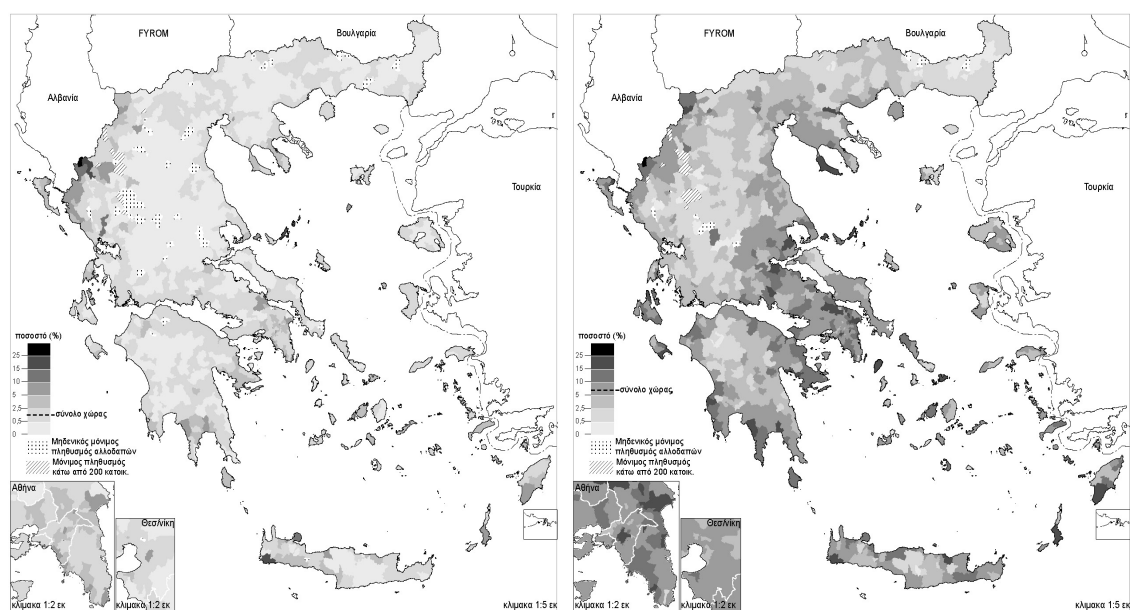


Extended abstract

1. Introduction

Immigration in Greece has been vast during the past two centuries. Its intensity however was variable through time. A first pick of the phenomenon is identified between 1888 and 1919, when a least 15-20% of the total population emigrates predominantly to the U.S.A. The process is highly selective in terms of both geographic and demographic characteristics. The main population group affected was young persons, mainly males, coming from rural areas of central and west Peloponnesus. A second pick appears between 1945 and 1977 when an estimated 650,000 individuals move initially to U.S.A, Canada and Australia and subsequently to western European countries. West Germany is the main target by receiving approximately 85% of the emigrants. Emigration continues at a lower pace until mid 80s. At the same time, an immigration movement starts with 630,000 individuals returning in the country between 1971 and 1985, while roughly 160,000 individuals return in the country between 1985 and 1991. Half of them moves then in one of the two main metropolitan areas. The 80s is a transitional decade. Immigration is progressively reduced and coexists now with immigration of previously emigrated Greeks, political refugees and foreigner workers coming mainly from Asian, African and the eastern-European countries. The emigration flow is minimized during the past 15 years. Conversely, inbound flows are intensified following the collapse of eastern European regimes and the successive crises in Albania. As a result the county is transforming from a place of exodus to a recipient one. This finding is justified by resent census data. In the 1981 census 177,000 foreigners are recorded consisting merely 2% of the total population. Twenty years later, in 2001 census, the population of foreigners becomes 762,000, corresponding to 7% of the total population. Indicative of the magnitude of the phenomenon is the fact that the increase of the population in the country is almost exclusively attributed to the increase of the population of foreigners. The composition in terms of countries of origin is radically different among the two census dates. In 1981, more than half of them come from the E.C., the USA, Cyprus and Australia. In 2001, three quarters of them come from 8 eastern European countries. Noticeably more than half of them declares residency in the country shorter than 5 years.

The fact that the direction of migration has shifted in recent years has been studied under several different perspectives. Typically however those studies lack the required spatial resolution. At the same time the phenomenon is studied as if the population of foreigners exhibit unified characteristic. The results of the present study show however that this is not the case. This work is based on the highest possibly resolution in terms of administrative units using the micro-data (763.000 individual records) concerning the foreigner population enumerated in 2001 population census. At the same time the population of foreigners is split into different profiles differentiated according to the countries of origin. The characteristics of each profile group are then investigated, including both the demographic and the spatial dimensions.



Map 1: Percentages (%) of foreigners in the total population (census data 1991)

Map 2: Percentages (%) of foreigners in the total population (census data 2001)

2. Data and research methods

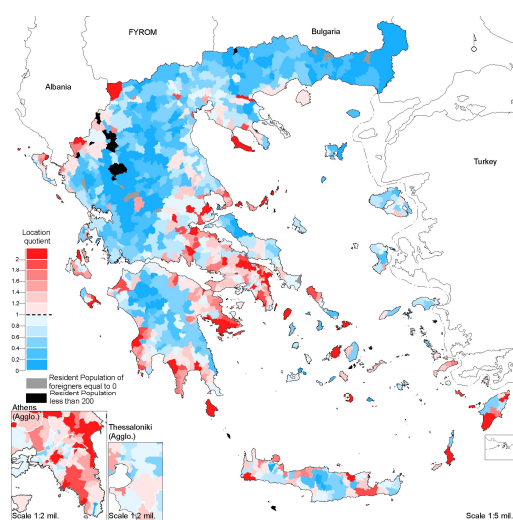
The methodology applied in this investigation is based on examining the phenomenon of immigration at the highest available administrative level (1100 Greek municipalities) and also on forming profiles of foreigners based on the country of origin.

The main data set used in the original file that contains all the foreigners (763.000 individual records), as recording during the 2001 census by the National Statistical Service. The file was processed so that the information is assigned to each administrative level of the country. Additional processing was done to split the total population of foreigners into the different profiles used here.

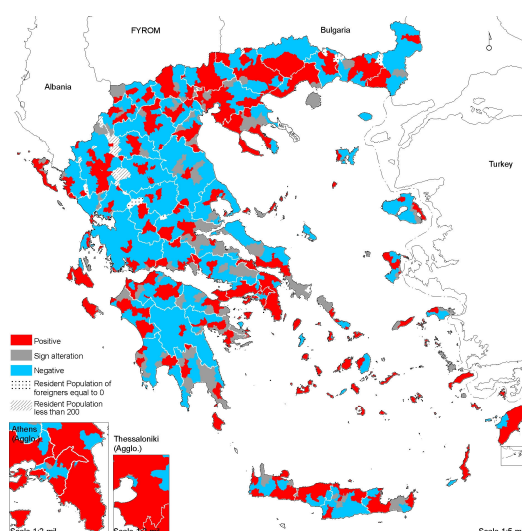
Using clustering techniques and GIS techniques, the municipalities is classified in homogenous groups (clusters) according to specific criteria. In order to reveal the optimal grouping of the municipality units into homogenous groups, the two-step Cluster Analysis procedure is utilized. This is an exploratory statistical technique designed to reveal natural grouping (or clusters) in a data set that would otherwise not be apparent.

3. Expected findings.

The massive immigration evident in the country that began in 1990 is regarded as one of the determinant factors for the current and upcoming demographic and socioeconomic changes in Greece. Studying the quantitative attribute of the foreigners at national or regional level only, is hiding in effect significantly diversified patterns due to excessive averaging. Patterns also remain unrevealed when using broader administrative tracts as the minimum mapping units. Although census data regarding foreigners can not be considered a panacea, it provides enough evidence to capture the fundamental patterns of the phenomenon.



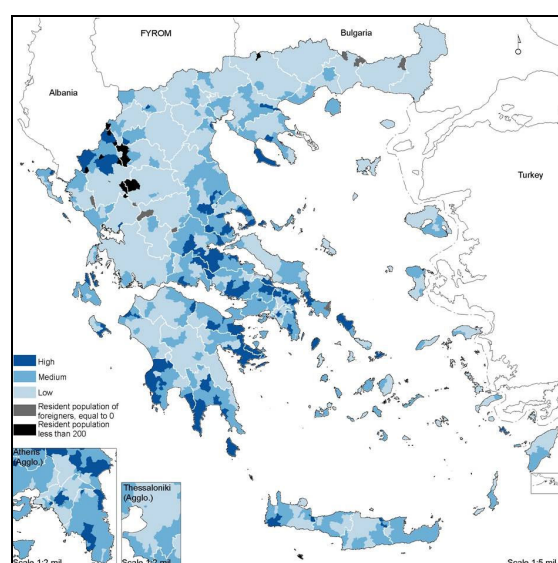
Map 3: Location quotient for the immigrants in municipalities.



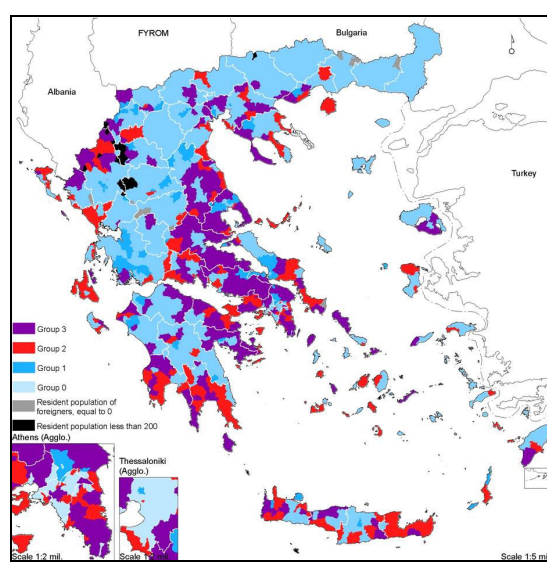
Map 4: The impact of immigration on the changes of the population size between 1991 and 2001.

Foreigners do not comprise a uniform population and can not be analyzed under such an assumption. The differences are quite obvious and intense. In the present study the differences in demographic profile will be discussed. Moreover, the correlation of the differences to the country of origin will be examined. It is expected that a quite complex mosaic, with clearly distinct patterns, will be realized when mapping the phenomenon. The selection of the minimum mapping units is fundamental in the analysis. This choice can result into radical different patterns in terms of demographic and socio-economic characteristics. Nonetheless, the analysis performed on municipality level reveals aspects of the foreigners that should be definitely included in policy making.

The main findings of the investigation will also include a classification of the municipalities according to the impact of the immigration to the population structure with respect to changes in the sex ratio, the mean age of the total population as well as the active population, the female population of reproductive age and the pres-school age population).



Map 5: Clustering of municipalities according to the impact of immigrants on the mean age.



Map 6: Clustering of municipalities according to the simultaneous impact of immigrants in the percentages of males

and the mean age

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