

Estimating the economic value of AFP fraud and drug investigations

Performance evaluation has emerged as a critical management tool for the long-term survival of both private and government enterprises, however, establishing and measuring performance indicators for an organisation such as the AFP has proved challenging.

In a report prepared by **Michael McFadden** and **Sue-Ellen Mwesigye** of the AFP's Performance Evaluation Team, a preliminary performance evaluation model that has received support by an independent authority has been tested for appropriateness.

Preliminary indications are that, while refinement of the model is being undertaken, the Australian taxpayer is getting value for money from resources allocated to the AFP's fraud and drug investigations.

A recent study confirmed that for every dollar directed to AFP drug investigations, \$5.20 in benefits and savings is returned to the Australian community. Similarly, the AFP returns \$5.10 for every dollar invested in fraud investigations.

Over 1999–00 and 2000–01 financial years, the AFP returned through its fraud and drug investigations more than \$1.5 billion to the Australian community for an investment of less than \$300 million.

These findings are the result of a preliminary economic evaluation of fraud and drug investigations undertaken by the AFP. Economic evaluation is one tool of many used to monitor and evaluate organisational performance and the appropriateness of the evaluation framework used by the AFP to measure the costs and benefits of its investigations was independently confirmed by University of NSW academic Dr Helen Lapsley.

To understand fully the AFP's approach to managing and improving performance it is useful to have some knowledge of the Government's reform program that underlies it. As part of its reform program, the Australian Government has introduced an accrual-based,

outcomes and outputs framework.

The framework addresses three fundamental questions:

- What does government want to achieve? **Outcomes.**
- How does it achieve this? **Outputs.**
- How does it know if it is succeeding? **Performance indicators.**

In other words, government delivers benefits to the Australian community (outcomes) primarily through administered items and agencies' goods and services (outputs) which are delivered against specific performance benchmarks or targets (performance indicators).

Every Commonwealth agency, including the AFP, is required to have specified outcomes, outputs and performance indicators. Managing through outcomes and outputs results in greater accountability by agencies to government, the Parliament, their clients and the community at large. Because ministers must now define policy in terms of the outcomes they wish to achieve, agencies know exactly what is expected of them and can set about delivering the outputs required to achieve the specified outcomes. Because appropriations are made under the specified outcomes, there is also a clear link between appropriations and the outputs agencies deliver.

As a practical management tool, the

outcomes and outputs framework requires an appropriate means of measuring performance or identifying performance indicators. These indicators assist managers in the evaluation and design of both policy and procedure. Such indicators are becoming increasingly central to the process of government in Australia and elsewhere. They give ministers, agencies, Parliament and other interested parties a database of information on performance and effectiveness. They also provide the basis for agencies to develop robust performance management systems that allow them to maintain a cycle of continuous improvement.

The AFP has put in place a regular performance reporting system to meet the requirements of the outcome/output framework. In addition, the AFP has sought to measure its performance through a variety of innovative means including benchmarking, where possible, against other organisations and economic evaluation, which is the subject of this report. These results of a properly conducted economic evaluation allow the Government and the community to quantify in economic terms the returns they receive for funding the AFP.

As this was the first evaluation of its kind undertaken within the AFP, it was decided to trial the approach against two well-defined AFP functions. Drug and fraud investigations were chosen for two reasons – relevance and practicability. First, they represent the major criminal investigations undertaken by the AFP. As chart 1 indicates, 58 per cent of resources devoted to the investigation of crime are spent on drug and fraud investigations. Second, the benefits of such investigations are reasonably well documented, which is not always the case with other types of criminal investigations. For example, while the impartial investigation of official corruption is of doubtless importance

in a democratic system, the economic benefits of such investigations are more difficult to quantify.

There are a wide range of measures that economists use in evaluating the economic value of a given project or function. Two widely used measures are net present value (NPV) which is the difference between the costs and benefits of a program – its ‘profit’, in other words, and return on investment (ROI) which is the number of dollars returned by a program for every dollar invested. (See the insert for a more technical definition of these terms.)

The results – fraud investigations

The AFP is responsible for investigating fraud against the Commonwealth. The potential benefits here are obvious. Successful investigation of fraud cases can result in all or any of the following benefits to the Commonwealth Government:

The recovery of amounts fraudulently received

A fraud was considered to be recovered if the matter had been settled in court through a reparation order or fine, or was settled out of court by agreement. During 1999–00 and 2000–01, the estimated amount of past losses recovered was \$58 million.

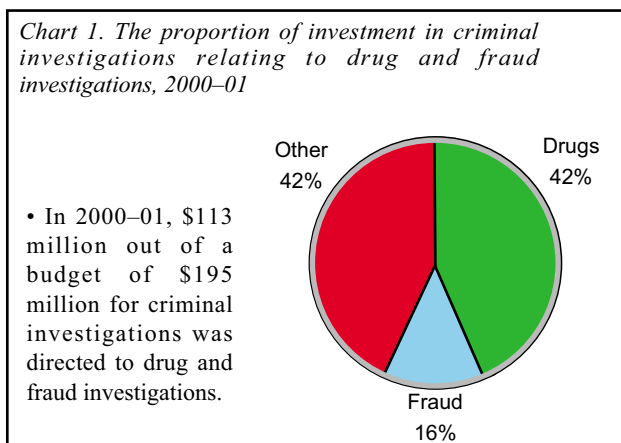
The avoidance of further loss by the Commonwealth

AFP investigations tend to address frauds in progress. For the purpose of the study, it was assumed that the current value of the fraud was a good indicator of potential future losses if the fraud had continued undetected. Further research is required to establish a more accurate figure. Certainly, experience suggests that frauds unaddressed tend to continue for long periods. The estimate used in this study is probably conservative. For the two years reported in the current analysis there was an estimated \$263 million in future losses averted.

The deterrence of like crimes in the community

Deterrence value refers to the fact that the prosecution of criminal activity may deter others from emulating this type of crime. The deterrence value associated with successful fraud investigations is particularly difficult to estimate. However, due to the large number of successful outcomes, it is suspected the deterrence value is significant. Unfortunately, due to lack of data, the deterrence value of fraud investigations was set to zero in this analysis.

The value of AFP fraud investigations,



calculated on this basis, is \$321 million during 1999–00 and 2000–01. During the same period, it is estimated that the AFP spent \$63 million on fraud investigations.

Table 1 has details of the economic analysis of fraud investigations including costs, benefits and estimated NPV and ROI.

The estimated NPV, for the \$63 million invested by the AFP in fraud investigations during the two years since June 1999, was \$258 million. The ROI for the same period was estimated at 5.1. In less technical terms, AFP fraud investigations provided a ‘profit’ of \$258 million to the Commonwealth and returned over \$5 for every dollar invested by the Government.

The results – drug investigations

The main benefit to be derived from successful drug investigations is a reduction of supply of illicit drugs to the community and an associated reduction in the cost that society bears as a result of drug abuse. For the purpose of this study, the economic benefit associated with drug seizures is equivalent to the avoidance of harm that would have ensued had these drugs reach the community. The benefit of drug seizures is measured in terms of future cost to society avoided.

There have been a limited number of studies of the economic cost associated with drug abuse. Collins and Lapsley (1996) estimated the social cost of drug abuse in Australia for 1988 and 1992 and are currently working on a more recent estimate of these costs. In the absence of recent direct estimates, street price of drugs seized has been used as a surrogate for the economic value of harm associated with drug use. It must be emphasised that there is no ready replacement measure for a properly conducted study of social cost. However, there is some evidence from the USA that the total street value of drugs seized may be a conservative indicator of social costs associated with illicit drugs.

The basic methodology employed involved calculating the total street value of drugs seized by the AFP in Australia or internationally (refer Table 2) after adjusting for relative purity. An adjustment for drug purity was required because, in the case of heroin and cocaine, drugs tend to be imported at a relatively high level of purity and then ‘cut’ or diluted before sale on the street. For example, one gram of cocaine at time of import is diluted to form two grams at time of sale.

Street price (Table 3) was calculated using

Table 1. Estimated fraud values, AFP inputs, NPV and ROI, 1999–00 and 2000–01

		1999–00 to 2000–01
		\$
<i>Past losses recovered</i>		58,387,467
<i>Future losses averted</i>		262,743,602
<i>Total fraud benefits</i>		321,131,069
<i>AFP inputs</i>		63,228,377
<i>NPV</i>	\$2547,902,692	
<i>ROI</i>		5.1

individual State and Territory estimates of street value for heroin, cocaine, amphetamines and cannabis reported in the *Drug Trends Bulletin* (Darke, Kaye and Topp, 2000). As a national figure was not available, the State and Territory values were weighted by population to derive a national estimate for each drug. The estimated value of AFP drug investigations after adjusting for purity is \$1.2 billion over the two years reported.

The estimation of costs associated with drug seizures is not quite as simple as that for fraud investigations because a major investment in these seizures is made by another organisation. A significant proportion of AFP seizures are the result of joint investigations with the Australian Customs Service (65 per cent in 1999–00 and 68 per cent in 2000–01). The costs of drug investigations have been adjusted

Technical Definitions

Net Present Value

NPV yields the discounted net value of the program and thus, shows the economic value of a program in absolute terms. The NPV is calculated by converting the programs costs and benefits to their ‘present (year one) value’ taking into account the difference for each year by applying a discount (or interest) rate, Rolstadas (1995). If the NPV derived is positive, that is, if the present value of benefits is greater than the present value of costs, then the returns obtained from the program exceed the interest rate applied to it. If the NPV is negative however, the program returns are less than the interest rate and are thus considered economically inefficient (Brown and Jackson, 1990).

Return on Investment

ROI is the ratio of total benefits from the program to the total investment. In contrast to NPV, an absolute measure, ROI shows the value of the program in relative terms (Rolstadas, 1995). If the program runs over more than one time period, but the costs and benefits for each time period are discrete, a discount rate can be applied to account for changes in dollar value. If the ROI is greater than 1 this implies a positive NPV and a beneficial economic value for the program in question. A ROI of at least 1 is desirable as this implies the value of the program benefits is greater than the opportunities forgone from the resources diverted from other activities.

Table 2. AFP drug seizures by weight, 1999–00 to 2000–01

	1999–00 to 2000–01	
	Domestic seizures (kg)	Overseas seizures (kg)
Heroin	744.3	357.0
Cocaine	1263.4	23.0
Amphetamine	707.6	389.9
Cannabis	300.1	3680.0

to include the estimated cost of Customs contribution based on a conservative interpretation of the relativities between AFP and Customs costs identified by Collins and Lapsley (1996). On these assumptions, an estimated \$231 million was invested in illicit drug law enforcement by the AFP and Customs over the two years 1999–00 to 2000–01.

Table 4 has details of the economic analysis of drug investigations including costs, benefits and estimated NPV and ROI. For the \$231 million invested by the AFP in drug investigations over the two years since June 1999, the estimated NPV was \$959 million. The ROI for the same period was estimated at 5.2. In other words, the AFP has made a ‘profit’ of \$959 million from its drug investigations and returned over \$5 to the

Table 3. Estimated national street price of drugs, Australia, December 2000

	Price (\$) per kilogram
Heroin	301,000
Cocaine	237,000
Amphetamine	87,000
Cannabis	21,000

community for every dollar invested by the Government.

The economic evaluation of drug investigations is certainly more contentious than that for fraud investigations although there is evidence to suggest that the results reported are conservative. It is intended to revisit this analysis when the results of the current Collins and Lapsley study become available. Until that time, the following results should be considered as indicative only.

Table 4. Street value of drug seizures, AFP/Customs inputs, NPV and ROI, 1999–00 to 2000–01

	1999–00 to 2000–01
	\$
Heroin	430,938,690
Cocaine	579,265,920
Amphetamine	95,482,500
Cannabis	83,582,100
Total Street Value	1,189,269,210
AFP/Customs inputs	230,490,435
NPV	\$958,778,775
ROI	5.2

Conclusion

Overall, the results suggest that the AFP provides a sound return on investment for its criminal investigations. The approach outlined in this report should prove useful in establishing and monitoring the performance of identified functions within the AFP, thereby ensuring that the Government receives the outcomes it is expecting for the money it is investing in law enforcement.

References

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Acknowledgement

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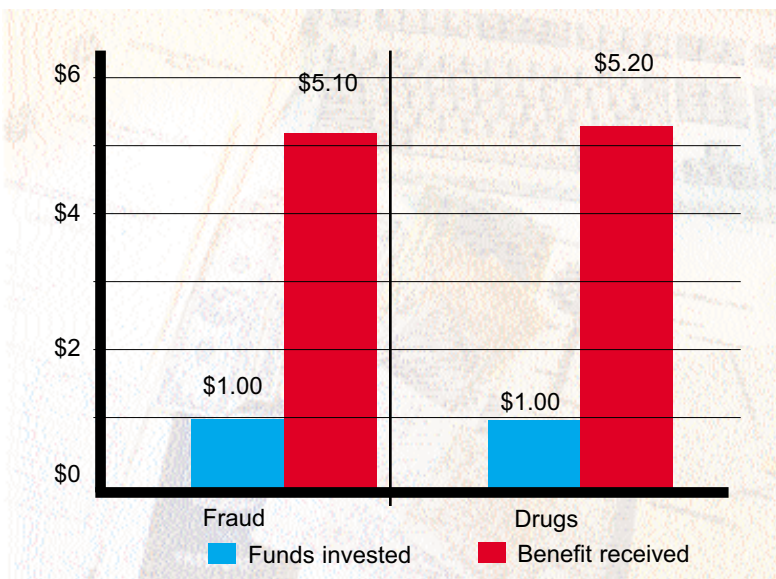


Chart 2. Comparison of the benefits returned for every dollar invested in AFP investigations.