1. Project title

UrbanCrime: Spatial aspects of Crime and insecurity in the era of economic crisis: Trends, dimensions and correlations

2. Main theme

Urban Security

3. Project purpose and outcome (in two sentences)

The study aims to examine the development of the criminal phenomenon and the consequent insecurity in the period of the economic crisis. Its evolution will be investigated in relation to economic deprivation in the municipalities of the region of Athens.

4. Project submitter (Member State), project leader(s) and project partner(s)

- Panteion University of Social and Political Sciences / Urban Security Laboratory

5. Links to the project's website or online reports/publications (preferably in English)

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6. Short summary of the project (**max. 100 words**)

The rise in everyday criminality, such as burglaries, robberies and thefts in combination with the intensification of the environmental and social problems – often associated with the current financial crisis- within the urban setting of the Greek capital affected directly the level of the quality of the everyday life of the citizens.

On this basis, the study aims to examine the development of the criminal phenomenon and the consequent insecurity in the period of the economic crisis. Its evolution will be investigated in relation to economic deprivation in the municipalities of the region of Athens. The PI and the research team propose that the objectives are to investigate the role of the macro-economic factors to the evolution of criminality and their characteristics, as well as their role as generator of vulnerability and consequently of the fear of crime. All the above will be studied in the context of the ecological approach of criminology and the spatial aspects of crime.

7. Project description

Athens is now characterized by the current high concentration of population and the great heterogeneity due to gradual processes of urbanization. Such urbanization is positively correlated with waves - decisive for the capital's history and evolution - of external and internal immigration. However, the capital was not developed based on an organized urban design and its physiognomy was determined by coincidental policies, social changes and internal rivalries concerning housing

The rapid urbanization that characterized both the decade 1960-1970 and the last twenty-five years was accompanied by great heterogeneity (Zarafonitou, 1989). After 1990, the central areas of Athens were largely affected by the first contemporary immigration influx mostly from Balkan countries. After 2005, a new bigger and more heterogeneous tide of foreign immigration from Asian and African countries affected the physiognomy of the capital's social life and especially the social life of its center. This new immigration tide coincided with the emergence of a global economic crisis the impact of which was particularly felt in Greece during the last years.

Under such conditions, a corresponding intensification of social problems combined with the respective unequal distribution of them, is observed within the areas of the capital, with its center being the most affected. Crime the quantitative and qualitative evolution of which indicates its general worsening is included among such social problems.

International studies establish a strong correlation between the fear of crime and specific neighbourhood characteristics according to which a neighbourhood is defined as a 'deprived area' (Hideg & Manchin, 2005). Such neighbourhood characteristics are graffiti, litter, abandoned buildings, poor lighting of public spaces, drug use in public spaces etc. According to this model, criminal opportunities increase in these areas when the daily routine circulation of the residents and their conventional activities decrease due to the fear caused by the areas' bad reputation as well as due to the perception of ineffective control of crime exercised in such areas. The stages through which certain areas of the city convert into 'unsafe zones' concern mostly the areas of the city center which are gradually abandoned by their permanent residents.

These residents are being replaced by temporary populations with many social problems according to the theorizing of the ecological school of Chicago. The

alteration of the physiognomy of the areas' residents lead to the loosening of pressure for better public services and consequently the beginning of activities which give a bad reputation to the area is almost inevitable.

All our empirical studies conducted in Greek capital revealed that there is a differentiation of fear of crime while the most important observation was that the center of the city displayed consistently the highest rates of fear (Zarafonitou, 2011, 2013). The insecurity of the residents of Athens' center relates to a series of dimensions of the degradation of the quality of everyday life such as:

• The environmental degradation
• The extensive drug related problems
• The uncontrolled prostitution-trafficking
• The unduly large number of immigrants-refuges etc.
• The great cultural heterogeneity
• The particularly widespread parallel market
• The decline of commercial activity
• The delinquency

By mapping the above-mentioned problems, we observe that they are located in enclaves of the Athens' center and occur cumulatively. Consequently, these areas are characterized by:

• Relocation of the traditional residents
• Variable, heterogeneous and unstable population
• Unfunctional social activities
• Emergence of illegal control of the areas
• Signs of poverty
• Conflicts between resident groups

The fact that most problems are located around the central squares is easily explained within Greek reality due to the special nature of the public space. Public space is defined as opposed to private space and is therefore perceived as "non-control" and "non-interest" space or simply as a space that does not belong to anyone. Consequently, it can easily be occupied by different interests on a case by case basis.

The key characteristic of environmental criminology is that according to its theoretical framework the "criminal events must be understood as confluences of offenders, victims or criminal targets, and laws in specific settings at particular times and places" (Wortley & Mazerolle, 2008). The relative studies when combined with the appropriate techniques of crime mapping are considered as being particularly useful not only for understanding the genesis and development of crime within the city environment but also for preventing such a phenomenon implementing situational prevention measures especially measures of environmental design (Crowe, 2000:40; Jeffery, 1971; Clarke, 1995, 1997).

On that perspective our study aims to shed light into the evolution of the crime phenomenon and the consequent insecurity in the period of the economic crisis.

The research will take place in the six divisions of the Municipality of Athens and in two more distant municipalities of the Greek capital that will be geographically and socio-economically opposite from one another. The choice of the research locations is based on the model of concentric zones (Park, Burgess & McKenzie, 1925) of the ecological school of Chicago (Shaw & McKay, 1942), adapted to the specific characteristics of the context of the present research. In the first part of

the research the methodology consists of the study of crime statistics and applied measures of criminal policies based on interviews with responsible bodies in the police and in local authorities' level (Kyriazi, 2011).

In the second part of the research, the methodology consists of the recording of victimization and fear of crime (Zarafonitou, 2011a, Sutton &Tseloni, 2011) in the locations of the research, by means of a questionnaire administered in door to door and in-person interviews. Sampling will be conducted in the spatial level of block group by using the latest population census provided by ELSTAT (by the Hellenic Statistical Authority).

On that stage our inventory will have (a) data readily available from the Greek public authorities concerning socio-demographics, socio-economics and crime datasets for our study area and (b) survey data targeting the crime and insecurity. These will be merged into a geodatabase and aggregated so that anonymity of the respondents is assured.

In the next stage, statistical analysis of the data will be performed, and visual inspection of the results will be made by using charts and graphs. This will operate as a bridge to move into spatial analysis of our dataset.

So, Exploratory Spatial Data techniques (ESDA) will be used in order to visualize spatial distributions, discover patterns of spatial association (spatial clustering), identify outliers, and suggest different spatial regimes (non-stationarity) (Anselin, 1994; Bailey & Gatrell, 1995; Radil, 2016). So firstly, the measures of crime, insecurity and the socio-economic characteristics of the population will be visually explored through several choropleth maps. Secondly, the spatial autocorrelation will be statistically investigated by using global but most importantly local measures such as the local indicator of spatial association (LISA) (Anselin, 1995; O'Sullivan & Unwin, 2010).

In that respect, we will be able to identify a particular form of clustering (reflection of values above and below the mean) and specify those areas that are presenting the most indicative characteristics i.e. the ones which are most heavily affected by crime and the respective socioeconomic characteristics. So, spatial autocorrelation will result in identifying the so-called inequalities (Paulsen & Robinson, 2008; Lersch & Hart, 2011).

Further, aiming to quantify the relationship between crime, insecurity and social economic factors, we will develop a spatial econometric model that is suitable for our dataset (Darmofal, 2015; Lesage & Pace, 2008; Tita & Radil, 2010). Having selected the socioeconomic factors that influence the crime and insecurity (Hipp, 2007; Tita & Radil, 2010) and collected data, a spatial model will be built to capture the phenomenon under study. So, this model will provide us with the relationship to evaluate the direct, indirect, and total impact of the dependent variable with respect to the covariates or in other words the degree of influence of each socio-economic factor into the crime measure.

The above methodology is based on the national and European experience of victimization surveys and research on fear of crime as well as in the respective Greek research experience, of the scientific responsible professor in the field of urban/environmental criminology. Further the research is conducted in a way that respects the dignity, rights, and welfare of participants, and so research ethics is ensured in two ways. Firstly, the respondents consent in participating is

acquired in writing and secondly, the micro-data are aggregated so that anonymity is assured.

The innovation of this proposal lies in that (1) it is the first effort to imprint the fear of crime and is determinants in the era of Greek crisis in the urban area of Athens, (2) current exploratory spatial analysis techniques will be applied to investigate patterns in the dataset, quantify the relations between covariates and disseminate the results through a Web GIS platform.

8. Project objectives

WP1: Involves the necessary steps to establish the precise tools, the dataset and the methodology to accomplish the targeted objectives. In particular, available socio-economic factors relevant to crime and insecurity will be gathered and feed to a Geodatabase (T1.1), a contextualization of research through the delineation of Athens' particularities (relevant to crime and insecurity) and perform policy review and interviews with key institutional actors (T1.2), while the spatial inequality measures will be selected (T1.3).

WP2: A data collection phase and a survey will be conducted on three representative areas. Thus, semi-structured interviews will be developed to capture the spatio-temporal dimension of the types of crime, and the factors that are not available by the statistical authorities (T2.1). The survey will run on the six divisions of the Athens municipality (T2.2) and on two more distant municipalities of the Greek capital that will be geographically and socio-economically opposite from one another (T2.3). The data collected will be statistically processed and merged into the geodatabase (T2.4).

WP3: The phase of analysis of the information collected. A series of choropleth maps will be produced to explore the survey data and the selected spatial inequality measures will be visualized (T3.1). Exploratory spatial analysis techniques will be adopted to examine the presence of spatial autocorrelation in the dataset and relations and theories between covariates will be tested by using spatial statistical techniques (T3.2). This analysis will create a series of conclusions quantifying the relationship between crime / insecurity and the socio-economic and socio-demographic parameters in space (T3.3) which will drive us into creating cognitive maps (T3.4) which will be illustrated through printed maps and the web GIS platform created for that purpose (T4.3).

WP4: The phase which aims to disseminate the results of the proposed study by publishing the work, presenting it into a conference (T4.1), and to the officials (T4.2). Finally, the web site of the project will provide a continuous promotion of activities providing tangible and exploitable results (T4.4).

9. Project outcome

In UrbanCrime "hot spots" of fear of crime will be mapped, vulnerable populations will be identified, social inequities will be geo-located and quantified, social determinants causing these inequities and further enhancing their impact will be apportioned. This strict break-down of cause and effect will enable future mitigation measures not to be horizontal and arbitrary, but targeted and socially more equitable. The cognitive maps that will be created will facilitate authorities to understand the causes and effects for fear of crime, leading them to take actions and prevention and safety measures. The policy makers will have available a set of outputs, utilizing and displaying the correct use of terms while the hard science is kept "under the hood".

10. Start and end project, timescales and key milestone dates

Start Date: 20/12/2019
End Date: 20/11/2022
Total Months: 36

11. Funding (total budget and type of funding (e.g. ISEC, EUCPN Fund, ….))

Total budget: 157,400€

12. Evaluation

n/a

13. Contact details project

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