Application of Statistical Data and Methodology in Practice and Legal Education

Ildikó Szondi¹ – Adrienn Princz² – János Mészáros³

The science of statistics in regards of its methods and tools has a special relationship to the social sciences, thus sometimes escapes attention of the legal students and the members of the legal profession. In order to understand the structure of the Hungarian legal system, the knowledge of the statistical sciences is essential. For students learning private law the knowledge of statistics is helpful, showing the importance of certain legal statues or the necessity of legal rules in governing social networks. In order to show the mechanism of application of law in everyday life we also need statistical tools. Our lecture will show the statistical distribution of cases filed to the Hungarian Court System. Out of the total number of filed court cases every second one will be completed within a year. In he second part of our lecture, we will discuss some aspects of corporate law, showing the incidence of establishing business partnerships and corporations. In Hungary in 2008 the established business partnerships, corporations mainly consisted of limited responsibility and financial asset based partnerships. The science of statistics will help to better understand social lifenetworks by showing average wages, employment, or workplace contracts, their incidence and frequency. For our students it would be difficult to bet, to find out the real ratio and nature of work-contracts, in reality only 8% of work-contracts will be established with a predefined time-limit. It is also interesting to know, that out of 8 employees only 3 are women, the rest of it (5) are men. In the field of family law, in respect of the marriage data it is surprising, that in Hungary since 2004, the ratio of people older that 15 years, living in marriage, decreased, and now they are a minority. In 2008 almost 74 000 marriage ended up, by death of the partner, or divorce, and only 40 000 new marriages were registered. The followings also will show the Hungarian social and legal situation: the changing number of criminal cases, the special structure aspect of felonies, and felons, and the abovementioned and also the evaluation of the law-enforcement, court system, the work of judges, In the modern age of globalization, and connected world, it is of utmost importance that the statistical system, the criminal statistics should work with great precision and with the highest professionalism. As the Internet took over every aspect of the modern societies, it is

¹ Ildikó Szondi, Graduate of Law, Associate Professor, Department of Statistics and Demography, Faculty of Law, University of Szeged

² Adrienn Princz, Graduate of Law, PhD Student, Department of Statistics and Demography, Faculty of Law, University of Szeged

³ János Mészáros, Fifth-year law student, Teachers Assistant, Department of Statistics and Demography, Faculty of Law, University of Szeged

providing easily and readily accessible communication channels, for professionals and lay people alike. Our lecture will attempt to yield an insight of the recent state and importance of criminal-statistics, taken into account the special circumstances of Hungary. We also would like to emphasize once more, how important is the statistical knowledge for the legal profession and legal student nowadays.

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1. Introduction

Our every-day world is characterized by economic and social difficulties. Hence, it is especially important that social sciences be able to provide a precise analysis of our circumstances. Statistics might prove as an efficient tool in this struggle for professors and students in every respect of legal education. Considering the methodology, analysis and the means system of statistics it has special relationship with social sciences, however, it often ignores the interest of university students who study law and are more prone to humanities rather than mathematics (Steiger 2008).

For decades, proficient knowledge of the fields of literature and history were the most important among admission criteria for law students. Those who could prove sufficient knowledge in these areas became eligible for admission as law students; those, who proved their proficiency in mathematics and history, chose economy as a career path. This policy resulted in loss of contact between economy and law in terms of educational methodology, and as a result of this trend law students had no useful mathematical knowledge. The system of structured studies has changed since 1989. Present law students are more aware that statistical science is helpful for their better understanding the practice, the implementation of law and the development of law.

Our Department of Statistics and Demography at the Faculty of Law of the University of Szeged considers the dissemination of knowledge in the fields of general and applied statistical methods one of its most important goals, in order to help students to acquire complex and insightful knowledge in these fields. This policy resulted in the increasing number of students, who select law and statistics for their fifth year dissertation or thesis. An average of hundred students undertakes such an enterprise each year, twenty to forty of them dissert about the connection and interrelation between law and statistics.

2. Statistics in Law. Application of Statistics in Private Law

Below, we have to provide some insight into the workings of the Hungarian justice system. The largest practical subsystem of the Hungarian legal system, besides administration, that should use statistics more often is the judicial system. Insight in the justice system via the toolbox of statistics is necessary before explaining how statistical data can improve the level of legal education.

To understand the system and function of Hungarian jurisdiction, statistics is inevitably important. People feel that like other European courts Hungarian courts are also overloaded and procedures are slow. Law students should look behind these statements to what extent the Hungarian courts are busy with cases and how long the court reaches the final judgment (Juhászné 2009). In 2008, local, county and regional courts have received 398.430 cases with the following ratio.



Figure 1. Cases arriving in 2008 to local, county and regional courts divided by cases

source: www.birosagok.hu

As it turns out, 89% of civil cases arriving to the local courts are finished in a year. The need that the cases be finished in a reasonable time is one of the basic human rights (right to a hearing within a reasonable time). To establish effective, fast, simple and cheap ways of deciding court cases has long been one of the most frequent aims of civil law codification.



Figure 2. Duration of prosecution at local courts (finished in 2008 civil cases)

Source: www.birosag.hu

3. Corporate Law

The importance and unavoidability of norm of corporate law is clearly shown by the number of business organizations that were over 500.000 in 2008. The primary demographic data source of enterprises is based on the register of business organizations published and operated by the Central Statistics Institute. In 2008 the most popular form of enterprise was the limited liability company. Their number had exceeded 292.000. It is one and a half times larger than in 2000 (Farkas et al.). The low initial capital explains the popularity of limited liability company form. Among business organizations the second most popular form was the deposit partnership. In 2008 there were 211.000 deposit partnerships in Hungary exceeding year 2000 with 60 thousand.



Figure 3. Number of business organizations in 2008

Source: www.ksh.hu

The number of joint stock corporations is relatively low beside the two ruling company forms, but it doesn't reduce the importance of it.

4. Labor Law

Law students will feel the importance of studying labor law on themselves when they have labor dispute with their employer. Students having their parents support do not really feel the usefulness of labor law. In case of facing the number of labor law cases they will study Labor Code with bigger interest (Berki 2008).

Based on the first quarter of 2009 labor force survey between the age of 15-74 4.167 million people appeared on the labor market. Among these 3.764 people were employed and 403.000 were unemployed. On national level the average net income was 121.400 HUF for blue-collar workers the average wage was 89.400 HUF and for intellectuals' the average wage was 154.200 HUF.



Figure 4. Labor cases and the number of employment (from 1998 through 2008)

Source: www.ksh.hu

One may ask why did the number of labor cases increase between 1999 and 2005 while the number of employment did not change significantly. Law students have no time to be absorbed in all those fields of life which regulations and norms they study. In this case the greatest help is statistics with its numbers and diagrams that shows the most important characteristics of the social relations regulated by a given branch of law (in case of labor law for example the average wage, the number of unemployed people's cases).

Figure 5. Labor contracts based on duration in 2008



Source: Ministry of Labor

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Out of 100 labor contracts 92 indeterminate contracts were made in 2008 in Hungary. Out of the low number 8 determinate contracts 5 were made for men and 3 for women.

5. Family Law

The responsibility of the family is to secure the continuity of human race, giving birth and raising children as long as they take their places in the society. The most important legal foundation and basis of the family is the marriage regulated by the family law, which is a voluntary alliance of a man and a woman (Hegedűs 2006). Its importance can be expressed with one number. In 2008 with 40.000 more people got married than the previous year. Unfortunately we can say the same about the marriage property law. In 2008 25.000 marriages ended (Gyémánt et al. 2005).



Figure 6. Marriages and divorces from 1960 through 2008

The diagram shows well the changes of the image of marriage, value judgment, and lifestyle of the society. The 44-46 thousand marriages made at the turn of the century do not reach the number of marriages made in the 70's that was 90-100 thousand. The number of marriages made in 2008 is below the previous years with 1.8 percent –apart from the I. World War- it was the lowest in the 130-year-old history of peoples' moments. The rare marriages and frequent divorces hard hit the scale of marriages (Kőrös 2007). Invariably more marriages end with becoming widower or

because of divorces than new marriages are made. In 2008 73.800 people widowed and 40.100 got divorced. Since this process is stable, the consistency population based on family status changes considerably.

Since 1999 the number of single people has increased from 20.3 % to 31.7 % and the number of divorced people from 7,4% to 10.5%. Parallel with this the number of marriages has decreased from 61.2% to 46.5%. During the past few years it can be witnessed that among the population of the age of 15 and above married people are in minority. Since 2004 less than half of the adult population is married (KSH 2007).

Such an introduction was indispensable in order to be able to comprehend the importance of statistics, and the help it can provide in practice. Now, we would like to point out some implications relevant to the use of statistics in legal education, as a basis for practical applications, through the lens of criminal statistics.

6. Criminal Statistics in Legal Education. The Example of Criminal Law.

"The only statistics you can trust are those you falsified yourself" (Sir Winston S. Churchill)

We have to admit: Churchill's slightly cynical motto is of perpetual truth. There might be some who nod understandingly hearing it; others might raise their voices anxiously finding its content offensive. However, it is an undisputable fact that the result of statistical analysis can always be approached from two angles: Truth of Falsehood.

It is of utmost importance that every research domain be examined, analyzed objectively, with the most accurate state-of-the-art methods possible and that the adequate conclusions be drawn from the research. This is true especially these days when -- in an extent never seen before -- chaos and pessimism characterize public opinion in economic and social terms.

Why exactly is it important to abide by this supreme moral-ethical law? If one does not abide by this principle then Churchill's words might come true as abusing data leads to chaos and pessimism detrimental not only to the individual but to the collective as well. On the other hand, however, this moral compass should be used as a mirror in order to provide answers for certain questions.

Modern day statistics are much appreciated and used in every aspect of research. Its methods shall not only provide accurate information for domestic users, but also for international users and statistical data has to comply with requirements set forth by the Eurostat and other international organizations. Given these requirements, data is collected, treated and processed from the public and private sector professionally and adjacent analyses, evaluations provide useful help to legislators, courts and professors when preparing laws, verdicts and or teaching strategies, or in every other aspect of day-to-day life.

The integration efforts of Hungary towards the EU were manifold both before and after 2004. Legal integration is one of many and has several branches, one of which is criminal law. Seeing through the integration in criminal law could be to a great extent assisted by examining and evaluating criminal statistics, but this field of statistics is not only important in this respect. The role of education is also to be stressed here: statistics (i) help students gain a more comprehensive outlook on the different fields, areas of law, (ii) help them achieve an integral practical knowledgebase as part of the University studies. That is why statistics must be taught in connection with main subjects in the curriculum, along with several other branches of social sciences, this way helping the students develop a complex legal way of thinking.

In the following, I wish to comprehensively present the place of criminal statistics in legal education, primarily with respect to substantive law. I will discuss the possibilities of its practical application -- while presenting the current status of criminal law in Hungary --, with particular focus on stressing the areas where statistics should be applied with increased willingness and frequency.

7. Short Outlook on the Current Situation

The Statistics Act, No. XLIV. of 1993 is safeguarding the principles referred to in the introduction and guaranteeing the accuracy and professionalism of the data collected. It contains provisions on the methods and goals of statistical data-collecting and on the organizations that are authorized to collect data for statistical purposes. As for criminal statistics, the 59/2007 (XII.23.) Order of Ministry of Justice and Law-Enforcement serves as a unified code for both law enforcement and prosecutorial statistics. Law enforcement agencies and the Prosecutor's Office are not just entitled but also legally obliged to continuously collect such data and compile criminal statistics periodically.

The appearance of the Internet and the introduction of different information systems and databases had a beneficial effect on all different areas of criminal statistics. Collecting and systematizing data became significantly quicker, and the results of the statistical analysis are only 'one click away' for those interested. The bodies mentioned above conducting statistical surveys shall forward their findings to the Statistical and Analytical Division of the Ministry of Justice and Law Enforcement's Criminal Policy Secretariat (Igazságügyi és Rendészeti Minisztérium, Büntetőpolitikai Szakállamtitkárság, Statisztikai és Elemző Osztály) who is responsible for publication of these data at crimestat.b-m.hu, also known as the Hungarian Criminal Information System, a website, which contains up-to-date domestic law enforcement information and is accessible to anyone.

(On an adjacent note, we also have to mention those institutes that conduct surveys of public opinion that provide feedback to law enforcement agencies as to their activities by asking collecting relevant data from the public.)

8. The Appearance of Criminal Statistics in Substantive Criminal Law

As for the importance of criminal statistics in legal education, in the following I would like to point out the role of statistics in legal education and its current status at my University. I will use comparison of teaching materials at different domestic universities as an explanatory tool for my reasoning, and will also refer to domestic criminal law when pointing out areas that lack statistical basis in education.

Students at the University of Szeged, Faculty of Law familiarize themselves with the basics of statistics right in the first semester and they can broaden this knowledge by applying the basics in optional courses of the curriculum throughout the remaining four years of their studies: they can choose to learn -- among others -- justice and criminal statistics as well. On the other hand, introduction to substantive criminal law is part of the third semester's curriculum, where students first learn about the "general provisions" of the domestic Criminal Code (criminal law). It is noteworthy at this point that a significantly low percentage of the currently used law books on "general provisions" apply statistical data as means to support statutory texts in spite of the fact that there are certain chapters that allow; moreover, call for the application of criminal statistics (Földvári 2006, Bárd et al. 2002, Balogh-Kőhalmi 2007, Belovics et al. 2006, Nagy 2008, Görgényi et al. 2007). One of such domains is e.g. "the Doctrine of Criminal Law Consequences", which -- among others -- gives a distinct overlook on the trends in the numbers of principal penalties domestically. (See: Diagram 1)



Figure 7. Principal penalties 2000-2007

■ Pecuniary penalty ■ Community service work ■ Imprisonment ■ Autonomously imposed ancillary sanctions and measures *Source:* Hungarian Statistical Yearbook, 2007

The rate of principal penalties and the proportion of the types of penalties have to be taken into account from several points of view. We can find herein useful information on how and why they change in Hungary, and this is also helpful in international comparison. However, based on international treaties, it is an obviously declared goal that the use of imprisonment shall only be exceptional; while examining the rates of incarceration the much-anticipated decline cannot be experienced (Nagy 2005). In light of this liberalization: (i) the number of those, sentenced to imprisonment (the execution of which was suspended), and (ii) the time of punishment, in case of punishments involving incarceration show the following tendencies:



Figure 8. Crimes punished by incarceration and the number of sentences suspended





■ less than 6 months ■ 6-12 month ■ 1-2 year ■ 2-5 year ■ more than 5 years ■ life imprisonment Source: Hungarian Statistical Yearbook, 2007

The number of perpetrators, who have been sentenced to life imprisonment, is significantly low. The following diagram shows the changes in the numbers from the year 2000.



Figure 10. Change in the number of life of crimes punished by life imprisonment

Statistical methods presented hereinbefore seem useful in representing the actual status of youth offenders as well.



Figure 11. Number of imprisonments against youth offenders

□ less than 6 months □ 6-12 month □ 1-2 year □ 2-5 year ■ more than 5 years Source: Hungarian Statistical Yearbook, 2007; CD Appendix in carceration





Source: Hungarian Statistical Yearbook, 2007; CD Appendix





Autonomously imposed ancillary sanctions and measures

Source: Hungarian Statistical Yearbook, 2007; CD Appendix

In terms of the "specific provisions" of the Criminal Code (part of the fifth semester curriculum) there are many more opportunities to apply criminal statistics. Law Enforcement agencies, courts and executive organs might conduct parallel research and surveys on the cases in their respective jurisdictions. Since we have no knowledge on the exact extent of crime, these analyses are of great value serving as primary guidelines in getting to know domestic law enforcement efforts. Why could this be important? It is, mostly, because the number of law books on "specific provisions" applying statistics in explanatory materials is even smaller than that of "general provisions" law books in the same respect (Nagy 2009, Balogh 2008, Belovics et al. 2007, Blaskó et al. 2008, Blaskó et al. 2006, Erdősy et al. 2007, Fehér et al. 2001).

While studying special provisions, students get to know different facta of crime and become able to analyze these in detail to the fullest extent. However, this means nothing more to them than a mere aggregate of statutory articles, paragraphs and subsections and only a few of them will be able to see the 'big picture': the system of these provisions and the different elements of those, for the first time. Statistics can help them and the others to tie the dots and provide practical aids for their understanding of the dry statutory language with data based on real life examples. How exactly would this be possible?

In Hungary, the material covering "special provisions" starts with the introduction to crimes against persons, which is the part of the material that shall be the most emphatic in the course of criminal law studies. However, if we step out of criminal law onto the field of criminal statistics and compare the number of crimes against persons to all crimes committed; we find that their share, compared to the whole, is virtually insignificant: it is closer in its rates to the rate of traffic crimes, which is a smaller and less emphatic part of criminal legal education. I would like to point out the detrimental effects of mass-media in this respect that leads to exaggerating occurrences of murder, bodily injury, kidnapping.



Figure 14. Patent (discovered) crimes (publicly prosecuted) 1990-2008

Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/tabl2_08_02i.html (in Hungarian)

If we analyze the previous table, from a different aspect, we find that the number of crimes against property significantly exceeds the number of all other types of crime:





Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/tabl2_08_02i.html (in Hungarian)

Compared to the number of publicly prosecuted patent crimes, the rate of crimes committed against property was the highest (78.39%) in 1992. However, regarding the rates, with respect to the total of crimes committed (600.621) and also within this, the crimes against property (457.188) those were the highest in 1998. After 1998, a significant decline can be experienced. Analysis of these numbers might raise several questions in the students, regarding the emphases of the curriculum, and the importance of certain crimes. If these data are examined and used correctly by an expert in criminal statistics, it leads to objective insight, into the proportions of patent crimes.

Further analyzing the diagram above, we can only indirectly conclude, that in terms of crimes against property, the significant change in the statutory limits of value (increasing from 5.000 HUF first to 10.000 HUF, then to 20.000 HUF) had some effect on the numbers. (NB the peak points overlap with the dates of the changes in the statutory limits of value.)

This means, that crimes against property, not exceeding these limits of value, will not be governed by criminal law anymore, but by the law of misdemeanors. This of course leads to their incorporation in misdemeanor statistics, instead of criminal statistics. Pursuant to this, there appear to be fewer crimes included in criminal statistics, which the government comments, as a success in crime prevention. However, following from my arguments, this was clearly not the case, in light of the right interpretation of the numbers. It would be worth examining, how the analysis of criminal statistics disregarding misdemeanors, appears in criminal politics. [E.g. if we consider, that criminal statistics does not confirm the emphasis put on homicide (including murder and manslaughter) in the course of criminal law education.] (NB Following from the above, it is quintessential to deal with data

pertinent to misdemeanor statistics if we talk about criminal statistics, but we will not touch upon further questions of this problem in this current article.)

Summing up, it shall be pointed out, if we properly apply the methods of criminal statistics and then our efforts amount to a much clearer picture on the status of crime; also -- more importantly -- we can enable students to integrate their knowledge by having an objective system at their disposal to refer to. This system should be based on accurate measurements, compiled in a way meeting strict requirements, in order to make possible the understanding of criminal legal matters e.g. why certain crimes will be classified as life threatening assault and battery and why not as attempted murder.

Criminal law without criminal statistics is blind and criminal statistics without criminal law is pointless. - said Prof. Hans-Heinrich Jeschek. We could agree with his assertion on criminology, applying it to criminal statistics. The two fields cannot exist without each other, and their close relation is important for the different methods of criminal statistics help the development of the complex legal thinking needed for those interested in criminal law to become the best professionals possible. Criminal statistics has several methods that cannot be fully applied without sufficient knowledge on the basics of criminal law, on the other hand, however, we have to consider those areas as well that are perfectly compatible with the dogmatic system of domestic criminal law.

These areas and methods shall be inserted in the current materials of legal education with intent of an extended application, and they shall also be applied in the course of seminars and lectures as well. The major fora shall also be better promoted where those interested can find statistical data and broaden their knowledge on certain aspects of e.g. criminal law. As a last point of interest, it is to be emphasized as a pivotal advantage that this branch of statistics could put those interested in possession of not only domestic but also European and international information. In light of the all-reaching integration these days, this could only serve to the benefit of the students and might lead to several different advantages for them in the course of their professional life.

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