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**INTERNATIONAL COOPERATION AND PRACTICAL TECHNICAL ASSISTANCE FOR
STRENGTHENING THE RULE OF LAW: PROMOTING THE UNITED NATIONS
CRIME PREVENTION AND CRIMINAL JUSTICE PROGRAMME**

**CRIMINAL JUSTICE AND POLICE SYSTEMS: MANAGEMENT AND IMPROVEMENT
OF POLICE AND OTHER LAW ENFORCEMENT AGENCIES, PROSECUTION,
COURTS AND CORRECTIONS; AND THE ROLE OF LAWYERS**

**Results of the Fourth United Nations Survey of Crime Trends and
Operations of Criminal Justice Systems**

Interim report prepared by the Secretariat

Summary

The Commission on Crime Prevention and Criminal Justice, in its resolution 3/3, requested the Secretary-General to submit an interim report on the Fourth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems to the Ninth United Nations Congress on the Prevention of Crime and the Treatment of Offenders. The present report offers a preliminary review of changes in patterns and dynamics of crime, including violent and property crime, in the world in the years 1986-1990.

A general increase in crime rates continued during the period under review. The range of increase in specific crime types was highest in robberies (63 per cent), burglaries (27 per cent) and theft offences (39 per cent), which continued to comprise the vast majority (almost 75 per cent) of all officially recorded crime. Homicide rates also rose from 1986 to 1990; although the rate of increase fell slightly in 1990, the average change was 23 per cent. Homicide rates were greatest in poorer, less developed countries. On average, only 39 per cent of homicide suspects were sentenced to prison.

continued

*A/CONF.169/1.

Summary (continued)

Police continued to account for the largest proportion of criminal justice personnel (85 per cent). The allocation of criminal justice personnel to police, courts and corrections varied widely according to level of development. Least developed and developed countries had the lowest rates of police per capita, while developing countries (not including least developed countries) had a far higher rate. More developed countries had more judges per capita, which might reflect a greater role of formal social control over informal control operating in developing countries. Women were employed as prosecutors and judges at an increased rate, but their rate of employment in police agencies and prisons remained unchanged. There was a slight shift in the distribution of criminal justice expenditure. Allocations to policing declined by 3 per cent, whereas allocations to prosecution, courts and prisons each increased by 1 per cent. The average share of gross domestic product allocated to criminal justice fell slightly, from 1.5 per cent in 1986 to 1.2 per cent in 1990. The increase in the amount of money spent for criminal justice was in many countries almost entirely absorbed by inflation.

The average number of people in prison dropped from 1986 to 1990, though there was wide variation from country to country. Countries in eastern Europe experienced the largest decrease in imprisonment, a development that even influenced the overall figures. Convicted prisoners constituted, on average, 64 per cent of the total prison population of 39 countries in 1990. That proportion was higher in developed countries (71 per cent) than in developing countries (51 per cent). The cost of imprisonment, measured in terms of expenditure per prisoner and per admission, rose from 1986 to 1990 in nearly every country in the Fourth Survey. Though it is methodologically difficult to infer rates of prison overcrowding from statistical data, a more thorough analysis reveals a slight decline in overcrowding from 1986 to 1990. While that trend is promising, on average, prisons in the countries in the Fourth Survey operated at 103 per cent capacity in 1990. Reductions in the prison population over time can be achieved faster by reducing the length of the imposed prison sentences than by expanding the number of prison alternatives, although the humanitarian factors involved in non-custodial measures and their socially reintegrative functions should not be neglected.

The fact that in most societies growth in crime was accompanied by an increase in policing and corrections may suggest that most societies still rely on repressive strategies, despite attempts to employ more crime prevention and non-custodial measures. Even if there was no clear levelling out between developing and developed countries in terms of types of crime, such a levelling out effect appeared in terms of traditional responses to crime.

The number of replies to the United Nations surveys of crime trends has continued to increase with each survey, from 64 replies in the First Survey to 100 in the Fourth Survey (and more are expected). The response rate for the Fourth Survey, however, was still too low to provide a valid basis for a more comprehensive evaluation of the trends in crime and criminal justice worldwide. Regardless of their level of development, there are countries that regularly participate in the surveys; however, only 36 countries have consistently sent relatively complete replies for the four surveys. The percentage of missing values (questions to which no replies were provided) in the Fourth Survey ranged from 25 per cent to 98 per cent.

The key to better-quality data on crime lies beyond the questionnaire, in the hands of persons making decisions on criminal justice matters, who should have a vested interest in proving their accountability by means of reliable statistics. Even more cooperation from Member States is required to make the survey results as informative and useful as called for by the international community; consequently, there is a need to make crime-related data more widely available, so as to meet the growing need to manage criminal justice systems in an informed manner, including biennial collection, analysis and provision of comparable data for international action in the field of crime prevention and criminal justice.

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INTRODUCTION

1. The Commission on Crime Prevention and Criminal Justice, in its resolution 3/3, requested the Secretary-General to submit an interim report on the Fourth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems to the Ninth Congress on the Prevention of Crime and the Treatment of Offenders and to intensify the work on regular survey publications. The present report is based on a preliminary analysis of the data for the Fourth Survey. The report focuses on four areas: changes in recorded crime from 1986 to 1990; violence (homicide statistics); criminal justice resources; and prisons. It also presents a country-by-country analysis of data not provided in responses to the Fourth Survey questionnaire, and a brief discussion of how to improve responses to future United Nations surveys of crime trends and operations of criminal justice systems. An addendum to the present report (A/CONF.169/15/Add.1) contains a review of the replies to a supplement to the Fourth Survey, on transnational crime.

2. Since 1977, the Secretary-General has conducted on a regular basis United Nations surveys of crime trends and operations of criminal justice systems and has published the results of those surveys. So far, four such surveys have been carried out, in pursuance of General Assembly resolution 3021 (XXVII). The results of the First Survey, covering the period 1970-1975, appeared in the report of the Secretary-General on crime prevention and control (A/32/199), the results of the Second United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies, spanning the period 1975-1980, and the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies covering the period 1980-1986, appeared in publications of the Secretariat and of regional institutes for the prevention of crime and the treatment of offenders, affiliated with the United Nations.* Altogether, about 30 reports dealing with various aspects of survey work have been issued so far in hard copy. The data have also been made available in electronic format (computer diskettes and database on the United Nations Crime and Justice Information Network).** There has been a growing number of regional institutes involved in conducting the surveys and publishing the results, including the Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders; the Latin American Institute for the Prevention of Crime and the Treatment of Offenders; the European Institute for Crime Prevention and Control, affiliated with the United Nations;*** the African Institute for the Prevention of Crime and the Treatment of Offenders; and the Australian Institute of Criminology.

*A comprehensive review of the first two surveys was published in 1992 under the title *Trends in Crime and Criminal Justice, 1970-1985, in the Context of Socio-Economic Change: Results of the Second United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.92.IV.3). Two reports by regional institutes based on the same surveys are also available: *Criminal Justice Systems in Europe*, Publication Series No. 5 (Helsinki, Helsinki Institute for Crime Prevention and Control, affiliated with the United Nations, 1985); and Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders, *Delineation of Crucial Issues of Criminal Justice in Asia* (A/CONF.121/UNAFEE).

A review of the Third Survey was published in 1993 under the title *Crime Trends and Criminal Justice Operations at the Regional and Interregional Levels: Results of the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.94.IV.2) and was preceded by two regional reports: Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders and Australian Institute of Criminology, *Crime and Justice in Asia and the Pacific: A Report on the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies, 1980-1986* (Tokyo, Canberra, 1990) and Ken Pease and Kristiina Hukkila, eds., *Criminal Justice Systems in Europe and North America*, HEUNI Publication Series No. 17 (Helsinki, Helsinki Institute for Crime Prevention and Control, affiliated with the United Nations, 1990).

**Data may be obtained from the Chief of the Crime Prevention and Criminal Justice Branch (United Nations Office at Vienna, P.O. Box 500, A-1400 Vienna, Austria) or from Internet (evetereo@cpcjb.un.or.at) (see the order form in the annex). The data collected in the second, third and fourth surveys are available on 3½ inch SPSSPC+ format floppy discs, free of charge. They are also available as time series data in the form of "country criminal justice profiles" on the computerized United Nations Crime and Justice Information Network. (See also A/CONF.169/CRP.3, Fourth United Nations Survey of Crime Trends and Operations of Crime Justice Systems (1986-1990), Statistical Tables.

***Formerly called the Helsinki Institute for Crime Prevention and Control, affiliated with the United Nations (HEUNI).

3. Following collation and publication of the results of the Third Survey, the Economic and Social Council, in its resolution 1990/18, requested the Secretary-General to convene a meeting, during the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, to consider the revision of the survey questionnaire. Following that meeting, which led to the organizing of an ad hoc group on the United Nations survey of crime trends, the Secretary-General made proposals to the Commission at its first session on improving the recurrent crime trend surveys.¹ Upon the recommendation of the Commission, the Council adopted resolution 1992/22, in section I of which it recommended that subsequent surveys should be carried out in two-year intervals. In its resolution 1993/34, the Council reaffirmed the usefulness of information activities in crime prevention and criminal justice for policy development and programme planning.

4. The primary goal of the Fourth Survey was to increase knowledge regarding the incidence of reported crime and the operations of criminal justice systems, to be used as a basis for improving the international exchange of information regarding crime trends. The main objectives of the Fourth Survey were, first, to determine the quantity and quality of data available in national databases and, secondly, to serve as an instrument for strengthening cooperation among Member States, putting the review and analysis of national crime-related data into a broader context.

5. The findings of the Fourth Survey should be read in the context of alternative data, such as the victimization statistics collected, analysed and published by the United Nations Interregional Crime and Justice Research Institute.²

6. The Fourth Survey built upon the three previous United Nations surveys of crime trends and operations of criminal justice systems. The combined surveys are a valuable source for charting trends in crime and criminal justice over the past 20 years. The Fourth Survey was distributed to all Member States in August 1992 through diplomatic channels and the Statistical Division of the Secretariat. In addition, the resident representatives of the United Nations Development Programme, the national correspondents in the field of crime prevention and control cooperating with the Secretariat and the aforementioned regional institutes were all involved in disseminating the Fourth Survey and monitoring the collection of replies. To date, 100 replies to the Fourth Survey have been received* and the data have been entered into a database. Between November 1993 and September 1994, the database underwent a validation process whereby the data were checked to ensure that they had been accurately recorded by the respondents. Three independent evaluators screened the database for a variety of possible errors. For example, any data that represented a change of ± 30 per cent from the surrounding years were recorded and sent back to the responding countries and areas for verification and explanation. Validation requests were sent to 91 countries and areas between January and May 1994. As of September 1994, 45 countries and areas had replied to the validation requests. Because the validation process is still under way, the present report represents only a preliminary analysis of the survey data and relies on selected data that have been found to be comparable.

*The present report is based on crime-related data from the following 100 countries and areas: Argentina, Armenia, Australia, Austria, Bahrain, Barbados, Belarus, Belgium, Bermuda, Botswana, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Finland, France, Germany, Ghana, Greece, Hong Kong, Hungary, India, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Lithuania, Luxembourg, Madagascar, Malaysia, Maldives, Malta, Marshall Islands, Mauritius, Mexico, Myanmar, Nepal, Netherlands, New Zealand, Norway, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Rwanda, Saint Kitts and Nevis, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Thailand, Tonga, Trinidad and Tobago, Turkey, Uganda, Ukraine, United Kingdom of Great Britain and Northern Ireland (England and Wales, Northern Ireland and Scotland), Uruguay, Vanuatu, Venezuela, Yugoslavia and Zimbabwe.

The number of countries included in the comparative analysis of particular topics ranged from 15 to 57, depending on the availability of comparable data.

I. CHANGES IN RECORDED CRIME, 1986-1990*

7. The first three United Nations surveys of crime trends and of operations of criminal justice systems showed a consistent increase in recorded crime from 1970 to 1986.³ In the Second Survey, covering the period 1975-1980, 63 per cent of the responding countries or areas reported increased crime rates. In the Third Survey, covering the period 1980-1986, 81 per cent of the responding countries or areas reported an increase. For the Fourth Survey, 68 per cent of the 22 countries or areas that have provided data for every year in the period 1986-1990 and for all the crime categories requested have reported increases in crime. Each of the above-mentioned figures, however, is drawn from a different sample of countries and areas, so it is difficult to make comparisons. Countries or areas that only occasionally participate in the surveys eliminate the possibility of making an uninterrupted comparison spanning a period longer than that covered by a single survey (see table 1).

Table 1. Responses to the United Nations surveys of crime trends and of operations of criminal justice systems

Country or area	First Survey (1970-1975)	Second Survey (1975-1980)	Third Survey (1980-1986)	Fourth Survey (1986-1990)
Algeria	X			
Antigua and Barbuda			X	
Argentina	X	X	X	X
Armenia ^a				X
Australia	X	X	X	X
Austria	X	X	X	X
Bahamas	X	X	X	
Bahrain	X	X	X	X
Bangladesh		X	X	
Barbados	X	X		X
Belarus ^b			X	X
Belgium	X	X	X	X
Belize		X		
Bermuda			X	X
Botswana			X	X
Brazil				X
Brunei Darussalam			X	
Bulgaria			X	X
Burundi			X	
Canada	X	X	X	X
Cape Verde		X	X	
Cayman Islands			X	
Chad		X		
Chile	X	X	X	X
China			X	X
Colombia	X	X	X	X
Costa Rica	X	X	X	X

*Caution should be exercised in interpreting the results of this and any other international survey. The problems involved in making a cross-national comparison of crime-related data were discussed in detail in the reports of earlier United Nations surveys of crime trends and operations of criminal justice systems (see, for example, *Crime Trends and Criminal Justice at the Regional and Interregional Levels: Results of the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.94.IV.2), paras. 5-17).

<i>Country or area</i>	<i>First Survey (1970-1975)</i>	<i>Second Survey (1975-1980)</i>	<i>Third Survey (1980-1986)</i>	<i>Fourth Survey (1986-1990)</i>
Croatia ^e				X
Cuba		X		
Cyprus	X	X	X	X
Czech Republic ^d	X	X	X	X
Denmark	X	X	X	X
Dominica			X	
Ecuador	X	X	X	X
Egypt	X		X	X
El Salvador	X			X
Estonia ^e				X
Ethiopia	X			X
Fiji		X	X	
Finland	X	X	X	X
France	X	X	X	X
Gabon	X			
Germany ^f	X	X	X	X
Ghana			X	X
Gibraltar			X	
Greece	X	X	X	X
Guatemala	X			
Guyana	X			
Honduras		X	X	
Hong Kong			X	X
Hungary			X	X
Iceland	X			
India		X	X	X
Indonesia	X	X	X	
Iran (Islamic Republic of)	X			
Iraq	X			
Ireland	X	X		X
Israel		X		X
Italy	X	X	X	X
Jamaica	X	X	X	X
Japan	X	X	X	X
Jordan		X	X	X
Kazakhstan ^g				X
Kiribati			X	
Kuwait	X	X	X	X
Kyrgyzstan ^g				X
Latvia ^e				X
Lebanon				X
Lesotho			X	X
Liberia			X	
Libyan Arab Jamahiriya	X			
Lithuania ^e				X
Luxembourg	X			X
Madagascar		X	X	X
Malawi			X	
Malaysia	X		X	X
Maldives	X		X	X
Malta			X	X
Marshall Islands				X
Mauritius	X	X		X
Mexico				X
Morocco	X	X		

continued

Table 1 (continued)

Country or area	First Survey (1970-1975)	Second Survey (1975-1980)	Third Survey (1980-1986)	Fourth Survey (1986-1990)
Mynanmar				X
Nepal		X	X	X
Netherlands	X	X	X	X
New Zealand	X	X	X	X
Norway	X	X	X	X
Oman	X			
Pakistan	X	X		X
Panama		X	X	X
Paraguay			X	
Peru	X	X	X	X
Philippines	X	X	X	X
Poland	X	X	X	X
Portugal		X	X	X
Puerto Rico				X
Qatar	X	X	X	X
Republic of Korea		X	X	X
Republic of Moldova ^a				X
Romania		X		X
Russian Federation ^d			X	X
Rwanda				X
Saint Helena			X	
Saint Kitts and Nevis			X	X
Saint Lucia		X	X	
Saint Vincent and the Grenadines			X	
San Marino	X			
Saudi Arabia	X			
Senegal		X	X	
Seychelles	X	X	X	X
Sierra Leone		X		X
Singapore	X	X	X	X
Slovakia ^d	X	X	X	X
Slovenia ^e				X
South Africa		X	X	X
Spain	X	X	X	X
Sri Lanka		X	X	X
Sudan			X	
Suriname		X	X	
Swaziland				X
Sweden	X	X	X	X
Switzerland	X	X	X	X
Syrian Arab Republic	X	X	X	X
Tajikistan ^o				X
Thailand		X		X
Tonga		X		X
Trinidad and Tobago	X	X	X	X
Turkey	X		X	X
Tuvalu		X		
Uganda		X		X
Ukraine			X	X
United Arab Emirates		X		
United Kingdom of Great Britain and Northern Ireland				
England and Wales	X	X	X	X
Northern Ireland				X
Scotland		X	X	X
United Republic of Tanzania			X	

<i>Country or area</i>	<i>First Survey (1970-1975)</i>	<i>Second Survey (1975-1980)</i>	<i>Third Survey (1980-1986)</i>	<i>Fourth Survey (1986-1990)</i>
United States of America	X	X	X	
Uruguay		X	X	X
Vanuatu			X	X
Venezuela		X		X
Yugoslavia	X	X	X	X
Zambia		X		
Zimbabwe		X	X	X

^aOn 2 March 1992, Armenia, Kazakhstan, Kyrgyzstan, Republic of Moldova and Tajikistan were admitted to United Nations membership.

^bOn 19 September 1991, Byelorussia informed the United Nations that it had changed its name to Belarus.

^cOn 22 May 1992, Croatia and Slovenia were admitted to United Nations membership.

^dCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January 1993 as Member States.

^eOn 17 September 1991, Estonia, Latvia and Lithuania were admitted to United Nations membership as independent States.

^fThe Federal Republic of Germany and the German Democratic Republic were both admitted to membership in the United Nations on 18 September 1973. Through accession of the German Democratic Republic to the Federal Republic of Germany with effect from 3 October 1990, the two German States have united to form one sovereign State. As from the date of unification, the Federal Republic of Germany acts in the United Nations under the designation of "Germany".

^gThe Union of Soviet Socialist Republics was an original Member of the United Nations from 24 October 1945. In a letter dated 24 December 1991, Boris Yeltsin, the President of the Russian Federation, informed the Secretary-General that the membership of the Soviet Union in the Security Council and all other United Nations organs was being continued by the Russian Federation with the support of the member countries of the Commonwealth of Independent States.

8. One way to view the general increase or decrease in crime is to look at the total number of crimes committed per capita each year. Table 2 shows the average number of total crimes per 100,000 inhabitants from 1986 to 1990.

Table 2. Total number of crimes committed per 100,000 inhabitants, 1986-1990^a

<i>Year</i>	<i>Crimes committed per 100,000 inhabitants</i>	<i>Change per year (percentage)</i>	<i>Cumulative change (percentage)</i>
1986	2 548	..	..
1987	2 592	1.7	1.7
1988	2 650	2.2	4.0
1989	2 858	7.8	12.2
1990	3 140	6.4	23.2

^aBased on replies from 22 countries and areas.

9. The percentages in table 2 show that from 1986 to 1988, the rate of increase in crime was quite small, but between 1988 and 1990, the crime rate began to grow more rapidly. That development could be attributed to the upsurge in recorded crime that emerged in central and eastern European countries at that time. Nevertheless, the results of the Fourth Survey do not contradict the conclusions of earlier reports, which found that although rates differ each year, crime increases on average by about 5 per cent per year, controlling for population growth.* In short, the survey data show that on average, within a group of comparable countries, the number of total recorded crimes per capita increased by 23 per cent from 1986 to 1990.

10. One of the problems with viewing crime rates as aggregates in this manner is that it masks the types of crime that comprise the total crime rate. As table 3 shows, the most common types of crime are property offences.

Table 3. Structure of crime, 1975-1980, 1980-1986 and 1986-1990

Type of crime	Share of total crime (percentage)		
	1975-1980	1980-1986	1986-1990
Theft	72	63	69
Assault	12	18	16
Robbery	5	6	5
Drug crimes	3	6	2
Fraud, including embezzlement	3	4	4
Intentional homicide	1	1	1
Non-intentional homicide	1	1	1
Rape	1	..	1
Bribery	1	..	1

11. Table 3 is important because it shows how changes in crime rates can be driven strongly by changes in theft rates. Thus, if there is an outbreak of violent crime within a certain country, the crime rate may not change drastically because violent crime accounts for a relatively small percentage of total crime. A country with a relatively low level of violence, however, may have a high crime rate because it has a high theft rate. Thus, it is important to know what types of crime comprise the total crime rates before making comparisons. Table 4 shows the average percentage change in reported crime rates from 1986 to 1990, by type of crime.

*Decreases in per capita crime rates from 1986 to 1990 were reported by Cyprus (-8 per cent), Japan (-2 per cent), Myanmar (-7 per cent), Romania (-62 per cent), Seychelles (-15 per cent) and Tonga (-18 per cent). Qatar was the only country that reported no change in crime rates.

Table 4. Average percentage change on reported crime rates, by type of crime, 1986-1990

<i>Type of crime</i>	<i>Change</i>
Homicide	23
Rape	-1
Robbery	63
Assault	18
Burglary	27
Theft	39
Drug crimes	15
Fraud	--
Embezzlement	22
Bribery	8
Other crimes	21

12. Table 4 shows that, even when controlling for population, crime increased from 1986 to 1990 in nearly every category except fraud and rape. That development is consistent with data generated by previous surveys. Data provided for the Fourth Survey indicate a sharp increase in rates of recorded property crime such as robbery, burglary and theft. The average change in the period covered by the Fourth Survey (1986-1990) in recorded rates for robbery (67 per cent) and theft (39 per cent) considerably exceeded the rates obtained in the Third Survey for those types of crime (42 per cent and 19 per cent respectively). Whether these findings are symptomatic of a broader development is, however, difficult to establish. Section II of the present report will focus more on homicide, the most serious type of violent crime.

II. VIOLENCE IN THE WORLD: DYNAMICS OF HOMICIDE

13. Of the many types of crime reported in official crime statistics, homicide is generally thought to be the most consistently defined in different countries. Whereas definitions of what exactly constitutes rape, theft or assault, for example, vary widely from country to country, homicide often serves as the most reliable benchmark for comparing violent crime in different cultures. But even a seemingly uniform type of crime such as homicide must be dealt with carefully in a cross-national analysis. Because there are often differences in the classification of homicide (intentional versus non-intentional) and in rules for counting (including or excluding) attempted homicide, caution should be exercised in making cross-country comparisons involving national statistics.

14. The Fourth Survey elicited data on officially recorded data on five different categories of homicide: (a) non-intentional homicide; (b) attempted intentional homicide (not resulting in death); (c) committed intentional homicide (resulting in death); (d) total intentional homicide (the number of attempted intentional homicide cases plus the number of committed intentional homicide cases); and (e) total homicide (the total number of intentional homicide cases plus the number of non-intentional homicide cases).

A. Non-intentional homicide

15. Non-intentional homicide was defined in the Fourth Survey as death not purposely inflicted by another person. It included manslaughter but excluded traffic accidents resulting in death. Thirty-four countries or areas reported the number of non-intentional homicide cases per 100,000 inhabitants that occurred yearly from

1986 to 1990. The average* rate for that period was 2.9, though the figures ranged from 0.19 to 24. From 1986 to 1990, the average non-intentional homicide rate for the 34 countries or areas remained relatively stable, falling slightly from 3.0 in 1986 to 2.9 in 1990 (see figure I).

B. Intentional homicide

16. In the Fourth Survey, intentional homicide was defined as death purposely inflicted by another person, including infanticide. There were three categories of intentional homicide: attempted intentional homicide (not resulting in death); committed intentional homicide (resulting in death); and total intentional homicide (the sum of those two categories).

17. Attempted intentional homicide represents the most inconsistently defined category of homicide because it may be recorded as serious assault. Thirty-four countries or areas reported the annual number of attempted intentional homicide case per 100,000 inhabitants from 1986 to 1990. The average rate for the period was 2.79, though the figures ranged from 0.14 to 13.78. From 1986 to 1990, the average attempted homicide rate for the 34 countries or areas rose slightly, from 2.59 in 1986 to 3.04 in 1990 (see figure I).

18. Thirty-eight countries or areas reported the annual number of committed intentional homicide cases per 100,000 inhabitants from 1986 to 1990. The average rate for the period was 4.31, though the figures ranged from 0.28 to 55. From 1986 to 1990, the average committed intentional homicide rate for the 38 countries or areas increased slightly, from 3.96 in 1986 to 4.63 in 1990 (see figure I).

19. Forty-one countries or areas reported the annual number of total intentional homicide cases per 100,000 inhabitants from 1986 to 1990. The average rate for the period was 6.74, though the figures ranged from 0.7 to 69.2. The total number of intentional homicide cases for the 41 countries or areas rose steadily from 6.1 in 1986 to 7.49 in 1989 and then dipped to 7.03 in 1990 (see figure I).

C. Homicide

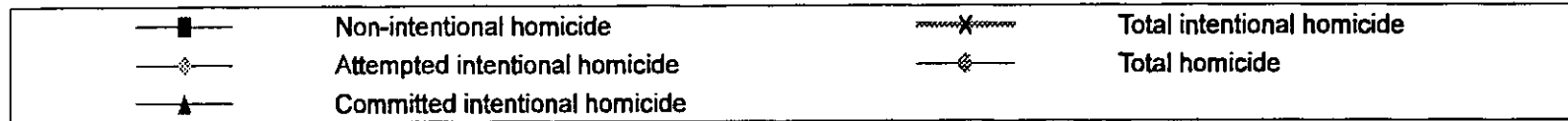
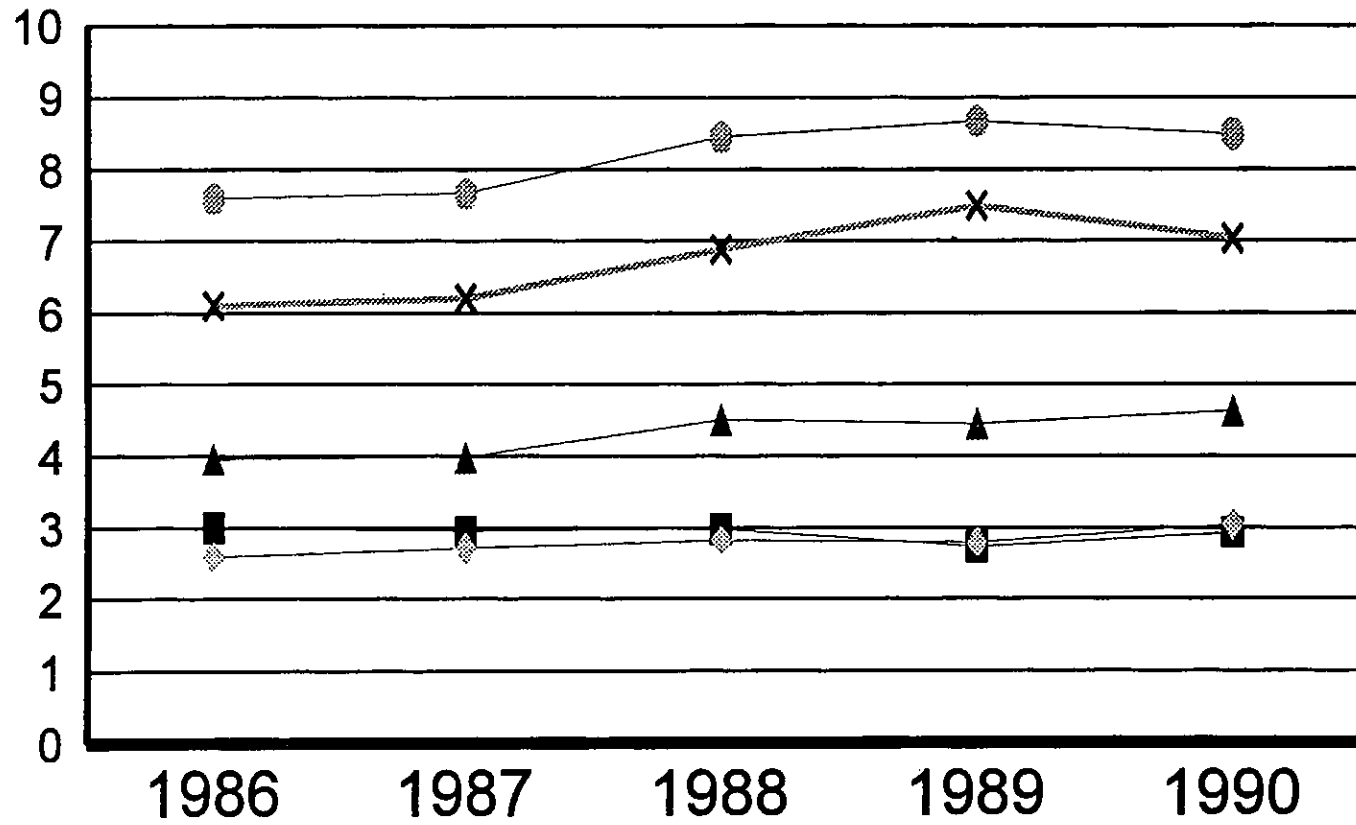
20. The total number of homicide cases represents the single most reliable violent crime category when comparing time-series rates between countries. Ideally, when examining criminal homicide, intentional homicide rates would be preferable to total homicide rates. Close examination of the data, however, revealed that the percentage of homicide cases deemed intentional or non-intentional varied greatly from country to country. For example, in Egypt, Myanmar and Rwanda, exceedingly high percentages of homicide cases were categorized as non-intentional cases (89 per cent, 85 per cent and 59 per cent, respectively). The average percentage of homicide cases that were deemed non-intentional among the 41 countries that provided data on the subject was only 22 per cent; the median** value was only 13 per cent. Such differences in classification are most likely the result of differences in the definitions of intentional and non-intentional homicide in countries. What might be defined as intentional homicide in, for example, Australia or Canada, might be classified as non-intentional homicide in, for example, Egypt or Rwanda. The differences make it difficult to make reliable comparisons of data on the various categories of homicide. Thus, to avoid the problems presented by the differences, the remainder of the homicide analysis focuses on total homicide rates.

21. Fifty-seven countries or areas reported the annual number of total homicide cases per 100,000 inhabitants yearly from 1986 to 1990. The average rate for the period was 8.17, though it ranged from 1.28 to 93.2.

*The word "average" is used in the present report to indicate the arithmetic mean, which is computed by dividing the sum of all values by the total number of values.

**The median is the middle of a sample. One half of the sample has higher scores than the median, and one half has lower scores. It is sometimes a more useful indicator of an "average" than the mean when the sample has a few values that are much smaller and/or much larger than the remaining values.

Figure I. Number of homicide cases per 100,000 inhabitants, 1986-1990



The total homicide rate for the 57 countries or areas rose steadily from 7.59 in 1986 to 8.67 in 1989 and then fell slightly to 8.47 in 1990 (see figure I).

22. As figure I demonstrates, the homicide rate rose in four of the five categories from 1986 to 1990. An analysis of homicide rates in large cities also showed a dramatic increase in the rates in the period 1986-1990. Table 5 shows the change in total homicide rates from 1986 to 1990.

Table 5. Total number of homicide cases per 100,000 inhabitants, selected cities, 1986 and 1990

<i>City</i>	<i>1986</i>	<i>1990</i>
Addis Ababa	96.24	29.16
Amsterdam	37.55	37.98
Bombay	3.06	6.85
Budapest	3.81	2.73
Buenos Aires	8.72	8.44
Cairo	14.45	11.03
Copenhagen	17.40	10.52
Damascus	3.89	1.65
Gaborone	29.57	18.68
Glasgow	2.89	3.19
Helsinki	9.67	15.29
Jerusalem	3.84	3.05
Kiev	2.72	4.02
Kigali	167.91	26.28
Ljubljana	2.95	5.26
London	2.90	2.53
Manila	25.20	21.52
Oslo	2.22	9.31
Port-Louis	6.59	1.51
Riga	6.97	12.09
Santiago	2.73	3.90
Seoul	1.15	1.06
Stockholm	12.40	15.89
Tokyo	1.76	1.56
Toronto	3.84	6.09
Vienna	3.58	5.04
Yangon	6.92	6.13
Median	3.89	6.13

23. The increased values were consistent with data from the Second Survey and the Third Survey, which showed a continuous increase in the homicide rate from 1975 to 1985.* Given the general increase in homicide in the past decade, the data need to be examined more closely in order to identify patterns that may offer explanations. One approach that could prove useful would be to aggregate the homicide rates from different types of countries. Three different country classification schemes have been used in United Nations

*See the working paper prepared by the Secretariat on crime prevention and criminal justice in the context of development: realities and perspectives of international cooperation (A/CONF.144/5).

publications: human development aggregates, income aggregates and national development aggregates.* Table 6 shows the dramatic differences in homicide rates in the different aggregates.

Table 6. Total homicide rates in various aggregates, 1990

<i>Classification scheme</i>	<i>Number of cases</i>	<i>Total homicide rate</i>
Human development aggregates ^d		
Low human development	8	20.59
Medium human development	12	8.89
High human development	30	4.58
Income aggregates		
Low income	7	11.79
Medium income	22	10.78
High income	21	4.24
Developmental aggregates		
Developing	28	9.94
Developed	19	4.52

^dHuman development aggregates combine indicators of national income, life expectancy and educational attainment to give a composite measure of human progress (see United Nations Development Programme, *Human Development Report 1992* (New York, Oxford University Press, 1992)).

24. As table 6 indicates, homicide rates are much higher in poorer or developing countries than in wealthier or more developed countries. The data seems to support the claims of "modernization theory" (i.e. increasing development leads to decreasing violent crime rates), at least with regard to homicide.**

D. Homicide suspects in the criminal justice "filter"

25. For the Fourth Survey, data were collected not only about the amount of reported crime, but also about the way that criminal justice systems processed such crime. Data were collected on the number of suspects, the number of persons prosecuted, the number of persons convicted and the number of persons imprisoned for all serious crime categories. Few countries were able to provide such detailed data, however, and some of the countries that did reply to those questions provided responses that had to be excluded from the analysis.*** Because of the low response rate and the fact that some of the reported data had to be excluded for being unreliable, the analysis had to be based on data from a relatively small number of countries.

26. "Case attrition" is a term used to describe what occurs when cases are moved from one step in the criminal justice system or "filtering process" to the next. One example of case attrition is when a prosecutor

*Human development aggregates combine indicators of national income, life expectancy and educational attainment to give a composite measure of human progress (see United Nations Development Programme, *Human Development Report 1992* (New York, Oxford University Press, 1992)).

**For more detailed information on the subject, see Louise Shelly, *Crime and Modernization: The Impact of Industrialization and Urbanization on Crime* (Carbondale, Illinois, Southern Illinois University Press, 1981).

***Data were excluded from the analysis when the value of a subcategory exceeded the value of a primary category. For example, some countries reported more persons convicted than persons prosecuted, while others reported that the number of persons imprisoned was larger than the number of suspects.

is unable to try a case because evidence is lacking or witnesses are unwilling to cooperate. Case attrition is most obvious in crimes such as larceny, where the police may have a strong suspect but there is insufficient evidence to proceed with the case.* Homicide is a crime that generally involves the least amount of case attrition. Because homicide is the most serious type of crime, criminal justice systems often invest the greatest amount of resources in investigating, prosecuting, convicting and imprisoning homicide offenders. Despite those efforts, a considerable proportion of cases initially processed by the police as homicide cases do not result in convictions and prison sentences. The police have a tendency to initially record the offence as the most serious offence possible, a fact that may account for the high case attrition rates for homicide. What is investigated as a homicide by the police frequently is recognized at a subsequent stage of the criminal justice process as another offence or an incident involving self-defence or provocation.

27. Despite the small number of countries or areas that provided complete responses to the questions on processing homicide suspects through the criminal justice system, the Fourth Survey data suggest a filtering effect. For the 10 countries or areas that provided data on prosecution rates, an average of 78 per cent of homicide suspects were prosecuted. The values ranged from 36 per cent in (Rwanda), to 100 per cent (in Norway and Sweden).** For the 20 countries or areas that provided conviction data, an average of 55 per cent of homicide suspects were eventually convicted. The values ranged from 9 per cent (in Singapore) to 97 per cent (in Denmark). For the nine countries or areas that provided imprisonment data, an average of 39 per cent of homicide offenders were imprisoned. The values range from 18 per cent (in Sweden) to 87 per cent (in Seychelles). Figure II shows the effect of this filtering process in a hypothetical example involving 1,000 arrested homicide offenders.

28. As figure II illustrates, it is necessary to concentrate not only on the number of reported crimes, but also on what happens once offenders are drawn into the criminal process. Although criminal justice systems typically devote a great deal of resources to homicide cases, a relatively small proportion of suspects in those cases are convicted or sent to prison. That fact may call into question the use of high clear-up rates for homicide cases as an indicator of police efficiency, but it may also lead to a more optimistic conclusion. Case attrition rates for homicide, though probably smaller than for any other type of crime, may reflect the degree to which principles involving due process of law are observed in the most serious cases that the criminal justice system deals with.

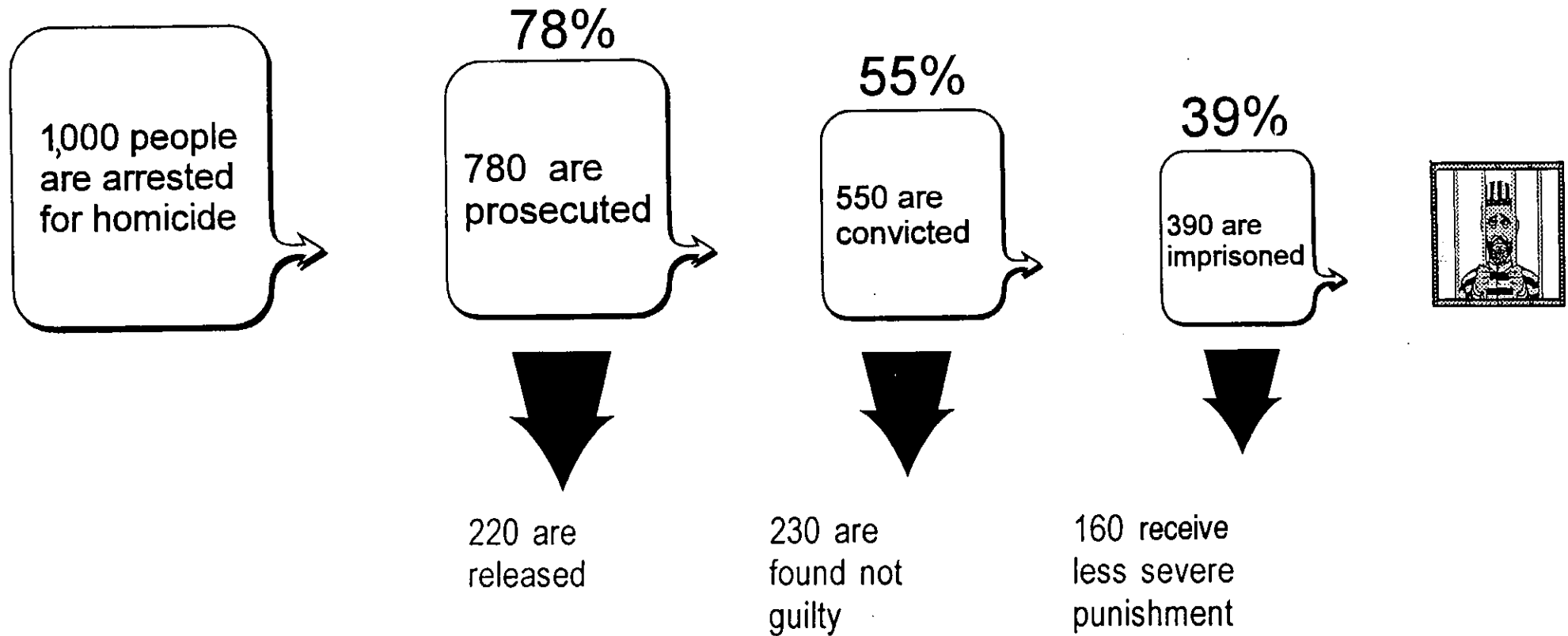
29. The data on criminal justice processing also exemplify the need for national authorities to improve their information collection and processing capabilities. Only a handful of countries were able to provide responses to questions on case-processing. In order to provide some of the data requested in the Fourth Survey, a responding country should at least have organized data processing facilities in each of its criminal justice institutions.*** One reason for the poor state of criminal justice information systems may be a lack of available resources. The current state of the resources available to criminal justice systems around the world is examined in section III below.

*For an in-depth discussion of the topic, see Linda Harvey and others, "Gender differences in criminal justice", *British Journal of Criminology*, No. 30, 1992, pp. 208-217.

**A "model" prosecution rate for total homicide (as in Norway and Sweden, for example) is more a reflection of a deficiency in the reported data (i.e. data on suspects in Norway and data on prosecuted persons in Sweden) than of an astonishing efficiency in homicide prosecution. Even excluding such data from the analysis, however, yields an average prosecution rate of 73 per cent.

***For a more detailed discussion of computerization and statistical systems in criminal justice, see *Manual for the Development of Criminal Justice Statistics* (United Nations publication, Sales No. E.86.XVII.16).

Figure II. Homicide suspects in the criminal justice "filter":
the processing of 1,000 homicide suspects based on average case attrition rates



Note: n=10 for prosecution, n=20 for conviction and n=9 for imprisonment.

III. CRIMINAL JUSTICE RESOURCES

30. Criminal justice resources can be conceived of in a variety of ways, including personnel, budget, expenditure and capital resources. The amounts spent in individual countries on criminal justice compared with the amounts spent in those countries on education and defence vary from 5 per cent to 40 per cent; by and large, however, in most countries they do not exceed 10 per cent of total spending in those three areas.⁴

31. Focusing on the international pattern of criminal justice expenditure, it may be observed that criminal justice is, for the most part, a human-resource-intensive industry. The Home Office of the United Kingdom of Great Britain and Northern Ireland has estimated, for example, that personnel are responsible for about 80 per cent of the cost of criminal justice services in England and Wales.⁵ Similarly, cross-national studies of police have consistently shown that the majority of police budgets, typically about 90 per cent, are spent on personnel, as opposed to capital resources.⁶ The distribution of personnel in the criminal justice system is examined in the first portion of this analysis.

A. Personnel

32. Because the criminal justice systems in most countries are not centralized units, collecting data on the distribution of personnel to each segment (the police, prisons, the courts) is difficult and data must be obtained from different sources. Thus, the number of countries reporting on the allocation of personnel to each branch of the criminal justice system is small. Figure III, which is based on data from 23 countries, shows that police account for the largest portion (85 per cent) of criminal justice personnel, with prisons (including custodial and management personnel) accounting for 11 per cent, judges accounting for 2 per cent and prosecutors accounting for 2 per cent.

33. The average distribution of criminal justice personnel, shown in figure III, remained unchanged from 1986 to 1990. Though police continued to account for the largest portion of criminal justice personnel around the world, the average distribution of such personnel varied considerably from country to country, as shown in figure IV.

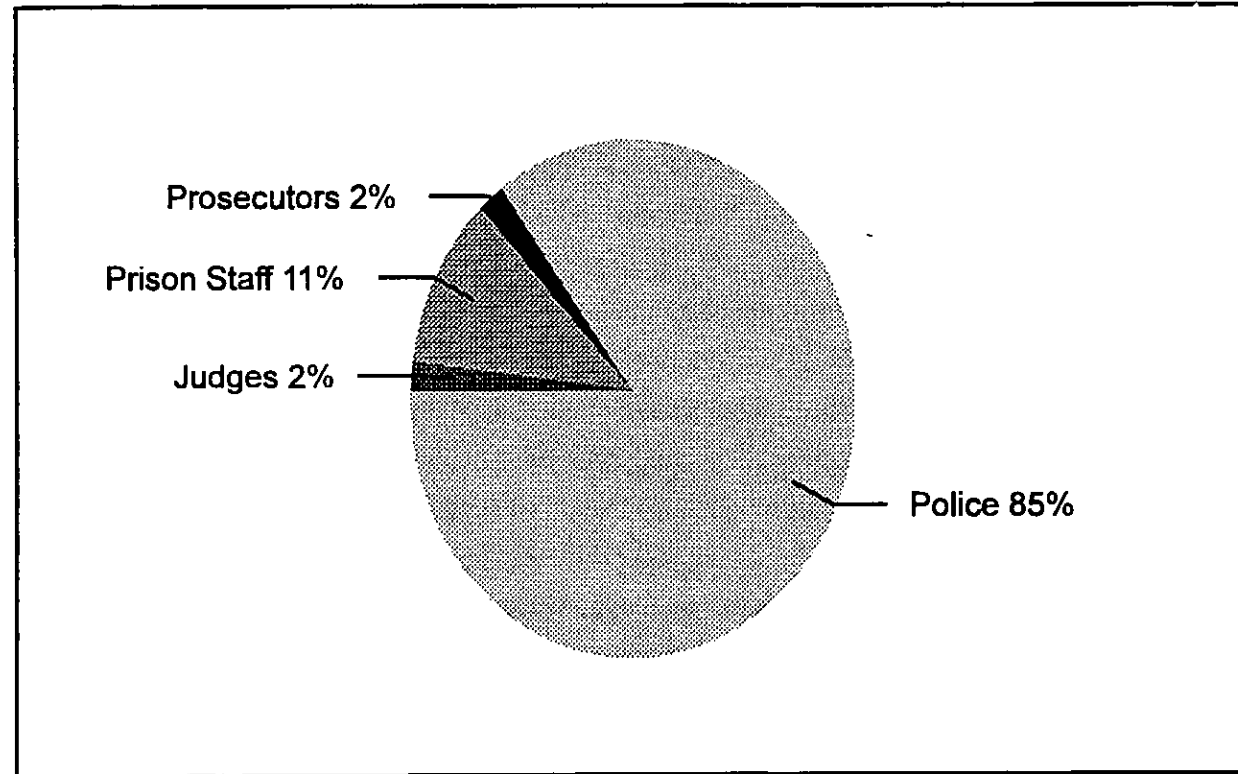
34. Examining the distribution of criminal justice personnel in each country provides a glimpse into the different organizational structures or orientations of individual criminal justice systems. For example, countries devoting a high percentage of personnel to prisons might be considered more punitive or treatment-oriented, depending on the composition of prison staff.* Similarly, countries with a high proportion of police may tend to have stricter crime control measures.** Data on personnel allocation, however, do not permit inferences to be made about the underlying ideology of a given criminal justice system.

35. Another way to examine criminal justice personnel is to look at the rates of each category per unit of population. Figure V shows the number of police personnel per 100,000 inhabitants in each of three country

*Imprisonment statistics can sometimes be misleading sources for measuring punitive levels (for an in-depth explanation of the topic, see Ken Pease, "Cross-national imprisonment rates: limitations of method and possible conclusions", *British Journal of Criminology*, No. 34, 1994, pp. 116-130.

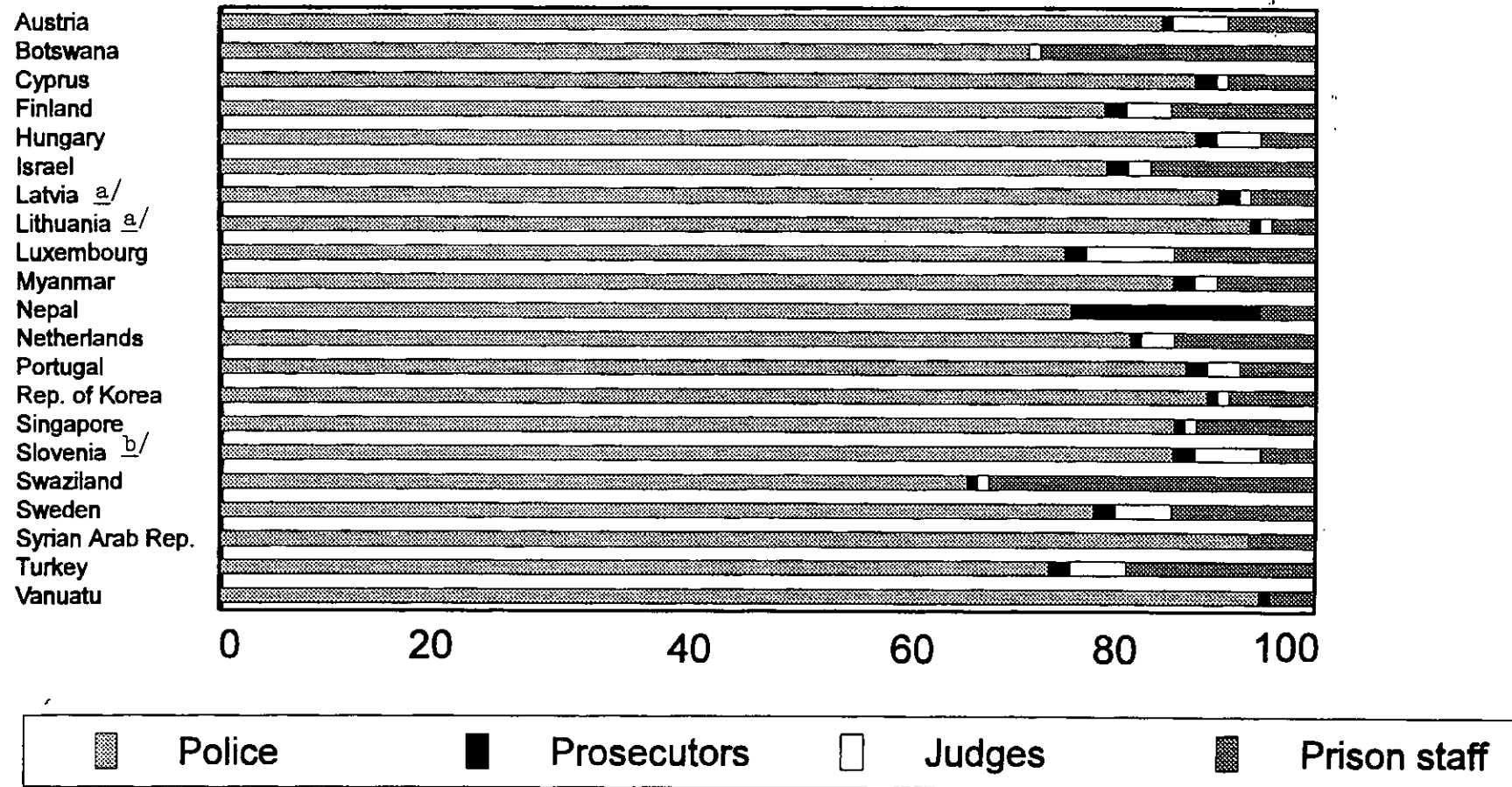
**For a discussion of the continuum between due process of law and crime control, see Herbert Packer, *The Limits of the Criminal Sanction* (Stanford, California, Stanford University Press, 1968). In short, Packer argues that criminal justice systems constantly waver between the competing demands of due process of law (individual rights) and crime control. Often, stricter crime control measures (for example, increasing the rights of the police to search private homes) result in decreased attention to individual rights (due process of law). Similarly, increases in due process of law (such as more stringent search and seizure processes) often result in decreased crime control functions. All criminal justice systems lie somewhere on the ideological continuum between crime control and due process of law.

Figure III. Distribution of criminal justice personnel, 1986-1990



Source: Based on responses to the questionnaire for the Fourth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (covering the period 1986-1990) received from Austria, Botswana, Cyprus, Finland, Hungary, Israel, Latvia, Lesotho, Lithuania, Luxembourg, Myanmar, Nepal, Netherlands, Norway, Portugal, Republic of Korea, Singapore, Slovenia, Swaziland, Sweden, Syrian Arab Republic, Turkey and Vanuatu.

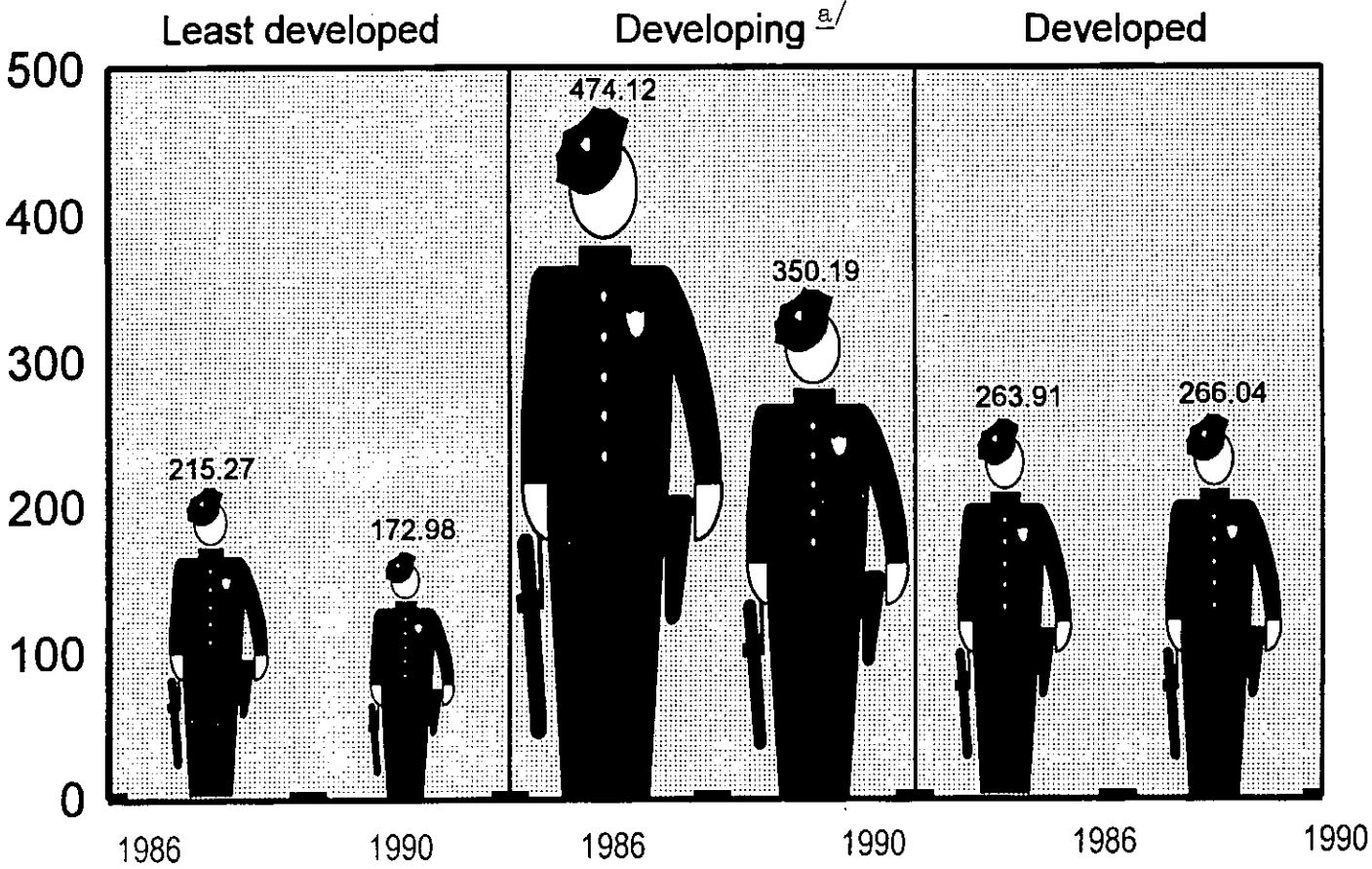
Figure IV. Distribution of criminal justice personnel, selected countries, 1990
(Percentage)



a/ On 17 September 1991, Latvia and Lithuania were admitted to United Nations membership as independent States.

b/ On 22 March 1992, Slovenia was admitted to United Nations membership.

Figure V. Policing rates by level of national development:
sworn police officers per 100,000 inhabitants, 1986 and 1990



Note: n=3 for least developed countries, n=14 for developing countries and n=17 for developed countries.
a/ Excluding least developed countries.

aggregates: least developed, developing and developed.* The category "developing countries" usually includes "least developed countries", but for the purpose of this analysis the two categories were separated into least developed countries and other developing countries. Past analyses using only two categories, developing and developed countries, have shown that developed countries typically have slightly higher policing levels than developing countries.⁴ Figure V shows that this approach does not take into consideration the fact that there appears to be a difference between the policing level in least developed countries and that in other developing countries.

36. The same trend towards high policing rates in developing countries was observed in rates of prison personnel (see figure VI). There was also a noticeable increase in prison personnel both in developed countries and in developing countries.

37. Prosecutor rates were apparently more stable in the period under review; least developed countries had slightly higher rates than other developing countries and developed countries (see figure VII).

38. The most startling differences were in the number of judges per 100,000 inhabitants (see figure VIII). In 1990, least developed countries had a low rate (2.4), other developing countries had a higher rate (4.7) and developed countries had a much higher rate (11.0).

39. The role of judges is often to protect due process of law and to balance the system of power within criminal justice systems. Well developed judicial systems oversee the power of police and prison authorities. Thus, one possible interpretation of the trend towards a greater number of judges per 100,000 inhabitants in more developed countries is that with development comes a more powerful judiciary and greater attention to due process of law.** This conclusion, like others in the present report, must be viewed with caution. An alternative and more commonly accepted explanation of the rates for judges being higher in developed countries than in developing countries is that greater importance is placed on informal social control in the developing countries than in developed countries.

B. Female employment in the criminal justice system

40. The Fourth Survey marked the first time that data on the gender of criminal justice personnel were collected. Though many countries were unable to provide such data, enough countries responded to permit limited analysis. As shown in figure IX, the percentage of women employed as police personnel (12 per cent) and prison staff (10 per cent) remained stable from 1986 to 1990, whereas the percentage of women employed as judges and prosecutors rose slightly.

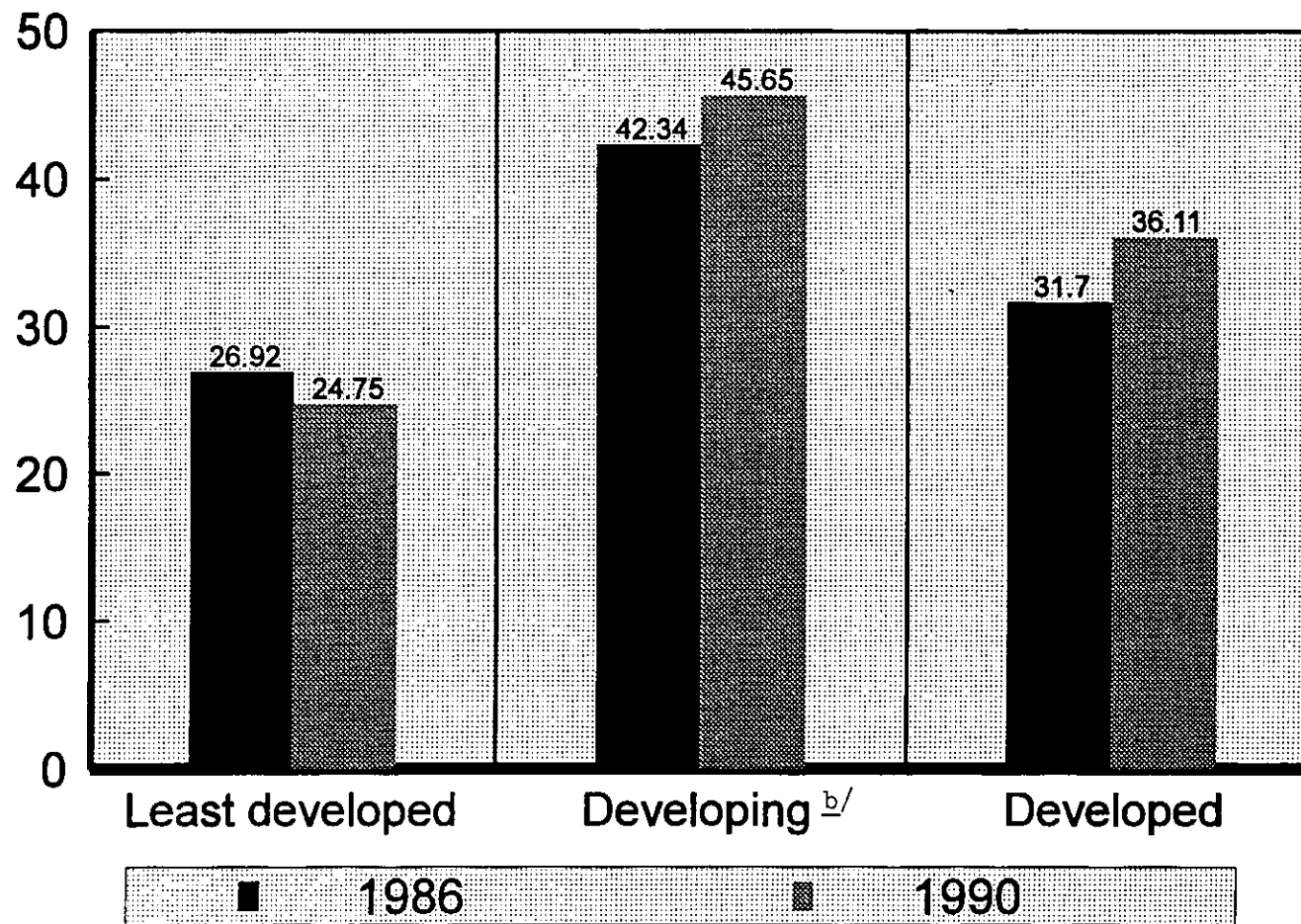
41. One conclusion may be that women were having a more difficult time breaking into the ranks of the stereotypically male occupations of policing and prison work, whereas they were able to increase their numbers as judges and prosecutors, positions usually requiring a greater level of education. It should be mentioned, however, that the values varied greatly from country to country. Figure X shows the percentage of female criminal justice personnel in 1990 for the 11 countries or areas for which such data were available.

42. As figure X shows, for women finding employment in the criminal justice system is more difficult in some countries or areas than in others.

*Classification of the countries according to development aggregates is based on United Nations Development Programme, *Human Development Report 1992* (New York, Oxford University Press, 1992), p. 211.

**See, for example, Kevin N. Wright, "The desirability of goal conflict within the criminal justice system", *Journal of Criminal Justice*, No. 9 (1980), pp. 209-218. Wright argues that the role of the judiciary of checking on the police, though it produces internal conflict in the criminal justice system, serves to protect human freedom and due process of law.

Figure VI. Number of prison staff^{a/} members per 100,000 inhabitants, by level of national development, 1986 and 1990

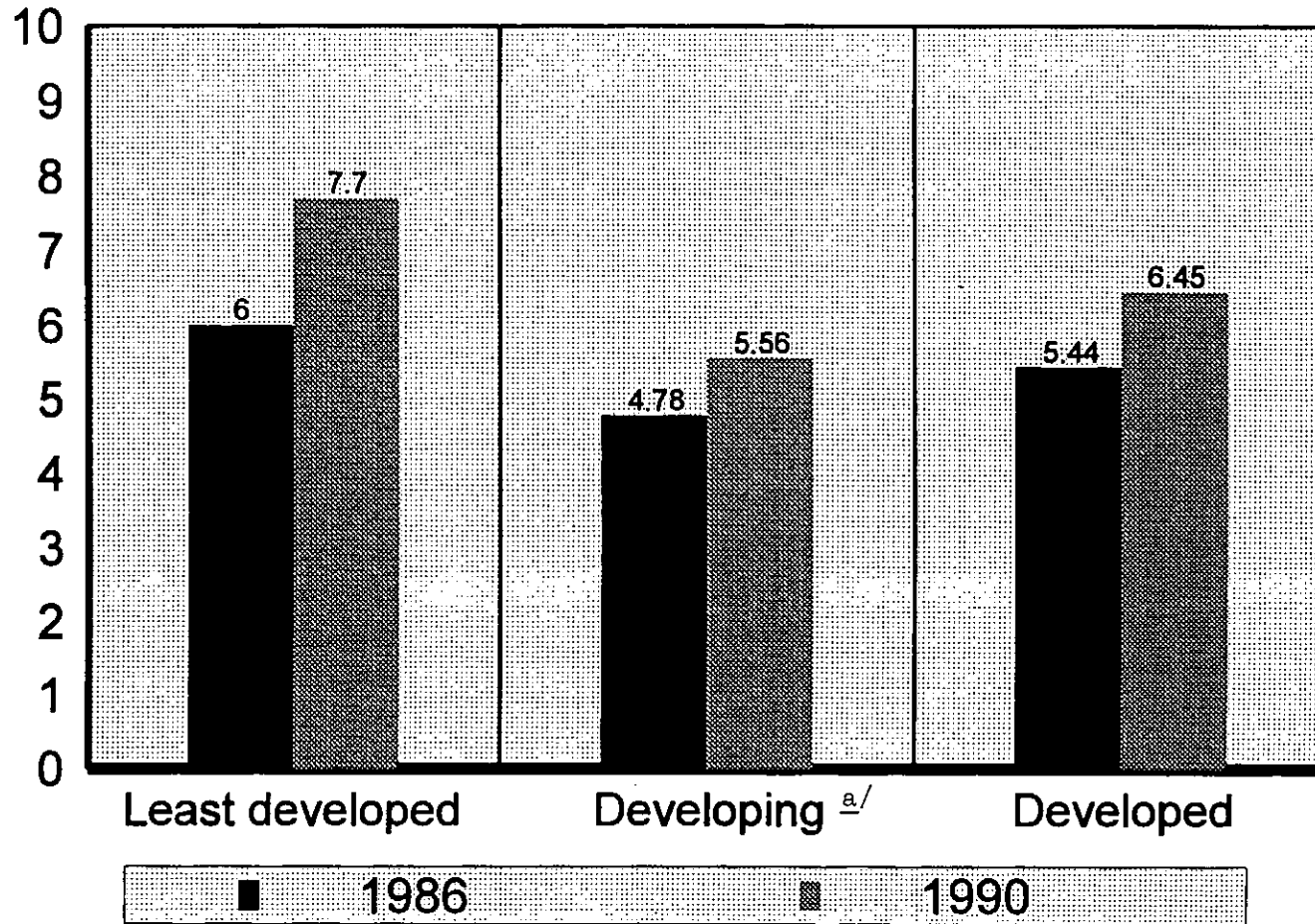


Note: n=6 for least developed countries, n=19 for developing countries and n=20 for developed countries.

^{a/} Including the total of all custodial and management staff and excluding treatment staff (owing to a lack of data).

^{b/} Excluding least developed countries.

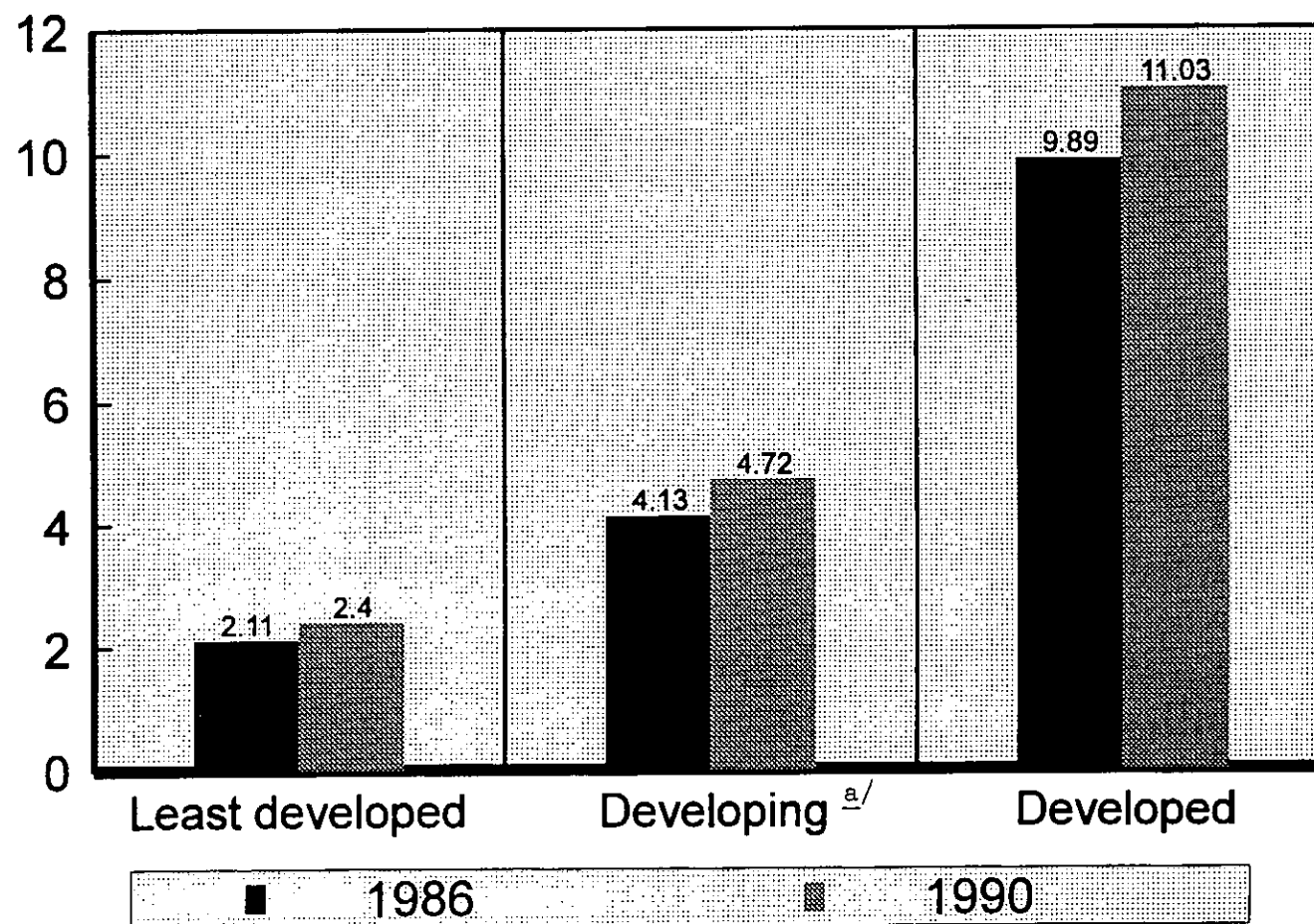
Figure VII. Number of prosecutors per 100,000 inhabitants, by level of national development, 1986 and 1990



Note: n=7 for least developed countries, n=14 for developing countries and n=17 for developed countries.

^{a/} Excluding least developed countries.

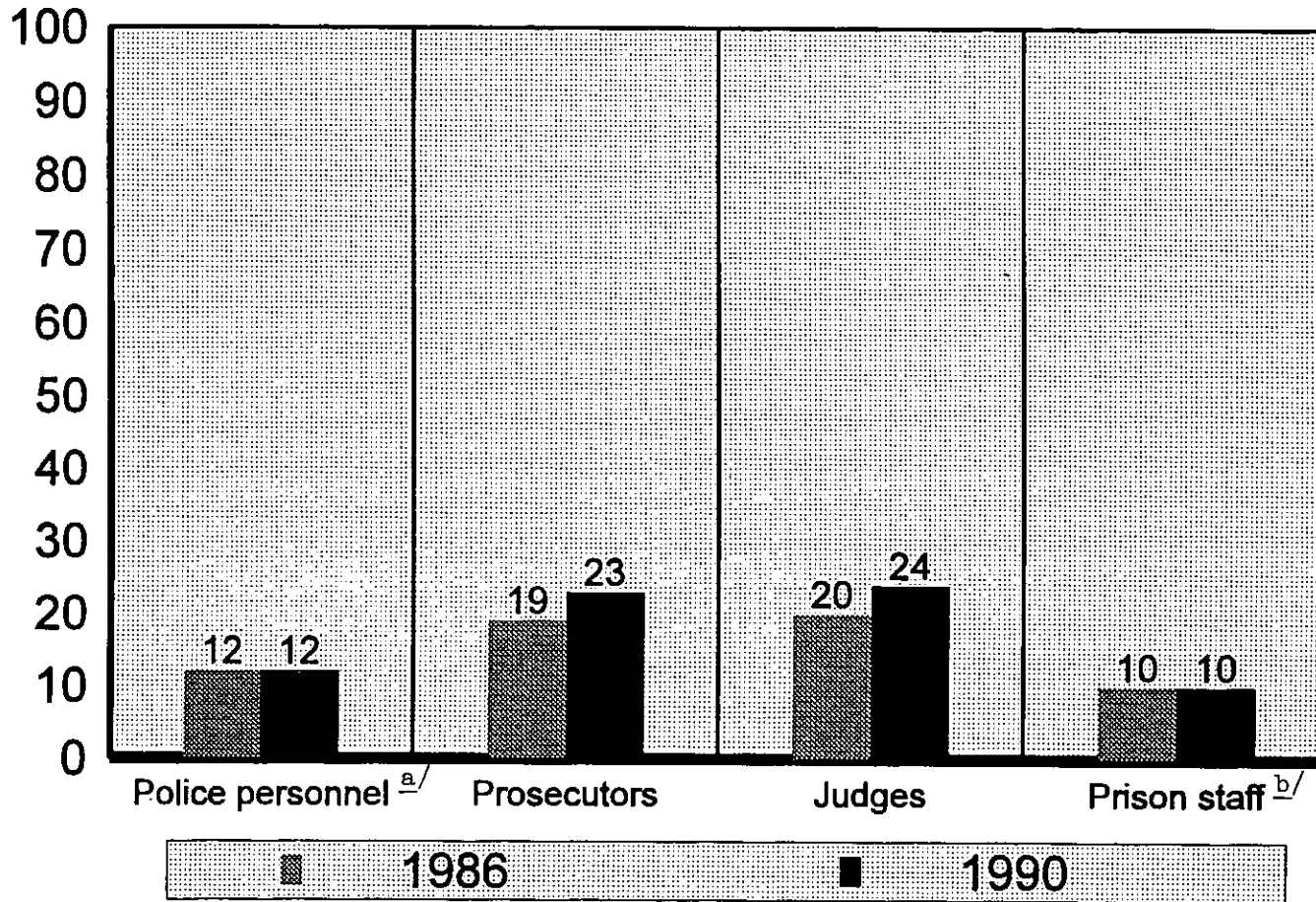
Figure VIII. Number of judges per 100,000 inhabitants, by level of national development, 1986 and 1990



Note: n=7 for least developed countries, n=16 for developing countries and n=13 for developed countries.

a/ Excluding least developed countries.

Figure IX. Female criminal justice personnel as a percentage of all criminal justice personnel, by profession, 1986 and 1990

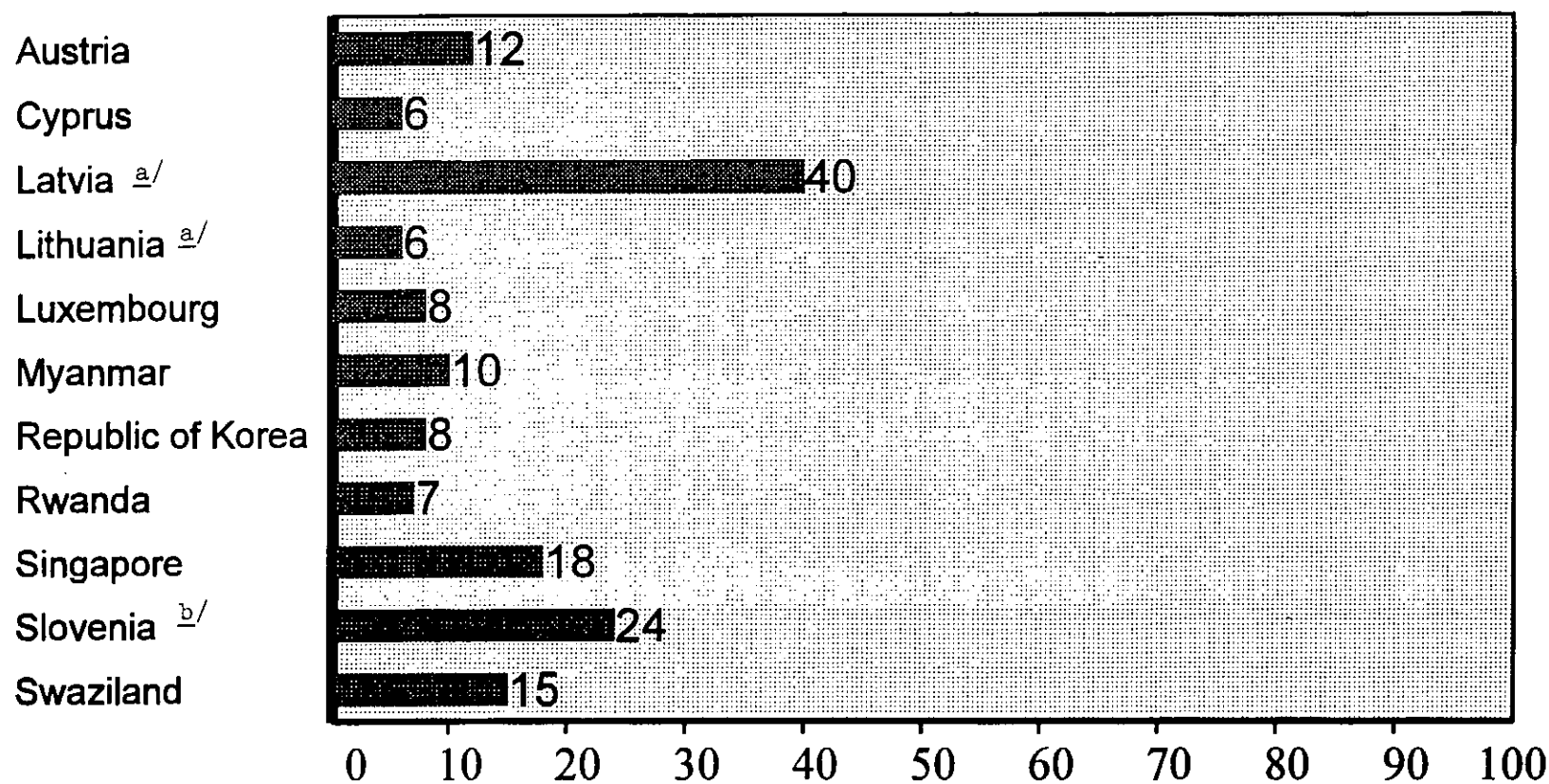


Note: n=38 for police personnel, n=35 for prosecutors, n=43 for judges and n=26 for prison staff.

a/ Including civilians employed by police agencies.

b/ Total of all custodial and management staff.

Figure X. Female criminal justice personnel as a percentage of all criminal justice personnel, selected countries, 1990



^{a/} On 17 September 1991, Latvia and Lithuania were admitted to United Nations membership as independent States.

^{b/} On 22 March 1992, Slovenia was admitted to United Nations membership.

C. Expenditure

43. Another way to view criminal justice resources is to examine patterns in criminal justice expenditure.* How countries allocate money to the various components of their criminal justice systems may be indicative of their national priorities. As shown in figure XI, the police's share of total criminal justice expenditure decreased by 3 per cent from 1986 to 1990. During the same period, the shares of total criminal justice expenditure allocated to courts, prosecution and prisons each rose by 1 per cent.

44. The changes in expenditure seen in figure XI may signal a changing perception of the importance of the role played by police in crime control and an increased reliance on other components of the criminal justice system. It is also interesting to examine how much money countries are spending on criminal justice. Figure XII shows total criminal justice expenditure per capita for the 16 countries or areas for which such data were available.

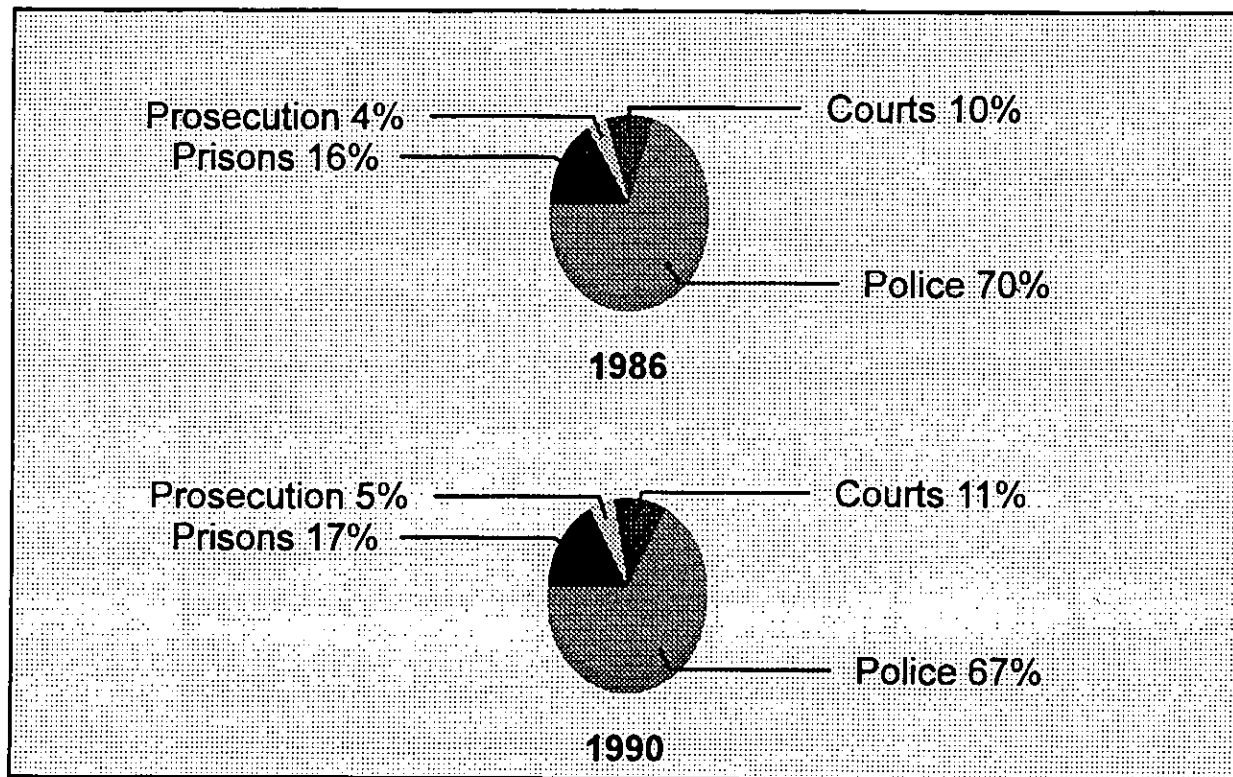
45. While a cursory examination of figure XII shows wide variation in criminal justice expenditure per capita, the data are complex and it is difficult to draw conclusions. Some of the biggest spenders on criminal justice were developed countries such as Denmark, Sweden and the United Kingdom of Great Britain and Northern Ireland (England and Wales), whereas the smallest spenders on criminal justice were least developed countries such as Botswana, El Salvador and Nepal. Developed countries typically have a much higher per capita income, so it is possible that least developed countries are spending a similar amount of their available income on criminal justice. The data in table 7 provide some grounds for such an assumption.

46. There are other difficulties in drawing conclusions from the data on criminal justice expenditure. First, it is difficult to tell what the money is being used for. The proportions used for personnel, buildings, vehicles, uniforms and equipment, technological development, and research remain unknown. The second problem with such data is that they are subject to fluctuations in exchange rates, which in turn affect the buying power of the national currency. Periods of intense inflation or recession, however, may distort the comparative value of even dollar-based data. This observation seems to apply to the period covered by the Fourth Survey. In the years 1986-1990 a number of national economies experienced acute inflation. Thus, to avoid conclusions based solely on the impression made by figure XII, inflation was taken into account.** As table 8 shows that, when adjusted for inflation, a different pattern in criminal justice expenditure emerges. In some countries the differences between the figures adjusted and not adjusted for inflation are large enough to affect the mean value for the whole sample.

*For an analysis of patterns in criminal justice expenditures worldwide, based on data from the Third Survey, see *Trends: The Global View of Crime and Justice*, a special issue of the *UNCJIN Crime and Justice Letter* on findings of the United Nations surveys of crime trends and operations of criminal justice systems, November 1991; and Jon Spencer, "Criminal justice expenditure: a global perspective", *Howard Journal of Criminal Justice*, vol. 32, No. 1 (1993).

**The figures given in national currency were adjusted for inflation by computing the relative change in total criminal justice expenditure between 1986 and 1990 (see the first column of table 8) and by counting the difference between that percentage and the gross domestic product deflator index, using 1985 as a base (see the third column of table 8) (International Monetary Fund, *International Financial Statistics Yearbook*, vol. XLV, 1992).

Figure XI. Distribution of criminal justice expenditure, 1986 and 1990



Source: Based on responses to the questionnaire for the Fourth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (covering the period 1986-1990) received from Botswana, Cyprus, Denmark, El Salvador, Israel, Jamaica, Nepal, Panama, Puerto Rico, Republic of Korea, Singapore, Swaziland, Sweden, Tonga, Turkey and United Kingdom of Great Britain and Northern Ireland.

Figure XII. Total criminal justice expenditure per capita, 1986 and 1990
(US dollars)

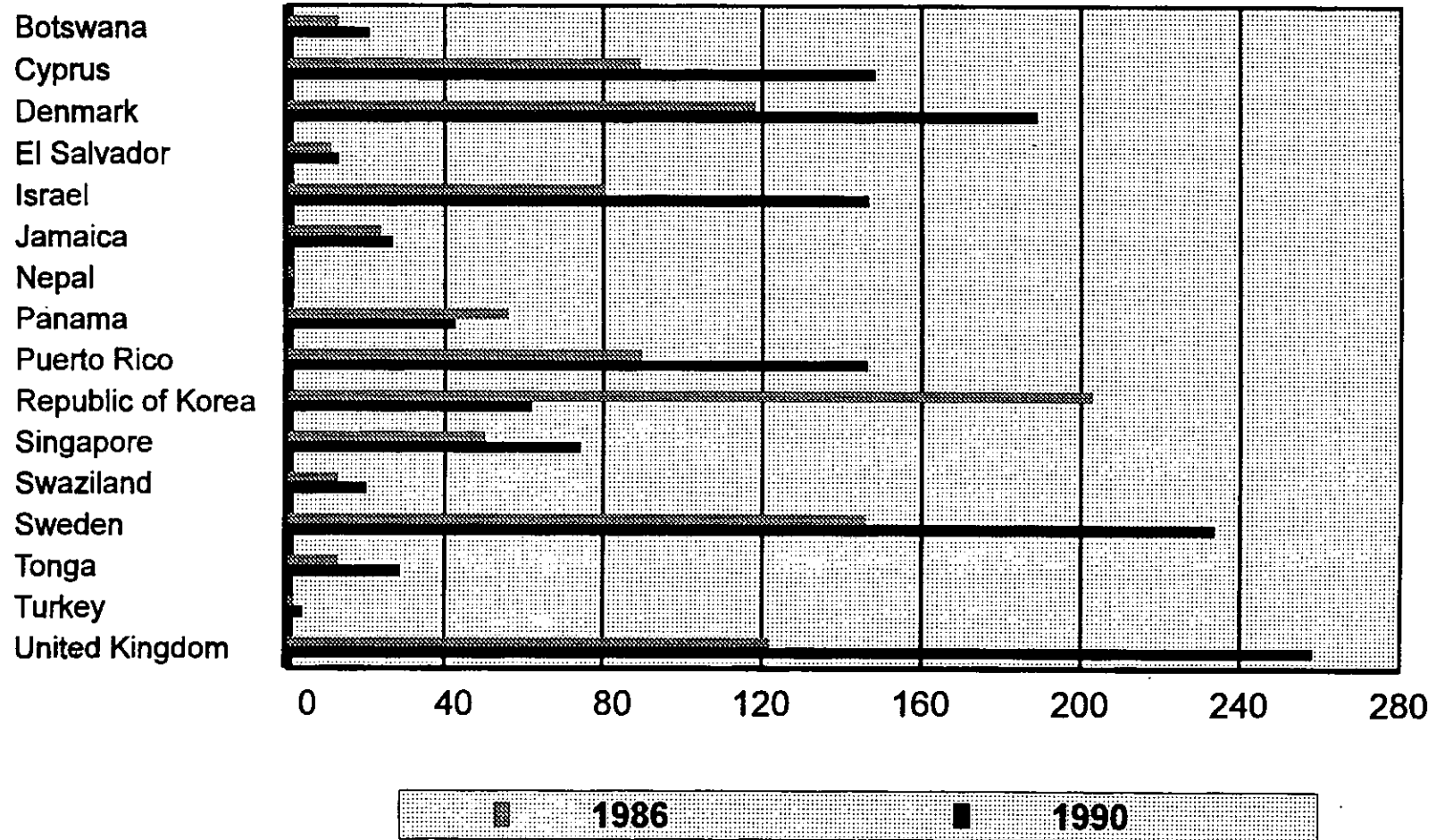


Table 7. Criminal justice expenditure as a proportion of gross national product, selected countries and areas, 1986 and 1990
(US dollars)

Country or area	1986			1990		
	Criminal justice expenditure per capita (1)	Gross national product per capita (2)	Ratio of (1) to (2)	Criminal justice expenditure per capita (1)	Gross national product per capita (2)	Ratio of (1) to (2)
Botswana	13.02	840	1.57	20.86	2 040	1.02
Cyprus	89.28	..	..	148.36	..	..
Denmark	118.18	12 600	0.93	189.10	22 080	0.85
El Salvador	11.17	820	1.36	13.05	1 110	1.17
Israel	80.34	6 210	1.29	146.63	10 920	1.34
Jamaica	23.77	840	2.82	26.71	1 500	1.78
Nepal	1.35	150	0.9	1.52	170	0.89
Panama	56.06	2 330	2.4	42.5	1 830	2.32
Puerto Rico	89.59	..	..	146.26	..	..
Republic of Korea	202.86	2 370	3.78	61.97	5 400	1.14
Singapore	50.11	7 410	0.67	74.35	11 160	0.66
Swaziland	12.84	..	..	20.14	..	..
Sweden	145.98	13 160	1.11	233.52	23 660	0.98
Tonga	12.98	..	..	28.75	..	..
Turkey	1.51	1 110	0.13	3.85	1 630	0.23
United Kingdom of Great Britain and Northern Ireland						
England and Wales	122.00	8 870	1.37	258.21	16 100	1.6
Average			1.53			1.16

Source: Gross national product data from World Bank, *World Development Report 1992: Development and the Environment* (New York, Oxford University Press, 1992), World Development Indicators, table 1.

47. Despite the difficulty in drawing any definitive conclusions, it is clear that the overall quantities and patterns of criminal justice expenditure are changing over time. It would, however, be risky to assert that countries are now spending more on criminal justice than ever before. In general, the average share of gross domestic product allocated to criminal justice (table 7) decreased slightly from 1.5 per cent in 1986 to 1.2 per cent in 1990. In the same period, less money was allocated to policing and more was allocated to other portions of the criminal justice system. But those were only slight changes. In spite of the difficult economic situation in the late 1980s, many countries tried to keep up with the pace of inflation, making endeavours to spend, in real terms, no less money on criminal justice than before.

48. As previous reports have shown, crimes cause human, social and financial costs to victims and society. And when they are officially recorded and processed by criminal justice agencies - no matter how minor the crimes - they become economic costs to Governments.⁴ As crime increases around the world, the economic or "direct" costs of criminal justice systems continue to increase as well. One expensive component of criminal justice systems is prisons. They are examined in section IV below.

Table 8. Changes in total criminal justice expenditure and inflation, selected countries and areas, in national currency, 1986-1990

<i>Country or area</i>	<i>Percentage decrease or increase in expenditure not adjusted for inflation (1986=100%)</i>	<i>Gross domestic product deflator index* (1985=100%)</i>	<i>Percentage decrease or increase in expenditure adjusted for inflation</i>
Botswana	185.4	212.6	-27.2
Cyprus	147.5	122.4	25.1
Denmark	127.0	118.0	9.0
El Salvador	124.0	261.0	-137.0
Israel	272.0	302.0	-30.0
Jamaica	170.0	172.6	-2.6
Nepal	171.5	159.7	11.8
Panama	82.0	108.5	-26.5
Republic of Korea	203.0	131.3	71.7
Singapore	124.5	111.4	13.1
Swaziland	208.3	243.5	-35.2
Sweden	137.0	141.0	-4.0
Tonga	189.3	125.5	60.8
Turkey	1 020.0	770.9	249.1
United Kingdom of Great Britain and Northern Ireland			
England and Wales	163.0	131.0	32.0

Sources: International Monetary Fund, *International Financial Statistics Yearbook*, vol. XLV, 1992; and *World Tables 1993* (Baltimore and London, Johns Hopkins University Press, 1993), p. 573 and 601.

*Gross domestic product deflator measures the relation between the gross domestic product at current and constant prices and is expressed in index form.

IV. PRISONS

49. There are a number of frequently debated issues related to the concept and practice of imprisoning criminal offenders. Prior surveys have consistently noted increases in prison populations and prison expenditure. Those trends have led many countries to search for alternatives to incarceration such as house arrest, electronic monitoring devices, or other forms of "intermediate sanctions". The implementation of these strategies has touched off a number of debates. Among the issues involved are the effectiveness of new sanctions, the possible infringement of human rights (as in the case of electronic monitoring), difficulties in setting up good infrastructure for enforcement (as in the case of community service), and the cost-effectiveness of such measures.

50. Another issue that has gained considerable attention in the last decade has been prison overcrowding. When prisons become full, living standards tend to decline. Human rights organizations are paying close attention to the treatment and living standards of prisoners.⁷ The present section includes a brief examination of imprisonment rates, prison costs and prison overcrowding.

A. Imprisonment rates

51. There are a number of ways to view imprisonment rates. The admission rate, for example, indicates the number of people entering prisons each year. It can vary tremendously from country to country depending on pre-trial detention practices. For example, countries in which a large proportion of suspects are detained before trial may have high admission rates, regardless of sentencing practices. The same holds true for figures on the prison population, which indicate the average daily number of prisoners. Table 9 shows the tremendous variation in the number of admissions and average daily number of prisoners per

100,000 inhabitants for 1986 and 1990. As in the case of crime measurement, figures per 100,000 inhabitants are more accurate for observing trends in imprisonment.

Table 9. Number of prisoners and prison admissions per 100,000 inhabitants, 1986 and 1990

Country or area	Prisoners		Prison admissions	
	1986	1990	1986	1990
Armenia ^a	..	..	118.04	64.80
Australia	71.77	83.73	159.67	129.05
Austria	241.17	261.02	245.71	271.36
Belgium	69.61	63.88	207.76	179.72
Botswana	..	207.89	312.44	242.90
Bulgaria	190.84	122.68	69.02	23.26
Canada	..	..	14.76	16.15
Costa Rica	128.03	120.59	..	..
Cyprus	..	..	78.29	78.05
Denmark	62.53	65.66	279.09	300.02
Ecuador	70.39	73.49	..	..
Ethiopia	79.17	51.32	..	45.40
Finland	81.25	67.88	187.39	177.10
France	76.93	77.80	..	..
Ghana	752.49	..	..	..
Greece	..	..	65.71	76.57
Hong Kong	148.34	208.51	192.71	247.49
Hungary	226.85	119.49	..	..
Israel	..	..	..	79.52
Italy	58.71	45.35	..	..
Jamaica	..	..	106.79	106.90
Japan	45.98	37.79	25.33	18.34
Lithuania ^b	380.65	224.59	129.62	79.65
Malaysia	136.22	128.54	154.48	143.13
Malta	62.50	119.24	..	..
Mauritius	656.06	248.54	235.68	90.17
Netherlands	31.17	44.25	143.50	169.35
New Zealand	83.75	120.06	173.08	177.08
Norway	48.05	56.07	289.11	268.40
Peru	75.92	82.87	..	..
Philippines	27.56	23.63	..	2.34
Poland	265.45	131.60	286.86	134.18
Portugal	82.44	91.72	108.56	112.70
Qatar	..	..	761.98	464.20
Republic of Korea	116.23	122.17	269.40	280.44
Romania	264.07	112.08	..	..
Rwanda	204.26	204.89	45.37	86.72
Saint Kitts and Nevis	258.58	313.64	773.46	975.00
Seychelles	..	..	327.48	129.12
Singapore	160.08	159.70	277.36	266.35
Spain	56.45	73.62	..	..
Sri Lanka	1.49	1.33	90.69	83.14
Swaziland	191.29	128.97	549.34	548.85
Sweden	49.06	53.76	169.51	184.99
Switzerland	..	..	161.87	161.75
Syrian Arab Republic	..	..	65.32	101.52
Tonga	112.73	81.05	123.17	61.05
Trinidad and Tobago	102.98	236.83	141.17	217.53
Turkey	..	..	67.59	76.38
Uganda	58.27	48.22	92.19	95.49
Ukraine	..	..	259.63	183.33
United Kingdom of Great Britain and Northern Ireland	..	..	..	..
England and Wales	93.49	89.64	172.05	133.11
Northern Ireland	123.61	112.33	384.81	295.22
Scotland	109.14	92.59	245.32	201.25
Vanuatu	164.82	131.39	100.60	94.63
Zimbabwe	169.21	167.30	..	..

^aOn 2 March 1992, Armenia was admitted to United Nations membership.

^bOn 17 September 1991, Lithuania was admitted to United Nations membership as an independent State.

52. Some of the changes in imprisonment from 1986 to 1990 seen in table 9 are quite dramatic. One particularly noticeable trend emerged in some eastern European countries where there were massive decreases in daily prison populations and admission rates from 1986 to 1990. Bulgaria, Hungary, Lithuania, Poland and Romania all exhibited significant declines in imprisonment during that period (see also para. 60 below). Other countries or areas such as Ethiopia, Italy, Japan, Mauritius and United Kingdom (England and Wales) showed appreciable declines as well. Some 20 countries and areas (or 40 per cent of the total sample) experienced growing imprisonment rates. There were notable increases in imprisonment in Hong Kong, Netherlands, New Zealand, Republic of Korea and Spain.

53. As mentioned in paragraph 51 above, data on the total prison population are often difficult to compare because of differences in pre-trial detention practices. A country that appears to have a high rate of imprisonment may simply have higher levels of pre-trial detention. One way to find out how prevalent those differences are is to consider the percentage of prisoners who have been convicted and are serving prison sentences. The average proportion of convicted prisoners in the total prison population decreased slightly, from 66 per cent in 1986 to 64 per cent in 1990. In 1990, a relatively higher proportion of prisoners under sentence were being held in penal institutions in developed countries (71 per cent) than in developing countries (51 per cent). As table 10 shows, the differences in this regard between individual countries are overwhelming.

Table 10. Share of convicted prisoners in total prison population, 1986 and 1990 (Percentage)

<i>Country or area</i>	<i>1986</i>	<i>1990</i>	<i>Country or area</i>	<i>1986</i>	<i>1990</i>
Australia	82	80	Portugal	56	72
Austria	57	41	Republic of Korea	54	50
Bulgaria	85	86	Romania	58	41
Czech Republic ^a	87	49	Russian Federation ^c	73	59
Denmark	74	73	Rwanda	68	39
Ethiopia	47	52	Saint Kitts and Nevis	85	83
Finland	82	86	Singapore	90	84
Hong Kong	93	91	Slovakia ^a	33	95
Hungary	67	71	Slovenia ^d	68	70
Italy	40	47	Spain	54	60
Jamaica	55	66	Swaziland	74	74
Japan	83	85	Sweden	83	89
Lithuania ^b	93	81	Uganda	36	36
Malaysia	59	61	United Kingdom of		
Malta	30	29	Great Britain and		
Mauritius	39	36	Northern Ireland		
New Zealand	87	89	England and Wales	77	77
Norway	75	75	Northern Ireland	82	78
Peru	32	24	Scotland	72	78
Philippines	11	12	Vanuatu	61	72
Poland	73	67	Zimbabwe	71	76

^aCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January 1993 as Member States.

^bOn 17 September 1991, Lithuania was admitted to United Nations membership as an independent State.

^cThe Union of Soviet Socialist Republics was an original Member of the United Nations from 24 October 1945. In a letter dated 24 December 1991, Boris Yeltsin, the President of the Russian Federation, informed the Secretary-General that the membership of the Soviet Union in the Security Council and all other United Nations organs was being continued by the Russian Federation with the support of the member countries of the Commonwealth of Independent States.

^dOn 22 May 1992, Slovenia was admitted to United Nations membership.

54. Table 10 confirms that when comparing prison populations from different countries, it is essential to know the pre-trial detention practices of each country. Many of the countries that have higher imprisonment rates in tables 9 and 10 have a low percentage of convicted prisoners. For example, Austria imprisoned over 260 people for every 100,000 of its inhabitants in 1990; the figure for Singapore was around 160. But an examination of the percentage of convicted prisoners shows that the rate for Singapore is higher than the rate for Austria. Multiplying the conviction rate in table 10 by the imprisonment rate in table 9 for each country, it is clear that in 1990 Singapore actually sentenced more people to prison per unit population (133 per 100,000 inhabitants) than Austria (106 per 100,000 inhabitants). This exercise shows the complexity of comparing international data and the danger of drawing hasty conclusions.

55. Though it is difficult to compare international data on imprisonment, it is clear that some countries are beginning to move away from absolute reliance on imprisonment as a means of sanctioning criminal offenders. Further study is needed to ascertain whether those countries are experimenting with other forms of sanctions, are becoming less punitive, or are revising prison sentence standards. Despite this trend away from imprisonment, the costs of prisons, which are explored in the next section, are continuing to increase.

B. Cost of imprisonment

56. Imprisonment is an expensive way to sanction offenders. Prisons require a large initial capital investment for their construction, and an ongoing investment in maintenance and operating expenditure. The salaries of custodial, management, treatment and other staff must be budgeted, and the care of inmates must be provided. Table 11 shows the cost of prisons per prisoner (average daily prison population) for those countries and areas that provided such data. However, it is difficult to make strict comparisons using this type of data. Problems emerge first because national income standards vary greatly and secondly because the data are based on exchange rates that vary depending on the situation of the national economy. It is also difficult to interpret the data because it is not known what percentage of the expenditure refers to operating expenditure, and what percentage refers to capital expenditure. The majority of criminal justice expenditure is for personnel costs; it can only be assumed that the same holds true for prison expenditure.

57. Annual prison expenditure in 1990 ranged from less than US\$ 450 per prisoner in Bulgaria and Rwanda to over US\$ 60,000 per prisoner in Norway and Sweden. Although the cost per prisoner varies tremendously from country to country, one trend is clear: the cost of imprisonment increased between 1986 and 1990 for nearly every country that provided sufficient data on the subject. Because these figures compare economies of different scale, however, it is difficult to tell how much of the difference is due to relative economic disparity, or the level of inflation, and how much is due to genuine differences in cost. A better way to compare the figures might be to look at countries with similar economies. Table 12 shows the cost of prisons per 100,000 inhabitants (rather than per prisoner, as in table 11) for selected developed countries and areas.

58. The cost of prisons per 100,000 inhabitants in developed countries and areas is similar to the distribution observed in table 11. At the upper end, Canada, Sweden and the United Kingdom (England and Wales) each spent over US\$ 5,000 per unit population on prisons in 1990; and at the lower end Japan spent less than US\$ 1,000 in 1990. Table 12 also suggests a positive relationship between the cost of prisons and the level of imprisonment: of the four countries and areas with the greatest increase in cost of prisons (the Netherlands, New Zealand, Norway and United Kingdom (England and Wales)), three (the Netherlands, New Zealand and Norway) experienced the greatest increase in the prison population between 1986 and 1990 (see table 11).

Table 11. Prison expenditure per prisoner and per admission, 1986 and 1990
(US dollars)

Country or area	Per prisoner		Per admission	
	1986	1990	1986	1990
Australia	25 423	33 866	11 428	21 971
Austria	6 221	7 504	6 106	7 218
Belgium	15 300	25 490	5 126	9 060
Botswana	..	2 055	1 025	1 759
Bulgaria	832	443	2 301	2 339
Cyprus	..	..	4 299	4 858
Czech Republic ^a	4 248	7 578	4 508	5 463
Denmark	33 604	46 784	7 529	10 239
Ecuador	891	..	892	..
Finland	20 588	43 363	8 927	16 621
France	66 082	..	36 999	..
Greece	..	..	2 394	4 131
Hong Kong	8 089	10 277	6 227	8 659
Israel	..	..	24 512	27 064
Japan	14 690	23 417	26 667	48 241
Malaysia	1 432	1 736	1 262	1 559
Malta	2 143	1 889	..	..
Mauritius	345	1 347	960	3 715
Netherlands	54 110	..	16 699	26 548
New Zealand	15 618	26 829	7 557	18 191
Norway	38 475	61 366	6 394	12 819
Republic of Korea	2 785	5 025	1 201	2 189
Rwanda	294	205	1 325	483
Singapore	3 787	7 672	2 186	4 600
Spain	8 659	20 274	..	..
Swaziland	2 803	4 729	976	1 111
Sweden	67 688	94 536	19 589	27 472
Tonga	1 662	4 409	1 521	5 854
Turkey	..	..	971	2 400
United Kingdom of Great Britain and Northern Ireland				
England and Wales	21 927	56 830	11 915	38 273

^aCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January as Member States.

Table 12. Prison costs per 100,000 inhabitants, selected developed countries and areas, 1986 and 1990
(US dollars)

Country or area	1986	1990	Country or area	1986	1990
Australia	1 824	2 835	Netherlands	2 396	4 496
Austria	1 500	1 959	New Zealand	1 308	3 221
Belgium	1 065	1 628	Norway	1 849	3 440
Canada	3 971	5 724	Sweden	3 321	5 082
Denmark	2 101	3 072	United Kingdom of Great Britain and Northern Ireland		
Finland	1 672	2 944	England and Wales	2 050	5 094
Japan	673	888			

C. Prison overcrowding

59. Prison overcrowding has become a major issue in criminal justice in the last two decades. As mentioned in paragraph 56 above, the cost of building and maintaining new prisons is extremely expensive, and in some countries the demand for prison space exceeds the supply. This has resulted in prison overcrowding. Although for the Fourth Survey no data were collected specifically on prison overcrowding, a crude estimate of the situation with regard to prison overcrowding in some countries can be derived by comparing the number of total prisoners with the number of available prison beds. For example, a country that has the same number of prisoners as prison beds is operating at 100 per cent capacity. Similarly, a country with twice as many prisoners as beds is operating at 200 per cent capacity. Table 13 shows the prison capacity in 1986 and 1990 in 20 countries and areas for which data were available.

Table 13. Prison capacity, selected countries and areas, 1986 and 1990
(Percentage)

<i>Country or area</i>	<i>1986</i>	<i>1990</i>	<i>Country or area</i>	<i>1986</i>	<i>1990</i>
Bulgaria	107.52	119.24	Saint Kitts and Nevis	128.41	156.82
Costa Rica	125.52	136.74	Slovakia ^a	100.60	54.31
Czech Republic ^a	93.65	55.20	Slovenia ^f	49.60	45.44
Hong Kong	92.76	136.30	Swaziland	58.37	46.05
Italy	91.43	69.54	Trinidad and Tobago	116.12	215.81
Japan	88.27	73.79	Uganda	70.05	67.16
Lithuania ^b	96.72	66.75	United Kingdom of Great Britain and Northern Ireland		
Mauritius	279.75	110.60	England and Wales	113.32	102.53
Poland	98.70	80.09	Scotland	103.67	82.96
Portugal	111.62	116.68			
Republic of Korea	90.32	96.45			
Romania	147.96	67.29			

^aCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January 1993 as Member States.

^bOn 17 September 1991, Lithuania was admitted to United Nations membership as an independent State.

^fOn 22 May 1992, Slovenia was admitted to United Nations membership.

60. Overall, the average prison capacity in the 20 countries and areas fell from 108 per cent in 1986 to 95 per cent in 1990. Those figures must be viewed with caution, however, because they are taken from a sample of only 20 countries and areas for which data were available and are therefore subject to the influence of extreme changes in only one country or area. For example, there were changes in prison capacity in some eastern European countries, which experienced massive political, structural and social changes from 1986 to 1990. In the Czech Republic, Lithuania, Romania and Slovakia, the average prison capacity dropped from 109 per cent to 67 per cent during that period.* If those countries were to be excluded from the analysis, the prison capacity would still have fallen from 108 per cent in 1986 to 103 per cent in 1990. Therefore, in the small sample of countries for which data were available, it appears that some steps may have been taken between 1986 and 1990 to alleviate prison overcrowding.

*Much of the change can probably be attributed to a mass release of prisoners during this turbulent period in eastern Europe. However, prisons in those countries may be starting to experience overcrowding problems once again.

Table 14. Number of prison beds, 1986 and 1990

<i>Country or area</i>	<i>1986</i>	<i>1990</i>	<i>Change (percentage)</i>
Australia	13 810	13 535	19
Belgium	7 267	6 900	-5
Botswana	2 226	2 483	12
Bulgaria	15 500	9 000	-42
Canada	31 409	32 916	5
Chile	21 546	24 860	15
Costa Rica	2 570	2 440	-5
Croatia ^a	4 061	1 963	-52
Czech Republic ^b	30 265	14 791	-51
Denmark	3 734	3 813	2
Finland	3 525	3 059	-13
Greece	4 134	6 500	57
Hong Kong	7 243	7 217	-
Israel	7 643	8 160	7
Italy	36 053	36 776	2
Jamaica	2 400	2 400	-
Japan	58 064	58 606	1
Jordan	4 128	4 198	2
Lithuania ^c	13 600	12 040	-11
Mauritius	2 333	2 333	-
Myanmar	19 500	19 500	-
Netherlands	5 205	7 651	47
New Zealand	2 867	4 211	47
Norway	1 521	2 265	49
Poland	96 294	59 703	-38
Portugal	7 042	7 484	6
Republic of Korea	49 800	51 950	4
Romania	36 550	36 149	-1
Rwanda	12 893	14 713	14
Saint Kitts and Nevis	88	88	-
Singapore	9 430	8 652	-8
Slovakia ^b	13 090	8 200	-37
Slovenia ^a	1 536	1 536	-
Sri Lanka	6 552	6 652	2
Swaziland	2 100	2 100	-
Syrian Arab Republic	4 927	6 273	27
Trinidad and Tobago	861	1 122	30
Uganda	13 240	13 240	-
Ukraine	172 748	144 900	-16
United Kingdom of Great Britain and Northern Ireland			
England and Wales	29 269	35 333	21
Scotland	4 037	4 769	18
Zimbabwe	15 514	15 514	-

^aOn 22 May 1992, Croatia and Slovenia were admitted to United Nations membership.

^bCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January 1993 as Member States.

^cOn 17 September 1991, Lithuania was admitted to United Nations membership as an independent State.

61. Factors associated with prison overcrowding may include delay in the administration of justice, overuse of prison sentences by judges and lack of resources to build additional prisons.* As far as the latter factor is concerned, data for the Fourth Survey indicate that the average number of prison beds remained somewhat stable from 1986 to 1990. Because such a figure may be unduly influenced by changes in larger countries, it may be more informative to look at the percentage change from 1986 to 1990, which essentially sets smaller countries equal to larger ones (see table 14). The average percentage change in prison beds from 1986 to 1990 was only 2.5 per cent. Thus, it appears that the prison overcrowding of the mid-1980s did not result in a general trend towards prison-building in the countries studied. This may, however, also mean that construction costs were prohibitive for most of the responding countries.

62. The second way to alleviate prison overcrowding is to either change sentencing practices, relying more heavily on the use of sanctions other than imprisonment, or to impose shorter prison terms. There is ample evidence, coming from both research and applied penal policy, indicating that a high level of prison population may result from the frequent use of short prison terms and from the relatively rare use of long-term prison sanctions. With the first type of sentencing policy, there is a large number of admissions to and dismissals from prisons in a given year, enabling the prison system to deal with a large number of prisoners. That is not the case with the second type of sentencing policy, where because of less rotation of prisoners, prison overcrowding is more likely to occur and less likely to be solved without resorting to some extraordinary measures such as early release programmes or general amnesties.** Therefore, even simple statistical analysis may assist decision makers in better understanding of the effects that resulting policies may have on prison population.⁸

63. Alternative sentencing and the use of non-custodial sanctions is often seen as the most efficient measures to be developed and utilized against prison overcrowding.*** Though the present report deals with only limited data on this question, there appears to be an increase in budgetary allocations to "community sanctions", which are alternatives to traditional penal measures. This is a welcome trend, the viability of which can be further enhanced by implementing the United Nations Standard Minimum Rules for Non-custodial Measures (The Tokyo Rules) (General Assembly resolution 45/110, annex).⁹ A policy of non-custodial alternatives cannot, however, be regarded as a panacea for prison overcrowding. First, such a policy has its quantitative limits, providing substitutes for relatively short sentences.¹⁰ Secondly, non-custodial measures are widely acknowledged to be inadequate in handling some kinds of petty offenders (e.g. drunkards, vagrants, drug users) and recidivists.¹¹ Thirdly, there are possible side-effects of the extended use of non-custodial sanctions, including growth of the prison population.**** For instance, if these sanctions are not properly harmonized with the entire system of sanctions, an increase rather than a decrease in the number of prisoners might follow their incorporation into the penal code.***** Thus,

*A cumulation of all these factors is not a seldom occurrence, especially in developing countries (see for example Fred Zampa, "Some effects of extreme overcrowding in Peruvian prisons", *Criminal Justice Policy Review*, vol. 5, No. 2 (1991)).

**The observation that crowded prisons forced some jurisdictions to release prisoners earlier than would have been the case with unlimited prison capacity is well documented (see, for example, Sheldon Ekland-Olson and William R. Kelly, *Justice Under Pressure: A Comparison of Recidivism Patterns among Four Successive Parolee Cohorts* (New York, Springer Verlag, 1993); and P. K. Lattimore and J. R. Baker, "The impact of recidivism and capacity on prison populations", *Journal of Quantitative Criminology*, vol. 8, No. 2 (1992)).

***Among the vast literature on this subject two recently published cross-national studies deserve special attention: Josine Junger-Tas, *Alternatives to Prison Sentence: Experience and Developments* (Amsterdam, Kugler, 1994) and Ugljesa Zvekic, ed., *Alternatives to Imprisonment in Comparative Perspective* (Chicago, Nelson-Hall, 1994), sponsored by the United Nations Interregional Crime and Justice Research Institute.

****Apart from the so-called "net-widening effect" (see, for example A. Fiquero and D. L. MacKenzie, "The impact of shock incarceration programs on prison crowding", *Crime and Delinquency*, vol. 40, No. 2 (1994)), the other potential dysfunction of the wide use of non-custodial sanctions is a dichotomization of sentencing: offenders receiving less restrictive sanctions on the one hand and those sentenced to longer prison terms on the other.

*****The criminal policy of formerly socialist countries in Europe provided clear evidence that such a possibility really exists. In Poland, for instance, alternative measures introduced by the Penal Code of 1969 to limit the use of short-term prison sanctions (continued...)

though it is rather crude, the most efficient option is still the use of less custody per prisoner than more alternatives to it.¹²

64. There is another way to make a prison overcrowding problem seem to disappear without changing sentencing practices or building new prisons. If prison authorities reduce the amount of space allocated to each prisoner, thus reducing living standards, then it may seem on paper as if there were no overcrowding problem. This is similar to a tactic sometimes used by urban planners who, when faced with the problem of finding more parking spaces for motor vehicles, simply have the parking lines redrawn closer together.*

65. It is difficult to determine, on the basis of the available data, what the minimum standards are for allocating prison space and beds to prisoners in individual countries. Although there is statistical evidence of a change having occurred in the prison overcrowding problem, it is unknown whether it reflects a true substantive change in prison conditions or simply the appearance of change. However, if the prison authorities simply "redrew the lines", there would most likely have been a large increase in the amount of space available in prisons from 1986 to 1990. Such a trend was not confirmed by the data (see table 14). It is difficult to draw definitive conclusions about prison overcrowding based on official data sources. Nevertheless, the data collected for the Fourth Survey suggest that, on the average, there was a decrease in prison overcrowding from 1986 to 1990.

V. IMPROVING THE RESPONSES TO THE UNITED NATIONS SURVEYS OF CRIME TRENDS AND OPERATIONS OF CRIMINAL JUSTICE SYSTEMS

66. The number of replies received for the four United Nations surveys of crime trends and operations of criminal justice systems has increased with each survey. Sixty-four replies were received for the First Survey, 77 for the Second Survey, 95 for the Third Survey and 100 for the Fourth Survey.** Thirty-six countries participated regularly in all the surveys, regardless of their level of development. There are still 46 countries and areas*** that, for various reasons,**** have not replied to any of the United Nations survey requests. For seven countries, the Fourth Survey was the first such survey in which they had participated.

****(...continued)

unexpectedly became, in court sentencing practice, alternatives to fines. Moreover, the statutory upgrading of the minimum prison sanction from one week to three months had a strong impact on the increase (by almost one third) in the number of convicted prisoners, from 72,000 in 1968 to 93,500 in 1973. All of this occurred in a period of considerable decline in crime and conviction rates (see T. Bulenda, Z. Holda and A. Rzepinski, "Poland", F. Dünkel and J. Vagg, eds., *Waiting for Trial: International Perspective on the Use of Pre-Trial Detention and the Rights and Living Conditions of Prisoners Waiting for Trial*, vol. 1 (Freiburg in Breisgau, Germany, Max Planck Institute for Foreign and International Criminal Law, 1994)).

*In the Fourth Survey questionnaire, data was requested on the "total number of spaces (beds) available". In many prisons, however, there are no beds; there are only sheets, blankets or mats. A better measure of the number of available "spaces" might be the total amount of living space (area, measured in either square metres or square feet) available. That would make it easier to draw conclusions about standards of living.

**It should be added, however, that the number of countries has increased as well, especially since the former Union of Soviet Socialist Republics broke up into separate sovereign States.

***The following countries and areas have not replied to any of the United Nations surveys of crime trends and operations of criminal justice systems: Afghanistan, Albania, Angola, Benin, Bhutan, Bolivia, Burkina Faso, Cambodia, Cameroon, Central African Republic, Comoros, Congo, Côte d'Ivoire, Democratic People's Republic of Korea, Djibouti, Dominican Republic, Equatorial Guinea, Gambia, Grenada, Guinea, Guinea-Bissau, Haiti, Kenya, Lao People's Democratic Republic, Liechtenstein, Mali, Mauritania, Monaco, Mongolia, Mozambique, Namibia, Nauru, Nicaragua, Niger, Nigeria, Papua New Guinea, Samoa, San Marino, Sao Tome and Principe, Solomon Islands, Somalia, Togo, Tunisia, Viet Nam, Yemen and Zaire.

****The reason for not sending a reply to the surveys varies from country to country (see the findings of the recent world survey on the availability of criminal justice statistics conducted by Gerhard Mueller of Rutgers University, at New Brunswick, New Jersey, United States of America, available via the United Nations Crime and Justice Information Network file transfer protocol on Internet (128.20433.18)).

67. Replies are still being received for the Fourth Survey, and it is possible that the total number of replies may exceed 100. It should be borne in mind, however, that replies were received for the Fourth Survey from countries in transition that had formerly been part of larger countries. Although the Fourth Survey questionnaire had been considerably reduced in comparison with the Third Survey questionnaire and the reply procedures had been streamlined, the response rate did not improve. It seems, however, that it is not the number of replies from developing countries alone but the quality of the replies that matters most, for developing and developed countries alike. Therefore, in an effort to improve the response rate of future surveys, the present reply lists (a) countries that provided the poorest quality of data and (b) countries that have not yet replied to the United Nations surveys.

A. Improving the response rate

68. Pursuant to the suggestions of the ad hoc expert group, the percentage of questions left blank by each country or area that sent data for the Fourth Survey are shown in table 15. The Fourth Survey questionnaire requested 796 pieces of information.

Table 15. Proportion of questions left blank in replies received for the Fourth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems, covering the period 1986-1990 (Percentage)

<i>Country or area</i>	<i>Proportion</i>	<i>Country or area</i>	<i>Proportion</i>
Argentina	71	Ireland	..
Armenia ^a	..	Israel	53
Australia	67	Italy	57
Austria	54	Japan	41
Bahrain	88	Jordan	78
Barbados	75	Kazakhstan ^a	..
Belarus ^b	95	Kuwait	91
Belgium	73	Kyrgyzstan ^a	94
Bermuda	84	Latvia ^c	56
Botswana	46	Lebanon	..
Brazil	..	Lesotho	74
Bulgaria	44	Lithuania ^c	61
Canada	61	Luxembourg	86
Chile	59	Madagascar	78
China	..	Malaysia	61
Colombia	..	Maldives	76
Costa Rica	70	Malta	68
Croatia ^c	75	Marshall Islands	92
Cyprus	48	Mauritius	38
Czech Republic ^d	74	Mexico	98
Denmark	42	Myanmar	47
Ecuador	83	Nepal	90
Egypt	80	Netherlands	54
El Salvador	92	New Zealand	78
Estonia ^c	95	Norway	49
Ethiopia	71	Panama	74
Finland	49	Peru	82
France	86	Philippines	81
Germany ^f	77	Poland	61
Ghana	94	Portugal	57
Greece	74	Puerto Rico	97
Hong Kong	40	Qatar	62
Hungary	48	Republic of Korea	50
India	68	Republic of Moldova ^a	47

<i>Country or area</i>	<i>Proportion</i>	<i>Country or area</i>	<i>Proportion</i>
Romania	44	Tajikistan ^e	88
Russian Federation ^f	..	Thailand	93
Rwanda	38	Tonga	57
Saint Kitts and Nevis	60	Trinidad and Tobago	85
Seychelles	67	Turkey	37
Sierra Leone	98	Uganda	86
Singapore	46	Ukraine	50
Slovakia ^d	78	United Kingdom of Great Britain and Northern Ireland	
Slovenia ^d	25	England and Wales	47
South Africa	86	Scotland	46
Spain	68	Uruguay	51
Sri Lanka	55	Vanuatu	64
Swaziland	43	Venezuela	80
Sweden	43	Yugoslavia	31
Switzerland	72	Zimbabwe	95
Syrian Arab Republic	42		

^aOn 2 March 1992, Armenia, Kazakhstan, Kyrgyzstan, Republic of Moldova and Tajikistan were admitted to United Nations membership.

^bOn 19 September 1991, Byelorussia informed the United Nations that it had changed its name to Belarus.

^cOn 22 May 1992, Croatia and Slovenia were admitted to United Nations membership.

^dCzechoslovakia was an original Member of the United Nations from 24 October 1945. In a letter dated 10 December 1992, its Permanent Representative informed the Secretary-General that the Czech and Slovak Federal Republic would cease to exist on 31 December 1992 and that the Czech Republic and the Slovak Republic, as successor States, would apply for membership in the United Nations. Following the receipt of its application, the Security Council, on 8 January 1993, recommended to the General Assembly that the Czech Republic and the Slovak Republic be admitted to United Nations membership. The Czech Republic and Slovakia were thus admitted on 19 January 1993 as Member States.

^eOn 17 September 1991, Estonia, Latvia and Lithuania were admitted to United Nations membership as independent States.

^fThe Federal Republic of Germany and the German Democratic Republic were both admitted to membership in the United Nations on 18 September 1973. Through accession of the German Democratic Republic to the Federal Republic of Germany with effect from 3 October 1990, the two German States have united to form one sovereign State. As from the date of unification, the Federal Republic of Germany acts in the United Nations under the designation of "Germany".

^gThe Union of Soviet Socialist Republics was an original Member of the United Nations from 24 October 1945. In a letter dated 24 December 1991, Boris Yeltsin, the President of the Russian Federation, informed the Secretary-General that the membership of the Soviet Union in the Security Council and all other United Nations organs was being continued by the Russian Federation with the support of the member countries of the Commonwealth of Independent States.

69. As seen in table 15, there is a tremendous variation in the percentage of missing values in the replies received for the Fourth Survey. The following countries and areas left blank 90 per cent or more of the Fourth Survey questions: Belarus, El Salvador, Ghana, Kuwait, Kyrgyzstan, Marshall Islands, Mexico, Puerto Rico, Sierra Leone, Thailand and Zimbabwe. Contrary to expectations, the quality of a country's responses were not closely linked to its level of socio-economic development: two of the four most complete responses were submitted by Rwanda and Turkey (the other two were submitted by Slovenia and Yugoslavia). There are various reasons for the lack of responses, the most likely being that the requested data were not available.

But there was also a large number of developed countries that sent replies lacking data although it is likely that in those countries such data exist.* It is hoped that if the United Nations surveys are conducted every two years rather than every five years, the quality and quantity of the replies provided by Member States will continue to improve.

70. Even in the most complete reply received for the Fourth Survey, answers were provided for only 75 per cent of the questions. That should not be taken as a sign that certain portions of the survey contain questions that are too difficult to answer. Though some questions elicit fewer replies than others, there are simply differences in the kinds of information that countries are able to provide. Some countries have good statistical records on prisons but little information on courts; others have more information available on courts than on prisons. Thus, all of the questions in the Fourth Survey received at least a few responses. Although there has been an improvement in survey responses in each of the four surveys, there is a need for countries to provide more complete replies to the survey questionnaire (see table 15). Starting with the Fifth United Nations Survey of Crime Trends and Operations of Criminal Justice Systems, the Crime Prevention and Criminal Justice Branch has a new challenge in strengthening its clearing-house function. Only consistent and strong support from Member States may help it to meet its new responsibilities and to successfully deal with that challenge.

B. Improving the quality of data

71. Considering the changes already made in the substance and scope of the previous survey questionnaires, it would be rather unrealistic to expect that in some areas it is still possible to obtain data of better quality simply by modifying the questionnaire itself. This seems to be particularly difficult as far as crime data and other figures heavily dependent on legal definitions are concerned. There is a need for more accurate data, however, particularly on criminal justice expenditure and prison capacity.

72. As the present report demonstrates, data on financial resources allocated to criminal justice are in some countries strongly influenced by inflation. In order to get more reliable information on that subject it is necessary to ask whether the amount of money given in local currency is susceptible to inflation and, if so, what is the annual rate.

73. In the Fifth Survey the questions about criminal justice resources have been expanded in an attempt to elicit more explicit information on how criminal justice expenditure is being used. The changes introduced include total resources spent on personnel (including salaries, uniforms and pensions), capital expenditure (buildings and other construction expenses) and operating expenses.

74. Likewise, more rigid criteria of prison capacity have been used. The question on the total number of beds available has been supplemented by another concerning living space per prisoner (measured in square metres or square feet).

75. These are a few changes that may contribute to the discussion of the Ninth Congress on improving the quality of crime-related data. That discussion should, however, take place in the broader context of a discussion on the availability of criminal justice statistics at the international level. As emphasized in *Human Development Report 1994*,¹³ there is a general need to improve human development statistics, especially through broader use of country profiles. Those statistics are made available in the regional reports of the recurrent United Nations surveys of crime trends and operations of criminal justice systems and via UNCJIN;

*Even the statistical systems of developed countries show considerable "soft spots", especially in the judicial phase of the criminal justice process (see the findings of the world survey on the availability of criminal justice statistics conducted by Gerhard Mueller of Rutgers University, at New Brunswick, New Jersey (United States), available via the United Nations Crime and Justice Information Network file transfer protocol on Internet (128.20433.18)).

however, there is still a need to improve the availability of crime-related data at the international level. Otherwise, criminal justice statistics may remain at the tail end of human development statistics. Accordingly, so may be the perception of the needs and actual role of the criminal justice system *vis-à-vis* other parts of public administration, as an element of an accountable democratic society or good governance in general. It is thus in the best interest of criminal justice decision makers to let their constituencies know how their criminal justice systems operate and how the crime-related data best reflect the operations of those systems. Facts and figures about crime and its control have considerable power: the power to change. Within the framework of the United Nations crime prevention and criminal justice programme, such public information activities have not yet been developed to their fullest potential, so that they may better serve the interests of good governance, including accountability of criminal justice administration.

76. Given the need to improve the quality of crime-related data and to broaden the database for long-term international comparisons, the retrospective research project on the availability of basic indicators of crime and criminal justice, covering the period 1970-1990, could be considered, subject to extrabudgetary funds. Such a project could usefully supplement information on longitudinal crime trends and operations of criminal justice, which has been regularly provided by 36 countries in their replies to the questionnaires of each of the four United Nations surveys. A comprehensive analysis of data from more countries would not only tell more of the changes in the perception that society and officials have of crime at the national and international levels, but would also indirectly permit inferences to be made about the direction of change in criminal behaviour, and about changing patterns in the administration of justice.

77. Finally, the Ninth Congress might present a good opportunity for experts interested in the survey to meet informally (as "friends of the survey") in order to discuss the above-mentioned issues in greater detail, as was the case during the Eighth Congress.

C. New areas of concern

78. Future United Nations surveys of crime trends and operations of criminal justice systems will cover a period of increasing internationalization of crime. The political changes in many countries have resulted in, among other things, people having increased cross-border mobility and in a greater influx of foreigners in countries that had never before been confronted with such a situation. Ethnic conflicts and the fragmentation of countries are spreading. These recent developments have only added new components to the flow of migrants from poorer countries to certain developed countries. In many jurisdictions, crimes committed by foreigners or non-native offenders have become a cause for serious concern, as reflected in public opinion polls. Statistical data on the proportion of foreigners among apprehended, sentenced and imprisoned offenders appear, however, to be less prevalent than the media reports. It would, therefore, be useful to explore the availability of such statistics worldwide by means of future United Nations survey questionnaires. Given international implications of crimes committed by foreigners and the human rights aspect of the treatment of foreign prisoners, the exchange and collection of data on those issues begin with the Fifth Survey.

Notes

¹The development of the United Nations Criminal Justice Information Programme: report submitted by the United Nations Interregional Crime and Justice Research Institute (E/CN.15/1992/CRP.2); see also the progress report on United Nations activities in crime prevention and criminal justice, including detailed information on current programme budget and extrabudget any activities of the Crime Prevention and Criminal Justice Branch (E/CN.15/1992/2).

²Anna Alvazzi del Frate, Ugljesa Zvekic and Jan J. M. Van Dijk, eds., *Understanding Crime: Experiences of Crime and Crime Control*, Publication No. 49 (United Nations publication, Sales No. E.93.III.N.2).

³See *Trends in Crime and Criminal Justice, 1970-1985, in the Context of Socio-Economic Change: Results of the Second United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.92.IV.3); and *Crime Trends and Criminal Justice Operations at the Regional and Interregional Levels: Results of the Third United Nations Survey of Crime Trends, Operations of Criminal Justice Systems and Crime Prevention Strategies* (United Nations publication, Sales No. E.94.IV.2).

⁴*Trends: The Global View of Crime and Justice*, a special issue of the *UNCJIN Crime and Justice Letter* on findings of the United Nations survey of crime trends and operations of criminal justice systems, November 1991.

⁵Gordon C. Barclay and others, eds., *Digest 2: Information on the Criminal Justice System* (United Kingdom of Great Britain and Northern Ireland Home Office, 1993), p. 76.

⁶David H. Bayley, *The Future of Law and Order* (New York, Oxford University Press, 1994).

⁷See, for example, K. Tomaševski, *Prison Health: International Standards and National Practices in Europe*, Publication Series No. 21 (Helsinki, European Institute for Crime Prevention and Control, affiliated with the United Nations, 1992).

⁸Glenn Andre and Ken Pease, "Using routine statistics in estimating prison population for policy assessment", *Canadian Journal of Criminology*, vol. 36, No. 2 (April 1994).

⁹See also *Commentary on the United Nations Standard Minimum Rules for Non-custodial Measures (The Tokyo Rules)* (ST/CSDHA/22).

¹⁰See Norman Bishop, *Non-custodial Alternatives in Europe*, HEUNI Publication Series No. 14 (Helsinki, Helsinki Institute for Crime Prevention and Control, affiliated with the United Nations, 1988), pp. 126-130.

¹¹See H. G. Dharmadasa, "Prison overcrowding and its countermeasures: strategies for a wider use of non-custodial measures", Takashi Watanabe, ed., *Quest for Solutions to the Pressing Problems in Contemporary Criminal Justice Administration*, Resource Material Series No. 42 (Tokyo, Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders, December 1992).

¹²Glen Andre and Ken Pease, "Using routine statistics in estimating prison population for policy assessment", *Canadian Journal of Criminology*, vol. 36, No. 2 (April 1994), p. 144.

¹³United Nations Development Programme, *Human Development Report 1994* (New York, Oxford University Press, 1994), p. 93.

Annex

**OBTAINING DATA FROM THE UNITED NATIONS SURVEYS OF CRIME TRENDS
AND OPERATIONS OF CRIMINAL JUSTICE SYSTEMS**

The Crime Prevention and Criminal Justice Branch of the Secretariat has undertaken the task of collecting data on crime and criminal justice systems around the world. To date, the Branch has conducted four surveys, covering the years 1970-1990. A fifth survey is under way.

Persons wishing to receive microcomputer diskettes containing data from the surveys should carefully read the information below before completing and sending in the order form on the next page. The diskettes are free of charge, though voluntary contributions would be greatly appreciated.

The following sets of data may be requested:

- (a) Data from the First Survey, covering the period 1970-1975 and the Second Survey, covering the period 1975-1980, with supplementary data from other sources: this set of data is available on 5.25" (360Kb) microcomputer diskettes in ASCII (American Standard Code for Information Interchange), also referred to as "TEXT ONLY" or "DOS (Disk Operating System) TEXT";
- (b) Data from the Second Survey, covering the period 1975-1980, and the Third Survey, covering the period 1980-1986: this set of data, containing all the data received by January 1991 in response to the Second Survey and the Third Survey, is available on 3.5" (720Kb) microcomputer diskettes in either SPSS/PC+ (V2.0) system files or Lotus 1-2-3 (Release 2.0) worksheets;
- (c) Data from the Fourth Survey, covering the period 1986-1990: this set of data, containing all the data received in response to the Fourth Survey, is available on 3.5" (1.44Mb) microcomputer diskettes in SPSS/PC+ (V5.0) compressed system files.

CONDITIONS OF USE

Data from the United Nations surveys of crime trends and operations of criminal justice systems, available on microcomputer diskettes, are copyrighted by the United Nations. No portion of the data may be copied, reproduced or published by any means, in its original or any altered form, without the written permission of the United Nations, except for backup and analysis of the statistics by the registered user. Governments, organizations and individuals obtaining the data on diskettes from the United Nations are automatically registered as users when the diskettes are sent to them. The Crime Prevention and Criminal Justice Branch of the United Nations Secretariat will notify registered database users of new technical developments and other updated information. If provided with copies of studies or reports that draw on the database, the Branch will keep a reference list of such material for dissemination to interested parties.

**Form for Ordering Data from the United Nations Surveys of Crime Trends
and Operations of Criminal Justice Systems**

Note: To be returned to Chief, Crime Prevention and Criminal Justice Branch,
United Nations Office at Vienna, P.O. Box 500, A-1400 Vienna, Austria
(Electronic mail: evetere@unov.un.or.at)

Data set(s) requested

Please mark the set(s) of data to be sent:

- Data from the First Survey and the Second Survey, plus supplementary data
- Data from the Second Survey and the Third Survey, in SPSS/PC+ (V2.0) system files
- Data from the Second Survey and the Third Survey, in Lotus 1-2-3 (Release 2.0) worksheets
- Data from the Fourth Survey, in SPSS/PC+ (V5.0) compressed system files

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Voluntary contributions

Persons ordering diskettes may wish to support the survey project by making voluntary contributions to the following account (receipts for contributions will be mailed to the address entered above under "User registration"):

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This archiving project is a collaborative effort between United Nations Office on Drugs and Crime and American Society of Criminology, Division of International Criminology. Any comments or questions should be directed to Cindy J. Smith at CJSmithphd@comcast.net or Emil Wandzilak at emil.wandzilak@unodc.org.