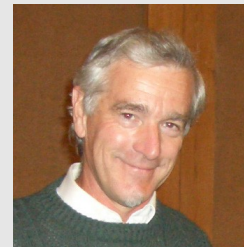


Evidence-based Strategic Planning in the Criminal Justice System and in Crime Prevention

We Can Help You...

- **Forecast the Demand for justice services**
- **Identify priorities for change in the justice systems**
- **Target and Resource the fight against crime and criminals**



Forecasting the demand for justice services

How prepared for the future is your criminal justice system? The best predictor of future likelihood is said to be past behaviour. But is this true in the Criminal Justice System, and what other new factors are appearing on the horizon? What should your department of Justice be doing to maximize its preparedness for issues that are likely to emerge in the coming years?

How many offenders will be brought to courts in your country for sentencing ten or twenty years from now, and what types of charges will be laid against them? What kinds of issues will be presented to criminal court judges in your country twenty years from now, and what sentencing options will be available? What regional differences will emerge, between city and country regions, between richer and poorer regions, and between regions with youthful populations and those with older populations? How many judges (and supporting staff) will be needed to deal with these matters? Where will they be needed?

How many people will be in your country's prisons or under correctional supervision in the community twenty years from now? How many prison cells and officers will be required to manage these prisoners? How many probation officers will be needed to ensure that community supervision is successful in reducing re-offending. And if it is considered that offenders are best rehabilitated in the communities where they belong, where should all these correctional facilities be located?

These are all very important questions, because it requires considerable investment

- to train police, and to educate judges,
- to build police stations, courts and prisons and
- to train correctional staff.

This investment involves both time and financial costs. Training too many police, judges and correctional staff, or building too many prisons, is a waste of government resources; training too few police, judges and correctional staff, or building too few prisons, could lead to serious problems in the justice system.

John Walker Crime Trends Analysis has developed an award-winning methodology for strategic planning in the criminal justice system, based on over 25 years of experience and analysis. We can show you how to get the best from your criminal justice system.

We Can Help You.....

There is still only general agreement about what sorts of things 'drive' offending patterns, but a 2001 report to the Victorian Department of Justice¹, by the Department of Criminology, University of Melbourne, identified six generic drivers of crime and the criminal justice system:

- Changes in the demographic structure of the population.
- Economic factors, especially changing rates of consumption and unemployment.
- Illicit drug use and drug markets.
- The impacts of new legislation and policy.
- Changes in resources directed at crime prevention and control (especially policing).
- Systemic factors associated with reoffending and breaches of court orders.

When one considers the full range of issues encompassed in these six drivers, together with the wide range of different offence types they impact upon (for example, Police generally identify dozens of different offence categories), they easily expand into thousands of individual variables. And even within this limited set of drivers, there are three issues that severely limit the capacity for predictive modelling:

- Not all of the information required to specify crime rate drivers is available.
- The statistical relationship between some drivers and crime rates is unknown, inconsistent over time, or inadequately specified.
- Only some of the drivers that predict crime rates can themselves be accurately forecast.

¹ Ross, S., 'Forecast Model for the Criminal Justice System, Stage 3 – Part B', Melbourne Enterprises International Ltd, November 2001.

These considerations have given rise to the process that we teach and use. The origins of the approach, currently used in most States and Territories in Australia, and in some other countries, were in 1981, when John Walker worked on a 'Corrections Master Plan', which was to determine future prisoner accommodation requirements for Victoria, based on projections of prisoner numbers. Observing that the age profile of prisoners was very stable over time, but that the Victorian general population itself was changing, with 'large cohorts of young men' moving through the age groups most likely to commit offences (i.e. the 15-29 age groups), the basic model used demographic projections to determine future trends in receptions to prison. This basic model assumes that times served by prisoners would remain constant for each offence type, but Walker introduced methods which allowed for the input of alternative hypotheses, such as changing offence patterns and changes in sentence types and lengths. These hypotheses were generated from discussions with police, courts and correctional staff at the time, and produced a range of alternative 'futures' for prisoner trends, upon which the prison construction plans and contingencies of the late 1980s/early 1990s were based. This work produced results that proved to be sound bases for planning (indeed the forecasts are still accurate a quarter of a century later!), so from the early-1990's it became an integral part of the Correctional Services annual planning and budgeting process. **John Walker Crime Trends Analysis** has successfully developed this process into a technique that can be used in any country and in any circumstances. It doesn't rely on having good statistics on crime, courts or corrections (although they obviously help!)

The Methodology in Brief

This process combines all that is known *statistically* about trends affecting the Justice System's responsibilities and all the *expert knowledge* that exists within and outside the justice system itself. It has four key components:

- Crime and Justice trend data analysis
- Futures workshops
- Scenario development
- Forecast modelling

A family of user-friendly computer models has been developed that is capable of modelling scenarios including:

- anticipated changes in rates of offending for each offence type;
- changes in ages of offenders;
- changes in reporting rates for each crime type;
- changes in rates of crime clearance by police, and arrest, summons and charge rates;
- changes in outcomes at court, including conviction rates; and
- changes in sentencing patterns.

The key common element in all of these criminal justice models is that they combine baseline trend data with the knowledge of experts from within the criminal justice system, the community and academia.

Crime and Justice trend data analysis

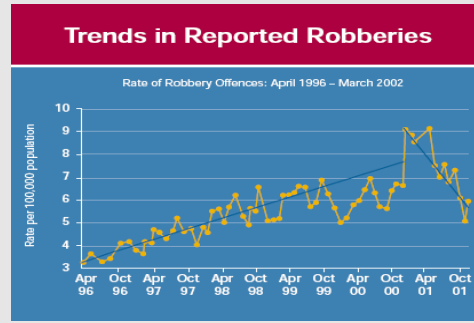
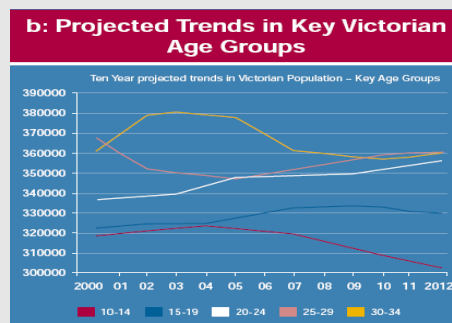
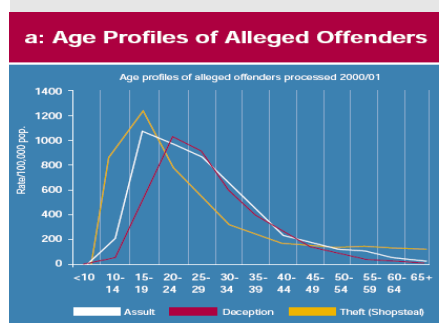
Trend data from all areas of the justice system are analysed to help identify the most important influences in future crime and justice patterns. Demographic trends are the most predictable driver of change in the pattern and nature of crime, and it is important to begin with an understanding of the likely future demographics. New trends are often the result of changes in the criminal justice system itself, such as new policing priorities or changes in legislation, or even changes in political leadership and direction, so it is important to know what plans are already being made in one part of the criminal justice system that may affect trends in another part.

1. Compile tables and graphs of the key variables that determine trends in each of the main components of the criminal justice system.

2. Present these trend figures (along with other influential factors – identified via Environmental Analysis) – to an invited expert group and generate discussion on the causal factors behind the trends of the recent past.

3. Turn the attention of the workshop participants to discussion of likely future trends, including attempts to quantify any anticipated changes from the current situation.

4. Use a computer model to estimate the combined effects of these anticipated changes ('scenarios') on the key system aggregates in the future.



'Futures' workshops

These workshops commence with analyses of the key statistical trends, usually pre-circulated to invitees to stimulate their thoughts, and in the form of overheads at the workshop. The facilitator invites participants to speculate on how current trends may continue or change, and how new issues might emerge in the future. Invitees include key academics and community group representatives, because they bring considerable outsider knowledge into the process, and prevent the discussions becoming too 'introspective' or blinkered. Logically, the workshops need to be staged to cater for the complexity of the whole justice system, looking first at the trends in offending and policing, then at courts and alternatives to sentencing, then at corrections and their effectiveness in reducing offending.

Scenario development

Once trends are identified in the workshops, the key questions are, 'What is causing these trends?' and more interestingly, 'What caused the trends to change direction?'. 'Was it some change in the socio-environmental conditions?' or 'Was it triggered by some new policing strategy or a change in sentencing practices?'. Demographic trend is the most predictable driver of change in the nature and pattern of crime. For example, we know that property crime is more prevalent amongst younger teenagers whilst violent crime behaviour peaks amongst older teenagers, and older people are the prevalent cohort who go to court for more sophisticated and organised crimes such as fraud and deception (Figure a above). The numbers of people in these age groups (Figure b above) can be readily used to explain past underlying trend increases in key categories of crime and forecast longer-term future reductions as the population 'ages'.

Significant patterns in the incidence of crime can often also be discerned from broader socio-economic, technological and political shifts, though these are more random and less predictable into the future. The impacts of socio-economic drivers of crime such as loss of community cohesion, increasing diversity in family and community structures, and crises of confidence in public institutions are difficult to quantify but these are recognised as factors to be addressed in crime reduction and prevention strategies. Technological advances are creating new opportunities for crime detection and investigation as well as new types of (cyber) crime.

The Futures Workshops achieve consensus about where the trends are likely to go in the future, and quantify likely future trends in key justice indicators, such as rates of reception to prison and average sentence lengths. It is common for the workshops to generate a number of distinct hypotheses, which can be aggregated into 'worst-case', 'optimistic', and 'most likely' scenarios. A worst case scenario, for example, may be generated by assuming that all of the least desirable trends and none of the more desirable ones will occur. It is most important that the outcomes of each workshop are documented, so that as actual trends subsequently emerge they can be compared with those predicted by workshop participants.

Forecast modelling

Identified trends along with 'expert' assumptions about emerging pressures and the impact of current crime reduction strategies, such as those generated by expert workshoping, can be factored into simple forecasting models to determine likely service demand flows across the criminal justice system as a whole.

Scenarios such as 'A' and 'B' (Figure on right), can assist estimates of demand for policing services, and the down-stream impacts on the Courts and Correctional services. The 'A' scenario assumes a continuation of the long-term mostly upward trends in offending that have been evident in the last decade. The 'B' scenario projects the results of an expert workshop, which considered that more recent trends in offender rates, including the downturns in some types of property crime rates, could prevail over the next decade. Both are influenced by the continued growth in the population aged 15-24 whose rates of offending are likely to remain high, but Scenario B reflects the likely impact of a range of possible policies and strategic settings.

Criminal Justice system workload analysis

John Walker Crime Trends Analysis can show you how to develop and use a computer model that can project the numbers of alleged offenders appearing before the courts and subsequently receiving a correctional order. The alternative scenarios can show when you should be contemplating building additional prison capacity, but alternative scenarios often dramatically indicate, for example, how crime prevention and reduction strategies and more effective diversion of offenders can significantly reduce the growth demand pressure on courts and corrections. *Only standard software and modest computer power is required.*

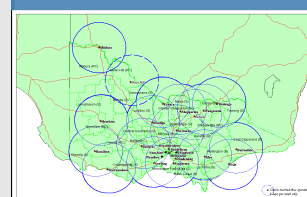
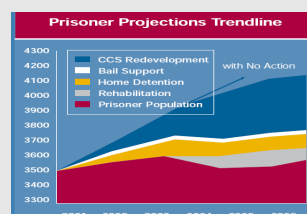
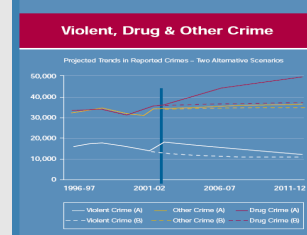
Subsequent modelling can assist in determining the best locations for an expanded/ strengthened Courts and Community Corrections program (see example Map on right). Studies repeatedly show that prisoner rehabilitation is more successful if the offender can be reintegrated into his own community, so justice must be done locally if it is to have a successful outcome.

Outcomes from the process

Outcomes from the process include:

- Understanding of recent trends in offending, arrests, prosecutions, sentences and correctional populations etc.
- The documented expert comments and the insights that lie behind them.
- Understanding of the broad environment in which the criminal justice system operates, of what might be achievable, and what is needed to achieve the objectives of the portfolio.
- A sound, and connected, basis for strategic planning and budgeting across the whole criminal justice system.

This process allows the separate agencies in the criminal justice system still to work independently on their own strategic plans, however, individual agency plans can now be linked – and made mutually consistent – through a common set of objectives, an understanding of the likely outcomes, and the forces that are driving trends in justice.



Implications for your country's justice administration

Management Commitment:

To successfully implement a forecast modelling 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 trends analyses and forecasting models have all 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. The environmental scan and significant events registers have also been built using standard software. The workshops are critical to nurture whole-of-system thinking, and a more robust assessment of likely futures, and need to be led by experts with broad knowledge of societal trends, particularly as they relate to the criminal justice system. **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 forecast modelling 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 Australasia².
- Modeling approach fundamental to CORE – the Public Correctional Enterprise Victoria - being awarded a Silver Medal for Business Excellence during 2003³ - 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](#))⁴
- Modelling contributed to the awarding of a prize to the Victorian Community Corrections agency for for "Breaking new ground" at the "Probation 2004" international conference⁵. 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"⁶.
- "For far too long the illicit drug market as 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"⁷.

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² 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.

³ <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".

⁴ [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)

⁵ <http://www.probation.homeoffice.gov.uk/output/Page163.asp>.

⁶ http://antimoneylaundering.net/Group_Info/?m=200604

⁷ United Nations Office on Drugs and Crime, Vienna, 2005 World Drug Report, Volume 1 – Preface and Acknowledgments.