

Appendix C: Cost Benefit Analysis – Aboriginal Courts

Introduction

In order to assist the Commission and readers of this Final Report to better understand the issues faced by Aboriginal people in the criminal justice system and to gauge the potential effectiveness of the Commission's recommendations, an evaluation was commissioned¹ on two indicators:

- the general cost of Aboriginal over-representation in the Western Australian justice system; and
- the cost benefit of the establishment of Aboriginal courts pursuant to Recommendation 24 of this Report.

Two distinct methodologies were employed to examine the costs of Aboriginal over-representation in the Western Australian criminal justice system and the net benefits of introducing specialised Aboriginal courts, respectively. The first section provides a broad picture of the overall cost of Aboriginal offending. The second section looks at a specific intervention that has considerable merit in reducing the costs associated with imprisonment and recidivism. Comparisons are made in both sections with earlier studies in Victoria.

Estimation of the Cost of Aboriginal Over-Representation in the Western Australian Justice System

Social commentary often arises when expectations differ from experience or reality. For example, we would generally expect the profile of a sample of the population to mirror the profile of that population. One such sample is prisoners. Here, contrary to our expectation, we find that the proportion of Aboriginal prisoners to be significantly higher than the proportion of the total population that are Aboriginal. This divergence is evident across all jurisdictions in Australia. In Western Australia in 2002, 34 of every 1,000 Western Australians was Aboriginal, yet 410 of 1,000 Western Australian prisoners were Aboriginal. This bias is often referred to as 'Aboriginal over-representation'.

The literature suggests that the causes of this bias are twofold. First, discrimination in the criminal justice system (systemic bias) may result in Aboriginal offenders being more likely to be charged, convicted and imprisoned than non-Aboriginal offenders of similar age and gender and for similar offences.² A second cause of Aboriginal over-representation is attributed to higher crime rates among Aboriginal people, particularly in those crimes that are driven by poverty or socio-economic factors.³ Whatever the cause or causes, there is an argument that, if the Aboriginal proportions of the general and prisoner populations were the same (34 in every 1,000 Western Australians), the costs of crime would be significantly reduced.

In order to evaluate the cost of programs that can reduce both systemic bias and higher crime rates, it is useful firstly to estimate the cost to government of Aboriginal over-representation in the criminal justice system. This can be done by comparing the cost of crime attributed to the current proportion of Aboriginal offenders with the cost of crime if the proportion of Aboriginal offenders was the same as the proportion of Aboriginal people in the population. For Western Australia, this would be 3.43 per cent instead of 41.08 per cent. Table 1 shows the steps in the process of estimating Aboriginal over-representation in the Western Australian criminal justice system. Explanation of these steps follows the table.

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1. The evaluation was undertaken by Dr Margaret Giles of The University of Western Australia.
 2. Office of Inspector of Custodial Services, *Directed Review of the Management of Offenders in Custody*, Report No 30 (November 2005) 5–6; Mahoney D, *Inquiry into the Management of Offenders in Custody and the Community* (November 2005) [9.24]; Weatherburn D, Fitzgerald J & Hua J, 'Reducing Aboriginal Over-representation in Prison' (2003) 62(3) *Australian Journal of Public Administration* 65–73.
 3. See Walker J & McDonald D, 'The Over-Representation of Indigenous People in Custody in Australia' (1995) 47 *Trends and Issues in Crime and Criminal Justice*, 6; Blagg H, Morgan N, Cunneen C & Ferrante A, 'Systemic Racism as a Factor in the Over-representation of Aboriginal People in the Victorian Criminal Justice System' (in press) 10.

Table 1: Derivation of the costs of Aboriginal over-representation

Process	Parameters	Estimates Western Australia ⁴	Estimates Victoria ⁵
Step 1	Total annual cost of crime in Australia 2001/2002 ⁶	\$31,780m	\$32,000m
	State population as a proportion of Australian population	9.79%	25.00%
	Total annual cost of crime in state in 2001/2002	\$3,111m	\$8,000m
Step 2	Indigenous population as a proportion of state population as at June 30 2002	3.43%	0.54%
	Cost of indigenous crime in state in 2001/2002 using indigenous population proportion	\$106.7m	\$43.2m
Step 3	Indigenous distinct persons in state prison population as a proportion of all distinct persons in state prisons in 2002	41.08%	4.40%
	Cost of indigenous crime in state in 2001/2002 using proportion of distinct persons in state prisons	\$1,278.0m	\$352.0m
Step 4	Discount factor	0.75	0.75
	Adjusted cost of indigenous crime in state in 2001/2002	\$958m	\$264m
Step 5	Cost of indigenous over-representation in criminal justice system in state in 2001/2002	\$851.3m	\$220.8m
Step 6	Inflation adjustment ⁷	1.1064	1.1064
	Cost of indigenous over-representation in criminal justice system in state in 2005/2006 ⁸	\$941.9m	\$244.3m

Methodology

The **first step** in this process is to determine the cost of crime in Western Australia. The most recent cost of crime estimation was undertaken by Pat Mayhew in 2002.⁹ No breakdown by state or territory was given. However, subsequent use of the Mayhew results (for example, by the Department of Justice in Victoria)¹⁰ have apportioned the Australian cost of crime estimates using the appropriate population proportion.¹¹ In 2002, the population of Western Australia was just under 10 per cent of the Australian population. Hence, the costs of crime in Western Australia in 2002 are estimated at \$3,111 million, which is 9.79 percent of Mayhew's estimate of the costs of crime for the whole of Australia (\$31,780 million).

4. Parameters for Western Australia are derived from the following sources: (a) Australian Bureau of Statistics, *Australian Demographic Statistics*, Cat No. 3101.0 (December 2002): Australian population at June quarter 2002 was 19,702,200; Western Australian population was 1,929,300; and low and high estimated projections of indigenous populations for 30 June 2002 are 62,577 and 69,669, respectively. These are 3.2435% and 3.6111% of the Western Australian population for the June quarter 2002, respectively. The arithmetic average of these two rates is 3.43%. (b) Crime Research Centre, *Crime and Justice Statistics for Western Australia: 2002* (2003), <http://www.crc.law.uwa.edu.au/_data/page/50334/ch5.pdf> 140, Table I. In 2002, the proportion of indigenous distinct persons is slightly lower (41.0770) than the proportion of all receivals (41.9862) but much higher than the proportion of prisoners on census night (34.4864). This reflects the higher through-put of indigenous prisoners who have relatively shorter sentences.
5. Department of Justice, Victoria, *Victorian Implementation Review of the Recommendations from the Royal Commission into Aboriginal Deaths in Custody. Volume 2 Statistical Information* (Prepared by the Implementation Review Team on behalf of the Victorian Aboriginal Justice Forum, October 2005) Chapter 4 – 'Methodology', 119–22, nn 4–7.
6. Mayhew P, 'Counting the Costs of Crime in Australia' (2003) 247 *Trends and Issues in Crime and Criminal Justice*.
7. CPI (Australia) adjustment: see Australian Bureau of Statistics, *Australian Economic Indicators*, Cat No. 1350.0 (August, 2006).
8. No adjustment is made for increasing crime rates or changes in the distribution of crime between 2002 and 2006.
9. Mayhew P, 'Counting the Costs of Crime in Australia' (2003) 247 *Trends and Issues in Crime and Criminal Justice*.
10. Department of Justice, Victoria, *Victorian Implementation Review of the Recommendations from the Royal Commission into Aboriginal Deaths in Custody. Volume 2 Statistical Information* (Prepared by the Implementation Review Team on behalf of the Victorian Aboriginal Justice Forum, October 2005).
11. This assumes that the distribution of crime across Australia is commensurate with the distribution of population. Hence it ignores how crime rates and costs might differ by geographical dispersion of the sub-population, urbanisation, per capita income, unemployment rates, property ownership, etc.

The **second step** in the process of estimating Aboriginal over-representation in the criminal justice system in Western Australia is to divide the costs of crime for Western Australia on the basis of the state population proportions of Aboriginal and non-Aboriginal people. In this way, if there was no Aboriginal over-representation, then crime by Aboriginal people in Western Australia should, hypothetically, cost the state \$106.7 million (3.43 percent of \$3,111 million) and crime by non-Aboriginal people should cost \$3,004.3 million (96.57% of \$3,111 million) in 2002.

In the **third step**, an estimate is made of the actual cost of crime by Aboriginal people on the basis of the imprisonment proportions of Aboriginal (41.08 percent) and non-Aboriginal people.¹² In Western Australia this estimate is \$1,278 million. This figure, however, includes both the cost of systemic bias as well as the cost of higher crime rates by Aboriginal people. In the Victorian study, a discount factor of 0.75 was applied to the estimate for Victoria to reflect that the Aboriginal population in that state had higher crime rates. Applying the same discount factor, **step four** shows that the adjusted cost of crime by Aboriginal people in Western Australia is estimated at \$958 million in 2002.

The **fifth step** in the process is to subtract the unbiased cost of Aboriginal crime (\$106.7 million from step two) from the adjusted actual cost of crime by Aboriginal people (\$958 million from step four). The result here is \$851.3 million in 2002. The general Consumer Price Index is applied to the 2002 estimate (shown in **step six**) to obtain the estimated cost of Aboriginal over-representation Western Australia in 2006.

Table 1 also shows the process of deriving the figures for Victoria according to the study undertaken by the Department of Justice of Victoria.¹³ In that study, projections of increased costs of over-representation were made based on rising percentages of people in contact with criminal justice system who are Aboriginal (4.4% in 2001–2002, 4.6% in 2005 and 4.9% in 2008). No such projections are available for Western Australia; therefore, the only cost increases included for both states in the table are based on inflation adjustments.

Findings

The cost of over-representation of Aboriginal people in the criminal justice system in Western Australia in 2006 is estimated at about \$940 million. This compares with an estimate for Victoria in 2006 of over \$240 million. There are two reasons for this difference. First, while Victoria has a population two and a half times that of Western Australia, the proportion of Victorians that are Aboriginal (0.5%) is much less than the proportion of Western Australians who are Aboriginal (3.5%). Second, Aboriginal offenders in Western Australia (for example, 41.08% of the distinct prison population in 2002 are Aboriginal) are about 12 times more prevalent compared with Aboriginal offenders in Victoria (eight times).

Aboriginal Courts Cost Benefit Analysis

A condensed evaluation of the financial impact of introducing Aboriginal courts in Western Australia was commissioned. Commonly labelled 'cost benefit analysis', it involves comparing the costs and benefits of a project or investment in dollar terms. Cost benefit analysis has a long history and a specific methodology, and is most often used by governments as a scientific means of evaluating change that may be funded by taxpayers and/or that can affect communities of voters.

The cost benefit analysis of Aboriginal courts in Western Australia was constrained in a number of ways. In particular, actual data for a number of parameters were not readily available. As a result, the cost benefit analysis has followed the approach and parameters used by Acumen Alliance (2006) in its appraisal of the pilot operation of Koori Courts in Victoria (hereafter referred to as the 'Victorian study').¹⁴

12. Following the methodology of Department of Justice, Victoria, it is assumed that these proportions are consistent across all components of the criminal justice system: see Department of Justice, Victoria, *Victorian Implementation Review of the Recommendations from the Royal Commission into Aboriginal Deaths in Custody. Volume 2 Statistical Information* (Prepared by the Implementation Review Team on behalf of the Victorian Aboriginal Justice Forum, October 2005).

13. Ibid.

14. Acumen Alliance, *Cost Benefit Analysis Koori Court Program*, Final Report to Department of Justice Victoria (January, 2006).

Methodology

Table 2 summarises the key costs and benefits of Aboriginal courts in Western Australia. As with the Victorian study, the costs are the difference between the costs of operating an Aboriginal court and the costs of operating a normal Magistrates Court (or lower court). These costs are given on a per person basis where a person is defined as a 'finalised defendant'. A finalised defendant is a defendant whose appearance before the court for a particular matter has been finalised by the passing of sentence or otherwise. Unit court costs are assumed to be the same for Victoria and Western Australia: \$3,444 per finalised defendant in an Aboriginal court and \$300 per finalised defendant in a 'normal' court. The number of finalised defendants per Aboriginal court per annum is assumed to be 88.¹⁵

The Victorian study derived benefits to the state Department of Justice (reduced costs related to fewer imprisonments and lower rates of recidivism) and other state agencies (reduced welfare and support costs for defendants and their victims), together with further benefits to the community (lower costs for private security and insurance industries and for households investing in precautions, and less need to provide for victims). For the Western Australian study, benefits are confined to reduced costs related to fewer imprisonments and lower rates of recidivism. There are two reasons for this. First, the Victorian study showed that these savings alone outweighed the costs of the Aboriginal courts by a ratio of 2.5 to 1. Additional benefits were shown to increase this ratio. Second, the additional benefits are more difficult to quantify in dollar terms. The Victorian study has relied heavily on apportioning the Mayhew costs of crime figures for Australia to figures for Victoria alone. As mentioned above, it is unclear whether this apportionment is a good approximation.

The reduced imprisonment figure for Western Australia is based on the Victorian study's assumption that prison days would reduce by 25 per cent if one quarter of Aboriginal defendants appearing before Aboriginal court magistrates received non-custodial sentences. That is, of the 88 finalised defendants, 22 will not be given a sentence of imprisonment. Average lengths of sentence for Aboriginal people in Western Australia and Victoria are 11.13 months¹⁶ and 16 months¹⁷ respectively. The day rates used for prisoners in Western Australia and Victoria are \$239¹⁹ and \$162¹⁹ respectively. The result is discounted by 90 per cent (that is, a factor of 0.10 is applied). Acumen Alliance provides no discussion or source for this discount factor in the Victorian study, although it most likely relates to the probability of receiving a prison term at sentencing.

The reduced recidivism figure is also based on an assumption from the Victorian study. Recidivism is reduced from 32.6 per cent (29 defendants) to 14 per cent (12 defendants) which amounts to 17 fewer persons re-entering the criminal justice system following processing through an Aboriginal court. A caution with regard to this assumption is that the Victorian experience is probably not long enough (only about two years) to accurately reflect changes in recidivism rates. However, more accurate recidivism rates for Western Australia were unavailable at the time of the study.

The per defendant cost to the criminal justice system is assumed to be \$30,312.²⁰ This is based on the Australian study of costs of crime by Mayhew.²¹

15. Ibid 35, four cases per sitting with 22 sitting days per year.

16. Crime Research Centre, *Crime and Justice Statistics for Western Australia: 2004* (2005), <http://www.crc.law.uwa.edu.au/facts_and_figures/statistical_report_2004?f=102381> 163, Table 5.4; frequencies were multiplied by the midpoint of each length of sentence group with the mid point for the last group assumed to be 105 months.

17. Acumen Alliance, *Cost Benefit Analysis Koori Court Program*, Final Report to Department of Justice Victoria (January, 2006) 35.

18. Department of Justice, Western Australia, *Annual Report 2004/2005* (August, 2005).

19. Acumen Alliance, *Cost Benefit Analysis Koori Court Program*, Final Report to Department of Justice Victoria (January, 2006) 35.

20. Ibid.

21. Mayhew P, 'Counting the Costs of Crime in Australia' (2003) 247 *Trends and Issues in Crime and Criminal Justice*.

Table 2: Cost benefit analysis of Aboriginal courts in Western Australia

Parameters	Estimates Western Australia \$	Estimates Victoria \$
Costs		
Aboriginal court costs	303,079	303,079
'Normal' court costs	26,400	26,400
Net costs	276,679	276,679
Benefits		
Reduced prison terms	175,565	178,200
Reduced recidivism	515,304	515,304
Net benefits	690,869	693,504
Benefit cost ratio	2.50 : 1	2.51 : 1

Findings

The benefit cost ratio for the introduction of an Aboriginal court in Western Australia servicing 88 finalised defendants per year is estimated at 2.5 : 1. **That is, for every dollar spent on the operation of an Aboriginal court, the State of Western Australia will save at least \$2.50.** The analysis excludes savings related to other reduced costs. These other savings include savings to households and victims, and to the insurance and security industries, and savings to other related government services such as employment networks, welfare and health services, and other community services. The estimated benefit cost ratio for Victoria is 2.51 : 1. The difference between the results for Western Australia and Victoria relate to the higher cost per prisoner year and shorter sentence length for Aboriginal prisoners in Western Australia.

If more than one Aboriginal court is established then the cost and benefit figures will both be amplified by the number of courts, leaving the benefit cost ratio the same. However, changes to other parameters (rate of recidivism, cost per defendant, etc) may increase or decrease the ratio.