

## Revisiting the 'dark number of crime'

van Dijk, J.J.M.

*Published in:*  
Transnational Criminology Manual

*Document version:*  
Peer reviewed version

*Publication date:*  
2010

[Link to publication](#)

*Citation for published version (APA):*  
van Dijk, J. J. M. (2010). Revisiting the 'dark number of crime'. In M. Herzog-Evans (Ed.), *Transnational Criminology Manual* (Transnational Criminology Manual; No. 2). Wolf Legal Publishers (WLP).

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

### Take down policy

If you believe that this document breaches copyright, please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Revisiting the 'dark number of crime'  
Jan van Dijk  
Professor, University of Tilburg

Abstract. Crime victimization surveys have been launched as a means to obtain a more comprehensive and reliable measure of the level and movement of crime than the figures of crimes recorded by the police. In this chapter we will try to arrive at evidence-based conclusions on the relative strengths and weaknesses of the two main statistical sources of information on crime, police figures of recorded crime and results of victimization surveys. Our main conclusion is that police figures do indeed significantly underestimate the true volume of crime. Moreover the proportion of crime which remains hidden from the police varies greatly across countries and across time within countries. Crime recording by police forces seems to be governed by bureaucratic mechanisms of input control. Time series of official crime statistics are systematically distorted in the sense that changes in the level of cases tend to be reflected in a delayed and deflated way (bureaucratic inertia). At the end we discuss possible policy implications for the development of a European or international system of crime statistics.

Résumé. Les enquêtes de victimisation ont été lancées dans le but d'obtenir une unité de mesure plus large et plus fiable des niveaux et des changements intervenant en matière de délinquance que ne le permettent les chiffres issus des faits constatés par la police. Dans ce chapitre, nous tenterons de parvenir à des conclusions reposant sur des faits démontrés quant aux forces et aux faiblesses des deux sources principales d'information statistiques portant sur le crime, soient les chiffres des faits constatés par la police et les résultats des enquêtes de victimisation. Notre conclusion principale est que les chiffres de la police sous-estiment bien et ce, de manière significative le volume réel de la délinquance. De plus, la proportion des infractions qui demeure cachée aux forces de police varie beaucoup entre les pays et, au sein d'un même pays, dans le temps. L'enregistrement des infractions par la police semble gouverné par des mécanismes bureaucratiques, lesquels contrôlent son alimentation. Les séries temporelles émanant des statistiques officielles de la délinquance sont systématiquement déformées en ce sens que les changements quant au nombre d'affaires tendent à n'être relayés que tardivement et de manière incomplète du fait de l'inertie bureaucratique. En dernier lieu, nous discuterons des éventuelles implications en vue de la mise en œuvre d'un système de statistique de la délinquance européen, voire international.

#### 1. Introductory remarks

Ever since they were first published in the 19<sup>th</sup> century, figures of crimes recorded by the police were known to omit the crimes that had not come to the notice of the authorities, the so called 'dark number of crime' or 'dark figure' (chiffre noir or Dunkelziffer). These are the crimes that are committed but never reported to or detected by the police. Such crimes remain hidden for the police. Police figures are often said to reflect just the 'tip of the iceberg' of the true volume of crime.

Police figures suffer from many more limitations than just the failure to include the crimes that remain unknown to the police. Police figures are strongly affected by the capacity and willingness of police forces to record crimes reported to them or detected by them. If a police force feels overburdened with cases of crimes they cannot, given the resources available, reasonably expect to solve, they will be inclined to refrain from recording them. The numbers of crimes recorded may therefore not necessarily reflect the true volume of crimes known to the police. Also, changes in the number of crimes recorded may reflect changes in the capacity of the police to process crime cases rather than changes in the level of crime. In addition, official police figures are strongly affected by recording policies and practices of the police. Numbers of crimes recorded can be greatly influenced by

relatively minor changes in counting rules (e.g. recording or not recording all crimes of a serial perpetrator of violence against a partner). Police statistics are therefore susceptible to manipulation and misrepresentation for political purposes. For example, in recent years the police department of New York has held senior officers personally accountable for the number of crimes committed on their beat according to the figures of recorded crime (the COMPSTAT programme). Suspicions have arisen that this practice has led to large scale manipulation of the statistics by police officers who tried to avoid reprisals for a rise in crime in their district by reclassifying victim reports (Eterno, Silverman, 2010). The famous drop of crime in New York during the reign of Mayor Giuliani might partly have been an artefact of fraudulent crime recording.

Crime victimization surveys have been launched as a means to obtain a better measure of the level and movement of crime than police figures. These surveys are interview-based studies among samples of the general public about personal experiences with crime, regardless of whether they have been reported to the police or not. The surveys were introduced as a means to produce estimates of the numbers of crimes that are produced independently from administrative data of the police. They were supposed to produce statistics of crime that included the 'dark number' and were not distorted by investigative efforts of the police or variable practices of police recording.

Victimization surveys have undoubtedly improved statistical information on crime and they are generally recognised as a major tool of modern, empirical criminology. Victimization surveys, however, also suffer from several inherent limitations, as will be discussed in more detail below. Survey-based estimates of crime cannot be taken at face value either. From the outset we want to emphasize that searching for a measure of the 'true measure of crime' is like searching for the Holy Grail. All sources of statistical information about crime reflect social constructions of the phenomenon under study. In the case of police statistics the figures reflect the crime problem as construed by law enforcement agencies and politicians, prosecutors or judges supervising their work. Police figures give us the official or statist view of the problem of crime. Crime victimization surveys reflect crime problems as perceived and memorized by samples of ordinary citizens. These perceptions might be erroneous from a formal legal perspective. Ordinary people might be unable to objectively determine whether incidents that have happened to them qualify as a criminal offence. Both social constructions then are liable to be biased in their own way.

### 1.1. The American experience

Comparisons between the results of victimization surveys with statistics of police recorded crime have, as said, initially been conducted in an attempt to determine the dark number of crime and to arrive at the 'true numbers of crime'. This ambitious approach has been especially prominent in the USA where the national victimization survey was specifically launched with the view of monitoring and, where necessary correcting, the national police figures (Lynch, Addington, 2007). The National Crime (Victims) Survey (NCVS) was set up as a parallel system of the Uniform Crime Reporting System (UCR) published by the Federal Bureau of Investigation (FBI). For this reason the selection of types of crime covered and the operational concepts used in the questionnaires of the NCVS conform as closely as possible to the legal concepts of the Uniform Crime Reporting System of the country. Typically, the key results of the NCVS have always been published in the form of estimated absolute numbers of crimes committed. These estimated absolute numbers can be compared by any reader with the annual police figures. In line with the principal objective of the surveys to monitor police figures, the questionnaire is exclusively focussed on measuring the numbers of crimes experienced by the public. The questionnaire of the NCVS includes no questions on attitudes of the public concerning crime or the police as is common in most European surveys. Another characteristic of the NCVS is its exclusive focus on national crime figures and trends. The survey ignores local variation between cities or states.

Over the years numerous in depth studies on concurrence between the two series have been conducted in the USA (for overviews see Bidermann, Lynch, 1991; Lynch, Addington, 2007). The main conclusion of these studies is that such comparisons are fraught with so many methodological problems that comparisons between the two alternative measures of the level of crime are hardly feasible. The original objective of determining the true level of crime seems to have been abandoned. Analyses of concurrence nowadays tend to focus on *change estimates* rather than on *level estimates*. Studies on convergence or divergence of the two sources are now generally seen as an analytical tool to better understand the factors determining how the two systems produce crime statistics. In a review of the issues, Lynch (2007) argues that police figures of recorded crime and survey results should be seen as complementary systems. Both offer valuable and unique information about crime problems. In his view concurrence analysis can help to identify the relative strengths and weaknesses of both statistical series as indicators of different aspects of the crime problem.

## 1.2. Crime surveying in Europe.

In Europe, the first crime victim surveys were developed not by statisticians but by criminologists working for either government-funded research institutes as in The Netherlands, United Kingdom, Poland or France, or by universities (e.g. in Germany and Switzerland<sup>1</sup>). The criminologists in charge of the European surveys have put their stamp on the methodologies used. The first European studies typically focus on measuring volume crime as perceived by the public using definitions and concepts taken from colloquial language rather than from national legislation (e.g. the offences of car vandalism, pick pocketing or consumer fraud). European surveys typically also included extended sets of questions on fear of crime and opinions about police performance or sentencing. Unlike the NCVS in the USA, most reports on European surveys refrain from presenting estimated absolute numbers of crime. European reports typically present prevalence and incidence rates of victimization per 100. 000 as their key findings.

In order to make tentative comparisons with the statistics of crimes recorded by the police, results of European surveys must be adjusted post hoc to approximate the legal definitions used in police administrations (the identifications of comparable subsets in both series). Subsequently, incidence rates per 100. 000 persons or households must be “grossed up” to arrive at estimates of the absolute numbers of crimes experienced by the population (Van Dijk, Steinmetz, 1980; Wittebrood & Junger, 2002; Langange et al, 2004; Allan, Ruparel , 2006). The comparisons in Europe are further complicated by the fact that national figures of police-recorded crimes are in many countries less rigorously standardized than in the USA. In England and Wales a system of Uniform Crime Reporting has only recently been introduced. In other countries uniform crime statistics are still hardly available at the federal level at all (e. g. in Belgium, Italy and Switzerland). If American researchers have found such comparisons to be a daunting challenge, in the European context the exercise can be characterized as a ‘Mission Impossible’. After initial attempts to calculate dark numbers in Germany (Stephan, 1973; Schwind, et al. 1975) and The Netherlands (Buikhuisen, 1974, Van Dijk, Steinmetz, 1980), interest waned. For this reason the European literature on the issues of convergence or divergence is relatively modest and no literature reviews have yet been made. As in the USA, more recent reports on the surveys tend to focus on time series (change estimates) rather than on estimated numbers of crimes (level estimates). In Europe relatively more attention has over the years been devoted to analysing convergence or divergence

---

<sup>1</sup> In Germany the first surveys were conducted by academic scholars such as Stephan, Schwind, Kury and Pfeiffer (Stephan, 1973; Schwind et al, 1975; Kury, 1991; Wetzels, Pfeiffer, 1996). All Swiss National Crime Victim Surveys were conducted by the School of Criminal Sciences of the University of Lausanne and directed by Martin Killias.

between victimization rates and measures of fear of crime. Another European preoccupation has been the comparison of victimization rates across cities, provinces or countries, e.g. between the North and South of Germany or the West and the East (Wetsels & Kury, 1996; Oberfell-Fuchs, 2009). To facilitate international comparisons, a European group of crime surveyers launched in 1987 the International Crime Victims Survey which is now in its sixth round (Van Dijk, Mayhew & Killias, 1990). The time series of the ICVS allow analyses of the changes in the ranking of European countries according to the level of victimization (Van Dijk, Van Kesteren & Smit, 2007). This comparative analysis has repeatedly stirred up debates in the media, especially in countries at the top of the ranking for certain crime types such as the United Kingdom, Australia, New Zealand, The Netherlands, Ireland and Iceland (Van Dijk, 2007). For a more in depth discussion of this project, refer to chapter 2, van Dijk, *International Crime Surveys*).

In the framework of the CrimePrev Project, funded by the European Commission, scholars from France, Germany, Italy, The Netherlands, Switzerland and the United Kingdom have tried to compare results of national crime victimization surveys with national police figures over a time span of two or more decades. This Crim Prev effort usefully fills a gap in the existing European knowledge on crime statistics. It allows a revisiting of the some of the conclusions drawn in the extensive American literature from a European perspective. The conduct of such analysis in six different countries with highly divergent national systems of police figures and victimization surveys offers a unique opportunity to detect common patterns. In this contribution we will refer frequently to the reports from national experts from the six European countries. To further broaden our analysis we will also draw upon the results of the NCVS and the International Crime Victims Survey (ICVS).

In this chapter we will, in sum, try to arrive at evidence-based conclusions on the relative strengths and weaknesses of the two main statistical sources of information on crime, police figures of recorded crime and results of victimization surveys. We will in a concluding paragraph discuss possible policy implications for the development of an international system of crime statistics.

## 2. Comparing official and survey-based level estimates for six European countries

As said, reports are available on crime statistics from six European countries (Robert, 2009). Italy has twice participated in the International Crime Victims Survey and a national survey has recently been launched by the Statistical Office (ISTAT) that is now being repeated for the third time (Muratore & Tagliacozzo, 2004). According to the CrimPrev report on Italy, no work has yet been done on comparing survey-based data with police figures at either national or local level. One reason for this lack of interest is that national police statistics collected by the Ministry of the Interior were till recently paper-based and have recently been fundamentally overhauled, compromising the comparability of police figures over time. The Italian national report outlines some of the other conceptual problems of comparing survey results with police figures. One of such problems is that police figures only reflect crimes committed and reported within a given territory and omit victimizations that have taken place elsewhere. In victimization surveys, respondents can report on victimizations which happened abroad.

In Germany, victimization surveys at the national level have only been executed a few times and most relevant literature is based on one-off, local surveys. Local crime surveys have mainly been conducted for purely academic interests and/or to support local crime prevention policies. Researchers have, inter alia, examined differential trends in the old and new states after the unification with East Germany (Wetsels & Pfeiffer, 1996) or levels of crime in the North and South (Kury, Oberfell-Fuchs, 1997). Innovative work has been done on multilevel analyses of 7 differential victimization risks of population groups

with the use of police figures or other aggregate crime statistics as contextual information (Oberwittler, 2003). The Max Planck Institute for Foreign and International Criminal Law has been partner in two rounds of the ICVS (Kury, 1991). Their analytical work on the ICVS has focussed on methodological issues and on correlates of fear of crime and punitiveness rather than on trends in crime (Kunrich & Kania, 2007).

The German national report lists no less than 34 national or local studies wherein survey-based data have been compared with data from other sources. The results showed that survey-based estimates were universally higher than police figures with 'dark numbers' being more pronounced for less serious (violent) crimes than for property crimes (e.g. Stephan, 1973). The apparent reasons for this difference are higher reporting and recording rates of property crimes for reasons of insurance. Many studies have also found that officially recorded crimes tend to be significantly lower than the estimated numbers of incidents reported to the police by victims according to surveys.

In France, The Netherlands, the UK and Switzerland several studies have been carried out on concurrence between level estimates according to both sources, both locally and nationally. Results confirm that such comparisons are indeed far from straightforward. Many complicated adjustments had to be made of both categories of data to arrive at roughly comparable datasets<sup>2</sup>. The national reports consistently show that for almost all types of crime, estimates of the numbers of crimes committed according to victimization surveys are significantly higher than those recorded by the police. This result forms an empirical confirmation of the traditional criminological assumption about the existence of huge 'dark numbers'. They also show that in most cases even the estimated numbers of crimes reported to the police by victims are consistently and significantly higher than the police figures. The latter finding was also found in Germany. It suggests that in all five countries police forces, regardless of legal systems and recording rules in place, apply a wide range of discretion in their decisions whether or not to make an official notification of citizen's reports- and thereby include it in the official count of crime or not. As in Germany, the comparisons of level estimates are less divergent for serious property crimes such as car theft or household burglary than for crimes of violence. Together, the results lead to the conclusion that in Europe, as in the USA, official counts of crime consistently and seriously underestimate the true volume of crime and that de facto discretion in recording reports leaves ample scope for the political manipulation of police figures.

In the French national report the observation is made that proven divergences between survey based estimates and police figures should be an impetus for police forces to revisit their discretion in processing or not processing victim reports. Police forces should be requested to become more transparent about the screening of citizen's reports of committed offences. At the same time, the reports also comment on the many limitations of survey estimates. The list of limitations and sources of possible error in these estimates is long. Surveys among households omit victimizations of minors, businesses and of tourists and other non-residents. Homicides cannot be measured other than by asking respondents about family members who may have been murdered. Due to their modest sample sizes, the surveys have limited potential to measure rare, serious crimes including aggravated assault and rape. They also have limited capacity to produce estimates of complex or victimless crimes such as trafficking in illegal products and services and grand corruption. Surveys furthermore struggle with measuring correctly multiple or serial victimizations, especially those committed by intimates. Numerous studies have also shown the tendency of crime victimization surveys to undercount the prevalence of violence in a domestic setting (Lynch, Addington, 2007). Finally,

---

<sup>2</sup> For example, national police data from Switzerland are only available in very broad categories. Whenever necessary, data were weighted according to Zurich police statistics –which provide a more detailed presentation of offences – in order to produce an adjusted national police incidence rate.

victimization surveys suffer from measurement problems inherent in all survey research such as memory decay of respondents asked to report on past events, forward time telescoping, and biases in sampling designs and in net samples due to non-response. All survey results, finally, are, of course, subject to statistical sampling error<sup>3</sup>.

With the exception of forward time-telescoping and statistical sampling error, limitations and proven sources of error tend to systematically deflate the estimated numbers of actual crimes. Victimization surveys can therefore be said to possess their own 'dark numbers'. The initial claim that surveys can provide a measure of the true size and nature of the crime problem has proven to be untenable. With the current understanding, it seems more realistic, as stated in the German report, to conceive victimization surveys and police figures as measures of different types of criminality that can complement each other. They should no longer be regarded as competing measures of the same phenomenon.

The emerging consensus among the European and American experts seems to be that surveys are better at assessing the level of stereotypic volume crimes that are comparatively poorly reported to or recorded by the police. This category includes petty thefts, including pick pocketing and non-motor vehicle theft, burglaries, non-commercial robberies, acts of vandalism and assaults between strangers. Levels of motor vehicle theft can probably be measured relatively well by both systems and can therefore be used for the purpose of cross-validation of the surveys (Lynch, Addington, 2007)<sup>4</sup>. According to the French experience population surveys provide a more comprehensive picture of drugs use among the general population. However, such surveys possess their own biases by not including homeless and other marginalised groups. Police-based data on drugs offences committed among marginalized groups can complement the survey data in this respect.

In all countries police-based systems seem better placed for measuring very serious crimes of violence such as homicides. None of the two systems seems capable to furnish reliable estimates of acts of violence in a domestic setting. For the measurement of this, politically important, category of crime dedicated studies using special modes of data collection that can better ensure anonymity, seem to be recommendable (Johnson, Ollus, Nevala, 2007).

### 3. Comparisons of the level of crime per country according to both sources

Cross-national comparisons of crime problems are indispensable to better understand the macro-sources of crime such as social inequality, age composition, social cohesion, alcohol and drugs abuse or the availability of suitable targets). Such inter country comparisons are also important for the purpose of benchmarking national crime control strategies (how is the criminal justice system of country X performing compared to that of other countries?). For both academic and policy purposes, then, it is important to be able to compare the level of crime across countries or states.

It is sometimes assumed that police recorded crimes can be used to make a reliable ranking of countries in terms of crime on the assumption that the dark numbers of crime are roughly similar in all countries. This assumption provides the justification for the publication of international rankings of police figures as collected by INTERPOL or UNODC.

---

<sup>3</sup> In England/Wales the comparison between the two series is further complicated by the difference in reference periods. Since the redesigned national victimisation survey started to apply a rolling reference period, annual rates have to be constructed.

<sup>4</sup> However, also here concurrence cannot be taken for granted. The two series of French statistics on car theft/theft from cars showed significant divergence, probably due to instable recording by the police (Zaubermann, Robert et al, 2008).

The ICVS offers the opportunity to compare levels of crime on the basis of survey-estimates. The project also provides an opportunity to study concurrence between the survey-based ranking and those according to international police figures. The correlation between country ranks in terms of ICVS victimization rates and police-recorded crime rates has previously been examined for a limited number of Western countries (Van Dijk, Mayhew and Killias, 1990). The authors reported that survey-based rankings and rankings according to police figures were only weakly correlated with each other. Strong correlations were only found for car theft. Moderately strong ones were found for household burglary and robbery. No correlations were found concerning violent crimes, including for sexual crimes. For the categories of property crimes the correlations became significantly stronger if the victimization rates were corrected for reporting rates. The latter finding was to be expected, since by adjusting for reporting rates one of the major sources of error in the police figures is eliminated. Such corrections can of course only be made if victimization surveys have been conducted.

In a subsequent analysis using data from a broader and less homogeneous group of countries from Europe and North America the convergence between relative positions in victimization rates and recorded crime rates was found to be even weaker (Mayhew, 2003). For example Russia and the Ukraine were in the top quartile for victimization and in the lowest for recorded crime while Finland scored in the top quartile for recorded crime but in the lowest for victimization. As in the previous study, a higher correspondence was found between recorded crime rates and victimization rates after adjustments were made for varying reporting rates.

Aebi, Killias and Tavares (2003) analysed the correlation for twelve mainly Western European countries between the 2000 ICVS-based victimization rates for all crimes with the total police-recorded crime rates of the European Sourcebook project, adjusted for reporting (using ICVS data). Their findings confirm the earlier findings of Van Dijk, Mayhew and Killias (1990) and Mayhew (2003), in the sense that robust correlations were only found after adjustment for differences in reporting. Results thus show that among developed countries, recorded crime rates cannot be reliably used as indicators of the relative level of crime. In order to be used for such comparative purposes recorded crime rates must first be corrected for reporting. Ideally they should in addition be adjusted for the impact of differing recording practices of national police forces as well.

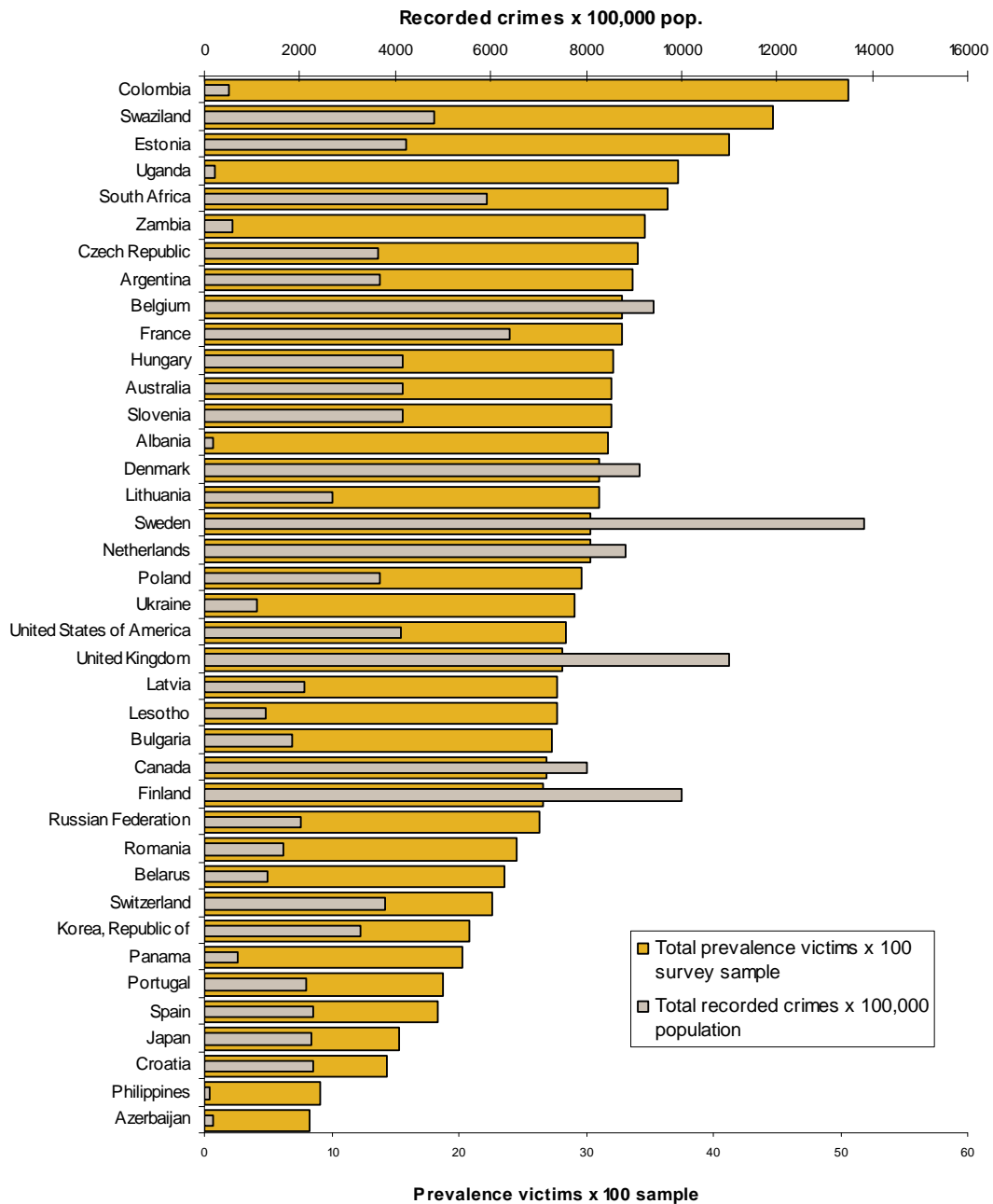
Howard and Smith (2003) looked at the relationships between police figures of the UN Crime Survey, European Sourcebook and Interpol and between these three official measures of crime and ICVS victimization rates in Europe and North America. Their conclusion was 'that official measures of recorded crime are mostly consistent in their depictions of crime rates while official measures and victimization measures were typically in disagreement'. Their results show that for the group of countries under study, official measures collected by the UN, the European Sourcebook or Interpol are reasonably consistent amongst themselves but show little or no resemblance to rankings based on crime survey research among the public. They also concluded that analyses of the social correlates of crime at the macro level showed fundamentally different, even opposing results, depending on the data sources used. The latter finding puts in doubt most of the existing knowledge on the macro-causes of crime since this is largely based on analyses of official crime data.

A further test of the usefulness of recorded crime as measure of the relative level of crime should include data on countries from all regions of the world and not just from Europe and North America. Both the UN crime survey and the ICVS contain a measure for 'total crime' for countries across the world. For 39 countries data is available on the overall ICVS victimization per 100 respondents in 2000 and the total numbers of crimes per 100,000 recorded by the police in 2002. Figure 1 depicts both the number of recorded crimes per 100,000 inhabitants and the percentage of the public victimized by crime according to the ICVS.





Figure 1 – Total crime, by countries  
(sources: ICVS 2000 and UN Crime Survey 2002 or latest data available)



In the 39 countries with information from both sources, on average 28% of the respondents to the ICVS were victims of at least one crime of those included in the survey. Victimization rates in the majority of countries (23) were close to the average (between 23 and 33%), while six were well below (Azerbaijan, Philippines, Croatia, Japan, Spain and Portugal) and ten markedly above. Among them, the countries where citizens were most frequently victimised were Colombia, Swaziland, Estonia' and the Czech Republic. In, United Kingdom, Finland, Denmark, Netherlands and Canada, while in Colombia, Uganda and Zambia, which as just mentioned appeared in the group of countries with the highest rates of victimization, police-recorded levels of crime are comparatively low. It can be observed that four out of six countries with the highest victimization rates were in Africa, while among the six countries with the highest

levels of police-recorded crime five belong to the 15 member states of the European Union before enlargement.

From a European perspective, it is worth noting that new members of the European Union such as Rumania, Bulgaria and Lithuania show relatively low police figures and moderately high victimization rates. This finding suggests that dark numbers are comparatively high among new member states.

The results show that there is no correlation between the actual level of victimization by crime as reported by the public and the rates of crime recorded by the police among these 39 countries ( $r=0.212$  ;  $n=39$ ; n.s.). Some countries with exceptionally high numbers of recorded crimes also show comparatively high victimization rates (South Africa) but many others, such as Finland, Canada and Switzerland, do not. The comparison between country rankings according to ICVS victimization rates and police recorded crimes was repeated for different types of crime. The results showed positive correlations for robbery ( $r= 0.663$ ,  $n=37$ ), and car theft ( $r=0.353$ ;  $n=34$ ). But no correlations were found for any other type of crime. An analysis of the correlation between ICVS victimization rates and police-based crime rates of European countries showed the same negative results (Gruszczynska, Gruszczynski, 2005).

### 3. 1. Reporting patterns across the world

One of the additional merits of victimization surveys, is that they provide insight in the willingness of citizens to report crimes to the police. In the case of the ICVS the survey provides comparable estimates of the willingness to report crime incidents to the police. For ease of comparison, reporting levels were calculated for five much occurring types of offences for which levels of reporting vary across countries high.<sup>5</sup> These offences are thefts from cars, bicycle theft, burglary with entry, attempted burglary and thefts of personal property. Table 1 shows reporting percentages for these five types of crime together in 2003/2004 per country.

---

<sup>5</sup> Omitted are car and motorcycle thefts (which are usually reported and are relatively uncommon), and robbery (for which numbers per country are small). Also omitted are sexual incidents and assaults/threats. Here, the proportion reported will be influenced by, respectively, the ratio of sexual assaults to offensive sexual behaviour, and assaults to threats.

Table.1: Reporting to the police of five types of crime in 2003/04 (percentages) in countries and main cities and results from earlier surveys. 1989 - 2005 ICVS and 2005 EU ICS\* (Van Dijk, Van Kesteren & Smit, 2007).

Country	1989 surveys	1992 surveys	1996 surveys	2000 surveys	2004/05 surveys
Austria			62		70*
Belgium	60	77		65	68*
Sweden		59	60	61	64*
Switzerland	67		63	58	63
Germany	63				61*
England & Wales	70	69	65	64	61*
Scotland	72		67	62	61
Denmark				62	60*
Northern Ireland	44		53	63	59
Netherlands	64	66	58	64	58*
Hungary					58
New Zealand		67			57
France	62		53	51	54*
Japan				44	54
Norway	50				53
Australia	61	53		53	52
Portugal				38	51*
Ireland					51*
Italy		42			50*
USA	57		58	53	49
Greece					49*
Finland	53	49	53	45	48*
Canada	55	53	52	48	48
Luxembourg					48*
Spain	36				47*
Poland		34	35	43	46
Estonia		33	28	38	43
Iceland					40
Istanbul (Turkey)					38
Bulgaria					35

\* van Dijk, Manchin, van Kesteren & Hideg (2007) The Burden of Crime in the EU, A comparative Analysis of the European Survey of Crime and Safety (EUICS 2005). Gallup-Europe, Brussels

\*\* The average is based on countries taking part in each sweep. As countries included vary across sweeps, comparisons should be made cautiously

The results confirm that reporting patterns show considerable inter-country variation. The highest reporting rates were in Austria (70%), Belgium (68%), Sweden (64%) and Switzerland (63%). With the exception of Hungary, all countries with relatively high rates

are among the most affluent of the world. The information on reporting rates confirms that European statistics on recorded crime possess a strong bias in the sense that victims in new Member States of the European Union are less willing to report their victimizations to the police than elsewhere. For this reason alone, it can be concluded that dark numbers of crime are larger among the new members than among the old members and that comparisons of these figures cannot be reliably made.

Reporting rates have gone down slightly since 1988 or 1992 in Belgium, Scotland, England & Wales, the Netherlands, France, New Zealand, USA, and Canada, but this is largely caused by the changing composition of the crimes that are reported. Reporting rates have gone up in Poland and Estonia, probably due to post-communist reforms of national police forces that have increased trust among the community. Also in Northern Ireland reporting has gone up since 1988 and 1992 in the aftermath of the peace process.

### 3.2. A final test with EU-wide data

Within a European context, the hypothesis regarding the universal nature of dark numbers can be put to a test using fresh data from the latest round of police figures of the European Sourcebook (Aebi et al, 2006) and the results of the European component of the fifth round of the ICVS (Van Dijk et al, 2007). Figure 1 depicts the relationship between overall victimization rates and numbers of crimes recorded by the police per 100.000 inhabitants.

Figure 2: Percentages of victimization by any crime in 2004 and police recorded crimes per 100,000 population in 2000 in selected EU Member States

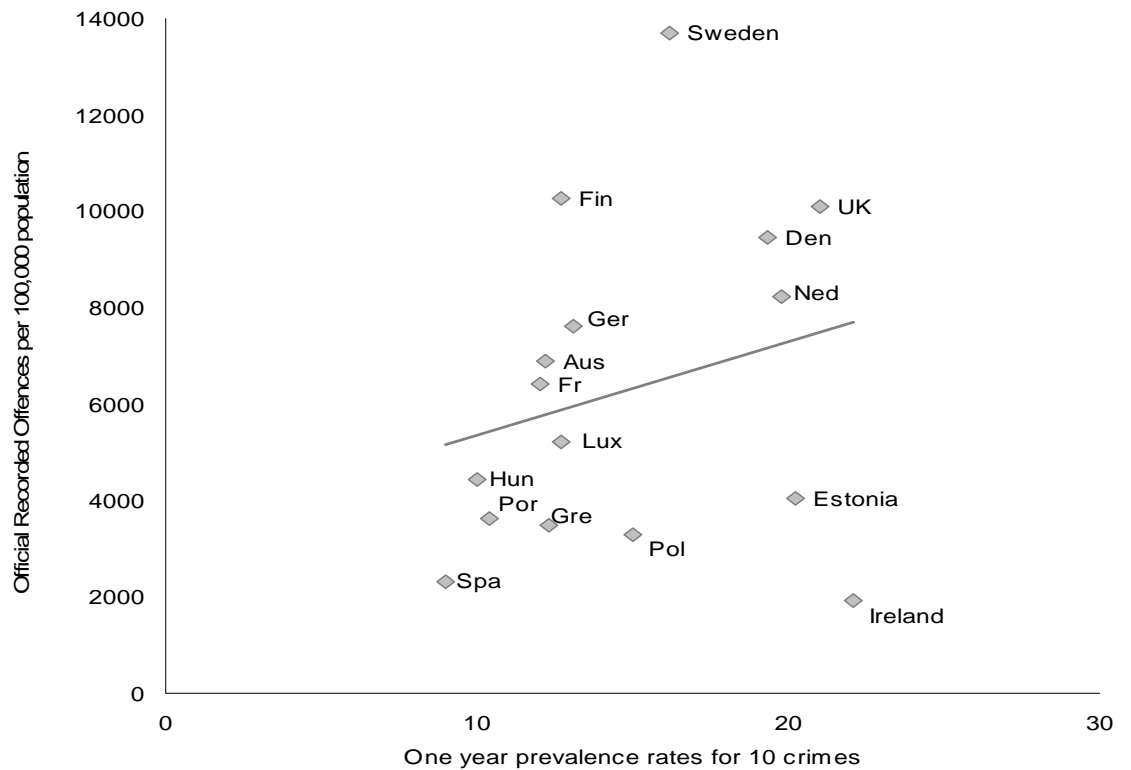


Figure 2 shows at a glance that, once again, the number of crimes recorded by the police bears hardly any relationship to the ICVS- based measure of crime. The countries with the highest numbers of police recorded crimes are Sweden, Finland, the United Kingdom and Denmark. According to the EU/ICVS, the level of crime, however, is relatively low in Finland and medium to high in Sweden. Countries with the lowest numbers of police-recorded crimes include Estonia and Ireland, both countries with levels of crime significantly above the European mean according to the ICVS. In the cases of Ireland and Estonia the blatant divergence between the two sources is probably caused by deficient recording of crimes by the national police forces. The results confirm our earlier conclusion that police figures are consistently lower among the new Member States of the European Union whereas this is not necessarily the case for rates of victimization (e.g. Estonia).

Comparisons between survey results and police figures across countries can be made both for the category of total crime but also for specific types of crime. In the latest report on the ICVS, the crime types chosen for a more detailed analysis were motor vehicle theft, theft total, robbery, assault, sexual violence and total contact crimes (Van Dijk, Van Kesteren & Smit, 2008). Although the definitions of the offences in the ICVS do not correspond exactly with those used in the Sourcebook for police-recorded crimes (e. g. sexual incidents are a broader category than rape), the comparison of the individual types of crime should in theory produce better results than that of overall victimization with total recorded crime. In order for the police to be able to record a crime experienced by a victim, the victim must have reported his experience to the police. Since reporting rates vary across countries, a better match is to be expected if national victimization rates

are adjusted for differential reporting. Police-recorded crimes were compared with both the victimization incidence rates and for incidence rates corrected for reporting (incidence rates of reported victimizations). Results are presented in table 2.

Table 2 Correlations between the ICVS victimization rates and the recorded crime levels for 7 types of crimes in 2003/04 in 27 industrialised countries. Sources: 2000 – 2004/05 ICVS, 2005 EU ICS and European Sourcebook 2004

Crime type	Victimi- zation rates and Recorded	Reported and Recorded
Motor vehicle theft	0.48 23	0.47 22
Theft	0.39 26	0.67 25
Robbery	0.20 27	0.43 27
Assault	0.37 26	0.58 26
Sexual	0.43 24	0.54 24
Total contact	0.27 24	0.62 24

For most types of crime, incidence victimization rates are only weakly correlated to numbers of police-recorded crimes (e. g. 0.20 for robbery and 0.37 for assault). The correlations between the two measures of the levels of different types of crime are stronger when victimization rates are adjusted for reporting to the police, with the exception of motor vehicle theft (a type of crime that is almost always reported). In other words, there is closer correspondence in relative risks of crime when account is taken of differences in reporting to the police. The somewhat stronger correlations found between incidents reported to the police and police-recorded crime indicate that the number of crimes reported by victims is one of the factors determining the officially recorded input of police forces besides the recording practices of the police forces.

The comparison of European statistics on police recorded crime per crime category with survey-based estimates of the true levels of crime confirms that police figures cannot be reliably used to compare levels of crime across EU countries.

#### 4. Trends in crime over time in five European countries

It is widely understood that police recorded crime figures underestimate the true volume of crime. Some authors have argued that police-recorded crime statistics could be used for the measurement of change over time across countries under the assumption that reporting and recording rates remain more or less stable over the years in each country (Bennett, 1991). This assumption is implicitly shared by Eurostat in Luxembourg which has in 2008 started to publish change estimates of police figures from the different member states and associated countries in its Crime Profiles series (Thomas, Tavaréz, 2008).

In recent years, researchers in the USA and Europe have, as said, turned their attention to analysing concurrence between trend data from the two main sources of crime statistics. Even if the absolute numbers show huge gaps, with survey-based data usually indicating much higher levels, trends can still show convergence. Assuming that proportions of dark numbers are constant over time, change estimates from both sources might be similar, even if level estimates are not. Divergence in the trends could point at changes in the production processes of either of the two systems. The identification of such changes can point at the differential strengths and weaknesses of the two systems. We will first briefly discuss the findings on trend data from five European countries and then look at international data.

#### 4.1. Germany

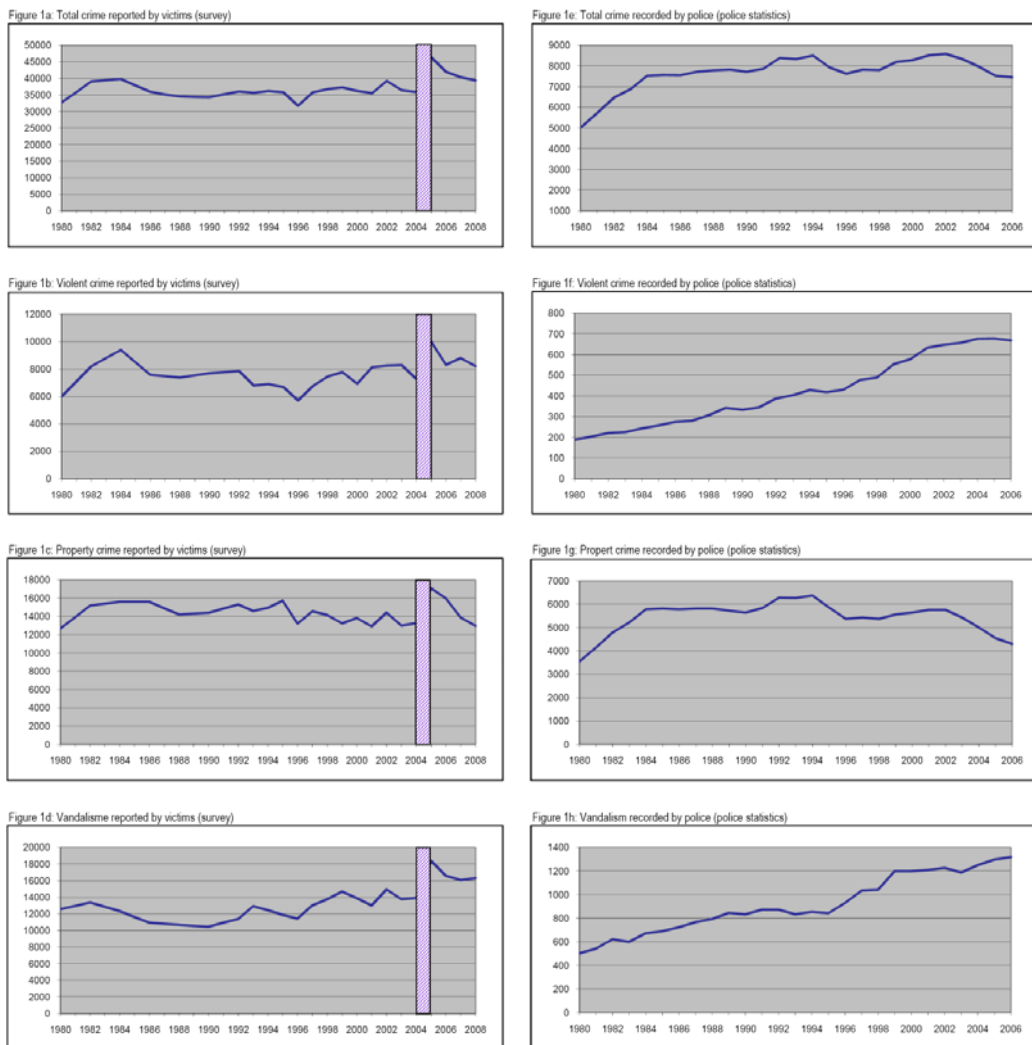
The analysis of concurrence between trend data from the two systems showed mixed results. In Germany, available data from three national surveys showed trends roughly similar to those appearing in national police statistics but this did not hold for the new States in East Germany where reporting and recording seem to have been more variable over time. Local surveys in Germany have often indicated trends diverging from those appearing in local police figures.

#### 4.2. The Netherlands

In the Netherlands the level of over all crime has remained stable since 1980 according to the national surveys whereas police figures show an increase until the mid 1990s. The divergence is most pronounced for crimes of violence and vandalism. In figure 3 the trend data according to survey research are depicted on the left and those based on recorded crime statistics on the right.

Figure 3: Trends in total crime, violent crime, property crime and vandalism according to police figures and victimization surveys in The Netherlands 1980-2004

Figure 1: Level of crime per 100,000, 1980 - 2008





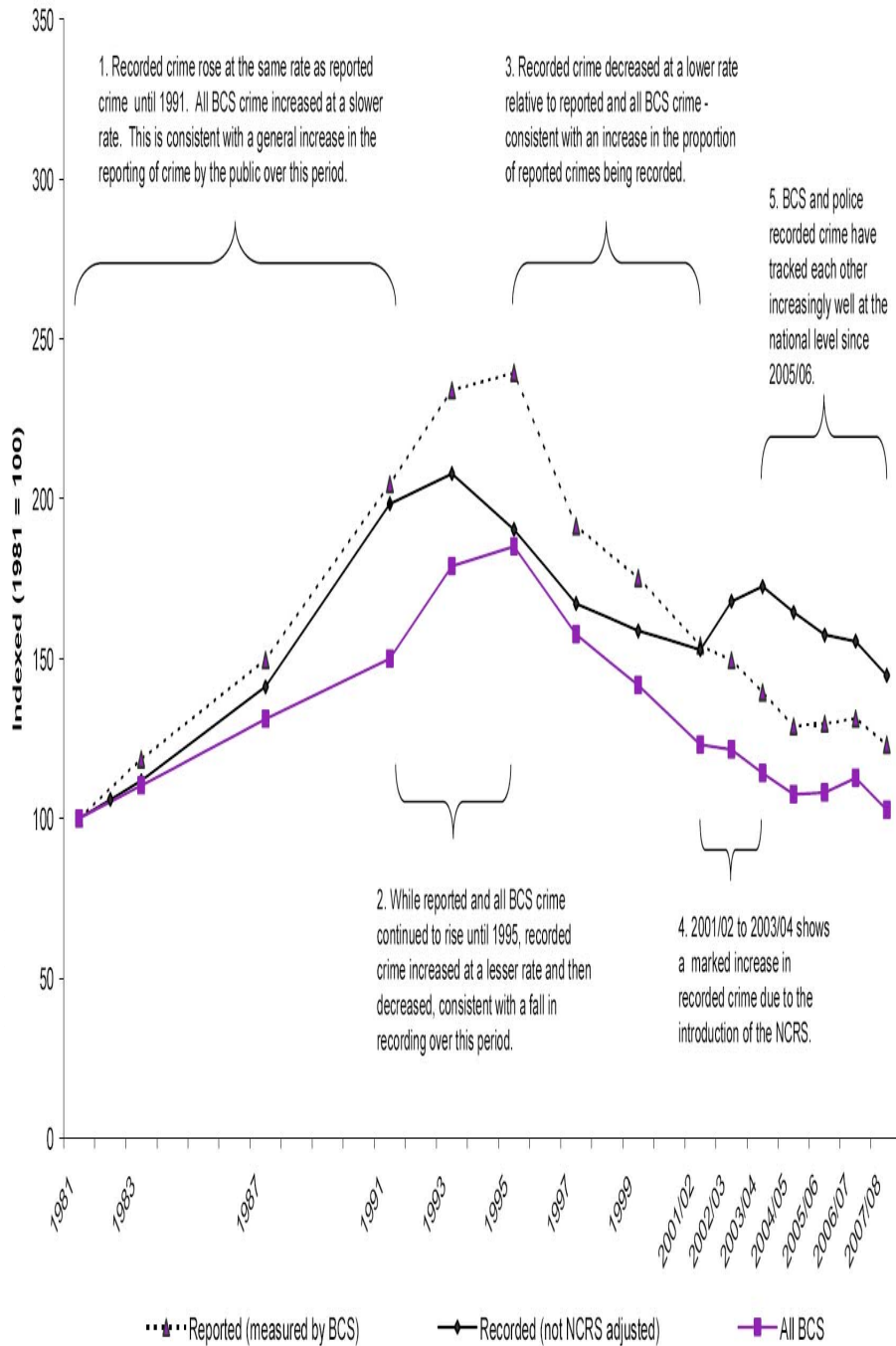
The Dutch trend data show that figures of recorded crime have gone up over the years but that the level of volume crime according to survey research has remained roughly stable. An in depth analysis showed that the upward trend in police figures is largely caused by a lowering of the threshold for recording reported offences by the police. In the Dutch national survey those who have reported an incident to the police are asked whether they have signed an official report. In the Dutch context, it can be assumed that those incidents that have not been recorded in the form of an undersigned certification report will not be officially recorded as offences. The percentage of reporting victims that said to have signed a report has gone up from 60% in the 1980s to 80% in 2004. This increase is largest for violent crimes (from 45% to 60%) and vandalism (from 40% to 75%).

In a secondary analysis of the available Dutch crime statistics between 1980 and 2004, Wittebrood and Nieuwbeerta (2004) revealed that almost three quarters of the rise in recorded crime is due to the fact that the police is recording more crimes than before. One quarter of the rise in recorded crime is caused by increased reporting to the police of victims. Only 1 % of the increase is attributable to an increase in actual victimization risks.

#### 4.3. England and Wales

In England and Wales detailed analyses have been made of the concurrence between percentage changes of victimization rates for comparable subsets of offences and those of police figures over a period of almost three decades (Kershaw, Nicholas & Walker, 2008). The results show estimates for 2007/08 and for previous years in England and Wales, with values for reported, recorded and 'all BCS' indexed to 1981 values as 100%. It also illustrates how reporting and recording rates have varied over time since 1981. In very general terms, reporting rates increased throughout the 1980s and then stabilized. Police recording have fluctuated in different ways at different times. In the early 1990s there is evidence that the police – possibly under political pressure to show falls in crime – reduced their recording rates. From 1998 onwards, a series of policy changes encouraged the police to adopt policies of full recording, which explains the rather erratic recent trends in recorded crime in the five years after 1998. These changes now appear to have bedded in, and recently (since 2004) all three trend lines show a broadly consistent pattern.

Figure 4 Comparing BCS trends with police statistics



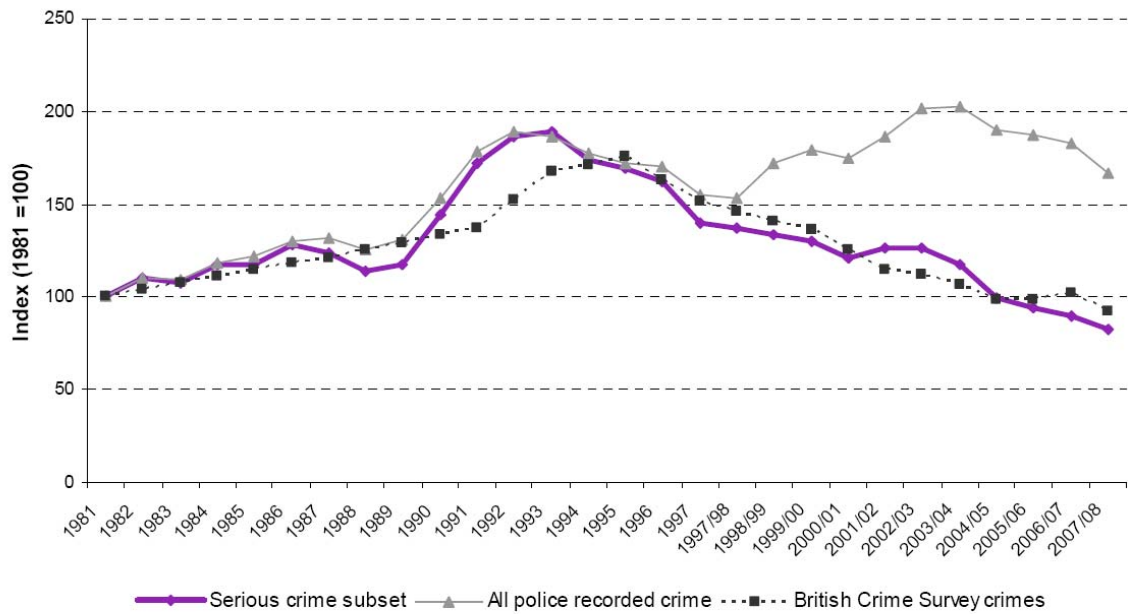
ice in  
hows  
me –  
n for  
entury

1. BCS estimates of incidents for 1991 to 2007/08 are based on estimates of population and the number of households in England and Wales that have been revised in light of the 2001 Census. For more information please see the Glossary.

2. From 2001/02, reported and all BCS crime relate to interviews carried out in that financial year and incidents experienced in the 12 months prior to interview. Recorded crimes relate to incidents in the 12 months up to the end of September of that financial year. This is so that the recorded crime data are centred on the same period as reported and all BCS crime.

3. To compare BCS and police recorded crime figures it is necessary to limit both to a set of offences that are covered by both series (comparable subset).

Figure 5 Trends in 'All BCS', all recorded crime and a 'serious subset' of recorded crime



1 The police recorded serious crime subset comprises most serious violence against the person, most serious sexual offences, robbery, burglary, and theft or unauthorised taking of a motor vehicle.

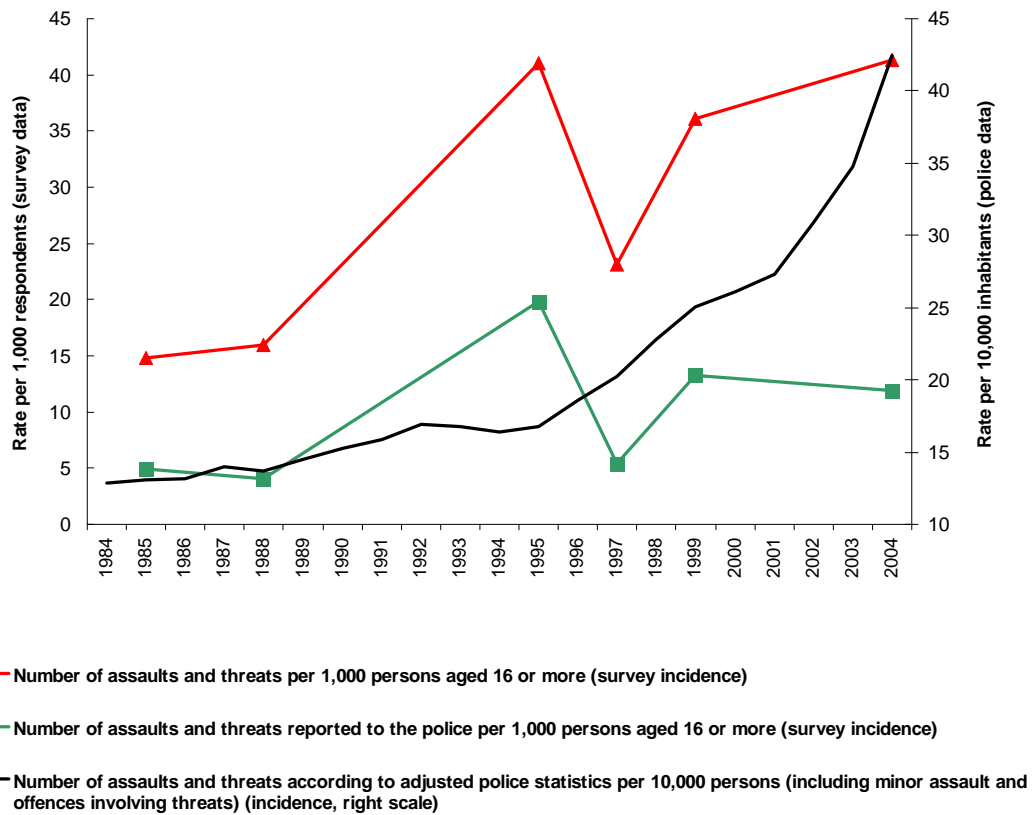
Source: Kershaw, Nicholas and Walker, 2008

#### 4. 4. Switzerland

In Switzerland, comparisons between victimization rates and police figures are especially difficult because uniform crime statistics at the national or federal level are not readily available. Adjusted rates of burglary, non-motor vehicle theft and robbery from the two sources showed remarkable convergence<sup>6</sup>. However, adjusted rates for violent crime show diverging results as is apparent in figure 6.

<sup>6</sup> The dramatic drop in the survey rate of theft of motorcycles, mopeds and scooters during the late 1980s, was probably influenced by a change in the law, which made compulsory the wearing of helmets. Police data show a similar trend, though it is less pronounced, possibly because minor incidents often went unrecorded, particularly during the 1980s, when vehicles were often recovered rapidly.

Figure 6 Trends in assaults and threats per 1'000 persons during one year according to the Swiss crime victim surveys and Swiss police statistics



First, survey-based results on simple assaults show higher numbers not just of actual but even of reported incidents than the police figures. Second, over the last ten years the level of violent crime has gone up more steeply in police figures than according to survey results on actual or reported crime. The main explanation for these findings given in the national report is that police recording of violent crime used to be deliberately restrained for both legal and policy considerations (including the policy of tolerance for open drugs scenes in Zurich and elsewhere) but has since the mid nineties become stricter. Obviously the explosive growth in recorded violent crime reflects changes in policing rather than in actual violence.

#### 4.5. France

In France the latest studies of concurrence in the trends of survey-based data and police figures span a period of ten years (1994-2004). The results show several instances of significant divergence (Zauberman, Robert, Nevanen, Didier, 2009). As can be seen in figure 7 rates of actual and reported burglary are significantly higher according to the surveys than the official figures. Moreover, rates of victimization by burglary have gone down with almost 50% since 1995 according to national victimization surveys while police figures have remained constant over a time span of twenty years.

Figure 7 Trends in burglary in France according to survey-based data and police figures , 1984-2005; data from Zauberman, Robert, Nevanen, Didier, 2009

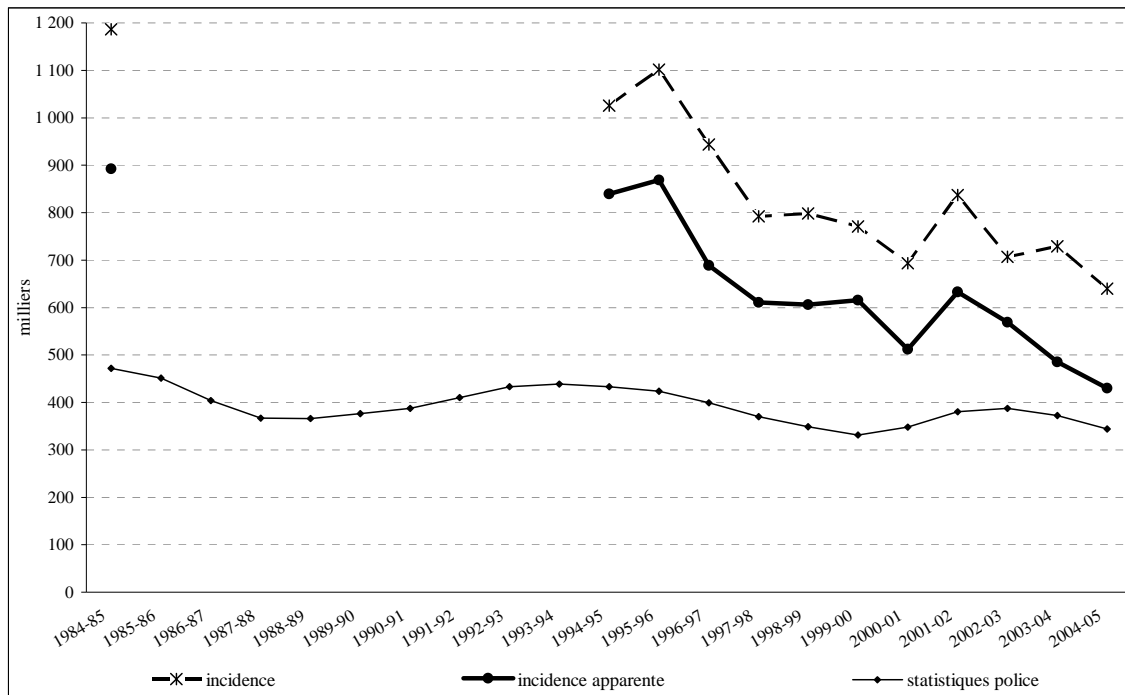


Figure 7: Burglaries ( incidence, reported incidence and police figures) (1984-2005)

The blatant divergence between victimization rates and police figures on burglary in France over the past decade has been noticed in previous studies (Lagrange et al, 2004). According to the authors, police figures reflect the decreases in rates of victimization by burglary in a reduced way: 'A sort of institutional inertia limits – or at the least retards- the response of the administration to an increase or decrease of the raw materials brought to them in the form of victim reports of crime' (Robert et al, 2009).

The French experience shows several other instances of divergence between the two sources. Petty thefts have declined according to the surveys in recent years but their level remained constant according to the police figures. In the domain of violence, comparisons are complicated by definitional differences. The results show that aggravated assaults have gone up much more significantly according to police statistics than according to crime surveys. According to the authors police figures on aggravated violence have surged as a result of a series of new laws reclassifying more and more types of violence as aggravated assault. The divergences between the two sources seem in France somewhat more pronounced than elsewhere. We are inclined to agree with Robert et al (2009) that police figures have failed to properly reflect the decreases in property crimes. The surge in aggravated assaults seems largely caused by changes in legislation and in recording policies.

The four countries from which elaborate trend data from both surveys and police administrations are available suggest the following general conclusions regarding concurrence between these two systems. In The Netherlands the stable or declining rates of victimization by crime have not been adequately reflected in police figures. This is most noticeable the case with petty violence and vandalism. Focussed analyses have demonstrated that the divergence has been caused by improved police recording. In England and Wales police figures seem to have deflated increases in crime in the nineties when crime was booming and to have deflated decreases of crime thereafter. As in the Netherlands, the recent spike in violent crime in England and Wales seems largely caused by improved police recording of crimes.

In Switzerland, the police, as in the Netherlands and England and Wales, seem to have improved recording of violent crime in recent years, thereby creating an artificial boom in the official count of violent crime. In France, the two series show divergence in their trends of burglary and petty theft. Stable or decreasing rates of victimization have not been adequately reflected in police figures, most probably due to better police recording. The recent boom in aggravated violent crime in France seems to be the result of changed laws and recording or detection policies.

By and large, the results from the four countries indicate that recent trends in many types of crimes according to the two sources have been divergent due to improvements in police recording of victim reports and, to a lesser extent, increased reporting by victims to the police. The country reports clearly confirm the conclusion that police figures in Europe are highly sensitive to changes in the recording policies and practices of the police and cannot be taken at face value. The hypothesis of stable proportions of 'dark numbers' is unequivocally refuted for these countries in the period under study. The results leave little room of optimism about the capacity of police figures to monitor changes in volume crime over time. For this purpose too police figures cannot be reliably used.

In the USA several studies have, as said, been carried out into the concurrence of trends in survey-estimated counts of crime and police figures since the launch of the NCVS in 1973. An overview of results is given by McDowall and Loftin (2007). In the USA the surveys have shown significant decreases of victimizations for theft and burglary since the 1980s and for more serious crimes since the 1990s. These decreases are not or only weakly reflected in trends in police figures. As in the four European countries, the main explanations for these divergences are improved reporting by the public and improved recording by the police. In a focussed analysis Rosenfeld (2007) looked at the divergence between survey-estimated counts of aggravated assaults and comparable police figures. Police-recorded aggravated assault trend upwards during the 1980s and flatten in the 1990s, whereas survey-estimated assaults are flat during the 1980s and decline during the 1990s. Rosenfeld's analysis shows that the upward trend in police figures for aggravated assault results from 'heightened police productivity' in recording such crimes. The conclusions on the analysis of data from the European countries is broadly in line with the general observation of McDowall and Loftin that over the past two decades the measurement of crime by the police has improved while survey-based measurements have remained more or less the same.

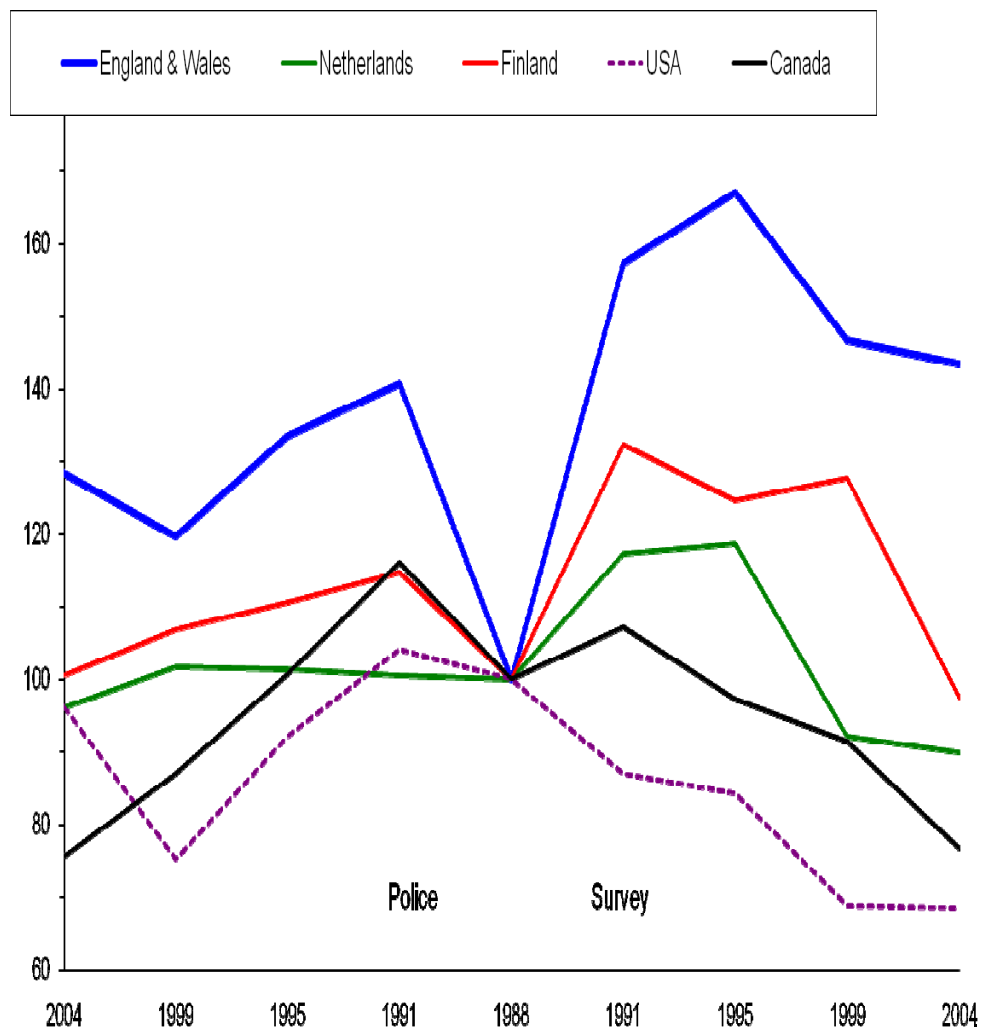
#### 4.6. Other studies

Farrington, Langan and Tonry (2004) compared trends in national victimization rates with police-recorded crimes of eight Western countries for the period 1980 to 2000. With regard to the similarity between the trends in the two measures over time their results are mixed. For burglary the two trends were significantly correlated for six of the eight countries. For robbery only two countries showed similar trends in police figures as in victimization rates. Reviewing the available data, Cook and Khmilevska (2005) observed that recorded data and survey results exhibited very different growth rates.

In the framework of reports on the ICVS comparisons have been made between changes in prevalence of victimization and comparable subsets of police figures for countries that have participated several times in the ICVS. For some countries, comparisons can be made between the trends in ICVS victimization rates and the trends in total recorded crime. The chart in figure 8 presents the trends of police statistics and ICVS victimization for total crime in five countries between 1988 and 2005, with observations corresponding to the years covered by the five repetitions of the ICVS (1988, 1991, 1995, 1999 and 2004, the calendar year preceding the interviews). Both victimization rates and police figures are indexed at one hundred for 1988. Taking 1988 as the starting point, the trends on the left and on the right show considerable symmetry. To a large extent the two trends mirror each other in each country. Crime went up between 1988 and 1991, stabilised or decreased between 1991 and 1995, then further decreased. In the USA the crime drop seems to have started a bit earlier.

Figure 8: Police and survey crime trends, five countries 1988-2004 (index 1988=100)

**Figure x: Police and survey trends, five countries: 1988-2004**



As can be seen in the graph police-recorded crimes show, as a rule, less marked variation than victimization rates. The trend analyses indicate that police figures tend to deflate rather than inflate drops in actual crime.

In the USA several analysts have analysed correlational convergence between the trends in NCVS-based rates and UCR figures over the past thirty years (McDowall & Loftin, 2007). Reasonably strong correlation coefficients were found for burglary, robbery and motor vehicle theft but not for any other types of crime. Analyses using survey-estimates corrected for, inter alia, reporting rates tended to show stronger correlations.

In our analyses of the results of the fifth round of the ICVS, we have also looked at congruence between the change estimates during the last few years according to the ICVS and the European Sourcebook (ICVS: 1999-2004; recorded crime: 1999-2003). Comparisons were made between (i) trends in incidence victimization rates and harmonised police figures; and (ii) trends in incidence victimization rates adjusted for reporting and trends in harmonised police figures. Table 2 shows results.

Table 2: Correlations of trends in crime levels according to incidence victimization rates and victimization rates adjusted for reporting and rates of recorded crime(1999 to 2003 – 2004) and number of countries

Crime type	Incident rates and Recorded	Reported and Recorded
Motor vehicle theft	0.31 14	0.45 13
Theft	0.02 14	0.01 13
Robbery	0.47 15	0.50 15
Assault	0.13 15	0.06 15
Sexual	-0.33 15	-0.35 15
Total contact	0.17 15	0.23 15

The trends in either victimization or reported victimization and police recorded crime during a period of 4 to 5 years hardly correlate at all, or, as in the case of sexual crimes, they correlate negatively. Only for motor vehicle theft and robbery weak positive correlations were found. For no single crime type a correlation coefficient of .80 or more was calculated. This negative result is broadly in line with those of Cook & Khmivlevska (2005).

The conclusion that trends in crime statistics from two sources are divergent does not by itself suggest that one of the two reflects trends in volume crime better than the other. In England, Shepherd and Sivarajasingam (2005) compared trends in both series with that of a third. They found that decreases in rates of victimization by violent crime matched decreases according to hospital admissions but differed from the increases in police-recorded violent crimes. Their interpretation of this divergence is that police recording had been improved due to new policing priorities and better technical support (e.g. from CCTV's).

This interpretation confirms the conclusions of the national country reports mentioned above. The available evidence suggests that police recorded crime data are too much affected by changes in recording practices to be useful as trend measures of volume crime. To determine trends in actual volume crime, especially also in a comparative perspective, periodically repeated crime victim surveys seem an indispensable tool.



## 5. Towards a theoretical understanding of divergences between police figures and survey findings

The results of the national reports and of other available studies suggest that police figures, although perhaps indispensable for the assessment of homicides and other serious and rare crimes, are unreliable indicators of the level as well as trends in volume crime.

Police figures seem not to be unreliable in a random sort of way. The observation by Robert et al (2008) that French police figures seem to reflect changes in actual crime in a deflated or delayed way seems to have general applicability. This phenomenon of 'institutional inertia' has been observed both in the USA (Pepper, Petri e& Sullivan, 2009) and in several other European countries besides France over the past ten or twenty years (see figure 8 above). The universality of this finding suggests the operation of similar forces affecting the production of police figures across the board. The phenomenon of 'institutional inertia' in crime recording calls, in other words, for a further theoretical elaboration.

Criminal justice systems can, within existing budgets and organizational means, respond adequately to only a given number of crimes per year. If more crimes enter the system than can be timely and adequately processed by police, prosecutors, courts or prison departments, the system gets clogged and becomes inefficient. Such system overload generates an institutional need to control the input of new cases. Prosecutors will feel pressed to dismiss less serious cases in order to clean their desks and reduce delays in bringing cases to court. In response to these dismissals police forces will save resources by be less pro-active in their detection of trafficking offences and ignoring citizens' reports of less serious crimes by victims. Such selective recording by the police, whether formalized in guidelines or not, will soon be observed by the public. If victims sense that reports of minor offences are dismissed routinely, they will subsequently refrain from reporting such incidents. They will lift their threshold for reporting crimes to the police. This chain of reactions to system overload in the criminal justice system has been documented for The Netherlands in the late 1970s ( Van Dijk & Steinmetz, 1980). In these years Dutch prosecutors systematically dismissed cases of minor theft or violence, police forces started to refrain from recorded reports of such cases and victim reporting rates for thefts of bicycles or other minor thefts declined.

In our view criminal justice systems effectively exercise control over their input of cases and thereby over their workload by adjusting their thresholds for receiving reports. Criminal justice systems do not acknowledge the existence of more crime than what they can properly handle within existing resources. Crime cases are recorded by criminal justice systems to the extent that their resources permit them to process them (Van Dijk, 1998; Van Dijk, 2008). From this theoretical perspective, the number of police-recorded crimes must primarily be seen as an indicator of the capacity of national law enforcement, prosecution systems and courts systems to process crime cases. Since the available means of police systems and prosecution are often insufficient, the relationship between police-recorded crimes and the level of crime will always be tenuous. More recorded crime per 100,000 inhabitants reflects availability of more resources rather than more crime. This feature of recorded crime statistics explains why rates of recorded crime tend to be higher in more affluent countries such as Sweden, Denmark and New Zealand. By the same token police figures are likely to distort changes in levels of crime as well. In years of sudden increases in the number of crimes reported to the police, police administrations and prosecution services will soon be clogged. Reporting victims will have to wait longer, and responsible officers will be inclined to increase thresholds for recording. These processes will in turn discourage victims from reporting. Police figures will therefore often reflect surges in actual crime a deflated way. Examples are the deflated increase in over all recorded crime depicted in figure 8 in the early 1990s. In contrast, in years of sudden decreases of crimes reported to the police, human resources will become available for other activities. Such temporary abundance of available

resources in police forces can result in improved recording of certain categories of crimes, inviting more reporting of such crimes by victims. Decreases in actual crime will thus partly be offset by better recording and more reporting, resulting in a deflated reflection of the decrease in crime in police statistics of crime.

In the case of the USA and more recently France, England and Wales, The Netherlands and Switzerland significant decreases of various forms of crime over the past ten or twenty years seem to have freed resources that could now be used for other purposes. This situation seems to have invited the adoption of new legislation or/and policing priorities to tackle problems of crime perceived to be urgent. This factor seems to have caused increases in police-recorded crimes such as burglaries and aggravated assaults in France and violent crime in England/Wales, The Netherlands and Switzerland and minor thefts and violent crimes in the USA. These politico-bureaucratic dynamics can help to explain why the dramatic drops in crime observed in crime surveys in recent years are in many countries not fully reflected in police statistics and why police figures in some countries suggest sudden booms in violence that may not really have occurred.

#### Conclusions and policy implications

The comparisons between the level of crime according to police figures of recorded crime and results of victimization surveys in selected European countries, have confirmed that police figures of recorded crime cover only a relatively small part of the victimizations experienced by the public. In all countries the numbers of crimes committed are several factors higher than those recorded by the police. The size of the 'dark numbers' appears not be constant across countries. Dark numbers seem to be larger among some of the ex-communist countries including several new Member States of the European Union. Although levels of victimization by crime in Central and Eastern Europe no longer differ much from those in the West, the levels of police-recorded crime remain remarkably low (Aebi et al, *European Sourcebook*, 2003; 2006). In 2000, the European countries recorded on average 4,333 crimes per 100,000 people. Most Central and Eastern European countries show crime rates far below this European average. Results from the ICVS on reporting patterns go some way in explaining this gap. Victims are much less likely to report their experiences as victims to the police, most probably because they have little confidence in the professionalism of the police. Lack of insurance coverage might also contribute to low reporting rates for property crimes in these countries.

The analyses also confirmed that the size of the dark number is highly variable over time. In the 1970ties when crime was booming, victim reporting rates have declined. In many European countries victims of crime have over the past twenty years become somewhat more ready to report victimizations to the police. In addition, and more consequentially for the stability of police figures, police forces in the USA and some West European countries have over the past twenty years significantly lowered their thresholds for recording less serious crimes. As a result, decreases in actual levels of volume crime are not adequately reflected in police figures of these countries. In some cases recent police figures show dramatic increases in more serious types of violence which are not grounded in increases of actual violence. In some European countries divergences between the results of the two systems seem even larger than those observed in the USA. One likely explanation is that both police figures and victimization surveys in these European countries have been less rigorously standardised than in the USA.

Limited availability of resources for the police and the criminal justice system at large and a correspondingly low level of confidence among the public seems to be responsible for the lagging behind in police figures of crime by the new members of the European Union. In addition comparatively low rates of insurance coverage of households in some countries might keep down reporting rates of property crimes as well. Our interpretations suggest that if resources for law enforcement and criminal justice and insurance coverage among the new Member States of the EU catch up with those elsewhere in the Union, police figures of crime in these countries are bound to rise, even when the level of

crime may in reality remain stable or decrease. Compared to established police recording systems in, for example, Scandinavian countries, police figures of many of the new members seem comparatively 'unsaturated'. Police figures have the potential to absorb a larger proportion of the 'dark numbers'. Through improved recording and higher trust levels police figures could double or triple without any changes in the numbers of crimes committed. In this respect the stabilisation of police figures in several of the new members should perhaps not be seen as a positive sign, indicating greater control over crime. This stabilisation could also be a sign of stagnating processes of modernisation and democratisation of the criminal justice systems in these countries.

As said earlier, Eurostat has since 2008 been mandated to publish statistics on changes in the numbers of crimes per country. In our view, the results of the current study show that the interpretation of these past and future trends must be carried out with due caution. Changes in the numbers of crimes recorded can be heavily influenced by changes in available resources and recording practices.

The EU Action Plan envisages the development of comparative crime statistics among the Member States including a common module for victimization surveys. Our conclusions point to the need of promoting standardized victimization surveys in the European Union. The use of police figures of recorded crime for such comparative purposes will almost inevitably result in erroneous conclusions, especially concerning future trends in crime among some of the new Member States. Without a victimization survey, any comparison between the level and movements of volume crime across the Member States will remain a hazardous and politically contentious undertaking.

The single most important objective of the European survey would be to provide an indicator of the relative level of volume crime in the Member States in a comparative cross-national perspective as well as of changes in this ranking over the years. In many countries the planned standardized European victimization survey will complement existing, scaled down national surveys such as the ones in France, Italy, the Netherlands, Poland (five times ICVS), Estonia (4 times ICVS), United Kingdom and Switzerland. Divergences between the level estimates based on the European survey and those of national surveys seem inevitable and should be explained as resulting from methodological differences. The questions on victimization experiences should focus on those offences that surveys can measure best, that is 'stereotypic' volume crime. It seems important to also include a set of standardized and well-tested questions on reporting behaviour and on feelings of unsafety. Reporting rates are an important indicator of police performance. In many countries criminal policies are set in response to assumptions about fear of crime or lost of trust in institutions rather than to information about levels and trends of actual crime.

Both in the USA and Europe moves have recently been made to scale down the sample sizes and questionnaires of the national victimization surveys and to supplement these household surveys with additional vehicles of data gathering in special crime areas (e.g. commercial surveys or dedicated surveys on domestic violence) (Maxfield, Hough, Mayhew, 2008). For cost reasons a standardized, comparative survey for Europe should therefore preferably be relatively modest in scope and sample size. This feature inevitably limits the capacity of the survey to produce estimates of rarer forms of serious crime.

If the European survey is geared towards measuring changes over time in the ranking of countries in terms of crime risks, this argues for a close alignment of the survey's methodology including its core questionnaire with that used in the ICVS. Such alignment would allow a comparative analysis of trends going back for fifteen years or more in a majority of Member States. It would also preserve the unique option of comparing long term European crime trends with those in Argentina, Australia, Brazil, Canada, Japan, New Zealand, and many other countries.

Although the launch of a standardized European victimization survey seems indispensable as a knowledge base for coordinated policies in this domain, this instrument should not be regarded as a sufficient source of comparative crime information. For a fuller international picture of crime problems survey results must be complemented as a minimum by statistics on police recorded crimes. To complement the survey-estimated data on volume crime, efforts to collect comparative police figures should give priority to homicides and attempted homicides. Police figures on car theft, burglary and robbery should be collected for monitoring purposes. Comparisons with survey-based estimates of the same types of crime can help to identify changes in police recording productivity. These core statistics on crime should be complemented by secondary statistics from health institutions on violence, including sexual violence (death certificates and hospital or emergency units' admissions). Periodically, standardised surveys should be carried out about self reported delinquency and drugs use and on crimes against businesses and violence between intimates. Added to these could be assessments from specialised state institutions or NGO's of trends in grand corruption, financial fraud, money-laundering and human trafficking.

## References

Aebi, M. et al. (2006), *European Sourcebook of crime and criminal justice statistics-2006*, The Hague: Ministry of Justice/WODC

Aebi, M. F., Aromaa, K., Aubusson de Cavarlay, B., Barclay, G., Gruszczynska, B., von Hofer, H., Hysi, V., Jehle, J.-M., Killias, M., Smit, P., Tavares, C. (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.europeansourcebook.org>

Aebi, M. F., Killias, M., Tavares, C. (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*, 2/1, pp. 22–37.

Allen, J. and Ruparel, C. (2006) *Comparing BCS estimates and police counts of crime* London: Home Office.

<http://www.homeoffice.gov.uk/rds/pdfs06/comparingbcs.pdf>

Buikhuisen, W. (1975), *Geregistreeerde en ongeregistreeerde criminaliteit*, Den Haag: Ministerie van Justitie/WODC

Cook, P. J. & Khmlevska, N. (2005), Cross-national patterns in crime rates. In M. Tonry & D. Farrington (Eds), *Crime and Justice*. Vol 33. Chicago: University of Chicago Press

Dijk, J.J.M van (2007), *The World of Crime; breaking the silence on problems of crime, justice and development across the world*, Thousand Oaks: SAGE

Dijk, J.J.M van, J. van Kesteren & P. Smit (2007), *Criminal Victimization in an International Perspective; key findings from the 2004-2005 ICVS and EU ICS*, The Hague: Ministry of Justice/WODC

Dijk, J.J.M. van & C. H.D. Steinmetz (1980). *The RDC victim surveys 1974-1979*. The Hague: Ministry of Justice. (Research and Documentation Centre)

Dijk, J. J. M. van , Mayhew, P., Killias, M. (1990). *Experiences of crime across the world*. Deventer NL / Boston : Kluwer.

Eterno, J & E. Silverman (2010), The trouble with Compstat: Pressure on NYPD commanders endangered the integrity of crime stats, *New York Daily News*, February, 15.

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

Johnson, H., N. Ollus & S. Nevala (2007), *Violence against Women: an International Perspective*, Springer press

Kershaw, C., Nicholas, S., and Walker, A. (2008) *Crime in England and Wales 2007/08. Home Office Statistical Bulletin 07/08*. London: Home Office

<http://www.homeoffice.gov.uk/rds/pdfs08/hosb0708.pdf>

Kesteren, J. van , Mayhew, P., Nieuwebeerta, P. (2000). Criminal Victimization in Seventeen Industrialised Countries. Key finding from the 2000 International Crime Victims Survey. The Hague : WODC, Ministry of Justice.

Kury, H. (1991). Victims of crime - Results of a representative telephone survey of 5.000 citizens of the former Federal Republic of Germany. In G. Kaiser & H. Kury & H.-J. Albrecht (Eds.), *Victims and criminal justice*, Vol. 50 (pp. 265-304). Freiburg: Eigenverlag Max-Planck-Institut für ausländisches und internationales Strafrecht.

Kury, H., Obergfell-Fuchs, J., & Würger, M. (1995). Zur Regionalverteilung der Kriminalität in Deutschland. *Kriminalistik*, 49(12), 769-778.

Lagrange, H., Pottier, M.-L., Zauberman, R., Robert, P., 2004. – « Enquêtes de victimation et statistiques de police : les difficultés d'une comparaison », *Déviance et Société*, 28, 3, pp. 285-316.

Lynch, J.P. & L. A. Addington (2007), *Understanding Crime Statistics; Revisiting the Divergence of the NCVS and UCR*, Cambridge: Cambridge University Press.

McDowall & C. Loftin (2007), What is Convergence and What Do We Know About it?, in: J. Lynch & L. Addington (eds), *Understanding Crime Statistics; Revisiting the Divergence of the NCVS and UCR*, Cambridge: Cambridge University Press

Muratore, M.G. and Tagliacozzo, G. (2008), *The Italian National Victimization Survey*, in Aromaa K. and Heiskanen M., *Victimization Survey in Comparative Prospective*, Heuni, Helsinki, 100-121.

Oberwittler, D. (2003). Stadtstruktur, Freundeskreise und Delinquenz. Eine Mehrebenenanalyse zu sozialökologischen Kontexteffekten auf schwere Jugenddelinquenz. In D. Oberwittler & S. Karstedt (Eds.), *Soziologie der Kriminalität*. Kölner Zeitschrift für Soziologie und Sozialpsychologie, Sonderheft 43/2003 (pp. 135-170). Wiesbaden: VS Verlag für Sozialwissenschaften.

Pepper, J., C. Petrie & S. Sullivan (2009), Measurement Error in Criminal Justice data, University of Virginia/National Research Council, unpublished paper June 28, 2009

Robert, Ph. (2009), *Mesurer la Délinquance en Europe, Comparer statistiques officielles et enquêtes*, L'Harmattan, Déviance et Société

Rosenfeld, R (2007), Explaining the Divergence Between UCR and NCVS Aggravated Assault Trends, in: J. Lynch & L. Addington (eds), *Understanding Crime Statistics; Revisiting the Divergence of the NCVS and UCR*, Cambridge: Cambridge University Press

Stephan, E. (1976). *Die Stuttgarter Opferbefragung*. Wiesbaden: Bundeskriminalamt.

Stepherd, J. & Sivarajasingam, V. (2005), *Injury research explains conflicting violence trends*, In www. injury prevention.

Schwind, H.-D., Ahlborn, W., Eger, H. J., Jany, U., Pudel, V., & Weiß, R. (1975). *Dunkelfeldforschung in Göttingen 1973/74*. Wiesbaden: Bundeskriminalamt.

Schwind, H.-D., Ahlborn, W., & Weiß, R. (1978). *Empirische Kriminalgeographie*. Wiesbaden: Bundeskriminalamt.

Schwind, H.-D., Ahlborn, W., & Weiß, R. (1989). *Dunkelfeldforschung in Bochum 1986/87*. Wiesbaden: Bundeskriminalamt.

Tonry, M., Farrington, D. P. (2005) (Ed.). *Crime and Punishment in Western Countries, 1980–1999*. Chicago/London: University of Chicago Press. (*Crime and Justice : volume 33*).

Wetzels, P. & Pfeiffer, C. (1996). Regionale Unterschiede der Kriminalitätsbelastung in Westdeutschland. *Monatsschrift für Kriminologie und Strafrechtsreform*, 79(6), 386-405

Wittebrood, K. en M. Junger (2002). Trends in violent crime: a comparison between police statistics and victimization surveys. *Social Indicators Research* (59) 2, p. 153-173

Wittebrood, K. en P. Nieuwbeerta (2000). Wittebrood, K. en P. Nieuwbeerta (2006). Een kwart eeuw stijging in geregistreerde criminaliteit: vooral meer registratie en nauwelijks meer criminaliteit. *Tijdschrift voor Criminologie* (48) 3, p. 227-242.

Zauberman, R., P. Robert, S. Nevanen & E. Didier (2009), *L'acteur et la mesure. Le comptage de la délinquance* entre données administratives et enquêtes, *Revue française de sociologie*, 50, 1, 31-62. J