

IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2006 4974

FINDING INTO DEATH WITH INQUEST (STAGE TWO)¹
POLICE PURSUITS – COMMENTS AND RECOMMENDATIONS
Amended pursuant to section 76 of the Coroners Act 2008
Form 37 Rule 60(1)
Section 67 of the Coroners Act 2008

Inquest into the Death of: Sarah Louise Booth

Delivered On:	14 July 2014
Delivered At:	Coroners Court of Victoria Level 11, 222 Exhibition Street Melbourne 3000
Hearing Dates:	24, 25, 26 June and 3 December 2013
Findings of:	JOHN OLLE, CORONER
Representation:	Mr Ron Gipp instructed by Victorian Government Solicitors for the Chief Commissioner of Police
Counsel Assisting the Coroner	Mr Jeremy Ruskin QC with Mr Paul Lawrie instructed by the Coroners Court Solicitors Service

¹ The Stage Two (Police Pursuits – Comments and Recommendations) and inquest findings deal with the prevention focus of my investigation into Sarah Booth's death. Stage One inquest findings deal with the facts and circumstances surrounding Sarah Booth's death and the statutory requirements under section 67 of the *Coroners Act 2008*. It is published separately.

BACKGROUND

1. In early 2012, the Victorian Coroners Court was investigating the deaths of 10 individuals who died in circumstances involving the occurrence of a police pursuit. Six of those investigations occurred in the two month period between December 2011 and January 2012.
2. One of those investigations related to the death of young Sarah Booth, aged 17, who was the passenger in a vehicle involved in a police pursuit on 31 December 2006. The driver of the pursued vehicle was subsequently dealt with by the criminal justice system.
3. These tragic outcomes, for individuals, their families, the police officers involved and the community have untold consequences.
4. In these circumstances, it became overwhelming apparent to the Victorian Coroners Court that it was appropriate to devote substantial resources and time to consider any measures to reduce the reoccurrence of these heartbreaking events.
5. Under Section 72(2) of the *Coroners Act 2008* (the Act), a coroner may make recommendations on '*any matter connected with a death or fire which the coroner has investigated*'. The Act specifically recognises that a recommendation may relate to '*public health and safety or the administration of justice*'.
6. Consistent with the preamble of the Act, recommendations should be designed to reduce the likelihood of another death in similar circumstances, or to prevent a death from the same or similar causes.
7. Legislative obligations follow the making of a recommendation which require Government agencies to give consideration to and make a response.² Recommendations and the responses are published in accordance with the Act.
8. The coroner's role is separate from that of Government and government agencies and must be exercised independently. Having said that however, the making of policies and law are the domain of Government.
9. The issues surrounding police pursuits and how, or indeed whether, they should be permitted is a much debated topic both nationally and worldwide. No more so than in the immediate wake of a person dying proximate to the conduct of a police pursuit.

² Section 72 of the Act

10. The issue is by no means a simple one yet the decision to pursue can take place in a split second and sometimes the act of an attempted interception by police causes the target driver to go from appropriate driving to dangerously high speeds.
11. These deaths involve drivers of pursued vehicles, passengers in pursued vehicles and other road users, unassociated with the pursuit.
12. This issue often sits along side the personal responsibility of drivers who choose to evade police. Sometimes a tragedy occurs a long time after the police have attempted to intercept or pursue a driver, and nevertheless the driver has failed to moderate their driving behaviour. More and more so, circumstances involve mental health issues and almost always involve a substance affected driver.
13. The central question has to be: *Is the potential outcome worth the risks involved?*
14. The answer in some ways can ultimately be put as: *what risks do a well informed government and community want to assume, knowing what the potential outcome might be?*
15. One of the central tensions to be resolved is that of the police undertaking their law enforcement responsibly and, in so doing, the risks this may create.
16. As a coroner, I am not able to accept the proposition: *this works in most cases therefore its okay*. If I make a recommendation it must be evidenced based and free from assumptions. Part of my role was to examine and test existing assumptions for accuracy. These might sometimes challenge strongly held beliefs in the community or by police.
17. Firstly, I learnt that there is no evidence to suggest that drivers who flee from police have committed serious offences. This is simply not an evidence based assumption.
18. Secondly, I learnt that there is insufficient evidence one way or another to support the proposition that if the police adopt a less restrictive pursuit policy, there is an increase in a driver's willingness to flee.
19. I also learnt that the task loading when engaged in a pursuit situation is overwhelming for police officer, which has a variety of consequences – in one case I heard an experienced police officer underestimate his speed by 40 kmph.
20. At the outset, I do not intend to recommend that the police be restricted from police pursuits altogether. There will always be a scenario, however extreme, where it would be appropriate.

21. However, having considered a range of material and evidence on this matter (which I will outline below), I cannot conceive of many situations where a police pursuit would be justified, as the risks are too high to members of the community. Necessarily excluded would be traffic infringements, intoxicated drivers (who only become more dangerous when pursued) and property offences.
22. The emphasis on this finding is based on the decision to pursue and the risk assessment model, as this is at the heart of any pursuit policy and certainly the investigations I undertook lead me in this direction.

Work Undertaken

23. This Finding is based on the following:
- *Police Pursuit Deaths – Coroners Prevention Unit, Victoria 2000-2011* (already published as part of the investigation into the death of Shane Bennett);
 - *Research Summary – Coroners Prevention Unit - Circumstances of fatal police pursuits, Victoria 2000-2012* (12 April 2013)³ (**Attachment A**);
 - Relevant evidence from the investigations into the deaths of Sarah Booth as well as concurrent investigations into the deaths of Jason Kumar⁴, Angus Hare⁵, Luke Grosvero⁶ and Vontharasmey Ban⁷;
 - *Research Summary – Coroners Prevention Unit – Evidence for the impact of policy and legislative measures on police pursuits behaviours: a literature review* (12 April 2013) (**Attachment B**); and

³ With the following questions being addressed:

How did the vehicle initially come to the attention of police?

Was the pursuit 'elective' or 'imperative'?

Did the fleeing driver have a history of offending?

Was a pursuit controller engaged? If not, why not?

Could a typology of pursuits be developed?

At what point in the pursuit (if at all) was the fleeing driver's identity established?

Did the police identify any communication issues during the pursuit (whether between controller and driver, or otherwise)?

In those police pursuit incidents where the driver did not die, was the driver subsequently charged with any offence (and if so, convicted)?

⁴ COR 2009 5767

⁵ COR 2011 4734

⁶ COR 2012 1551

⁷ COR 2009 3951

- The statements and evidence of Dr Graham Edkins and Assistant Commissioner Robert Hill who appeared at the inquest on 24, 25 and 26 June 2013 and any documents tendered through them, as well as oral and written submissions made by Counsel Assisting and Counsel for the Chief Commissioner of Police.

An analysis of previous pursuit related deaths in Victoria

24. I note the following statistics drawn from the work of the Coroners Prevention Unit (CPU):

- The number of deaths in each year was: 4 in 2000, 8 in 2001, 9 in 2002, 10 in 2003, 2 in 2004, 3 in 2005, 3 in 2006, 0 in 2007, 2 in 2008, 2 in 2009, 1 in 2010, 3 in 2011 and 7 in 2012;
- Motor vehicle drivers who die while being pursued by police are overwhelming young males (20 out of 21 with medium age 22 years);
- Passengers who die while in motor vehicles being pursued by police are also most likely to be young males (13 out of 16 with medium age 18 years);
- Most fatal police pursuits (23 of 37, 12 where police observed road rule violation, 7 where police observed suspicious driver behaviour or vehicle and 4 where the vehicle appeared to flee from police) were unplanned in that they were initiated in response to police observations of driver behaviour;
- A substantial proportion of the fatal incidents (15 of 37) involved a collision with a third party or pedestrian;
- The peak time of day fatalities occurred was 12am to 3am (14) followed by 9pm to 12am (7);
- Only four fatal pursuits commenced because the vehicle/driver was suspected of involvement in a previous crime;
- In the majority of fatal police pursuit incidents, a pursuit controller was not appointed (23). Reasons for this included that police did not believe a pursuit had officially commenced (7), and insufficient time elapsed between the pursuit commencement and the fatal incident (6); and
- There were communications issues recorded in 13 of the 37 fatal police pursuit incidents.

25. In addition, I also note the following observations:

- young people – particularly males – have a diminished capacity to think through the consequences of high risk behaviours;
- youth, impulsivity and risk taking may be factors in a driver decision to flee police; and
- the drivers might not be particularly experienced, which may contribute to fatal outcomes.

Other investigations in Victoria

26. Contemporaneous to this investigation, three other police pursuit related deaths were investigated and finalised by other coroners. Those cases involve the death of Angus Hare (18 years old)⁸ investigated by Judge Ian Gray, State Coroner and the deaths of Ban Vontharasmey Ban (25 years old) and Luke Grosvera (32 years of age) both investigated by Iain West, Deputy State Coroner. All these findings have been published and are therefore in the public domain. I also investigated the death of young Jason Kumar (15 years of age).
27. In addition to the statistics noted in paragraph 23, specific findings in these five cases included:
- Four of the five investigations involved substance affected drivers (all but Luke Grosvera);
 - Whilst the police formed the opinion that the drivers were acting suspiciously, in fact, they were not evading detection for serious crime other than the theft of a motor vehicle in one case (young Jason Kumar was also substance affected), one was riding an unregistered motorbike (Luke Grosvera) and the others were substance affected [Mr Unwin - the driver in Sarah Booth's case, Angus Hare and Ban Vontharasmey];
 - In all cases, the drivers reacted to the attempt by police to intercept and drove at dangerously high speed to evade apprehension. [(Mr Unwin (the driver in Sarah Booth's case) at 160kmph, Mr Hare at 175 kmph, Ban Vontharasmey at 204 kmph, Luke Grosvera at 145 kmph and Jason Kumar at 143-158 kmph];
 - Similarly, the speeds of police vehicles also reached high speeds during the pursuits (approximately 170kmph in both Sarah Booth and Jason Kumar)

⁸ In this case the State Coroner found that Angus was not a deaths in custody as the pursuit had been terminated a considerable time before the death.

- In all cases, the drivers were not speeding at the time of attempted intercept; and
 - In all cases, they were *elective* pursuits conducted by police (the pursuit of a vehicle that has failed to stop after being signalled to stop for a lawful purpose. The reason for the pursuit is to intercept an offending driver).
28. In two cases (Angus Hare and Luke Grosvera), the police vehicles were fitted with an In Car Video Capture System (ICV). The ICV operation is such that once the emergency lights are activated, it starts recording, including the 30 seconds prior to the unit being activated.
29. The evidence contained in the ICV footage allowed the coroners in each of these investigations to view the pursuit (which included a recording of speeds) which greatly assisted the investigations. It was also available to family members (at their discretion) so they could better understand the circumstances surrounding the deaths and provided an independent and contemporaneous record of these events. I was urged by the investigating coroners to consider making a recommendation with respect to that technology, which I intend to do.
30. In this context, I was also advised by A/C Hill that ICV had been installed in the majority of Highway Patrol vehicles in metropolitan and rural areas and that the video system could include the capacity to have a 'live video feed' to PCC and/or the Pursuit Controller during the course of the pursuit. He said that this live visual feed would enhance the ability of the Pursuit Controller to risk assess a pursuit by enabling them to identify potential risks for themselves, monitor speeds and make decisions in a more timely manner. The live feed may also improve the use of airtime and reduce the potential for misleading information to be communicated by members.

Findings in the investigations of Sarah Booth and Jason Kumar

31. As part of my investigation into the deaths of Sarah Booth and Jason Kumar, I found the following:
- The risk assessments contained in the Victoria Police Manuals regarding pursuits (in both Booth and Kumar) did not explain how a member is to apply the various risk assessment criteria (posed as a series of questions), what order (if any) and what weight should be given to an individual criteria (positive, negative or neutral). This led to a situation where appropriate weight was not given to factors which do increase the risks of engaging in a pursuit.

- Police members almost universally nominated risk factors, such as time of day, weather and road condition, their own driving ability, their own familiarity with the road as if they were positive factors, when they were at best neutral.
- Police members generally didn't turn their mind to what was the real or likely threat posed by the target driver.
- With respect to the application of the risk assessment in practice, it was the evidence of a very experienced police officers (who had engaged in numerous pursuits), that as soon as soon as the target vehicle pulled away he immediately followed, without rigorously going through all the risk assessment steps, a task he said was very difficult to undertake.
- Police found it difficult to even glance at their own speed instruments in a pursuit environment.
- Estimations of speeds by police (their own and the target vehicle) were difficult (if not impossible) and these estimates were critical to accurate risk assessments being undertaken, including terminating events (this was only made possible with the advent of GPS technology).
- Minimal traffic did not mean there are no traffic risks.
- The task of risk assessment appears to become more difficult when a pursuit commences, demonstrating a need for an emphasis on the risk assessment before it commences – that is, the initial decision.
- There was a variation of views by police with respect to the same factual scenario and whether they would have made a decision to pursue.
- There was evidence at inquest that there was scope for senior officers on duty to provide more guidance, where possible, to operational (and often more junior) members around police pursuits.
- That there were delays and gaps in Police Communication Centre (PCC) requests for information demonstrating the members were highly focussed on the task at hand to the detriment of other factors such as the need to communicate.

- There was evidence in one case that information provided in the lead up to the pursuit (the age of the driver) was not given the same consideration as it would have in other police operations, even though there was no disadvantage in doing so.

An analysis of the literature

32. The area of police pursuits is a much debated issue both nationally and worldwide. The CPU again assisted me with this task and conducted a literature review which asked the following questions:
- *Is there any evidence that police pursuit policy has an impact on the behaviour of drivers who flee from police?*
 - *Is there any evidence that a given approach to setting police pursuit policy is better or worse than another?*
33. The Review could find no empirical evidence to support or refute the suggestion that that a police preparedness to pursue fleeing vehicles, deters drivers from fleeing police or otherwise engaging in unlawful behaviour involving motor vehicles.
34. The Review said that to make further progress in understanding police pursuits and the impact of policy changes, police need to *collect data* not just on police pursuits but on the incidence of vehicles fleeing police.
35. The Review also concluded that there is no strong empirical evidence base to determine whether restricting the scope of circumstances in which police can pursue a fleeing vehicle, results in a better or worse balance between the risks and benefits of conducting police pursuits.
36. However, despite these conclusions the Review proposed that this did not necessarily mean there is no point in choosing one type of policy over another. Several experts, particularly in the United States, have proposed approaches to the question that are based in ethics and risk management principles rather than empirical data as such. There is a quite widespread argument that as any police pursuit is inherently risky and so the risk of pursuing is only justified in circumstances where the fleeing driver is suspected of a serious offence.
37. The Review concluded that in the absence of compelling empirical evidence, this would appear to be a rational approach to risk management.
38. I have intuitively adopted this approach which appears the most sensible.

Learnings from the Inquest

39. Given what I learnt about the challenges faced by experienced police officers trying to undertake a pursuit during Stage One of this inquest, I obtained an expert report from Dr Graham Edkins⁹, Organisational Psychologist regarding Human Factors issues which may be associated with Police Pursuits.
40. I conducted an inquest at which Dr Edkins and A/C Hill on behalf of the Chief Commissioner of Police, gave evidence. I had also posed a series of questions to guide the inquest.
41. At that time, A/C Hill provided an affidavit which attached the most recent version of Victoria Police policy and procedure which had been revised subsequent to the death of Sarah Booth.¹⁰
42. I note that the notion of *elective* and *imperative* pursuits has been abandoned and that Victoria Police had adopted many changes to both police and training since the death of Sarah Booth. In addition, the new policy introduces a new role (in addition to the pursuit controller), called the pursuit coordinator who is responsible for the coordination of police resources in a pursuit.
43. A/C Hill advised me that there had been a shift in Victoria police culture with respect to police pursuits over 2012 and 2013 (using the number of pursuits from 1 January 2013 to 14 June 2013) with an increasing number of self-terminations (32.91% to 37.9%) and directed terminations (15.92% to 19.47%).
44. He also said, there had been the development of a prompt card for use by members in police vehicles. In addition a prompt sheet is currently provided to all supervisors to prompt them in identifying any key risk factors relevant to a pursuit.
45. In addition, A/C Hill said that pursuant to the Chief Commissioners Instruction (CCI 09/13 Divisional Pursuit Reviews) all pursuits are now to be reviewed by the Divisional Pursuit Review Panel requiring all pursuits to be reviewed at station level, Divisional level and Regional level reporting back to the Critical Incident Management Review Committee.

⁹ Dr Edkins, Manager Director Leading Edge Safety systems Pty Ltd, a specialist safety management systems and human factors consulting organisation, that provides expert advice to company boards, executives and accident inquiries on safety, risk and human factors issues. He holds a Masters and PhD degrees in Organisational Psychology and has extensive experience in the field of human factors developed over more than 25 years.

¹⁰ I don't propose to summarise the matters raised by A/C Hill in his affidavit.

Victorian Police Pursuit Model Overview

46. The conduct of Victoria Police pursuits is currently principally governed by the following documents:

Victoria Police Manual - Police Rules – Pursuits

Victoria Police Manual - Procedures and Guidelines - Pursuits

47. The VPM provides that: *A pursuit exists when police begin to follow a driver of a vehicle because the driver:*

fails to stop after being signalled to stop by a police member; and/or

is taking deliberate action to avoid being stopped.

48. The Policy Rules say:

There are inherent risks with pursuits. These risks increase significantly when high speeds are involved, and in areas of high vehicular or pedestrian traffic. ..

*A police member's duty to protect life and property will always have **primacy** over the need to arrest offender, especially when the offence involved is relatively minor, or where there are safer options other than immediate arrest.*

Any action taken to limit the risks to public, including offender/s, and police will be viewed as a decision that displays sound professional judgment.

49. The Pursuit principles are:

*In all pursuits driving situations the priority is **safety first**. This includes the safety of all members, the occupants of any vehicles involved, other road users and community members;*

A pursuit must be conducted by members who hold an appropriate level Approved Driving Authority (ADA) and who are driving authorised vehicles;

*The decision to pursue a vehicle must be a **proportionate** response to the harm members are seeking to prevent, bearing in mind:*

the reasons for initiating a pursuit

the risks involved in engaging in the pursuit

the likelihood of the pursued vehicle stopping safely and as soon as possible at the direction of police.

*Once a pursuit has been initiated, the driver must ensure the grounds to continue the pursuit are **proportionate** to the harm they are seeking to prevent.*

*When the **risks outweigh the result** to be achieved the pursuit must be terminated.
Any member involved can direct that the pursuit must be terminated.*

50. I note as in previous policies, all participants in a pursuit may terminate a pursuit as well as the Pursuit Coordinator and the Divisional patrol supervisor and duty officer.

51. The terminations conditions are when:

The risks outweigh the result to be achieved

The identity of the driver of the pursued vehicle is established and there is a likelihood that later apprehension will be possible and there is no immediate threat to public or police safety.

Directed by any member including:

- *the primary and secondary units*
- *Pursuit Coordinator*
- *Pursuit Controller*
- *Divisional Patrol Supervisor*
- *Duty Officer*

Police radio communications become ineffective or are lost

Blue/red flashing lights and/or alarm fail to operate

Any police vehicle or employee fails to comply with or does not meet any of the restrictions of these Policy Rules

52. In addition there was a revised **Pursuit Risk Assessment Model**, which became central to this finding.

Human factors in a pursuit environment

53. The evidence of the human factors expert made more understandable the evidence I heard of senior police officers significantly misjudging their own speed and having to forcibly drag their eyes to the Speedometer during a pursuit.

54. In highly dynamic and stressful environments, such as in a pursuit, there are perceptual and cognitive challenges experienced by human beings, which Dr Edkins described as Situational Awareness (cognitive skills that enable the effective selection and comprehension of information from the environment) and Attention Capture (for example where a person becomes fixated on the central task to the exclusion of other factors that may be important). In a pursuit situation, a person can become so focussed on the target vehicle that they have diminished scanning for and awareness of peripheral hazards.
55. He said that hazard identification was dependent on perceptual and cognitive skills – which are subject to information processing limitations. He said there was a potential for cognitive overload and consequent task shedding.
56. To mitigate or minimise these effects, Dr Edkins recommended the following in relation to training:
- That the way to train people to improve and maintain hazard identification skills and judgement was through simulation training and assessment of their performance in that environment.
 - Training in the risk assessment process and decision making should be appropriately focussed on how those decisions are made through non-technical skills training.
 - He highlighted the importance of refresher training.
 - The use of ‘trigger phrases’ should be incorporated into training – these had a greater tendency to cause the brain to refocus on an important piece of information.
 - Decision making was performed under extreme time pressure – primed decision making techniques such as cue recognition and simulated practice sessions would be beneficial.
 - Situational awareness – training should include specific situation awareness concepts such as task management, recognition of critical cues, projection, planning and self-checking techniques.

What are likely to be the unknown risks in every pursuit?

57. The most difficult factors to *control* in a pursuit environment are the variables associated with the target driver and their vehicle as well as other road users – the *unknown* risks. There

will always be more *unknown* than *known* risks. The unknowns in every pursuit are likely to be¹¹:

- The age of the driver/driving experience of the driver;
- Whether the driver is suffering the intoxicating effects of alcohol or drugs;
- The emotional state of the driver (including whether the driver has mental health issues);
- The mechanical state of the subject vehicle (that is, in respect of roadworthiness – braking, steering, suspension and tyres);
- Unseen conflicting vehicular or pedestrian traffic and
- The nature of the unlawful conduct that is suspected to have occurred.

58. In addition to above, I learnt that it is critical to know the speed of the police vehicle as well as the target vehicle. In most cases, the estimate of the target driver's speed is calculated by reference to the speed of the police vehicle. I found that estimations of speeds by police were sometimes inaccurate (usually an under calculation), which impacted on the accuracy of the risk assessments being undertaken. This creates an additional and highly critical risk factor.

Risk Assessment Models

59. The risk assessment model lies at the heart of any policy governing pursuits as it is the practical guide to when a pursuit is permitted.
60. The risk assessment model must be able to be readily applied by members.
61. In my view, a risk assessment model must, on application, produce the same or similar outcome by those who apply it to the same factual scenario (regardless of rank or seniority).
62. The necessity for this outcome finds support in the *Police Pursuit Review 2002* conducted by members of Victoria Police which in my view, still resonates¹²:

¹¹ As put by the former Queensland State Coroner: Is it even theoretically possible for an officer to balance the heterogeneous imponderables of risks to road safety and detriment to law enforcement? If it is, how can an officer make meaningful assessments of relevant considerations such as, the skill or capacity of the unknown driver, the roadworthiness of the car, and the criminal offences the unknown occupants may have or may be about to commit?

¹² Superintendent Peter Keogh, Inspector Bob Stork, Sergeant Graeme Moloney, Senior Constable Drew Pallot and Senior Constable Rocco Njegac

Once a member has a comprehensive understanding of the pursuit policy and what is required of him or her in pursuit situations, in the theoretical sense, that person should then be able to apply this in a practical sense and subsequently be able to articulate the risk assessment and actions confidently before a court.

If a policy is worded in such a way to allow for discretion, it gives the police officer the opportunity to interpret the policy guidelines to suit his or her needs for the purpose of justification. The discretionary decisions made by officers become the focal point in litigation; therefore an appropriate starting point in pursuit research may be to examine officers opinions and behaviours relative to an existing policy.

[Police] members sought prescriptive policy and risk assessment being an important component. There was a general belief that emphasis needed to be focussed on the application of risk assessment during pursuits.....

There needs to be a determination process whereby the driver, observer and pursuit controller can make assessments, which are based on similar perceptions. The process of assessing the information needs to be in a prescriptive form that allows all parties to draw the same conclusion.

Comments on the Victoria Police current risk assessment model by Dr Edkins

63. Dr Edkins stressed the importance of all persons in a team having the same *mental model* and that a policy document should make it clear what the *harm* or *potential adverse* outcomes may be.
64. He said that while various risk factors were identified in the current policy, he was critical that there was no indication of the weight that should be attached to particular factors or the weight to be attached to a subject when there was no information available about that matter (eg. age, emotional state, drug or alcohol impairment, mental health). In this context, he introduced the concept of a 'Decision Tree' that may include aids such as 'red, amber and green lights' that can be associated with various risk factors. He also explained that the weighting of issues reduces the variability and subjectivity of the risk assessment process and noted that the broader the policy the less guidance is provided with an increase in variability and subjectivity.
65. In Dr Edkins view, the new risk assessment model was subjective, non detailed and lacking in practicality.

66. He disputed the suggestion (by A/C Hill) that there were too many variables in the police pursuit scenario so that the concept of weighting of factors was unworkable.¹³
67. Dr Edkins further thought that Victoria Police should ensure that its critical policy documents are commensurate with contemporary industry practice in other safety critical environments to ensure that they re the most comprehensive.

Conclusions

68. At the end of this inquiry, Dr Edkins' description of a police pursuit resonates.
- Police pursuits can be characterised as chaotic high-stress situations involving, physical danger, often incomplete information, elements of unpredictability and ever changing (dynamic) conditions.*
69. My approach to this inquiry, as first stated, is purely that of prevention and whether any lives can be saved as a result.
70. I have been greatly assisted by the Chief Commissioner of Police as well as Counsel Assisting, who have all endeavoured to ask the right questions and get the best information possible.
71. I also thank the police members and civilian witnesses who have appeared to give evidence at inquest – sometimes years after an event – whose lives have often changed lives as a result of a death.
72. My last acknowledgement belongs to Sarah Booth's mum, Donna Dinsdale. We are eternally grateful to Donna for allowing her daughter's case to sit at the centre of this broad inquiry. On behalf of the Coroners Court of Victoria and myself you have our heartfelt thanks.

COMMENTS

Pursuant to section 67(3) of the **Coroners Act 2008**, I make the following comments connected with the death:

73. The overarching statements contained in the new Victoria Police guidelines and policy, acknowledges the obvious dangers involved in the conduct of a pursuit and the need to put the protection of life above the need to arrest, especially where the offence is minor. It also

¹³ He described this approach as 'learned helplessness'

places risks at the highest level with safety first at the heart of decision making regarding police pursuits.

74. The new policy introduces the concept of **proportionate** harm with respect to the decision to pursue. (Counsel Assisting noted that the language should be consistent for reinforcement – pursuit must be proportionate to the harm they are seeking to prevent as opposed to when the risks outweigh the result to be achieved).
75. In terms of the definition of a ‘pursuit’, it would appear to be broad enough to capture extended following behaviour (there are examples of police engaging in this behaviour – in the past - and not considering it a pursuit).
76. In the investigations into the deaths of Sarah Booth and Jason Kumar I was critical of the risk assessment model contained in the Victoria Police Manuals regarding pursuits, as they did not explain how a member is to apply the various risk assessment criteria (posed as a series of questions), what order (if any) and what weight should be given to an individual criteria (positive, negative or neutral). This led to a situation where appropriate weight was not given to factors which do increase the risks of engaging in a pursuit, with grave consequences.
77. In future, this analysis of risk factors is likely to draw criticism from this Court as being inadequate.
78. It is imperative for a police member to clearly identify the harm to be prevented before a pursuit is commenced. This should eliminate pursuits involving minor traffic infringements or unspecified suspicious behaviour.
79. I agree with the assessment of Dr Edkins of the new risk assessment model. As noted above, already the absence of critical information makes any notion of a sophisticated risk assessment process impossible. The lack of weighting given to risk factors appears to result in a ‘nil score’ ascribed to those factors where there is no information whilst knowable beneficial environmental factors receive a ‘positive score.’ Such environmental factors may include: road conditions, weather, lighting and visible traffic. However, there is nothing to suggest that this sort of balancing exercise is a proper estimation of the real risks surrounding a pursuit.
80. A model such as the traffic light model’, suggested by Dr Edkins, should be adopted by Victoria Police to guide its members as to what weight they should give to one particular factor over another.

81. I agree with Counsel Assisting suggestion that the policy reflect that when considering whether a pursuit is a proportionate response, it is vital for police member to recognise that there are very significant risks involved when a fleeing vehicle is driven at high speeds or in a dangerous manner. Often critical risks are unknown or cannot be seen. These risks may lead to death or serious injury for persons involved in the pursuit as well as other members of the public.
82. There should be an emphasis on Senior Police Officers (Divisional Patrol Supervisor and Duty Officer) who a monitoring a pursuit or potential pursuit to give guidance to operational members and reinforce safety first principles.
83. In the pursuits I investigated there were high speeds recorded by both police and the target vehicle. The Major Collision Investigation Unit reports the following matters which should be reinforced with Victoria Police personnel:
- There is a clear association between speed and the risk of collision
 - The risk of an occupant being fatally injured is 17.5 times more likely to occur when a vehicle is travelling at 124kmh than when the vehicle is travelling at 60 kmph
 - Emergency vehicles which have lights and or sirens must be prepared that vehicles ahead of them may make erratic or unexpected manoeuvres once becoming aware of the emergency vehicle behind
84. Whilst the Court is not in a position to judge the adequacy of Victoria Police training in this area, I do accept the advice of Dr Edkins regarding the most optimal way to approach the task of training for police pursuits, to address the human factors which may come into play.
85. Any training should place an emphasis on the commencement of a pursuit, the need for effective communications and that members have time to plan a response.
86. It was apparent that effective radio communications was critical in a police pursuit, particular in the area of competing radio traffic and unanswered requests for information. Radio procedure designed to maximise the clarity of communications including speed calls could be considered.¹⁴
87. It is important to create opportunities for misjudgements of speed by police to be corrected. For example, by a specific request for speed with specific phrases to escalate the request if a

¹⁴ In relation to the problem faced by Police Officer Wolfe, where calls for speeds not being answered, A/C Hill said that *pursuits of this nature are being terminated a lot more sooner than in the past (2006)*.

response is not forthcoming (or an ingrained protocol whereby speed is called out by the observer]. I note that A/C Hill was giving consideration to the idea of 'speed calls' from observer to driver as a protocol.

RECOMMENDATIONS

Pursuant to section 72(2) of the **Coroners Act 2008**, I make the following recommendations connected with the death:

Recommendation 1

Police should never pursue a vehicle simply because it is fleeing. A pursuit should only be undertaken where police hold a pre-existing belief on reasonable grounds that intercepting the vehicle is necessary:

- to prevent a serious risk to public health and safety; or
- in response to a serious criminal offence that has been committed, or is about to be committed, which involves serious harm to a person or persons.

Recommendation 2

The current Victoria Police risk assessment model for police pursuits should be redeveloped and an alternative more appropriate model be adopted, such as the 'traffic light model', so as to guide police members as to what weight should be given to one particular risk factor over another. Any risk assessment model should be commensurate with appropriate industry practice in other safety critical environments.

Recommendation 3

All police vehicles should be fitted with In Car Video.

Recommendation 4

That Victoria Police introduce processes to ensure all police members record and report all incidents of vehicles fleeing police, to improve the evidence base for development, evaluation and

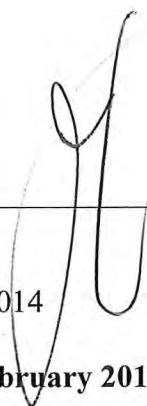
review of Victorian police pursuit policies that strike the optimum balance between law enforcement and public safety imperatives.

Pursuant to section 73(1) of the **Coroners Act 2008**, I order that this finding be published on the internet.

I direct that a copy of this finding be provided to the following:

- Ms Donna Dinsdale
- Victorian Government Solicitors on behalf of the Chief Commissioner of Police

Signature:



JOHN OLLE
CORONER

Date: 14 July 2014

Amended 4 February 2015





Coroners Court of Victoria

Research summary

Coroners Prevention Unit

Circumstances of fatal police pursuits,
Victoria 2000-2012

Date	12 April 2013
Coroner	Coroner John Olle
Topic	Circumstances of fatal police pursuits, Victoria 2000-2012

Table of Contents

1. BACKGROUND.....	4
2. REVIEW	5
2.1 How did the vehicle come to the attention of police?	5
2.1.1 Rationale	5
2.1.2 Data	5
2.1.3 Analysis.....	6
2.2 Elective versus imperative pursuit	6
2.2.1 History of the paradigm	6
2.2.2 Practical issues.....	7
2.2.2 Data	8
2.2.3 Analysis.....	8
2.3 Did the fleeing driver have any history of offending?	8
2.3.1 Rationale	8
2.3.2 Data	9
2.3.3 Analysis.....	9
2.4 Pursuit controller engagement	9
2.4.1 Background	9
2.4.2 Data	10
2.4.3 Analysis.....	11
2.5 Typology of pursuits.....	12
2.5.1 Rationale	12
2.5.2 Data	12
2.5.3 Analysis.....	13
2.6 Establishing the identity of the driver	13
2.6.1 Rationale	13
2.6.2 Data	13
2.6.3 Analysis.....	14
2.7 Communications issues	15
2.7.1 Rationale	15
2.7.2 Data	15
2.7.3 Analysis.....	16
2.8 Charges arising from the pursuit.....	16
2.8.1 Rationale	16
2.8.2 Data	16
2.8.3 Analysis.....	17
3. FURTHER DIRECTIONS	18
ATTACHMENT A.....	19

ATTACHMENT B	21
ATTACHMENT C	22
ATTACHMENT D.....	23
ATTACHMENT E.....	24

1. Background

The Coroners Prevention Unit (CPU) reviewed the circumstances of fatal Victorian police pursuit incidents and prepared this report to assist Victorian coroners with their investigations into police pursuit deaths.

The CPU identified 37 fatal police pursuit incidents for review (see Attachment A) that met the following inclusion criteria:

- One or more people died proximal to a police pursuit in circumstances where the cause of death was related to the pursuit.
- The death or deaths were investigated by a Victorian coroner between 1 January 2000 and 31 December 2012.
- The full case file including inquest brief for the death(s) connected to the fatal police pursuit incident, was available to the CPU for review.

The CPU review addressed the following questions:

- How did the vehicle initially come to the attention of police?
- Was the pursuit 'elective' or 'imperative'?
- Did the fleeing driver have a history of offending?
- Was a pursuit controller engaged? If not, why not?
- Could a typology of pursuits be developed?
- At what point in the pursuit (if at all) was the fleeing driver's identity established?
- Did police identify any communication issues during the pursuit (whether between controller and driver, or otherwise)?
- In those police pursuit incidents where the driver did not die, was the driver subsequently charged with any offence (and if so, convicted)?

2. Review

2.1 How did the vehicle come to the attention of police?

2.1.1 Rationale

Recently several Australian law enforcement jurisdictions have revised their policies to restrict the reasons why a pursuit can be initiated. As a starting point for examining the impact of policy change in this area on Victorian police pursuit deaths, the CPU examined the reasons why Victorian police pursuits culminating in fatalities were initiated.

2.1.2 Data

In Table 1, the 37 fatal police pursuit incidents were classified according to the original reason why police attention was drawn to the driver and/or vehicle that would subsequently be pursued. The two general categories were: (1) proximal observations police made of the driver/vehicle behaviour, or (2) because the vehicle and/or driver was already being sought by police.

Table 1 shows that 26 (70.3%) of the 37 fatal police pursuits commenced after police observed vehicle or driver behaviour. In the 11 remaining cases (29.7%) the driver and/or the vehicle was already being sought by police.

Table 1: Frequency of fatal police pursuit deaths by reason why vehicle originally came to police attention, Victoria 2000-2012.

Reason for vehicle coming to police attention	n	%
Proximal observation of vehicle/driver behaviour	26	70.3%
Vehicle/driver was already sought by police	11	29.7%
<i>Total fatal police pursuit incidents</i>	<i>37</i>	<i>100.0%</i>

Table 2a shows the specific observations that initially drew police attention to the vehicle or driver in the 26 fatal police pursuit incidents that commenced because of proximal observations. The most common reasons were that police observed the vehicle speeding (n = 10, 38.5%) and police intercepted the vehicle for a routine check (n = 6, 23.1%).

Table 2a: Specific proximal observations of vehicle/driver behaviour that drew police attention to vehicle at commencement of fatal police pursuit, Victoria 2000-2012.

Specific proximal observation	n	%
Vehicle was travelling over speed limit	10	38.5%
Routine interception for licence check or similar	6	23.1%
Erratic or suspicious driving observed	3	11.5%
Vehicle appeared to be unroadworthy or unregistered	2	7.7%
Vehicle appeared to flee or avoid mobile testing station	2	7.7%
Vehicle appeared to flee or avoid patrolling police	1	3.8%
Driver spat at police	1	3.8%
Driver was not wearing a seatbelt	1	3.8%
<i>Total relevant incidents</i>	<i>26</i>	<i>100.0%</i>

Table 2b shows the specific reasons why police were looking for the vehicle or driver in the 11 fatal police pursuit incidents that commenced because the driver and/or vehicle was sought by police. The two main reasons were that members of the public had contacted police to report erratic or suspicious vehicle or driver behaviour (n = 4,

36.4%), and police were on the lookout for a vehicle suspected of involvement in a crime (n = 4, 36.4%).

Table 2b: Specific reasons why the vehicle/driver was already sought by police at commencement of fatal police pursuit, Victoria 2000-2012.

Pursued because already sought by police	n	%
Public reported erratic or suspicious vehicle/driver to police	4	36.4%
Police looking for vehicle suspected of involvement in crime	4	36.4%
Public reported speeding vehicle to police	2	18.2%
Police attended premises regarding person who then fled	1	9.0%
<i>Total relevant incidents</i>	<i>11</i>	<i>100%</i>

2.1.3 Analysis

The majority of fatal Victorian police pursuit incidents (n = 26, 70.3%) were initiated as a result of observations that police made regarding the vehicle and/or driver. Among the remaining 11 fatal incidents (29.7%), six commenced because the public reported observations on vehicle/driver behaviour to police. Only four fatal pursuits (10.8%) commenced because the vehicle/driver was suspected of involvement in a previous crime.

2.2 Elective versus imperative pursuit

2.2.1 History of the paradigm

In the *Police Pursuit Review 2002*, Victoria Police identified that under existing policy the justifications that police members could give for initiating a particular pursuit were:

[...] open to the interpretation of individual members and in any given set of circumstances these justifications will differ according to their own personal perception.¹

It was proposed that a formal "determination process" is needed so that all police members involved in a pursuit - including drivers and pursuit controllers - share a similar perception of the pursuit and a common framework for making decisions and drawing conclusions about the pursuit. The elective versus imperative paradigm, adopted from New Zealand, was proposed as an appropriate framework; it was explained in the *Review* as follows:

An 'imperative' pursuit is best described as when an immediate need exists for police to take action in order to protect life and property provided the risk is justified. This type of pursuit would most often be initiated when the driving by an offender is inherently dangerous prior to police involvement. The 'elective' model typically evolves from a minor traffic violation and when an attempt is made to intercept the motorist, the driver flees. Research indicates the offending driver from the 'elective' model will most often return to compliance with road rules shortly after pursuit abandonment and will not present further risk to the community.²

The paradigm was recommended for adoption, and was approved in principle to be incorporated into Victoria Police policy on 8 August 2002.

1 Victoria Police, *Police Pursuit Review 2002*, p.24.

2 Victoria Police, *Police Pursuit Review 2002*, p.25. The review document is undated but appears to have been published in early 2003, as it reports on decisions made by Victoria Police in late December 2002.

According to former Assistant Commissioner (Education) of Victoria Police Paul Evans in a statement dated 2 June 2005, the recommendations of the *Police Pursuit Review 2002* (which would have included the recommendation to adopt the elective versus imperative paradigm) were drafted into a Chief Commissioner's Instruction on Urgent Duty Driving issued 30 June 2003. This in turn was made part of the *Victoria Police Manual* on 1 March 2004.³

In the *Victoria Police Manual* an elective pursuit is defined as follows:

Elective pursuit - is the pursuit of a vehicle that has failed to stop after being signalled to stop for a lawful purpose. The reason for the pursuit is to intercept an offending driver.

An imperative pursuit is:

[...] the pursuit of a vehicle (1) that is creating a danger to the public by its presence on the road; or (2) where there are reasonable grounds to believe that immediate apprehension of the driver or occupant/s is essential to prevent danger to any persons. The reason for the pursuit is to minimise or remove a danger.⁴

The example given in the *Victoria Police Manual* of an elective pursuit is when a driver fails to stop for a breach of the road rules; the example of an imperative pursuit involves a fleeing armed offender or a dangerous driver.

2.2.2 Practical issues

When the CPU initially attempted to apply the elective versus imperative paradigm to every fatal Victorian police pursuit incident that occurred after 30 June 2003,⁵ practical difficulties were encountered. One issue was that the paradigm (despite the intentions behind its introduction) is not objective: in circumstances where (for example) a pursuit is commenced after a vehicle is observed travelling at excessive speed, the pursuit could be elective (the vehicle failed to stop after being signalled to stop) or imperative (the speed of the vehicle created a danger to the public). A further issue was, the act of fleeing police arguably creates a danger to the public and therefore any pursuit automatically becomes imperative.

The subjectivity of the elective-imperative paradigm was recognised by Victoria Police in its 2011 Inspectorate Review:

Interpretation of the Elective or Imperative Pursuit is subjective. An Elective Pursuit may evolve into an Imperative Pursuit, but the exact point at which this is determined is a grey area. The review has identified that there exists some uncertainty within the organisation when determining the definition of a pursuit - Elective or Imperative - and that this uncertainty may impact on the priority in a pursuit, which is risk assessment.⁶

3 See statement paragraph 10.

4 Victoria Police, *Victoria Police Manual - Procedures and Guidelines: Urgent Duty Driving and Pursuits*, issued 22 February 2010, last updated 21 April 2011, pp.2-3.

5 As discussed above, the Chief Commissioner's Instruction on Urgent Duty Driving was issued on 30 June 2003. Although it was not incorporated into the *Victoria Police Manual* until 1 March 2004, the CPU assumes that it would have been operationalised as a Chief Commissioner's Instruction.

6 Victoria Police, *Inspectorate Review 20/2011 Evaluation of Pursuits: Final Report*, 2011, p.16.

Recommendation 2(a) of the Inspectorate Review was to remove the definition of elective and imperative pursuit from the relevant sections of the *Victoria Police Manual*.

Because of these practical difficulties the CPU did not attempt to classify pursuits as elective versus imperative, but instead focused on how police and the coroner classified each incident.

2.2.2 Data

The CPU reviewed the case file material for the 18 fatal police pursuit incidents that occurred after 1 March 2004, to establish how the participants and the coroner classified the incident within the elective-imperative paradigm. The CPU found:

- In 10 incidents the paradigm was not discussed.
- In five incidents the police pursuit was classified as elective.
- In two incidents the police pursuit was classified as imperative.
- In one incident the police pursuit was classified as an elective pursuit that became imperative.

2.2.3 Analysis

In the majority of the 18 fatal police pursuit incidents that occurred after 1 March 2004, the police pursuit was not classified using the elective-imperative paradigm (n = 10, 55.5%). This could be because, as acknowledged by Victoria Police, the paradigm has limited utility for classifying pursuits in a practical setting.

2.3 Did the fleeing driver have any history of offending?

2.3.1 Rationale

Studies have found that police are wrong to assume that if a driver flees, the reason for flight must be that he or she is already wanted by police and/or has committed a crime serious enough to justify the risks inherent in flight:

The available evidence suggests that many individuals who flee police are not doing so immediately after committing a particularly serious crime, with only a small percentage of persons charged with serious violent offences at the conclusion of the pursuit (around 3%). [...] Research shows [...] that pursuits often take place because of the suspicion that the offender might be hiding something serious aside from the reason that sparked the initial police interest.⁷

To test whether this assumption holds true in fatal Victorian police pursuits, the CPU conducted a pilot analysis of coronial material to establish whether the driver in each fatal incident was wanted at the time of incident for any outstanding offences other than offences directly related to the incident itself.

The pilot analysis revealed several difficulties. A central problem was that the case file material often did not differentiate between past convictions, charges still to come before a court, and suspected offences that had not yet led to charges. A further problem was how to classify scenarios such as when a person fled police and he/she did not have a valid licence: was the lack of licence a previous offence, or an offence directly related to the fleeing behaviour? Finally, in 22 of the 37 incidents the driver of the fleeing vehicle died, which meant that no charges were brought regarding

⁷ Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, p.68.

suspected outstanding offences and the case file material did not address such offences in any detail. Ultimately the CPU concluded that the only data on which it could accurately report was the fleeing driver's recorded past history of offending.

2.3.2 Data

The fleeing drivers in 22 fatal police pursuit incidents (59.5%) had at least some recorded history of offending (including suspected offending, convictions and charges) prior to the incident. The following were the most common offences (note that some drivers had multiple offences in their histories and so the frequencies do not total the number of drivers).

- Driving without a valid licence / while disqualified: 10.
- Motor vehicle theft: 9.
- Speeding: 5.
- Theft (other than of a motor vehicle): 5.
- Driving in a dangerous/careless manner: 3.
- Driving under influence of alcohol and/or drugs: 3.
- Driving an unroadworthy and/or unregistered vehicle: 3.
- Refusing a drug/alcohol test: 3.
- Drug possession and/or use: 3.
- Previous police pursuits: 2.
- Threaten/assault police: 2.
- Assault: 2.
- Possession of a weapon: 1.
- Armed robbery: 1.

2.3.3 Analysis

The above data has many shortcomings, including aggregation of suspected and confirmed offence history, and significant variation from case to case in the quality and detail of information on previous offending. While acknowledging these issues, the data appears to suggest that where a driver involved in a fatal police pursuit had an identifiable offending history, the offences tended to be associated with driving: for example driving without a valid licence or while disqualified, theft of a motor vehicle, speeding, and so on. Crimes against the person, particularly violent crimes, were relatively rare.

2.4 Pursuit controller engagement

2.4.1 Background

The pursuit controller has long been an integral part of Victoria Police policy regarding police pursuits:

The Pursuit Controller is accountable for the operational tactics and deployment of police resources in the pursuit. They must:

- take charge of the pursuit until relieved, directed otherwise, or the pursuit is resolved;
- coordinate and direct all police vehicles involved, including nominating primary and secondary units; the Pursuit Controller should not act as the primary unit;

- develop and manage the execution of a resolution strategy; [and]
- ensure any necessary reviews and reports are conducted at the conclusion of the pursuit.⁸

The CPU unfortunately does not have copies of all Victoria Police pursuit policies going back through the 1990s and 1980s, and so has been unable to confirm when the role of the pursuit controller was first introduced and how it has evolved over time. However in the *Police Pursuit Review 2002* the following passage appeared:

Current Supervision Policy (4 December 2000) places responsibility [for controlling a pursuit] upon Divisional sergeants. It is the responsibility of the supervising sergeant to perform all command and control functions as required including the role of pursuit controller when necessary.

The pursuit controller must maintain effective communications to retain management of pursuits. Any communication inadequacies have the potential to adversely affect the decision making process and may place the lives of police, the public and offenders at risk.⁹

This passage was interpreted as an indication that the role of pursuit controller has existed since at least 2000. The CPU therefore analysed all 37 fatal police pursuit incidents to determine whether a pursuit controller was engaged in each. The purpose of analysis was to establish whether the policy regarding pursuit controllers was reflected in the conduct of actual Victorian police pursuits.

2.4.2 Data

Among the 37 fatal police pursuit incidents, a pursuit controller was engaged in 14 incidents (37.8%), and no pursuit controller was engaged in the remaining 23 incidents (52.2%).

Table 3 shows the reasons why no pursuit controller was appointed in 23 fatal incidents. The most frequent reason was that police did not believe a pursuit had officially commenced (n = 7, 30.4%). The next most frequent reason was that insufficient time elapsed between commencement of the pursuit and the fatal incident for a pursuit controller to be appointed (n = 6, 26.2%).

Table 3: Reasons why no pursuit controller was appointed in 23 fatal police pursuit incidents, Victoria 2000-2012.

Reason for pursuit controller not appointed	n	%
Pursuing police did not believe a pursuit had commenced	7	30.4%
There was insufficient time between pursuit commencement and fatal incident to appoint a controller	6	26.1%
Pursuit called off almost immediately by pursuing officer	5	21.6%
Communications issues hindered engagement of controller	3	13.1%
Police participants believed a pursuit controller had been appointed, when in actuality this had not occurred	1	4.4%
Reason not clear on available evidence	1	4.4%
<i>Total fatal police pursuit incidents without controller</i>	<i>23</i>	<i>100.0%</i>

8 Victoria Police, *Victoria Police Manual - Policy Rules: Urgent Duty Driving and Pursuits*, issued 22 February 2010, last updated 7 November 2011, p.4.

9 Victoria Police, *Police Pursuit Review 2002*, p.24.

2.4.3 Analysis

In the majority of fatal police pursuit incidents, a pursuit controller was not appointed. Reasons for this included that police did not believe a pursuit had officially commenced, and insufficient time elapsed between the pursuit commencement and the fatal incident. This finding has potential implications for risk management. Specifically, if the pursuit controller is meant to play a key risk management role, but this risk management role is not engaged in all pursuits, are alternative additional risk management strategies needed?

The CPU draws particular attention to the seven fatal incidents where the pursuing police did not believe a pursuit had commenced:

- Jason Bell (20002963), in which police followed the deceased's vehicle for approximately 14km at high speeds, often with lights flashing, but did not perceive this to be a pursuit.
- Antonio Macaro (20010063), in which police followed the motorcycle for nearly 4km at speed but did not consider this a pursuit as they were still waiting for confirmation as to the motorcycle rider's identity.
- Beau-Jye McDonald (20012242) and Brett Allen (20012243), in which police followed the vehicle at speeds in excess of 180km/h for more than 10km with lights and sirens activated, but the officer monitoring the radio transmissions did not deem the events to comprise a pursuit.
- Robert Kohlman (20013161), in which police commenced following a motorcycle and flashed their lights, at which the motorcycle sped off and drove down a dirt road, at which police lost sight of it.
- Nathan Smith (20030488) and Kristie Sporton (20030489), in which police followed the vehicle at high speed for approximately 1 minute with lights and sirens activated, but stated that they were not in active pursuit.
- Darren Gussey (20044502), in which police followed the vehicle with lights activated for an unspecified distance but did not seek a pursuit controller because there were no immediate concerns.
- William McKean (20104390), in which police followed the vehicle at high speed for 4km but did not activate lights or sirens and did not believe a pursuit had commenced.

If police involved in the above scenarios did not recognise or understand that they were engaged in pursuits (presumably a necessary precondition for engaging a pursuit controller) this raises a broader question regarding police pursuit statistics: if the seven incidents had not culminated in fatalities, would they have been recorded as pursuits by Victoria Police? Or would they have been 'lost' to Victoria Police statistics on pursuit events. This raises a further question of how many non-fatal pursuits Victoria Police might not record as pursuits, and the problems this poses for using Victoria Police data.

Victoria Police might need a more clear and objective definition of a police pursuit. Coroner West's commentary on this issue in his finding for the death of Jason Bell (20002963) might be relevant in this respect:

Despite proceeding after the deceased's vehicle over a distance of approximately 14 kilometres at speeds in excess of 150 km/h, at distances varying between 300 metres and a kilometre and at times with the siren and red and blue flashing lights activated, this was not perceived by the officers to be a pursuit. An implication of it not being called in to the police communication centre as a pursuit, was that a 'Pursuit Controller' was not in

a position to oversight and monitor its progress. Whilst it cannot be concluded that had a 'Pursuit Controller' taken charge, the outcome would have been prevented, the incident accentuates the subjective nature of what is deemed to be a pursuit.

2.5 Typology of pursuits

2.5.1 Rationale

For this analysis the CPU adopted the definition of a fatal police pursuit as used by the Office of Police Integrity (OPI):

[...] any death related to an active or abandoned police pursuit, and any other death related to a police vehicle following another vehicle.¹⁰

However the CPU acknowledges that other definitions of a fatal police pursuit may be used by other organisations, and in particular the inclusion of deaths following abandoned police pursuits might not be universally accepted. Therefore, the CPU resolved to classify all fatal police pursuit incidents by the relationship between pursuit and fatal incident, to establish the incidence of deaths in various circumstances (including after a pursuit has been called off). To this end, the CPU developed a three-level typology for fatal police pursuit incidents:

- **Level 1: Length of pursuit.** The two options were "short pursuit" (a pursuit that lasted for less than one minute or 1.5km) and "long pursuit" (a pursuit that lasted for over a minute or greater than 1.5km).¹¹
- **Level 2: Pursuit termination.** The two options were "pursuit continued to collision" (where police continued to pursue the vehicle until the fatal vehicle collision) and "pursuit terminated before collision" (where police ended the pursuit before the fatal collision occurred).
- **Level 3a: Pursuit status at collision.** For pursuits that continued until the fatal collision, the level 3 coding options were "hot pursuit" (where police were in sight of the vehicle at the time of the collision) and "trailing pursuit" (where police were pursuing but were not in sight of the vehicle).
- **Level 3b: Reason for terminating pursuit.** Where police terminated the pursuit before the collision, the level 3 coding options were "police driver terminated pursuit" (where the police driver involved in the pursuit elected to terminate it) and "pursuit controller terminated pursuit" (where the police driver was ordered to terminate the pursuit by the pursuit controller).

In coding each fatal incident according to the three-level typology, the pursuit was defined as the period during which police were following the vehicle, irrespective of whether a pursuit was underway officially or otherwise. This was to overcome coding issues that emerged when police claimed a pursuit had been called off seconds before the fatal collision, of that they were "following" the vehicle at speed rather than "pursuing" the vehicle.

2.5.2 Data

Attachment C shows the classification of the 37 Victorian fatal police pursuit incidents according to the three-level typology. The most notable finding was that among both

10 Office of Police Integrity, "Review of the investigation of deaths associated with police contact: Issues paper", October 2010, p.21.

11 In some cases the pursuit length was measured by duration, whereas in others the pursuit length was measured by distance travelled. This is why a short pursuit was defined both by duration and by distance travelled.

short and long pursuits, most fatal incidents occurred in the context of a hot pursuit (n = 24, 64.9%). Additionally, where the pursuit was terminated before the fatal incident, police drivers were more frequently responsible for the termination (n = 6, 16.2) than pursuit controllers (n = 3, 8.1%).

2.5.3 Analysis

The data shows that most fatal police pursuit incidents occurred in circumstances where police were in hot pursuit (following within sight of the pursued vehicle) at the time of the fatal collision. It might be useful to apply a similar typology to non-fatal police pursuits, to find out what types of non-fatal outcomes are achieved through hot pursuits.

2.6 Establishing the identity of the driver

2.6.1 Rationale

According to the Policy Rules section of the *Victoria Police Manual*, a police pursuit must be terminated when:

[...] the identity of the driver of the pursued vehicle is established and there is a likelihood that later apprehension will be possible and there is no immediate threat to public or police safety.¹²

The CPU examined the circumstances of the 37 fatal police pursuit incidents, to determine whether the driver of any pursued vehicle had been identified prior to the fatal collision.

The CPU pilot analysis revealed that driver identification in the course of the pursuit was contingent on other factors, including particularly whether or not the car was stolen (no driver was identified when a stolen vehicle was involved in the pursuit). Additionally, there were a certain number of fatal police pursuits in which the question of driver identification was not raised in the material. To make sense of the material and capture these contingencies, the CPU plotted the data as a basic flowchart in three levels:

- **Level 1.** Whether or not the vehicle being pursued was stolen.
- **Level 2.** For pursuits where the vehicle was not stolen, whether or not police identified the driver in the course of the pursuit.
- **Level 3.** For pursuits where the vehicle was not stolen but police did not identify the driver, the reason why the driver was not identified.

The flowchart is Attachment D to the report.

2.6.2 Data

The main findings were:

- In 13 fatal police pursuits (35%), the vehicle being pursued was stolen. As already mentioned, the identity of the driver was not established in the course of any of these pursuits. This was most likely because the registration plates could not be used to establish driver identity.
- Among the remaining 24 fatal police pursuits, in two incidents the vehicle either had no registration plates or fake registration plates. Added to the above 13 stolen vehicle pursuits, this produced 15 fatal police pursuits (40.5%) for which the registration plates could not be used to establish driver identity.

12 Victoria Police, *Victoria Police Manual - Policy Rules: Urgent Duty Driving and Pursuits*, issued 22 February 2010, last updated 7 November 2011, p.5.

- In theory, the driver identity could have been established in the remaining 22 fatal police pursuits (59.5%) by checking the registered owner. However the CPU found that in practice police established the driver identity in only seven pursuits (18.9%).
- The reasons why the driver identity could not be confirmed included that police could not get close enough to read the registration plates (n = 2, 5.4%) and they had no time to check the plates (n = 4, 11.8%).
- In nine fatal police pursuits (24.3%) there was no information in the case file material regarding whether or not the driver identity was established prior to the fatal collision.

2.6.3 Analysis

Police established the identity of the fleeing driver in a minority of fatal Victorian police pursuit incidents. It is possible that, in individual incidents, the pursuing officers' inability to identify the driver might have formed part of their decision to initiate and/or continue the pursuit.

The CPU analysis addressed only whether the driver identity was established in the course of pursuit. However the CPU notes that there are two further requirements in the *Victoria Police Manual* for a pursuit to be terminated: that (1) there is a likelihood the fleeing driver can be apprehended subsequent to a terminated pursuit, and (2) there is no immediate threat to public or police safety. The latter of these requirements is somewhat ambiguous. Presumably the act of fleeing police creates an immediate threat to public or police safety. Perhaps the intended meaning is that the driver in the fleeing vehicle should not present an immediate threat (for example, the driver does not have a kidnap victim in the vehicle or is not en route to an intended homicide).

In Queensland between 2006 and 2008 the state government introduced an offence of evading police, and gave police wider powers to prosecute people without having to engage in the pursuit:

These include the power to serve an evasion offence notice [...] and an 'owner onus' provision. In this context, the registered vehicle owner is deemed to have been the driver of the vehicle involved in the evade police offence even though the actual offender may have been someone else. This 'reverse onus' provision has the effect of obliging the owner to nominate the driver of the vehicle at the time of the evade police offence.¹³

Queensland's Crime and Misconduct Commission found that there were a number of practical and legal issues with the evade police provisions, however after they were introduced:

[...] the number of abandoned pursuits has steadily increased, and the proportion of abandoned pursuits where the driver is later identified increased from 40 per cent in 2006 to 69 per cent in 2010.¹⁴

The CPU does not know whether a similar offence and associated powers has been considered for Victoria, incorporating the lessons of the Queensland experience, to encourage police in the decision to terminate pursuits where appropriate.

13 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011, p.8.

14 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011, p.xii.

2.7 Communications issues

2.7.1 Rationale

Throughout the *Victoria Police Manual* sections on police pursuits, the importance of communication is repeatedly emphasised. The CPU analysed the 37 fatal police pursuit incidents to identify any incidents where communications issues might have contributed to the fatal outcome.

2.7.2 Data

The CPU identified 13 fatal police pursuit incidents in which communications issues occurred between police involved in the pursuit. The issues were not amenable to obvious grouping for analysis, and so they are set out for each relevant case here as follows:

- **Elizabeth Donohue (20002286)**. Several officers involved in the pursuit noted that there was at times a need to repeat information multiple times to keep everybody up to date regarding the circumstances of the pursuit, and this caused radio congestion.
- **Antonio Macaro (20010063)**. The pursuing police officer attempted to confirm the identity of the fleeing vehicle over the radio before deciding whether or not to terminate the pursuit; delay in the transmission of information meant that the pursuit was prolonged.
- **Piotr Repinski (20013510)**. The pursuit commenced in New South Wales and continued into Victoria. There were numerous issues with Victoria Police attempts to maintain direct contact with the Victorian and New South Wales units involved in the pursuit. Therefore the police pursuit strategy could not be coordinated properly on several occasions. The coroner made several recommendations regarding police communications.
- **Tristram Rich (20013763) and Joshua French (20013764)**. Communications were patchy during the initial stages of the pursuit (possibly because a police car was tuned to the wrong radio channel) and the Victoria Police communications operators had particular difficulty hearing transmissions from the pursuing officers.
- **Aaron Stacy (20013814)**. The police vehicle involved in the pursuit as unofficial pursuit controller had a malfunctioning radio. The coroner found that the vehicle should not have participated in the pursuit, as its presence and intermittent radio communications gave the false impression to other officers that the pursuit was being properly controlled.
- **Shaun Law (20021821), Simon Lovitt (20021822) and Cao Vo (20021823)**. There were some early issues with radio communication at the commencement of the pursuit, as there was radio traffic congestion at the time, but this was not seen to be contributory to the fatal incident.
- **Patrick Green (20032982)**. The police officer who intercepted the fleeing vehicle had difficulty contacting central police command (D24) to request assistance after commencing the pursuit, because of radio traffic congestion.
- **Nicole Knox-Smith (20041311)**. In the course of the incident, several different police officers gave conflicting instructions regarding the pursuit, which led to confusion about when the pursuit should be terminated.
- **Dillon Van (20050759)**. There were some early issues with radio communication at the commencement of the pursuit, as there was radio traffic congestion at the time.

- **Harley Debnam (20062696)**. Throughout the course of the pursuit, various units involved kept cutting over one another on the radio, which made it impossible for the lead pursuit vehicle to transmit information at times. This continued all the way through to the fatal collision, which occurred in a context where some police were still trying to confirm whether or not the pursuit had been terminated.
- **Nathan Wsol (20081113)**. When police commenced the pursuit, they were unable to contact central police communications (D24) because of radio congestion, and by the time everything had been clarified the fatal collision occurred. Due to the poor quality of the radio communication, D24 needed repeat clarification on the location of the collision, which caused further delay as well as radio congestion.
- **Vontharasmey Ban (20093951)**. When the responsible police patrol supervisor tried to assume the role of pursuit controller, his efforts to communicate this were hampered by the large number of other units in the area who were attempting to assist and the radio traffic caused by this.
- **Amrinder Chinna (20120325)**. Initial heavy radio traffic made it very difficult for the pursuit controller to take charge of the pursuit.

2.7.3 Analysis

There were communications issues recorded in 13 of the 37 fatal police pursuit incidents (35.1%). Other than in the death of Piotr Repinski, it is not clear whether these communications issues might have been contributory as such to the fatal outcome.

2.8 Charges arising from the pursuit

2.8.1 Rationale

Media discussion of police pursuit policy regularly includes commentary that stronger penalties – invariably longer jail terms – are needed to deter people from fleeing police.¹⁵

The CPU analysed the case material for every fatal police pursuit incident, to explore the range of offences with which drivers were charged following the incident and the range of prison sentences issued.

2.8.2 Data

In 22 of the 37 fatal police pursuit incidents (59.5%) the driver of the fleeing vehicle died; of the remaining 15 incidents, the CPU confirmed in 14 incidents that the driver was subsequently charged with offences relating to the pursuit.

The table in Attachment E shows the main charges arising from each pursuit incident, and (where known) the sentence and minimum term the driver was given upon conviction. The most frequent charge was culpable driving causing death, which was brought in 13 of the 14 incidents; in the other incident the driver was

15 See for example Premier of Victoria, "Police pursuit hoons to face three years jail", media release, 15 November 2012, <<http://www.premier.vic.gov.au/media-centre/media-releases/5389-police-pursuit-hoons-to-face-3-years-jail.html>>, accessed 11 December 2012; Police Association of Tasmania, "Media Release", 22 July 2010, <www.pat.asn.au/uploaded/62/290984_55makepolicepursuitssafer.pdf>, accessed 12 December 2012.; Kerin L, "Harsher penalties for high-speed chases", *ABC News*, 3 February 2010, <<http://www.abc.net.au/news/2010-02-02/harsher-penalties-for-high-speed-chases/319142>>, accessed 12 December 2012.

convicted of manslaughter. Sentences ranged from a suspended three-year sentence through to a 14-year sentence with a 10-year minimum.

2.8.3 Analysis

The CPU assembled this information for other organisations to consider whether penalties given to drivers involved in fatal police pursuits are adequate. The CPU does not offer any commentary.

3. Further directions

In an influential 1989 paper on police pursuits, Geoffrey Alpert and Roger Dunham noted that “while other measures are important, it is the outcome of a pursuit that most concerns the parties involved”.¹⁶ A death (of the fleeing driver, a passenger in the vehicle being pursued, the pursuing officer, or another person) is only one possible outcome of a police pursuit, and many researchers have indicated that the full range of outcomes must be studied to generate any useful insight into how pursuit risks can be mitigated.¹⁷

Therefore, the CPU acknowledges the shortcomings of the data analysis presented herein, which focuses only on fatal police pursuits. If Victoria Police or any other interested organisation has access to information on non-fatal outcomes of Victorian police pursuits, they could be invited to present any relevant data that contextualises the findings contained herein.

16 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, p.526.

17 For the earliest commentary the CPU could find on this position, see Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986, p.10, in which the authors write: "Only after careful analysis of police pursuits under a variety of conditions and with a variety of outcomes can any solutions or concrete suggestions be offered".

Attachment A

The following table shows the 43 fatal police pursuit incidents identified by the CPU that were reported to the Coroners Court of Victoria for investigation between 1 January 2000 and 31 December 2012. The CPU reviewed 37 of these incidents in the present report; the six incidents not reviewed are cross-hatched in the table.

Incident	Date	Deceased	Deceased relationship to pursuit
1	18 Jul 2000	Donohue, Elizabeth (20002286)	Driver of third party motor car
2	09 Sep 2000	Jaman, Anthony (20002957) Diliberto, Daniel (20002967)	Passenger in third party motor car Passenger in third party motor car
3	10 Sep 2000	Bell, Jason (20002963)	Passenger in motor car being pursued
4	07 Jan 2001	Macaro, Antonio (20010063)	Driver of motorcycle being pursued
5	30 Jan 2001	McDonald, Beau-Jye (20012242) Allen, Brett (20012243)	Driver of motor car being pursued Passenger in motor car being pursued
6	13 Oct 2001	Kohlman, Robert (20013161)	Pedestrian third party
7	15 Nov 2001	Repinski, Piotr (20013510)	Driver of motor car being pursued
8	10 Dec 2001	Rich, Tristram (20013763) French, Joshua (20013764)	Driver of motor car being pursued Passenger in motor car being pursued
9	15 Dec 2001	Stacy, Aaron (20013814)	Passenger in motor car being pursued
10	01 Dec 2001	King, Darren (20020271)	Driver of motor car being pursued
11	24 Feb 2002	Airey, Lorraine (20020540)	Passenger in third party motor car
12	19 Jun 2002	Law, Shaun (20021821) Lovitt, Simon (20021822) Vo, Cao (20021823)	Passenger in motor car being pursued Driver of motor car being pursued Passenger in motor car being pursued
13	23 Aug 2002	Newberry, Stewart (20022584)	Driver of motor car being pursued
14	06 Sep 2002	Routledge, Brendon (20022754)	Driver of motor car being pursued
15	14 Sep 2002	Nailon, Andrew (20022836) White, Sean (20022837)	Driver of motor car being pursued Passenger in motor car being pursued
16	14 Feb 2003	Smith, Nathan (20030488) Sporton, Kristie (20030489)	Passenger in motor car being pursued Passenger in motor car being pursued
17	20 Feb 2003	Field, Paul (20030565) Philp, Joshua (20030566) Smyth, Martin (20030614)	Passenger in motor car being pursued Passenger in motor car being pursued Passenger in motor car being pursued
18	03 May 2003	Doherty, Tegan (20031389)	Driver of motor car being pursued
19	20 Jun 2003	Lock, Hayden (20031939) Grace, Christopher (20031940)	Passenger on motorcycle being pursued Driver of motorcycle being pursued
20	19 Jul 2003	Turner, Raymond (20032337)	Driver of third party motor car
21	06 Sep 2003	Green, Patrick (20032982)	Driver of motor car being pursued
22	16 Apr 2004	Knox-Smith, Nicole (20041311)	Driver of third party motorcycle
23	22 Dec 2004	Gussey, Darren (20044502)	Driver of third party motor car
24	06 Mar 2005	Van Dillon, Tyson (20050759)	Driver of motor car being pursued
25	23 Apr 2005	Cowton, Christopher (20051373)	Driver of motorcycle being pursued
26	01 May 2005	Yarak, Layla (20051463)	Passenger in third party motor car
27	18 May 2006	Mimmo, Bradley (20061842)	Driver of motorcycle being pursued
28	20 Jul 2006	Debnam, Harley (20062696)	Passenger in motor car being pursued
29	31 Dec 2006	Booth, Sarah (20064974)	Passenger in motor car being pursued
30	15 Mar 2008	Wsol, Nathan (20081113)	Driver of motor car being pursued
31	17 Mar 2008	Bennett, Shane (20081132)	Driver of motor car being pursued
32	14 Aug 2009	Vontharasmey, Ban (20093951)	Driver of motor car being pursued
33	13 Dec 2009	Kumar, Jason (20095767)	Driver of motor car being pursued

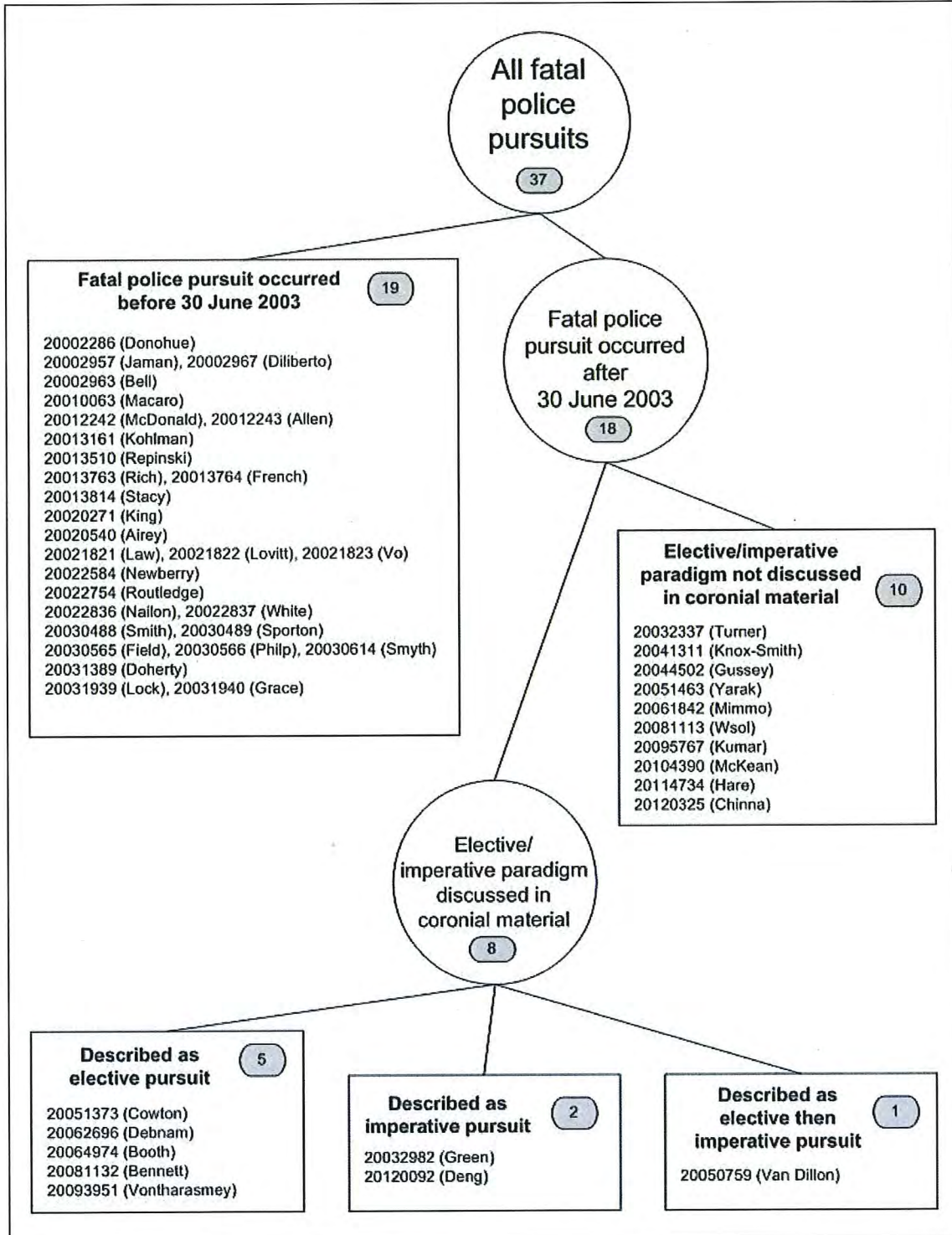
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Incident	Date	Deceased	Deceased relationship to pursuit
34	15 Nov 2010	McKean, William (20104390)	Driver of third party motorcycle
35	14 Jul 2011	Cochrane, Paul (20112566)	Driver of motor car being pursued
36	04 Dec 2011	Clark, Kyrilee (20114566)	Passenger in motor car being pursued
37	17 Dec 2011	Hare, Angus (20114734)	Driver of motor car being pursued
38	10 Jan 2012	Deng, Luka (20120092)	Passenger in motor car being pursued
39	21 Jan 2012	Goban, James (20120264) Cosik, Goran (20120265)	Driver of third party motor car Driver of motor car being pursued
40	26 Jan 2012	Chinna, Amrinder (20120325)	Driver of motor car being pursued
41	30 Apr 2012	Grosvero, Luke (20121551)	Driver of motorcycle being pursued
42	03 Jun 2012	Smith, Mathew (20122058)	Driver of motor car being pursued
43	06 Aug 2012	Fava, David (20123162)	Driver of motor car being pursued

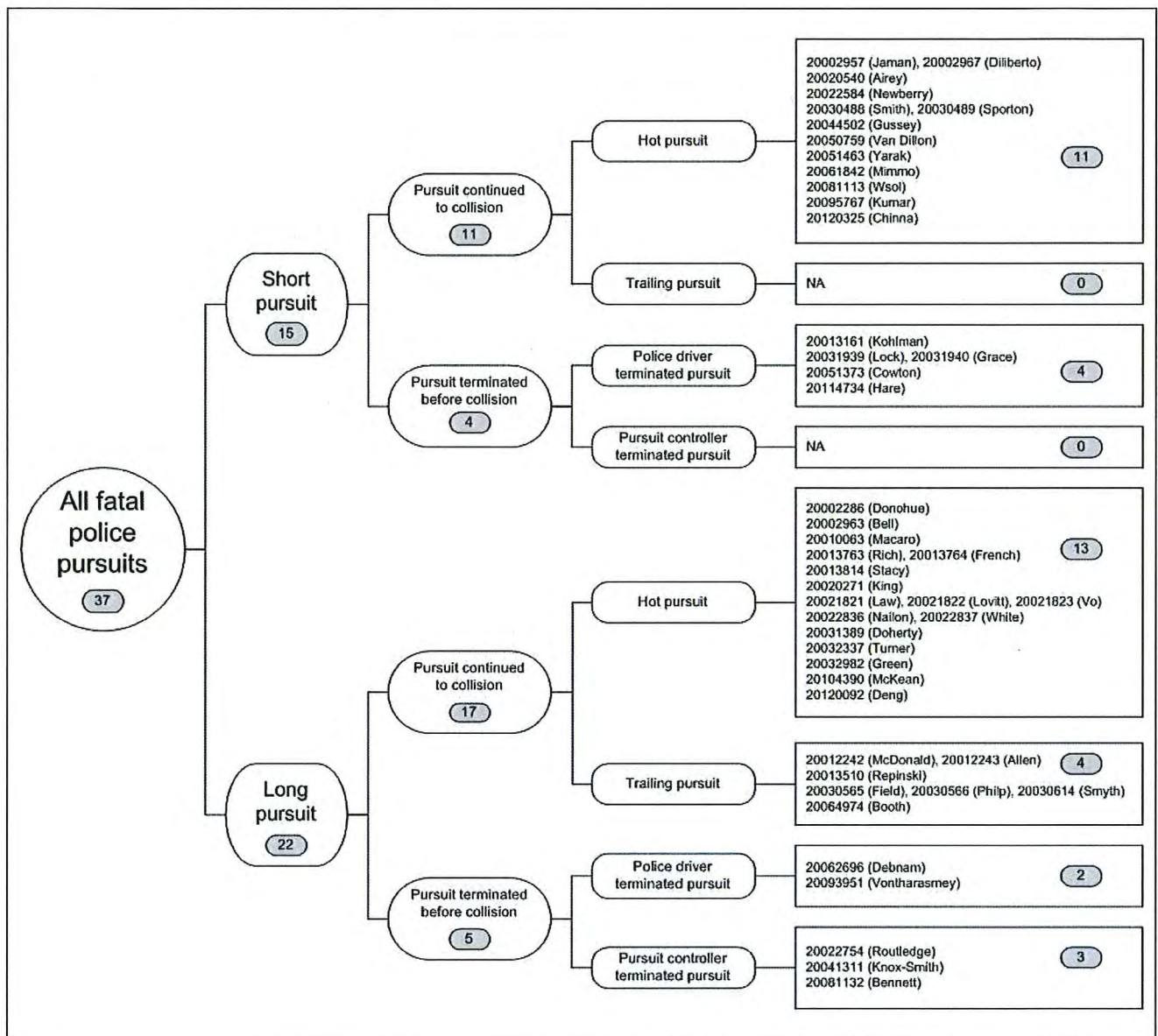
Attachment B

Classification of incidents according to coronial material, within the elective versus imperative paradigm.



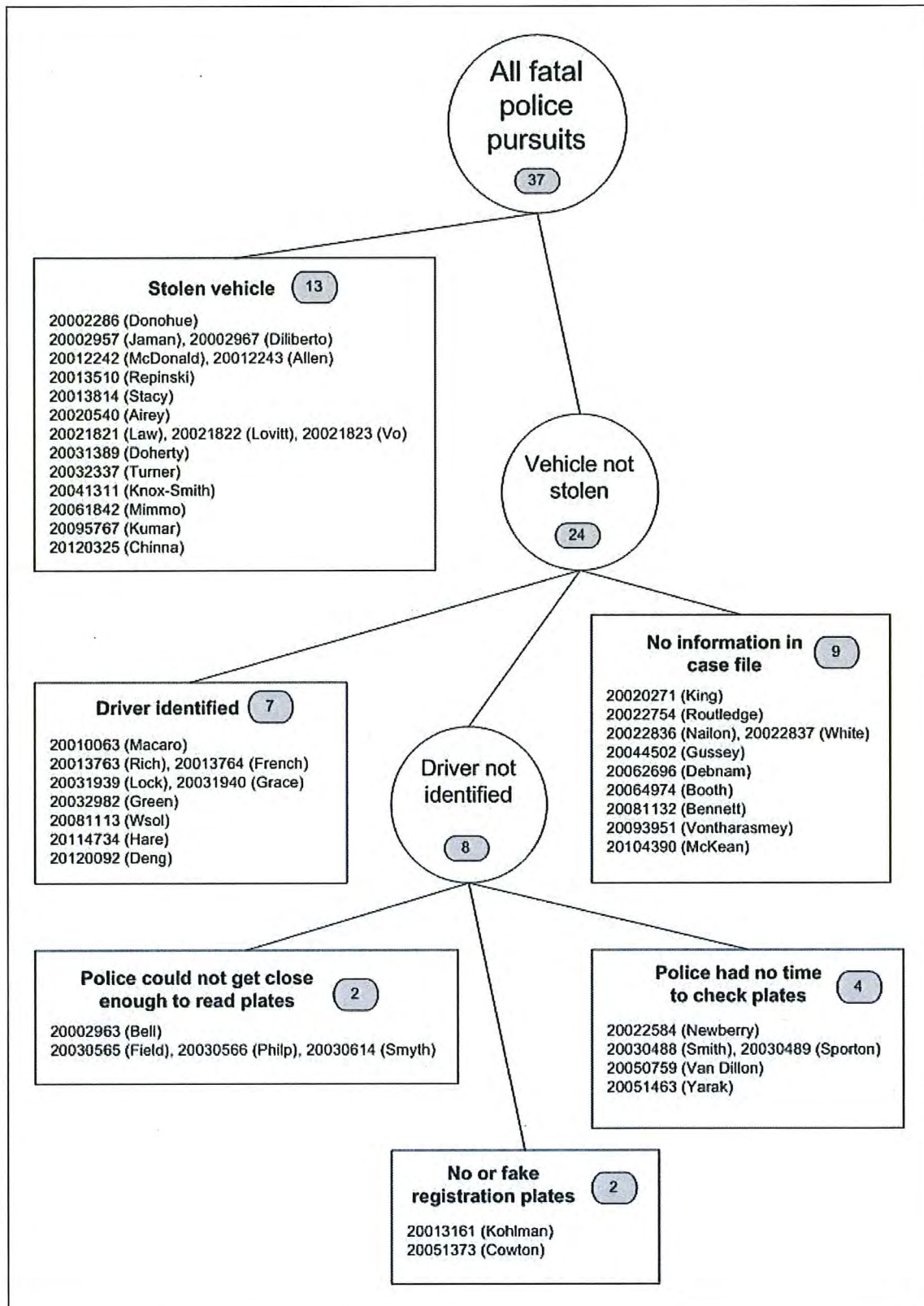
Attachment C

Typology of Victorian fatal police pursuit incidents.



Attachment D

Driver identification during course of fatal police pursuits.



Attachment E

Offences drivers were charged with, arising from fatal police pursuits in which the driver did not die.

LCNs of fatal incident	Culpable driving	Conduct endangering life / injury	Vehicle theft	Dangerous driving	Unlicensed driving	Failure to stop after accident	Neg cause injury	Excessive speed	Drug/ drink driving	Man-slaughter	Other not recorded	Sentence (years)	Minimum term (years)
20002286	Y	Y	Y	Y	Y	Y						7	5.5
20002957, 20002967	Y	Y					Y					10	7
20013814	Y	Y	Y		Y			Y				5.25	3.5
20020540	Y		Y				Y					3	
20030488, 20030489	Y						Y					UK	UK
20030565, 20030566, 20030614	Y			Y	Y		Y	Y	Y			UK	UK
20032337		Y	Y							Y	Y	14	10
20041311	Y										Y	10	8
20044502	Y											3	Suspended
20051463	Y											5	UK
20062696	Y										Y	8.25	5.75
20064974	Y											9	6
20104390	Y	Y		Y		Y			Y		Y	UK	UK
20120092	Y	Y	Y	Y	Y			Y	Y		Y	UK	UK



Coroners Court of Victoria

Research summary

Coroners Prevention Unit

**Evidence for the impact of policy and legislative measures
on police pursuit behaviours: a literature review**

Date	12 April 2013
Coroner	Coroner John Olle
Topic	Evidence for the impact of policy and legislative measures on police pursuit behaviours: a literature review

Table of Contents

1. BACKGROUND	3
1.1 Literature reviewed.....	3
1.2 Terminology.....	3
2. POLICY IMPACT ON FLEEING DRIVERS.....	3
2.1 Is police willingness to pursue a deterrent to fleeing?	3
2.2 Does restricting a pursuit policy influence driver fleeing behaviour?	3
2.3 Are increased penalties a deterrent to fleeing from police?	3
2.4 Discussion.....	3
3. RELATIVE MERITS OF DIFFERENT APPROACHES TO POLICY.....	3
3.1 Criteria for judging a police pursuit policy	3
3.2 Restricting the circumstances in which police can pursue.....	3
3.3 Restricting the exercise of police discretion.....	3
3.4 Discussion.....	3
4. CONCLUSION	3

1. Background

The Coroners Prevention Unit (CPU) conducted a brief review of published literature both in Australia and internationally, to explore certain issues that were deemed to be relevant to the coroner's investigations. The two overarching questions that guided the literature review were:

- Is there any evidence that police pursuit policy has an impact on the behaviour of drivers who flee from police?
- Is there any evidence that a given approach to setting police pursuit policy is better or worse than another?

These two questions are explored in the two main sections of this report; a conclusion brings together the findings.

1.1 Literature reviewed

Alpert G, "Police Pursuit: Policies and Training", *Research in Brief*, National Institute of Justice, May 1997.

Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986.

Alpert G, Dunham RG, "Research on Police Pursuits: Applications for Law Enforcement", *American Journal of Police*, vol 7, no 2, 1988, pp.123-132.

Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, pp.521-539.

Alpert G, Dunham RG, Strohshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005.

Alpert G, Kenney D, Dunham R, Smith W, Cosgrove M, *Police pursuit and the use of force*, final report to the National Institute of Justice, April 1996.

Becknell C, Mays GL, Giever DM, "Policy restrictiveness and police pursuits", *Policing: An International Journal of Police Strategies and Management*, vol 22, no 1, 1999, pp.93-110.

Brewer N, McGrath G, "Characteristics of offenders in high-speed pursuits", *American Journal of Police*, vol 10, no 3, 1991, pp.63-68.

Brewer N, McGrath G, "Progress report on urgent duty driving high speed pursuits: offender and pursuit characteristics, Report Series 89, Australasian Centre for Policing Research, 1990.

Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007.

Carson R, *Pursuits: The Chase for Change*, Report to the Commissioner of New Zealand Police, December 2003.

Crew R, "An effective strategy for hot pursuit: some evidence from Houston", *American Journal of Police*, vol 11, no 3, 1992.

Crew R, Kessler D, Fridell LA, "Changing hot pursuit policy: an empirical assessment of the impact on pursuit behaviour", *Evaluation Review*, vol 18, December 1994, pp.678-688.

Dunham R, Alpert G, Kenny DJ, Cromwell P, "High-Speed Pursuit: The Offenders' Perspective", *Criminal Justice and Behavior*, vol 25, no 1, March 1998, pp.30-45.

Halsey M, "Narrating the Chase: Edgework and Young Peoples' Experience of Crime", in Anthony T and Cunneen C (editors), *The Critical Criminology Companion*, Sydney: Federation Press, 2008, pp.105-17.

Hoffmann G, Mazerolle P, "Police pursuits in Queensland: research, review and reform", *Policing: An International Journal of Police Strategies and Management*, vol 28, no 3, 2005, pp.530-545.

Homel R, *High Speed Police Pursuits in Perth: A Report to the Police Department of Western Australia*, Australasian Council for Policing Research, Report 89, September 1990.

Hutson HR, Rice PL, Chana JK, Kyriacou DN, Chang Y, Miller RM, "A review of Police Pursuit Fatalities in the United States from 1982-2004", *Prehospital Emergency Care*, vol 11, no 3, July/September 2007, pp.278-283.

Kennedy DB, Homant RJ, Kennedy JF, "A comparative analysis of police vehicle pursuit policies", *Justice Quarterly*, vol 9, no 2, June 1992, pp.227-246.

New Zealand Police, *Pursuits: The Case for Change*, December 2003.

Nugent H, Connors EF, McEwen JT, Mayo L, *Restrictive Policies for High-Speed Police Pursuits*, National Institute of Justice, 1990.

Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011.

Rix B, Walker D, Brown R, *A Study of Deaths and Serious Injuries Resulting from Police Vehicle Accidents*, Home Office Police Research Group, 1997.

1.2 Terminology

Certain terms recur throughout the police pursuit literature. The most widely used paradigm and associated terminology is that set out by Alpert and Dunham in their influential 1989 article on understanding pursuit policies:

Police policies regarding pursuit generally fall under one of three models: (1) Judgmental, allowing officers to make all major decisions relating to initiation, tactics, and termination; (2) Restrictive, placing certain restrictions on officers' judgments and decisions; and (3) Discouragement, severely cautioning or discouraging any pursuit, except in [...] extreme situations.¹

Alpert and Dunham expanded on the above definitions as follows:

Police departments, operating under regulations that emphasize judgmental decision making, provide only guidelines for their officers. Usually, these warnings require officers to weigh various factors before initiating a pursuit, to consider their safety and the safety of others during a pursuit, and to terminate a chase when it becomes too risky. The vagueness of this type of regulation permits officers to make most of the decisions and therefore requires the most supervision, control, and training.

Departments that operate under restrictive regulations or specific rules limit individual officers' discretion. For example, orders may restrict officers from initiating pursuits when the law violators are juveniles, traffic offenders, or property offenders. Similarly, in-pursuit driving behaviour may be so limited

1 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, p.524. In this paper the authors appear to attribute the paradigm to a 1970 study authored by Fennessey and others. The CPU has been unable to access this publication, and so cannot confirm the full history of the paradigm.

by ordering specific speed, distance, or time limitations. Additionally, a rule may restrict some types of driving such as going the wrong way on a one-way street, driving over curbs or driving on private property.

Discouragement policies only allow pursuit driving under specific conditions. Examples include chasing a known murder suspect or a suspect whom an officer has observed committing a violent crime. These policies are very specific and leave little room for discretion.²

Although not explicitly stated by Alpert and Dunham, this paradigm distinguishes between police pursuit policies on two axes. There is the 'axis of judgment', which pertains to the degree of judgment a police officer is allowed to exercise under the policy in determining whether and how to pursue a fleeing vehicle. Then there is the 'axis of scope', which describes the scope of fleeing behaviour for which police are permitted to pursue.

Re-interpreting the paradigm through this two-axis approach:

- A judgmental policy gives police significant latitude both in the axis of judgment and the axis of scope.
- A restrictive policy may limit the degree of judgment the officer exercises, and/or the scope of fleeing behaviour for which the officer is permitted to pursue.
- A discouraging policy is a sub-type of restrictive policy that severely restricts the police officer both in the axis of judgment and the axis of scope.

The CPU prepared figure 1 as a visual representation of the above. The left-hand box in Figure 1 shows hypothetical policies that might fit a given combination of judgment and scope. For example, the top left hypothetical policy combines highly restricted judgment ("the police officer must pursue") with broad scope of permitted pursuit circumstances ("any fleeing vehicle"). The bottom right hypothetical policy conversely shows unrestricted judgment ("the police officer can choose to pursue") within a limited scope of permitted circumstances ("any vehicle fleeing a suspected homicide"). The right-hand box shows how the axes of judgment and scope might map onto the paradigm.

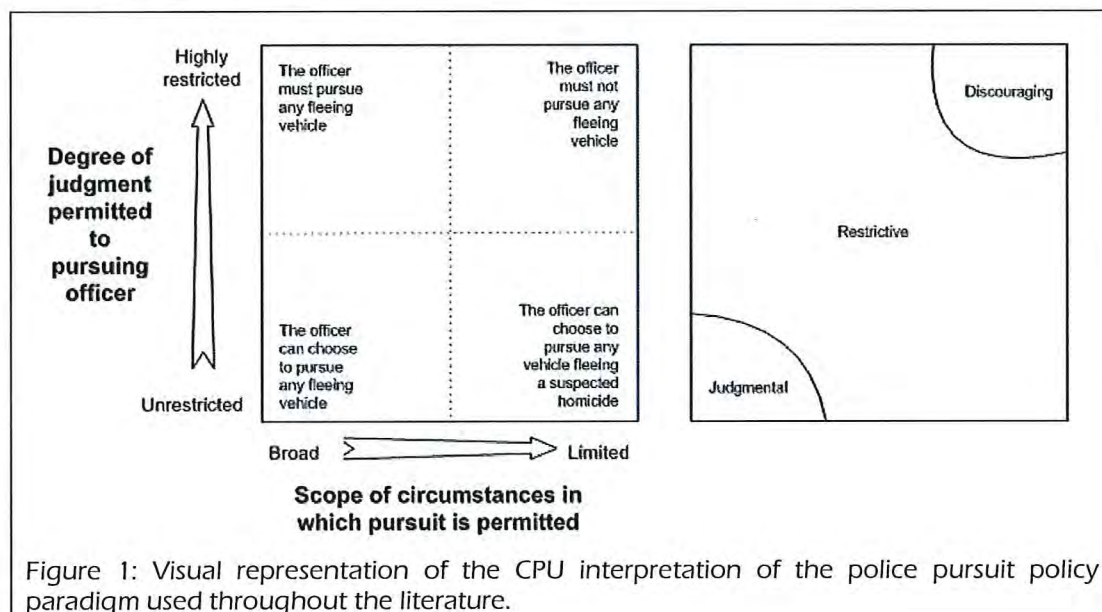


Figure 1: Visual representation of the CPU interpretation of the police pursuit policy paradigm used throughout the literature.

2 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, p.524.

Figure 1 makes clear that “restricting” a policy could have multiple meanings: it could refer to restricting the judgment police exercise in deciding how to pursue a vehicle, and/or it could mean restricting the scope of fleeing behaviours for which police are permitted to pursue. It is important, then, to examine and understand the sense in which specific researchers use the term “restrictive” in their work.

2. Policy impact on fleeing drivers

Three major questions emerge from the literature regarding the impact of police pursuit policies on drivers fleeing police:

- Is there any evidence that police preparedness to pursue fleeing vehicles, deters drivers from fleeing police or otherwise engaging in unlawful behaviour involving motor vehicles?
- Is there any evidence that if police pursuit activities are restricted, drivers will be encouraged to flee police or otherwise engage in unlawful behaviour involving motor vehicles?
- Do increased penalties for fleeing police have a deterrent effect on fleeing behaviour?

2.1 Is police willingness to pursue a deterrent to fleeing?

As noted by Alpert and Anderson in their seminal 1986 commentary on police pursuits, police willingness to engage in pursuits has long been regarded as an essential deterrent to drivers fleeing:

[...] apprehension of a criminal is at the heart of the police mission. It can be argued that any law violator should be chased and arrested. [...] If a police officer foregoes a chase, does this not violate his duty, affect his reputation, and perhaps encourage the next person to attempt to outrun the police?³

Upon reviewing the relevant literature, the CPU could find no empirical evidence to support or refute this assertion, though several studies maintained that the deterrent effect is important.

The earliest expression the CPU could find of the belief that readiness to pursue has a deterrent effect on fleeing, was in a California Highway Patrol study published in 1983 (this was also possibly the first empirical study of police pursuits). A central finding in this study was that most police pursuits ended without collision or personal injury and the pursuit driver was apprehended. The authors concluded that the benefits of pursuits outweighed the risks:

Attempted apprehension of motorists in violation of what appear to be minor traffic infractions is necessary for the preservation of order on the highways of California. If approximately 700 people will attempt to flee from the officers who participated in this six-month study, knowing full well that the officers would give chase, one can imagine what would happen if the police suddenly banned pursuits. Undoubtedly, innocent people may be injured or killed because an officer chooses to pursue a suspect, but this risk is necessary to avoid the even greater loss that would occur if law enforcement agencies were not allowed to aggressively pursue violators.⁴

The logic of this argument - that drivers commonly flee police despite knowing that the police will pursue, so if police did not pursue even more drivers would flee - was inverted in a 2003 New Zealand Police analysis to support the same conclusion. The author of the New Zealand analysis wrote:

3 Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986, p.6.

4 The CPU was unable to obtain the original study. This summary and quote were taken from the extensive discussion of the study in: Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, pp.525-526.

Because of the absolute rarity of pursuits, it is clear that pursuit is extremely effective in terms of its deterrent effect on the wider community. This can be seen in the large number of offences detected through traffic stops, where offenders would have every incentive to flee if they believed they had a reasonable chance of success.⁵

Both conclusions assume an inverse causal relationship between police willingness to pursue and driver willingness to flee. However the CPU notes that a broad range of researchers have been unable to establish any concrete link between willingness to pursue and crime deterrence. In 1990 Homel wrote:

Fundamental to the police point of view is the belief that without the unfettered right to pursue as the situation dictates, there would be an epidemic of car stealing, traffic offences, and other kinds of crimes [...] While there may be truth in this position, it should be recognised that it is an unproven assertion.⁶

Kennedy et al similarly observed in 1992 that:

[...] we do not know the effect of [police pursuit] policy variations on citizens, either as innocent bystanders or as potential evaders. To what extent, for example, does knowledge of a department's policy and/or expected police action during pursuits deter or encourage eluding behaviour?⁷

In 2007 the Australian Federal Police proposed that it might be useful to distinguish between individual and general deterrent effects of police willingness to pursue. This proposal emerged from the observation that:

[...] many offenders involved in pursuits are known to have engaged in pursuits on prior occasions. This fact suggests that pursuits have little specific (or individual) deterrent value. In fact the research shows that offenders with previous experience in pursuits are far more likely to take risks once the pursuit is underway to avoid apprehension. Not only does previous experience of pursuits not deter a person from fleeing from police when the situation arises again, it seems to make them much more determined to evade capture by what ever means possible.⁸

The Australian Federal Police argued that while this finding may indicate that certain individual recidivists might not be deterred by police willingness to pursue, it is possible that many potential offenders are deterred from fleeing because of the threat of pursuit. The Australian Federal Police concluded that the question could not be resolved at present:

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- 5 Carson R, *Pursuits: The Chase for Change*, Report to the Commissioner of New Zealand Police, December 2003.
 - 6 Homel R, *High Speed Police Pursuits in Perth: A Report to the Police Department of Western Australia*, Australasian Council for Policing Research, Report 89, September 1990, p.14.
 - 7 Kennedy DB, Homant RJ, Kennedy JF, "A comparative analysis of police vehicle pursuit policies", *Justice Quarterly*, vol 9, no 2, June 1992, p.244. See also Alpert G, Dunham RG, Strohshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005, p.195; Alpert G, Kenney D, Dunham R, Smith W, Cosgrove M, *Police pursuit and the use of force*, final report to the National Institute of Justice, April 1996, p.III-12.
 - 8 Cited in Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, p.74.

The precise deterrent value of pursuits is unknown. It is widely believed that a ban on police pursuits would lead to general increases in vehicle theft, traffic offences and other crime. There may be some truth to this assertion, however in Australia the extent to which it is true cannot be ascertained as all jurisdictions, despite varying policy restrictiveness on this issue, allow police to engage in pursuits.⁹

The CPU adds that this conclusion can be extended beyond Australia to all countries internationally where police pursuits have been studied.¹⁰

2.2 Does restricting a pursuit policy influence driver fleeing behaviour?

The second question that recurs in the literature is in many ways an extension of the first question: if a restrictive police pursuit policy is introduced, are drivers more likely to flee police? Although researchers do not make explicit the sense in which they use the term "restrictive", it is clear from the context that they are referring to the scope of circumstances in which pursuit is permitted. The question could therefore be rephrased more appropriately as: if restrictions are placed on the scope of circumstances within which police are permitted to pursue a fleeing driver, is there any evidence that the behaviour of drivers fleeing police will change?

In Alpert and Anderson's original 1986 discussion on pursuit policy and fleeing behaviour, they made the following observation:

A prediction that police officers in a department with a restrictive policy on pursuits would be involved in fewer chases than would those in a department with a liberal policy would be consistent with research on police use of firearms. Unlike the firearms situation, however, it is unknown whether a significantly greater number of drivers would attempt to elude police, or in what ways chases would differ between departments having restrictive versus liberal policies.¹¹

The earliest study that attempted to examine the impact of policy restriction on fleeing behaviour, was a 1990 study conducted by Nugent and others under the auspices of the National Institute of Justice. Nugent and his colleagues examined police pursuits in four jurisdictions after law enforcement agencies "created policies that stated the circumstances under which pursuits may be undertaken and specified the procedures to be followed", to determine whether there was a subsequent increase or decrease in police pursuits.¹²

Unfortunately the researchers did not have adequate data on pursuits and fleeing behaviour in the lead-up to the policy implementations, so they could not generate any substantive insight into the impact of the policy changes.¹³ In addition, even if they had adequate data on pursuits, an underlying weakness of the study was that they measured pursuit frequency as the outcome of interest, not frequency of drivers

9 Cited in Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, p.73.

10 See example Alpert G, Dunham RG, Strohshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005, p.195.

11 Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986, p.10.

12 Nugent H, Connors EF, McEwen JT, Mayo L, *Restrictive Policies for High-Speed Police Pursuits*, National Institute of Justice, 1990, p.11.

13 Nugent H, Connors EF, McEwen JT, Mayo L, *Restrictive Policies for High-Speed Police Pursuits*, National Institute of Justice, 1990, p.11.

fleeing police. It would be logical to expect that as pursuit policy is tightened, police conduct less pursuits; but we need to know whether proportionally more drivers are fleeing in order to evaluate the policy outcome.

In a 1994 study, Crew and others attempted to further this line of inquiry by examining what happened in Aurora, Colorado before and after several police pursuit policies were introduced: (1) a requirement to collect data on every police pursuit; (2) a requirement for police pursuits to be supervised and reviewed, and (3) introduction of guidelines that allowed only the pursuit of suspected felonies. They found that as the policies were successively introduced, the frequency of police pursuits fell. They interpreted the finding as follows:

[...] pursuit policies do have an effect on pursuit behaviour and that agencies can reduce the number of pursuits in which their officers engage and thereby reduce the attendant accidents and injuries involved. These reductions can be accomplished through the adoption of either of two policies: a pursuit-review process that strengthens the monitoring of pursuits or a restrictive policy that authorizes pursuits only under specified conditions. When combined, these two policies have a particularly strong effect.¹⁴

Crew and his colleagues concluded that this finding would provide a basis for then examining how changes in police pursuit policy and a concomitant reduction in pursuits might affect driver preparedness to flee police. However, it does not appear that any such follow-up study was ever conducted. Cameron noted in 2007:

There are very few studies which examine the effects of restrictive and permissive policies on the frequency and nature of pursuits. This is unfortunate as this approach could go some way in determining the general deterrent value of pursuits – if pursuits had a general deterrent effect you would expect to see a corresponding increase in fleeing drivers as less pursuits took place.¹⁵

The problem of measuring pursuits versus fleeing drivers diminished the utility of the recent Queensland Crime and Misconduct Commission's research into police pursuits.¹⁶ In Queensland between 2006 and 2008 the state government introduced an offence of evading police, which gave police wider powers to prosecute people without having to engage in the pursuit, and also introduced a more restrictive policy for pursuits. Unfortunately the reported outcomes included only the policy impact on frequency of pursuits, not on driver fleeing behaviour.

The Queensland example is particularly pertinent for a further reason: that after the restrictive elements in the new policy (regarding scope of circumstances in which

14 Crew R, Kessler D, Fridell LA, " Changing hot pursuit policy: an empirical assessment of the impact on pursuit behaviour", *Evaluation Review*, vol 18, December 1994, p.686.

15 Cited in Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*; Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, p.74. In this review, author Lisa Collins mentioned a study where "in Florida the reduced level of pursuits and injuries did remain stable after the introduction of the new policy" and "there was no increase in the number of suspects attempting to flee from police". She provided the following citation in support: Alpert G, "Police Pursuit: Policies and Training", *Research in Brief*, National Institute of Justice, May 1997, p.4. When the CPU reviewed this 1997 document there did not appear to be any mention of a finding on suspects fleeing police.

16 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011.

pursuits can occur) were introduced, the media reported that drivers started fleeing police and taunting them when they did not (or rather could not) pursue. The Queensland Police Union complained that:

We can't do our job – we might as well just respond to reported crime. [...] Unless criminals hand themselves in, we just almost give up. We allow them to continue to steal cars and make people's lives a misery. Under the current policy, if you're a criminal, come to Queensland and run from the police and there's not a thing we can do.¹⁷

If background data on fleeing behaviour had been gathered in the lead-up to the policy implementation, the claim that the policy was responsible for the fleeing behaviour could have been tested.

2.3 Are increased penalties a deterrent to fleeing from police?

Strictly speaking, the question of whether increasing penalties for drivers who flee police has an impact on fleeing behaviour belongs to the realm of legislation rather than policy. However, as this question is pertinent to the wider issue of what (if any) measures can be taken to influence fleeing behaviour, the CPU determined it is an appropriate question to address here.

Proposals to introduce increased penalties as a disincentive for drivers to flee police are a recurring theme in Australian political rhetoric. The earliest such proposal the CPU could identify was made in 1990 and called for:

[...] a new category of offence, with substantial penalties [...] for the following reasons. First, examination of the prior convictions and penalties of those individuals with criminal records indicates that the penalties which typically result from a pursuit are likely to have little deterrent impact.¹⁸

More recent examples include the following:

- On 15 November 2012, then Victorian Premier Ted Baillieu and Minister for Police and Emergency Services Peter Ryan announced the introduction of legislation for drivers who flee police to face up to three years of imprisonment. One purpose of the legislation was to "send a strong message to would-be offenders that this type of behaviour will be punished".¹⁹
- In early 2010 New South Wales introduced "Skye's law" (named after a young child who was killed by a driver fleeing police), with terms of imprisonment up to three years for first-time offenders and five years for repeat offenders. Then New South Wales Premier Kristina Keneally claimed that the new penalties would "serve as a powerful deterrent" to those who flee police.²⁰

17 Withey A, "Offenders taunt officers with QLD's no pursuit policy", *ABC News*, 16 November 2012, <<http://www.abc.net.au/news/2012-11-16/offenders-taunt-officers-with-qls-no-pursuit-policy/4375998>>, accessed 27 March 2013.

18 Brewer N, McGrath G, "Progress report on urgent duty driving high speed pursuits: offender and pursuit characteristics", Report Series 89, Australasian Centre for Policing Research, 1990, pp.10-11.

19 Premier of Victoria, "Police pursuit hoons to face three years jail", media release, 15 November 2012, <<http://www.premier.vic.gov.au/media-centre/media-releases/5389-police-pursuit-hoons-to-face-3-years-jail.html>>, accessed 11 December 2012.

20 Kerin L, "Harsher penalties for high-speed chases", *ABC News*, 3 February 2010, <<http://www.abc.net.au/news/2010-02-02/harsher-penalties-for-high-speed-chases/319142>>, accessed 12 December 2012.

- Tasmania's Police Association has campaigned on several occasions to increase penalties for those who flee police; a July 2010 media release claimed that "we must increase this punishment, otherwise how do we send a message to the community that this sort of dangerous behaviour is unacceptable?"²¹
- New Zealand Police recommended in 2003 that failure to stop for police should be punishable by imprisonment rather than merely a fine.²² In 2010 they reiterated this call, arguing that "there are no real consequences or incentives to encourage offenders to change their behaviour. It could be argued that if the punishment was more severe, for example imprisonment, this may provide some deterrence for those determined to engage police in pursuits at any opportunity: provided of course, police can apprehend them".²³

Research into the nature and motivations of those who flee police has cast doubt on the deterrent effect of harsher penalties. In particular, a much-cited 1998 study by Dunham and others included interviews with prisoners who had recently engaged in police pursuits. A central finding was that:

Suspects who said that during the chase they thought about the punishment they might receive, if caught, were nearly five times more likely to take extreme risks to elude the police than suspects who did not think about punishments. Again, rather than providing a deterrent effect, thinking about the punishment apparently acted as an incentive to try harder to escape.²⁴

Another relevant study was conducted by Halsey, who interviewed young males in South Australian correctional settings who had been involved in past police pursuits. Halsey did not identify the threat of penalties as a significant factor exacerbating pursuits. Rather, a recurring theme in his interviews was that fear of penalties for being caught had no impact on fleeing drivers. Halsey concluded that:

[...] the prospect of building resilience to engaging in pursuits through punitive sanctions, driver education campaigns, or shock tactics appears unlikely to serve much more than a symbolic function (especially since the threat of sanction tends only to be reflected on after the chase).²⁵

Alan Cameron cast doubt on the deterrent effect of penalties in his 2007 commentary regarding a mooted Australian Capital Territory initiative to introduce an "evade police" offence:

The evidence is that such offences do not deter, if only because the decision to flee is instinctive; and if fleeing a pursuit is made a serious offence, then

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- 21 Police Association of Tasmania, "Media Release", 22 July 2010, <www.pat.asn.au/uploaded/62/290984_55makepolicepursuitssafer.pdf>, accessed 12 December 2012.
 - 22 Carson R, *Pursuits: The Chase for Change*, Report to the Commissioner of New Zealand Police, December 2003.
 - 23 New Zealand Police, *Pursuit policy review*, 2010, p.43.
 - 24 Dunham R, Alpert G, Kenny DJ, Cromwell P, "High-Speed Pursuit: The Offenders' Perspective", *Criminal Justice and Behavior*, vol 25, no 1, March 1998, p.40.
 - 25 Halsey M, "Narrating the Chase: Edgework and Young Peoples' Experience of Crime", in Anthony T and Cunneen C (editors), *The Critical Criminology Companion*, Sydney: Federation Press, 2008, p.113.

that criterion for deciding whether to pursue, becomes self-fulfilling. Every pursuit is then justified.²⁶

The most recent police pursuit data the CPU has been able to access, from Queensland, neither supports nor refutes the link between penalties and deterrence. Specifically, the Queensland Crime and Misconduct Commission found that there was a reduction in police pursuits in Queensland after they introduced a new "evade police" offence with associated penalties. However as already noted, data on fleeing behaviour was not gathered (or not reported), and the Commission concluded that in any event it could not determine whether the increased penalties were responsible for a decrease in pursuits, or whether other changes that happened at around the same time (including a tightening in pursuit policy) were responsible.²⁷

2.4 Discussion

There is currently no evidence that police pursuit policy impacts the behaviour of fleeing drivers. However, this might be because of shortcomings in research methodologies to date, including particularly the lack of suitable data collected regarding fleeing behaviour as opposed to 'official' pursuits.

To make further progress in understanding police pursuits and the impact of policy changes, police need to collect data not just on police pursuits but on the incidence of vehicles fleeing police. The current police pursuit policy in Orlando, Florida is praised by Alpert and others for this reason:

A unique feature of this [Orlando] policy is the requirement to record 'attempted apprehensions', or situations where a suspect refuses to stop and flees. These data help to place information on pursuits in perspective.²⁸

If Victoria Police make available this type of data (the CPU does not know whether or not it is collected at present), it could be used to evaluate the impact of any planned future policy changes on fleeing behaviour. The insights generated would also be valuable to police forces interstate and internationally.²⁹

26 Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, pp.2-3.

27 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011, p.32.

28 Alpert G, Dunham RG, Stroshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005, p.200.

29 On this last point see Becknell C, Mays GL, Giever DM, "Policy restrictiveness and police pursuits", *Policing: An International Journal of Police Strategies and Management*, vol 22, no 1, 1999, p.107. They advise: "Police agencies can gain useful, policy-oriented insights into finding solutions to problems resulting from pursuits by simply maintaining complete and accurate information".

3. Relative merits of different approaches to policy

If it is accepted that there is presently no strong evidence as to whether or not police pursuit policies can impact the behaviour of fleeing drivers, then it follows that the purpose of a police pursuit policy should be to guide the behaviour of police members who might be involved in a pursuit.

The important role that a pursuit policy must play in guiding police was first stressed by Alpert and Anderson in their seminal 1986 article, and their assertion has been echoed in many subsequent commentaries:

We do know [...] that the absence of a strong and convincing policy on police pursuits forces officers to react intuitively. This intuition is probably based on practice and custom. The consequences of aggressive police pursuits without established guidelines may include the unnecessary loss of property, personal injury, or death.³⁰

The question as to what types of policies provide the best guidance to police members has been discussed and debated throughout the police pursuit literature. Two major questions framing the discussion are:

- Is a policy that restricts the police member's ability to exercise discretion during a police pursuit, better than a policy that allows discretion?
- Is a policy that limits the range of circumstances in which a police officer can pursue a fleeing vehicle, better than a policy with few or no such limits?

In the following sections, the CPU examines the discussion of these issues in the literature and the evidence that supports the positions put forward by the various experts.

3.1 Criteria for judging a police pursuit policy

At the outset it is necessary to define what is meant by a "better" or "worse" policy. There appears to be broad consensus in the literature that the "better" police pursuit policy would be that which strikes the most appropriate balance between minimising the risks and maximising the benefits of police pursuits. This balance was described by Alpert and Anderson in the following terms:

We are faced with a need to balance vigorous law enforcement against the individual's right to be safe. In general terms, we can understand what factors fall on each side of the scale. On the side of law enforcement is the legal duty to apprehend criminals. On the side of citizens is the expectation of streets that are safe, not just from the bad guys, but from pursuing cops as well.³¹

The imperative to balance these risks and benefits – what Homel dubbed the "moral calculus"³² of police pursuits - recurs throughout the literature. For example:

Ultimately, determining the appropriate policies and procedures that balance deterrence and citizen safety is the key element in obtaining the

30 Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986, p.6.

31 Alpert G, Anderson P, "The most deadly force: police pursuits", *Justice Quarterly*, vol 3, no 1, March 1986, p.6.

32 Homel R, *High Speed Police Pursuits in Perth: A Report to the Police Department of Western Australia*, Australasian Council for Policing Research, Report 89, September 1990, p.69.

desired police reaction to motorists who refuse to respond to emergency signals.³³

Or as put more recently:

While the costs of pursuits are high, the benefits should not be discounted. On the one hand, it is the mission of the police to protect lives and, clearly, pursuits are inherently dangerous to all involved. On the other hand, there is an ongoing need to apprehend law violators immediately. Balancing these two competing goals will shape the future of police pursuits. [...] The critical question in a pursuit is what benefit will be derived from a chase compared to the risk of a crash, injury or death – whether to officers, suspects or the public?³⁴

3.2 Restricting the circumstances in which police can pursue

In 1990, after attempting to balance police pursuit risks and benefits from an empirical perspective, Homel concluded that there was at present insufficient evidence to determine whether there was any basis for restricting the circumstances in which police can pursue a vehicle. He recommended:

For a period of three months the [Western Australian Police] Department cease high speed pursuits when the only offences known to have been committed are traffic violations. The effects of this policy on motor vehicle theft rates, speeding and drink-driving offence rates, and on traffic crashes and injuries, should be evaluated scientifically.³⁵

While (to the best of the CPU's knowledge) his recommendation was never actioned, a number of subsequent studies examined various effects of restricting the circumstances in which police can pursue:

- In a 1990 US National Institute of Justice study, Nugent and others examined the frequency of pursuits that occurred before and after three US police departments introduced new policies to guide and restrict police who might engage in pursuits.³⁶ They found that in two departments the frequency of pursuits increased after the new policy was introduced, whereas in the third department there was a decrease. However they were unable to draw any conclusions from these findings, because the influence (if any) of policy change was confounded by other factors including changes in reporting practices for police engaged in pursuits.³⁷
- In 1992 Crew examined what happened to police pursuit frequency in the City of Houston after a new pursuit policy was implemented. Under this new policy police officers were provided guidelines to judge whether or not to engage in a pursuit, and were required to report participation in pursuits. Crew found a 40%

33 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, pp.524.

34 See for example Alpert G, Dunham RG, Stroshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005, p.195.

35 Homel R, *High Speed Police Pursuits in Perth: A Report to the Police Department of Western Australia*, Australasian Council for Policing Research, Report 89, September 1990, p.70.

36 A fourth police department was excluded from this part of the study because it did not have reliable pre-change data.

37 Nugent H, Connors EF, McEwen JT, Mayo L, *Restrictive Policies for High-Speed Police Pursuits*, National Institute of Justice, 1990, p.16.

reduction in pursuits, however he was “unable to determine empirically whether the requirement that pursuits be reported caused the reduction in the number of hot pursuits or whether this reduction came as a result of the guidelines that were also a part of the policy.”³⁸

- A 1994 study by Crew and others attempted to further this line of inquiry by examining what happened in Aurora, Colorado before and after several police pursuit policies were introduced: (1) a requirement to collect data on every police pursuit; (2) a requirement for police pursuits to be supervised and reviewed; and (3) establishment of restrictive guidelines so pursuits could only take place for suspected felonies. The study found that as the policies were successively introduced, the frequency of police pursuits fell. They concluded that police departments “can reduce the number of pursuits in which their officers engage [...] through the adoption of either of two policies: a pursuit-review process that strengthens the monitoring of pursuits or a restrictive policy that authorizes pursuits only under specified conditions. When combined, these two policies have a particularly strong effect”.³⁹
- In 1996, Alpert and others published a study of police pursuits before and after new policies were introduced in two US police departments. One department introduced a policy restricting pursuits only to suspected violent felonies, and experienced a drop in frequency of pursuits. The other department introduced a policy permitting pursuits for a greater range of suspected crimes, which was followed by a large increase in frequency of pursuits.⁴⁰
- In 1999, Becknell and others examined the relationship between restrictiveness of pursuit policy (both in terms of scope and judgment) and rate of pursuits among 436 United States police departments. They found that as the level of policy restrictiveness increased, the rate of pursuits decreased. They noted that other factors might have influenced this finding, including a strong positive association between level of policy restrictiveness and level of training given to police involved in pursuits.⁴¹
- Queensland’s Crime and Misconduct Commission analysed police pursuit data in Queensland between 2000 and 2010, to determine whether a new policy introduced between 2006 and 2008 impacted on the rate of pursuits and abandoned pursuits. The policy involved limiting the circumstances in which pursuit could be commenced and continued. The Commission found that the restrictive policy probably contributed to a decrease in the rate of pursuits, however a number of other factors probably also contributed including new

38 Crew R, "An effective strategy for hot pursuit: some evidence from Houston", *American Journal of Police*, vol 11, no 3, 1992, p.93. The impact of reporting practices on recorded pursuits is also noted in

39 Crew R, Kessler D, Fridell LA, " Changing hot pursuit policy: an empirical assessment of the impact on pursuit behaviour", *Evaluation Review*, vol 18, December 1994, p.686.

40 Alpert G, Kenney D, Dunham R, Smith W, Cosgrove M, *Police pursuit and the use of force*, final report to the National Institute of Justice, April 1996, p.III-10. A useful summary of the findings is presented in Alpert G, "Police Pursuit: Policies and Training", *Research in Brief*, National Institute of Justice, May 1997.

41 Becknell C, Mays GL, Giever DM, "Policy restrictiveness and police pursuits", *Policing: An International Journal of Police Strategies and Management*, vol 22, no 1, 1999, p.105.

penalties for evading police, media coverage on police pursuit issues, and Police Union advice that members not to engage in pursuits.⁴²

These findings between them would appear to indicate clearly that when the scope of fleeing behaviours for which police are permitted to pursue is restricted, there is a decrease in the frequency of police pursuits. However, it is not clear whether this conclusion has any utility for actually addressing the central question here: whether a policy that limits the range of circumstances in which a police officer can pursue a fleeing vehicle is better than a policy with few or no such limits.

On one hand, it might be expected that police engaged in less pursuits because they stopped pursuing in the circumstances prescribed by the new policy. But on the other hand, in none of the studies did the researchers compare the reasons why pursuits were initiated before and after the policy was introduced. It may be that a more restrictive policy discourages police from pursuing 'across the board' rather than just in certain circumstances, which accounts for the decrease.

Additionally, pursuit rate or frequency is not necessarily the best measure for evaluating the outcome of the policy change. Rather, if the merits of a pursuit policy are to be judged according to how they balance risks (accidents, injuries, deaths) and benefits (arrest of suspected offenders) then these would be the appropriate metrics for evaluating policy impact.

The CPU notes that of the six studies, none examined arrest of suspected offenders as an outcome. Additionally, only three studies measured accidents, injuries and/or deaths as outcomes:

- Becknell and others found no significant relationship between restrictiveness of policy and accidents and/or deaths as outcomes of pursuits. They concluded that "simply looking at the policy, training, and evaluation aspects of police departments alone does not lend any insight into the relationship between the policy restrictiveness and the rates of accidents and deaths".⁴³
- In Queensland a decline was observed over time in injuries and property damage associated with pursuits; however "neither the evade police provisions nor the restrictive pursuit policy helped to explain the decline in pursuit-related injuries and property damage from 2000 to 2010".⁴⁴
- Crew and others found that the frequency of accidents and injuries was proportional to the number of pursuits, such that "it is evident that the policies significantly reduced pursuits and, by reducing pursuits, indirectly reduced accidents and injuries".⁴⁵

The CPU concluded that there is no strong empirical evidence base to determine whether restricting the scope of circumstances in which police can pursue a fleeing vehicle, results in a better or worse balance between the risks and benefits of conducting police pursuits.

42 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011, pp.31-32.

43 Becknell C, Mays GL, Giever DM, "Policy restrictiveness and police pursuits", *Policing: An International Journal of Police Strategies and Management*, vol 22, no 1, 1999, p.104.

44 Queensland Crime and Misconduct Commission, *An Alternative to Pursuit: A Review of the Evade Police Provisions*, June 2011, pp.32.

45 Crew R, Kessler D, Fridell LA, " Changing hot pursuit policy: an empirical assessment of the impact on pursuit behaviour", *Evaluation Review*, vol 18, December 1994, p.685.

However, the CPU emphasises that this conclusion is not necessarily grounds for arguing that there is no point in choosing one type of policy over another. Several experts, particularly in the United States, have proposed approaches to the question that are based in ethics and risk management principles rather than empirical data as such. There is a quite widespread argument that as any police pursuit is inherently risky, the risk of pursuing is only justified in circumstances where the fleeing driver is suspected of a serious offence. Hoffman and others wrote:

[...] there is a general movement in many jurisdictions towards increasing control of pursuits and tightening policies to limit pursuits to certain offences. The central dilemma is whether the benefit of apprehending certain offenders (e.g. low level offenders) is worth the potential cost of an injury during a pursuit. We believe that the current findings [that people who are apprehended after fleeing police are almost never charged with offences beyond what was known when the pursuit commenced] support a case for a more restrictive approach for police high-speed pursuits.⁴⁶

Alpert and others similarly observed:

Many departments throughout the United States began restricting their pursuits [after 1990] to situations in which only those suspected of committing violent felonies were chased. In other words, their chiefs, sheriffs and directors decided that the risk of pursuit driving could only be balanced by the need to apprehend a violent felon.⁴⁷

In the absence of compelling empirical evidence, this would appear to be a rational approach to risk management.

3.3 Restricting the exercise of police discretion

In their 1989 analysis of police pursuit policy, Alpert and Dunham drew from the broad literature on police behaviour and noted that:

Officers may act in a variety of ways when only vague guidelines exist without strong policies and supervision. If administrators do not prohibit certain behaviour, the officers might perceive the behaviour as appropriate. The behaviour would thereby become acceptable and customary.⁴⁸

They argued that for this reason, police discretion generally needs to be controlled "before unwanted patterns of behaviour develop".⁴⁹

This idea was picked up in the 2003 New Zealand review of pursuits, in which it was suggested that allowing police discretion to deal with dangerous scenarios such as police pursuits can lead to adverse outcomes, as police culture can shape the exercise of discretion in ways that are not always positive.⁵⁰

46 Hoffmann G, Mazerolle P, "Police pursuits in Queensland: research, review and reform", *Policing: An International Journal of Police Strategies and Management*, vol 28, no 3, 2005, p.543.

47 Alpert G, Dunham RG, Strohshine MS, *Policing: Continuity and Change*, Long Grove: Waveland Press, 2005, p.199.

48 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, p.523.

49 Alpert G, Dunham RG, "Policing Hot Pursuits: The Discovery of Aleatory Elements", *Journal of Criminal Law and Criminology*, vol 80, no 2, Summer 1989, p.523.

50 New Zealand Police, *Pursuits: The Case for Change*, December 2003, p.7.

In researching the empirical basis for the above claims, the CPU found itself straying well outside the bounds of police pursuit literature. A number of studies were identified relating to police behaviour in pursuit scenarios and other stressful situations,⁵¹ but collating and interpreting these 'human factors' studies was somewhat outside the scope of the CPU's capacity. The CPU notes that a competent expert has been engaged to provide advice on this area.

3.4 Discussion

In the conclusion to their 1990 Australasian Centre for Policing Research paper, Brewer and McGrath reported on their central findings that, inter alia, most pursuits terminated without injury to any party, and most people apprehended following pursuits were charged only with minor offences. They noted that these findings "could, in fact, be used to argue for quite different positions" on what was the best approach to pursuit policy, from a heavily restrictive approach through to granting broad discretion.⁵²

This conclusion, unfortunately, still captures and summarises the state of the evidence regarding how to strike the best balance in policy between the risks and benefits of police pursuits.

51 For examples see the AFP literature review in Cameron A, *Independent Review of the 'AFP Urgent Duty Driving and Police Pursuit Guideline Review 2007'*, Australian Capital Territory Department of Justice and Community Safety, 31 July 2007, p.73.

52 Brewer N, McGrath G, "Progress report on urgent duty driving high speed pursuits: offender and pursuit characteristics, Report Series 89, Australasian Centre for Policing Research, 1990, p.12.

4. Conclusion

There is presently no evidence that police pursuit policy has an impact on the behaviour of drivers who flee from police. There is also little evidence that restricting the circumstances in which police can pursue a fleeing vehicle has any effect on the balance of risks and benefits in police pursuits, beyond the possibility that if the restrictions lead to less pursuits then there might be proportionately less injuries and deaths associated with pursuits. In both areas, there is a need for further and better data on police pursuits if progress is to be made.

Similar comments can probably be made regarding the question as to whether placing restrictions on the judgment of police involved in police pursuits leads to better outcomes. However the CPU acknowledges that there is a very large potentially relevant body of knowledge and expertise that it was unable to address properly, regarding police behaviour in pursuits and other urgent situations and how police exercise judgment in such situations.