

DETERMINING TRENDS IN GLOBAL CRIME AND JUSTICE: AN OVERVIEW OF RESULTS FROM THE UNITED NATIONS SURVEYS OF CRIME TRENDS AND OPERATIONS OF CRIMINAL JUSTICE SYSTEMS

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Abstract

Effectively measuring comparative developments in crime and justice trends from a global perspective remains a key challenge for international policy makers. The ability to compare crime levels across countries enables policy makers to determine where interventions should occur and improves understanding of the key causes of crime in different societies across the globe. Nevertheless, there are significant challenges to comparative work in the field of criminal justice, not least of which is the ability to quantify accurately levels of crime across countries. Taking into account the methodological weaknesses of using cross-country data sources, the present article provides conclusions obtained by analysing the large amount of data available from the various United Nations surveys of crime trends and operations of criminal justice systems.

*“Not everything that can be counted, counts.
And not everything that counts can be counted.”* Albert Einstein

INTRODUCTION

The United Nations Survey of Crime Trends and Operations of Criminal Justice Systems is one of the few sources of data on Government-reported levels of crime worldwide [1].**** The United Nations Survey of Crime Trends has been used by a number of academic analysts and in a series

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****The United Nations Survey of Crime Trends and Operations of Criminal Justice Systems is not, however, the only source of international criminal justice statistics. The International Criminal Police Organization (Interpol) also publishes a yearly list of international reported crime statistics (available at www.interpol.int/Public/Statistics/ICS/Default.asp), as does the Home Office of the United Kingdom of Great Britain and Northern Ireland: see *International Comparisons of Criminal Justice Statistics* 2000 [1].

of studies carried out by the World Bank [2-3].* The Survey has been conducted seven times, beginning with the period 1970-1975. For the Seventh United Nations Survey of Crime Trends and Operations of Criminal Justice Systems, covering the period 1998-2000, data were received from 82 countries. The Survey consists of 518 variables, covering all manner of information, from figures on reported crime to the numbers of police officers, prosecutors, magistrates, judges and correctional officials working in a country. The database is becoming increasingly valuable to international and national policy makers in the field of criminal justice. The Survey is unique in terms of the number of participating countries, the number of times it has been conducted and the number of variables that are surveyed.

The main goal of the United Nations Survey of Crime Trends is to collect data on the incidence of reported crime and the operations of criminal justice systems with a view to improving the analysis and dissemination of the information globally. The results provide an overview of trends and the interrelationships of various parts of the criminal justice system so as to promote informed decision-making in administration, both nationally and internationally. By their nature, the conclusions that can be drawn from the survey data, unless detailed analysis on a country-per-country basis is carried out, must be considered as high-level overviews of trends.

The present article contains a short review of the methodological difficulties of cross-country comparisons, including a comparison of international crime data from two sources. It also provides a comparative overview of overall reported crime levels, as well as some insight into trends and comparisons in respect of two types of crime, homicide and robbery. In addition, data are presented in respect of various measures of both criminal justice performance and resource allocation. In conclusion, suggestions as to the possible future organization of the United Nations Survey of Crime Trends are made.

The hazards of cross-country comparison

It is important to preface a presentation on international comparative crime data with a number of provisos about the overall reliability of the exercise.

*See, for example, the article by Pablo Fajnzylber, Daniel Lederman and Norman Loayza, entitled "Inequality and violent crime" [2]. A more recent comprehensive review of the data from the United Nations Survey of Crime Trends can be found in *Global Report on Crime and Justice* [3].

Comparing crime statistics from different jurisdictions is a hazardous undertaking. For a start, the crime category for which any incidents are recorded relies on the legal definition of that type of crime in a particular country. Should the definition differ across countries, and indeed this is often the case, comparisons will not, in fact, be made of the same type of crime. This is particularly true in the case of crimes that require some discretion from a police officer or other relevant authority when they are identified. For example, the definitional difference between serious or common assault in different legal jurisdictions may be different, and this will be reflected in the total number of incidents recorded.

Over and above such definitional issues, different countries have been shown to have different levels of reporting of criminal incidents [4]. This relates closely to the level of development of a society, which is most clearly reflected in the accessibility of the police. Thus, factors such as the number of police stations or telephones in a country affect reporting levels. The level of insurance coverage in a community is also a key indicator of the likelihood of citizens approaching the police, as their claim for compensation may require prior notification of the police. In addition, in countries where the police are or have been mistrusted by the population, most specifically during periods of authoritarian rule, reporting levels are likely to be lower than in countries where the police are regarded as important members of the community.

It should also be noted that comparing crime data from societies that are fundamentally different might ignore key issues that affect levels of reporting. For example, in some societies, social norms may make it almost impossible for women to report cases of rape or sexual abuse, while in others, women are encouraged to come forward. The impact on any attempt to compare crime levels accurately is obvious [5].*

These factors, while alerting the reader to the potential pitfalls of comparisons, apply more to some types of crime than others. In selected cases, most notably homicide, cross-country comparisons are more reliable, although they may still be subject to the drawbacks outlined above. In the case of some categories of violent crime, such as rape and assault, cross-country comparisons may simply be unreliable and misleading, due to a combination of definitional and reporting problems.

*A detailed overview of the potential pitfalls of cross-country data comparison can be found in *Global Report on Crime and Justice* [5].

In addition to those issues, even when crime statistics are available, there may be discrepancies in the data when they are drawn from different sources. That is illustrated by comparing the homicide figures for one year (1999) of the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems with those of the International Criminal Police Organization (Interpol).^{*} In only a few cases were the figures for the same countries identical in each database. The Interpol database generally reflected a greater number of recorded homicides. In a limited number of cases, the United Nations Survey of Crime Trends reflected higher totals than the Interpol database, but generally by a lower margin.

One possible explanation for the divergence is that the data were obtained through different sources. In the case of Interpol, they are usually obtained directly from police sources, while the United Nations Survey of Crime Trends collects figures through the Statistics Division of the United Nations Secretariat, directly from the statistical authorities or the department of justice in each country. In addition, the United Nations Survey of Crime Trends generally has a longer time lag than does Interpol before the data are requested. That may mean that by the time data are reported in the United Nations Survey of Crime Trends, countries have had a greater opportunity to clean and review their figures and have eliminated cases that had been incorrectly recorded as homicides.

What is interesting, apart from the discrepancies themselves, is the comparatively small number of countries that report to both Interpol and the United Nations Survey of Crime Trends. Yet, despite this, each database contains statistics for over 100 countries. While the comparison has been completed for only one type of crime and one year, it does suggest that considerably more data may be available than have been recorded by either Interpol or the United Nations Office on Drugs and Crime.

Given the problems, the question of why there is continued interest at the United Nations Office on Drugs and Crime in bringing together a wealth of statistical data on criminal justice issues from a variety of jurisdictions may legitimately be asked. First, it should be emphasized that the main purpose of the United Nations Survey of Crime Trends is not to measure the exact amount of crime that exists in the world or to compare levels of crime across countries, but rather to provide an accounting of crimes processed by the various components of the criminal justice system.

^{*}It should be noted that the Interpol database includes only recorded crime figures, whereas that of the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems also includes information on the performance of criminal justice systems.

Second, trends in levels of crime recorded by the police are of interest as a rough indication of trends in actual levels of crime, since reporting and recording patterns can be assumed to be relatively stable over time. It may, in short, not be possible to conclude from official figures on crime that the level of crime in country A is higher than in country B. Long-term trends in such figures do, however, under normal circumstances, reflect trends in the actual number of crimes committed. For that reason, the value of such a survey is enhanced with an increasing number of sweeps, allowing the emergence of a picture of trends in individual societies.

The present article seeks therefore to provide some insight into the possibility of identifying overall trends in reported crime, as well as trends in the operations of criminal justice systems, such as conviction rates. While the administration of the United Nations Survey of Crime Trends stretches back to the early 1970s, data referred to in the present article are from the last five surveys (up to and including the Seventh Survey), covering the period 1980-2000.

Global crime trends and comparisons

When measuring crime trends over time, it is essential to ensure that the periods analysed are long enough. Crime trends measured over too short a period provide little indication of overall developments and may, in fact, by illustrating random increases or decreases, be misleading. While the data from the various United Nations surveys of crime trends stretches back three decades, their degree of reliability, the number of responses from countries and the compatibility between the various questionnaires make it difficult to use the data to illustrate trends over such long periods of time. For many crime categories, however, trends from 1980 to 2000 can be determined, providing a 20-year review of developments.

The section below contains a comparative review of three data sets from the United Nations survey of crime trends.

The first data set relates to comparison of overall reported crime rates across countries. Although, for the reasons given above, the levels of overall crime do not in any reliable way reflect actual levels of crime, long-term trends in recorded crime provide a useful point of departure for a comparative analysis of regional crime problems [1].

The second data set is for homicides. Comparing levels of homicide is the most common comparative measure of crime in countries, given what are

generally regarded to be higher levels of reliability of the available data. In cases where a murder has occurred, either the incident is reported to the police or the authorities stumble upon the victim's remains. In all the countries providing data for the survey, homicide is the crime most likely to be reported and/or recorded. On this basis, homicide levels from different countries provide a relatively reliable source of comparison. In addition, homicide is generally regarded as a good proxy for broader levels of violent crime.

The third data set is for robbery. While data on robbery are unlikely to be as accurate for the purpose of cross-country comparisons as those for homicide, they are likely to be more reliable than data on lesser property crimes such as theft. That is because robberies are property crimes perpetrated with the use of violence or the threat thereof; consequently, their victims have a double incentive to report the crime, namely, the physical and psychological trauma caused by the use of violence and the loss of property [2].* In developing countries, in particular, robbery is an important crime, not only because it causes injury and property loss to the victim, but also because it raises the general level of fear of crime. Nevertheless, it must be conceded that the crime of robbery in most countries includes a wide purview of offences, from street mugging to bank robberies, and country comparisons are fraught with problems. In addition, in the case of some crimes that are classified as robbery, such as bank robberies or car hijackings, high levels of such crimes may be an indicator of the activities of organized criminal groups [6].** Data in respect of each of these three data sets, for overall crime levels, homicide and robbery rates, are presented below.

Overall recorded crime trends since 1980

To provide a global review of the development of reported crime trends since 1980, the comparative figures for total recorded crime have been graphed over time, with the trends for selected regions being presented. Total recorded crime for all the countries on which the United Nations surveys of crime trends have yielded data shows a steady increase from

*This is an argument also made by Fajnzylber, Lederman and Loayza [2] in a cross-country comparison that sought to determine the links between levels of crime and economic inequality.

**This is the case, for example, in South Africa, where the problem of car hijacking in some cities is closely related to the activities of criminal gangs. Since car hijackings constitute a significant proportion of all robbery rates, almost always involve the use of firearms and perpetrated by criminal gangs, their overall number provides a good indication of the strength of organized crime in an area.

2,300 incidents per 100,000 people in 1980 to just over 3,000 in 2000. Worldwide, problems of crime have become worse over the past two decades.

Increases in the overall volume of recorded crime are most notable in the case of Latin America and the Caribbean and closely mirror the global trend. At a lower level, similar upward trends are present for Eastern Europe and the Commonwealth of Independent States, South-East Asia and the Pacific, as well as the Arab States. The data for sub-Saharan Africa shows a less clear trend, with notable increases in the early 1990s being followed by a marked decline. A detailed examination of the data for Africa, however, suggests that the overall trend is not reliable, given the small number of States that provide crime data through the United Nations surveys of crime trends. The data for those regions have been combined and are reflected in figure I as the trend for “selected regions”.

The most striking declines in overall levels of recorded crime have occurred in North America; since the early 1990s, the total volume of crime per 100,000 citizens has declined steadily in both Canada and the United States of America, although the decline was more pronounced in the United States. Such a trend has been noted before and the data presented in figure I are consistent with early findings [7-9] and data from other sources.*

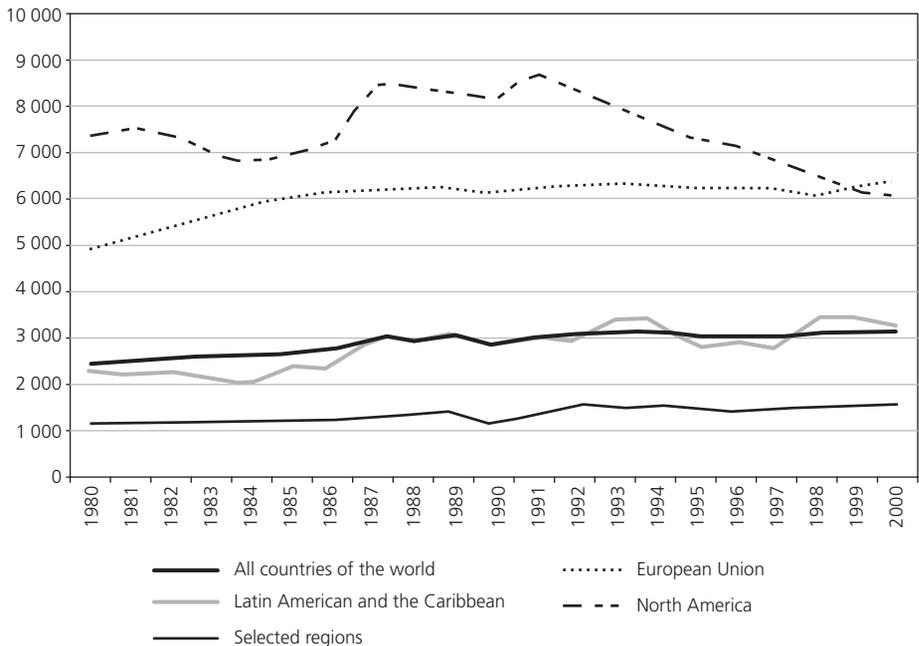
The data for the European Union present a less clear picture. A close examination of the data shows that in some countries within the European Union there has been a decline in the overall crime level. The overall trend, having increased noticeably in the early 1980s, has stabilized at just over 6,000 cases per 100,000 inhabitants. Data for the late 1990s do, however, suggest an increase more recently. What is, perhaps, most remarkable is that the overall volumes of crime recorded in the European Union countries surpassed those for North America in the late 1990s, as confirmed by other sources; overall levels of crime are no longer necessarily higher in the United States than in the European Union [4].

While it is not clear why crime levels in North America and some parts of the European Union have been declining, one possible explanation is that the sustained focus on crime countermeasures taken by both the private and public sectors over the period under review has begun to reap dividends. Such an explanation applies more clearly to North America, in particular, the United States, than it does to the European Union, which, while not showing any dramatic increase over the 20-year period, has also

*The declines in levels of crime in North America and some European countries have been confirmed by evidence from the International Crime Victim Survey.

not shown any dramatic decline. Again, it should be pointed out that presenting the data for the European Union as a single trend masks declines in crimes in some countries and increases in others [1].*

Figure I. Total recorded crime trends per 100,000 population in selected regions of the world



Source: United Nations Office on Drugs and Crime.

Despite these decreases, overall levels of recorded crime in all regions of the world are still significantly lower than those in the high-income countries of North America and the European Union. That is presumably because the propensity to report crimes in many regions elsewhere in the world is much lower. The results of the International Crime Victim Survey, discussed in the present issue of *Forum* [4], confirm this assumption. Indeed, it is possible to assume that in most middle- and low-income countries the crimes that are reported are, on average, much more serious than those in high-income countries. This assumption is reinforced by an analysis of the data for both middle- and low-income countries, which shows that in developing countries the proportion of violent crimes is higher

*Barclay and Tavares [1] provide a more detailed discussion and presentation of the available data, noting an increase of 1 per cent in recorded crime for the European Union for the period 1996-2000.

than property crimes.* Thus, while the overall quality of official crime data in middle- and low-income countries may be lower than in high-income countries, those crimes that are reported are, on average, of a more serious nature, with a greater proportion involving violence. It should also be noted that increased economic development (reflected, for example, by the number of motor vehicles) and changes in technology (such as greater use of computers, mobile telephones, and so forth) have expanded and are likely to continue to expand opportunities for crime in middle-income countries, in particular, as well as opportunities to report such crimes to the police. Those countries are likely to show further increases in recorded crime in the years to come, reflecting an upward trend in the level of crime.

Comparative rates of homicide

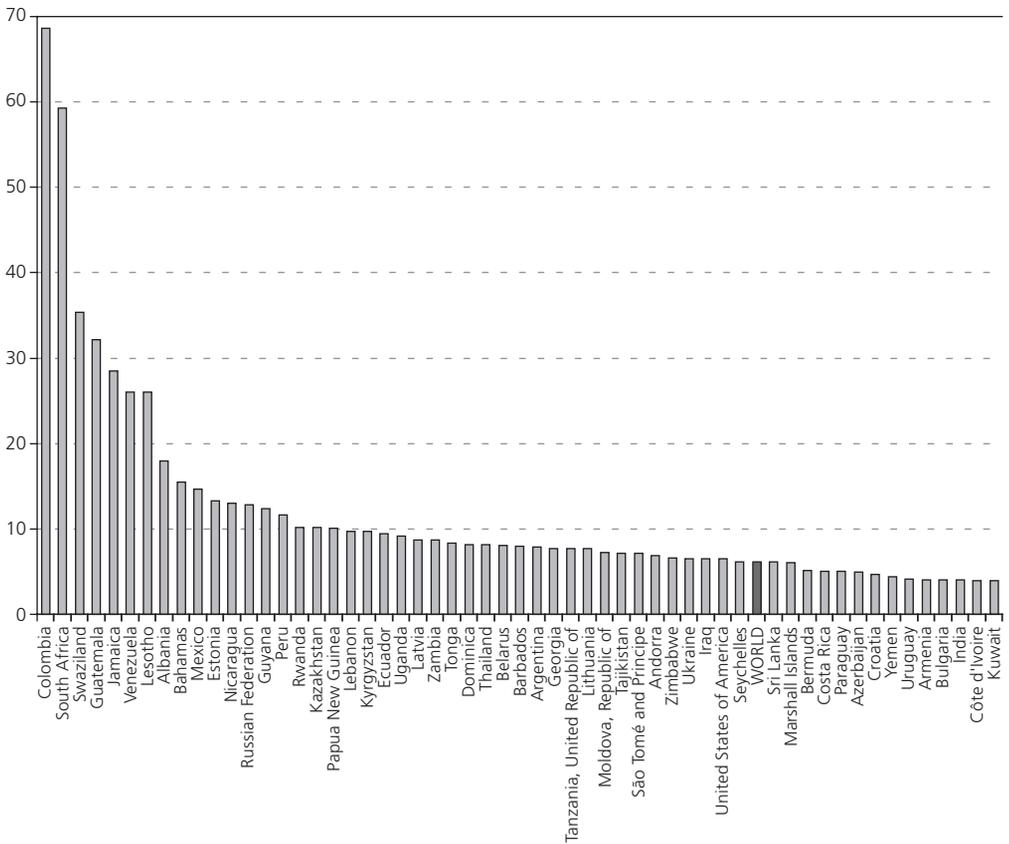
Figure II shows homicide rates in those countries that have reported data to the United Nations surveys of crime trends. The data provided show a similar ordering of countries to the Interpol data, with Colombia and South Africa showing the highest level of recorded homicide of those countries which submitted data. The graph represents average homicide rates over a 20-year period, 1980-2000.

The data from the United Nations surveys of crime trends suggest that the majority of European Union member and accession States (with the exception of Estonia, Latvia and Lithuania) fall below the global average. The most prominent exception among developed countries is the United States, which falls just above the global average. Homicide rates tend to be higher in developing countries, in particular in middle-income and developing countries that have experienced either sustained periods of civil conflict or political transition, such as Colombia, the Russian Federation and South Africa.

Broad generalizations about crime levels in the developed and developing world must, however, be made with care. In a number of cases, such as Botswana, which, according to data from the United Nations Survey of Crime Trends, has the lowest level of recorded homicide in the world, developing countries fall below the global average. All the countries considered to have a high level of human development, however, fall below the global homicide average, with the prominent exception of the United States. And, all the countries which show serious levels of homicide, above 10 per 100,000 inhabitants are either middle-income (Mexico, Russian Federation, South Africa) or developing countries.

*The assumption is based on an analysis of three violent crimes (homicide, serious assault and assault) and two property crimes (burglary and theft).

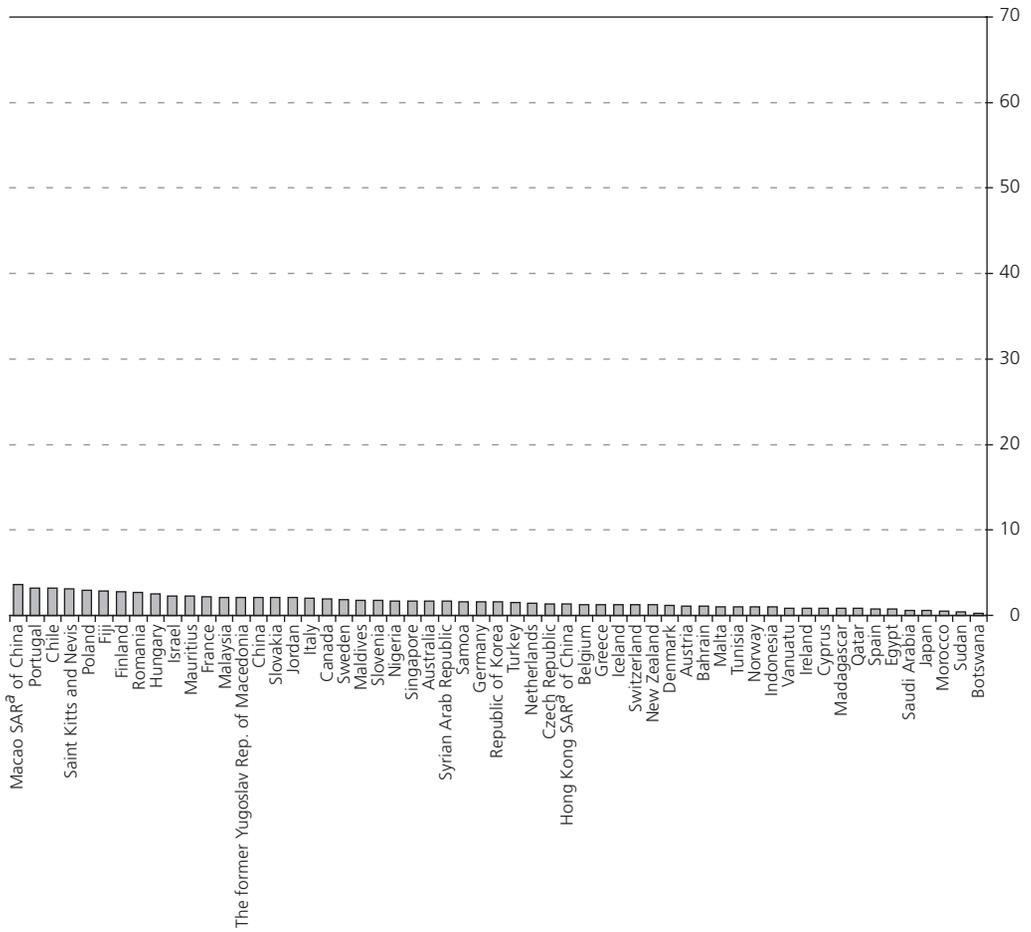
Figure II. Average homicides per 100,000 inhabitants,



Source: United Nations Office on Drugs and Crime.

*SAR = Special Administrative Region.

selected countries and areas, 1980-2000



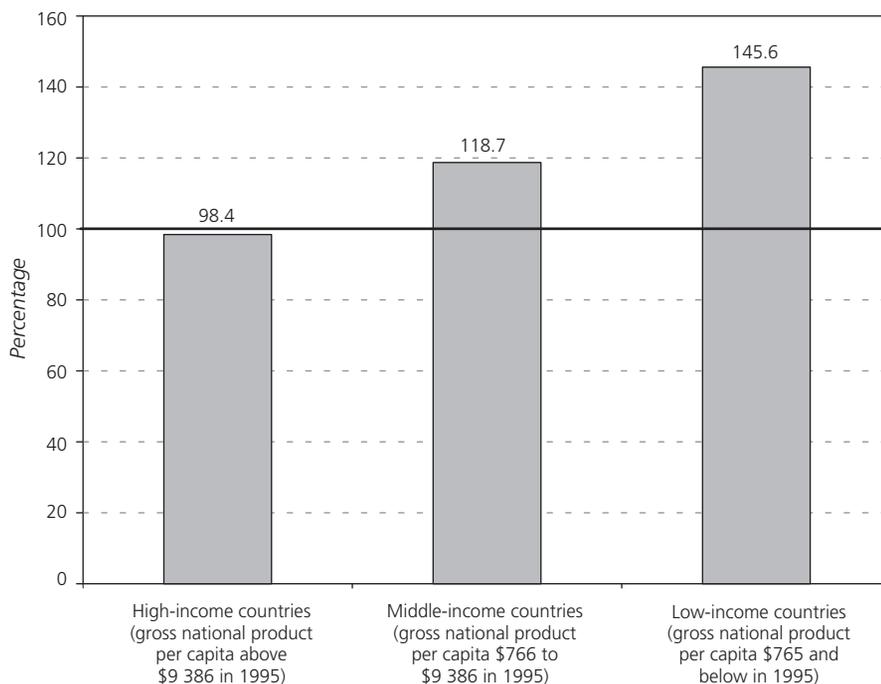
The average homicide rate in those countries which reported data to the survey is 7 homicides per 100,000 inhabitants. Of interest here is that the World Health Organization (WHO) estimates the global homicide rate in the late 1990s to be about 8.8 per 100,000 inhabitants [10]. On average, over a 16-year period, the WHO research can be shown to have recorded 15 per cent more homicide cases than the United Nations surveys of crime trends. The higher global average of WHO probably reflects two factors. First, WHO mortality studies cover a larger number of developing countries where homicides are higher; indeed, the WHO figures show that suicides are considerably more common than homicides in developed countries, with the opposite being the case in developing countries. Second, the WHO figures are generally based on hospital surveys of the cause of death. Police-reported data, as reflected in the United Nations surveys of crime trends, often only reflect the first assessment of the crime as a homicide. Thus, the death of an injured person who is taken to hospital and dies there later may be recorded as a homicide by WHO, but as an attempted murder or serious assault by the police. Hospitals may also wrongly, from a legal perspective, classify cases of assault resulting in death as homicide.

A more detailed examination of the WHO data for homicide, in comparison with those of the United Nations surveys of crime trends, highlights another and critical reason for the difference. The WHO data, as has already been pointed out, are based on hospital-based surveys and so, in fact, may provide a useful insight into the proportion of cases of homicide that actually appear in the reported police statistics in the first place. This is illustrated in figure III, which shows the differences between the homicide data of WHO and those of the United Nations surveys of crime trends compared over a 16-year period in high-, medium- and low-income countries.

Figure III shows that in high-income countries the data reported to WHO and the United Nations surveys of crime trends over a 16-year period differ by only 2 per cent, with the United Nations surveys of crime trends reporting, in effect, 2 per cent more cases of homicide. In middle- and low-income countries, however, the WHO data show significantly more cases of homicide, 18 and 45 per cent respectively. Given that the two sets of data come from different sources, the exercise serves as a useful cross-check. It can be assumed from the data that in middle- and low-income countries, even for a crime such as homicide that is regarded as well-reported, there are significant levels of under-reporting to or under-recording by the police.

Figure III. Percentage of homicides reported by the World Health Organization as compared to those reported by the United Nations surveys of crime trends and operations of criminal justice systems, 1986-2000

(United Nations surveys = 100 per cent)

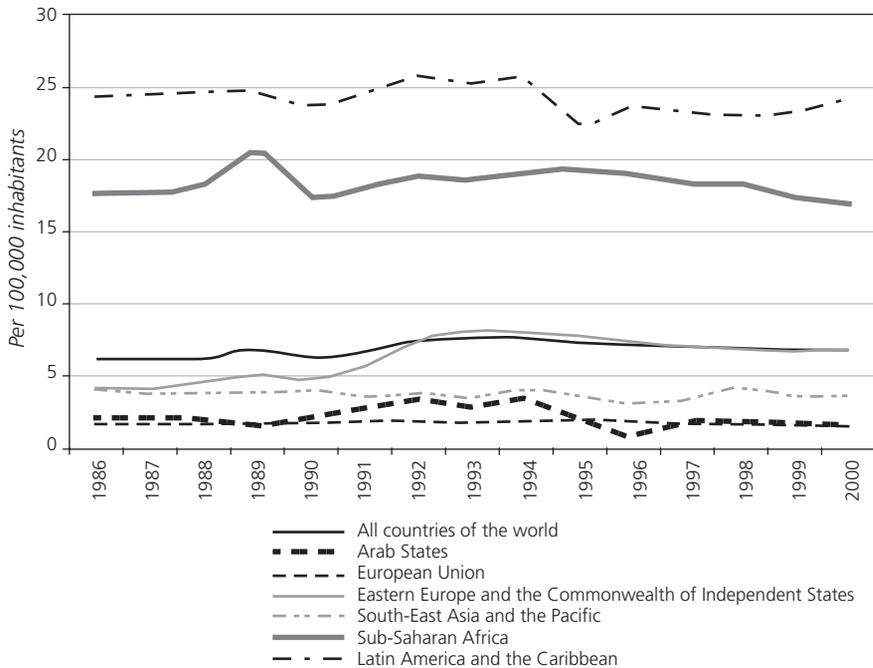


Source: United Nations Office on Drugs and Crime.

Regional homicide trends

The available data for Latin America and the Caribbean show extraordinarily high levels of homicide, at around 25 cases per 100,000 inhabitants, across the reporting period (see figure IV). The overall trend is relatively consistent, although there is a noticeable increase in the early 1990s (above 25 incidents per 100,000 inhabitants), followed by some declines. The late 1990s again suggests another increase in recorded cases.

The available data for sub-Saharan Africa also show comparatively high levels of homicide: between 17 and 20 incidents per 100,000 inhabitants. There is no clear overall trend, but there does appear to be a steady decline from the mid-1990s onwards.

Figure IV. Rates of homicides, 1986-2000: selected regional trends

Source: United Nations Office on Drugs and Crime.

The overall trend for the European Union shows comparatively low levels of homicide, under three incidents per 100,000 inhabitants, with a slight decline being noted in the number of cases being recorded at the end of the 1990s. The data for the European Union should be considered accurate, as a large number of countries report statistics with a high level of reliability. Data for North America were not included in the graph as only Canada had consistently provided data across the reporting period. The homicide figures for Canada mirror those of the European Union and, as stated earlier, United States homicide rates, though declining, are at an incomparably higher level than those for the European Union.

Of all the regions under consideration, data from Eastern Europe and the Commonwealth of Independent States show the clearest increases across the reporting period. While in the mid-1980s homicide rates in the region were recorded at under five incidents per 100,000 inhabitants, increases occurred from the late 1980s into the early 1990s, peaking during 1993 and 1994 at approximately eight incidents per 100,000 inhabitants, and thereafter showed slight declines.

The available data for South-East Asia and the Pacific, excluding some countries that have not reported, show a relatively consistent trend, with between three and four homicides per 100,000 inhabitants being reported.

Data for the Arab States, while always remaining below four incidents per 100,000 people, show greater fluctuations across the reporting period. From 1986 to 1990, the level of homicide in that region was comparable to that of the European Union and Canada. The number of cases reported increased during the late 1980s and early 1990s, then declined to previous levels.

The global rate of homicide since the early 1980s

The increase in the rate of homicide between 1991 and 1995 is in line with significant increases in homicide in a number of countries that were undergoing transitions from authoritarian rule to democracy during that period. This is reflected in the data for Eastern Europe and the Commonwealth of Independent States, to some extent in the data for Latin America, as well as in those for specific countries such as South Africa [11-12]. Higher levels of homicide were recorded in the early 1990s, with a slight decline occurring thereafter.

Global reported homicide levels, as reported to the United Nations surveys of crime trends over a 16-year period, have been remarkably stable, showing only a slight increase over the whole reporting period.

Comparative trends in robbery

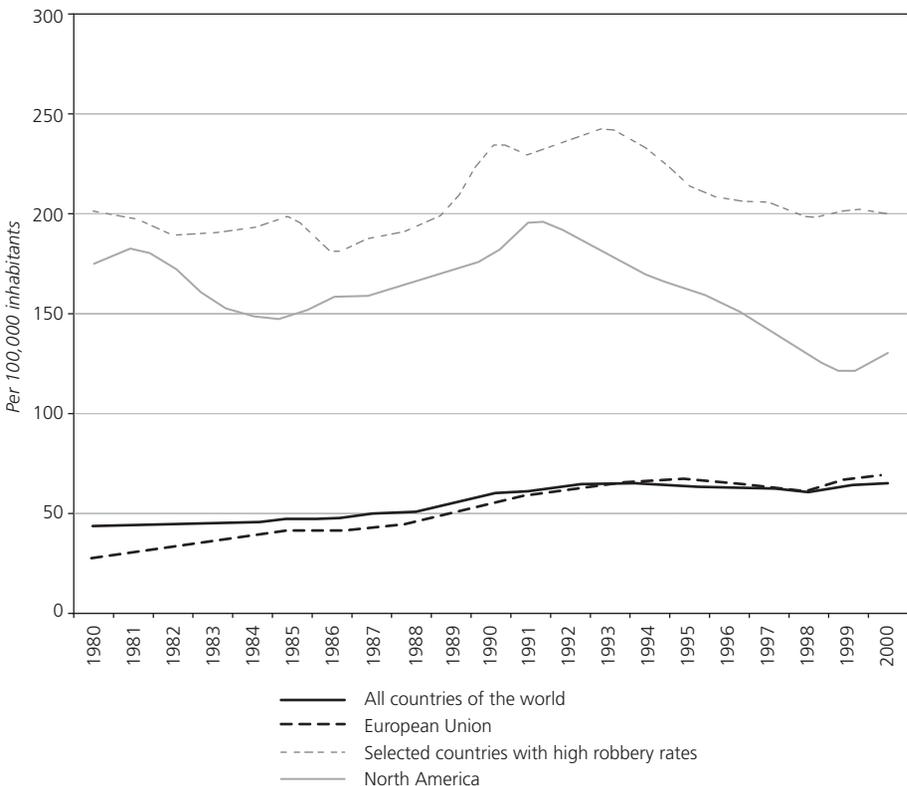
Figure V shows robbery trends over a 20-year period between 1980 and 2000, for both the global average and various regions. It should be emphasized at the outset that an examination of robbery data on a country-by-country basis is unlikely to yield reliable conclusions. Nevertheless, some analysis of the available regional trends seems warranted.

The global rate for robbery suggests a relatively steady upward trend from 1980 to 2000, from just under 40 incidents per 100,000 inhabitants to just over 60. The overall trend for the European Union closely mirrors this, although beginning with lower levels of robbery in 1980.

As in the case of overall volumes of crime, North America showed dramatic declines from the early 1990s in recorded cases of robbery, from just under

200 incidents per 100,000 inhabitants to around 120 incidents. This decline is all the more remarkable given the earlier increases in robbery rates that had occurred from the mid-1980s to the early 1990s. It should be noted that robbery rates for North America, despite their declines, were much higher throughout the recording period than those of the European Union.

Figure V. Trends in reported robbery per 100,000 inhabitants, selected regions



Source: United Nations Office on Drugs and Crime.

Robbery rates for other regions of the world were insignificant or the data were too patchy for clear conclusions to be drawn. Nevertheless, robbery remains a serious concern in a number of middle-income and developing societies, the data for which have been isolated and presented in figure V;^{*}

^{*}This reflects the available data for countries that have levels of robbery above 100 incidents per 100,000 inhabitants and includes data for Argentina, Costa Rica, Ecuador, Jamaica, Peru, the Russian Federation, Swaziland and Zimbabwe.

the line for selected countries with high robbery rates shows overall increases in robbery until the mid-1990s, followed by significant declines. Of interest is the “hump” in the trend line between 1988 and 1995; that was a period of extraordinarily high robbery rates in those countries at the time (being on average close to 250 incidents per 100,000 inhabitants, coinciding with a period of significant economic, political and social change in a number of those States).

A more detailed look at the statistics and the countries that have provided them, largely those in Eastern Europe and Latin America, as well as South Africa, suggests that in almost all cases transition to democracy was accompanied by increases in both homicides and violent property crimes such as robbery. In all cases levels of violent robbery are of great concern to Governments and citizens [13]. The development of violent forms of robbery must be viewed as an issue of particular concern in countries attempting to consolidate hard-won democracies in the context of economic instability.

Criminal justice performance

The United Nations Survey of Crime Trends and Operations of Criminal Justice Systems also collects information around a series of indicators of the performance of criminal justice systems. Again, various definitional and other problems make the process of comparison difficult. Nevertheless, in respect of a number of variables it is possible to draw some important conclusions. For the purpose of the present article, data on a number of specific issues have been used: the success that various systems report on arresting, prosecuting and convicting offenders; the numbers of personnel working within the criminal justice systems; and, finally, the available budgets, including the allocation of resources between various components of the criminal justice system.

Attrition rates

Data provided by the United Nations Survey of Crime Trends can be used to some extent to compare the effectiveness of criminal justice systems. One way of measuring their effectiveness is to examine the “attrition rates” of selected types of crime as they proceed through the system. In effect, this measure reflects which proportion of cases entering the system are duly

resolved, closed or dispensed with by criminal justice agencies. Levels of attrition can be measured at a number of points within a criminal justice system. For example, one could be to examine how many police-recorded cases of a serious crime are actually prosecuted. Another could be to examine how many recorded or prosecuted cases result in a conviction.* Such a comparison provides a broad indication of the overall efficiency of the criminal justice system.

Figures VI and VII show various regional comparisons in respect of the proportion of cases where a conviction was obtained as compared to the number of cases recorded. In each case, the graphs illustrate the number of recorded crimes as a ratio of the number of convictions obtained. The data cover the period 1990-2000 for the crimes of homicide and robbery.**

In respect of the proportion of convictions obtained for police-recorded homicides (figure VI), the data show sub-Saharan Africa to be in a poor position, with a conviction being obtained in only one of every 18 cases recorded by the police. In South-East Asia and the Pacific, a conviction is obtained on average in about one in every nine recorded cases. Of interest here is the case of North America, where the conviction rate is low and below the global average compared to the number of recorded cases. One possible explanation is the relatively high acquittal rate for homicide prosecutions. By contrast, in Latin America, where fewer prosecutions are initiated, the ones that do occur are more likely to result in a conviction.***

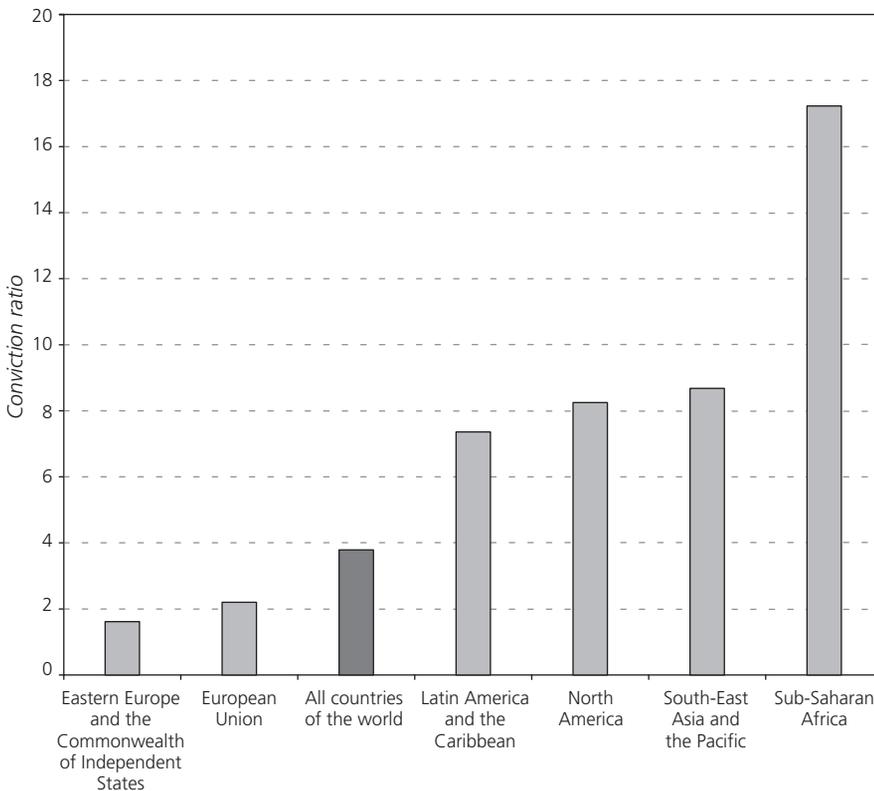
The attrition rates for robbery show a slightly different picture. Sub-Saharan Africa could not be included in figure VII as there were insufficient data to draw reliable conclusions in respect of convictions. Nevertheless, the available data for the number of prosecutions initiated show the position in Africa to be serious. On average, only one in every 40 cases of reported robbery resulted in a prosecution for the period 1990-2000. In respect of robbery convictions and as shown in figure VII, South-East Asia and the Pacific shows the most serious position, with only one conviction for every 35 cases of robbery recorded. This is followed by Latin America and the

*Such indicators can provide only a rough measure of success as they do not generally measure the same series of actual cases (this is the case with the United Nations Survey of Crime Trends). This is because court systems generally take a long time to process cases and therefore the number of reported incidents in any given year, measured against the number of prosecutions under way or convictions achieved in that year, do not measure the same series of cases against each other.

**In some cases, data on selected regions could not be included because data quality was inadequate.

***The ratio for the number of recorded homicides as compared to the number of homicide prosecutions for North America is approximately 2:1, while for Latin America it is 3:1.

Figure VI. Comparative regional attrition rates for homicide: the number of recorded crimes as a ratio of the number of convictions, 1990-2000

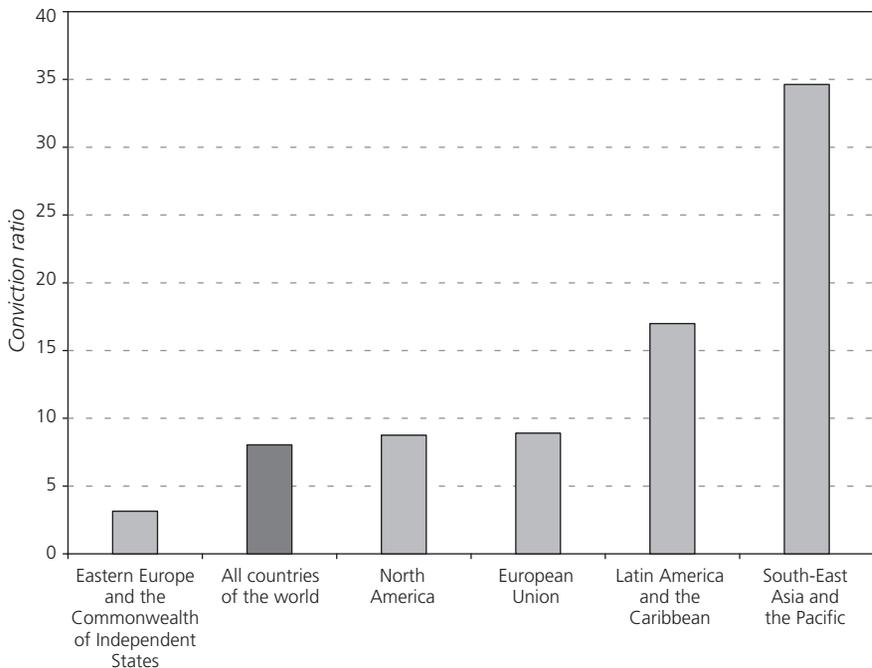


Source: United Nations Office on Drugs and Crime.

Caribbean, with one conviction being recorded for approximately every 15 recorded cases. Given the remarkably high levels of robbery in some Latin American countries (for example, Argentina and Ecuador) the attrition rate in respect of convictions reflected in figure VII gives cause for concern. Both North America and the European Union show one conviction for every nine cases of reported cases of robbery, just above the global average.

The data suggest that among all the countries that have reported data to the United Nations Survey of Crime Trends, and for the period 1980-2000, a conviction was likely to be achieved in one out of every four cases of homicide and one out of every eight cases of robbery. There are, however, considerable regional differences in such rates and the global averages reflect the fact that much of the survey data is received from developed countries. The true global average for obtaining convictions is, in all likelihood, much lower.

Figure VII. Comparative regional attrition rates for robbery: the number of recorded crimes as a ratio of the number of convictions, 1990-2000



Source: United Nations Office on Drugs and Crime.

It should be noted in this context that in jurisdictions where reporting a case is unlikely to result in a prosecution or conviction (those countries with high attrition rates) the incentive for citizens to report crime is reduced.

If more comprehensive data sets on prosecutions and convictions are obtained over time, the United Nations surveys of crime trends have the potential to reflect much more clearly the comparative success rates of various criminal justice systems. Already, it should be noted, the data for the Seventh Survey (from which the three country comparisons above were drawn) are much more comprehensive than those of previous surveys. This is partly because the survey question has been refined, but also because the responding countries appear to provide better data, presumably due to advances in technology and more effective recording systems. Over time, therefore, the United Nations surveys of crime trends are likely to provide much more usable data in this regard.

Personnel and resources

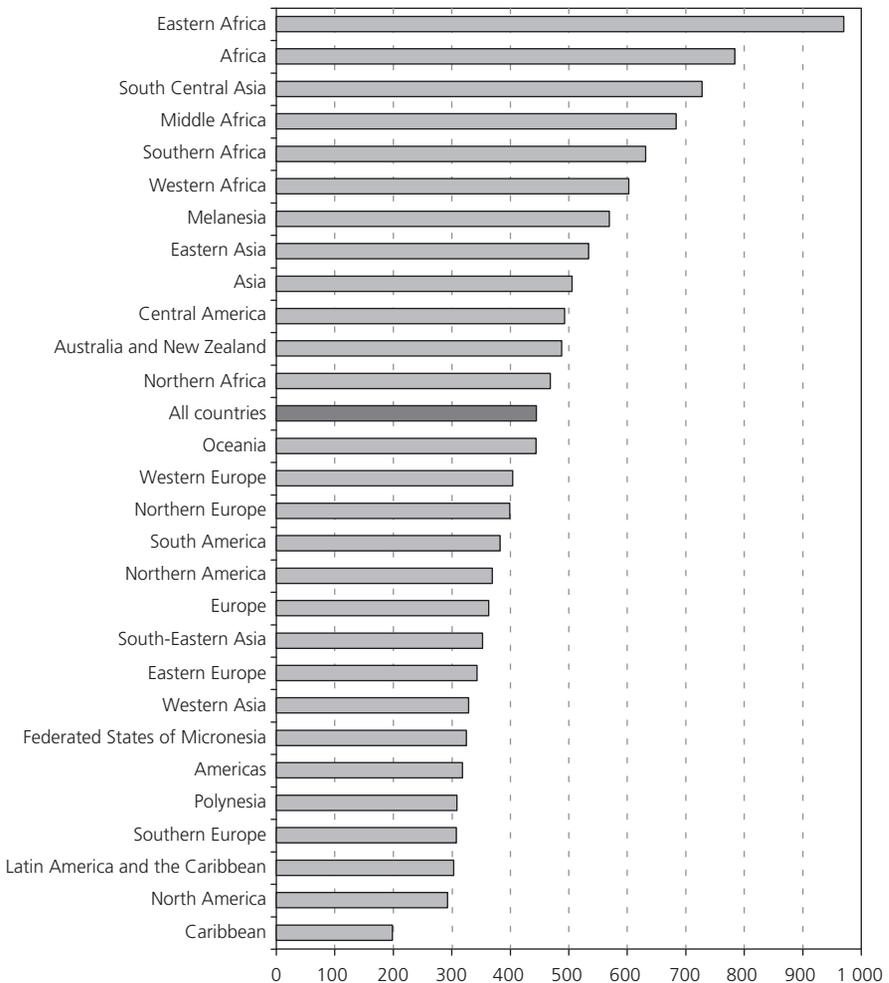
A comparative measure of the number of inhabitants per police officer across the regions of the world is shown in figure VIII. The regional breakdown is the standard one used by the Statistics Division of the United Nations Secretariat. On average, there are just over 400 inhabitants for every police officer across the globe. Africa shows the highest number of citizens per police officer across all its regions, with East Africa in particular showing almost 1,000 inhabitants per police officer. Various sub-regions in Asia also appear to have comparatively small numbers of police officers per head of population. European, North American and Latin American jurisdictions all record higher numbers of police officers, with the Caribbean, in particular, displaying comparatively the smallest number of inhabitants per police officer.

Figure IX shows per capita figures for judges and magistrates for regions across the world. On average, there are 15,000 inhabitants for every judge or magistrate across the globe. Again, the results for Africa and parts of Asia indicate that there are comparatively few magistrates and judges per head of population. While Latin America and the Caribbean and South America have comparatively large numbers of police officers, they have comparatively fewer judges and magistrates. All regions of Europe (including Eastern Europe) and North America have comparatively large numbers of judges and magistrates.

The summary of the numbers of criminal justice personnel make it clear that simple numbers of criminal justice personnel (for example, police in Latin America or judges or magistrates in Eastern Europe) do not necessarily mean that levels of crime are lower. To explore the issue more fully, some attempt was made to compare expenditure on criminal justice across countries.

The United Nations Survey of Crime Trends requested States to provide budget figures for the various entities (police, prosecution services, courts and prisons) of the criminal justice system. Three factors complicated the analysis of those data. First, most countries only provided data on their police budget. Second, the Survey requested data only in the local currency. Finally, comparisons of spending on criminal justice across the world are of limited usefulness if they take into account only the absolute amounts of resources that were allocated. Thus, as in the case of international measures of defence expenditure, a measure is provided of the expenditure on policing as a percentage of gross domestic product (GDP). The budgets of all countries were converted to United States dollars for the purpose of the analysis. The results are shown in figure X.

Figure VIII. Number of inhabitants per police officer, by region or subregion, 1998-2000

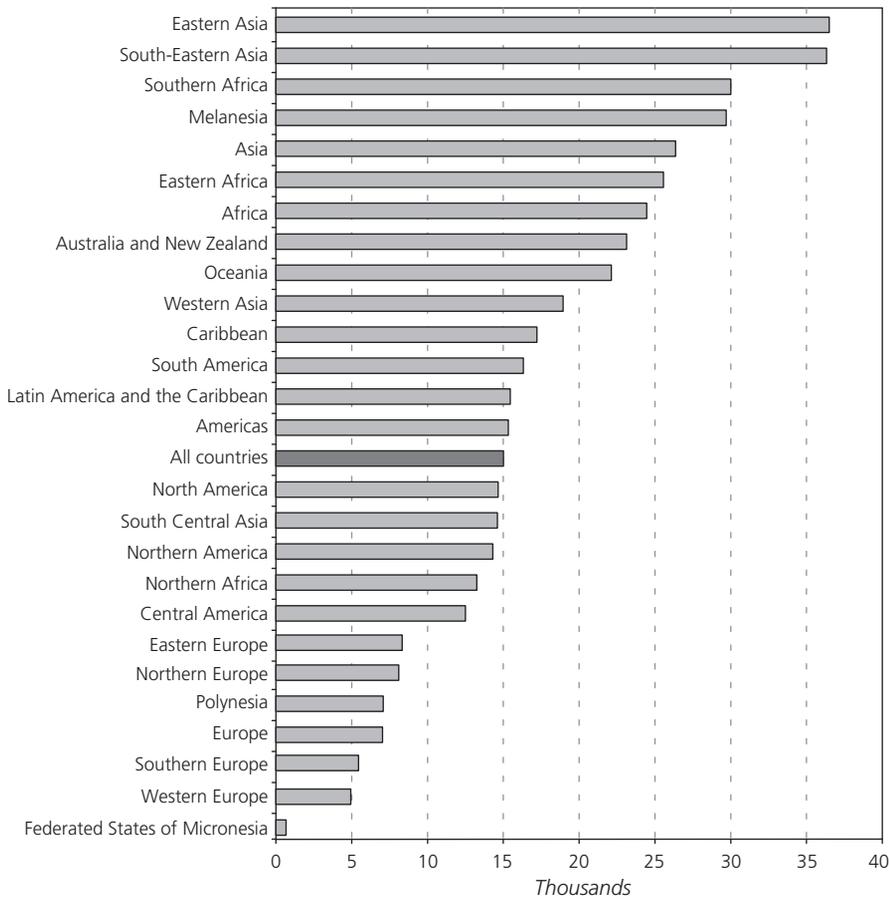


Source: United Nations Office on Drugs and Crime.

On average, countries across the globe spend just under one per cent of their GDP on policing, with some countries spending significantly more than that.

The available evidence, although this is limited by the fact that data on developing countries are not always accessible or reliable, suggests that broad generalizations to the effect that developing countries spend far less on policing than do developed countries cannot be made. While some developing countries appear to spend comparatively little on policing (for example, Madagascar and Zambia), others spend considerably more.

Figure IX. Number of inhabitants per judge or magistrate, by region or subregion, 1998-2000

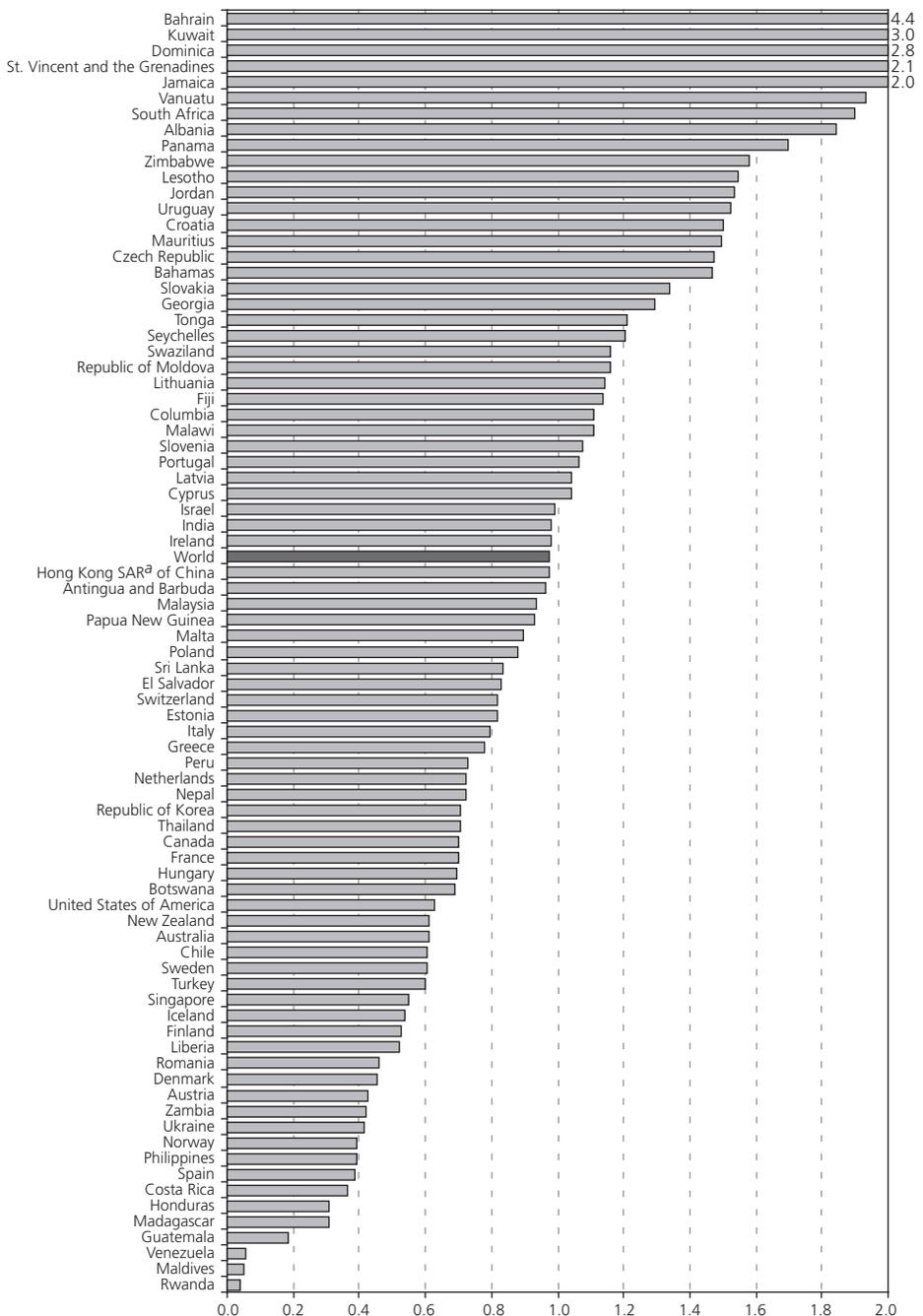


Source: United Nations Office on Drugs and Crime.

Indeed, the majority of European countries appear to spend less than the global average on policing as a percentage of GDP.

A more detailed assessment of the link between crime levels and the personnel and expenditure devoted to criminal justice is beyond the scope of the present article. However, two tentative conclusions in that regard can be drawn. The first is that levels of personnel and expenditure patterns should be measured against levels of serious crime. When the number of personnel or expenditure on criminal justice is compared with levels of serious crime, it can be shown that countries with high levels of crime do, in fact, spend comparatively more on criminal justice, but often still relatively little

Figure X. Expenditure on policing as a percentage of gross domestic product in selected countries and territories, 1988-2000



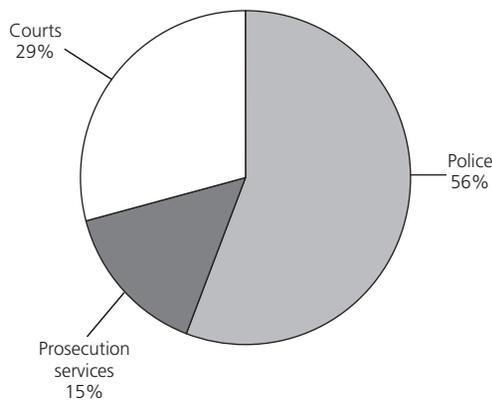
Source: United Nations Office on Drugs and Crime.

^aSAR = Special Administrative Region.

compared with recorded crime. Thus, to provide just one example, when the number of homicides per police officer is calculated, those countries with high levels of homicide, such as Colombia and South Africa, although spending above average, still feature particularly badly in a cross-country comparison of the number of homicides for every 1,000 police officers. When, for example, the number of homicides for every 1,000 police officers is calculated, the global average is 35, whereas the comparative figures for Colombia and South Africa are in the region of 200. For these reasons, the fact that comparative expenditure on criminal justice does not provide a measure of crime control capacity is widely acknowledged [14].

The second is that the distribution of expenditure between the police, prosecution services and courts must be seen as a key factor in understanding comparative expenditure levels on criminal justice. One possible explanation is that while developed countries appear to spend comparatively less on policing, their expenditure on other areas of the criminal justice system is simply much higher. An analysis of comparative expenditures on the various components of the criminal justice system, police, prosecution services and courts, was conducted. On average, among the countries reporting to the United Nations Survey of Crime Trends, just over half of all expenditure (56 per cent) was on the police, while the cost of the courts (29 per cent) and the prosecution services (15 per cent) made up the remainder (see figure XI).*

Figure XI. Breakdown of average expenditure on the police, prosecution services and courts

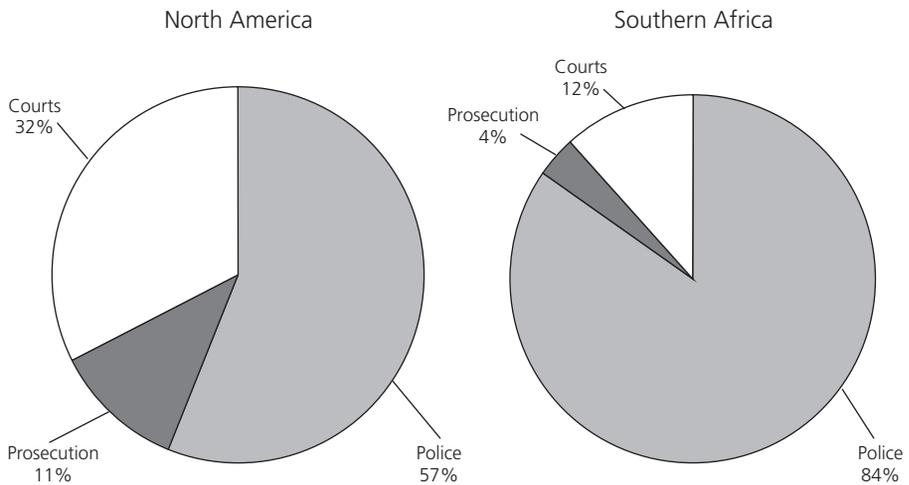


Source: United Nations Office on Drugs and Crime.

*Data on expenditure on prisons has not been included, as that variable was not included in the latest sweep of the survey.

There are, however, significant differences across the world in the distribution of expenditure rates across components of criminal justice systems (see figure XII). The most pronounced in this regard is the data provided by various countries in Southern Africa, which show that expenditure patterns for the police take up a significant portion of the budget (84 per cent). By contrast, in North America, the overall expenditure breakdown between the police, courts and prosecution services is more balanced, 57 per cent being spent on the police, 32 per cent on the courts and 11 per cent on the prosecution services. While a more detailed analysis would be required to reach definite conclusions, it seems that developing countries (particularly those with an authoritarian past) spend comparatively much more on policing and much less on the courts and prosecution services. This finding may help to explain the relatively low proportions of police-recorded serious crimes leading to convictions in many developing countries.

Figure XII. Regional breakdown of expenditure on the police, prosecution services and courts: North America and Southern Africa



Source: United Nations Office on Drugs and Crime.

Conclusion

By selecting a range of data sets from the United Nations Survey of Crime Trends, the present article has sought to illustrate some recent crime trends and suggest possible ways in which the data can be used to assess the performance of criminal justice systems. The various drawbacks of the data have been highlighted, as have some possibilities for more effective

application of the data. It should be emphasized that the data from the United Nations Survey of Crime Trends provides, despite the problems of reporting and recording, a relatively comprehensive reflection of crime trends in the developed world. Almost all developed countries have participated in the United Nations Survey of Crime Trends, many since its establishment in the 1970s, and so some important overall trends can be established.

An important and, by now, well-known (although little-understood) trend is the decline in overall crime rates in North America. While this has not been reflected as clearly in Western Europe, overall crime rates for the European Union countries can be regarded as having remained stable since the mid-1980s.

While data on middle-income, transitional and developing countries are less reliable, some important conclusions can also be reached. It is almost certainly the case that the proportion of crimes of violence are much higher than in developed countries and it is clear that countries in Latin America and sub-Saharan Africa suffer from comparatively high levels of homicide. In addition, the level of violent robbery in certain countries with economies in transition must be viewed with concern.

The data on less-developed countries in the United Nations surveys of crime trends are not well developed. This is, of course, a reflection not so much of the inadequacies of the surveys, but of the fact that in less-developed countries police-recorded crime data reflect a relatively small part of actual crime. It is clear that, in this regard, comparative measures of criminality can only be based on surveys of victimization in those countries. The successful completion in 2004 of the International Crime Victim Survey among developing countries is thus clearly a requirement for a fuller understanding of overall crime levels in the less-developed world. In addition, since many developing countries collect no substantial data on reported crime, capacity-building in relation to the collection, recording and publication of crime statistics would be a useful intervention in this regard.*

The present article has also provided some illustrations as to how the data from the United Nations surveys of crime trends can be used to measure criminal justice performance. While these are far from perfect and are based

*The United Nations *Manual for the Development of a System of Criminal Justice Statistics* (available at <http://unstats.un.org/unsd/pubs/gesgrid.asp?id=293>) provides a detailed review of the requirements for the effective collection, recording and publication of crime statistics.

on the assumption that better data can be collected over time, the United Nations surveys of crime trends will be able to provide an indication of the comparative effectiveness of various systems of criminal justice. In addition, such measures of efficiency and effectiveness can be compared with expenditure levels illustrated, for example, by the proportion of GDP that countries spend on criminal justice. There are indications of under-investment in prosecution services and courts in some developing countries, resulting in conviction rates that are too low and continuing high rates of serious crime. Such findings call for more systematic and precise analysis. There is no reason why, in the long run, more consistent measures cannot be developed, as they have been for health, education or military expenditure.

The implications of review for the future of the United Nations Survey of Crime Trends are the following: first, the overall number of countries reporting crime and criminal justice data to the United Nations Survey of Crime Trends should be increased, as well as the overall quantity of data reported by individual countries. A comparison of the Interpol data and those collected by the United Nations surveys of crime trends suggests that, despite the size of the current database, there is still substantial crime and criminal justice data that can be added. While many countries may not have reported crime data, even in the less-developed world criminal justice systems generally maintain a rudimentary set of statistics on their own performance.

Second, the reader may have noted that the last available data from the United Nations Survey of Crime Trends were for 2000, given that the various sweeps of the Survey have collected data for periods of between three and five years. If the United Nations Survey of Crime Trends is to be a relevant tool for international policy makers, there is little doubt that more up-to-date statistics must be collected in order to illustrate more recent trends. It should be possible, for example, to conduct the Survey every year or, perhaps more realistically, every two years.

Finally, while the United Nations Survey of Crime Trends provides a wealth of data, there have been few attempts to report regularly on its contents to those who make contributions to it. If data are collected more regularly, then the contents of the surveys of crime trends should also be published more regularly. If it was published more often, more information would be available to international policy makers in the area of criminal justice and fresh debates on global crime trends and the comparative effectiveness of criminal justice systems would be sparked.

References

1. Gordon Barclay and Cynthia Tavares, *International Comparisons of Criminal Justice Statistics 2000* (United Kingdom of Great Britain and Northern Ireland Home Office, 12 July 2002), No. 05/02. Available at www.homeoffice.gov.uk/rds/pdfs2/hosb502.pdf.
2. Pablo Fajnzylber, Daniel Lederman and Norman Loayza, "Inequality and violent crime", *Journal of Law and Economics*, vol. 45, No. 1 (2002).
3. United Nations, Office on Drugs and Crime, *Global Report on Crime and Justice*, Graeme Newman, ed. (New York, Oxford University Press, 1999).
4. Anna Alvazzi del Frate, "The voice of victims of crime: estimating the true level of conventional crime", *Forum on Crime and Society*, vol. 3, Nos. 1-2 (2003).
5. *Global Report on Crime and Justice* . . . , pp. 43-44.
6. Mark Shaw, *Crime and Policing in Post-Apartheid South Africa* (London, Hurst and Company, 2002).
7. Jan van Dijk, "Does crime pay? On the relationships between crime, rule of law and economic growth", *Forum on Crime and Society*, vol. 1, No. 1 (February 2001) (United Nations publication).
8. Ineke Haen Marshall, "Operation of the criminal justice system", *Crime and Criminal Justice in Europe and North America, 1990-1994*, Kristiina Kangaspunta, Matti Joutsen and Natalia Ollus, eds. (Helsinki European Institute for Crime Prevention and Control, affiliated with the United Nations, 1998).
9. John van Kesteren, Pat Mayhew and Paul Nieuwebeerta, *Criminal Victimization in Seventeen Industrialised Countries: Key Findings from the 2000 International Crime Victims Survey* (The Hague, Netherlands, Ministry of Justice, 2000).
10. World Health Organization, *World Report on Violence and Health* (Geneva, 2002), pp. 9-11. Available at www.who.int/violence_injury_prevention/violence/world_report/wrvh1/en/.
11. Mark Shaw, "Crime, police and public in transitional societies", *Transformation*, No. 49, 2002.
12. Rachel Neild, "Democratic police reforms in war-torn states", *Journal of Conflict, Security and Development*, vol. 1, No. 1 (2001).
13. Mark Shaw, *Democracy's Disorder? Crime, Policing and Citizen Responses in Transitional Societies* (Johannesburg, South African Institute of International Affairs, 2002).
14. Edgardo Buscaglia and Jan van Dijk, *Forum on Crime and Society*, vol. 3, Nos. 1-2 (2003).