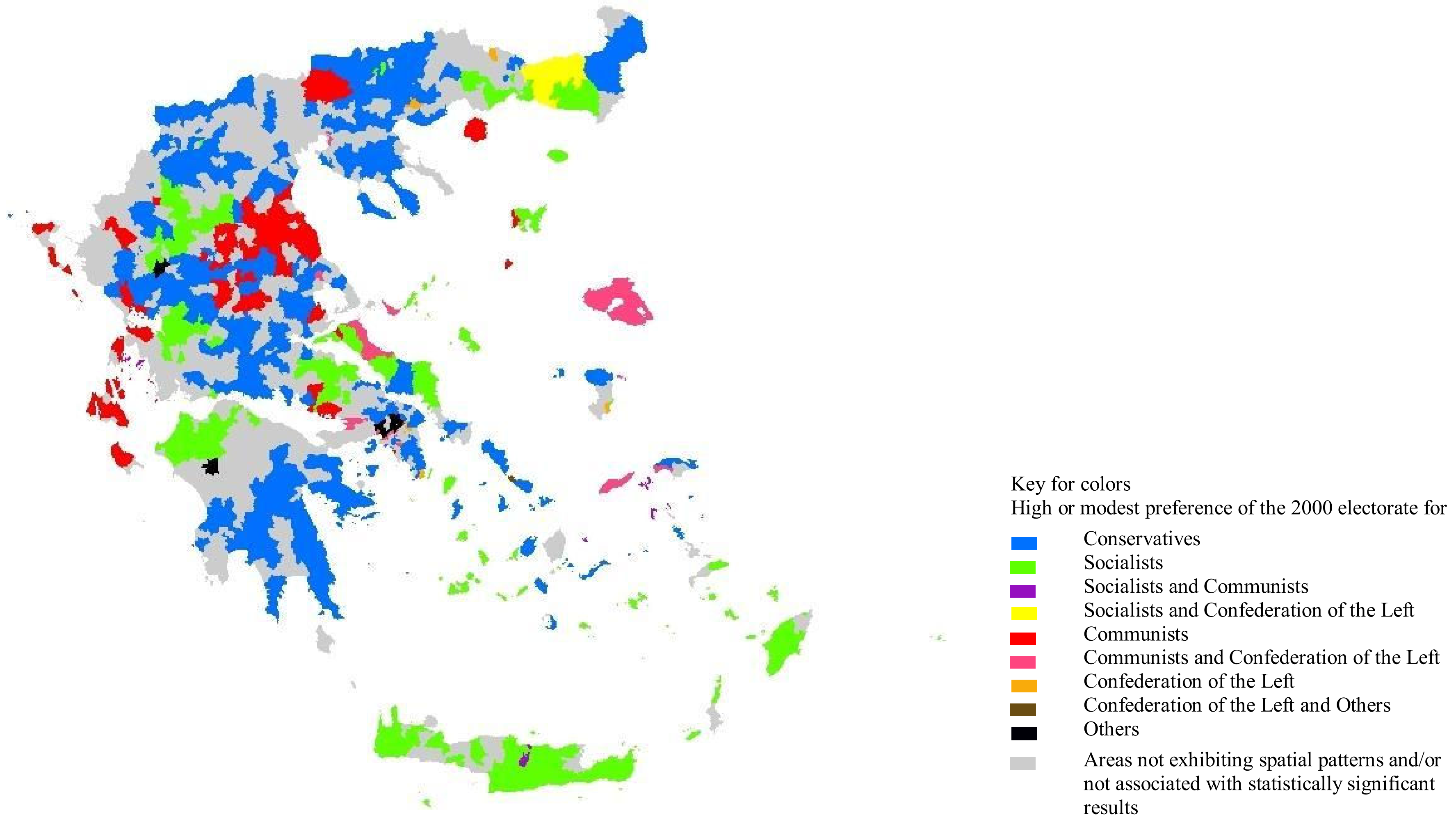
South and East Peloponnese
- Korinthia prefecture
- Argolis prefecture
- Arkadia prefecture
- Lakonia prefecture
- Messenia prefecture

Western Greece
- Aetolia & Akarnania prefecture
- Ahaia prefecture
- Ilis prefecture

Thessaly
- Trikala prefecture
- Larisa prefecture
- Magnesia prefecture
- Karditsa prefecture

Central Greece and Euboea
- Evritania prefecture
- Fthiotis prefecture
- Euboea prefecture
- Boeotia prefecture
- Fokis prefecture

Map 2: Portrayal of the spatial coefficients associated with low error probability values (≤1%) as per the results of Table 5



The methodology is applied to the 2000 election results in Greece. It leads to the identification of a number of demographic, educational, sectoral and occupational groups, as well as distinct territorial groupings of constituencies with similar voting disposition (indicated in Map 2), the effects of which are quite large, as well as a number of constituencies, the effects of which appear to be smaller. The regression-fit improves considerably compared to the version that relies on the conventional territorial specification.

Thus, by departing from the empirical approaches that rely on typical spatial dummies, the paper shows that some spatial effects that might ordinarily be blurred within conventional partitions may be important and, at the very least, their distinct impact ought to be considered. The lesson is probably useful to a broader readership than the one concerned with the identification of electoral areas and the design of spatially-tailored voter-related campaigns in Greece: For instance, analysts and policy-makers interested in identifying through statistics, health, education, crime or other policy areas or areas the distinctiveness of which ought to be surveyed. Nevertheless, the exercise is likely to interest nominees for political office and their advisors, even if the particular period and incident are somewhat disassociated from current developments in Greek politics.

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