

LIMITATIONS IN CROSS-NATIONAL COMPARATIVE RESEARCH: Problems faced when comparing police personnel statistics

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Abstract

The Mass Media in Cyprus announced that according to the Eurostat (2019) "Police, Court and Prison Personnel Statistics", Cyprus has the highest ratio of police officers per 100.000 inhabitants among all EU member states. To examine this outcome, the Cyprus Police conducted cross-national research comparing the organisation's population and duties with those of other law enforcement agencies in the European Union. This article will elaborate on the limitations of cross-national comparative research, which the authors came across during the study, as mentioned above. It will argue that even a subject as straightforward as the number of police officers is not directly comparable between countries in terms of necessity or efficiency, without taking into consideration the particular context of each given country. A quantitative comparison, which does not explore the background and contextual information on law enforcement agencies in each country, can be questioned with regards to severe methodological issues, while its outcomes run the risk of being regarded as misleading.

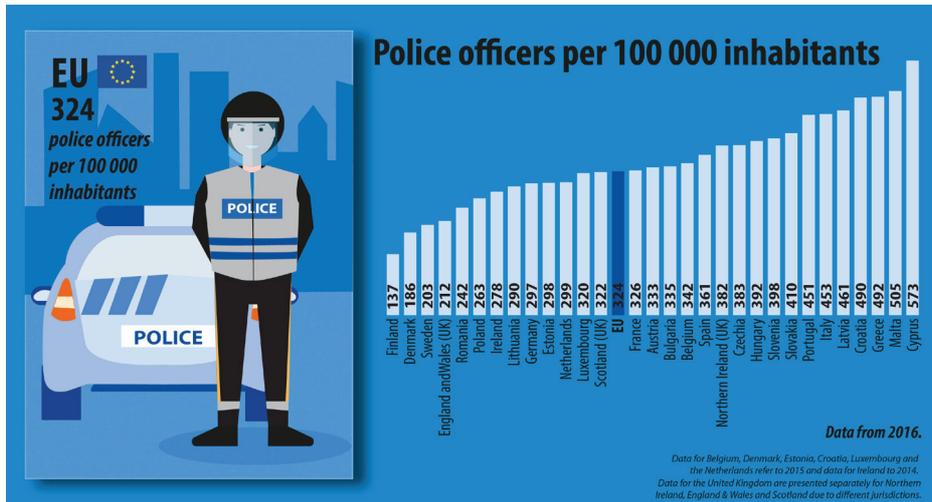
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Introduction

According to Eurostat (2019), as presented in Graph 1 below, Cyprus has the highest ratio of police officers per 100.000 inhabitants among the EU countries. This fuelled the ire of the mass media in Cyprus, and consequently of the public, which turned once more against the Police. The matter is not new, as Cyprus was presented in the past as having one of the highest percentages of Police population (Euronews, 2014). Yet, every time such statistics are released, the media sensationalise the issue. To explore and further understand this phenomenon, a cross-national study was conducted to compare the population and duties of Cyprus Police with those of other EU law enforcement agencies.

Graph 1: Police officers per 100.000 inhabitants, as presented by Eurostat (2019) "Police, Court and Prison Personnel Statistics."



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The study came across several challenges. It soon became apparent that total numbers are not directly comparable when it comes to cross-national research. These limitations apply even if the matter is viewed in a strictly quantitative manner, such as the figures of human resources.

Initially, the study addresses fundamental issues regarding the background and the developing nature of the structure of the Cyprus Police. The methodology and findings follow, ending with a discussion of the limitations confronted and their origins. Several factors, which should be taken into account in studying and comparing the workforce of law enforcement agencies, will be examined, including organisation, legislation, definitions, duties and capabilities.

Background

The human resources of a police organisation evolve, among other things, through the historical and the cultural junctures occurring during the development of the organisation (Gruszczynska et al., 2008). An example of this is the background of the development of the Cyprus Police.

After the establishment of the Republic of Cyprus in 1960, two independent law enforcement agencies were set up based on the already existing police force of the British Colonial Government. The Police Force and the Gendarmerie were responsible for policing the urban and rural areas, respectively. Not before long, in 1964 the two forces merged after the abandonment of the posts held by Turkish Cypriot officers. The Force went through some massive changes during the following years, after important events, such as the Turkish military invasion in 1974, the expansion of the tourist industry, the opening of four crossing points to and from the occupied areas in 2003 and five more in subsequent years, as well as the accession of Cyprus to the European Union in 2004. These changes have led to increased demands on the Police, especially in terms of personnel. Thus, the workforce climbed from 2,000 men for both the Police and the Gendarmerie in 1960, as foreseen in the Constitution of the Republic of Cyprus (Article 130), to 5,360 male and female police officers in 2008.

However, the organisation, the structure and the human resources of a law enforcement agency are not only affected by historical and political facts in a given country, but also by the way the Police is conceptualised (Jobard, 2014).

The Cyprus Police exercise its powers “throughout the territory of the Republic to maintain law and order, preserve the peace, prevent and detect crime and arrest and bring offenders to justice. To carry out such duties, members of the Police are authorised to carry arms.” (free translation of Article 6, Cyprus Police Act 73(I)/2004). The letter of the law is evidence of the wide range of responsibilities cast upon the Police. It could be an example of what Millie (2013, p. 145) refers to as “wide policing”. It includes not only reducing and combating crime, which is mainly “narrow policing” tasks, but also addressing people’s fears and reassuring them. Their mission can be described as a mixture of social control, preservation of the peace and social welfare (Millie & Herrington, 2014).

This is similar to what happened to the law enforcement agencies in England and Wales when the spectrum of their functions over-grew. Police officers came to act as probation officers, social workers, educators and even escorts, in addition to their more traditional role. Besides, it used to be common for the police to take up non-criminal-justice duties. Since as far back as the 19th century, they have had to deal with the implementation of legislation about the consumption of alcoholic beverages, education, cruelty against an-

imals and many more. Today in England and Wales, these duties are performed by public services, other than the police (Millie & Herrington, 2014).

Recent internal studies by Cyprus Police attempted to identify wide ranges of non-crime-related responsibilities assigned to their authority. It has been shown that a large number of the workforce is also occupied with duties that are not directly related to criminal law. These duties, which mainly derive from the police organisation's involvement in the implementation of the legislation concerning the National Army, the Civil Defence, immigration, private security, environmental protection, animal welfare, hunting, gambling, noise and alcohol control, fundraising and charity campaigns, psychiatric health, smoking, pharmaceutical law, electricity and energy, human resources and labour regulations, education, copyright and intellectual property laws, tax and social insurance, real estate, currency, tourism, market regulations, just to mention the best known ones.

Constantinou (2017) estimates that police officers in Cyprus spend more than 1,5 million working hours on non-criminal-law related duties every year. This figure is equivalent to the annual employment of 918 people, or to 20% of the work time of a police officer at a typical police station in Cyprus. Furthermore, the lack of civilian personnel means that police officers hold posts of a supporting, administrative-like, nature. The same study pointed out that a total of 797 Cypriot police officers are placed in various departments in charge of duties that do not require any police powers and could easily be performed by public servants or civilian personnel, such as administrative tasks like filing, accounting and clerk duties.

Similarly, Lagou et al. (2018) calculated that in 2016 a total of 104,171 working hours were spent enforcing legislation concerning tobacco smoking, the control of alcoholic beverages consumption, animal welfare, beach protection, the monitoring of fundraising and charity campaigns, the regulation of the operation of private schools, shops, restaurants, clubs and bars and many others, as mentioned above. The implementation of such legislation is mainly assigned by law to other public services and departments in Cyprus, focussing in their specific fields. However, as these departments only work during office hours and are relatively understaffed, the work that strictly falls within the framework of their operations is carried out by the police, leading to an additional burden on the already heavy police workload.

As described by Ratcliffe (2008, p. 15), this phenomenon is distinctive of the swift observed in the UK and the US from a *"preventative model of policing"* to proactive policing, the police have come to prioritise their actions towards service-response and crime-fighting, instead of crime-prevention and peace-preservation, as it used to be declared since the appearance of the modern policing agencies. The public expects the above from the police nowadays, leaving only limited time for preventive strategies. The establishment

of this “*standard model of policing*” (Weisburd and Eck, 2004, p. 44) which included the increased demand in service and paper-work, along with the abrupt rise in crime numbers since the 1970s and onwards, was used as leverage by law enforcement agencies to call for more officers and resources. Although their request was fulfilled, the personnel increase never met the increase in crime rates, leaving a “*demand gap*” between public expectations and provision of police service (Ratcliffe, 2008). This fact has often been used to criticise law enforcement agencies over their resources and personnel allocation. Therefore, police managers urged to overcome the challenges but not merely by increasing their staff, that has, in fact, strict limits, but also by a transition to more effective policing models (police reform), extensive use of intelligence, risk mitigation approach, modern technologies and with continuous development of law enforcement methodologies. (cf. Ratcliffe, 2008, pp. 15–40.)

Methodology

To make comparisons between the number of police officers in Cyprus and other EU countries, the following methodology was employed.

Firstly, the police personnel fluctuation was examined statistically over time. The analysis used both Eurostat Metadata (2019) and data published by the Cyprus Police Administration and Human Resources Department for the years 2008-2016. The comparison included all the police organisations of the 27 European Union member states, as well as all the constituent countries of the United Kingdom, separated in three groups: England and Wales, Scotland and North Ireland. Their personnel numbers were analysed in terms of their increase, or decrease, between the years 2008-2016.

Secondly, a survey was conducted to determine what is included in the policing spectrum in EU countries. The questionnaires were disseminated to the Member States’ Europol Liaison Bureaux, returning responses from Lithuania, the Czech Republic, Estonia, Germany, Slovakia, Denmark and Latvia. Unfortunately, some were only partially completed, evidently due to the complexity of the issue. The gaps were filled using triangulation and additional secondary data from supplementary national official sources, studies and international bibliography. The result was a numeric comparison between Cyprus and ten other EU countries, namely Slovakia, Latvia, Lithuania, Estonia, the Czech Republic, Denmark, Germany, England and Wales, France and Greece, in terms of typical duties carried out by the law enforcement agencies of the countries involved, their organisational structure and personnel distribution.

Findings

Cyprus Police was found to employ a total of 5.360 officers in the year 2008. This number gradually dropped to a total of 4.860 in 2016, recording a decline of 9.3% in terms of the total population of the Cyprus Police personnel.

As for the ratio of police officers per 100.000 inhabitants during the period 2008-2016, various trends among the compared countries were identified. While countries such as Greece and the Netherlands showed an increase of 39% and 38% in police population respectively, others had a decrease of 25%, 22% and 20% (Bulgaria, Northern Ireland and England and Wales respectively). Cyprus ranked fourth out of those with the highest decrease of 17%. At the same time, the mean number of police personnel increased by 2% in Europe.

The different trends among EU countries were also confirmed by the data derived from the conducted survey. During the analysis, it became clear that each law enforcement agency has a unique set of duties, structure and personnel allocation, precisely due to their national legislation, current strategy and policing model and developing resource capacity.

In some cases, the police appear to partially implement legislations that do not directly relate to criminal law, such as those regarding animal welfare, alcohol control and environmental protection. In others, the police have a supporting role, assisting the competent authorities, like in the case of police escorting mental health patients, after their examination by the Mental Health Services. Their involvement appears to be due to security reasons, without any further requirements by the involved services.

Likewise, the police service in each country has a unique composition and personnel distribution. It should be stressed that many populous, and of course significant, departments belonging to Cyprus Police are not regarded as law enforcement agencies, nor a part of them, in other countries. Some examples are the Prosecution Office, the Nautical and Marine Police, the Central Intelligence Department and the Fine Collection Unit, which are incorporated in Cyprus Police. At the same time, in other Member States such departments are independent or they operate either as stand-alone agencies or as part of other organisations.

Moreover, a lot of EU law enforcement agencies employ a large number of civilian personnel in support of police officers. In some instances, their workforce might include a percentage of up to 41% of civilian personnel, as in the case of England and Wales. These supporting resources are not included in the total number of personnel for the agencies employing civilians. On the other hand, police organisations like the Cyprus Po-

lice, have none or very few people working without being identified as a member of the police staff. Eurostat includes all of them, even though they might perform the same tasks, as those performed by civilians in other agencies.

Furthermore, the departments and units making up what is considered to be the Police Service in Cyprus, in some other countries, are part of many different law enforcement agencies and services. Populous and large Member States, usually having a federal structure, have predictably more than one national police force, each assigned with different territorial responsibilities. Other countries have one unified National Police Service accompanied by a central and many regional and local subsidiary forces. In others, there are additional autonomous units with similar or little police powers, such as the municipal, or border police functions, which are responsible for a variety of specific tasks, some of which have little or no relations to criminal investigations.

In Cyprus, some large municipalities have units dealing with the breach of several regulations regarding noise and animal control or minor traffic offences. There is currently an ongoing attempt to reform the services of local authorities, which also foresees the founding of municipal law enforcement agencies with powers to impose penalties on more than 60 offences. However, this reform is heavily debated up to this date, leaving these responsibilities again to Cyprus Police.

After identifying the corresponding variations as described above, regarding each country's differences according to in terms of their duties, departments and numbers of police and civilian personnel, the proportion of police officers per 100.000 inhabitants was recalculated. Subsequently, the resulted ratios showed closer proximity between Cyprus and each country.

The study, based on respective duties and type of personnel for the EU member states, has shown that the ratio of police officers per 100.000 inhabitants in Cyprus is estimated to be lower than the results published by Eurostat (2019) by a range of 2%-28%. Specifically, the equivalent proportion would notably be reduced and got closer to the EU mean measured by Eurostat, if the differences in duties, structure, and personnel allocation were considered. Nonetheless, it was established that, when it comes to cross-national comparative research, the distinct national parameters must have seriously been studied; otherwise the outcomes can be misleading, as it happened in the case of Cyprus Police and the announcements in the local mass media.

Discussion

Cross-national studies have gained notable popularity during the past few decades. Their results often become a basis for the introduction of new policies, which, as stated by Karakioulafi (2004), increases their “commercial value” in political and journalistic terms. Hence, following the Eurostat result (2019) on “Police, Court and Prison Personnel Statistics”, interest grew for one more time.

However, the limitations of cross-national research must be taken into strong consideration in every such attempt, especially with regards to the analysis of policing matters. Although the study as mentioned above, was proven to be effective in terms of its aims, it became apparent at every stage of the research, that cross-national comparison is not as simple as it might appear. There are much fewer comparisons between the Police Services in the countries of the EU, or even between those of only 11 of them.

When examining police organisations and their members, it is crucial to determine what exactly the term “police” involves and who qualifies to be included in it (Bayley, 1992). Eurostat (2019) itself correctly and clearly states that every participating country organises its law enforcement services differently, according to their local needs, capabilities and priorities. Also, Eurostat recognises the fact that each country has different criteria for those qualified to be called “police officers” and for what is to be called “police work”.

Furthermore, the correlation between raw data can be problematic. Since each country has its database, with the different collection, handling and archiving methods, the data might not be directly comparable. The collected figures might ignore many problematic aspects, such as specialised roles, positions in particular units, or even vacant ones, that can also occur misleading results. The process also between collecting the data and sharing them, up to the point of the final analysis and interpretation involves further difficulties, which include conceptual differences in terminologies, various mediators and bureaucracy according to the given country’s regulations and organisation. This complexity and heterogeneity between the EU countries undermine the extraction of safe conclusions through the direct comparison of such absolute numbers.

The Eurostat’s reference to metadata (2019) demonstrates the degree of deviation. Although Eurostat provides a definition, to facilitate homogeneity in the collected data, the expected uniformity is still absent. Each country explained in detail what was included in their figures; however, the statistics were still not homogeneous because some countries included their cadets, while others reported both full-time and part-time personnel. Another group also appears to exclude services, such as the military and judicial police. Moreover, not all countries provided explanatory comments. Even then, it cannot be taken for granted that their mentioned numbers are directly comparable to each other.

This observation became apparent during the data collection stage and analysis by the authors. It was also acknowledged in the presentation of Eurostat's results for 2019 but conveniently was not referred to in the coverage given to the issue by the mass media in Cyprus.

The issue elaborated here is similar to the crime statistics problem. Indeed, a key finding of the European Commission Review (2011) of EU funded projects concerning crime and deviance, was that *"Comparative crime research at EU level has not achieved maturity yet"* (p. 3). The reason lies with the numerous different methods employed by each Member State for the collection and processing of statistical information. The Review also adds that a holistic approach is needed to improve data integrity (European Commission, 2011).

Besides statistics, the data's diversity on police personnel derives precisely from the aspects studied in the presented research. Each country's law enforcement agency has its strategic planning with its complex organisational structure. The numerous and various departments undertake miscellaneous tasks that differ according to national legislation, regulations and priorities. Some functions that can take up a fair share of the time and energy of the workforce might not even be crime-related issues. Thus, the number and distribution of human resources are uneven across countries, while the staff may also be employed under different regimes.

Furthermore, another issue that has not been explored is the differences in the capabilities of each country, meaning the public sector's infrastructure. This may include, among other things, the technical and logistic resources, the available technology used and the one that is intended to be used in the future, the automation and computerisation of operations, the legal framework and other internal bureaucratic processes. The measurement and comparison of these aspects for each different country can be a time-consuming and challenging task. Nevertheless, these continuously developing factors affect the needs in terms of human resources, not only in the case of a law enforcement agency but of almost every public organisation.

Moreover, local and international developments create new realities and consequently, unique needs that law enforcement agencies must meet. Globalisation, a turbulent political situation in countries around Europe, irregular mass immigration, a growing population in some countries and ageing societies in others, a recent debt crisis, austerity and the emergence of many new forms of crime generated new challenges for the police and increased the expectations of the public. Significant changes will continue to occur, and each country will experience them differently. Thus, police organisations are required to continuously find ways to reform and adapt to meet new objectives and allocate their workforce accordingly. Such a project proposal is already under study in Cyprus.

On the other hand, in the case of cross-national comparative studies, their research value cannot be argued. Despite the limitations discussed, a lot is gained through their outcomes. However, the elements presented above are needed to be taken into consideration when it comes to law enforcement agencies. It is strongly advised for the particularities of the countries under comparison to be studied. Firstly, the form of a state, whether they are unitary or federal, as well as their size, population density and geographic peculiarities, affects the structure of the governmental agencies, the interrelation amongst them, as well as the responsibilities assignment. Next, the division of work assignments between the executive, administrative and supporting departments, should be defined within an agency, and then the size of the workforce allocated to each task. Unquestionably, the total workforce size matters, but there must be separated figures for the personnel according to their employment position and status. Here, the importance of definitions must be reminded, as the term “police” can contain a variety of notions, and different responsibilities can be assigned to law enforcement agencies. Lastly, as already stated, the fundamentals consisting a state itself, the history, culture and current political and economic realities cannot be disregarded. Besides, the researcher must acknowledge that those were the ones that shaped the subject under study.

Conclusion

Cross-national comparative research is undoubtedly a difficult task. Eurostat itself recognises the methodological limitations arising from the discussion above. An analysis strictly based on total numbers, as forthright as it might seem, can underlie biases. Hence, an object of interest, such as the population of the workforce of law enforcement agencies, cannot be studied without taking into consideration the specific features of each country’s background and special characteristics. Any extreme result must be further examined, additionally, by the country’s specific geopolitical and socio-economical conditions.

In the case of Cyprus, the local media chose to present and comment on only the strict descriptive statistics of the number of police officers in EU countries. Most ignored Eurostat’s comments and limitation acknowledgements, which would give a better understanding of the statistical variance. But again, the selection and presentation of the news by the media, as related to the police, is yet another interesting issue for further study.

However, the fact that progress has been made in addressing methodological issues cannot be ignored. National experts come together under the umbrella of the Council of Europe, to provide a systematic analysis on crime and criminal justice statistics regularly in the relevant European Sourcebook. Still, one is advised to proceed with extreme caution, when interpreting statistical data derived from different countries (Aebi et al., 2014).

Therefore, in carrying out similar research in the future, a collaboration between key stakeholders from each participating country should be sought. Here, as the goal was to compare the number of police personnel in EU countries, a survey for primary data was conducted through the Europol platform. Regardless of the limitations, responses led to useful insights explaining individual differences and similarities. The numerical comparison resulted in a better representation of the actual situation.

Nevertheless, comparative cross-national research into law enforcement agencies, or police service matters in general, should also have a comprehensive and multi-level approach which addresses national realities. A single researcher usually does not have the time or the means to acquire such knowledge in full. In contrast, knowledge of each nation's particularities in terms of police organisation, operation and relative legislation might only be partial (Karakioulafi, 2004). Well established conclusions can only be reached through a common aim to advance knowledge and the adoption of an organised common approach to cross-national research and collaboration.

References

- Aebi, M. F. et al. (2014). European Sourcebook of Crime and Criminal Justice Statistics 2014, Helsinki, Finland, HEUNI.
- Allen, G. & Zayed, Y. (2018) *Police Service Strength*. London, House of Commons.
- Bayley, D. (1992) Comparative Organization of the Police in English-speaking Countries, *Crime and Justice*, 15, pp. 509-545.
- Constantinou, A. (2017) *Εκτέλεση Μη Αστυνομικής Φύσεως Καθηκόντων από Μέλη της Αστυνομίας Κύπρου*, Nicosia, Cyprus Police Academy.
- Constitution of the Republic of Cyprus (1960).
Available from: <http://www.cylaw.org/nomoi/enop/non-ind/syntagma/full.html> [Accessed 17th March 2020].
- Cyprus Police Act (73(I)/2004).
Available from: http://www.cylaw.org/nomoi/enop/non-ind/2004_1_73/full.html [Accessed 17th March 2020].
- De Maillard, J. & Zagrodzki, M. (2017) Plural policing in Paris: Variations and Pitfalls of Cooperation between National and Municipal Police Forces, *Policing and Society*, 27(1), pp. 54-67.
Available from: <https://doi.org/10.1080/10439463.2015.1046454>
- Euronews (09/10/2014). *Interpol: Κύπρος και Ελλάδα στις πιο αστυνομοκρατούμενες χώρες*.
Available from: <https://gr.euronews.com/2014/10/09/greece-cyprus-intrepol> [Accessed 17th March 2020].
- European Commission (2011). *Crime and Deviance in the EU: Key Findings from EU Funded Social Sciences and Humanities Research Projects*.
Available from: https://ec.europa.eu/research/social-sciences/pdf/policy_reviews/crime-and-deviance_en.pdf [Accessed 17th March 2020].

- Eurostat (26/02/2019) *Police, Court and Prison Personnel Statistics*.
Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Police,_court_and_prison_personnel_statistics&stable= [Accessed 17th March 2020].
- Eurostat (2019) *Persons in the Criminal Justice System: Reference Metadata*.
Available from: https://ec.europa.eu/eurostat/cache/metadata/en/crim_just_esms.htm [Accessed 17th March 2020].
- Gruszczynska B. & Marshall I. H. (2008) Trends in Criminal Justice System Resources 1995-2004. In: Aromaa K. & Heiskanen M. (eds.) *Crime and Criminal Justice Systems in EU and North America 1995-2004*, Helsinki, Finland, HEUNI, pp. 9-52.
- Jobard, F. (2014) Conceptualising of Police, *Encyclopedia of Criminology and Criminal Justice*, New York, USA, Springer.
Available from: https://doi.org/10.1007/978-1-4614-5690-2_455
- Karakioulafi, C. (2004) Μεθοδολογικά Ζητήματα στη Διεθνή Συγκριτική Έρευνα: Το Παράδειγμα των Εργασιακών Σχέσεων, *Επιθεώρηση Κοινωνικών Ερευνών*, 115, 75-100.
Available from: <https://doi.org/10.12681/grsr.9345>
- Koulenti, C. & Chrysostomou, Z. (2003) *Οι ανάγκες της Αστυνομίας σε Ανθρώπινο Δυναμικό*, Nicosia, Cyprus, Cyprus Police.
- Lagou, K. et al. (2018) *Παραχώρηση Εξουσιών που Εμπίπτουν στα Καθήκοντα της Αστυνομίας σε άλλες Υπηρεσίες και Τοπικούς Φορείς*, Nicosia, Cyprus, Cyprus Police.
- Millie, A. (2013) The policing task and the expansion (and contraction) of British policing, *Criminology & Criminal Justice*, 13(2), 143-160.
Available from: <https://doi.org/10.1177/1748895812466393>
- Millie, A. & Herrington, V. (2014) The great debate: How wide or narrow should the police's remit be? *Public Safety Leadership: Research Focus*, 2(4), 1-10.
- Ministry of Justice and Public Order (22/10/2014). *Η Προστασία του Πολίτη επιτυγχάνεται μέσα από Προληπτικά και Κατασταλτικά Μέτρα*.
Available from: <http://www.mjpo.gov.cy/mjpo/MJPO.nsf/All/8F5C8526F54FDB7EC2257D8900283E91?OpenDocument> [Accessed 17th March 2020].
- Ratcliffe, J. (2008) *Intelligence-Led Policing*, Cullompton, UK, Willan Publishing.
- Weisburd, D. & Eck, J. (2004) What can Police do to Reduce Crime, Disorder and Fear? *The Annals of the American Academy*, 593, 42-65.
Available from: <https://doi.org/10.1177/0002716203262548>