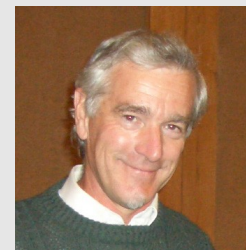


M

asuring the Costs of Crime

We Can Help You...

- **Identify potential sources of data on crime costs**
- **Estimate the costs of crime in your jurisdiction**
- **Identify priority areas for crime prevention and law enforcement**



Why Measure the Costs of Crime?

Measuring the costs of crime – particularly disaggregated by type of crime and by type of cost – assists the various parts of the criminal justice system – including those involved in crime prevention, law enforcement and the dispensing of justice – to prioritise and to balance their resources in a rational way. The actual incidence of crime - that is, the number of occurrences per year - is not a good measure of its seriousness. The most common crimes in most societies are relatively minor ones, and although their costs may in aggregate be quite considerable, they quite reasonably attract lesser attention than more infrequent types of crime, such as homicide and major fraud, which have far more serious consequences on the victims of the crime. While there are indeed important other considerations, including public fear and concern about certain types of crime, the costs of crime, broadly defined, including the property losses, medical costs, costs of lost output and other less tangible types of costs, are a more rational basis for prioritisation in the criminal justice system.

John Walker Crime Trends Analysis has developed a methodology for measuring the costs of crime, based on over 25 years of experience and analysis. We can show you how to use the data to get the best from your criminal justice system.

The Methodology in Brief

The methodology is based on original 1992 research by John Walker as updated by Pat Mayhew for the Australian Institute of Criminology in April 2002, which both produced estimates of the costs of crime at the national level. The starting point is data on recorded crime by offence type. While both Walker and Mayhew used a condensed set of offence types, omitting the generally victimless crimes (such as "going equipped to steal" and "justice procedures"), the Walker model commences with the 27-offence recorded crime data as used by Victoria Police, leaving room for other offence types to be included in the count if ever cost data becomes available for those offences.

The methodology acknowledges that many incidents do not come to the attention of the police, and that crime victims surveys have shown that, although these unrecorded incidents are generally less serious than those that are reported to police, they still incur costs to the victims and to the community. The first step, therefore, is to use information from crime victims surveys to estimate the extent of unrecorded crime, for each type of offence. Survey data for assault, sexual assault, robbery, burglary and motor vehicle theft come, in Australia, from the Australian Bureau of Statistics' Crime and Safety Survey (CSS). Other survey data can be useful, including Women's Safety surveys, Small Business Crime surveys, and the International Crime Victimization Survey (ICVS). These data are used to estimate the ratios of recorded to unrecorded crime, and then to calculate the estimated numbers of unrecorded incidents.

The next step is to identify the average costs per incident. These average cost figures are generally obtained also from crime victimization survey data or from specific studies. Costs are broken down into Medical costs, Lost Output costs, Intangible costs and Property losses.

Medical Costs

Medical costs can be derived from estimates taken from studies such as the Monash University Accident Research Centre (MUARC) survey of the costs of deaths and injuries in Victoria, one cause of which is interpersonal violence. MUARC included medical costs for fatalities, hospitalised and non-hospitalised cases.

Lost Output

Lost output counts the costs of victims not being able to work. Both unpaid and paid work is accounted for—that is, the lost production that a dead or injured victim would have contributed, but in present values. Unpaid work losses come from the imputed worth of household services and voluntary community work. The value of potential lifetime work is translated back to the year in which a death or injury occurred using a "social discount rate". For

no-injury assaults, robberies and property crime, lost output losses can be estimated using UK figures, although Australian survey data for the commercial sector can also be used. The UK estimates are derived from a question in the British Crime Survey (BCS) that asked victims the amount of time they had to take off work.

Intangible Costs

Intangible costs of crime (such as fear, pain, suffering and lost quality of life) do not reflect any resource use, but are now usually included as a legitimate cost to estimate. Nonetheless, estimates of intangible costs are the most tenuous. Three main approaches to estimate them have been taken in costs of crime work elsewhere. There is no specific Australian material. They are:

(i) *Willingness to Pay* - People's preferences can be either stated or revealed (for instance by differentials in house prices in safe and unsafe neighbourhoods).

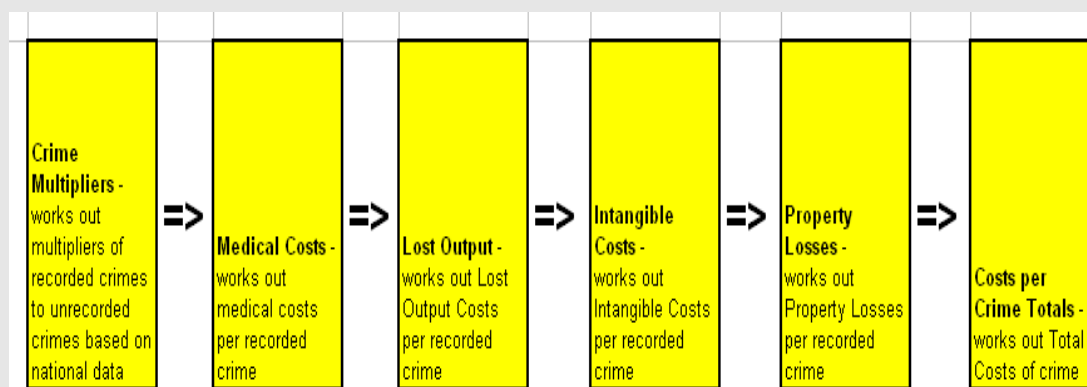
(ii) *Compensation Awards* - This second approach measures intangible losses through jury or court awards for non-economic compensation to victims (or their survivors).

(iii) *Victims' Desired Compensation* - This approach is based on the UK's British Crime Survey (BCS), in which victims were asked to say what their desired compensation would be to account for the physical and emotional impact of what had happened. The question was: "Apart from your financial losses, what would be a reasonable financial sum to compensate you for the upset and inconvenience you and/or your household suffered?" For this study, intangible losses in property crime (and no-injury assaults and robberies) were estimated using the UK estimates from BCS figures on victims' desired financial compensation.

Property Losses

Survey, insurance and police data can be used to estimate the average property loss from crimes such as burglary, robbery and fraud. Surveys of crimes against business are particularly important, since property losses tend to be high in such incidents.

The model then proceeds by multiplying estimated numbers of criminal incidents by the average costs per crime for each type of cost and type of incident.



The Example of Victoria

The model focusses on those offence types for which costs are expected to be non-trivial, and uses a range of Australian, American and British sources to estimate average crime costs per incident, disaggregated into medical costs, lost output costs, intangible losses (such as the lifestyle costs of fear of crime) and property losses. These have all been incorporated in the Victorian model.

Of those crime types that have been able to be estimated, deception accounts for 35% of the costs of crime in Victoria in spite of being only 3.4% of the volume of crime. Shopstealing (at almost 60% of all crimes, when unrecorded crime is included) is estimated to be the most common type of crime, with only one per cent of incidents ever coming to the notice of police, but its contribution to the costs of crime is a mere 3.5% of total.

On the basis of these raw figures, we can calculate that crime costs \$ 923.56 per Victorian per annum, which amounts to 2.42% of Victoria's Gross Domestic Product. The cost of the government's response to crime, as represented by the total cost of the Victorian criminal justice system, adds a further \$1.5 billion (33.6%) to the bill, making it virtually a \$6 billion cost to the community.

Property losses account for just over half of these costs (55.7%), while lost output (19.9%) and intangible costs (20.4%) make up most of the remainder. Medical costs account for only 4.1% of the total.

Table 1. Compilation of Estimates of the Costs of Crime in Victoria, 2003.

Offence Type	# Recorded Crimes	Estimated # Unrecorded Crimes	% of the Volume of Crime	Medical Costs (\$million)	Lost Output (\$million)	Intangible Losses (\$million)	Property Losses (\$million)	Estimated Cost of Crime (\$million)
Homicide	179	0	0.00%	1.5	227	72.9	n.e	301
Rape	1,209	31,208	1.10%	9.3	42.9	47.3	n.e	99
Sex (Non-rape)	5,563							
Robbery	3,214	17,151	0.60%	7.4	21.3	31.9	21.9	83
Assault	25,104	108,258	3.90%	30.5	104.7	112.8	n.e	248
Abduction / Kidnapping	373	1,609	0.10%	0.5	1.6	1.7	n.e	4
Arson	3,402	6,804	0.30%	n.e	n.e	278.4	112.6	391
Property damage	42,915	213,770	7.50%	n.e	13.6	81.7	95.3	191
Burglary (aggravated)	1,871	84,886	4.40%	n.e	47.3	128.2	213.2	389
Burglary (residential)	39,930							
Burglary (other)	24,349							
Deception	28,933	86,799	3.40%	n.e	n.e	n.e	1,559.30	1559
Handle stolen goods	9,618	n.e	0.30%		included in (Theft other)			n.e
Theft from motor vehicle	56,469	146,480	5.90%	n.e	5.2	56	58.6	120
Theft (shopsteal)	20,038	1,983,762	58.50%	n.e	21.3	n.e	212.6	234
Theft of motor vehicle	29,053	1,453	0.90%	n.e	6.5	42.1	129.8	178
Theft of bicycle	7,190	2,064	0.30%		included in (Theft other)			n.e
Theft (other)	67,432	269,675	9.80%	n.e	3.8	56.6	75.5	136
Drug (cult, manuf, traffick)	4,462	26,384	1.20%	131.6	389.9	n.e	n.e	521
Drug (possess, usage)	8,730							
Going equipped to steal	833	n.e	0.00%	n.e	n.e	n.e	n.e	0
Justice procedures	13,415	n.e	0.40%	n.e	n.e	n.e	n.e	0
Regulated public order	2,135	n.e	0.10%	n.e	n.e	n.e	n.e	0
Weapons / explosives	5,933	n.e	0.20%	n.e	n.e	n.e	n.e	0
Harassment	2,076	n.e	0.10%	n.e	n.e	n.e	n.e	0
Behaviour in public	4,308	n.e	0.10%	n.e	n.e	n.e	n.e	0
Other	9,063	n.e	0.30%	n.e	n.e	n.e	n.e	0
Traffic	29,135	n.e	0.90%	n.e	n.e	n.e	n.e	0
Totals	446,932	2,980,303	100.00%	181	885	910	2,479	4454

n.e. = not estimated

Using the Model

The model can be seen as part of a suite of strategic planning and forecasting models developed and used by the Department of Justice. Updating of the model, using the most recent recorded crime data, can be done annually, and the results included as an integral part of Performance Reporting. The data that the model generates will be a valuable source of information for budget bids from the Department, and justice system agencies including Police, Crime Prevention and Victim Services will find it useful in presenting cost benefit analyses of their program proposals. When used in conjunction with the justice system futures modelling, the costs of crime model will give business units and agencies the ability to:

- estimate the costs of expected future patterns and levels of crime;
- determine what resources may be required to fund policy responses to crime; and
- assess the impact of government initiatives to reduce crime, in cost-benefit terms.

It is also possible to use the model at the regional level, by entering data at the region, or local government area level, to break down the costs of crime by region, enabling the justice system to determine if resources are being targeted at the most needy geographical areas.

Outcomes from the process

Outcomes from the process include:

- Understanding of the variety of impacts crime has on its victims.
- Understanding of the extent of the financial and other impacts of different types of crime on the community.
- A rationale for resource allocation across the crime prevention, control and mitigation areas of the criminal justice system.
- A sound, and connected, basis for strategic planning and budgeting across the whole criminal justice system.

Implications for your justice administration

Management Commitment:

To successfully implement any justice system strategic planning capability, the first requirement is management commitment to enable the necessary data to be collected, the necessary research to be conducted, and the necessary 'joined-up' thinking to take place between the different parts of the criminal justice system. Conducting strategic-level research is difficult, sometimes costly and often has an uncertain payoff, particularly if it involves whole-of-system collaboration. Daily imperatives leave little time for thinking laterally in a joined up way, so all managers have to be encouraged and taught to think in strategic, whole-of-system ways. **John Walker Crime Trends Analysis** can show you how.

Expertise/Technology Required:

This is merely 'knowing what's happening', 'knowing what works', and 'knowing how to measure it'. The technology and skills required are routinely available, and the costs of crime model has been built in standard spreadsheet software such as Microsoft Excel, so that the logic is visible and can be modified as required by competent spreadsheet users. **John Walker Crime Trends Analysis** can show you how.

The processes developed in Australia can readily be adapted to your country's situation, as they do not depend on linguistic, cultural or technological factors and, in fact, use consultative mechanisms already very familiar to most administrators. **John Walker Crime Trends Analysis**, with the resources of the Centre for Transnational Crime Prevention at Wollongong University, have the expertise and capability to assist in the development of a criminal justice system strategic planning capability for your country.

John Walker Crime Trends Analysis' Clients include:

- United Nations Office on Drugs and Crime, Vienna
- The University of Trento, Italy, and the TransCrime Research Institute
- The University of Wollongong, Australia, and the Centre for Transnational Crime Prevention
- The Department of Justice, Victoria
- Corrective Services Departments of Victoria, South Australia, Tasmania, Western Australia, the Australian Capital Territory, New Zealand and Colorado (USA)
- The Victoria Police
- The Australian Transaction Reports and Analysis Centre
- The Commonwealth Department of Aboriginal Affairs
- The Department of the Attorney General of Australia
- The Australian Capital Territory Juvenile Justice Department

John Walker Crime Trends Analysis' Awards and Client Responses include:

- John Walker ranked amongst the 25 most cited criminologists in the world's major international journals since 1985, and in the top three in Australasia¹.
- Modeling approach fundamental to CORE – the Public Correctional Enterprise Victoria - being awarded a Silver Medal for Business Excellence during 2003² - the highest level ever awarded to any Australian public service agency.
- Acknowledged by the Victorian Department of Treasury and Finance as best practice in the Victorian public service (see their [Management Reform Program Case Study](#))³
- Modelling contributed to the awarding of a prize to the Victorian Community Corrections agency for for "Breaking new ground" at the "Probation 2004" international conference⁴. This award recognised "exemplary community corrections projects which serve to advance the knowledge, effectiveness and the integrity of the criminal justice system".
- "While others generate publicity for wild estimates of the extent of money laundering, John Walker modestly devotes much of his life to the development of complex models to identify risks and to quantify aspects of the money laundering problem"⁵.
- "For far too long the illicit drug market has been able to operate and hide in obscurity. It has taken much work and dedication, across the world, to shed light on this pernicious market". ...John Walker's... "collaboration was vital to the development of the model which produced the estimates for the value of the illicit drug market"⁶.

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¹ Cohn E.G., Farrington D.P., *Changes in the Most-Cited Scholars in Major International Journals between 1986-90 and 1991-95*, Brit.Jnl of Criminology Vol 38 No 1, 1998.
² <http://www.businessexcellenceaustralia.com.au/BEA/GROUPS/BEA/NEWS/15-03/NEWS15-03.HTM> records that CORE was... "the first corrections jurisdiction in the world to gain recognition in such an awards process."
³ [http://www.dtf.vic.gov.au/DTF/RWP323.nsf/0/1fa2bf76c60e15caca256bd7001ac58b/\\$FILE/DOJ%20Envirmnt%20Scanning%202003.pdf](http://www.dtf.vic.gov.au/DTF/RWP323.nsf/0/1fa2bf76c60e15caca256bd7001ac58b/$FILE/DOJ%20Envirmnt%20Scanning%202003.pdf)
⁴ <http://www.probation.homeoffice.gov.uk/output/Page163.asp>
⁵ http://antimoneylaundering.net/Group_Info/?m=200604
⁶ United Nations Office on Drugs and Crime, Vienna, 2005 World Drug Report, Volume 1 – Preface and Acknowledgments.