9 Measuring the Influence of Statistical Counting Rules on Cross-National Differences in Recorded Crime

Marcelo F. Aebi

Combining data on offences known to the police and metadata on the rules applied by European countries to produce their criminal statistics, this article shows how the counting rules used to collect data for police statistics in each country affect the outcome of such statistics and constitute one of the main explanations of cross-national differences in levels of recorded crime. In particular, a comparison of crime rates shows that the group of countries that records offences when they are reported to the police presents higher crime rates than the group of countries that records offences when the police have completed the investigation.

9.1 Introduction

Research on cross-national comparisons of recorded crime rates usually includes a statement like the following: "Crime rates from country to country are difficult to compare because of differences in criminal justice systems, in definitions of crime, in crime reporting practices and recordkeeping" (Kalish 1988). Systematizing the difficulties inherent to those comparisons, von Hofer (2000) identifies three types of factors that determine the outcome of crime statistics: statistical factors, legal factors and substantive factors. These factors affect the national crime statistics of each country in a different way, hence complicating cross-national comparisons.

Substantive factors refer to the propensity to report offences by the population of each country, to the propensity to record offences by the police or other recording authorities, and to the actual crime levels. Legal factors refer to the influence of the legal definitions of offences adopted in each country and to the characteristics of the legal process such as the delays for prescription or the possibility for the prosecuting authorities of bringing to court personal offences – such as rape – on their own initiative. From that point of view, the use of the legality principle or the opportunity (or expediency) principle by the prosecuting authorities has a strong influence on the number of offences dealt with by courts.

Finally, statistical factors refer to the way in which crime statistics are elaborated. In that context we define the *statistical counting rules* as the rules applied in each country to count the offences and the offenders that will be included in crime statistics. Such rules vary from country to

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country, hence introducing differences in recorded crime rates that do not reflect actual differences in the levels of crime.

Using data on offences known to the police from the *Ninth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems* and metadata on statistical counting rules taken from the *European Sourcebook of Crime and Criminal Justice Statistics 2006* (Aebi et al. 2006; referred to in the rest of this article as *European Sourcebook 2006*), this paper analyzes the influence of statistical counting rules on cross-national comparisons of recorded crime in European countries.

9.2 Statistical counting rules in forty European countries

Since the publication of the first European Sourcebook in 1999, the group of experts in charge of it has paid special attention to the way in which data are collected for police statistics in each country. Thus, each edition contains one table summarizing the answers given by the countries to the following questions:

1. Are there written rules regulating the way in which data are recorded?

2. When are the data collected for the statistics?

3. What is the counting unit used in the statistics?

4. Is a principal offence rule applied?

5. How are multiple offences counted? and

6. How is an offence committed by more than one person counted?

In this article, we will use the answers included in the latest edition of the *European Sourcebook* (2006, 76-77). They refer to the statistical counting rules applied in 2003 and they are illustrated in Figures 9.1 to 9.6. Latvia, Norway and Turkey did not fill the questionnaire for the third edition of the *European Sourcebook* (2006) and therefore the answers are taken from the second edition of it (Killias et al. 2003, 74-75; referred to in the rest of this article as *European Sourcebook 2003*) and relate to 1999.
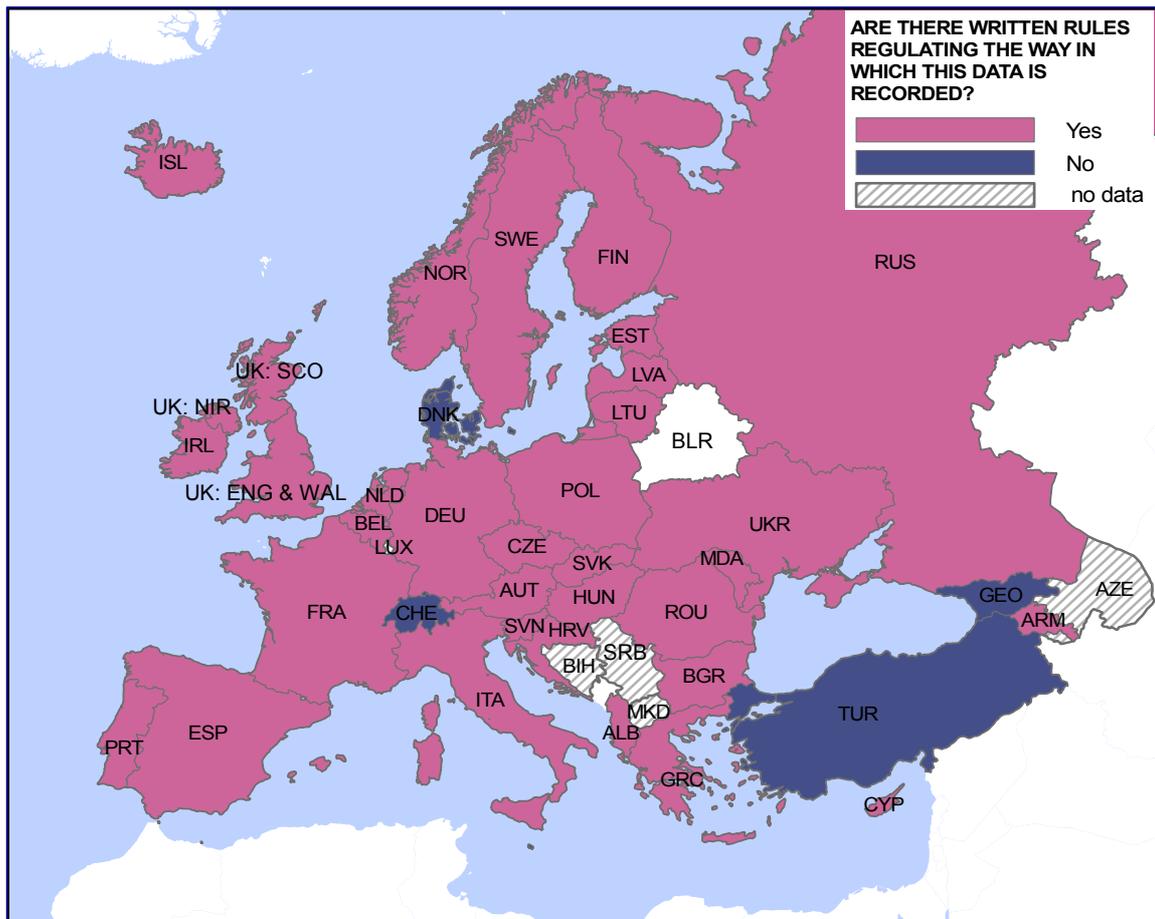
Figure 9.1. Are there written rules regulating the way in which data are recorded?

As can be seen in Figure 9.1, with the exceptions of Denmark, Georgia and Turkey – where there are no written rules – as well as Switzerland – where there are no rules at the federal level, but most cantons have such rules –, the rest of the European countries do have written rules regulating the way in which data are recorded for statistics[1]. Indeed, the presence of such rules guarantees some level of homogeneity in the recording practices of different police officers or different police forces within the same country.

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[1] Luxembourg did not answer to questions one, four and six. The questionnaire was not sent to Belarus.
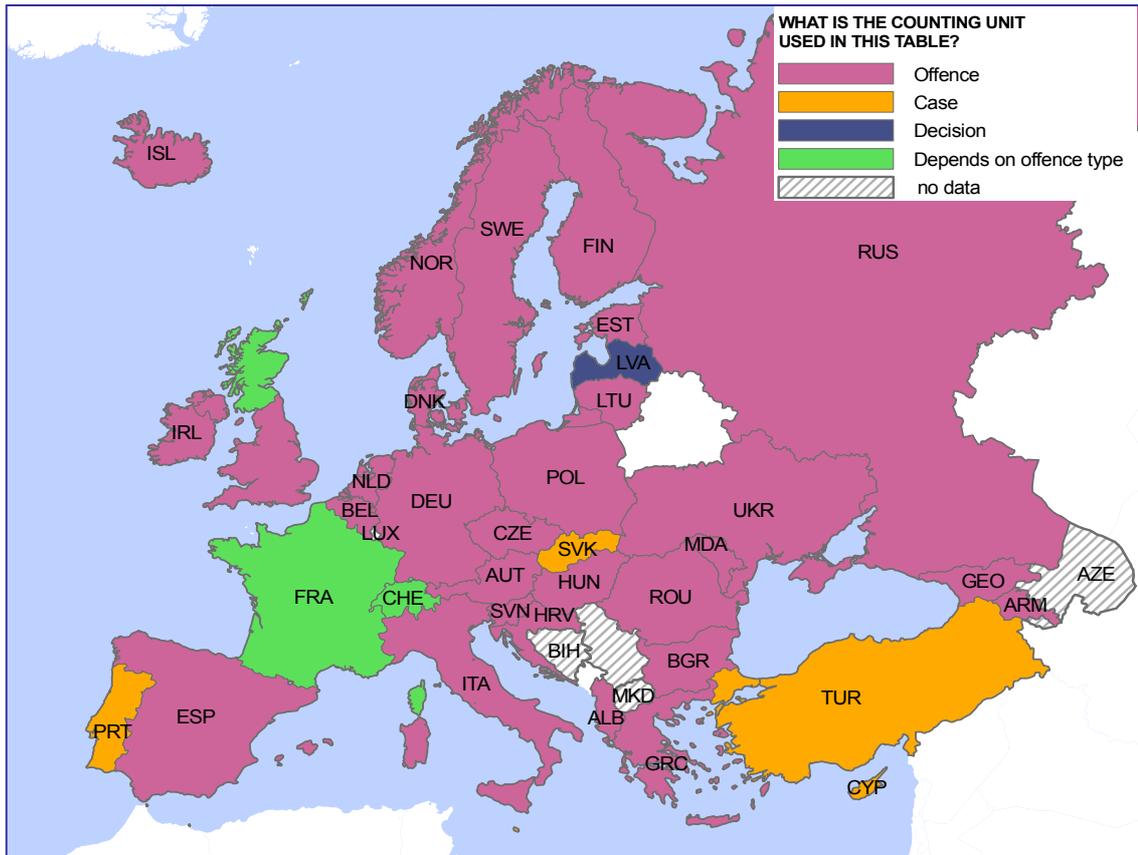
**Figure 9.2. What is the counting unit used in the statistics?**

Figure 9.2 shows that, usually, the counting unit used in European police statistics is the *offence*. Nevertheless, in Cyprus, Luxembourg, Malta, Portugal, Slovakia and Turkey the counting unit is the *case*, and in Latvia it is the *decision*. Finally, in France, Switzerland and Scotland, the counting unit varies according to the type of offence recorded. Thus, in Scotland, as far as offences against the person are concerned, one crime is counted for each victim; while for offences of dishonesty (i.e. theft acts) and robbery, one crime is counted per incident, regardless of the number of victims.

The difficulty comes from the fact that, according to the counting unit used in the statistics, figures will differ from one country to another. For example, a case may include several offences, or a decision may refer to more than one offence.
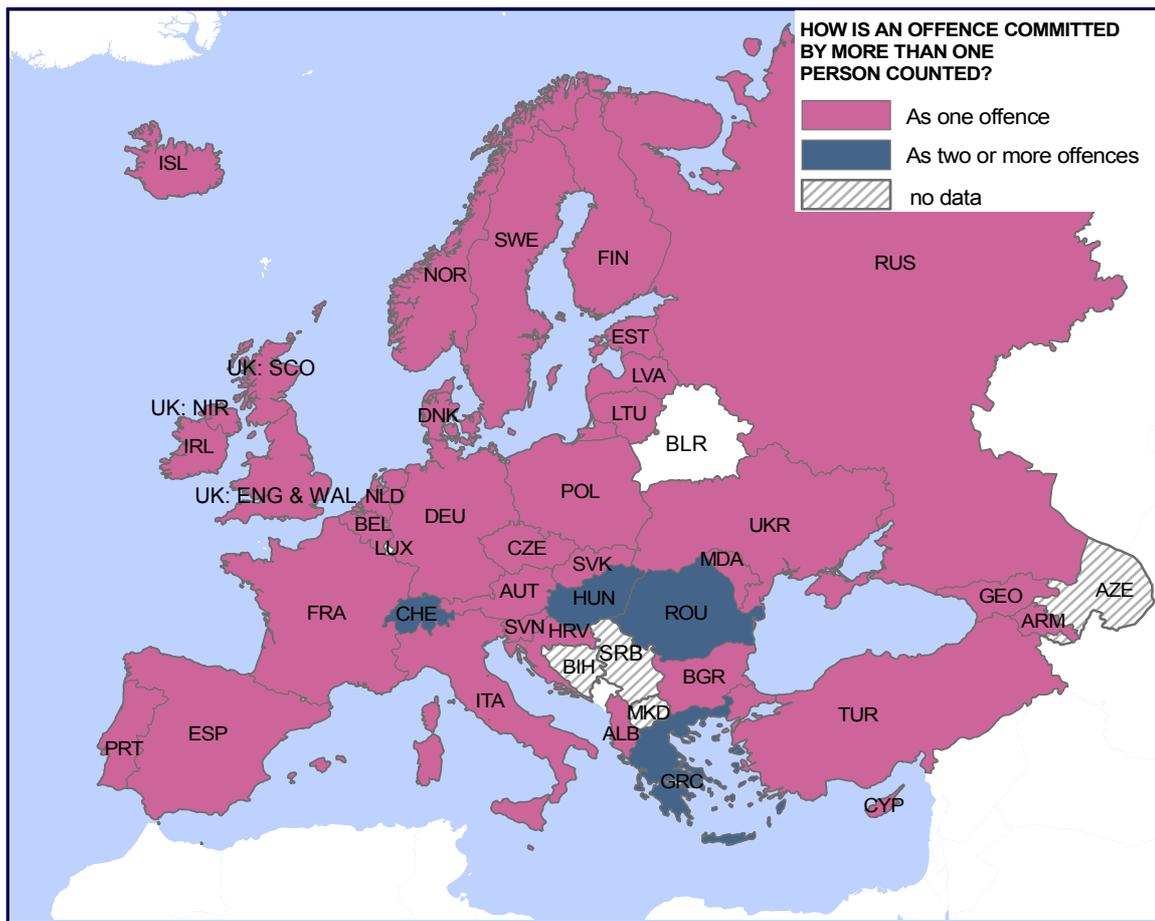
Figure 9.3. How is an offence committed by more than one person counted?

As it is shown in Figure 9.3, when more than one person commits an offence – for example, when a gang of ten members robs a bank – most countries count one offence, but Greece, Hungary, Romania, and Switzerland count one offence for each offender. In addition, Sweden counts one offence for each offender in cases of rape and drug offences, and France does the same for some offences.
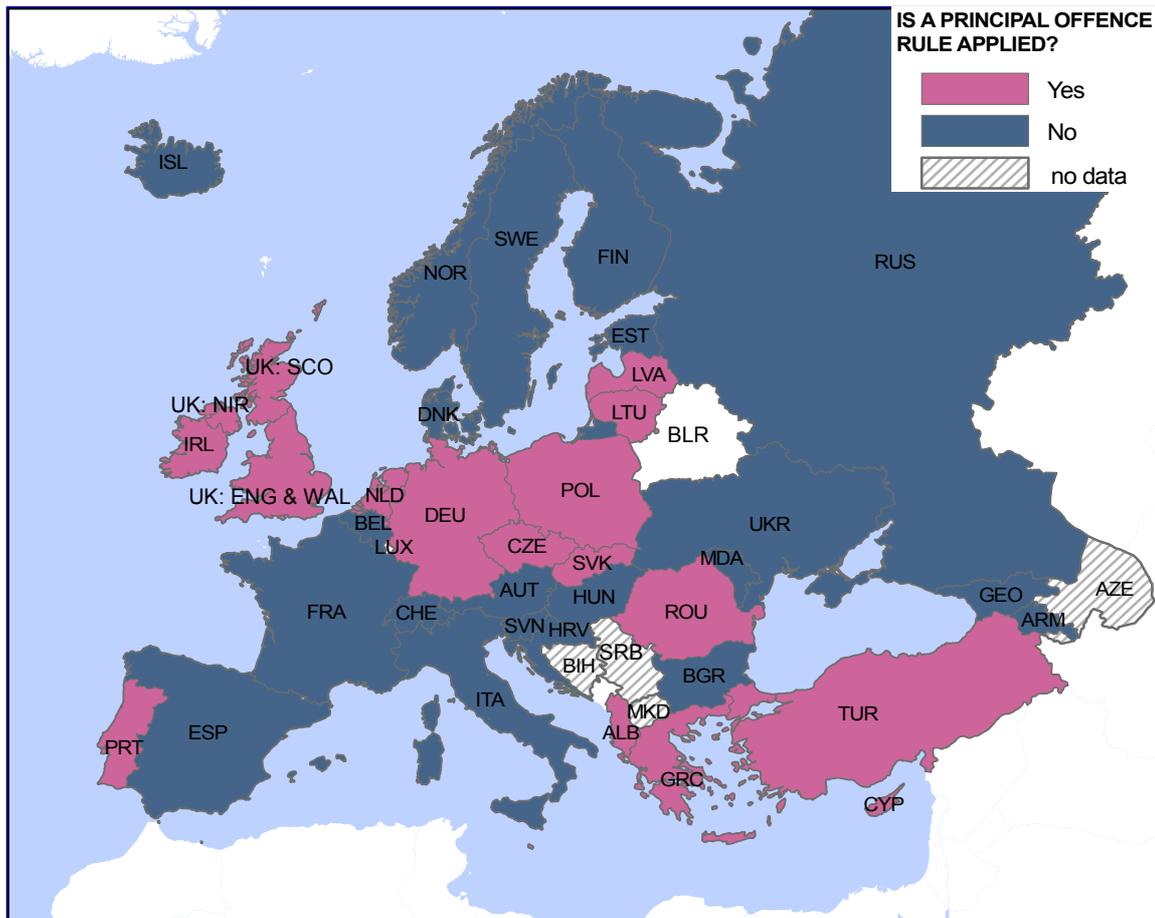
Figure 9.4. Is a principal offence rule applied?

Another source of artificial differences in the levels of recorded crime is the way in which simultaneous offences are recorded. In countries using a principal offence rule, only the most serious offence is recorded, while in countries without such a rule, each offence is recorded independently. For example, if in the course of theft an offender also causes damage to the property and kills one person, police statistics of countries applying a principal offence rule will show only one offence (i.e. homicide), while in countries where there is no such rule, each offence (homicide, damage to property and theft) will appear separately. As a consequence, by the end of the year – when thousands of offences have been recorded – the total number of offences will be quite different in a country that applies the principal offence rule and in a country that does not apply it. As can be seen in Figure 9.4, eighteen European countries apply a principal offence rule and twenty-one do not apply such a rule.
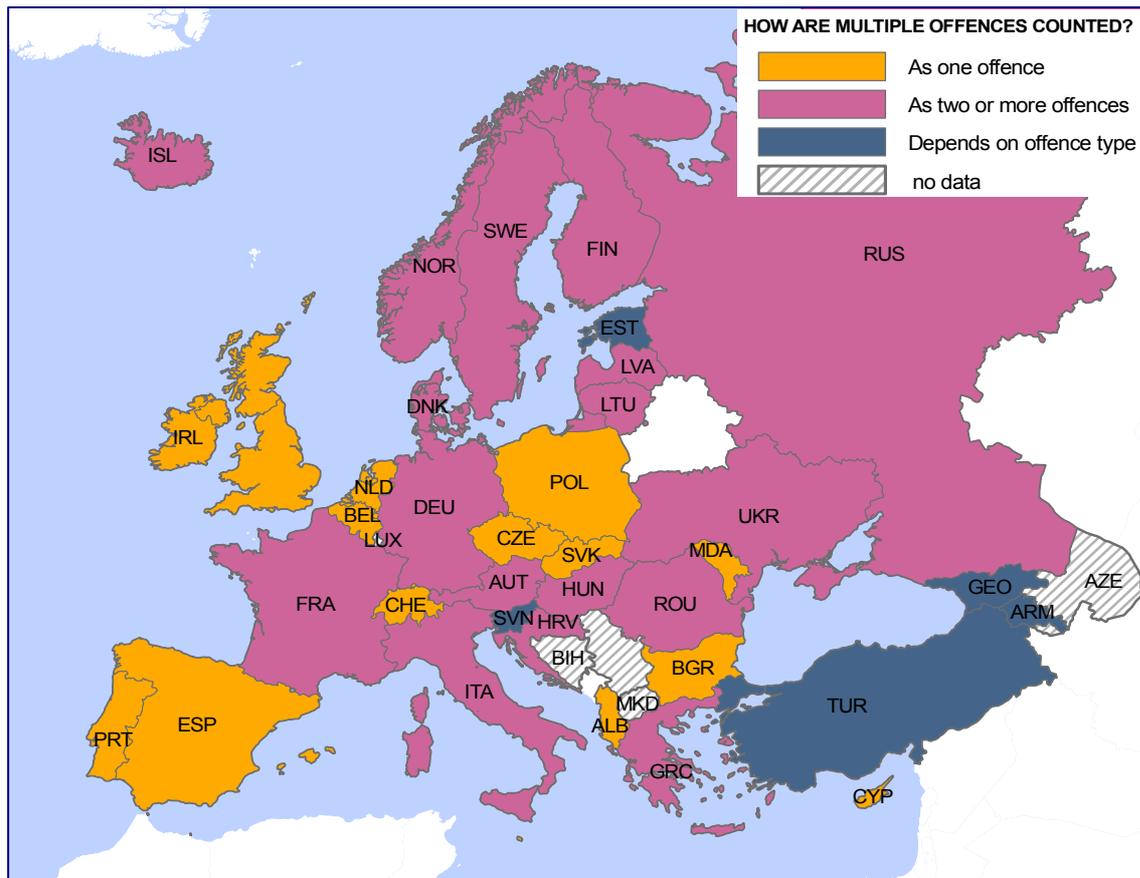
Figure 9.5. How are multiple offences counted?

A similar problem is raised by multiple offences, i.e. by offences of the same kind, which are often called serial offences. For example, if a woman reports to the police that her husband has beaten her ten times during the last six months, it is crucial to know whether the police will record one or ten offences. Figure 9.5 shows that, in such cases, eighteen European countries count only one offence, seventeen count two or more offences, and in the remaining five countries (Armenia, Estonia, Georgia, Slovenia and Turkey) the rule depends on the type of offence. Moreover, in France, Germany and Finland there are some exceptions to the general rule that states that multiple offences should be counted as two or more offences. Thus, in Germany, multiple offences against the same victim or without a victim are counted as one offence (while multiple offences against different victims are counted as two or more offences). In Finland, multiple drug offences and fraudulent payments with credit cards are counted as one offence. Finally, in France, there is a link between multiple offences and the counting unit used for the statistics; thus, when the counting unit is the case (e.g. drug trafficking), multiple offences will be counted as one offence.
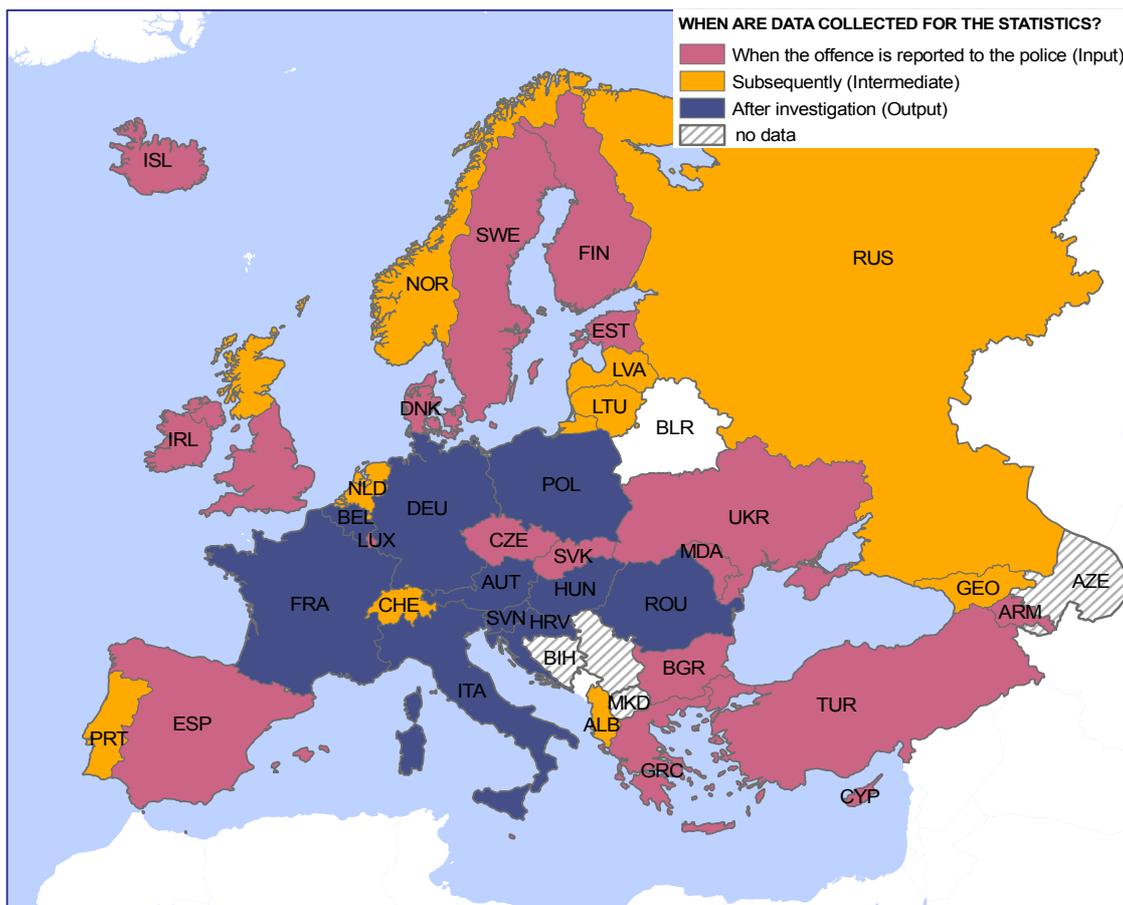
Figure 9.6. When are the data collected for the statistics?

Last but not least, according to the moment when data are collected for the statistics, countries can be classified in three different groups: those with *input* statistics, those with *output* statistics and those with *intermediate* statistics. In countries using input statistics, data are recorded for statistical purposes when the offence is reported to the police (or when police officers observe or discover an offence). In contrast, in countries using output statistics, data are recorded when the police have completed the investigation. In between these extremes, some countries record data at an intermediate stage of the process, i.e. at some point in time between the input and the output. Unfortunately, it is not possible to know in which countries that moment in time is closer to the input and in which ones it is closer to the output.

Knowing that the number of offences registered by official measures of crime decreases as the criminal process advances (Sellin 1951; President's Commission 1967), one should expect that, all other things being equal – including, for example, the definition of the offences, the actual level of crime, the propensity to report and to record offences as well as all other statistical, legal and substantive factors –, countries using input statistics will present higher crime rates than countries using output statistics.

For example, in countries with input statistics, when a person reports a theft to the police, the offence is automatically included in police statistics; in contrast, in countries with output statistics, the report is received but the offence is not included in the statistics until the police investigation is complete. Thus, the offence will not appear in police statistics if the investigation reveals that it never happened. Moreover, if the police discover that it was a case of false reporting, this new offence will appear both in countries with input and in countries with output statistics. As a result, the first ones will record two offences in their statistics but the second ones will only record one.

Indeed, this problem is related to the validity and reliability of police statistics. In countries with input statistics, the police officers arriving at the scene of a crime or receiving a report from a victim usually do not have enough information about the circumstances of the offence, and this may lead them to classify it inadequately. For example, the evidence collected during the investigation may show that what seemed to be an attempted homicide was in fact a case of aggravated assault; therefore, countries using output statistics will record one aggravated assault in their statistics, but countries using input statistics will record one attempted homicide.

Output statistics could thus be considered as more reliable than input statistics, but at the same time they are less valid than the former because some offences may disappear from the statistics only because the police were unable to find relevant evidence. As can be seen in Figure 9.6, twenty European countries use input statistics, ten countries use intermediate statistics and ten countries use output statistics[2].

To complicate the picture, all the statistical factors mentioned presented in Figures 9.1 to 9.6 combine themselves in each country[3]. In that context, *all other things being equal*, one should expect that countries with input statistics, using offences as counting units, not applying a principal offence rule, counting multiple offences as two or more offences, and offences committed by more than one person as two or more offences, would present the highest rates of recorded crime. But that hypothesis cannot be tested just by comparing countries with input vs. countries with output statistics because we cannot control all legal and substantial factors − i.e. *all other things* − in order to be sure that the

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[2] Countries using input statistics: Armenia, Bulgaria, Czech Republic, Denmark, Estonia, Finland, Greece, Iceland, Ireland, Luxembourg, Malta, Moldova, Slovakia, Spain, Sweden, Turkey, Ukraine, England and Wales, and Northern Ireland. Countries using intermediate statistics: Albania, Georgia, Latvia, Lithuania, Netherlands, Norway, Portugal, Russia, Switzerland, and Scotland. Countries using output statistics: Austria, Belgium, Croatia, France, Germany, Hungary, Italy, Poland, Romania, and Slovenia.
[3] It is worth mentioning that there is no clear geographical distribution of the counting rules applied in Europe. Countries that are usually seen as having a similar culture (Scandinavia, Southern Europe, Western Europe, etc) do not apply the same rules.

differences in recorded crimes are only due to statistical factors. In particular, as we do not know the actual levels of crime in each country, we cannot simulate a situation where these levels are identical across countries. This is also the reason why, at least for the moment, it is impossible to assign a weight to each statistical factor and produce a figure that would take all these factors into account. Indeed, such a procedure would require knowing – for each and every country and each and every type of offence – the "real" number of offences registered at the beginning (input) and at the end of the process (output) as well as the breakdown of all these offences according to the factors mentioned before (i.e. how many of these offences were multiple offences, how many were committed by more than one person, etc.)[4].

Apart from that, an analysis of the answers given to the six questions on counting rules shows twenty-six different combinations in the forty countries studied. Each one of these combinations includes a maximum of four countries (i.e. countries that gave exactly the same answer to all the questions) but the general rule is to have combinations that include only one or two countries. It is thus impossible to take all the rules into account in order to create different groups of countries and compare their crime rates.

At the same time, the influence of each statistical factor is not identical. For example, the way in which multiple offences are counted affects only multiple offences, and the use of a principal offence rule affects only cases where more than one offence has been committed. The only factor that affects the way in which each offence is recorded is the moment when the data are collected for statistics, and it is the one that will be used in the rest of this article.

9.3 Crime rates according to statistical counting rules in thirty-five European countries

As we have seen before, according to the moment when data are collected for statistics, countries can be divided in three groups. The first one includes countries using input statistics, the second one includes countries using intermediate statistics, and the last one includes countries using output statistics. In this section we will compare the crime rates of each of these groups. Logically, our main hypothesis is that the group of countries using input statistics will present higher rates than the group of countries

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[4] To our knowledge, the only analysis of that kind was conducted by von Hofer (2000) who studied the cases of rape registered by the police in Sweden in 1995 and was able to measure the influence of each statistical counting rule applied. However, it would be extremely difficult to replicate his analysis in other countries because the vast majority of them does not have criminal statistics that are as detailed as the Swedish ones.

using output statistics. Apart from that, countries using intermediate statistics should also occupy a halfway position.

In order to increase the validity of our analysis we have excluded countries with a population of less than one million inhabitants (Cyprus, Iceland, Luxembourg and Malta) because their rates are extremely instable, as well as Belgium whose data did not seem reliable because major changes in police recording practices were introduced between 2000 and 2003[5].

Once the groups were created, we have calculated the average number of different offences – total recorded crimes, completed intentional homicides, attempted intentional homicides, non-intentional homicides, major assaults, assaults, rapes, robberies, major thefts, thefts, automobile thefts, burglaries, and kidnappings – per 100,000 population recorded in 2003 in each group according to the *Ninth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems*[6]. By making that calculation we are placing our analysis at a macro-level because we are comparing groups of countries instead of countries individually. This is because the crime rate of a particular country is explained by a combination of statistical, legal and substantial factors. For example, an extremely high rate for an offence – such as the rates for completed intentional homicide in some Eastern European countries – cannot be explained by only one statistical factor. For the same reason, we have chosen offences whose definitions should be similar across European countries[7], although we are fully aware that perfect correspondence between the definitions applied in thirty-five countries is impossible. Finally, we have standardized the figures using the output for each offence as index (=100)[8]. The results of the comparison between countries with

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[5] It is interesting to point out that the statistical factors studied here are not stable over time. Indeed, seven out of the thirty-seven European countries included in the *European Sourcebook* (2006) reported that their data recording methods had been substantially modified between 2000 and 2003 (*European Sourcebook*, 2006, 76). Those countries were Austria, Belgium, Lithuania, Luxembourg, Portugal, Slovenia, and Northern Ireland. Apart from that, a comparison of the answers given in the second and in the third edition of the *European Sourcebook* (2003 and 2006) to the question about when data are collected for the statistics, shows that seven countries changed that rule from 1999 to 2003.

[6] We have used the dataset produced by Heuni (European Institute for Crime Prevention and Control, affiliated with the United Nations) that has gone through a series of validity checks of the data provided by the countries.

[7] Drug offences were not included because their treatment is so different in each European country that any valid comparison is impossible. For example, in 2003, there were almost 800 recorded drug offences per 100,000 population in Scotland, 639 in Switzerland, 310 in Germany, 54 in France, 11 in Turkey, and only 7 in Romania.

[8] Some countries did not provide data for every offence; therefore, for those offences our sample has less than thirty-five countries. Whenever data for 2003 was not available, we used the data for the nearest available year.

input statistics and countries with output statistics are presented in Figure 9.7.

Figure 9.7 shows that countries using input statistics present almost systematically higher crime rates than countries using output statistics. The only exception are theft offences where the very low figures for Armenia and Turkey (respectively 88 and 104 thefts per 100,000 population) clearly affect the average for the whole cluster of countries with input statistics (1,611 thefts per 100,000 population)[9]. Thus, our main hypothesis is confirmed by this analysis.

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[9] In the case of theft, it is also worth noting that some countries do not consider theft of small values as an offence but as a misdemeanour which is therefore not included in crime statistics. This is the case in the Czech Republic, Hungary, Lithuania, Poland, Russia, Slovakia (*European Sourcebook* 2006, 160) and Spain.
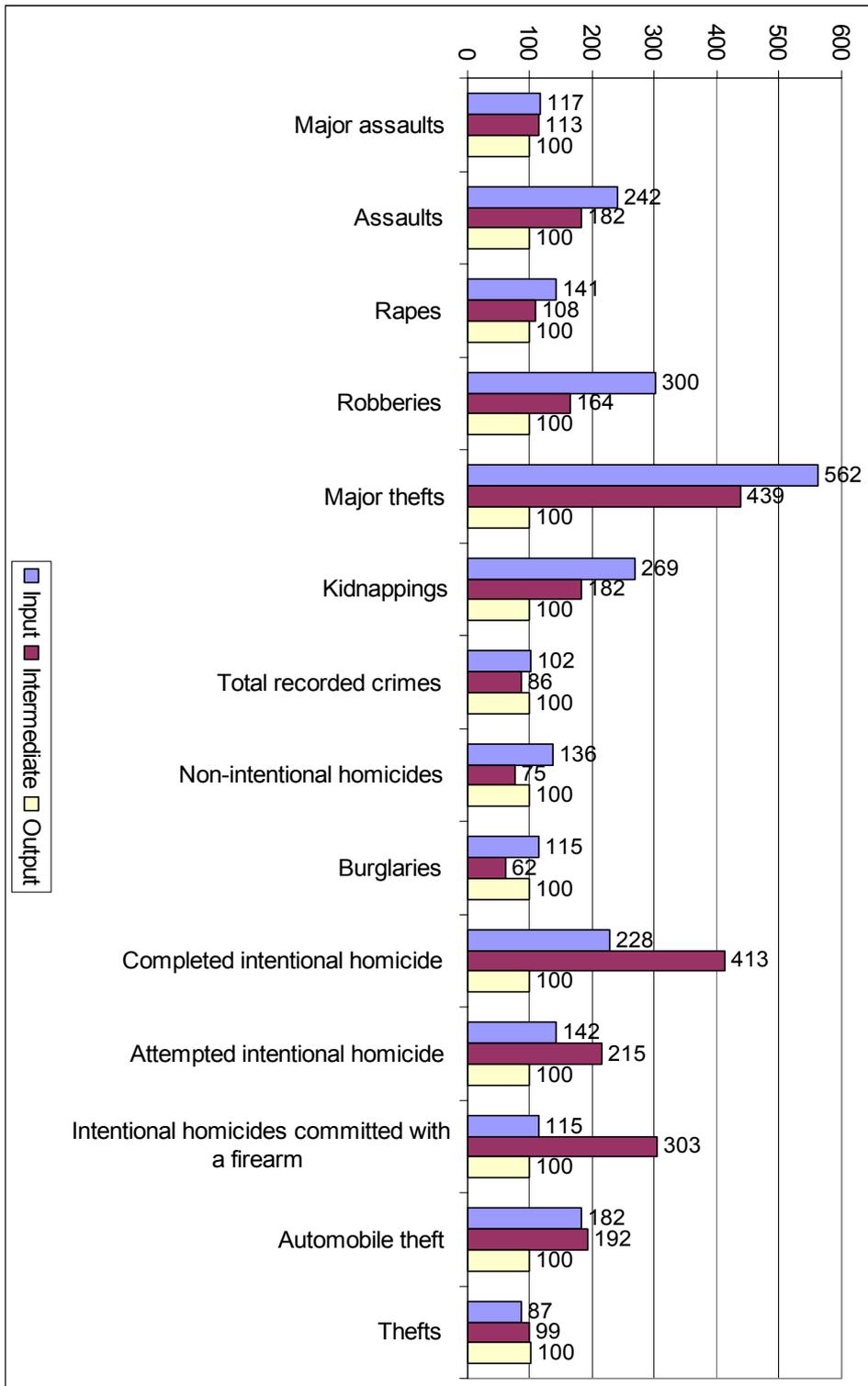
Figure 9.7. Indexed average number of offences per 100,000 population known to the police in 2003 in 35 European countries grouped according to their statistical counting rules: countries with input statistics and countries with output statistics (Output = 100)

Major assaults: Input 117, Intermediate 113, Output 100
Assaults: Input 242, Intermediate 182, Output 100
Rapes: Input 141, Intermediate 108, Output 100
Robberies: Input 300, Intermediate 164, Output 100
Major thefts: Input 562, Intermediate 439, Output 100
Kidnappings: Input 269, Intermediate 182, Output 100
Total recorded crimes: Input 102, Intermediate 86, Output 100
Non-intentional homicides: Input 136, Intermediate 75, Output 100
Burglaries: Input 115, Intermediate 62, Output 100
Completed intentional homicide: Input 228, Intermediate 413, Output 100
Attempted intentional homicide: Input 142, Intermediate 215, Output 100
Intentional homicides committed with a firearm: Input 115, Intermediate 303, Output 100
Automobile theft: Input 182, Intermediate 192, Output 100
Thefts: Input 87, Intermediate 99, Output 100

Legend: Input, Intermediate, Output

Figure 9.8. Indexed average number of offences per 100,000 population known to the police in 2003 in 35 European countries grouped according to their statistical counting rules: countries with input, intermediate and output statistics (Output = 100)

In Figure 9.8 we have added to the analysis the group of countries using intermediate statistics. It can be seen that, in six offences out of fourteen, our hypothesis is confirmed because the group of countries with input statistics has higher rates than the one with intermediate statistics and the latter has higher rates than the group of countries with output statistics. Apart from that, in three cases (total recorded crimes, non-intentional homicides and burglaries), the group of countries with input statistics has higher rates than the one with intermediate statistics but the latter has lower rates than the group of countries with output statistics. Finally, in five cases, the group with intermediate statistics presents either higher rates than the other two groups (this pattern applies to the three types of intentional homicide and automobile theft), or a rate that is higher than the one of the group of countries with input statistics and almost identical to the one of the group of countries with output statistics (this pattern applies to theft).

Thus, in eight cases out of fourteen, the relationship between these three types of statistics is not as linear at it seems from a theoretical point of view. Indeed, as we have mentioned before, intermediate statistics pose the problem that, with the information currently available, it is impossible to assess the exact moment of the process – between input and output – when data are collected in each country. For example, if in the majority of these countries data were recorded for statistics at a moment in time that is close to the input, it would be logical to have more or less similar crime rates in the group of countries with input statistics and in the group of countries with intermediate statistics; on the contrary, if data were recorded for the statistics at a moment in time that is closer to the output, the rates of the groups of countries with intermediate and with output statistics should be similar.

Unfortunately, with the information available to date it is impossible to go deeply into this matter. However, we can point out that usually the high rates of the group of countries with intermediate statistics are explained by the presence of one or more outliers[10].

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[10] For example, that is the case of Russia with 22 completed intentional homicides per 100,000 population – a figure that seems to include attempted homicides – while the mean for the whole group of countries with intermediate statistics is 6 homicides per 100,000 population. It is also the case for the Netherlands and Scotland for attempted intentional homicide (respectively 10 and 14 offences per 100,000 population while the mean for the group is 4), and Albania for intentional homicide committed with a firearm (4 offences per 100,000 population while the mean for the group is 1).

9.4 Discussion

In sum, our analysis generally supports the hypothesis suggesting that the statistical counting rules regarding the moment when data are collected for the statistics play a major role in the explanation of the crime rates registered in each country. Of course, this does not *prove* that the differences in recorded crime are due to that factor. As we have said before, cross-national differences in recorded crime are due to a combination of statistical, legal and substantial factors. In that context, one cannot exclude that the explanation of the pattern shown in Figures 9.7 and 9.8 is that countries with output statistics are the ones where less offences are effectively committed, but even in that case the difference between these countries and those with intermediate or output statistics would probably be inflated because of the counting rules applied.
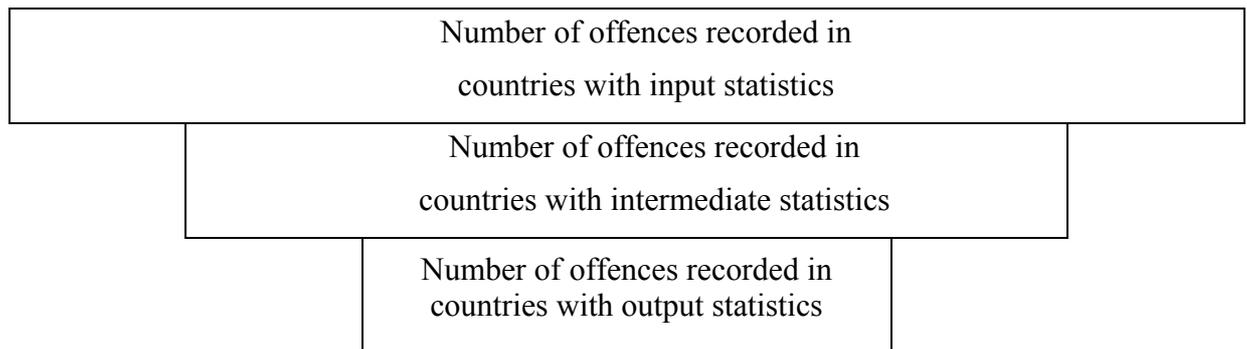
Finally, Figure 9.7 suggests that the influence of the counting rules varies according to the type of offence. In fact, while for the total number of offences, the group of countries with input statistics presents rates that are only 2% higher than the ones of the group of countries with output statistics, the percentage rises, for example, to 462% for major thefts, 200% for robbery, 142% for assaults, and 128% for completed intentional homicide. The problem comes from the fact that we do not know precisely which part of that percentage is due to the statistical counting rules applied. Nevertheless, one could suppose that it would be less important in cases such as completed intentional homicide, which is not very common, is clearly defined and verifiable – by the presence of a dead body –, and whose clearance rate is high. Unfortunately – from a methodological point of view –, most offences do not present that profile and, therefore, their rates are probably more influenced by the statistical counting rules applied in each country.

9.5 Conclusion

By comparing the crime rates of European countries according to their counting rules we have seen that the group of countries that registers offences when they are reported to the police (input statistics) presents higher crime rates than the group of countries that registers offences after investigation (output statistics). At the same time, the group of countries that registers offences somewhere between these two points in time occupies an intermediate position and usually, but not always, shows lower crime rates than the group of countries with input statistics and higher crime rates than the group of countries with output statistics.

Therefore we can conclude that European crime rates seem to follow the following pattern: Countries using input statistics reveal higher crime rates than countries using intermediate statistics, and countries using intermediate statistics show higher crime rates than countries using output statistics (see Figure 9.9). This pattern reflects the structure of the criminal

justice process, which has often been compared to a funnel (President's Commission 1967). As we have pointed out before, this in an application of the general principle stating that the number of offences registered by official measures of crime decreases as the criminal process advances (Sellin 1951). Of course, that principle is well known by criminologists, but to our knowledge this is the first research that corroborates *empirically* its application to cross-national comparisons of recorded crime.

| Number of offences recorded in countries with input statistics |
| Number of offences recorded in countries with intermediate statistics |
| Number of offences recorded in countries with output statistics |

Figure 9.9. Statistical counting rules and their influence on the volume of recorded crime

Although our analysis does not *prove* that cross-national differences in recorded crime are due to the statistical counting rules used in each country, it strongly suggests that these rules play a major role in the explanation of those differences. Moreover, a similar analysis (Aebi 2008) based on data and metadata taken from the second edition of the *European Sourcebook* (2003) and covering the years 1995 to 2000, confirms the results find here.

As a matter of fact, our findings are not encouraging for researchers engaged in comparative criminology. In this respect, we can imagine a few different ways of dealing with the fact that crime statistics are social constructs, and that each society has its own special way of constructing them. The first one, and the most radical, would simply be to avoid making cross-national comparisons on the basis of crime statistics. In that context, victimization surveys and self-reported delinquency studies conducted with the same questionnaire and the same methodology constitute alternative measures of crime that can be used for such comparisons. A second possibility would be to combine different crime measures. For example, data from victimization surveys, police, conviction, and correctional statistics can be combined through the computation of a series of indexes for each country which, in turn, can be compared across countries (Farrington et al. 2004), or national crime statistics can be combined with victimization surveys by weighting data according to the percentage of offences reported to the police (Aebi et al. 2002), or different crime measures can be combined in an index as the one developed by HEUNI (Aromaa and Joutsen 2003). Nevertheless, the validity of such kind of indexes has not been established yet. In particular,

the combination of collections of international crime statistics such as the *European Sourcebook*, Interpol's *International Crime Statistics* or the *United Nations Survey on Crime Trends and Criminal Justice Systems* presents the problem that all these collections are based on the same national crime statistics, which explains why their crime rates are usually correlated (see the correlations found by Bennett and Lynch 1990, and by Howard and Smith 2003). However, the process of data validation introduced in the *European Sourcebook* (2006, 18-20) has improved the quality of the data included in that collection and explains why the correlations are not perfect (Aebi et al. 2002). A third alternative would be to restrict the use of crime statistics to comparisons of crime trends only, although in this case the researcher must check for eventual modifications of the counting rules applied during the period studied (Aebi 2004; von Hofer 2000; Killias and Aebi 2000). The fourth one would be to restrict comparisons to countries applying similar statistical counting rules; but taking into account that the similarity must apply to all rules and not only to the one regarding the moment when data are collected for statistics, because even among countries collecting statistics at the same time there are remarkable differences in crime rates that cannot be explained by substantial factors only. The fifth possibility would be to weight crime rates according to the statistical counting rules of each country, but this is not yet feasible because we still do not know the exact percentage of the crime rate that is explained by the statistical counting rules. The real solution would be to introduce more detailed crime statistics – such as the ones used in Sweden – in every country. Until that moment arrives, our analysis suggests that any cross-national comparison of recorded crime rates should pay special attention to the issue of the statistical counting rules applied in each country.

References

Aebi, Marcelo F. (2004). Crime Trends in Europe from 1990 to 2000. In Aromaa, Kauko and Sami Nevala (eds.): *Crime and Crime Control in an Integrating Europe: Plenary presentations held at the Third Annual Conference of the European Society of Criminology - Helsinki 2003.* Publication Series No. 44. Helsinki: HEUNI, 39-60. Also available online at: http://www.heuni.fi/uploads/ob35f37b1qqdnk(1).pdf

Aebi, Marcelo F. (2008). *Temas de Criminología*. Madrid: Dyckinson.

Aebi, Marcelo F., Kauko Aromaa, Bruno Aubusson de Cavarlay, Gordon Barclay, Beata Gruszczynska, Hanns von Hofer, Vasilika Hysi, Jörg-Martin Jehle, Martin Killias, Paul Smit, and Cynthia Tavares (2006). *European Sourcebook of Crime and Criminal Justice Statistics 2006.* Den Haag: Home Office, Swiss Federal Statistical Office, Cesdip, Boom Juridische uitgevers, Wetenschappelijk Onderzoek- en Documentatiecentrum. Also available online at: http://www.wodc.nl

Aebi, Marcelo F., Martin Killias and Cynthia Tavares (2002). Comparing Crime Rates: The International Crime (Victim) Survey, The European Sourcebook of Crime and Criminal Justice Statistics, and Interpol Statistics. *International Journal of Comparative Criminology* 2, 22-37.

Aromaa, Kauko and Matti Joutsen (2003). Introduction. In Aromaa, Kauko, Seppo Leppä, Sami Nevala and Natalia Ollus (eds.): *Crime and Criminal Justice Systems in Europe and North America 1995-1997.* Publication Series No. 40. Helsinki: Heuni, 1-13. Also available online at: http://www.heuni.fi/uploads/0gyxd5c8.pdf

Bennett, Richard R. and James P. Lynch (1990). Does a Difference Make a Difference? Comparing Cross-National Crime Indicators. *Criminology* 28, 153-182.

Farrington, David P., Patrick A. Langan and Michael Tonry (2004). *Cross-National Studies in Crime and Justice.* Washington: Bureau of Justice Statistics, U.S. Department of Justice. Also available online at: http://www.ojp.usdoj.gov/bjs/pub/pdf/ cnscj.pdf

Howard, Gregory J. and Tony R. Smith (2003). Understanding Cross-National Variations of Crime Rates in Europe and North America. In Aromaa, Kauko, Seppo Leppä, Sami Nevala and Natalia Ollus (eds.), *Crime and Criminal Justice Systems in Europe and North America 1995-1997.* Helsinki: Heuni, 23-70. Also available online at: http://www.heuni.fi/uploads/0gyxd5c8.pdf

Kalish, Carol B. (1988). International Crime Rates. Washington: Bureau of Justice Statistics, U. S. Department of Justice. Reprinted in Beirne, Piers and David Nelken (eds., 1997), *Issues in Comparative Criminology*. Aldershot: Ashgate / Dartmouth.

Killias, Martin and Marcelo F. Aebi (2000). Crime Trends in Europe from 1990 to 1996: How Europe Illustrates the Limits of the American Experience. *European Journal on Criminal Policy and Research* 8, 43-63.

Killias, Martin, Gordon Barclay, Paul Smit, Marcelo F. Aebi, Cynthia Tavares, Bruno Aubusson de Cavarlay, Jörg-Martin Jehle, Hanns von Hofer, Beata Gruszczynska, Vasilika Hysi and Kauko Aromaa (2003). *European Sourcebook of Crime and Criminal Justice Statistics 2003.* Den Haag: Home Office, Ecole des sciences criminelles, Boom Juridische uitgevers, Wetenschappelijk Onderzoek- en Documentatiecentrum. Also available online at: http://www.wodc.nl

President's Commission on Law Enforcement and Administration of Justice (1967). *The Challenge of Crime in a Free Society.* Washington D. C.: U. S. Government Printing Office.

Sellin, Thorsten (1951). *The Significance of Records of Crime.* The Law Quarterly Review 67, 489-504.

von Hofer, Hanns (2000). Crime Statistics as Constructs: The Case of Swedish Rape Statistics. *European Journal on Criminal Policy and Research* 8, 77-89.

10 Trends and Methodological Aspects in the International Collection of Crime and Criminal Justice Statistics

Anna Alvazzi del Frate[*]

10.1 The UN and crime and criminal justice data: back to the origins

Availability of international crime statistics has been a concern to the United Nations since their establishment, building on early attempts, such as that of the 1930s "Mixed Committee for the comparative study of criminal statistics in the various countries".[1] In 1948, the Social Affairs Committee of the United Nations decided to start collecting crime statistics as a basis for its work on the prevention of crime and treatment of offenders. A "Statistical Report on the State of Crime 1937-1946"[2], which resulted more in an analysis of the difficulties of collecting international crime statistics than in a real assessment, was published in 1950.

The regular UN collection of information on crime trends and the operations of criminal justice systems started in the 1970s in pursuance to a request from the General Assembly (GA Res. 3021, XXVII, 1972). Initially, States agreed to share general information on the situation concerning crime prevention and control, and measures taken. Subsequently, a detailed questionnaire for data collection was developed and the *United Nations Survey of Crime Trends and the Operations of Criminal Justice Systems* (recently nicknamed CTS for practical purposes) started. The CTS collects police and judicial statistics, virtually from all member States. Ten surveys have been concluded so far, representing data

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Disclaimer: The opinions expressed in this paper are solely those of the author, and do not necessarily reflect the views of the United Nations.

[1] Established in 1930 by the International Statistical Institute and the International Penal and Penitentiary Commission. See "The Rules for Drawing up Criminal Statistics, 1937", Bulletin of the International Penal and Penitentiary Commission, XII, 3-4, March 1947, 253-270.

[2] United Nations Social Commission, Economic and Social Council, Statistical Report on the State of Crime 1937-46, E/CN.5/204 (1950).

for the period 1976-2006.[3] Over the years, several Economic and Social Council resolutions dealt with various aspects of the Survey, including its content and periodicity. The Survey was initially carried out every five years.[4] Over time it was felt that more frequent surveys would have been more beneficial to the international community, so Ecosoc resolution 1990/18[5] recommended that "…subsequent surveys should be carried out at two-year and ultimately one-year intervals". The two-year periodicity was reiterated by Ecosoc resolution 1992/22[6], which requested the General Assembly to commit the necessary human and financial resources to (inter alia) "carry out the surveys at two-year intervals". Subsequently, despite previous indications and probably in order to take into account accumulated delays, Ecosoc resolution 1997/27[7] recommended that "….subsequent core surveys be conducted every three or four years…". Since 1997, however, the Survey found its regular periodicity and was repeated every two year. In 2006 the EGM recommended that "a core *annual* version of the questionnaire for the United Nations Survey could be developed, to be supplemented by additional modules, with longer intervals, on specific topics".[8] The format of the Survey questionnaire was agreed upon by a group of experts at the time of the Sixth Survey[9] and subsequently reconfirmed, with minor changes, for the Seventh, Eighth and Ninth Surveys.

10.2 What do we get from the CTS

At the moment, the CTS can be considered the main provider of crime and criminal justice statistics worldwide. Although regional sources such as the European Sourcebook of Crime and Criminal Justice Statistics[10] and the (American) Sourcebook of Criminal Justice Statistics Online[11] maybe

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[3] Results and responses are available from the UNODC website http://www.unodc.org/   unodc/en/data-and-analysis/United-Nations-Surveys-on-Crime-Trends-and-the-Operations-of-Criminal-Justice-Systems.html

[4] As mandated by Ecosoc resolution 1984/48 of 25 May 1984 on "Crime prevention and criminal justice in the context of development".

[5] Ecosoc Res. 1990/18 of 24 May 1990 on "United Nations surveys of criminal justice", point 1.

[6] Ecosoc resolution 1992/22 of 30 July 1992 on "Implementation of General Assembly resolution 46/152 concerning operational activities and coordination in the field of crime prevention and criminal justice", I, para f).

[7] Ecosoc resolution 1997/27 of 21 July 1997 on "Strengthening the United Nations Crime Prevention and criminal Justice Programme with regard to the development of crime statistics and the operations of criminal justice systems".

[8] E/CN.15/2006/4, para 11, our italics.

[9] Ecosoc res. 1996/11 and 1997/27 established an Advisory Steering Group. Meetings took place in Buenos Aires, Argentina (1997) and Veldhoven, the Netherlands (1998).

[10] European Sourcebook of Crime and Criminal Justice Statistics – 2006, Third edition. WODC, The Hague.

[11] Bureau of Justice Statistics, http://www.albany.edu/sourcebook/

richer and more accurate in detailed information, the CTS reaches all 192 Member States of the United Nations, thus has (potential) global coverage.[12] Other strengths of the CTS include the following issues:

a) It is conducted within the regular budget of the UN: the cost of Survey administration is built within the running budget of the UN criminal justice and crime prevention programme, thus ensuring sustainability over time.

b) It covers all criminal justice sectors: the CTS includes data on the four main components of the criminal justice system (Police, Prosecution, Courts, and Prisons/Penal Institutions) for the reference period.

c) It contains administrative data, which are produced at the national level within the regular work of relevant governmental agencies.

However, there are some serious limitations to the CTS, at least at the moment, which include the following aspects:

a) Response rate is low: replies to the Survey were received from a variable number of countries over the years (see Figure 10.1). The rate of response is however low and predominantly from developed countries. In the Eighth and Ninth Surveys, more than 50% of responding countries were from the Europe and North America region. In developing countries, the lack of information is not only an obstacle to the development of evidence-based policies and crime prevention strategies, but also represents a limit to the possibility to access international development aid.

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[12] The questionnaire is sent to Member States through diplomatic channels (Permanent Missions). In addition, copies are sent to National Statistical Institutes and/or Eurostat national focal points.
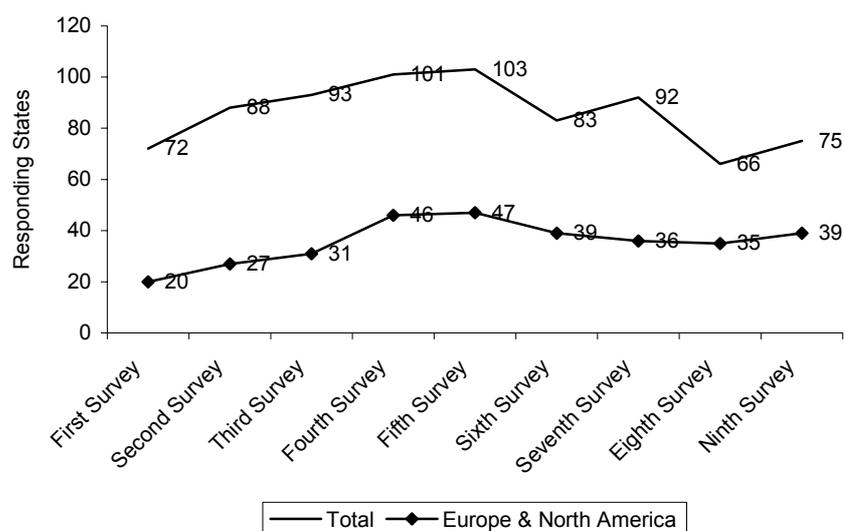
Figure 10.1. Number of States responding to the United Nations survey of crime trends and operations of criminal justice systems (1977-2006), total and Europe & North America

b) Countries do not provide complete responses: Even those countries that return the CTS questionnaire are often unable to respond to all questions. Analysis of missing responses within the returned questionnaires showed that nineteen percent of countries were able to provide responses to less than a quarter of the questions, twenty-three percent responded to less than half (but more than 25%), while the majority of countries were able to respond to more than half of the given questions (see Figure 10.2). Furthermore, Table 10.1 shows the percentage of numerical items completed by countries from Europe and North America responding to the Ninth survey. It can be observed that, on average, countries replied to 68% of the questions in the police section, 64% of those in the court section and less than half of those in the prosecution and prisons sections (49% in both cases).

c) There is no verification of data and little/no follow-up for clarifications and further explanations: There is limited capacity at the UN to follow up for data verification, or in case of non/partial response from countries. There is also no stable mechanism for verification/ checking of data quality. A number of obstacles, including the difficulty to identify a counterpart in Member States and to communicate beyond a small number of official UN languages, could be removed by some changes recently made in the Tenth Survey questionnaire. Furthermore, some volunteer experts have already made efforts at validation/verification of parts of the survey results by checking data consistency.

d) There is limited use of the results within the UN: Results from the CTS are published on the UNODC website, in PDF format, as received. Taking into account that the data are not verified/validated, further circulation of spreadsheets and tables is discouraged. Overall analysis of

the main trends has regularly been presented on the occasion of the United Nations Congresses on Crime and Criminal Justice[13] More in-depth analysis and interpretation of trends were presented in the Global report on Crime and Justice (Newman 1999). and HEUNI reports on Europe and North America.(Kangaspunta et al. 1998; Aromaa et al. 2003). Further analysis has been included in articles prepared for several issues of the Forum on Crime and Society journal.[14] However, the wealth of information collected could be at the basis of more extensive analysis and publications.
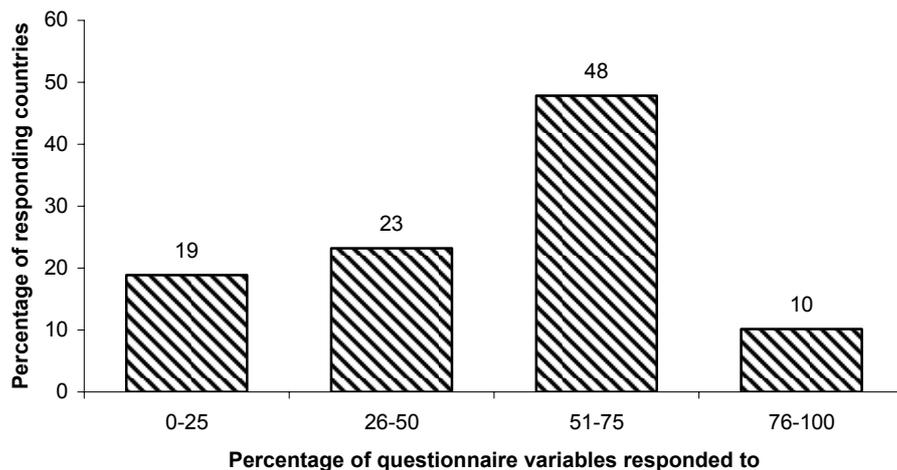
Figure 10.2. Overall rates of response to questionnaire variables in the ninth United Nations survey on crime trends and operations of criminal justice systems

Source: United Nations Survey of Crime Trends and Operations of Criminal Justice Systems.

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[13] Until 2000, UN Congresses on the Prevention of Crime and the Treatment of Offenders. The Sixth Congress in Caracas in its resolution 2 on the development of crime and criminal justice statistics, requested the Secretary-General to "intensify efforts to coordinate the collection of comparable cross-national statistics…", which lead to the regular collection of data. Reports were submitted to the Seventh Congress in Milan (A/CONF.121/18, 1985), the Eighth Congress in Havana (A/CONF.144/6, 1990), the Ninth Congress in Cairo (A/CONF.169/15 and Add.1, 1995), the Tenth Congress in Vienna (A/CONF.187/5, 2000) and the Eleventh Congress in Bangkok (A/CONF.203/3, 2005).
[14] Forum on Crime and Society (2001- ongoing) is the successor to the International Review on Criminal Policy (1952-1999) as the official journal of the Crime Prevention and Criminal Justice Programme of the UN.

Table 10.1. Percentage of numerical items completed by responding countries in descending order according to overall percentage of variables completed for years 2003 and 2004 combined, Europe and North America

Country	2003/04, %	2003, %	2004, %	2003/04, %			
				Police	Prosecution	Courts	Prisons
Croatia	85	84	85	98	78	84	77
Hungary	80	76	83	88	94	87	58
Romania	78	78	78	94	91	55	72
Latvia	76	76	76	96	84	76	54
Georgia	75	75	75	98	94	71	46
Belarus	75	75	75	96	66	82	56
Finland	74	74	74	92	81	82	48
Sweden	74	74	74	80	56	87	69
Czech Rep.	71	71	71	86	66	79	54
Cyprus	70	69	70	82	75	75	51
Portugal	69	69	69	78	84	68	52
Turkey	69	68	69	78	75	71	55
England & Wales	68	68	68	38	81	84	78
Estonia	66	66	67	89	28	79	59
Germany	66	67	66	72	86	87	35
Lithuania	65	64	66	96	16	41	81
Slovenia	64	64	63	87	22	84	52
Iceland	60	66	55	57	72	76	45
Poland	60	60	60	84	0	92	52
Ireland	60	59	61	92	88	18	44
Ukraine	60	58	61	81	34	68	49
Malta	52	52	52	71	25	49	54
Scotland	52	64	40	38	48	39	76
Denmark	51	50	53	78	0	74	42
Italy	49	50	49	64	13	74	41
Slovakia	47	45	48	34	14	86	50
Macedonia, FYR	42	42	43	0	72	72	43
Canada	41	49	34	84	0	34	31
Switzerland	28	29	28	31	0	61	20
Norway	26	30	22	30	0	63	13
France	18	18	18	64	0	0	0
Spain	16	16	16	0	0	0	50
Albania	12	11	12	0	64	0	0
Average	*58*	*58*	*57*	*68*	*49*	*64*	*49*

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10.3 Role of the UN as "honest broker" of international crime statistics

Despite several shortcomings, there is consensus that the UN should play an active role in the collection of international crime statistics. This is based on the *trust* that the UN enjoys as an intergovernmental organization, in its fair and unbiased use of methodologies and in the people who are involved in this area.

The international comparison of crime and criminal justice statistics is at the same time desired and feared by Member States, who generally agree to provide and share relevant information, on the assumption that this does not require committing too much human and/or financial resources and the results/data are used correctly. One reason why governments may be reluctant to share crime statistics is the possibility of manipulation and misinterpretation of published results by the media and the public. Data are often published in the form of "league tables", ranking countries by crime levels, which could result in adverse publicity for those countries that find themselves at the top.

The way data are collected and treated is very important. The data collection mechanism / instrument needs to be built with transparency in mind and in view of providing information from different angles and perspectives. Definitions should be broad enough to accommodate different systems, but narrow enough to avoid misinterpretations in case of (inevitable) comparisons across different systems. Reporting should be fair in terms of providing the maximum amount of information without requiring over elaborate interpretation. The right mix of all such elements builds the reputation of the organization dealing with data collection.

The role of the UN as the "honest broker" (See Pielke, Jr. 2007) has been highlighted by many observers. The honest broker "seeks to expand, or at least clarify, the scope of choice available to the decision maker" (Ivi, ref. page). In the area of crime and criminal justice statistics this is achieved by dealing with the topic via a transparent process and through clear methodologies. The use of experts from different cultural and scientific backgrounds guarantees that the outcome is balanced and not biased towards any particular interpretation or solution.

The sensitivity of crime data further requires a mix of specialized legal and statistical skills. While this remains valid for administrative statistics in the area of crime and criminal justice, crime indicators are often developed through social research, especially victim surveys. The type of specialization required to deal with the latter type of indicators is not legal but sociological, making the point of view and interpretation of the researcher more important in the phase of data analysis. The work of many crime trends analysts has moved from being that – again in the words of Pielke - of *pure scientists,* i.e. limited to the presentation of facts without suggesting any interpretation or course of action, to that of *issue advocates*, i.e. advocating for one particular interpretation of the facts above others.

In this new scenario, the role of the UN should remain that of the honest broker, i.e. to provide a range of interpretations and suggesting them as alternatives supported by facts, but without advocating for any of them in particular.

10.4 Which data should be collected by the UN?

The UN mandate for the collection of data on crime and criminal justice was refined at the time of the establishment of the Crime Prevention and Criminal Justice Programme in 1992, which represented an opportunity for governments to reflect on the role and functions of an intergovernmental body in the area of crime prevention and criminal justice. The measurement and monitoring of crime trends was built in as a fundamental component, actually at the top of programme priorities: "Empirical evidence, including research findings and other information on the *nature* and *extent* of crime and on *trends* in crime".[15] The operational functions in this respect were delegated to the Centre for International Crime Prevention (CICP), until UNODC was created by merging CICP with the UN Drug Control Programme (UNDCP) in 2003. Policy and trends analysis has been identified by the UNODC Strategy for the period 2008-2011 as one of its three main themes. "Effective policy must be based on accurate information. Policy and trend analysis is essential to measuring trends, highlighting problems, learning lessons and evaluating effectiveness. (…) Better data and improved national capacity to collect data are needed to support and enhance the international community's responses to crime and illicit drugs." [16]

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[15] General Assembly, *Report of the Ministerial Meeting on the Creation of an Effective United Nations Crime Prevention and Criminal Justice Programme, held in Paris from 21 to 23 November 1991*. A/46/703, 14 (English - our italics).
[16] E/CN.7/2007/14–E/CN.15/2007/5, 7.

Box 1 - Crime information: a few simple questions

Based on the 1992 mandate, it can be assumed that the information sought from the UN should specifically focus on the *nature, extent* of and *trends* in crime. Relevant information may be obtained through contextual questions (Q), which may generate a range of possible responses (R), each of which will represent *crime and criminal justice indicators*.

Possible questions may refer, for example, to the following areas:

What type of crime? Responses will deal with different types of crime, for example: against persons, against property, homicide, theft, etc.

How does it happen? Responses will deal with different modus operandi, for example: conventional crime, organized crime, internet crime, etc.

Where does it happen? Responses will deal with different locations, for example: transnational, country, city, neighbourhood, street, household, bank, shop, etc.

Who is (are) the victim(s)? Responses will deal with different types of victims, for example: male, female, juveniles, elders, minorities, individuals, households, businesses, etc.

Who is (are) the author(s)? Responses will deal with different types of offenders, for example: male, female, juveniles, elders, minorities, individuals, households, businesses, etc.

What is the relationship between victim(s) and the author(s)? Responses will deal with different types of relationship, for example: offender known, unknown, acquaintance, neighbour, relative, spouse, friend, boss, colleague, schoolmate, etc.

For each area described above, getting to know the *extent* of crime requires quantitative information, thus posing the question "How many?" next to each of the variables/ indicators above. *Trends* in crime may refer to any changes over time in the *nature* and/or *extent* of crime. Furthermore, changes may occur in the *prevention* and *response* to crime. Thus, research questions on trends may cover (among others) the following areas:

What changes in the nature of different types of crime?

What changes in the extent of different types of crime?

What changes in the way crime happens?

What changes in the location where crime happens?

What changes in the different types of victim?

What changes in the different types of author?

What changes in the way criminal justice systems respond to different types of crime?

What changes in preventing crime from happening?

Knowledge developed on such basic questions is necessary to make informed policy decisions on law enforcement and criminal justice, crime prevention strategies, and in establishing operational priorities and assessing the costs of crime and its control. As an example, a recent international comparative study on crime and criminal justice statistics based its analysis on responding to this list of research/policy questions (taken from Farrington et al. 2004, iii):

- How is the crime rate changing over time?

- Is the probability of a victim reporting a crime to the police increasing or decreasing over time?

- Is the probability of the police recording a crime that is reported to them increasing or decreasing over time?

- How is the conviction rate changing over time?

- Is the probability of an offender being convicted increasing or decreasing over time?

- Is the probability of a convicted offender being sentenced to custody increasing or decreasing over time?

- How is the average sentence length changing over time?

- How is the average time served changing over time?

- Is the average time served per offender increasing or decreasing over time?

10.5 Priorities in data collection

Different countries may have different crime problems and policy priorities, which may affect the collection of relevant data. While in country A there may be an urgent need to gain knowledge, for example, of patterns of crime committed by juvenile gangs, country B might place more efforts in assessing whether its crime prevention strategy has generated a phenomenon of crime displacement, thus will require information on where crime occurs. Countries A and B may also need to compare data on their respective priority issues at the international level. The international community may also establish priorities in the collection and analysis of different crime and criminal justice indicators, which may therefore enjoy a higher or lower level of attention at any time.

Box 10.2 shows a typical example of issues that a country may consider crucial for comparing its performance at the international level.

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Box 10.2. Needs for international benchmarking in the area f policing

Required indicators for comparison with relevant countries:

1. Number of police officers per head of population.

2. Recorded crimes per police officers.

3. Victimisation rates and percentage of crimes reported to the police.

4. Clear-up rates.

5. Arrests per police officer.

6. Police costs related to GDP.

7. Police costs per police officer.

8. Fear of crime.

9. View of public on police officers.

10. The duties of police officers including numbers involved in operational work.

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The international community may therefore request the UN to prioritize crime and criminal justice information it collects. This may affect the information contained in the CTS questionnaire, which could change on the basis of shifting priorities at the international level. As an example, the 2006 UN expert group to *consider ways and means to improve crime data collection, research and analysis*[17] recommended, among other issues, that the UN develop qualitative and quantitative measures of organized crime and corruption, by defining, for data collection purposes, the scope of the concepts of organized crime, trafficking in persons, smuggling of migrants and corruption. Some of the relevant indicators may be identified among data already collected and within the range of those available from administrative statistics (at the global level, mainly the CTS), but for some there is the need for additional information, for example from ad-hoc studies and population based surveys.

Organized crime, trafficking in persons, smuggling of migrants, corruption, and money laundering, not only are notoriously under-reported offences, but also show considerable differences in the way they are defined in different countries. When dealing with organized crime, despite an almost universally agreed upon notion, concepts remain ambiguous for

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[17] The Group was established pursuant to Ecosoc resolution 2005/23 of 22 July 2005 on "Strengthening reporting on crime" and met in Vienna from 8 to 10 February 2006. A report was submitted to the Crime Commission at its fifteenth session (E/CN.15/2006/4).

the purpose of collecting data. Similar limitations apply to information on trafficking in persons, smuggling of migrants, corruption, and money laundering, which all require the development of suitable indicators and instruments to collect reliable data. For the time being, the assessment of the extent of these types of crime is often based on impressionistic media reports.

While "conventional" crimes correspond to quite simple behaviours (killing, stealing and raping are almost universal concepts), some (organized) crime definitions are so complex that it is extremely difficult to translate them into single acts to be measured as they happen. In practice, whilst it is relatively simple to count how many homicides occur, counting episodes in – for example – trafficking in persons requires either a legislative construct that criminalizes trafficking or splitting the concept into the different crimes which are committed in the course of the more complex trafficking action(s).

As an example, Figure 10.3 shows the various offences (and the different types of victims) that can be identified at different stages of the process of smuggling of migrants and trafficking in persons.

Smuggling & Trafficking	Smuggling & Trafficking	Trafficking	Smuggling & Trafficking
Recruitment	**Transportation/Entry*** *in the case of trans-national trafficking	**Exploitation**	**Criminal Proceeds**

→

Fraudulent promises * *Abduction* Document forgery	* *Assault* * *False imprisonment (illegal and forced detention)* *Theft of documents,* *Sexual assault* * *Aggravated assault* * *Rape* *Forced prostitution* * *Death* Document forgery Abuse of immigration laws Corruption of government officials	* *Unlawful coercion* * *Threat* * *Extortion* * *Procurement* * *False imprisonment (illegal and forced detention)* * *Theft of documents* * *Sexual assault* * *Aggravated assault* * *Rape* * *Death* Corruption of government officials	Money laundering Tax evasion Corruption of government officials

Figure 10.3. The process of smuggling of migrants and trafficking in human beings and crimes related thereto (Source: UNODC 2006, 24)

* Offences in italics preceded by an asterisk indicate that the offences are perpetrated against the individual victim.

Information on "proxy" offences may be obtained through administrative data and provide important indications to assess trends in complex phenomena.

10.6 Victim-based information

A number of key indicators may only be obtained through victim surveys. This is the case, for example, with victimisation rates, percentage of crimes reported by victims to the police, feelings of insecurity and fear of crime, public attitudes toward the police and other criminal justice bodies. Information on some types of crime for which it is known that only a small portion is reported, such as violence against women, may be better

obtained through victim surveys. However, the costs involved for the regular carrying out of victim surveys may be very high. Furthermore, in view of conducting comparisons across countries, it should be taken into account that differences in methodology, sampling and questionnaire may affect comparability of the results.

The International Crime Victim Survey (ICVS) is aimed at collecting comparable information from all participating countries. Over the past few decades, a number of countries have been able to participate on a more or less regular basis. However, there is a need for more stable arrangements. The main problem with international crime indicators based on non-administrative data is that their collection and updating will depend on the availability of resources to conduct relevant international comparative research.

At the EU level, work is currently being done to develop a EU-wide victimization survey (EUCVS), mandated by the *Action Plan on EU crime statistics.*[18] The EUCVS – either as a standalone victim survey or as a "module" – should become a regular, cross-nationally comparable, crime victim survey conducted by national statistical institutions within the framework of their regular workplan. This should ensure sustainability over time.

At the UN level, UNODC and the Economic Commission for Europe, in collaboration with the Conference of European Statisticians, are working on methodological guidelines for designing national crime victim surveys in the form of a Manual on Victimization Surveys. This Manual is intended to be the main tool for introducing staff of national statistical offices to the use of victimization surveys. Furthermore, UNODC has already commenced work on a draft standard crime victim survey ("CVS") for use at national level beyond the EU. This instrument is comparable with previous sweeps of the ICVS but offers a shorter survey that may be more easily implemented in developing countries.

10.7 Way forward for sustainability and continuation of the CTS

In conclusion, the CTS appears as a valuable tool to collect international data on crime and criminal justice. Its sustainability and continuation were seen as priorities by the 2006 Expert Group on ways and means on improving crime data collection, research and analysis. In view of addressing the experts' recommendations, UNODC has undertaken several initiatives, including the revision of the Tenth CTS questionnaire. The 10th CTS was launched in 2007 and covers, for the first time, the areas of trafficking in persons, smuggling of migrants, corruption and organized crime. On the basis of tentative definitions suggested by the UN

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[18] Developing a comprehensive and coherent EU strategy to measure crime and criminal justice: An EU Action Plan 2006-2010, COM/2006/ 0437 final http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:52006 DC0437:EN:NOT.

Convention Against Corruption, the UN Convention against Transnational Organized Crime and its Protocols, new questions included in the Tenth Survey questionnaire cover the following areas:

- Drug Trafficking
- Economic fraud
- Trafficking in Persons
- Smuggling of Migrants
- Participation in criminal organized groups
- Counterfeit Currency Offences[19]

Concrete steps forward have been made taking into account existing partnerships and ongoing collaboration, such as the involvement of the members of the working group on crime statistics established at EUROSTAT[20], who have received a copy of the Tenth CTS questionnaire, and the experts from the European Sourcebook of Crime and Criminal Justice Statistics, in view of ensuring that the methodological work done by the group can be used worldwide.

An open dialogue between UNODC and the relevant EU bodies (DG-JLS and Eurostat) includes joint work on the development of indicators. The already mentioned 2006 *Action Plan on EU crime statistics* is part of the strategy to implement the Hague Programme "to establish European instruments for collecting, analysing and comparing information on crime and victimization and their respective trends in the Member States".[21] Collaboration with UNODC includes reciprocal invitations to relevant meetings and bilateral contacts. Such collaboration is resulting in enhanced coordination with Eurostat and other European bodies involved in the collection of crime statistics in view of establishing synergies towards common goals. Some of the crime and criminal justice indicators mentioned in the *Action Plan* as desirable at the EU level are already collected by the CTS, such as the following:

- Criminal justice budget
- Number of judges
- Number of prosecutors
- Number of offences recorded
- Number of offences prosecuted
- Number of criminal convictions

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[19] As agreed at the Technical meeting of experts on international crime data, John Jay College of Criminal Justice, New York, 2-3 February 2007, information on "Counterfeit Currency Offences" will be collected at the police level, consistently with that previously covered by the Interpol data collection instrument, for which long data series is available.

[20] Experts from the EU and EFTA region who have been appointed in each country as focal points for crime statistics.

[21] The Hague Programme: Strengthening Freedom, Security and Justice in the European Union, Official Journal, C 53, 3.3.2005, http://eur-lex.europa.eu/ JOIndex.do?year= 2005&serie=C&textfield2=53&Submit=Search page 11 .

- Number of persons held in pre-trial detention
- Number of persons in prison

It will be important to ensure that further steps will go in the direction of streamlining the various systems of crime data collection in Europe, in view of maximising the benefit for the international community and minimising the burden on responding criminal justice administrations.

References

"The Rules for Drawing up Criminal Statistics, 1937", *Bulletin of the International Penal and Penitentiary Commission*, XII, 3-4, March 1947, 253-270.

Aromaa, K., Leppä, S., Nevala, S. and Ollus, N. (eds.) (2003): *Crime and Criminal Justice Systems in Europe and North America 1995-97*. Publication No. 40. Helsinki: HEUNI.

European Sourcebook of Crime and Criminal Justice Statistics – 2006, Third edition. WODC, The Hague.

Farrington, D.P., Langan, P.A. and Tonry, M. (2004). *Cross-National Studies in Crime and Justice*, US Bureau of Justice Statistics, Washington, DC.

Kangaspunta, K., Joutsen, M., Ollus, N. (eds.) (1998): *Crime and Criminal Justice in Europe and North America, 1990-1994*. Publication No. 32. Helsinki: HEUNI.

Newman G. (ed.) (1999). *Global Report on Crime and Justice*, United Nations, Office for Drug Control and Crime Prevention, Centre for International Crime Prevention, Oxford University Press.

Pielke, R. A. Jr. (2007). *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge University Press.

United Nations Office on Drugs and Crime (2006). *Measures to Combat Trafficking in Human Beings in Benin, Nigeria and Togo*, September 2006.

11 Conclusions

Markku Heiskanen and Kauko Aromaa

This, already seventh publication by HEUNI, based on the UN Crime Trends Survey data has hardly been finished, when the data of the tenth survey are about to be at hand. The reference year of the Tenth Survey is 2006, or already 16 months outdated when the current report is published. The readers will probably be never satisfied with the timeliness of the results. The most recent figures in the current report are from the year 2004, that is, they are not completely up to date. One possibility to shorten the time lag between the results and the publication could be to publish the main trends at an early stage, and leave further elaborations and more ambitious reports more time.

On the other hand, the strength of the dataset as it is now is in that it allows us to study the development in the European and North American crime and criminal justice statistics over a full ten-year period. The strength of the data – comprising a ten-year period of information on crime and criminal justice – is unfortunately also its weakness. Few, if any, of the responding countries have been able to deliver a complete set of trend data on all of the questions requested. This has made the analysis cumbersome, and the conclusions stand more or less on shaky ground. The quality of the data remains one of the main challenges for the future.

Comparing crime related data across countries is difficult, because not only the culture and the everyday but also the legislation and criminal justice related practices differ across countries and may also change in various ways over time. In this respect, also the study of changes in crime trends may be severely hampered. However, the cultural differences between countries should not be exaggerated, at least on the European/North American level where all countries are subjected to increasing globalisation, together with processes of legal harmonisation. Over time, these trends equalise the differences between the countries. In this respect, the ten-year time span offers an interesting view to the world of crime and crime control.

Despite the problems, comparisons are made; therefore we may try to classify countries into groups that are sufficiently homogeneous for comparative purposes in relation to their judicial structures. A very basic classification of countries follows the geographical location and the political situation (history and union policy) of the countries. This kind of an administrative classification (e.g. the old EU 15-countries (+EFTA), the 10 new EU members, Eastern countries, North America) has been applied in some articles in this book. This kind of a classification reveals, on one hand, differences between the areas, but, on the other hand, overlook differences within the groups. Unfortunately, because the

number of countries is less than 50, very complex classifications are not possible.

In chapter 8, the authors have applied a statistical model that comprises several kinds of information on the criminal justice system and also information from population surveys, and constructed a classification of different clusters of countries. In spite of some anomalies found in the data, the results appear interesting: North/West (contains both North America and North and West Europe); South Europe; Central Europe and East. These clusters of countries differ quite clearly from each other according to 18 crime and safety related variables.

Especially interesting in the statistical model was, however, the possibility to show in the model both the location of variables used for the classification task and of a group of passive variables. The latter ones described the economic situation, working life and social variables in the countries. High scores on different welfare-related characteristics are found in the cluster of Western/North American countries, while low scores point to the east. Of the "active" variables, e.g. victimisation (measures from victim surveys) scores are high in the cluster of West/North America, but satisfaction with the police is high and the feeling of security is high, while in South-Europe satisfaction with the police scores low, and the feeling of insecurity is high. The East has high scores on homicide and prisoner rates. In a way, the model brings some systematic order to the common relationships in the crime and criminal justice field.

The criminal justice system can be divided into four sectors according to the task they carry out in the judicial process: police, prosecutor, court and corrections. Police account for over two-thirds of the criminal justice workforce, prison staff for about one-fifth, while the share of workforce of prosecutors and judges is minor. Therefore, police and prison staff development dominate the development of criminal justice resources. The rate of polices per 100,000 population varies considerably across the countries, the EU15 countries and North America have less police per population as compared to the new EU10 countries, which again have less police than the other countries of Eastern Europe. In the future, the pressures already experienced in the old EU countries to reduce the size of the public sector are likely to become reality also in the new EU member states, as a consequence there will be new challenges concerning the target to maintain and improve the security of the general public.

On average, the size of the police force has in Europe and North America remained rather stable during the ten-year time period analysed. However, this does not take into account the rapid growth of the private security sector, and a valid comparison would indeed require also information on the size of the latter. The size of prison staff shows a slight increase in different areas, while the court sector has remained rather stable.

In the last decade, interest in the gender balance in the criminal justice system has increased. Still today, nearly 90 per cent of the police are male,

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and of prison staff nearly 80 per cent. Of prosecutors and judges, however, slightly over 40 per cent are women. The proportion of women is increasing in all criminal justice sectors in most countries. The authors of the chapter dealing with this issue comment that "in still too many countries, the stereotype holds that a police officer or a prison guard should be a physically strong man – a stereotype that has long been challenged by the proven importance of training and technique".

Although the resources of the official criminal justice system have remained rather stable, the number of crimes in many crime types and correspondingly the number of suspects has slightly increased especially before the turn of the century. In particular, the number of recorded assault, robbery, drug-related crime and fraud suspects has increased, while the numbers of theft, automobile theft and burglary suspects have decreased.

In the previous reports on the CTS data, other sources of information have been utilised in diverse ways to complement the picture on crime in Europe and North America. In particular, the International Crime Victims Survey (ICVS) has offered valuable information in providing information on crimes against the population/households that remain hidden to the official authority statistics. In the present publication, the ICVS is represented in a very minor role. This does not mean that survey data should be kept apart from other data sources. On the contrary, population surveys should be used together with other data sources, because they offer extremely important additional information on citizens' safety, fears and on the satisfaction with the services produced by the criminal system.

In this report, we have concentrated on official sources. Bearing in mind that official statistics are in the first place describing the work and operations of the criminal justice system, and only in a secondary sense also describing crime in the countries, criminal justice statistics provide an interesting perspective for criminological studies, as they give the possibility to follow the line: crimes – suspects – prosecutions – convictions – sentences – prisoners. Victimisation surveys describe the state of affairs before the relevant events and people enter the criminal justice system, and subsequently only the two first stages of the criminal justice system – crimes, reporting them, and, to a limited degree, suspects.

Comparing the trends from the CTS and victimisation surveys on a very crude level, property crimes (thefts, automobile thefts and burglaries) seem to decrease according to both data sets. In robberies the trend is according to the victimisation surveys slightly, but not clearly decreasing in Europe (in North America also this trend goes downwards). The trend in police recorded assaults is, in contrast to the CTS results, also decreasing according to the ICVS.

No estimate of the trend of drug-related crimes is made in the ICVS data (because in these crimes there is no obvious victim). Thus, with the exception of violence, the different data sets produce by and large similar results on trends. The apparent contradiction between the results in violence would not seem to be explained away by the increased police

reporting in the victimisation data. This reminds us of the fact that measuring victimisation to violence is difficult compared to property crimes. It is also worth noting that some crime types such as car thefts are quite extensively represented in the police figures, because most car thefts are reported to the police.

Overall, "traditional" property crimes seem to decrease according to both data sets. A weak area in the victimisation surveys has, in addition to drug-related crimes, consisted of crimes that are relatively rare and therefore difficult to grasp with population surveys, such as fraud, embezzlement, bribery and kidnapping. The volume of suspects in all of these types of crime has increased according to the CTS.