Chapter 1

Introduction

In all communities, democracy necessarily means representative democracy in which elected officials make decisions on behalf of the people. People express their will and chose their leaders or representatives by voting. The indispensable task of the election of the representatives, in democracies is performed by the electoral system. The electoral system is the set of the methods that are used in the elections, for the translation of vote totals into representative seats in the Parliament. Because of the central role elections play in so many modern states, the influence of electoral systems on politics, and vice versa, has long been a justifiable concern of the discipline of political science. Taagepera and Shugart (1989) give a general statement of the role that elections and electoral systems play in political life. They describe the electoral systems and their characteristics and present an empirical analysis of the electoral systems. Also, Lijphart (1994) analyse the operation and the political consequences of electoral systems, particularly the degree of proportionality of their translation of votes into seats and their effects on party systems. The emphasis is given to the electoral systems that have been used in the European democracies.

The study of electoral systems and their links to political issues and regime stability leads itself to quantitative analysis. Unlike many areas of social sciences, our data are already provided in a hard quantitative form: numbers of votes and numbers of seats. Systematic quantitative studies of electoral systems have been relatively rare. The studies in the field have been limited to particular countries, promoting particular types of systems.

The aim of this study is to describe and analyse the operation of Greek Parliamentary

Electoral systems. In particular we provide a quantitative study of Greek systems of the period 1974-1999. We compare these systems, with respect to the degree of the proportionality that they achieve, when they translate votes into seats.

Reviewing the electoral systems literature, Lijphart and Gibberd (1985) noted the absence of one serious attempt to solve the problem of how to measure proportionality or disproportionality. There are many ways to measure inequality, see, for example Allison (1978), but because they exceed a certain level of complexity, the results they provide became difficult to interpret. Gallagher (1991), presents and reviews the main Proportional Representation methods and discuses the principles underlying each of them. He also presents measures of disproportionality, suggests some new indices and applies these measures to competitive elections of the period 1979-1989. Lijphart (1995) has also applied some indices of disproportionality in a study of twenty-seven democracies of the period 1945-1990.

Electoral systems are creatures of politics and can be altered for political reasons. Even when an electoral system is stable, it is affected by a large number of issues such as socio-economic, religious, political and ethnic factors. Greek Electoral systems and their political and socio-economic aspects have been analysed and described by many researchers, under different points of view; see, for example, Dretakis (1982, 1984, 1986), Pantelis and Triantafillou (1985), Nikolakopoulos (1985,1989), Dimitras (1991), among several others.

In Greece, the last 25 years five different electoral systems have been applied in the Parliamentary Elections. Our purpose is to describe and analyse these electoral systems in detail, and to present the rules of the allocation of the seats at each distribution, for all the systems under consideration. We comment the rules, the characteristics and differences between the electoral systems. In particular, **we provide and implement a quantitative analysis** of Greek electoral systems of the period 1974-1999. We compare and evaluate the Greek Electoral systems [1974, 1977 (1981), 1985, 1989, 1993 (1996)] using some measures of disproportionality. Disproportionality is the deviation of the parties' seat shares from their vote shares. In the category of Proportional Representation systems (PR systems), where the Greek electoral systems analysed, can be thought of, there are two broad categories of measures of disproportionality. The first concentrates on the absolute difference between parties' seats and votes, and the second focuses on the ratio between the parties' seats and votes. For the evaluation of the

Greek systems we apply the Rae, Loosemore-Hanby, Least Square, Adjusted Loosemore-Hanby, Lijphart indices, which belong to the first category, and the Saint-Langue and d'Hont indices, which belong to the second category. We also apply the regression index, which is a satisfactory measure of big-parties' bias. As far as we know, such an analysis has not been applied for the Greek Electoral systems. We implement the Greek systems using the data set of the parliamentary elections of 1996. In order to achieve more accurate results we use a large number of data sets generated by introducing noise (error) to the initial data set. Sensitivity analysis is performed, by analysing all the systems and the measures of disproportionality using 9 and 13 major districts, for the generated datasets.

The thesis is organized as follows. Electoral systems and their categories are presented in chapter two. Greek electoral systems are described and their characteristics and properties are presented in chapter three. In chapter four the measures of disproportionality are described, and the dataset we use together with the various generated datasets are described in chapter five. In chapter six we apply the Greek electoral systems and the measures of disproportionality in the parliamentary elections of 1996 and in the generated datasets. We also, present the results of the elections for the European Parliament of 1999 in Greece, under the current system. Finally, we conclude in chapter seven with a brief discuss of the main results of this study.