

## ABSTRACT

The thesis deals with the geographical analysis of parliamentary elections in the Czech Republic held in 2002 and 2006. The question is whether political regionalism measured by spatial variation of voting results continues to be an important feature of political development in period between 2002 and 2006. The variability and stability of regional differences in voting behaviour are measured and the underlying factors explaining the voting patterns of five major Czech political parties are searched for. The regional differences of political attitudes are not simply a reflection of the differences in the social and demographic composition of the regional population. Not only differences in the social structures do contribute to differences in political attitudes, but they are also significantly influenced by the regional social, political, and economic situation. The contextual variables and compositional variables are used in the statistical models.

The quantitative analysis are all based on aggregate statistical data referring to voting behaviour. Spatial aggregate data have unique qualities which make the use of many quantitative methods highly questionable. Two major analytical issues (ecological fallacy with the modifiable areal unit problem and spatial nonstationarity) are reviewed also with empirical examples. The emphasis is given to spatial nonstationarity and local forms of spatial analysis instead of global ones. Global regression has been for example applied in many cases to explore relationships between socioeconomic variables. Although these analytical approaches came in useful, they have the shortcoming that they can mask geographical variations in relationships. In regression models where the subjects are geographical locations, regression coefficients sometimes do not remain fixed over space. A technique for exploring above mentioned phenomenon, geographically weighted regression (GWR), is being introduced.

The geographical analysis of voting behaviour highlight the relevance and usefulness of the new quantitative technique GWR. One of purposes of this thesis therefore is to show how contemporary developments in quantitative analysis can improve geographical research and our understanding of geographical processes as well.