

# PUZZLING STATISTICS

## Is South Africa really the world's crime capital?

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Since the 1990s, South Africa has developed a reputation for being 'the crime capital of the world'. We believe, in other words, that crime levels here are at least as high, but usually higher, than those with which the rest of humanity must contend. This consensus is a staple of dinner party conversation, punditry and political contestation, and has become so entrenched that arguments to the contrary often come across as either disrespectful of crime victims or as politically unctuous. But is this notion empirically true? Any open-minded reading of the existing data suggests that the answer to this question must be tentative and provisional.

**A**ttempts to compare crime across different jurisdictions – an exercise which is necessary to rank South Africa at the top of a world crime league table – must confront and overcome a number of enormously difficult challenges. The most frequently cited methodological problems include:

- differences in the legal definitions of crimes;
- differences in reporting rates (do all people report all crimes to the police?); and
- differences in recording rates (do all police forces actually record the crimes reported to them, and do they do so accurately?).

Having acknowledged these problems and their implications for analysis and interpretation, researchers adopt one of two strategies: either they focus on murder rates or they use victimisation survey data from around the world. The first approach is premised on the conviction that with murder, as opposed to other forms of criminality, definitions are reasonably stable; that because of the seriousness of the crime, people will report

incidents to the police (failing which the police will happen on a corpse and a docket will, in any event, be opened); and that the police will record these accurately.

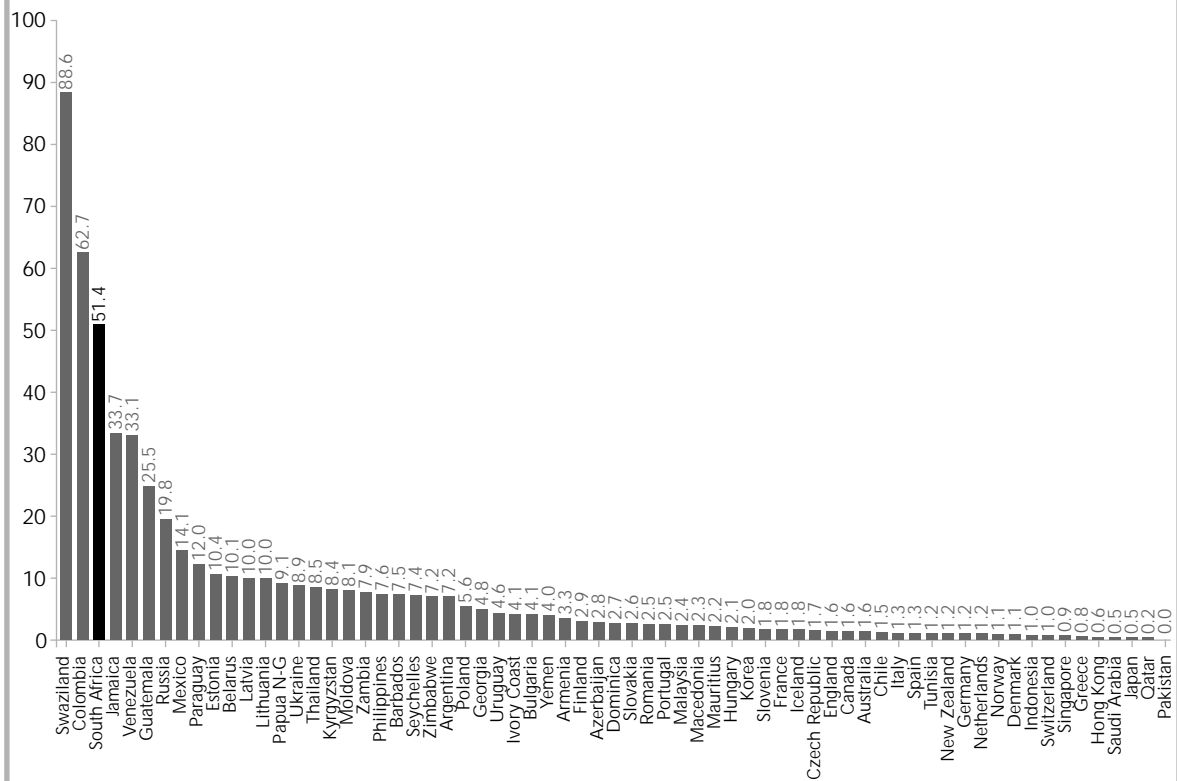
The second strategy – the use of victimisation survey data – is adopted because it short-circuits the problem of differences in legal definition (by using a common definition for all the countries surveyed) and because it avoids the pitfalls created by problems of under-reporting and under-recording.

This article argues that neither approach allows for a definitive ranking of countries by crime level and cannot, therefore, tell us just where South Africa lies.

### **Ranking countries by the murder rate**

There are two sources of official crime data from which a ranking of countries by their per capita homicide rate might be constructed. The first is the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems run by the

Figure 1: Murder rates per 100,000 (2000)



Source: UNODC

United Nations Office on Drugs and Crime (UNODC) every three years since the early 1970s, with the latest data available being for 2000. The survey consists of 518 separate items and is sent to every country represented at the UN. It does not, however, have a particularly high response rate, with far fewer than half of countries responding.

A second source of data is Interpol, although the organisation's statistics are no longer available to the public. What data do continue to exist in the public domain, however, are sourced from the same databases – official police records in each country – as are the data that the UNODC surveys draw on and are, therefore, subject to the same limitations.<sup>1</sup>

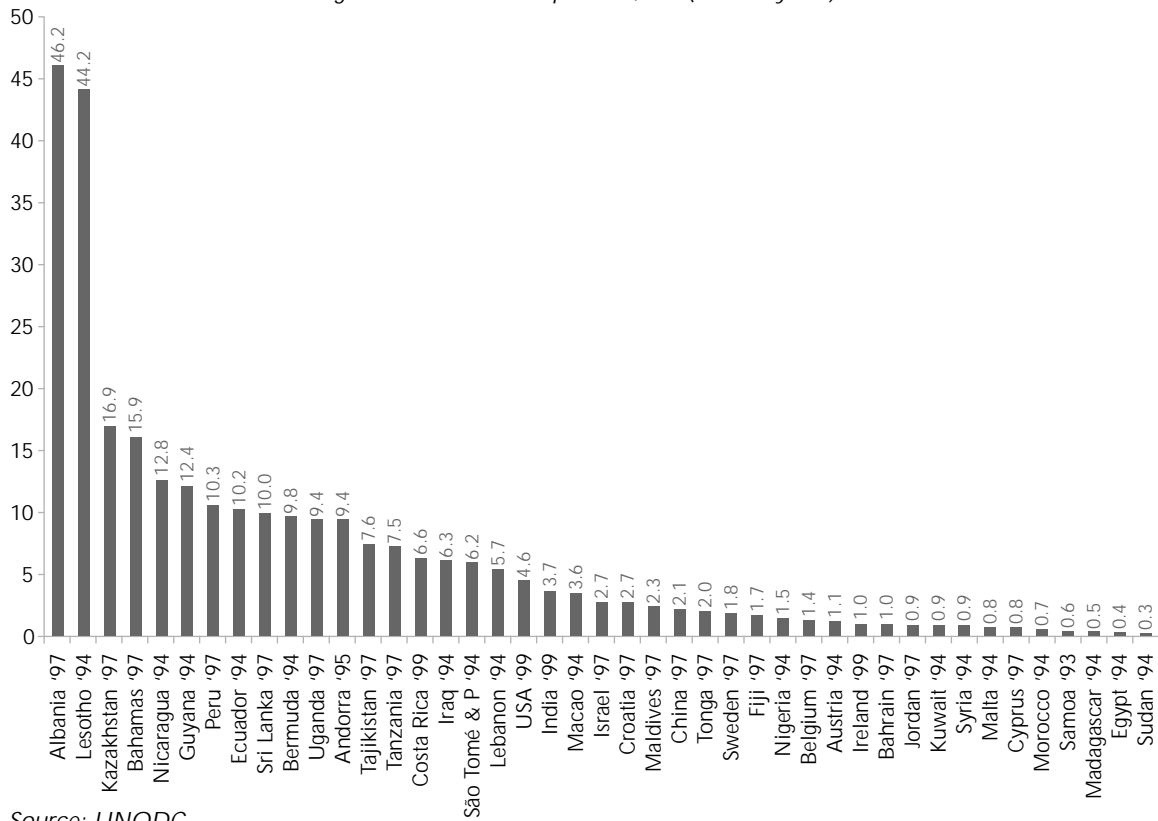
From the data represented in Figure 1 it does appear as if South Africa (with a rate of 51 per 100,000 people) has one of the highest homicide rates in the world. It is often this kind of statistic which is relied upon when people seek to describe this country as

the crime capital of the world. But a couple of factors should give one pause before reaching an overly definitive conclusion.

The first is that only 62 countries (out of 191 UN member states) are represented on this list and some of the omissions are startling. China and India, home to around a third of humanity, do not appear. Neither do other large countries like Brazil, Bangladesh, Egypt, Nigeria and even the United States of America. With data for only eight of the 53 African states (two of which are Mauritius and the Seychelles), developing countries are dramatically under-represented, while the most developed and most stable countries in the world are over-represented; there are 13 countries from western Europe for example.

The problem of missing data can be rectified by using responses from countries made in earlier years as reflected in Figure 2. This adds 43

Figure 2: Murder rates per 100,000 (various years)



Source: UNODC

countries to the list of those for which data exist, taking the total to 105, but at the cost of comparing statistics for the same time period. Adding these countries, however, means that data is now available for the United States (4.6 murders per 100,000 in 1999), India (3.7 in 1999), China (2.1 in 1999), Nigeria (1.5 in 1994) and Egypt (0.4 in 1994).

We are, therefore, in a better position to judge the extent to which South Africa is the world's murder capital. The available data suggest that this is the case as we are third on the top-ten list which is headed by Swaziland and Colombia, and which also includes Albania, Lesotho, Jamaica, Venezuela, Guatemala, Russia and Kazakhstan.<sup>2</sup>

To determine if this list is a reasonable reflection of reality, however, we must return to the premise that murder statistics can be compared across countries because definitions of the crime are common, and

because rates of reporting and recording are high. Are official murder rates, in other words, an accurate account of the risk of homicide confronted by people in different countries?

#### *Problems with the definition of murder*

The UNODC's Crime Trends Survey asks countries to provide data on the number of intentional homicides committed which it defines as "death deliberately inflicted on a person by another person, including infanticide". That seems straightforward enough. In practice, however, it isn't.

One definitional problem relates to the unborn child. In the United States, for instance, the Unborn Victims of Violence Act of 2004 provides that the death or injury of a foetus as a result of a criminal act will be treated as if an identical crime were committed against the mother. As a result, if both are killed or injured, the killer will be guilty of two crimes of equal seriousness. In Ireland, on the other

hand, abortion is illegal and the 1861 Offences against the Persons Act states that any person "performing, attempting and or assisting in an abortion is liable to penal servitude for life".

The problems that arise from this difficulty are, of course, trivial. The same cannot be said, however, for two other kinds of problems: those that relate to the recording of infanticide, and to the recording of conflict-related and politically motivated killings.

One of the most striking features of the demographic profiles of the world's two most populous countries – India and China – is that between the two of them, something like 120 million women are missing. What this means, in essence, is that although the ratio of women to men in the rest of the world is about 1.01 to 1, in those two countries, the ratio is 0.94 to 1 and, if these countries matched the patterns of the rest of the world, there would be 120 million more women living in them.

This variation is explained in part by gender based discrimination in access to income and healthcare, in part by the decision made by mothers to abort female foetuses at a higher rate than male ones, and in part by the high levels of gender violence. This latter category includes, by reputation at least, sex-selective infanticide (including deaths by deliberate neglect so that they appear to be of natural causes). Whatever the precise reasons for this imbalance of males and females, however, it seems reasonable to think that the reported levels of murder in these two countries probably seriously understate the problem.<sup>3</sup>

Deaths that occur as a result of conflicts, on the other hand, are – in terms of the UN's definition – intentional homicides. It remains unclear, however, whether and how conflict related deaths should be treated and, more importantly, whether all countries which have reported their murder statistics to the UN have done so in the same way. Thus, in the United States after September 11, a decision was made not to include the 3,047 deaths that flowed from that attack, and which would have raised the murder figures by almost 20% in national murder statistics. The motivation for this was partly that including these figures would create an outlier on the murder rate trend. It was also driven by a decision to treat those

deaths as having resulted from an act of war rather than from a criminal attack.<sup>4</sup>

In this case, therefore, it appears that the exclusion of deaths which might loosely be characterised as politically motivated, understates the murder rate in the affected country. In South Africa, by contrast, every conflict-related death that occurred in the early- and mid-1990s (including the deaths of those killed by the police) was recorded as a murder.

Whatever their merits, the difference between the American and South African approaches illustrates the problem of how to document deaths that do not conform with a common-sense understanding of murder – an understanding that tends to emphasise deaths that flow from interpersonal violence or from predatory crime. This problem should not be underrated: one estimate is that in 2000 fully one fifth of all people in Africa lived in a country beset by serious conflict.<sup>5</sup>

A similar problem, but one that affects more countries, relates to the treatment of homicides committed by members of a state's security forces. Consider that between 1990 and 1994 the recorded homicide rate in Iraq varied between 5.3 and 7.3 per 100,000 even as thousands of rebellious Kurds and Shiites were rounded up and executed by Iraq's security forces. The same might be said of the Sudan. The latest statistic put the murder rate at 0.3 per 100,000 in 1994, or about one twenty-fifth the level of murder in the United States at that time.

A legitimate response to these comments is that South Africa is not affected by such conflicts and ought not to be compared to countries that are. There are merits to this view, but surely the point about looking at per capita murder figures is, first and foremost, to measure the general population's risk of dying violently. If that is the case, why should it matter whether the risk is criminal or political? To those affected, it no doubt makes little difference, and the fear generated by murderous security forces is at least as great, if not greater, than that generated by murderous criminals.

Apart from questions about the definitions of homicide, the assumption that murder statistics are reliable because they are uniformly well reported and recorded across countries, is also questionable.

### *How reliable is the recorded murder rate?*

Consider, for example some of the more surprising murder rates generated by the UNODC's surveys. These data suggest that the following developing countries have murder rates lower than the European Union average between 1998 and 2000 of 1.7 per 100,000:<sup>6</sup> Fiji (1.7 per 100,000), Chile (1.6), Nigeria (1.5), Tunisia (1.2), Indonesia (1.0), Jordan (0.9), Kuwait (0.9), Syria (0.9), Morocco (0.7), Samoa (0.6), Saudi Arabia (0.5), Madagascar (0.5), Egypt (0.4), Sudan (0.3), Qatar (0.2) and Pakistan (0.1).

These statistics should not be taken at face value. Is it likely, for instance, that Pakistan has a murder rate that is less than a thirtieth of that of Europe – the continent generally believed to be the least violent in the world? Can Sudan be a fifth as violent as England, Austria and Sweden? Can the Nigerian murder rate really be 80% lower than that of the United States? Is Egypt no less violent than Japan? Isn't it, in fact, more plausible that the statistics for these countries are flat wrong? And, if that is the case, why should other statistics generated by these surveys not also be erroneous?<sup>7</sup>

Once it is clear that there are anomalies in the database, it is a relatively simple matter to explain them. Take the case of a poor country in Africa or Asia where police officer per capita numbers are low, there are few police stations at which to report crimes, and in which management skills are weak and records are kept poorly if at all. Add the absence of a sound administrative system (built on only the most rudimentary information technology backbone) linking stations to each other and to their headquarters, and poor communications infrastructure (including phones, faxes and, even in their absence, vehicles and roads). Under these circumstances, it is inconceivable that accurate crime statistics will be kept – even for the crime of murder.

Nor is that all that stands in the way of collecting and presenting accurate murder statistics. The reporting of murders to the police is not, for instance, a foregone conclusion. Apart from the logistical matter of getting to a police station, it is also likely that in countries in which the security forces are themselves a source of violence, both the reporting

and recording of murders will be far lower than is usually assumed by comparative criminologists.

Where this is the case, and, indeed, even where it is not, there is also the small matter of whether the police and the government they answer to will either refuse to divulge crime statistics or will massage them before their release. Indeed, even in democratic South Africa with its legal injunctions for openness and transparency, government has in the past refused to release crime statistics and those that have been released have been greeted with some scepticism. This is likely to be more, rather than less, of a problem in a great many countries around the world.

None of this is to say that South Africa does not have exceptionally high levels of violence. Rather, there is no way to assess how 'exceptional' our violence levels really are. Are there a handful of countries with comparable levels of violence? Do many of the countries for which we have either no data or only implausible data have levels of violence similar to ours? Without other sources of information, there is simply no way of knowing.

It is here that the victimisation surveys are often introduced as an alternative approach to producing data that might be used for cross-country comparisons.

### **Using victimisation surveys to rank countries**

Advocates of these instruments sometimes argue that victimisation surveys offer the prospect of ascertaining the true level of crime, uncontaminated by the under-reporting and under-recording problems that beset police crime statistics. This is true, and, when victimisation surveys use common definitions for crimes when they approach respondents in different jurisdictions, the results can serve as the basis for making cross-country comparisons.

This is the logic behind the International Crime Victims Survey (ICVS) that has been run in 70 countries – although in many, especially in the developing world – these have only surveyed people in a major city rather than in the country as a whole. The results of the most recent surveys are helpfully summarised in the UN's *Human Development Report 2004*.<sup>8</sup>

One difficulty with using the ICVS to rank countries according to their crime level is that the survey does not include questions about murder. This makes it impossible to compare ICVS results with police murder statistics or to rank countries on the basis of murder – the most serious of offences. Rankings, therefore, must be done using other crime types.

The trouble with crimes other than murder, however, is that it is impossible to know how seriously the victims perceived the underlying act to be: not all assaults are equally violent, for instance, and the same is true of robberies. It is not clear, in other words, whether like is really being compared with like. This may not be the case for car theft, for instance, but how can one be sure that all robberies reported are equally serious? The answer is that you cannot be.<sup>9</sup>

Using the results from only the country-level ICVS, South Africa, with nearly 23% of people reporting having been victimised by at least one crime, falls somewhere in the middle of a list of 22 countries surveyed between 1992 and 2001 (Table 1). It leads the list for reported robbery victimisations (2.5%), followed by Poland, Italy, England and Australia. Although not the worst affected, South Africa is towards the top of the rankings for property crimes and assault. In the case of reported sexual assault, however, South Africa is at the bottom of a list headed by New Zealand, Austria and Sweden.

When the ICVS city surveys are compared, Johannesburg – with 38% of residents reporting having been victimised in 1995 – ranks 9th in a list of 35 city victimisation surveys completed between

*Table 1: Country crime rates as measured by victimisation surveys, % victimised in year of study*

|                  | Survey year | Total crime | Property crime | Robbery | Sexual assault | Assault |
|------------------|-------------|-------------|----------------|---------|----------------|---------|
| Australia        | 1999        | 30.1        | 13.9           | 1.2     | 1.0            | 2.4     |
| New Zealand      | 1991        | 29.4        | 14.8           | 0.7     | 1.3            | 2.4     |
| England          | 1999        | 26.4        | 12.2           | 1.2     | 0.9            | 2.8     |
| Netherlands      | 1999        | 25.2        | 7.4            | 0.8     | 0.8            | 1.0     |
| Sweden           | 1999        | 24.7        | 8.4            | 0.9     | 1.1            | 1.2     |
| Italy            | 1991        | 24.6        | 12.7           | 1.3     | 0.6            | 0.2     |
| Canada           | 1999        | 23.8        | 10.4           | 0.9     | 0.8            | 2.3     |
| Scotland         | 1999        | 23.2        | 7.6            | 0.7     | 0.3            | 3.0     |
| Malta            | 1996        | 23.1        | 10.9           | 0.4     | 0.1            | 1.1     |
| Denmark          | 1999        | 23.0        | 7.6            | 0.7     | 0.4            | 1.4     |
| South Africa*    | 2003        | 22.9        | 11.0           | 2.5     | 0.1            | 2.2     |
| Poland           | 1999        | 22.7        | 9.0            | 1.8     | 0.2            | 1.1     |
| France           | 1999        | 21.4        | 8.7            | 1.1     | 0.7            | 1.4     |
| Belgium          | 1999        | 21.4        | 7.7            | 1.0     | 0.3            | 1.2     |
| Slovenia         | 2000        | 21.2        | 7.7            | 1.1     | 0.8            | 1.1     |
| USA              | 1999        | 21.1        | 10.0           | 0.6     | 0.4            | 1.2     |
| Finland          | 1999        | 19.1        | 4.4            | 0.6     | 1.1            | 2.1     |
| Austria          | 1995        | 18.8        | 3.1            | 0.2     | 1.2            | 0.8     |
| Switzerland      | 1999        | 18.2        | 4.5            | 0.7     | 0.6            | 1.0     |
| Portugal         | 1999        | 15.5        | 7.5            | 1.1     | 0.2            | 0.4     |
| Japan            | 1999        | 15.2        | 3.4            | 0.1     | 0.1            | 0.1     |
| Northern Ireland | 1999        | 15.0        | 6.2            | 0.1     | 0.1            | 2.1     |

*Source: UNDP, 2004*

\* South Africa's data is drawn from the ISS survey because the ICVS data for South Africa covers only Johannesburg. Some differences in the definition of crimes surveyed makes comparability with other surveys a little difficult.

1992 and 2001 (Table 2).<sup>10</sup> This is relatively consistent across all crime types except for assault, a crime in which Johannesburg leads this list.

A serious difficulty with all these comparisons, however, is how to interpret a finding that almost 12 times as many Austrian women report some

Table 2: City crime rates as measured by victimisation surveys, % victimised in year of study

|                 | Survey year | Total crime | Property crime | Robbery | Sexual assault | Assault |
|-----------------|-------------|-------------|----------------|---------|----------------|---------|
| Buenos Aires    | 1995        | 61.1        | 30.8           | 6.4     | 6.4            | 2.3     |
| Bogotá          | 1996        | 54.6        | 27.0           | 11.5    | 4.8            | 2.5     |
| Ulaanbaatar     | 1999        | 41.8        | 20.0           | 4.5     | 1.4            | 2.1     |
| Tallinn         | 1999        | 41.2        | 22.5           | 6.3     | 3.3            | 3.7     |
| Kampala         | 1995        | 40.9        | 20.6           | 2.3     | 5.1            | 1.7     |
| Maputo*         | 2001        | 40.6        | 29.3           | 7.6     | 2.2            | 3.2     |
| San José        | 1995        | 40.4        | 21.7           | 8.9     | 3.5            | 1.7     |
| La Paz          | 1995        | 39.8        | 18.1           | 5.8     | 1.5            | 2.0     |
| Johannesburg    | 1995        | 38.0        | 18.3           | 4.7     | 2.7            | 4.6     |
| Tunis           | 1991        | 37.5        | 20.1           | 5.4     | 1.5            | 0.4     |
| Bratislava      | 1996        | 36.0        | 20.8           | 1.2     | 0.4            | 0.5     |
| Asunción        | 1995        | 34.4        | 16.7           | 6.3     | 1.7            | 0.9     |
| Prague          | 1999        | 34.1        | 21.6           | 0.5     | 0.9            | 1.1     |
| Budapest        | 1999        | 32.1        | 15.6           | 1.8     | 0.9            | 0.8     |
| Mumbai          | 1995        | 31.8        | 6.7            | 1.3     | 3.5            | 0.8     |
| Gaborone        | 1996        | 31.7        | 19.7           | 2.0     | 0.7            | 3.2     |
| Tirana          | 1999        | 31.7        | 11.2           | 2.9     | 1.2            | 0.7     |
| Vilnius         | 1999        | 31.0        | 17.8           | 3.2     | 2.0            | 1.4     |
| New Delhi       | 1995        | 30.5        | 6.1            | 1.0     | 1.7            | 0.8     |
| Kiev            | 1999        | 29.1        | 8.9            | 2.5     | 1.2            | 1.5     |
| Cairo           | 1991        | 28.7        | 12.1           | 2.2     | 1.8            | 1.1     |
| Bishkek         | 1995        | 27.8        | 11.3           | 1.6     | 2.2            | 2.1     |
| Sofia           | 1999        | 27.2        | 16.1           | 1.5     | 0.1            | 0.6     |
| Riga            | 1999        | 26.5        | 9.4            | 2.8     | 0.5            | 1.9     |
| Moscow          | 1999        | 26.3        | 10.9           | 2.4     | 1.2            | 1.1     |
| Bucharest       | 1999        | 25.4        | 10.8           | 1.8     | 0.4            | 0.6     |
| Minsk           | 1999        | 23.6        | 11.1           | 1.4     | 1.4            | 1.3     |
| Tbilisi         | 1999        | 23.6        | 11.1           | 1.8     | 0.4            | 0.9     |
| Skopje          | 1995        | 21.1        | 9.4            | 1.1     | 0.3            | 0.7     |
| Jakarta         | 1995        | 20.9        | 9.4            | 0.7     | 1.3            | 0.5     |
| Beijing         | 1991        | 19.0        | 2.2            | 0.5     | 0.6            | 0.6     |
| Zagreb          | 1999        | 14.3        | 4.4            | 0.5     | 0.8            | 0.5     |
| Manila          | 1995        | 10.6        | 3.3            | 1.5     | 0.1            | 0.1     |
| Baku            | 1999        | 8.3         | 2.4            | 1.6     | 0.0            | 0.4     |
| Dar es Salaam** | 1991        | -           | 23.1           | 8.2     | 6.1            | 1.7     |

Source: UNDP, 2004

\* No explanation is offered as to why the figures for individual sub-categories of crime sum to more than the figure for total crime in Maputo.

\*\* No figure for total crime is provided for Dar es Salaam.

form of sexual assault than do South African women. The obvious answer is that this is a case where like is not being compared with like. Although seemingly reasonable, this conclusion is complicated by the fact that a World Health Organisation (WHO) study on violence which disaggregated murder victims by gender found that Austria was the only country of the 101 for which data were available in which female victims outnumbered male victims.<sup>11</sup>

So, even if murder rates are low in Austria (0.8 per 100,000), it might be the case that non-lethal gender violence is exceptionally high given the high proportion of murder victims who are women.<sup>12</sup> Is it 12 times higher than South African rates? That question is unanswerable. The point is that, for all we know, it may be.

### Conclusion

Nothing written here implies that South Africa's crime rate is something to be proud of or, indeed, that we are not near the top of the world rankings. It is to say, however, that there are so many gaps in the data, so much room for doubt and interpretation, that it is not at all certain whether South Africa's crime levels are as exceptional as is often believed.

We can be sure that South Africa's murder rates are far higher than those of the industrialised world. Beyond that – as far as other forms of crimes or countries at other stages of development are concerned – the data are just too patchy, and their interpretation too murky, to know whether South Africa really is the world's crime capital.

### Endnotes

- 1 A SAPS report in 1998 set out Interpol's 1996 crime statistics for 114 countries. The report is no longer available on the SAPS website.
- 2 It should be noted that the latest murder statistics (42.7 per 100,000 in 2003/4) would put South Africa in fifth place on this list, and that the latest recorded murder rate for Albania (46.2 in 1997) is more than six times greater than the rate reported for the year before. It is not clear whether this is a statistical aberration, a misprint or, indeed, a more accurate measure of crime rates in that country.
- 3 For a passionate account of these issues, see the

website of Gendercide Watch at <[www.gendercide.org](http://www.gendercide.org)>. A more sober accounting of the issues is provided by the Nobel Prize-winning economist, Amartya Sen in his 'More than 100 million women are missing' in the *New York Review of Books*, 37(20), December 20, 1990.

- 4 See FBI, *Crime in the United States 2001: Uniform Crime Reports*, Federal Bureau of Investigation, Washington DC, 2002, p 302.
- 5 World Bank, *Can Africa Claim the 21st century?* World Bank, Washington DC, 2000, p 57.
- 6 G Barclay and C Tavares, *International Comparison of Criminal Justice Statistics 2000*, United Kingdom of Great Britain and Northern Ireland Home Office, London, 2002, p 10. Available at <[www.homeoffice.gov.uk/rds/pdfs2/hosb502.pdf](http://www.homeoffice.gov.uk/rds/pdfs2/hosb502.pdf)>
- 7 We should also note that these problems are magnified greatly when crimes other than murder are considered. The latest available figures for 'all recorded crime' for instance, generates a top five (each with more than 10,000 crimes per 100,000 people), of Sweden, Guyana, New Zealand, Dominica and Finland, and a bottom five, with rates below 80 per 100,000, of Indonesia, Paraguay, Egypt, Syria and Pakistan. For what it's worth, of the 109 countries for which such statistics exist, South Africa ranks 14th.
- 8 UNDP, *Human Development Report 2004: Cultural Liberty in Today's Diverse World*, United Nations Development Programme, New York, 2004, pp 215-6.
- 9 There are other problems too. The main ones are that victimisation surveys: don't record 'all' crime – victimless crimes, crimes against children and against business are left out – which will affect a country's ranking according to overall crime rates; respondents' memories are not always up to the challenges of these surveys and crimes which occurred earlier than the sample period may be included while others might be excluded; and sampling problems often mean that the surveys are not representative of the population as a whole.
- 10 It seems likely that Dar es Salaam would rank higher than Johannesburg but for the missing data point.
- 11 WHO, *World Report on Violence and Health*, World Health Organisation, Geneva, 2002, pp 308-313.
- 12 The WHO report has not been discussed in this article despite its presentation of murder data. This is partly because the report is more than a little bashful about the sources of its data and, more importantly, provides no country level data for any African state despite confidently asserting that the overall murder rate in Africa is 22.2 per 100,000 people while the average rate for the world as a whole is estimated at 8.8 per 100,000 (WHO, 2002: 274).