# Comparing 2009 and 2011 attitudes, motivations and beliefs related to speeding and speed enforcement in NSW

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# Abstract

Despite several initiatives successfully reducing speed-related trauma in NSW, speed surveys and attitudinal research shows that a large proportion of drivers continue to speed. In 2009 a quantitative study examined driver attitudes toward a range of speeding issues including the social acceptability of speeding, and the acceptability of different enforcement methods. In 2011 a quantitative telephone survey of 1,500 NSW drivers measured changes since the 2009 study, and explored other speeding issues of emerging interest. The 2009 study showed that speeding was not yet socially unacceptable, except in extreme cases. Findings from the 2011 study suggest that the situation may be gradually improving, with small reductions in the perceived acceptability of speeding, albeit only in lower speed zones. There has also been a shift towards drivers reporting exceeding the speed limit by a smaller average margin, and by a smaller maximum margin. Consistent with 2009 findings, the 2011 study identified that there continues to be a high level of support for existing speed enforcement practices in NSW, including mobile speed cameras, as well as practices in other jurisdictions. Findings show that there is more community support for marked mobile speed cameras than for fixed speed cameras not in school zones. However, there still remains a perception of revenue raising. Overall, findings suggest that more can be done to reaffirm the safety benefits of speed camera enforcement, and appropriate actions based on these findings have been incorporated in the NSW Speed Camera Strategy.

# Introduction

Speeding is the key behavioural factor involved in NSW road crashes, contributing to around 40 per cent of fatal crashes and 17 per cent of injury crashes each year. The cost of speed related crashes to the community is significant, both in loss of life and injury to the individual and the financial burden this places on the whole community (Elvik, Christensen & Amundsen, 2004). In 2011, speed related crashes resulted in 152 people killed and another 4,664 being injured, with an estimated cost to the community of \$1.6 billion (Transport for NSW, 2012a).

Accordingly the NSW Government has introduced a range of initiatives to address the involvement of speed in the road toll. These initiatives include a range of speed camera enforcement methods (e.g. fixed speed cameras in school zones, fixed speed cameras not in school zones, and mobile speed cameras), speed limit reviews of major roads and highways, public education campaigns, 40 km/h speed limits in both school zones and areas of high pedestrian activity, and a general urban speed limit of 50 km/h.

These initiatives have been shown to be successful with a steady downward trend in the number of speed related fatalities in NSW between 2002 and 2007. However, there was a dramatic 48% increase in speed related fatalities between 2007 and 2009. Since 2009, annual speed related fatalities have dropped substantially, yet still account for a large proportion of the overall annual road toll. Moreover, it is clear from annual speed survey data that the level of speeding in the community is significant and anecdotally, exceeding the speed limit is seen by most drivers as acceptable and even safe. This is consistent with the high degree of speeding behaviour reported by drivers in most countries throughout the world (see Wegman & Goldenbeld, 2006).

In 2009 the NSW Centre for Road Safety (CRS) commissioned Ipsos-Eureka to conduct a comprehensive quantitative study into driver attitudes toward speeding (Walker, Murdoch, Bryant, Barnes & Johnson, 2009). The study was designed to provide input into the development of improved initiatives to reduce the incidence of speeding in NSW, but also to create a solid, baseline measure against which future changes could be measured, in light of revised policy and new initiatives.

Findings from the 2009 study indicated that despite understanding that speeding is the main contributor to the road toll, speeding is common and is not yet seen as socially unacceptable by many NSW drivers, except in extreme cases such as high level speeding in school zones (see Walker et al., 2009). The study also found high approval for speed enforcement and an understanding of, and agreement with, how speed limits are currently set.

By early 2011, much had changed in regards to speed enforcement, speeding penalties and road signage, including: the reintroduction of mobile speed cameras in July 2010; the introduction of red-light speed cameras and point-to-point-enforcement; changes to penalty bands; and the roll-out of 'dragon's teeth' road markings at the entry to school zones. In addition to these new initiatives, several new public communications campaigns addressing the issue of speeding had also run.

In light of this, the CRS commissioned the research described in this report in early 2011 to measure changes since the 2009 baseline study on issues likely to have changed, as well as to measure attitudes to current speed enforcement policy and explore other areas of emerging interest. This paper summarises the results of this research which was conducted on behalf of the CRS by Ipsos-Eureka. The findings of the survey provide insights into drivers' behaviour that will guide policy makers in addressing the recent contribution of speeding to increases in the road toll, and allow measurement of future shifts in driver's attitudes to speeding in NSW.

# Method

The survey instrument included core questions taken from the original 2009 study, as well as new questions covering emerging areas of interest. Fieldwork for the main survey, which totalled 1,508 telephone interviews, took place between 17 March and 11 April 2011. The average survey duration was 18.6 minutes and the response rate was 16%, calculated as the total number of completed surveys as a percentage of completed surveys plus refusals.

The sample was generated using List-Assisted Random Digit Dialling (LARDD) and covered the full breadth of NSW. The sample comprised NSW residents aged 17 years and over. As for the original 2009 study, screening questions ensured that participants held either a current NSW driver licence that allowed them to drive cars, or else a suspended or disqualified NSW driver licence. A further requirement for inclusion in the study was that participants drove on average three or more times per week, or had driven on average three or more times per week prior to having their licence suspended or disqualified.

The sample was stratified by gender, by age (five age categories), and by location (NSW metropolitan versus non-metropolitan) according to NSW licensing data. These stringent interlocking quotas meant that weighting of the resulting data was not necessary.

# Results

# Sample Structure

In line with the profile of driver licence holders in NSW in 2011 (as per driver licence statistics provided by the CRS), 65% of the sample was drawn from metropolitan areas, while the remaining 35% was drawn from non-metropolitan areas. Just over half the sample (52%) was male and just under half the sample (48%) female. Forty one percent (41%) of the sample was aged 17-39 years, another 37% was aged 40-59 years, and the remaining 22% was aged 60 years and over. The structure of the 2011 sample was broadly consistent with the structure of the 2009 sample.

# Beliefs about the involvement of speeding in crashes

As in 2009, speed was the factor most commonly mentioned, overall, in the context of factors that lead to road crashes. It was mentioned by 56% of participants, ahead of inattention (44%), drink driving (41%) and fatigue (32%).

# Speeding patterns

In 2011, 29% of all NSW drivers reported that they exceed the speed limit on a regular basis. The proportion reporting that they exceed the speed limit every time they drive increased from 12% in 2009 to 14%, while the proportion who reported 'mostly' exceeding the speed limit had risen from 12% to 15%. Indeed, overall, across this three year period there was a significant shift toward participants reporting exceeding the speed limit more frequently.

The same period, however, also saw a shift towards drivers reporting exceeding the speed limit by a smaller margin. In 2011, participants were more likely to report exceeding the speed limit by 1-4 kilometres per hour, and less likely to report exceeding it by either 10-14 or 15-19 kilometres per hour than would otherwise be expected.

### The social acceptability of speeding

Just 14% of participants in the 2011 survey indicated that they thought exceeding the speed limit by any margin in any speed zone was completely unacceptable, with no improvement on this measure detected since 2009.

In both survey waves, the scenario relating to the highest speed limit (100 kilometres per hour) being exceeded by the smallest margin (no more than 10 kilometres per hour) was viewed as most acceptable, receiving the highest mean rating (see Figure 1 below). The perceived acceptability of all three speeding offences occurring in 60 kilometre per hour speed zones (exceeding the speed limit by up to 10kmph, by 11-20kmph and by more than 20kmph), decreased significantly between 2009 and 2011.



#### Figure 1: Perceived acceptability of speeding scenarios

### Perceived likelihood of being detected

A substantial majority of participants (at least three in five) expressed the belief that if they were exceeding the speed limit they would be more likely than not to be caught by any of the speed enforcement activities asked about (fixed cameras, marked mobile cameras and police with a radar). The period between 2009 and 2011, however, saw a shift toward a reduced perceived likelihood of being caught by police with a radar (see Figure 2 below).



### Figure 2: Perceived likelihood of being caught by various speed enforcement methods

### Attitudes towards speed enforcement measures

Agreement with the notion that speed enforcement is mainly about revenue raising was relatively high. It was lowest with respect to safety cameras (28% strongly agree), and highest with respect to fixed speed cameras and marked, mobile speed cameras (37% and 36% strongly agree, respectively). The period between 2009 and 2011 saw a shift toward participants agreeing more strongly that fixed speed cameras are mainly about revenue raising (see Figure 3 below).



### Figure 3: Agreement level with statements related to attitudes toward speed enforcement methods

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Overall, participants expressed a favourable attitude towards speed enforcement. For nine speed enforcement measures (seven used in NSW and two described as used in other jurisdictions), more participants reported approving of than disapproving of the initiative (see Figure 4 below). Fixed speed cameras in school zones attracted by far the highest level of approval (74% strongly approving of this initiative), followed by point-to-point enforcement for heavy vehicles (58%) and safety cameras (47%). Unmarked mobile speed cameras were the least popular initiative (23% strongly approve), although half of participants (50%) indicated that they at least somewhat approved of this initiative.



# Figure 4: Opinion of road safety initiatives

Strongly approve Somewhat approve Neither approve nor disapprove Somewhat disapprove Strongly disapprove On't Know/Unsure

The most commonly given reasons for approval of automated enforcement methods (fixed speed cameras, mobile speed cameras and point-to-point enforcement) were that they reduce speeding and provide road safety benefits (in the case of fixed cameras in school zones, keeping children safe). Those approving of fixed speed cameras often indicated that they perceived these cameras to be placed in high crash-risk areas or 'black-spots'. Those approving of mobile speed cameras often indicated that they considered them effective in catching speeding drivers as they operate on an anywhere, anytime basis. Point-to-point enforcement was described as 'fair' (catching those who travel above the limit for an extended period of time), and as controlling driving speed over long stretches.

Those indicating disapproval of automated enforcement methods frequently cited revenue raising concerns as the reason for their disapproval. Fixed and mobile speed cameras were commonly described as not being positioned in dangerous locations, with mobile cameras additionally being described as being put in 'sneaky' locations with the aim of catching drivers out. Criticisms of point-to-point enforcement included that it would not allow sufficient leeway for drivers to exceed the speed limit by a small margin. Unmarked, mobile cameras were criticised as not stopping speeding due to drivers not being given the opportunity to slow down. On the flipside, however,

others criticised marked speed cameras as 'pointless', ineffectual as they allow drivers to slow down when they see the camera and then speed up again afterward.

Those indicating that they disapproved of various initiatives were asked what would increase their approval of these initiatives. A common response, with respect to fixed and mobile speed cameras, was that they need to be put in clearly dangerous locations. Another common response was that they need to be better sign-posted. Many maintained that nothing would increase their approval of speed enforcement.

### Discussion

The 2009 benchmark study of driver attitudes to speeding showed that speeding was not yet socially unacceptable, except in extreme cases (Walker et al., 2009). Findings from the 2011 study suggested that the situation may be gradually improving, with small reductions detected in the perceived acceptability of speeding, albeit only in lower speed zones.

The two years since the 2009 survey saw a shift towards drivers reporting exceeding the speed limit by a smaller average margin, and by a smaller maximum margin. There is still room for improvement, however, with almost half of all NSW drivers from the 2011 survey exceeding the speed limit by an average margin of 5-9 kilometres per hour when they do speed, and more than three in five travelling at least on occasion at least 10 kilometres per hour over the speed limit.

Although speed was the factor most commonly mentioned, overall, in the context of factors that lead to road crashes, there is certainly still room to improve understanding of the role speeding plays in the road toll. An alarming 44% of the drivers surveyed in 2011 failed to identify speed as a factor leading to road crashes.

Speeding is still certainly common among NSW drivers. Between 2009 and 2011 surveys, the estimated proportion of NSW drivers exceeding the speed limit either 'mostly' or 'every time they drive' had risen from just under a quarter of the population to just over a quarter of the population. Given the above result of drivers exceeding the speed limit by a smaller average margin, this change may be the result of an increased awareness among drivers of how frequently they do exceed the speed limit even if only by a small margin.

Although less strong than in 2009, there was still strong community support for speed enforcement in 2011 with more drivers approving than disapproving of any of the methods currently used in NSW or that are being considered for use within NSW.

Fixed speed cameras *not* in school zones were fairly strongly associated with revenue raising, more so in 2011 than in 2009. This suggests that any further communications to the public surrounding the purpose of, and method for selecting, fixed speed cameras would be beneficial. Certainly, those approving of fixed speed cameras tended to perceive them to be placed in high crash-risk or other sensitive locations, citing this as a reason for their approval of this speed enforcement method.

That they are effective in reducing speeding because they operate on an anywhere, anytime basis, was a key reason drivers support the use of mobile speed cameras, while at the same time, a failure to appreciate that mobile cameras are intended to operate on an anywhere, anytime basis (rather than to slow drivers down at 'black spots') appeared to fuel much of the criticism of mobile speed cameras. Again, a reinforcement of the purpose of mobile speed cameras and the method through which locations are selected would therefore be beneficial. The perception that mobile cameras may actually be selectively placed at 'sneaky' locations, aimed to catch drivers out, needs to be countered.

Findings from this research have important implications for policy and program decisions, and have led to key actions being incorporated in road safety strategies to address speeding.

The *NSW Speed Camera Strategy* (Transport for NSW, 2012b) was announced by the NSW Government on 1 June 2012. The Strategy outlines how sites are selected for the four types of speed cameras used in NSW, how they are monitored and how this information is reported. The Strategy includes the progressive expansion of the mobile speed camera program, and mobile speed camera signs and vehicle markings have been enhanced to make enforcement more visible to motorists. The Strategy also outlines how fixed speed cameras will be reviewed, and how often removed, if there is not evidence that an individual camera provides a road safety benefit.

The NSW Government also recently released the *NSW Road Safety Strategy 2012-2021* (Transport for NSW, 2012c) that details the key focus areas for road safety over the next decade, including the need to reduce speeding and speed related road trauma. Consistent with present research findings, the Strategy sets the challenge of highlighting speed as socially unacceptable. Also as part of the Strategy, the NSW Community Road Safety Fund was established to ensure that money raised from speed, red light and point-to-point cameras will go directly towards improving road safety. The establishment of the NSW Community Road Safety Fund will help to address the community perception of speed cameras as revenue raisers.

The research studies discussed in this paper are examples of the ongoing quantitative research conducted by the CRS to regularly monitor and measure NSW driver attitudes toward speeding. Similar research has been conducted in 2013, and findings will be available later this year.

# References

- Elvik, R, Christensen, P. & Amundsen, A. (2004). *Speed and road accidents: An evaluation of the Power Model*. Institute of Transport Economics, Report No. 740.
- Transport for NSW (2012a). *Road Traffic Crashes in New South Wales: Statistical Statement for the year ended 31 December 2011*. Publicly available and downloadable from: <u>http://roadsafety.transport.nsw.gov.au/downloads/crashstats2011.pdf</u>.
- Transport for NSW (2012b). *NSW Speed Camera Strategy*. Publicly available and downloadable from: <u>http://roadsafety.transport.nsw.gov.au/downloads/nsw\_speed\_camera\_strategy.pdf</u>.
- Transport for NSW (2012c). *NSW Road Safety Strategy 2012-2021*. Publicly available and downloadable from: http://roadsafety.transport.nsw.gov.au/downloads/road\_safety\_strategy.pdf.
- Walker, E., Murdoch, C., Bryant, P., Barnes, B. & Johnson, B. (2009). Quantitative study of attitudes, motivations and beliefs related to speeding and speed enforcement. Proceedings of the Australasian Road Safety Research Policing Education Conference, Sydney, 2009.
- Wegman F. & Goldenbeld, C. (2006). Speed management: Enforcement and new technologies. SWOV Institute for Road Safety Research, Leidschendam, The Netherlands 2006, issue R 5:1–29.