

CURTIN MONASH ACCIDENT RESEARCH CENTRE
C-MARC

**Identifying measures to promote the
benefits of safer speeds**

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16/11/2011

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EXECUTIVE SUMMARY

On the 19th of March 2009 Western Australia became the first Australian State to commit politically to a Safe System approach to road safety. Safe Speeds represent one of the four cornerstones of *Towards Zero* – the other cornerstones being Safe Roads and Roadsides, Safe Vehicles and Safe Road Use. Given that safer road infrastructure will have only a partial role in reducing deaths and serious injuries in Western Australia, the achievement of *Towards Zero* goals will inevitably require reduced speed limits across at least some segments of the road network.

The aims of the present project were to analyse data from two key Western Australian surveys to:

- identify the extent of public support for safer speeds;
- identify those factors associated with support for safer speeds;
- provide considerations to promote greater public acceptance of safer speeds.

The MUARC survey was conducted in 2009 in Victoria, South Australia, Western Australia and Tasmania to investigate community attitudes towards speed limits and speeding in general, and to identify some of the factors influencing these attitudes. Relevant issues assessed in the survey included: the community's attitudes towards current and lowered speed limits and towards speeding in general; the norms and beliefs behind these attitudes; their level of understanding about the relation between speed limits and crash involvement; and their appreciation of the environment, amenity and travel time consequences.

Synovate's Community Attitude Tracking Questionnaire and the associated 'Rotation' survey is a continuous survey for Western Australia's Office of Road Safety. For each data collection, the survey items consist of a core set of safety questions which have remained constant over recent years and a set of items which change periodically to reflect changes in Office of Road Safety priorities. The data used in this report were collected over the period July 2009 to June 2010.

Data from the two surveys were analysed to present a composite picture of Western Australian public attitudes to and knowledge of aspects pertaining to speed limits on the main urban and rural road types. The analyses have focussed on identifying those factors (background demographic and attitudinal factors and extent of knowledge and subsequent impact on attitudes) which have an association with opposition to or support of lower speed limits across different road types. The analyses have been restricted to those factors tapped in either or both surveys considered to be of value to possible public education programs aimed at gaining greater acceptance of safer speeds. Analyses have necessarily been based upon the variable parameters and response options used in each survey which have often varied in detail.

Key findings include:

- 1) Data from both surveys showed that for most respondents, it was invalid to assume an overall attitude towards safer (reduced) speed limits, as attitudes varied according to the types of road being considered. For both surveys, the majority of respondents had a consistent attitude towards the current urban speed limits for local streets and main roads: that is, their support or opposition to the current limits was the same for both road types. However the attitude towards current urban limits was not a strong predictor of attitude towards rural speed limits. In the MUARC survey many opponents of reduced urban speed limits supported reduced speed limits on rural roads, especially gravel roads. In the

Synovate survey, while opponents of reduced urban speed limits also generally opposed reduced speed limits on rural roads, many supporters of reduced urban speed limits opposed reduced rural limits.

- 2) Both surveys showed that with one exception, regardless of the type of road being considered, supporters of safer speeds in Western Australia were outnumbered by opponents – usually, substantially outnumbered. The one exception related to the strong level of support for reduced limits on gravel roads, as measured in the MUARC survey.
- 3) The two surveys also provided conflicting results. The MUARC survey suggested that there was very strong opposition to reducing current urban speed limits, whereas there were lower levels of opposition to reducing rural speed limits – especially speed limits on gravel roads. In contrast, the Synovate survey suggested that there was less opposition to reduced urban speed limits relative to reducing rural speed limits.
- 4) Although attitudes towards reduced speed limits varied according to the type of street or road being considered, the different sets of opponents showed consistent background factors. Considering both surveys and all road types, opponents were more likely to have been: male; young; living in an area likely to be affected by any reduction in speeds; and driving as part of their job. However even for statistically significant associations, each association only partly separated opponents and supporters.
- 5) As a broad finding, the background factors associated with opposition to reduced speed limits were in accordance with expectations. The one unexpected result from both surveys related to the strong association between place of residence and opposition to reduced speed limits on roads in the same geographical category: that is, urban residents were more likely to oppose urban reductions and rural residents were more likely to oppose rural reductions. This association apparently contradicts a finding from elsewhere that many respondents wanted speed reductions in their own neighbourhood for reasons of safety and amenity but wished to maintain the capacity to travel through other neighbourhoods at higher speeds.
- 6) Although attitudes towards reduced speeds varied according to the type of street or road being considered, the different sets of opponents showed consistent attitudes for the two factors assessed. Relative to supporters and considering both surveys, opponents of reduced limits were more likely to have viewed: enforcement of speed limits mainly as a means to make money; and driving up to 10 km/h over the speed limit as acceptable. These associations notwithstanding, more than one-half of all MUARC respondents believed that enforcement of speed limits served mainly as a means to make money. In contrast, for all road types and for both surveys, at least three-quarters of all respondents found low-level speeding to be unacceptable.
- 7) Both surveys tested respondents' knowledge of various consequences of reduced speed limits. In the MUARC survey, for all road types and for all knowledge items, respondents who opposed reduced speeds were more likely to disbelieve the various consequences of reduced speeds – and conversely, supporters were more prepared to accept them. For all three speed-injury associations tested in the Synovate survey, the same pattern was evident.
- 8) MUARC respondents who were opposed to reduced speed limits on any of the road types and who did not accept any of the knowledge items, were also asked that if a given statement were indeed true, whether they would then support the reduced speed limits. Around one-quarter of opponents were prepared at least to re-consider their position in response to improved knowledge. At the same time, for three-quarters of all opponents of reduced speed limits, improved knowledge of the benefits of speed reductions would not result in an altered attitude.

Assuming a conventional mass-media public education campaign aimed at overcoming opposition to reduced speeds, the following considerations are made based on findings from the MUARC and Synovate surveys.

- Consideration 1:** There needs to be a differentiation between attitudes to urban and to rural speed limits – and particularly if immediate success is required, to different types of rural roads.
- Consideration 2:** While there are significant associations between opposition to reduced speeds and various background factors (especially age and gender), campaigns need to be more far-reaching if they are to touch most opponents of reduced speeds.
- Consideration 3:** Campaigns which work on changing underlying negative attitudes towards speed, need to recognise that some attitudes are widely held (eg the perceived purpose of enforcement) whereas other attitudes are less frequently encountered (eg unacceptability of low-level speeding).
- Consideration 4:** Campaigns which seek to change opposition to reduced speed limits by promoting improved safety, need to recognise that while the lower speeds/less severe injuries association is widely accepted, the lower speeds/fewer crashes association is not. Qualitative research using structured focus groups may be a useful avenue for developing promising strategies to improve knowledge of speed-related safety consequences.
- Consideration 5:** Campaigns which seek to change opposition to reduced speed limits by developing improved knowledge of the consequences of reduced speeds, need first to test whether improved knowledge will result in the desired, more positive attitudes.
- Consideration 6:** Campaigns based on specified speed reductions are likely to find more support than campaigns based on unspecified reductions.
- Consideration 7:** Given the high existing support for speed reductions on rural gravel roads, it seems appropriate to design an action plan to bring about the appropriate changes in the near future. A key component of this action plan might be a demonstration project in one or more rural municipalities, to evaluate community acceptance of and compliance with the changed speeds, as well as safety and mobility consequences.

1. BACKGROUND

1.1 Western Australia's *Towards Zero* and Safe Speed Limits

In Western Australia as in other Australian jurisdictions, speed limits are based mainly on road engineering considerations. Factors include the type and amount of roadside development, 'free flow' traffic speeds, crash data, road geometry and the numbers and types of road users. Main speed limits across Australian jurisdictions using this approach are shown in Table 1.1.

Table 1.1: Main speed limits for Australian streets and roads

Speed Limit (km/h)	Description of road
Urban	
50	Generally a residential street carrying mainly local traffic
60	Generally a street with a high level of residential or other development, with some out-of-area traffic
70	Generally either: (a) a divided road with direct access to/from residential or other streets, having provision for safe turning or crossing of vehicles; or (b) a higher standard undivided road having low levels of direct access to/from residential or other streets
80	As for 70 km/h roads, except generally higher road design standards
90	Generally either: (a) a lower standard urban freeway; or (b) an outer urban arterial road
100	Generally a high standard urban freeway
110	Generally sections of a very high standard urban freeway
Rural	
80, 90	Generally stretches of road through small settlements with some residential or other development.
100	Generally all other rural roads with no specified or signed speed limit.
110	Generally a high standard rural freeway or high standard rural arterial road, highway

Source: based on Australian Standard AS 1742.4, Manual of Uniform Traffic Control Devices, Part 4: Speed Controls (1999).

However this approach is not uniformly applied. The main current variation pertaining to Western Australia relates to rural roads and highways (including gravel roads), which have a default limit of 110 km/h rather than 100 km/h default as in most other jurisdictions.

Western Australia's current speed limits may depart from this approach even further in the future. On the 19th of March 2009 Western Australia became the first Australian State to commit politically to a Safe System approach to road safety. Safe Speeds represent one of the four cornerstones of *Towards Zero*¹ – the other cornerstones being Safe Roads and Roadsides, Safe Vehicles and Safe Road Use, as shown in Figure 1.

¹ Safe Speeds are expected to produce a 29% reduction in serious casualty crashes if implemented as proposed in the strategy.

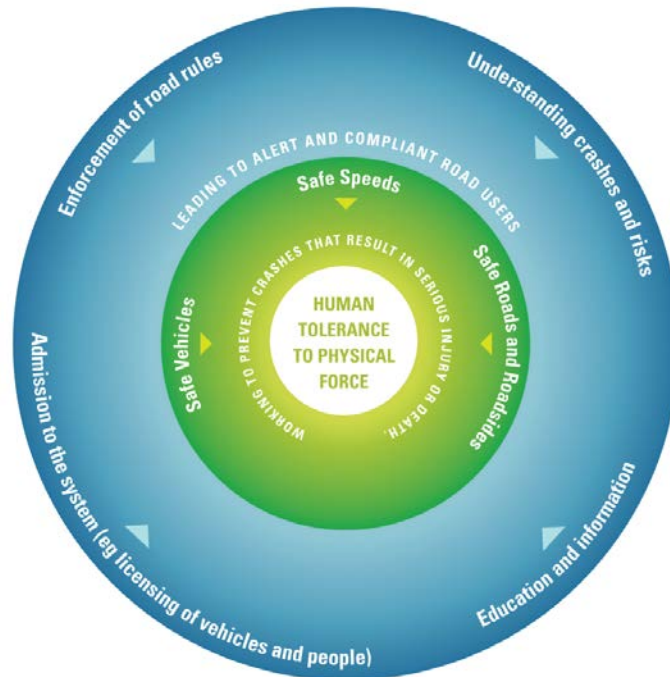


Figure 1: Western Australia’s *Towards Zero* approach to road safety.

Whereas speed limits based on engineering criteria represent a balance between mobility (the capacity to keep traffic flowing) and safety (acceptable crash levels), the critical consideration in *Towards Zero* and other Safe System strategies is the limited tolerance of the human body to withstand physical trauma. The crash energies that can be tolerated by the human body without incurring death or serious injury depend mainly upon the impact speeds of vehicles involved in crashes, with impact speeds being determined largely by pre-crash travel speeds. The maximum impact (and thus travel) speeds if death and serious injury are to be avoided, are shown in Table 1.2 for different types of crashes.

Table 1.2: Maximum permissible impact speeds for different crash types to avoid death and serious injury.

Crash type	Maximum permissible impact speed (km/h)
Car impact with pedestrian, cyclist	30
Car-car (side impact)	50
Car-car (frontal impact)	70
Impact with road infrastructure only	100+

Source: Wramborg P (2005).

Note: These travel speeds assume best practice in vehicle design and 100 percent occupant-restraint use.

The impact and thus travel speeds shown above considerably exceed those shown in Table 1.1. Speeds higher than those in Table 1.2 can be compatible with a Safe System strategy if road design can otherwise protect road users – for example: by separating vehicles travelling in opposing directions by flexible wire barriers, thereby avoiding the possibility of head-on crashes; or by use of roundabouts to reduce vehicle travel speeds and possible impact angles at intersections. However road infrastructure changes are expensive and are unlikely to be installed across the total road network in the short to medium term.

Given that safer road infrastructure will have only a partial role in reducing deaths and serious injuries in Western Australia, the achievement of *Towards Zero* goals will inevitably require reduced speed limits across at least some segments of the road network².

1.2 A Summary of the Association between Speed Limits and Crash Levels

It has been consistently found that the higher a vehicle's travel speed (even when driving at or under the legal limit), the greater the likelihood of crashing and the more serious the crash outcomes. Even relatively small changes in vehicle speed can result in substantial crash reductions. As examples:

- a study in Adelaide found that one-third of pedestrian fatalities would probably have survived if vehicles had been travelling only 5 km/h slower – and one in ten pedestrians would not have been hit at all (McLean et al., 1994);
- another South Australian study of speed-related crashes on urban roads found that for travel speeds above 60 km/h, for every 5km/h increase in speed, the casualty crash risk approximately doubled (Kloeden et al., 1997). A follow-up study of rural roads found that the risk of a casualty crash doubled when vehicle speed was 10 km/h above the average travel speed and the risk was six times higher for speeds 20 km/h above the average (Kloeden et al., 2001).

For more comprehensive assessments of the speed/crash association, see Patterson et al., (2000) and Fildes et al. (2005).

The link between speed and crash frequency and severity can be easily explained. Higher vehicle speeds:

- allow less time to recognise hazards;
- increase the distance the vehicle travels while reacting to hazards;
- increase the vehicle's stopping distance after braking in response to the hazard;
- reduce the opportunity for other road users to avoid a collision;
- make it more likely that a driver will lose control of the vehicle; and
- increase the impact forces in the event of crash, making severe injuries more likely.

Much of the association between travel speed and crashes is explained by stopping distance. Stopping distance is the distance travelled by the vehicle during the time it takes the driver to react to a hazard plus the distance travelled once the brakes are applied. The importance of travel speed and stopping distance is illustrated by the following example (McLean et al., 1994):

- a car travelling at 50 km/h is being overtaken by a second car travelling at 60 km/h;
- at the moment of overtaking, a child runs on to the road around 40 metres in front of both cars;
- the car travelling at 50 km/h will be able to come to a total standstill within the 40 metres and the child will escape injury;
- the car overtaking at 60 km/h will hit the child while travelling at 44 km/h and there will be a more than 50 percent probability that the child will be killed or severely injured.

² For a comprehensive summary of the association between changed speed limits and crashes, see: Fildes B, Langford J Andrea D and Scully J (2005). Balance between Study. Austroads Research Report AP-R272/05 at www.austroads.com.au

Because vehicle travel speed is heavily influenced by the speed limits set by transport authorities, speed limits also have direct safety consequences. To be more specific, increased speed limits are associated with increased frequency of crashes of greater severity, whereas reduced limits are associated with fewer crashes and of less severity – with the changes usually being greatest for crashes involving fatalities (Elvik and Vaa, 2004).

The recent reduction in the default urban speed limit in Australian jurisdictions illustrates this association. Until 2001 the speed limit for local, neighbourhood streets in Australian jurisdictions was generally 60 km/h. Jurisdictions then progressively moved to a default 50 km/h limit, with the move having been closely evaluated for safety and other outcomes. The different evaluations consistently show that the lowered speed limit was associated with reduced crash numbers and reduced crash severity – in NSW (Roads and Traffic Authority, 2000b), South Australia (Kloeden et al., 2004) and in Victoria (Hoareau et al, 2002; Hoareau et al, 2006). In Western Australia (Hoareau and Newstead, 2004), reduced crash frequencies in metropolitan streets were found for: crashes involving pedestrians (51 percent reduction), crashes involving young drivers (19 percent) and crashes involving older drivers (18 percent) – with an overall reduction of 21 percent for all casualty crashes. It was also found that community support for the reduced limit increased once it was implemented.

Despite the research findings, Australian and Western Australian speed limits, especially in urban areas, are amongst the highest in the world (Fildes et al., 2005).

1.3 The Need for Public Support for Safe Speed limits in Western Australia

As noted in a recent OECD report:

Public opinion represents a key stimulus to political will for road safety. It will always be easier for a government to make road safety a priority if the public supports the effort. ... Effective communication and education campaigns, especially when based on actual achievements, can help to generate the public demand for safer transport which, in turn, will encourage politicians to give road safety greater priority in government (OECD, 2008, p.163).

This principle applies not only to implementing road safety generally but to establishing safer speeds specifically

This finding has been confirmed in Western Australia. From 2006 to 2008, the Monash University Accident Research Centre (MUARC), in conjunction with the Office of Road Safety and Department of Main Roads in Western Australia, attempted to run a demonstration trial of lower urban speed limits based on a new harm reduction approach (for a full description, see Fildes et al., 2009). Attempts to gain the necessary political support included approaches to local traffic authorities, road safety community councils, the Western Australian Local Government Association and especially to regional councils. In spite of all efforts, most councils declined to implement the trial. On reflection, it was considered that the major reason for the lack of support for safer speeds was a perceived community resistance to the lower speed limits. One council tested this concern by requesting a telephone survey of local residents to gauge community reaction. The results showed less than 50% clear support – sufficient for the Council to decide against participating for fear of a public backlash.

If Western Australia's road safety authorities are to succeed in establishing safer speeds as part of the *Towards Zero* strategy, it is essential that there be sufficient public support for – and conversely, minimal opposition to – the new limits.

2. METHOD

2.1 Aims

The aims of the project were to analyse data from two key Western Australian surveys to:

- identify the extent of public support for safer speeds;
- identify those factors associated with support for safer speeds;
- provide considerations to promote greater public acceptance of safer speeds.

2.2 The MUARC and Synovate Surveys

The MUARC and Synovate surveys used in this project have been selected for the following reasons:

- both pertain Western Australian communities;
- both have explicitly explored the issue of changes in speed limits and subsequent safety implications; and
- collectively, the two surveys represent the most comprehensive available assessment of key issues.

- **The MUARC Survey**

An online survey was conducted in 2009 in Victoria, South Australia, Western Australia and Tasmania to investigate community attitudes towards speed limits and speeding in general, and to identify some of the factors influencing these attitudes. The samples of respondents were stratified according to the size of the state, the area of residence (metropolitan/regional), age group (18-30, 31-55 and 55+ years) and gender. A total of 1135 responses were collected in Western Australia.

Respondents 18 years of age or over were recruited and invited by email to complete the survey online. The initial email contained the URL link to the survey, their user ID and unique password. When panellists successfully entered these details, they were directed to a screen which contained the study's explanatory statement, and if they still wished to participate, were asked to indicate their area of residence, age and gender. Respondents then proceeded to complete the main part of the survey.

Speed-related items were clustered around four road types: a local street in a residential area (current limit of 50 km/h); a main undivided street in an urban area (current limit of 60 km/h); a two-lane undivided rural road (current limit of 110 km/h in Western Australia); and a rural gravel road (current limit of 110 km/h in Western Australia). Typical photographs were provided to represent each road type. Only one image per road type was used, an approach which was associated with both advantages and limitations.

Relevant issues assessed in the survey included: the community's attitudes towards current and lowered speed limits and towards speeding in general; the norms and beliefs behind these attitudes; their level of understanding about the relation between speed limits and crash involvement; and their appreciation of the environment, amenity and travel time consequences. For full details, see Lahausse et al., (2010).

The survey items are presented in Attachments 1.

- **Synovate’s Community Attitude Tracking Questionnaire and the associated ‘Rotation’ survey**

From mid -2008 to late 2011, Synovate conducted weekly “Baseline” Tracking surveys for Western Australia’s Office of Road Safety. The telephone-based surveys covered a range of road safety issues with particular reference to Safe System elements. Once a month additional questions were included and were referred to as “Rotational surveys”. The focus area for each rotational survey included safe road use behaviours (for example, speeding, drink driving, fatigue and restraint use), as well as other issues as required.

Of specific relevance to this report, respondents were asked to indicate their support for reduced speed limits in three specific contexts: in built-up (urban) areas, reducing all 60kph speed limits in to 50km/h and reducing the speed limit from 50kph to 40kph on local residential streets; and reducing all 110km/h speed limits on country roads to 100km/h. (Being a telephone survey there was no opportunity to provide visual images of the road types in question.)

The sample for each baseline and rotational survey was 110 respondents per week (consisting of 60 rural respondents and 50 metropolitan respondents). The survey samples were stratified by Mainroads WA region of residence, age group and gender. Non metropolitan regions were over-sampled to allow regional comparisons to be made annually. The data used in this report were collected over the period July 2009 to June 2010.

The survey items are presented in Attachments 2.

2.3 The MUARC and Synovate Samples

Details of the sample of respondents from each survey are given in Tables 2.1 and 2.2.

Table 2.1: Number, age, gender and location of survey respondents in the MUARC survey.

Area of residence			Gender		Total	
			Male	Female	No.	%
Mainly or totally rural	Age	18-30 years	43	102	145	(12.8%)
		31-55 years	102	100	202	(17.8%)
		56 years and older	76	102	178	(15.7%)
		Total	221	304	525	(46.3%)
Mainly or totally urban	Age	18-30 years	102	102	204	(18.0%)
		31-55 years	100	101	201	(17.7%)
		56 years and older	102	103	205	(18.1%)
		Total	304	306	610	(53.7%)
Total no. of respondents			525	610	1135	(100.0%)

Note: Age and residence parameters reflect the raw survey data.

Table 2.2: Number, age, gender and location of survey respondents in the Synovate survey.

Area of residence			Gender		Total	
			Male	Female	No.	%
Regional or remote	Age	17-29 years	292	251	543	(9.6%)
		30-54 years	983	1036	2019	(35.8%)
		55 years and older	749	679	1428	(25.3%)
	Total	2024	1966	3990	(70.7%)	
Metropolitan	Age	17-29 years	151	109	260	(4.6%)
		30-54 years	407	367	774	(13.7%)
		55 years and older	316	307	623	(11.0%)
	Total	874	783	1657	(29.3%)	
Total no. of respondents			2898	2749	5647	(100.0%)

Note: Age and residence parameters reflect the raw survey data.

In assessing the comparability of the two samples:

- the gender balance was similar in both surveys. While the MUARC sample had a slight majority of females and the Synovate survey a slight majority of males, these differences were judged to be inconsequential;
- there was a major difference in respondents' area of residence across the two surveys: just under one-half of MUARC survey respondents lived in 'mainly or totally rural' areas, whereas almost three-quarters of Synovate respondents lived in 'regional or remote' areas;
- there were also major age differences, with MUARC respondents more likely to be from the youngest age group and Synovate respondents from the middle age group.

These age and residence differences are considered to be of sufficient magnitude to prevent full comparability of the two samples.

Although not shown in the two tables, most respondents in the two surveys were active drivers. In the MUARC survey, more than 90 percent of respondents held a car licence and drove in a typical week. In the Synovate survey, 97 percent held a licence and so far as could be determined, drove a motor vehicle at least once a week.

2.4 Procedure

Data from the two surveys were analysed to present a composite picture of Western Australian public attitudes to and knowledge of aspects pertaining to speed limits on the main urban and rural road types. The analyses have focussed on identifying those factors (background demographic and attitudinal factors and extent of knowledge and subsequent impact on attitudes) which have an association with opposition to or support of lower speed limits across different road types³. The analyses have been restricted to those factors tapped in either or both surveys considered to be of value to possible public education programs aimed at gaining greater acceptance of safer speeds. Analyses have necessarily been based

³ Throughout this report the terms 'safer speed limits' and 'reduced (or lower) speed limits' have been regarded as synonymous, given that the current urban and rural limits exceed standard Safe System tolerances.

upon the variable parameters and response options used in each survey which have often varied in detail. The individual survey items used in the analyses have been detailed in the Results section.

- **Using the MUARC Survey to Identify Supporters and Opponents of Safer Speeds**

Respondents were asked to comment on the appropriateness of the current speed limits for four types of street or road. The specific survey items⁴ (see Attachment 1) were:

Q3d. And do you consider a speed limit of 50km/h appropriate for this type of road (local urban streets)?

Q4d. And do you consider a speed limit of 60km/h appropriate for this type of road (main undivided urban streets or roads)?

Q5d. And do you consider a speed limit of 100km/h appropriate for this type of road (two-lane undivided rural roads⁵)?

Q6d. And do you consider a speed limit of 100km/h appropriate for this type of road (gravel rural roads)?

The speed limits specified in Q3d and Q4d represent current speed limits on those road types. The speed limits specified in Q5d and Q6d represent current speed limits 10 km/h below the current limits on those road types.

Response options for each question were:

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

Opponents and supporters of safer speed limits were identified for each specific road type thus:

- opponents – responded ‘far too low’, ‘a bit too low’ or ‘about right’ to the specified limit;
- supporters – responded either ‘a bit too high’ or ‘far too high’ to the specified limit.

This procedure initially led to four sets of opponents and supporters, one set for each road type, as shown in Table 2.3.

Table 2.3: Number and proportions of opponents and supporters of specified speed limits on different types of roads in Western Australia – MUARC

Road type	Group	No. respondents	% respondents
Local urban streets	Oppose lower limits	1011	89.1
	Support lower limits	124	10.9
	Total	1135	100.0
Main undivided urban streets	Oppose lower limits	1019	89.8
	Support lower limits	116	10.2

⁴ Note that the current default speed limit on all Western Australian rural roads, sealed and gravel, is 110 km/h.

⁵ Hereafter referred to as ‘sealed rural roads’.

	Total	1135	100.0
Sealed rural roads	Oppose lower limits	627	55.2
	Support lower limits	508	44.8
	Total	1135	100.0
Gravel rural roads	Oppose lower limits	206	18.2
	Support lower limits	929	81.9
	Total	1135	100.0

Note: Opponents of safer speed limits responded that the specified speed limit was: 'far too low', 'a bit too low' or 'about right';

Supporters of safer speed limits responded that the specified speed limit was 'a bit too high' or 'far too high'.

In round terms, nine out of ten respondents opposed lower urban speeds, be it in relation to local streets or main undivided urban streets or roads. In contrast, support for lower speed limits on rural roads was relatively high, especially in regard to gravel roads where eight out of ten respondents considered 100 km/h to be too high.

Table 2.4 examines the extent to which attitudes to the specified urban speed limits were consistent across the two urban road types.

Table 2.4: Numbers of opponents and supporters of current speed limits for the two urban road types – MUARC

		Main undivided urban streets		Total
		Oppose lower limits	Support lower limits	
Local urban streets	Oppose lower limits	946	65	1011
	Support lower limits	73	51	124
Total		1019	116	1135

Attitudes towards current urban speed limits were highly consistent across the two road types. Ninety-four percent of those opposed to lower limits for local streets were also opposed to lower limits for urban streets or roads – and conversely, 93 percent of those opposed to lower limits for urban streets or roads local streets were also opposed to lower limits for local streets. Only 12 percent of all respondents had varying attitudes towards the specified speed limits for the two road types.

Given this high level of consistency, all further analyses of factors relating to urban speed limits were restricted to two groups of respondents:

- opponents of lower urban limits for both road types n=946
- supporters of lower urban limits for both road types n= 51
- total respondents used n=997

This procedure meant that 138 respondents (or 12 percent of the initial sample) were excluded from analyses of urban speed limits.

Table 2.5 examines the extent to which attitudes to the specified rural speed limits were consistent across the two road classes.

Table 2.5: Numbers of opponents and supporters of specified speed limits for the two rural road types – MUARC

		Gravel rural roads		Total
		Oppose lower limits	Support lower limits	
Sealed rural roads	Oppose lower limits	190	437	627
	Support lower limits	16	492	508
Total		206	929	1135

There was not the same level of consistency in attitudes towards specified rural speed limits. Only 30 percent of those opposed to lower limits on rural sealed roads were also opposed to lower limits on gravel roads, while 40 percent of all respondents had varying attitudes towards the specified speed limits for the two road types.

Given the variations in attitude to reduced speed limits across the two rural road types, attitudes for each road type have been analysed separately, using the total sample of 1135 respondents.

- **Using the Synovate Survey to Identify Supporters and Opponents of Safer Speeds**

Respondents in the Synovate survey were asked to indicate their extent of opposition/support for current and possible speed changes thus (see QA3 in Attachment 2):

- D. Reducing all 60kph speed limits in built up areas to 50km/h
- H. Reducing all 110km/h speed limits on country roads to 100km/h
- K. Reducing the speed limit from 50kph to 40kph on local residential streets

Response options for each question were:

- Strongly oppose
- Somewhat oppose
- Neither
- Somewhat support
- Strongly support

Opponents and supporters of safer speed limits were initially identified thus:

- opponents – responded ‘strongly oppose’ or ‘somewhat oppose’ the reduction;
- neither – responded ‘neither’ to the proposed reduction;
- supporters – responded ‘somewhat support’ or ‘strongly support’ the reduction.

Numbers of respondents per category for each item are given in Table 2.6.

Table 2.6 Number and proportions of opponents and supporters of reduced speed limits on different types of roads in Western Australia – Synovate

Road type	Group	No. respondents	% respondents
Currently 50km/h local streets	Oppose lower limits	3557	61.5
	Neither	462	8.0
	Support lower limits	1761	30.5
	Total	5780	100.0
Currently 60 km/h urban streets	Oppose lower limits	2749	47.6
	Neither	490	8.5
	Support lower limits	2536	43.9
	Total	5775	100.0
Currently 110 km/h rural roads	Oppose lower limits	4078	70.6
	Neither	332	5.8
	Support lower limits	1363	23.6
	Total	5773	100.0

Note: Opponents of safer speed limits responded that they ‘strongly opposed’ or ‘opposed’ reductions to specified speed limits;
 Supporters of safer speed limits responded that they ‘strongly supported’ or ‘supported’ reductions to specified speed limits;
 Data not available for 10 respondents (Currently 50km/h local streets), 15 respondents (Currently 60 km/h urban streets) and 17 respondents (Currently 110 km/h rural roads).

In round terms, almost two out of three respondents opposed lower speed limits on local streets, with one out of two opposing limits on urban streets currently with 60 km/h limits. Opposition was highest for lower speed limits on rural roads currently with 110 km/h limits, where almost three quarters of respondents were opposed. Both the extent of opposition to reduced speeds across road types and across the urban/rural distinction contrast strongly with the responses in the MUARC survey (see Table 2.3).

Table 2.7 examines the extent to which attitudes to the current urban speed limits were consistent across the two urban road classes.

Table 2.7: Numbers of opponents and supporters of current speed limits for the two urban road types – Synovate

		Currently 60 km/h urban streets			Total
		Oppose lower limits	Neither	Support lower limits	
Currently 50km/h local streets	Oppose lower limits	2341	252	956	3549
	Neither	114	139	206	459
	Support lower limits	291	97	1370	1758
Total		2746	488	2532	5766

Attitudes towards current urban speed limits were very consistent across the two road types. Sixty-six percent of those opposed to lower limits for local streets were also opposed to lower limits for 60 km/h urban streets– and conversely, 85 percent of those opposed to lower limits for 60 km/h urban streets were also opposed to lower limits for local streets. Thirty-three percent of all respondents had varying attitudes towards the current speed limits for the two road types.

Given this level of consistency and for all further analyses of urban speed limits, analyses were restricted to:

- opponents of lower urban limits for both road types n= 2341
- supporters of lower urban limits for both road types n= 1370
- total respondents used n=3711

The 2055 respondents in the Synovate survey excluded from subsequent urban speed analyses represented 36 percent of the initial Synovate sample.

For analyses related to rural speeds, only the 5441 respondents who indicated either a clear opposition or a clear support for reduced speeds were included: that is, those who responded ‘neither’ have been excluded. As shown in Table 2.6, this group represented 6 percent of the initial sample.

3. RESULTS

3.1 Using the MUARC and Synovate Surveys to Compare Supporters and Opponents of Safer Speeds - Background Factors

The factors analysed in this sub-section consist of:

- gender;
- age;
- area of residence;
- type of driving.

Analyses have been conducted using data from both the MUARC and (as far as available) Synovate surveys.

- **Gender**

Opponents and supporters of urban speeds

Tables 3.1 and 3.2 show the association between attitude towards reducing current urban speed limits and respondents' gender for respondents from the MUARC and Synovate surveys.

Table 3.1: Attitude towards reducing current urban speed limits and respondents' gender - MUARC

			Gender		Total
			Male	Female	
Reducing current urban speed limits	Opponents	Count	439	507	946
		%	46.4%	53.6%	100.0%
	Supporters	Count	18	33	51
		%	35.3%	64.7%	100.0%
Total		Count	457	540	997
		%	45.8%	54.2%	100.0%

Table 3.2: Attitude towards reducing current urban speed limits and respondents' gender - Synovate

			Gender		Total
			Male	Female	
Reducing current urban speed limits	Opponents	Count	1386	955	2341
		%	59.2%	40.8%	100.0%
	Supporters	Count	581	789	1370
		%	42.4%	57.6%	100.0%
Total		Count	1967	1744	3711
		%	53.0%	47.0%	100.0%

For both surveys, opponents of lower urban speed limits were more likely to be males (compared to supporters) and conversely, supporters of lower limits were more likely to be female (compared to opponents). While the gender association for MUARC respondents was

not statistically significant, the association for Synovate respondents was statistically significant (Odds ratio=1.97, 95% CI=1.72-2.26)⁶.

Opponents and supporters of rural speeds

Tables 3.3, 3.4 and 3.5 show the association between attitude towards reducing specified rural speed limits and respondents’ gender for respondents from the MUARC and Synovate surveys.

Table 3.3: Attitude towards reducing specified speed limits, sealed rural roads and respondents’ gender - MUARC

			Gender		Total
			Male	Female	
Reducing specified speed limits, sealed rural roads	Opponents	Count	315	312	627
		%	50.2%	49.8%	100.0%
	Supporters	Count	210	298	508
		%	41.3%	58.7%	100.0%
Total		Count	525	610	1135
		%	46.3%	53.7%	100.0%

Table 3.4: Attitude towards reducing specified speed limits, gravel rural roads and respondents’ gender - MUARC

			Gender		Total
			Male	Female	
Reducing specified speed limits, gravel rural roads	Opponents	Count	137	69	206
		%	66.5%	33.5%	100.0%
	Supporters	Count	388	541	929
		%	41.8%	58.2%	100.0%
Total		Count	525	610	1135
		%	46.3%	53.7%	100.0%

Table 3.5: Attitude towards reducing specified speed limits, high-speed rural roads and respondents’ gender - Synovate

			Gender		Total
			Male	Female	
Reducing current speed limits, high-speed rural roads	Opponents	Count	2361	1717	4078
		%	57.9%	42.1%	100.0%
	Supporters	Count	481	882	1363
		%	35.3%	64.7%	100.0%
Total		Count	2842	2599	5441
		%	52.2%	47.8%	100.0%

⁶ For two-by-two tables in this section, the odds ratios and confidence intervals relate equally to associations with opposition to and support for reduced speeds.

For all three analyses, opponents of lower rural speed limits were more likely to be males (compared to supporters) and conversely, supporters of lower limits were more likely to be female (compared to opponents). For all three analyses, the gender association was statistically significant (Odds ratio=1.43, 95% CI=1.12-1.83; Odds ratio=2.77, 95% CI=1.99-3.85; Odds ratio=2.52, 95% CI=2.22-22.87; respectively).

- **Age**

Opponents and supporters of urban speeds

Tables 3.6 and 3.7 show the association between attitude towards reducing current urban speed limits and age of respondents from the MUARC and Synovate surveys.

Table 3.6: Attitude towards reducing current urban speed limits and respondents' age - MUARC

			Age groups			Total
			18-30 years	31-55 years	56 years and older	
Reducing current urban speed limits	Opponents	Count	317	325	304	946
		%	33.5%	34.4%	32.1%	100.0%
	Supporters	Count	8	19	24	51
		%	15.7%	37.3%	47.1%	100.0%
Total		Count	325	344	328	997
		%	32.6%	34.5%	32.9%	100.0%

Table 3.7: Attitude towards reducing current urban speed limits and respondents' age - Synovate

			Age groups			Total
			17-29 years	30-54 years	55 years and older	
Reducing current urban speed limits	Opponents	Count	314	1200	827	2341
		%	13.4%	51.3%	35.3%	100.0%
	Supporters	Count	178	655	537	1370
		%	13.0%	47.8%	39.2%	100.0%
Total		Count	492	1855	1364	3711
		%	13.3%	50.0%	36.8%	100.0%

For MUARC respondents, opponents of lower speed limits were more likely to be from the youngest age group (compared to supporters) and conversely, supporters of lower limits were more likely to be from the oldest age group (compared to opponents). For both analyses, the age associations were statistically significant (Odds ratio=2.71, 95% CI=1.21-6.32; Odds ratio=1.88, 95% CI=1.03-3.43; respectively).

Somewhat different findings were evident in the Synovate analyses. Opponents of lower speed limits were more likely to be from the middle age group (compared to supporters) and supporters of lower limits were more likely to be from the oldest age group (compared to opponents). For the middle age group, the age association had borderline statistical significance (Odds ratio=1.15, 95% CI=1.00-1.31) and was statistically significant for the oldest age group (Odds ratio=1.18, 95% CI=1.03-1.36).

Opponents and supporters of rural speeds

Tables 3.8, 3.9 and 3.10 show the association between attitude towards reducing current urban speed limits and age of respondents from the MUARC and Synovate surveys.

Table 3.8: Attitude towards reducing specified speed limits, sealed rural roads and respondents' age - MUARC

			Age groups			Total
			18-30 years	31-55 years	56 years and older	
Reducing specified speed limits, sealed rural roads	Opponents	Count	201	227	199	627
		%	32.1%	36.2%	31.7%	100.0%
	Supporters	Count	148	176	184	508
		%	29.1%	34.6%	36.2%	100.0%
Total		Count	349	403	383	1135
		%	30.7%	35.5%	33.7%	100.0%

Table 3.9: Attitude towards reducing specified speed limits, gravel rural roads and respondents' age - MUARC

			Age groups			Total
			18-30 years	31-55 years	56 years and older	
Reducing specified speed limits, gravel rural roads	Opponents	Count	78	68	60	206
		%	37.9%	33.0%	29.1%	100.0%
	Supporters	Count	271	335	323	929
		%	29.2%	36.1%	34.8%	100.0%
Total		Count	349	403	383	1135
		%	30.7%	35.5%	33.7%	100.0%

Table 3.10: Attitude towards reducing current speed limits, high-speed rural roads and respondents' age - Synovate

			Age groups			Total
			17-29 years	30-54 years	55 years and older	
Reducing current speed limits, high-speed rural roads	Opponents	Count	580	2107	1391	4078
		%	14.2%	51.7%	34.1%	100.0%
	Supporters	Count	174	579	610	1363
		%	12.8%	42.5%	44.8%	100.0%
Total		Count	754	2686	2001	5441
		%	13.9%	49.4%	36.8%	100.0%

For all three analyses, opponents of lower speed limits were more likely to be from the youngest age group (compared to supporters) and conversely, supporters of lower limits were more likely to be from the oldest age group (compared to opponents). The middle age group varied in its responses: opponents to reduced speed limits on sealed and high-speed rural roads were more likely to be from this age group (compared to supporters), whereas supporters of speed reductions on gravel roads were more likely to be from this age group (compared to supporters). Three findings were statistically significant. MUARC opponents to reduced speeds on gravel roads were more likely to be from the youngest age group (Odds

ratio=1.48, 95% CI=1.07-2.05). Synovate supporters of reduced speeds on rural roads were more likely to be from the oldest age group (Odds ratio=1.56, 95% CI=1.38-1.78) and from the middle age group (Odds ratio=1.45, 95% CI=1.28-1.64).

- **Area of residence**

Opponents and supporters of urban speeds

Tables 3.11 and 3.12 show the association between attitude towards reducing current urban speed limits and place of residence for respondents from the MUARC and Synovate surveys.

Table 3.11: Attitude towards reducing current urban speed limits and respondents' area of residence - MUARC

			Area of residence		Total
			Mainly or totally rural	Mainly or totally urban	
Reducing current urban speed limits	Opponents	Count	426	520	946
		%	45.0%	55.0%	100.0%
	Supporters	Count	29	22	51
		%	56.9%	43.1%	100.0%
Total		Count	455	542	997
		%	45.6%	54.4%	100.0%

Table 3.12: Attitude towards reducing current urban speed limits and respondents' area of residence - Synovate

			Area of residence		Total
			Regional or remote	Metropolitan	
Reducing current urban speed limits	Opponents	Count	1532	756	2288
		%	67.0%	33.0%	100.0%
	Supporters	Count	1009	325	1334
		%	75.6%	24.4%	100.0%
Total		Count	2541	1081	3622
		%	70.2	29.8%	100.0%

Note: N of missing cases = 89

For respondents from both surveys, there was an association between attitude towards reducing current urban speed limits and place of residence. Opponents of lower urban speed limits were more likely to be from urban or metropolitan areas (compared to supporters) whereas supporters were more likely to be from rural or regional/remote areas (compared to opponents). However the association was statistically significant only for Synovate respondents (Odds ratio=1.53, 95% CI=1.31-1.79).

Opponents and supporters of rural speeds

Tables 3.13, 3.14 and 3.15 show the association between attitude towards reducing specified rural speed limits and place of residence for respondents from the MUARC and Synovate surveys.

Table 3.13: Attitude towards reducing specified speed limits, sealed rural roads and respondents' area of residence - MUARC

			Area of residence		Total
			Mainly or totally rural	Mainly or totally urban	
Reducing specified speed limits, sealed rural roads	Opponents	Count	340	287	627
		%	54.2%	45.8%	100.0%
	Supporters	Count	185	323	508
		%	36.4%	63.6%	100.0%
Total		Count	525	610	1135
		%	46.3%	53.7%	100.0%

Table 3.14: Attitude towards reducing specified speed limits, gravel rural roads and respondents' area of residence- MUARC

			Area of residence		Total
			Mainly or totally rural	Mainly or totally urban	
Reducing specified speed limits, gravel rural roads	Opponents	Count	126	80	206
		%	61.2%	38.8%	100.0%
	Supporters	Count	399	530	929
		%	42.9%	57.1%	100.0%
Total		Count	525	610	1135
		%	46.3%	53.7%	100.0%

Table 3.15: Attitude towards reducing specified speed limits, high-speed rural roads and respondents' area of residence - Synovate

			Area of residence		Total
			Regional or remote	Metropolitan	
Reducing specified speed limits, high-speed rural roads	Opponents	Count	2906	1077	3983
		%	73.0%	27.0%	100.0%
	Supporters	Count	870	455	1325
		%	65.7%	34.3%	100.0%
Total		Count	3776	1532	5308
		%	71.1%	28.9%	100.0%

Note: N of missing cases = 133

For all three analyses, there was an association between attitude towards reducing specified rural speed limits and place of residence. Opponents of lower rural speed limits were more likely to be from rural or regional/remote areas (compared to supporters) whereas supporters were more likely to be from urban or metropolitan areas (compared to opponents). All findings were statistically significant (Odds ratio=2.07, 95% CI=1.62-2.65; Odds ratio=2.09, 95% CI=1.52-2.88; Odds ratio=1.41, 95% CI=1.23-1.62; respectively).

- **Type of driving**

The data item from the MUARC survey was:

Q1AA. And which of these do you mainly use for transport?

Response options were:

1. Driving for personal use
2. Driving for work/job (e.g. truck, bus, taxi)
3. Riding a motorcycle/scooter

Respondents replying ‘Riding a motorcycle/scooter’ have been excluded from the analyses.

No equivalent data were available from the Synovate survey.

Opponents and supporters of urban speeds

Table 3.16 shows the association between attitude towards reducing current urban speed limits and type of driving for the MUARC survey.

Table 3.16: Attitude towards reducing current urban speed limits and respondents’ type of driving - MUARC

			Type of driving		Total
			Driving for personal use	Driving for work/job	
Reducing current urban speed limits	Opponents	Count	775	105	880
		%	88.1%	11.9%	100.0%
	Supporters	Count	36	2	38
		%	94.7%	5.3%	100.0%
Total		Count	811	107	918
		%	88.3%	11.7%	100.0%

Note: N of missing cases = 79

Opponents of lower speed limits were more likely to drive mainly as part of a job (compared to supporters) and conversely, supporters of lower limits were more likely to drive mainly for personal use (compared to opponents). Due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Fisher exact test, it was not statistically significant.

Opponents and supporters of rural speeds

Tables 3.17 and 3.18 show the association between attitude towards reducing specified rural speed limits and type of driving (mainly for personal use or for work) for the MUARC survey.

Table 3.17: Attitude towards reducing specified speed limits, sealed rural roads and respondents’ type of driving - MUARC

			Type of driving		Total
			Driving for personal use	Driving for work/job	
Reducing specified speed limits, sealed rural roads	Opponents	Count	498	77	575
		%	86.6%	13.4%	100.0%
	Supporters	Count	409	47	456
		%	89.7%	10.3%	100.0%
Total		Count	907	124	1031
		%	88.0%	12.0%	100.0%

Note: N of missing cases = 104

Table 3.18: Attitude towards reducing specified speed limits, gravel rural roads and respondents' type of driving - MUARC

			Type of driving		Total
			Driving (for personal use)	Driving for work/job	
Reducing specified speed limits, gravel rural roads	Opponents	Count	152	36	188
		%	80.9%	19.1%	100.0%
	Supporters	Count	755	88	843
		%	89.6%	10.4%	100.0%
Total		Count	907	124	1031
		%	88.0%	12.0%	100.0%

Note: N of missing cases = 104

For both analyses, opponents of lower speed limits were more likely to drive mainly as part of a job (compared to supporters) and conversely, supporters of lower limits were more likely to drive mainly for personal use (compared to opponents). These findings were statistically significant only in regard to speed limits on gravel roads (Odds ratio=2.03, 95% CI=1.30-3.17).

3.2 Using the MUARC and Synovate Surveys to Compare Attitudes of Supporters and Opponents of Safer Speeds

- **Attitude to speed enforcement**

The data item from the MUARC survey was:

Q18. Some people believe that the main reason police target speeding motorists is to make money for the government. Do you believe this is true?

Response options were:

1. Yes, I strongly believe it to be true
2. Yes, I believe it to be true
3. I do not know whether it is true
4. No, I believe it to be false
5. No, I strongly believe it to be false

Respondents replying 'I do not know whether it is true' have been excluded from the analysis.

No equivalent data were available from the Synovate survey.

Opponents and supporters of urban speeds

Table 3.19 shows the association between attitude towards reducing current urban speed limits and attitude towards police enforcement for the MUARC survey.

Table 3.19: Attitude towards reducing current urban speed limits and respondents' attitude to enforcement - MUARC

			Attitude to enforcement		Total
			Believe enforcement mainly to make money	Do not believe enforcement mainly to make money	
Reducing current urban speed limits	Opponents	Count	444	323	767
		%	57.9%	42.1%	100.0%
	Supporters	Count	15	28	43
		%	34.9%	65.1%	100.0%
Total		Count	459	351	810
		%	56.7%	43.3%	100.0%

Note: N of missing cases = 187

Opponents of lower urban speed limits were more likely to believe speed enforcement was mainly to make money for the government (compared to supporters) and conversely, supporters of lower limits were more likely not to believe speed enforcement was mainly to make money for the government (compared to opponents). These findings were statistically significant (Odds ratio=2.57, 95% CI=1.30-5.13).

Opponents and supporters of rural speeds

Tables 3.20 and 3.21 show the association between attitude towards reducing specified rural speed limits and attitude towards reducing police enforcement for the MUARC survey.

Table 3.20: Attitude towards reducing specified speed limits, sealed rural roads and respondents' attitude to enforcement - MUARC

			Attitude to enforcement		Total
			Believe enforcement mainly to make money	Do not believe enforcement mainly to make money	
Reducing specified speed limits, sealed rural roads	Opponents	Count	310	193	503
		%	61.6%	38.4%	100.0%
	Supporters	Count	194	221	415
		%	46.7%	53.3%	100.0%
Total		Count	504	414	918
		%	54.9%	45.1%	100.0%

Note: N of missing cases = 217

Table 3.21: Attitude towards reducing specified speed limits, gravel rural roads and respondents' attitude to enforcement - MUARC

			Attitude to enforcement		Total
			Believe enforcement mainly to make money	Do not believe enforcement mainly to make money	
Reducing specified speed limits, gravel rural roads	Opponents	Count	121	53	174
		%	69.5%	30.5%	100.0%
rural roads	Supporters	Count	383	361	744
		%	51.5%	48.5%	100.0%
Total		Count	504	414	918
		%	54.9%	45.1%	100.0%

Note: N of missing cases = 217

For both road types, opponents of lower rural speed limits were more likely to believe speed enforcement was mainly to make money for the government (compared to supporters) and conversely, supporters of lower limits were more likely not to believe speed enforcement was mainly to make money for the government (compared to opponents). Both sets of findings were statistically significant roads (Odds ratio=1.89, 95% CI=1.41-2.54; and Odds ratio=2.17, 95% CI=1.46-3.21, respectively).

- **Attitude to driving somewhat over the limit**

The data item from the MUARC survey was:

Q8. There are many reasons why someone might drive over the speed limit. How often are the following, reasons for you to drive over the speed limit?

- I don't think 5-10km over the speed limit is speeding

Response options were:

1. Always a reason
2. Most times
3. Sometimes
4. Rarely
5. Not at all a reason

Respondents replying 'Always a reason' or 'Most times' were assumed to regard driving 5-10 km/h over the limit as acceptable. Respondents replying 'Rarely' or 'Not at all a reason' were assumed to regard driving 5-10 km/h over the limit as unacceptable.

Respondents replying 'Sometimes' have been excluded from the analyses.

The data item from the Synovate survey was:

QA5 To what extent do you agree or disagree with the following statements

- You're not really speeding until you are driving more than 10kph over the posted speed limit

Response options were:

1. Strongly disagree
2. Disagree
3. Neither
4. Agree
5. Strongly agree

Respondents replying ‘Agree’ or ‘Strongly agree’ were assumed to regard driving up to 10 km/h over the limit as acceptable. Respondents replying ‘Strongly disagree’ or ‘Disagree’ were assumed to regard driving up to 10 km/h over the limit as unacceptable.

Respondents replying ‘Neither’ have been excluded from the analyses.

Opponents and supporters of urban speeds

Tables 3.22 and 3.23 shows the association between attitude towards reducing current urban speed limits and attitude towards driving somewhat over the speed limit for the MUARC and Synovate surveys.

Table 3.22: Attitude towards reducing current urban speed limits and respondents’ attitude towards driving 5-10 km/h over the speed limit - MUARC

			Attitude towards driving 5-10 km/h over the speed limit		Total
			Acceptable	Not acceptable	
Reducing current urban speed limits	Opponents	Count	90	369	459
		%	19.6%	80.4%	100.0%
	Supporters	Count	1	11	12
		%	8.3%	91.7%	100.0%
Total		Count	91	380	471
		%	19.3%	80.7%	80.7%

Note: N of missing cases = 526

Table 3.23: Attitude towards reducing current urban speed limits and respondents’ attitude towards driving more than 10 km/h over the speed limit - Synovate

			Attitude towards driving more than 10 km/h over the speed limit		Total
			Acceptable	Not acceptable	
Reducing current urban speed limits	Opponents	Count	611	1589	2200
		%	27.8%	72.2%	100.0%
	Supporters	Count	220	1103	1323
		%	16.6%	83.4%	100.0%
Total		Count	831	2692	3523
		%	23.6%	76.4%	100.0%

Note: N of missing cases = 188

For both surveys, opponents of lower urban speed limits were more likely to believe driving up to 10 km/h above the limit was acceptable (compared to supporters) and conversely, supporters of lower limits were less likely to accept low-level speeding as acceptable (compared to opponents). Due to small numbers using MUARC data, this association could

not be tested for statistical significance using the customary odds ratios: using the Fisher exact test, it was not statistically significant. The Synovate findings were statistically significant (Odds ratio=1.93, 95% CI=1.62-2.30).

Opponents and supporters of rural speeds

Tables 3.24, 3.25 and 3.26 show the association between attitude towards reducing specified rural speed limits and attitude towards reducing driving somewhat over the speed limit for the MUARC and Synovate surveys.

Table 3.24: Attitude towards reducing specified speed limits, sealed rural roads and respondents' attitude towards driving 5-10 km/h over the speed limit - MUARC

			Attitude towards driving 5-10 km/h over the speed limit		Total
			Acceptable	Not acceptable	
Reducing specified speed limits, sealed rural roads	Opponents	Count	64	236	300
		%	21.3%	78.7%	100.0%
	Supporters	Count	33	188	221
		%	14.9%	85.1%	100.0%
Total		Count	97	424	521
		%	18.6%	81.4%	100.0%

Note: N of missing cases = 614

Table 3.25: Attitude towards reducing specified speed limits, gravel rural roads and respondents' attitude towards driving 5-10 km/h over the speed limit - MUARC

			Attitude towards driving 5-10 km/h over the speed limit		Total
			Acceptable	Not acceptable	
Reducing specified speed limits, gravel rural roads	Opponents	Count	27	71	98
		%	27.6%	72.4%	100.0%
	Supporters	Count	70	353	423
		%	16.5%	83.5%	100.0%
Total		Count	97	424	521
		%	18.6%	81.4%	100.0%

Note: N of missing cases = 614

Table 3.26: Attitude towards reducing specified speed limits, high-speed rural roads and respondents' attitude towards driving more than 10km/h over the speed limit - Synovate

			Attitude towards driving more than 10 km/h over the speed limit		Total
			Acceptable	Not acceptable	
Reducing specified speed limits, high-speed rural roads	Opponents	Count	963	2897	3860
		%	24.9%	75.1%	100.0%
	Supporters	Count	230	1074	1304
		%	17.6%	82.4%	100.0%
Total		Count	1193	3971	5164
		%	23.1%	76.9%	100.0%

Note: N of missing cases = 277

For both surveys and for all rural road types, opponents of lower speed limits were more likely to believe driving up to 10 km/h above the limit was acceptable (compared to supporters) and conversely, supporters of lower limits were less likely to accept low-level speeding as acceptable (compared to opponents). Only two sets of findings were statistically significant: gravel roads, MUARC respondents (Odds ratio=1.92, 95% CI=1.11-3.29) and all high-speed roads, Synovate respondents (Odds ratio=1.55, 95% CI=1.32-1.83, respectively).

3.3 Using the MUARC and Synovate Surveys to Compare Knowledge of Speed Consequences, Supporters and Opponents of Safer Speeds

For this section the data items from the MUARC survey were:

- “Lowering the current speed limits would reduce crashes on the roads”
Q10a. Do you believe this is true?
- “Driving at 110km/h your car uses up to 25% more fuel than it would travelling at 90km/h”
Q11a. Do you believe this is true?
- “A 10km/h speed limit reduction in all urban and built up areas would not significantly impact trip travel times”
Q12a. Do you believe this is true?
- “Lowering the current speed limits would reduce the severity of injury when a crash occurs”
Q13a. Do you believe this is true?
- “Lowering the current speed limits would reduce toxic emissions by cars and therefore improve air quality and reduce global warming”
Q16a. Do you believe this is true?

For each item, respondents were asked to select one of the following responses:

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

Respondents replying ‘I do not know whether it is true’ for a given item have been excluded from the analysis for that item.

In most cases, there were no equivalent knowledge items in the Synovate survey. The one exception related to the speed/injuries association and consisted of the following three items from QA4:

- To what extent do you expect the following to be effective in reducing the number of people killed and seriously injured on our roads? (READ OUT SCALE)

D. Reducing all 60kph speed limits in built up areas to 50km/h
H. Reducing all 110km/h speed limits on country roads to 100km/h
K. Reducing the speed limit from 50kph to 40kph on local residential streets

For each item, respondents were asked to select one of the following responses:

- Highly effective
- Effective
- Somewhat effective
- Not at all effective
- (Don't know)

Respondents replying 'Highly effective' or 'Effective' or 'Somewhat effective' were assumed to believe the speed-injury association to be true. Respondents replying 'Not at all effective' were assumed to believe the speed-injury association to be false.

Respondents not able to give an assessment of effectiveness for a given item have been excluded from the analysis for that item.

- **“Lowering the current speed limits would reduce crashes on the roads”**

Opponents and supporters of urban speeds

Table 3.27 shows for urban roads the association between attitude towards reducing current speed limits and knowledge of the speed/crash relationship.

Table 3.27: Knowledge of the speed/crash association, opponents and supporters of reduced urban speed limits - MUARC

			Speed_crashes		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	508	228	736
		%	69.0%	31.0%	100.0%
	Supporters	Count	4	31	35
		%	11.4%	88.6%	100.0%
Total		Count	512	259	771
		%	66.4%	33.6%	100.0%

Note: N of missing cases = 226

Opponents of lower urban speed limits were more likely to believe the speed/crash relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/crash relationship to be true. Due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Yates corrected test, it was statistically significant (chi-squares = 47.17, $p < 0.000$).

Opponents and supporters of rural speeds

Tables 3.28 and 3.29 show for the two types of rural roads the association between attitude towards reducing current speed limits and knowledge of the speed/crash relationship.

Table 3.28: Knowledge of the speed/crash association, opponents and supporters of reduced speed limits on sealed rural roads - MUARC

			Speed_crashes		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, sealed rural roads	Opponents	Count	365	129	494
		%	73.9%	26.1%	100.0%
	Supporters	Count	197	194	391
		%	50.4%	49.6%	100.0%
Total		Count	562	323	885
		%	63.5%	36.5%	100.0%

Note: N of missing cases = 250

Table 3.29: Knowledge of the speed/crash association, opponents and supporters of reduced speed limits on sealed gravel roads - MUARC

			Speed_crashes		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, gravel rural roads	Opponents	Count	131	35	166
		%	78.9%	21.1%	100.0%
	Supporters	Count	431	288	719
		%	59.9%	40.1%	100.0%
Total		Count	562	323	885
		%	63.5%	36.5%	100.0%

Note: N of missing cases = 250

For both analyses, opponents of lower speed limits were more likely to believe the speed/crash relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/crash relationship to be true. The association was statistically significant for both analyses (Odds ratio=2.79, 95% CI=2.08-3.73 and Odds ratio=2.50, 95% CI=1.65-3.82, respectively).

- **“Driving at 110km/h your car uses up to 25% more fuel than it would travelling at 90km/h”**

Opponents and supporters of urban speeds

Table 3.30 shows for urban roads the association between attitude towards reducing current speed limits and knowledge of the speed/fuel consumption relationship.

Table 3.30: Knowledge of the speed/fuel association, opponents and supporters of reduced urban speed limits - MUARC

			Speed_fuel		Total
			Believe to be false	Believe to be true.	
Reducing current urban speed limits	Opponents	Count	193	458	651
		%	29.6%	70.4%	100.0%
	Supporters	Count	5	32	37
		%	13.5%	86.5%	100.0%
Total		Count	198	490	688
		%	28.8%	71.2%	100.0%

Note: N of missing cases = 309

Opponents of lower speed limits were more likely to believe the speed/fuel consumption relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/fuel consumption relationship to be true. Due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Yates corrected test, it was of borderline significance (chi-squares = 3.69, $p = 0.055$).

Opponents and supporters of rural speeds

Tables 3.31 and 3.32 show for the two types of rural roads, the association between attitude towards reducing current speed limits and knowledge of the speed/fuel consumption relationship.

Table 3.31: Knowledge of the speed/fuel association, opponents and supporters of reduced speed limits on sealed rural roads - MUARC

			Speed_fuel		Total
			Believe to be false	Believe to be true.	
Reducing specified speed limits, sealed rural roads	Opponents	Count	147	284	431
		%	34.1%	65.9%	100.0%
	Supporters	Count	75	269	344
		%	21.8%	78.2%	100.0%
Total		Count	222	553	775
		%	28.6%	71.4%	100.0%

Note: N of missing cases = 360

Table 3.32: Knowledge of the speed/fuel association, opponents and supporters of reduced speed limits on gravel roads - MUARC

			Speed_fuel		Total
			Believe to be false	Believe to be true.	
Reducing specified speed limits, gravel rural roads	Opponents	Count	58	93	151
		%	38.4%	61.6%	100.0%
	Supporters	Count	164	460	624
		%	26.3%	73.7%	100.0%
Total		Count	222	553	775
		%	28.6%	71.4%	100.0%

Note: N of missing cases = 360

For both analyses, opponents of lower speed limits were more likely to believe the speed/fuel consumption relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/fuel consumption relationship to be true. The association was statistically significant for both analyses (Odds ratio=1.86, 95% CI=1.33-2.60 and Odds ratio=1.75, 95% CI=1.18-2.58, respectively).

- **“A 10km/h speed limit reduction in all urban and built up areas would not significantly impact trip travel times”**

Opponents and supporters of urban speeds

Table 3.33 shows for urban roads the association between attitude towards reducing current speed limits and knowledge of the speed/travel time relationship.

Table 3.33: Knowledge of the speed/travel time association, opponents and supporters of reduced urban speed limits - MUARC

			Speed_travel_time		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	349	415	764
		%	45.7%	54.3%	100.0%
	Supporters	Count	5	35	40
		%	12.5%	87.5%	100.0%
Total		Count	354	450	804
		%	44.0%	56.0%	100.0%

Note: N of missing cases = 193

Opponents of lower speed limits were more likely to believe the speed/travel time relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/travel time relationship to be true. Due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Yates corrected test, it was statistically significant (chi-squares = 15.66, p<0.000).

Opponents and supporters of rural speeds

Tables 3.34 and 3.35 show for the two types of rural roads, the association between attitude towards reducing current speed limits and knowledge of the speed/travel time relationship.

Table 3.34: Knowledge of the speed/travel time association, opponents and supporters of reduced speed limits on sealed rural roads - MUARC

			Speed_travel_time		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, sealed rural roads	Opponents	Count	247	257	504
		%	49.0%	51.0%	100.0%
	Supporters	Count	133	282	415
		%	32.0%	68.0%	100.0%
Total		Count	380	539	919
		%	41.3%	58.7%	100.0%

Note: N of missing cases = 216

Table 3.35: Knowledge of the speed/travel time association, opponents and supporters of reduced speed limits on gravel rural roads - MUARC

			Speed_travel_time		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, gravel rural roads	Opponents	Count	99	77	176
		%	56.3%	43.8%	100.0%
	Supporters	Count	281	462	743
		%	37.8%	62.2%	100.0%
Total		Count	380	539	919
		%	41.3%	58.7%	100.0%

Note: N of missing cases = 216

For both analyses, opponents of lower speed limits were more likely to believe the speed/travel time relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/travel time relationship to be true. The association was statistically significant for both analyses (Odds ratio=2.04, 95% CI=1.54-2.70 and Odds ratio=2.11, 95% CI=1.50-2.99, respectively).

- **“Lowering the current speed limits would reduce the severity of injury when a crash occurs” and**
- **“To what extent do you expect the following (speed reductions) to be effective in reducing the number of people killed and seriously injured on our roads?”**

Opponents and supporters of urban speeds

Tables 3.36, 3.37 and 3.38 show for urban roads, the association between attitude towards reducing current speed limits and knowledge of the speed/injury relationship for the MUARC and Synovate surveys.

Table 3.36: Knowledge of the speed/injury association, opponents and supporters of reduced urban speed limits - MUARC

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	124	683	807
		%	15.4%	84.6%	100.0%
	Supporters	Count	1	44	45
		%	2.2%	97.8%	100.0%
Total		Count	125	727	852
		%	14.7%	85.3%	100.0%

Note: N of missing cases = 145

Table 3.37: Knowledge of the speed/injury association if reducing 50km/h to 40 km/h on local streets, opponents and supporters of reduced urban speed limits - Synovate

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	1419	912	2331
		%	60.9%	39.1%	100.0%
	Supporters	Count	67	1301	1368
		%	4.9%	95.1%	100.0%
Total		Count	1486	2213	3699
		%	40.2%	59.8%	100.0%

Note: N of missing cases = 12

Table 3.38: Knowledge of the speed/injury association if reducing 60km/h to 50 km/h in built-up areas, opponents and supporters of reduced urban speed limits - Synovate

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	1609	720	2329
		%	69.1%	30.9%	100.0%
	Supporters	Count	96	1271	1367
		%	7.0%	93.0%	100.0%
Total		Count	1705	1991	3696
		%	46.1%	53.9%	100.0%

Note: N of missing cases = 15

For all three analyses, opponents of lower urban speed limits were more likely to believe the speed/injury relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/injury relationship to be true. In regard to the MUARC analysis and due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Yates corrected test, it was statistically significant (chi-squares = 4.88, $p = 0.027$). The association was statistically significant for both Synovate analyses (Odds ratio=30.21, 95% CI=23.15-39.50 and Odds ratio=29.59, 95% CI=23.48-37.31, respectively).

Opponents and supporters of rural speeds

Tables 3.39, 3.40, 3.40 and 3.41 show for rural roads, the association between attitude towards reducing current rural speed limits and knowledge of the speed/injury relationship for the MUARC and Synovate surveys.

Table 3.39: Knowledge of the speed/injury association, opponents and supporters of reduced speed limits on sealed rural roads - MUARC

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, sealed rural roads	Opponents	Count	104	425	529
		%	19.7%	80.3%	100.0%
	Supporters	Count	34	411	445
		%	7.6%	92.4%	100.0%
Total		Count	138	836	974
		%	14.2%	85.8%	100.0%

Note: N of missing cases = 161

Table 3.40: Knowledge of the speed/injury association, opponents and supporters of reduced speed limits on gravel rural roads - MUARC

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, gravel rural roads	Opponents	Count	41	126	167
		%	24.6%	75.4%	100.0%
	Supporters	Count	97	710	807
		%	12.0%	88.0%	100.0%
Total		Count	138	836	974
		%	14.2%	85.8%	100.0%

Note: N of missing cases = 161

Table 3.41: Knowledge of the speed/injury association if reducing 110km/h to 1000 km/h on country roads, opponents and supporters of reduced rural speed limits - Synovate

			Speed_injury		Total
			Believe to be false	Believe to be true	
Reducing current speed limits, high-speed rural roads	Opponents	Count	3032	1022	4054
		%	74.8	25.2	100.0
	Supporters	Count	150	1206	1356
		%	11.1	88.9	100.0
Total		Count	3182	2228	5410
		%	58.8	41.2	100.0

Note: N of missing cases = 31

For all three analyses, opponents of lower speed limits were more likely to believe that reduced speeds would be ineffective in reducing deaths and injuries and conversely, supporters of lower limits were more likely to believe reduced speeds would reduce deaths and injuries. The speed/injury association was statistically significant in all three instances (Odds ratio=2.96, 95% CI=1.93-4.56, Odds ratio=2.38, 95% CI=1.55-3.66 and Odds ratio=23.85, 95% CI=19.77-28.79, respectively).

- **“Lowering the current speed limits would reduce toxic emissions by cars and therefore improve air quality and reduce global warming”**

Opponents and supporters of urban speeds

Table 3.42 shows for urban roads the association between attitude towards reducing current speed limits and knowledge of the speed/environment relationship.

Table 3.42: Knowledge of the speed/environment association, opponents and supporters of reduced urban speed limits - MUARC

			Speed_environment		Total
			Believe to be false	Believe to be true	
Reducing current urban speed limits	Opponents	Count	353	211	564
		%	62.6%	37.4%	100.0%
	Supporters	Count	5	19	24
		%	20.8%	79.2%	100.0%
Total		Count	358	230	588
		%	60.9%	39.1%	100.0%

Note: N of missing cases = 409

Opponents of lower speed limits were more likely to believe the speed/environment relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/environment relationship to be true. Due to small numbers, this association could not be tested for statistical significance using the customary odds ratios: using the Yates corrected test, it was statistically significant (chi-squares = 15.15, $p < 0.000$).

Opponents and supporters of rural speeds

Tables 3.43 and 3.44 show for the two types of rural roads, the association between attitude towards reducing current speed limits and knowledge of the speed/environment relationship.

Table 3.43: Knowledge of the speed/environment association, opponents and supporters of reduced speed limits on sealed rural roads - MUARC

			Speed_environment		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, sealed rural roads	Opponents	Count	261	133	394
		%	66.2%	33.8%	100.0%
	Supporters	Count	140	133	273
		%	51.3%	48.7%	100.0%
Total		Count	401	266	667
		%	60.1%	39.9%	100.0%

Note: N of missing cases = 468

Table 3.44: Knowledge of the speed/environment association, opponents and supporters of reduced speed limits on gravel rural roads - MUARC

			Speed_environment		Total
			Believe to be false	Believe to be true	
Reducing specified speed limits, gravel rural roads	Opponents	Count	103	46	149
		%	69.1%	30.9%	100.0%
	Supporters	Count	298	220	518
		%	57.5%	42.5%	100.0%
Total		Count	401	266	667
		%	60.1%	39.9%	100.0%

Note: N of missing cases = 468

For both analyses opponents of lower speed limits were more likely to believe the speed/environment relationship to be false and conversely, supporters of lower limits were more likely to believe the speed/environment relationship to be true. The association was statistically significant for both analyses (Odds ratio=1.86, 95% CI=1.34-2.59 and Odds ratio=1.65, 95% CI=1.10-2.49, respectively).

3.4 Using the MUARC Survey to Compare Opponents and Supporters of Safer Speeds – Impact of Improved Knowledge of Speed Consequences

Table 3.45 summarises some findings from the previous section by showing only for opponents of reduced speed limits, the numbers and proportions who did not believe the any of the associations between speed and crashes, travel times, environment and injuries to be true.

Table 3.45: Knowledge of various speed associations, opponents of reduced speed limits on urban, sealed rural and gravel rural roads - MUARC

			Believe to be false the association between speed and:				
			Crashes	Fuel	Travel time	Injury	Environment
Opponents to reduced specified speed limits on:	Urban streets and roads	Count	508	193	349	124	353
		%	69.0%	29.6%	45.7%	15.4%	62.6%
	Sealed rural roads	Count	365	147	247	104	261
		%	73.9%	34.1%	49.0%	19.7%	66.2%
	Gravel rural roads	Count	131	58	99	41	103
		%	78.9%	38.4%	56.3%	24.6%	69.1%

Note: % relates to all opponents to reduced specified speed limits per road type.

The remaining analyses conducted in this section are limited to those respondents appearing in Table 3.42: that is, opponents to reduced specified speed limits on each type of road who also believed any of the associations between speed and crashes, travel times, environment and injuries to be false.

These respondents were also asked for each association:

- If this (association) were true, how likely are you to support a reduction in speed limits?

See items Q10b, Q11b, Q12b, Q13b and Q16b.

For each item, respondents were asked to select one of the following responses”

- Very likely to support speed limit reduction
- Somewhat likely to support
- Neither likely nor unlikely
- Somewhat unlikely
- Very unlikely.

Respondents have been grouped thus:

- Likely to remain opponents – responding ‘Somewhat unlikely’ or ‘Very unlikely’;
- Uncertain whether oppose or support – responding ‘Neither likely nor unlikely’; and
- Likely to become supporters – responding ‘Very likely to support speed limit reduction’ or ‘Somewhat likely to support’.

Table 3.46 shows for those opposed to lower speed limits on urban roads, the impact of improved knowledge of the speed/crash, speed/fuel consumption, speed/travel time, speed/injury and speed/environment associations, on attitudes towards reduced speeds. Analyses were restricted to those respondents who initially reported that they believed the relationships to be false.

Tables 3.47 and 3.48 show for those opposed to lower speed limits on each of the two rural road types, the impact of improved knowledge of the speed/crash, speed/fuel consumption, speed/travel time, speed/injury and speed/environment associations, on attitudes towards reduced speeds. Analyses were restricted to those respondents who initially reported that they believed the relationships to be false.

Table 3.46: Impact of improved knowledge of various speed associations, opponents of reduced urban speed limits - MUARC

		If the following associations with reduced speed were true:					
			crashes	fuel	travel time	injury	environment
Reducing current urban speed limits	Likely to remain opponents	Count	302	117	232	79	236
		%	59.4%	60.6%	66.5%	63.7%	66.9%
	Uncertain whether oppose or support	Count	99	44	78	28	74
		%	19.5%	22.8%	22.3%	22.6%	21.0%
	Likely to become supporters	Count	107	32	39	17	43
		%	21.1%	16.6%	11.2%	13.7%	12.2%
Total		Count	508	193	349	124	353
		%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3.47: Impact of improved knowledge of various speed associations, opponents of reduced speed limits on sealed rural roads - MUARC

		If the following associations with reduced speed were true:					
			crashes	fuel	travel time	injury	environment
Reducing specified speed limits, sealed rural roads	Likely to remain opponents	Count	231	96	168	73	178
		%	63.3%	65.3%	68.0%	70.2%	68.2%
	Uncertain whether oppose or support	Count	72	28	51	20	52
		%	19.7%	19.0%	20.6%	19.2%	19.9%
	Likely to become supporters	Count	62	23	28	11	31
		%	17.0%	15.6%	11.3%	10.6%	11.9%
Total		Count	365	147	247	104	261
		%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3.48: Impact of improved knowledge of various speed associations, opponents of reduced speed limits on gravel rural roads - MUARC

		If the following associations with reduced speed were true:					
			crashes	fuel	travel time	injury	environment
Reducing specified speed limits, gravel rural roads	Likely to remain opponents	Count	95	45	74	32	76
		%	72.5%	77.6%	74.7%	78.0%	73.8%
	Uncertain whether oppose or support	Count	19	10	11	5	18
		%	14.5%	17.2%	11.1%	12.2%	17.5%
	Likely to become supporters	Count	17	3	14	4	9
		%	13.0%	5.2%	14.1%	9.8%	8.7%
Total		Count	131	58	99	41	103
		%	100.0%	100.0%	100.0%	100.0%	100.0%

For all three analyses, improved knowledge of all speed associations resulted in some initial opponents to reduced speed limits reporting they were prepared to change their stance: some to re-consider their position, others to support reduced limits. However for any road type and any speed association, most opponents were not prepared to change their position.

4 DISCUSSION

4.1 Extent of Public Support for/Opposition to Safer Speeds

Data from both surveys showed that for most respondents, it was invalid to assume an overall attitude towards safer (reduced) speed limits, as attitudes varied according to the types of road being considered. For both surveys, the majority of respondents had a consistent attitude towards the current urban speed limits for local streets and main roads: that is, their support or opposition to the current limits was the same for both road types. However the attitude towards current urban limits was not a strong predictor of attitude towards rural speed limits:

- in the MUARC survey many opponents of reduced urban speed limits supported reduced speed limits on rural roads, especially gravel roads;
- further, in the MUARC survey there was sizeable variation in attitudes across the two types of rural roads. this variation was considered inconsistent with the notion of a general attitude towards rural speed limits;
- in the Synovate survey, while opponents of reduced urban speed limits also generally opposed reduced speed limits on rural roads, many supporters of reduced urban speed limits were opposed to reduced rural limits.

Given these trends, analyses have been conducted separately for urban and rural speed limits – and in the case of the MUARC data, separately for limits on sealed and on gravel roads.

Responses to reduced speed limits on urban and rural roads for respondents in the two surveys are summarised in Table 4.1.

Table 4.1 Attitude towards reducing speed limits on urban and rural roads – MUARC and Synovate surveys

		% of all respondents				
		MUARC survey		Synovate survey		
		Opponents	Supporters	Opponents	Supporters	
Reducing specified speed limits	Urban streets ¹	94.5	5.1	63.1	36.9	
	Rural roads ²	Sealed	55.2	44.8	74.9	25.1
		Gravel	18.1	81.8		

Notes: ¹ 138 respondents (or 12 percent of the initial MUARC sample) excluded AND 2079 respondents (or 36 percent of the initial Synovate sample) excluded. Exclusions consist predominantly of respondents who did not have a consistent attitude across the two urban road types.

² 349 respondents (or 6 percent of the initial Synovate sample) who did not indicate categorical support or opposition were excluded.

For urban speed limits:

- in the MUARC survey, more than nine out of ten respondents opposed a reduction in speed limits on local streets and on main undivided streets and roads (currently 50 km/h and 60 km/h, respectively);
- there was less opposition to reduced limits in the Synovate survey. While opponents for both types of urban streets/roads were in the majority, two in three respondents opposed reduced urban limits.

For rural speed limits:

- in the MUARC survey, over one-half of respondents opposed a reduction in speed limits on two-lane undivided roads but only one out of five respondents opposed a reduction on gravel roads.;
- the question posed in the Synovate survey made no distinction between sealed and gravel roads. Three out of four respondents opposed a reduced limit for rural roads with a

current limit of 110 km/h – a level well above either level of support from the MUARC survey.

Both surveys showed that with one exception, regardless of the type of road being considered, supporters of safer speeds in Western Australia were outnumbered by opponents – usually, substantially outnumbered. The one exception related to the strong level of support for reduced limits on gravel roads, as measured in the MUARC survey.

The two surveys provided other variations in aspects of public response to reduced speeds. The MUARC survey suggested that there was very strong opposition to reducing current urban speed limits, whereas there were lower levels of opposition to reducing rural speed limits – especially speed limits on gravel roads. In contrast, the Synovate survey suggested that there was less opposition to reduced urban speed limits relative to reducing rural speed limits.

It is currently not possible to reconcile these variations, although it is likely that the different sample structures and differences in item terminologies had at least some influence. The MUARC items relating to reduced speeds on rural roads⁷ related to reductions from 100 km/h: in practice and for both road types, the prevailing default limit was 110 km/h. Had the two items been re-stated to refer to a 110 km/h limit, it is likely that the level of opposition would have been even further below the Synovate-derived level of opposition.

In the MUARC survey, the items used to assess opposition to and support for reduced speed limits for each road type and discussed to this point, used as the reference point the appropriateness of specified speed limits which were or were near to current speed limits (see Items 3d, 4d, 5d and 6d). An alternative means to make the same assessment would have been to use as the reference point, a specified speed reduction per road type below or further below current speed limits (as per Items 3c, 4c, 5c and 6c). The two different approaches are compared in Attachment 3.

As summarised in Table 4.2, there is both consistency and differences between responses to each pair of items used to assess attitudes towards reduced speeds per road type.

⁷ The items were:

- Q5d. *And do you consider a speed limit of 100km/h appropriate for this type of road (two-lane undivided rural roads)?*
- Q6d. *And do you consider a speed limit of 100km/h appropriate for this type of road (rural gravel roads)?*

Table 4.2: Attitude towards reducing speed limits on urban and rural roads using different survey items – MUARC

			% (of all respondents)	
			Opponents	Supporters
Reducing speed limits on:	Local urban streets	Appropriateness of 50 km/h (Item 3d)	89.1	10.9
		Reducing to 40 km/h (Item 3c)	72.1	27.9
	Main undivided urban streets	Appropriateness of 60 km/h (Item 4d)	89.8	10.2
		Reducing to 50 km/h (Item 4c)	69.9	30.1
	Two-lane undivided rural roads	Appropriateness of 100 km/h (Item 5d)	55.2	44.8
		Reducing to 90 km/h (Item 5c)	30.5	69.5
	Gravel rural roads	Appropriateness of 100 km/h (Item 6d)	18.2	81.9
		Reducing to 80 km/h (Item 6c)	13.7	86.3

Note: For these analyses, the total sample of 1135 respondents was used.

On the one hand, the levels of opposition to any reduction were highest for urban streets and roads and lowest for the two types of rural roads, regardless of which items were used. The main difference in measures of support for reduced limits related to two-lane undivided rural roads: while the majority of respondents opposed reducing from the limit of 100km/h, only a minority of respondents opposed the specified reduction to 90 km/h.

On the other hand, for all road types, the level of opposition to reducing from the current or near-current speed limit was consistently greater than the level of opposition to reducing to a specified speed limit. The reason for this pattern is difficult to identify but may be due to some respondents being more prepared to accept a reduction within defined limits.

A comparison of responses to the two sets of items confirmed the axiom that responses can be sensitive to the specific terminology used in survey items. As the most extreme example from Table 4.2, the extent of opposition to a reduced speed limit on two-lane undivided rural roads was either 55 percent or 31 percent, depending on how the question was framed.

4.2 Factors Associated with Support for/Opposition to Safer Speeds

• Background factors

Although attitudes towards reduced speed limits varied according to the type of street or road being considered, the different sets of opponents showed consistent background factors. Considering both surveys and all road types, opponents were more likely to have been:

- male;
- young;
- living in an area likely to be affected by any reduction in speeds;
- driving as part of their job.

However even for statistically significant associations, the association only partly separated opponents and supporters. For example, one of the strongest associations related to MUARC rural respondents resident who were opposed to reduced speed limits on gravel rural roads. While 61 percent of rural residents opposed reducing these speed limits, it was the case that 39 percent of urban residents were also in opposition – and 39 percent of rural residents supported a reduction.

As a broad finding, the background factors associated with opposition to reduced speed limits were in accordance with expectations. The one unexpected result from both surveys related to the strong association between place of residence and opposition to reduced speed limits on roads in the same geographical category: that is, urban residents were more likely to oppose urban reductions and rural residents were more likely to oppose rural reductions. This association apparently contradicts a finding that many respondents wanted speed reductions in their own neighbourhood for reasons of safety and amenity but wished to maintain the capacity to travel through other neighbourhoods at higher speeds (Austroads, 1996). This phenomenon was termed the reverse-NIMBY (Not In My Back Yard) response.

However the items used in the MUARC and Synovate surveys did not extend to assessing residents' attitudes towards speed reductions in streets and roads specified as close to their place of residence. It may be for example, that while urban residents oppose reductions in urban limits generally, they would be more prepared to support speed reductions specifically in their neighbourhood.

- **Attitudes**

Although attitudes towards reduced speeds varied according to the type of street or road being considered, the different sets of opponents showed consistent attitudes for the two factors assessed. Relative to supporters and considering both surveys, opponents were more likely to have viewed:

- enforcement of speed limits mainly as a means to make money;
- driving up to 10 km/h over the speed limit as acceptable.

These associations notwithstanding, more than one-half of all MUARC respondents, regardless of their attitudes towards reduced speed limits, believed that enforcement of speed limits served mainly as a means to make money. In contrast, for all road types and for both surveys, at least three-quarters of all respondents found low-level speeding to be unacceptable.

It is not possible to use the data from either survey to explain the link between attitude towards reduced speed limits and attitudes towards speed enforcement and low-level speeding. It may be that opposition to reduced speed limits led to possible safety and other benefits being not recognised – and to various aspects of speeding proving to be more acceptable. If this explanatory link is valid, a change in attitude towards reduced speed limits may also prompt changes in attitude towards for example, the role of enforcement and so-called low-level speeding. Whether any attempt to change respondents' attitudes towards speed enforcement or low-level speeding will in turn cause a change in attitude towards speed reductions, is questionable.

Both surveys contained other data items which could be used as bases for further exploring possible associations between support or opposition to reduced speeds and other attitudes. However these items and attitudes have been judged not pertinent to informing any education campaign aimed at improving public acceptance of reduced speeds.

- **Knowledge of Speed Consequences**

The MUARC survey tested respondents' knowledge of various consequences of reduced speed limits. Specifically, respondents were asked whether they believed that specified reductions in current speed limits would:

- reduce crashes on the roads;

- reduce fuel consumption;
- not significantly affect travel times;
- reduce the severity of injury in a crash;
- reduce toxic emissions, improve air quality and reduce global warming.

Respondents in the Synovate survey were asked about the speed-injury association in relation to:

- reducing all 60kph speed limits in built up areas to 50km/h'
- reducing all 110km/h speed limits on country roads to 100km/h'
- reducing the speed limit from 50kph to 40kph on local residential streets.

In the MUARC survey, for all road types and for all knowledge items, respondents who opposed reduced speeds were more likely to disbelieve the various consequences of reduced speeds – and conversely, supporters were more prepared to accept them. For all three speed-injury associations tested in the Synovate survey, the same pattern was evident.

Regardless of whether respondents supported or opposed reduced speed limits, extent of acceptance of the above items varied considerably. The proportions of all MUARC respondents accepting the various consequences were:

Implication of reduced speeds	% accepting as true
reduce crashes	33.6%-36.5%
reduce toxic emissions etc.	39.1%-39.9%
not significantly affect travel times	56.0%-58.7%
reduce fuel consumption	71.2%-71.4%
reduce injury severity	85.3%-85.8%

The speed-crash and speed-injury items are both directly related to safety consequences and yet received the two extreme measures of acceptance. Only one-third of MUARC respondents accepted that reduced speed limits would reduce the number of crashes, while well over three-quarters believed that reduced speed limits would reduce the severity of injuries. There is no ready explanation as to why respondents were reluctant to accept the speed/crash association but prepared to accept the speed/injury association.

The proportions of Synovate respondents who accepted that reduced speed limits would reduce the severity of injuries, varied. For the combined sub-sample who either supported or opposed reduced urban speed limits, over one-half believed that lower speeds would reduce injuries. For the combined sub-sample who either supported or opposed reduced rural speed limits, less than one-half believed that lower speeds would reduce injuries.

- **Impact of Improved Knowledge of Speed Consequences**

MUARC respondents who were opposed to reduced speed limits on any of the road types and who did not accept any of the above knowledge items, were also asked that if a given statement were indeed true, whether they would then support the reduced speed limits. As shown in Tables 3.46, 3.47 and 3.48, between two-thirds and three-quarters of all opponents of reduced speed limits reported that improved knowledge of the benefits of speed reductions would not result in a change to their opposition.

It needs to be emphasised that this reluctance to change attitudes is based on self-reported and anticipated responses to a series of hypothetical conditions. It may be that improved knowledge of speed consequences in reality – as distinct from presenting a hypothetical

situation – might prove to be more effective in shifting associated attitudes. Alternatively, it might be that attitudes to speed reduction could be so deeply established as to be strongly resistant to change through education.

There is some cause for at least qualified optimism from the research. Focus group studies cited in Haworth et al. (2001) indicated that education alone could change at least some attitudes toward speed limits. Specifically, after focus groups consisting of Western Australian residents who showed indifferent or somewhat negative attitudes to reduced speed limits were presented with statistics supporting positive safety benefits, many then indicated support for changed speed limits. However it was also recognised that there was no evidence to suggest that education alone was effective in reversing the opinions of those who opposed reductions in speed limits.

4.3 Considerations to Promote Greater Public Acceptance of Safer Speeds

The considerations presented in this section have assumed a more or less conventional mass-media public education campaign aimed at improving acceptance of reduced speeds. As a first step, this assumption needs to be questioned from a number of perspectives:

- *is widespread public support for reduced speed limits necessary?* While public support will always make speed reductions easier to implement (and perhaps to enforce), it may also be possible for road safety authorities to impose reductions upon a resistant public – for example, by using public education to stress enforcement programs and the likelihood of detection if speeding. It also needs to be remembered that support for reduced limits may well increase once they are implemented, as was the case with the introduction of the 50 km/h urban speed limit in Western Australia (Hoareau and Newstead, 2004) and elsewhere;
- *is conventional mass-media public education the most effective strategy to use?* Given both the current high levels of opposition to speed limit reductions and the professed reluctance to alter opposition even if the benefits of reduced speeds were accepted, the challenges are daunting. It may be more effective for example, to divert resources to conduct and promote local-area demonstrations of reduced speed limits and the subsequent benefits. This strategy is supported by findings that community support for lowering speed limits increases once those communities are exposed to the benefits and the minimal impact of perceived detrimental factors (Roads and Traffic Authority, 2000a);
- *is it an appropriate strategy to target the various ‘hard core’ pockets of opposition to reduced speed limits?* An alternative strategy for example, might be to strengthen and enlist the existent levels of support.

In addition to these basic (and perhaps other) questions, learnings from the substantial research into effective road safety public education campaigns should not be overlooked. Fildes et al. (2005) for example, identified the following criteria of effective campaigns:

- use of multiple media;
- carefully targeted audiences;
- repetition of a single message;
- emphasis on the negative consequences of current behaviour (e.g., arousing fear coupled with mechanisms for reducing the anxiety);
- focus on immediate, high-probability and positive consequences of safe driving behaviours, rather than the avoidance of distant negative consequences;
- appropriate timing of the campaign;
- attainable, specific, but fairly modest goals in terms of behavioural change.

Within this context and assuming a conventional mass-media public education campaign aimed at overcoming opposition to reduced speeds, the following considerations are made based on findings from the MUARC and Synovate surveys.

- Consideration 1:** There needs to be a differentiation between attitudes to urban and to rural speed limits – and particularly if immediate success is required, to different types of rural roads.
- Consideration 2:** While there are significant associations between opposition to reduced speeds and various background factors (especially age and gender), campaigns need to be more far-reaching if they are to touch most opponents of reduced speeds.
- Consideration 3:** Campaigns which work on changing underlying negative attitudes towards speed, need to recognise that some attitudes are widely held (eg the perceived purpose of enforcement) whereas other attitudes are less frequently encountered (eg unacceptability of low-level speeding).
- Consideration 4:** Campaigns which seek to change opposition to reduced speed limits by promoting improved safety, need to recognise that while the lower speeds/less severe injuries association is widely accepted, the lower speeds/fewer crashes association is not. Qualitative research using structured focus groups may be a useful avenue for developing promising strategies to improve knowledge of speed-related safety consequences.
- Consideration 5:** Campaigns which seek to change opposition to reduced speed limits by developing improved knowledge of the consequences of reduced speeds, need first to test whether improved knowledge will result in the desired, more positive attitudes.
- Consideration 6:** Campaigns based on specified speed reductions are likely to find more support than campaigns based on unspecified reductions.
- Consideration 7:** Given the high existing support for speed reductions on rural gravel roads, it seems appropriate to design an action plan to bring about the appropriate changes in the near future. A key component of this action plan might be a demonstration project in one or more rural municipalities, to evaluate community acceptance of and compliance with the changed speeds, as well as safety and mobility consequences.

5 SUMMARY

The aims of the present project were to analyse data from two key Western Australian surveys to:

- identify the extent of public support for safer speeds;
- identify those factors associated with support for safer speeds;
- provide considerations to promote greater public acceptance of safer speeds.

The two surveys analysed were the MUARC survey conducted in 2009 and Synovate's Community Attitude Tracking Questionnaire and the associated 'Rotation' survey conducted over the period July 2009 to June 2010

Data from the two surveys were analysed to present a composite picture of Western Australian public attitudes to and knowledge of aspects pertaining to speed limits on the main urban and rural road types. The analyses have focussed on identifying those factors (background demographic and attitudinal factors and extent of knowledge and subsequent impact on attitudes) which have an association with opposition to or support of lower speed limits across different road types.

Key findings included:

- 1) Data from both surveys showed that for most respondents, it was invalid to assume an overall attitude towards safer (reduced) speed limits, as attitudes varied according to the types of road being considered
- 2) Both surveys showed that with one exception, regardless of the type of road being considered, supporters of safer speeds in Western Australia were outnumbered by opponents – usually, substantially outnumbered. The one exception related to the strong level of support for reduced limits on gravel roads, as measured in the MUARC survey.
- 3) The two surveys also provided conflicting results. The MUARC survey suggested that there was very strong opposition to reducing current urban speed limits, whereas there were lower levels of opposition to reducing rural speed limits – especially speed limits on gravel roads. In contrast, the Synovate survey suggested that there was less opposition to reduced urban speed limits relative to reducing rural speed limits.
- 4) The different sets of opponents to reduced speed limits were more likely to have been: male; young; living in an area likely to be affected by any reduction in speeds; and driving as part of their job. However even for statistically significant associations, each association only partly separated opponents and supporters.
- 5) Background factors associated with opposition to reduced speed limits were in accordance with expectations. The one unexpected result from both surveys related to the strong association between place of residence and opposition to reduced speed limits on roads in the same geographical category: that is, urban residents were more likely to oppose urban reductions and rural residents were more likely to oppose rural reductions.
- 6) Relative to supporters and considering both surveys, opponents of reduced limits were more likely to have viewed: enforcement of speed limits mainly as a means to make money; and driving up to 10 km/h over the speed limit as acceptable.
- 7) Respondents who opposed reduced speeds were more likely to disbelieve the various consequences of reduced speeds – and conversely, supporters were more prepared to accept them.

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- 8) MUARC respondents who were opposed to reduced speed limits on any of the road types and who did not accept any of the speed-related consequences, were also asked that if a given statement were indeed true, whether they would then support the reduced speed limit. For three-quarters of all opponents of reduced speed limits, improved knowledge of the benefits of speed reductions would not result in an altered attitude.

Assuming a conventional mass-media public education campaign aimed at overcoming opposition to reduced speeds, a series of considerations were made based on findings from the two surveys.

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ATTACHMENT 1: MUARC WEB-BASED SURVEY

MUARC QUESTIONNAIRE

INTRODUCTION

Dear [respondent name]

We are conducting a new survey and you are invited to participate. If you choose to participate, please be assured that the information and opinions you provide will be used only for research purposes. In particular, no individual responses will be given to the organization sponsoring this research; they will be combined with those from other participants of this research.

We are conducting a survey to get your views towards speed limits in your state. This information will then be used to improve our understanding of issues associated with speed limits. . Your answers will remain anonymous and your personal details will not be passed on to anyone else. Please answer the questions as truthfully as possible, as your responses will help in tackling this important issue.

The survey will take approximately 12mins to complete and you will need to complete the survey by 12 noon [insert date] to earn [[insert number of zoints].

Q1. Are you interested in participating?

1. Yes
2. No

Thank you for agreeing to complete our new survey.

Please make sure you fill out all the questions on each page.

You can view all terms and conditions at <http://www.opinionspaid.com>

ASK ALL

S1. Are you...

Please select one

1. Male
2. Female

ASK ALL

S2. Please indicate your age group?

Please select one

1. 18-20 years
2. 21 to 25 years
3. 26 to 30 years
4. 31 to 55 years
5. 56 to 75 years
6. Over 75 years

ASK ALL

S3a. Which of the following areas do you live in?

Please select one

1. Queensland

-
2. NSW
 3. Victoria
 4. South Australia
 5. Western Australia
 6. Tasmania
 7. Northern Territory

IF CODES ARE FOR QLD, NSW OR NT, TERMINATE (CODES 1, 2, 7)

ASK ALL

S3b. And how would you describe the area in which you are living?

Please select one

1. Mainly or totally rural
2. Mainly or totally urban

The next few questions are about your ideas and your opinions about the current speed limits on the road in the state you live.

Your answers will remain anonymous and your personal details will not be passed on to anyone else.

Please answer the questions as truthfully as possible, as your responses will help in tackling this important issue.

Please remember that we are after your honest opinion and there are no right or wrong answers.

ASK ALL

Q1. Which of the following types of transport have you used in the past week?

- Drive (for personal use
- Drive for work/ job (e.g. truck, bus, taxi)
- As a passenger in a car
- Walk
- Cycle (bike)
- Motorcycle/ Scooter
- Public transport (tram, train, taxi)
- None of these

Q1A. And which of these do you mainly use for transport?

Please select one response

For the following questions, please think about when you are [INSERT ANSWER FROM Q1A]

Here is an example of a local street in a residential area. The next few questions will be about driving and speed limits on this type of road.

SHOW IMAGE A: LOCAL STREET

ASK IF DRIVER

Q3a. What speed do you typically travel at on a local street in a residential area when there is no traffic congestion?

Please type in your response

___ km/hr

ASK ALL

Q3b. What do you think the speed limit for a local street in a residential area is likely to be?

Please type in your response

___ km/hr

ASK ALL

Q3c. Do you consider a speed limit of 40km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

ASK ALL

Q3d. And do you consider a speed limit of 50km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

SHOW ALL

Here is an example of a main undivided street in an urban area. The next few questions will be about driving and speed limits on this type of road.

SHOW IMAGE B: MAIN URBAN STREET

ASK IF DRIVER

Q4a. What speed do you typically travel at on a main undivided street in an urban area when there is no traffic congestion?

Please type in your response

___ km/hr

ASK ALL

Q4b. What do you think the Speed limit for a main undivided street in an urban area is likely to be?

Please type in your response

___ km/hr

ASK ALL

Q4c. Do you consider a speed limit of 50km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

ASK ALL

Q4d. And do you consider a speed limit of 60km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

SHOW ALL

Here is an example of a **two-lane undivided rural road**. The next few questions will be about driving and speed limits on this type of road.

SHOW IMAGE C: TWO-LANE RURAL ROAD

ASK IF DRIVER

Q5a. What speed do you typically travel at on a two-lane undivided rural road when there is no traffic congestion?

Please type in your response

_ _ _ km/hr

ASK ALL

Q5b. What do you think the speed limit for a two-lane undivided rural road is likely to be?

Please type in your response

_ _ _ km/hr

ASK ALL

Q5c. Do you consider a speed limit of 90km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

ASK ALL

Q5d. And do you consider a speed limit of 100km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

SHOW ALL

Here is an example of a **rural gravel road**. The next few questions will be about driving and speed limits on this type of road.

SHOW IMAGE C: RURAL GRAVEL ROAD

ASK IF DRIVER

Q6a. What speed do you typically travel at on a rural gravel road when there is no traffic congestion?

Please type in your response

__ __ km/hr

ASK ALL

Q6b. What do you think the speed limit for a rural gravel road is likely to be?

Please type in your response

__ __ km/hr

ASK ALL

Q6c. Do you consider a speed limit of 80km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

ASK ALL

Q6d. And do you consider a speed limit of 100km/h appropriate for this type of road?

Please select one

- Far too low
- A bit too low
- About right
- A bit too high
- Far too high

ASK ALL

We are now seeking your opinion on a range of issues related to speed limits and speeding. Please be assured that your answers will remain anonymous and will not be seen by anyone other than the research team.

Please answer the following questions only in regard to those times when there is no traffic congestion

[NEXT SCREEN]

ASK IF DRIVER

Q7. Thinking about your driving in the last 3 months, how often do you drive at the following speeds?

1	Under the speed limit	1	2	3	4	5
2	Right on the speed limit	1	2	3	4	5
3	Up to 5 km/h over the speed limit	1	2	3	4	5
4	6 to 10 km/h over the speed limit	1	2	3	4	5
5	More than 10 km/h over the speed limit	1	2	3	4	5

- 1 Always a reason
- 2 Most times
- 3 Sometimes
- 4 Rarely
- 5 Never

ASK IF EVER SPEEDS (CODES 1-3 IN Q7_3/Q7_4/Q7_5)

Q8. There are many reasons why someone might drive over the speed limit. How often are the following, reasons for you to drive over the speed limit?

Please select one for each statement.

RANDOMISE ORDER OF STATEMENTS

1	I haven't paid enough attention to my driving speed	1	2	3	4	5
2	I don't think driving up to 5km over the speed limit speeding					
3	If I am in a hurry or running late					
4	There was no traffic /other vehicles on the road					
5	I don't think 5-10km over the speed limit is speeding					
6	I am not sure what the speed limit is					
7	The speed limit is set too low					
8	I can drive safely over the speed limit					
9	I don't think I'll be caught					
10	I enjoy driving fast					

- 6 Always a reason
- 7 Most times
- 8 Sometimes
- 9 Rarely
- 10 Never

ASK ALL

“Lowering the current speed limits would reduce crashes on the roads”

Q10a. Do you believe this is true?

Please select one

- Yes, I strongly believe it to be true
- Yes, I believe it to be true
- I do not know whether it is true
- No, I believe it to be false
- No, I strongly believe it to be false

ASK IF Q9 =1/2/4/5

SHOW IF Q9=1/2

10c. And why do you believe that current speed limits would reduce crashes on the road?

SHOW IF Q9a=4/5

Q10c. And why don't you believe that current speed limits would reduce crashes on the road?

Please type in your response

ASK ALL

“Lowering the current speed limits would reduce crashes on the roads”

Q10b. If the above statement were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction

Somewhat likely to support

Neither likely nor unlikely

Somewhat unlikely

Very unlikely

ASK ALL

“Driving at 110km/h your car uses up to 25% more fuel than it would travelling at 90km/h”

Q11a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true Yes, I believe it to be true I do not know whether it is

true No, I believe it to be false No, I strongly believe it to be false

ASK ALL

Q11b. If this were true, how likely are you to support speed limit reductions in high speed zones?

Please select one

Very likely to support speed limit reduction

Somewhat likely to support

Neither likely nor unlikely

Somewhat unlikely

Very unlikely

ASK ALL

“A 10km/h speed limit reduction in all urban and built up areas would not significantly impact trip travel times”

Q12a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true

Yes, I believe it to be true

I do not know whether it is true

No, I believe it to be false

No, I strongly believe it to be false

ASK ALL

Q12b. If this were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction
Somewhat likely to support
Neither likely nor unlikely
Somewhat unlikely
Very unlikely

ASK ALL

“Lowering the current speed limits would reduce the severity of injury when a crash occurs”

Q13a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

ASK ALL

Q1b. If this were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction
Somewhat likely to support
Neither likely nor unlikely
Somewhat unlikely
Very unlikely

ASK ALL

“Lowering the current speed limits would create a more enjoyable and healthier environment for you and your family to live in”

Q14a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

ASK ALL

Q14b. If this were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction
Somewhat likely to support
Neither likely nor unlikely
Somewhat unlikely
Very unlikely

ASK ALL

“Lowering the current speed limits would make our roads safer for pedestrians and cyclists”

Q15a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

ASK ALL

Q15b

If this were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction
Somewhat likely to support
Neither likely nor unlikely
Somewhat unlikely
Very unlikely

ASK ALL

“Lowering the current speed limits would reduce toxic emissions by cars and therefore improve air quality and reduce global warming”

Q16a. Do you believe this is true?

Please select one

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

ASK ALL

Q16b. If this were true, how likely are you to support a reduction in speed limits?

Please select one

Very likely to support speed limit reduction
Somewhat likely to support
Neither likely nor unlikely
Somewhat unlikely
Very unlikely

ASK IF MORE THAN ONE CODED 1 (Very likely to support) IN Q10B, Q11B, Q12B, Q13B, Q14B, Q15B OR Q16 B.

Q17. Here are the claims which you indicated might be a reason for supporting reduced speed limits if true. Please rank them in order of importance to you if you were to support a reduction in speed limits.

Please assume they are true when you are ranking them.

SHOW ALL STATEMENTS CODED 1 FROM Q10B, Q11B, Q12B, Q13B, Q14B, Q15B OR Q16 B

Q18. Some people believe that the main reason police target speeding motorists is to make money for the government. Do you believe this is true?

Yes, I strongly believe it to be true
Yes, I believe it to be true
I do not know whether it is true
No, I believe it to be false
No, I strongly believe it to be false

ASK IF DRIVER

Q19A. Which of the following types of driving license, if any, do you currently hold?

Please select all that apply Car Motorcycle Heavy vehicle Bus Other, please specifyI don't hold any type of driving licence

Q19B. And what type of license is that? (Full, Probationary, Learner)?

ASK IF DRIVER

Q19.

On average, how far would you normally drive in a week?

Please select one

- Up to 50 km
- 51-100 km
- 101-200 km
- 201-300 km
- More than 300 km

ASK IF DRIVER

Q20. In which of the following areas, do you usually drive?

Please select one:

- Towns, built-up or urban areas
- Country/rural areas

ASK ALL

Q21. What best describes your occupational status?

Please select one

- Employed, working Full-time (more than 35 hours a week)
- Self Employed, working Full-time (more than 35 ours a week)
- Employed, working Part-time (less than 35 hours a week)
- Unemployed, looking for Full-time work
- Unemployed, looking for Part-time work
- Not Employed and not looking for work
- Student
- Beneficiary/Welfare
- Retired
- Look after the house full time
- Other please specify
- Refuse to answer

ASK ALL

Q22. What is the highest level of education you have achieved?

Please select one

- Still attending school
- High school certificate
- Trade certificate
- Diploma
- Bachelor's degree
- Postgraduate degree
- Other, please specify

ASK ALL

Q23. Please estimate your approximate annual household income before tax

Please select one

- Less than \$20,000

\$21,000 - \$40,000
\$41,000 - \$60,000
\$61,000 - \$80,000
\$81,000 - \$100,000
\$101,000 - \$120,000
\$121,000 - \$140,000
More than \$140,000

ASK ALL

Q24. And finally, what is your postcode?

Please type in your response

____ [ALLOW MAX 4 DIGITS]

THANK AND CLOSING STATEMENT

ATTACHMENT 2: SYNOVATE'S COMMUNITY ATTITUDE TRACKING QUESTIONNAIRE AND THE ASSOCIATED 'ROTATION' SURVEY

TIME	
Start	
Finish	
Total	

DETAILS	
Interviewer No:	
Date	
Database	<input type="checkbox"/> Yes <input type="checkbox"/> No

CODING NUMBER

Hello, my name is....., from Synovate, an independent research firm in West Perth. We are conducting a survey to understand how people feel about road safety in WA. If you choose to participate the information and opinions you provide will be used only for research purposes. The survey will take about 15 minutes. May I please speak with a resident of your household who is aged 17 years or over.

Firstly, do you or anyone you know well work or have recently worked:

- In market research]
- In advertising] **If yes, cancel interview [NU]**
- For the Police service or any organisation involved in road safety]

SCREENING QUESTIONS

QS1 Can I firstly confirm, which of the following age groups do you fit into? Are you in your teens, 20's 30's 40's...?

- SR**
-Under 17 years – **CLOSE**
- 17 to 19 years
- 20 to 24 years
- 25 to 29 years
- 30 to 34 years
- 35 to 39 years
- 40 to 44 years
- 45 to 49 years
- 50 to 54 years
- 55 to 59 years
- 60 to 64 years
- 65 to 69 years
- 70 to 75 years
-76 years and over

QS2 And what is the postcode of your home address?

WRITE IN

CHECK METRO/REGIONAL QUOTAS

QS3 Record gender:

- SR**
- Male
- Female

CHECK QUOTAS

QS4 Do you have a current WA driver's licence? **(CLARIFY TYPE OF LICENCE)**

- SR**
- Yes, a full licence
- Yes, a learners permit (L plate)

- Yes, a provisional licence (P plate)
- Yes, extraordinary licence
- No, no licence
- No, suspended licence
- Yes, a full licence but no longer drive

IF NO DRIVER'S LICENCE (code 5 or 6 at QS4) SKIP TO QA1

QS5 In a normal week, what type of vehicle do you drive or ride most often? (READ OUT)

SR

- Car/sedan/wagon
- Moped/motorbike
- 4WD vehicle
- Utility
- Light truck/commercial vehicle
- Heavy truck/prime mover
- Bicycle (on public roads)
- Other (specify _____)
- (Don't know)

BASELINE QUESTIONS

QA1 As someone who lives in WA, how would you rate each of the following on a scale of 1 to 5, where 1 means you think it is 'not a problem' for the community and 5 means you think it is 'a major problem' for the community.

	RANDOMISE ORDER OF STATEMENTS						
A	Number of deaths on WA roads	1	2	3	4	5	98
B	Number of people seriously injured on WA roads	1	2	3	4	5	98
C	Cost of living	1	2	3	4	5	98
D	Housing affordability/cost of housing	1	2	3	4	5	98
E	Public health system in WA	1	2	3	4	5	98
F	Public education system in WA	1	2	3	4	5	98
G	Home burglary rates	1	2	3	4	5	98
H	Illicit substance abuse, including drugs and alcohol	1	2	3	4	5	98
I	Environmental issues	1	2	3	4	5	98

QA2 I will now read out a number of issues relating specifically to road safety. How would you rate each of them on a scale of 1 to 5, where 1 means you think it is 'not a problem' for the community and 5 means you think it is 'a major problem' for the community.

	RANDOMISE ORDER OF STATEMENTS						
A	Road design and conditions in country areas throughout WA	1	2	3	4	5	98
B	Road design and conditions throughout the Perth metro area	1	2	3	4	5	98
C	Driver behaviour on our roads	1	2	3	4	5	98
D	Speed limits on open country roads throughout WA	1	2	3	4	5	98
E	Speed limits on roads in built up areas throughout WA	1	2	3	4	5	98
F	Speed limits near shopping strips	1	2	3	4	5	98
G	Safety of cars on our roads – ie, their ability to protect occupants in a crash	1	2	3	4	5	98
H	Policing and enforcement of road rules	1	2	3	4	5	98

QA3 To what extent do you **support or oppose** the following as a way of reducing the number of people killed and seriously injured on our roads? (**read out support/oppose and clarify strongly support/oppose or somewhat support/oppose**)

	Strongly oppose	Somewhat oppose	Neither	Somewhat support	Strongly support	(Don't know)
RANDOMISE STATEMENTS						
A. advertising and education encouraging safe driver behaviours	1	2	3	4	5	98
B. improving intersections in built up areas	1	2	3	4	5	98
C. Building of protective roadside barriers to minimise the impact of run-off-road crashes in country areas	1	2	3	4	5	98
D. Reducing all 60kph speed limits in built up areas to 50km/h	1	2	3	4	5	98
E. Reducing 60km/h speed limits in built up areas to 50km/h on those roads which are known to be most dangerous	1	2	3	4	5	98
F. Ongoing promotion of vehicle safety features and emerging technologies	1	2	3	4	5	98
G. Reducing speed limits near shopping strips to 40 or 30km/h, depending on the location	1	2	3	4	5	98
H. Reducing all 110km/h speed limits on country roads to 100km/h	1	2	3	4	5	98
I. Reducing country speed limits from 110km/h to 100km/h on those roads which are known to be most dangerous	1	2	3	4	5	98
J. Improved enforcement to ensure compliance with speed limits	1	2	3	4	5	98
K. Reducing the speed limit from 50kph to 40kph on local residential streets	1	2	3	4	5	98

QA4 To what extent do you expect the following to be **effective** in reducing the number of people killed and seriously injured on our roads? (**READ OUT SCALE**)

	Highly effective	Effective	Somewhat effective	Not at all effective	(Don't know)
RANDOMISE STATEMENTS					
A. advertising and education encouraging safe driver behaviours	1	2	3	4	98
B. improving intersections in built up areas	1	2	3	4	98
C. Building of protective roadside barriers to minimise the impact of run-off-road crashes in country areas	1	2	3	4	98
D. Reducing all 60kph speed limits in built up areas to 50km/h	1	2	3	4	98
E. Reducing 60km/h speed limits in built up areas to 50km/h on those roads which are known to be most dangerous	1	2	3	4	98
F. Ongoing promotion of vehicle safety features and emerging technologies	1	2	3	4	98

G. Reducing speed limits near shopping strips to 40 or 30km/h, depending on the location	1	2	3	4	98
H. Reducing all 110km/h speed limits on country roads to 100km/h	1	2	3	4	98
I. Reducing country speed limits from 110km/h to 100km/h on those roads which are known to be most dangerous	1	2	3	4	98
J. Improved enforcement to ensure compliance with speed limits	1	2	3	4	98
K. Reducing the speed limit from 50kph to 40kph on local residential streets	1	2	3	4	98

QA5 To what extent do you agree or disagree with the following statements? (**READ OUT STATEMENT AND CLARIFY AGREE/STRONGLY AGREE OR DISAGREE/STRONGLY DISAGREE**)

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	(Don't know)
READ OUT STATEMENTS IN ROTATION						
A. You're not really speeding until you are driving more than 10kph over the posted speed limit	1	2	3	4	5	8
B. A reduction in speed limits is one of the most effective ways to reduce the number of people killed and seriously injured on our roads	1	2	3	4	5	8
C. In general, it's ok to exceed the speed limit by a small amount, if you're driving safely	1	2	3	4	5	8
D. The severity of injuries from crashes would be significantly reduced if everyone drove 10kph slower than they usually do	1	2	3	4	5	8
E. In general, you can still drive safely with a blood alcohol level just over 0.05	1	2	3	4	5	8

QA6 ADDED 9/03/09

QA6 Thinking about the way you drive (or are driven around), where you most travel, and the vehicles you commonly travel in, how likely do you think it is that you could be killed or seriously injured in a car crash? (**READ OUT IN ROTATION**)

SR

- Very likely..... 1
- Quite likely 2
- Likely..... 3
- Not likely 4
- Not at all likely 5
- Don't know 6

RESTRAINTS

QB1A – QB18 ... OMITTED

DRINK DRIVING

QB19- QB22 ... OMITTED

SPEEDING

QB23 How likely is it that someone would be killed or seriously injured if they were involved in a crash....

- a) when driving up to 5kph over the posted speed limit in a 60kph built up area? Would you say it is (**READ OUT IN ROTATION**)

SR

Very likely.....	1
Quite likely	2
A little likely	3
A little unlikely	4
Quite unlikely.....	5
Very unlikely.....	6

b) when driving 10kph over the posted speed limit in a 60kph built up area? Would you say it is **(READ OUT IN ROTATION)**

SR

- Very likely..... 1
- Quite likely 2
- A little likely 3
- A little unlikely 4
- Quite unlikely..... 5
- Very unlikely..... 6

c) when driving 10kph over the speed limit on an open country road? Would you say it is **(READ OUT IN ROTATION)**

SR

- Very likely..... 1
- Quite likely 2
- A little likely 3
- A little unlikely 4
- Quite unlikely..... 5
- Very unlikely..... 6

d) when driving more than 10kph over the speed limit on an open country road? Would you say it is **(READ OUT IN ROTATION)**

SR

- Very likely..... 1
- Quite likely 2
- A little likely 3
- A little unlikely 4
- Quite unlikely..... 5
- Very unlikely..... 6

QB24 Now I would like you to consider the attitudes of three groups of people with respect to speeding – that is, driving in excess of the posted speed limit by any amount.

a. Turning first to the attitudes of the community, would you say that speeding is...	Acceptable to the community 1 People have no opinion.....2 Unacceptable.....3 Don't know.....8
b. Turning now to the attitudes of your circle of friends, would you say that speeding is...	Acceptable to my friends.....1 Friends have no opinion.....2 Unacceptable.....3 Don't know.....8
c. Turning now to your own attitudes, would you say that speeding is...	Acceptable to me.....1 I have no opinion.....2 Unacceptable.....3 Don't know.....8

QB25 On a typical day, how likely do you think it is that a driver will have their speed checked either by a hand held radar or multanova?

SR

- Very likely..... 1
- Quite likely 2
- A little likely 3
- A little unlikely 4
- Quite unlikely..... 5
- Very unlikely..... 6

QB27 To what extent do you think each of the following discourage people from driving over the posted speed limit?

	Strongly discourages	Somewhat discourages	Does not discourage very much	Does not discourage at all	Don't know
a. Monetary fines	1	2	3	4	8
b. Demerit points	1	2	3	4	8
c. Police presence on the roads	1	2	3	4	8
d. Speed cameras or multanovas	1	2	3	4	8

QB28 How easy would you say it is to always keep to the posted speed limit? Would you say it is...(READ OUT IN ROTATION)

SR

Very easy	1
Quite easy	2
Quite difficult	3
Very difficult	4
Don't know	8

FATIGUE

QB50- QB60a OMITTED

QD2 To what extent do you agree or disagree with the following statements? (READ OUT STATEMENT AND CLARIFY AGREE/STRONGLY AGREE OR DISAGREE/STRONGLY DISAGREE)

RANDOMISE STATEMENTS	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Don't know
a) I can make a difference to road safety by being a responsible road user	1	2	3	4	5	8
b) I have confidence in the authorities responsible for managing road safety in WA	1	2	3	4	5	8
c) It's more important to keep up with the speed limit than drive to the conditions	1	2	3	4	5	8
d) On those sections of road which can be used by all road users – ie, motorists, cyclists, motorcyclists or pedestrians – motorists ultimately have more rights than other road users	1	2	3	4	5	8
e) Road safety is a shared responsibility across the community, government and private sector organisations	1	2	3	4	5	8
f) Most new cars on the road are pretty much up to the same standard in terms of safety	1	2	3	4	5	8
g) You have to pay a lot more these days to buy a safe vehicle	1	2	3	4	5	8

QD4 Which of the following do you consider to be the most common type of road crash on WA roads? (READ OUT IN ROTATION)

SR

- Crashes which occur at intersections in built up areas
- Head on crashes between more than one vehicle
- Crashes involving just one vehicle running off the road
- Don't know

IF RESPONDENT HAS NO DRIVERS LICENCE (code 5 or 6 at QS4) OR IS A LEARNER DRIVER (CODE 2 AT QS4) SKIP TO QG10

- QG1 Which of these statements best describes you?
- I always keep to the posted speed limit – **go to QG17** 1
 - I usually keep to the posted speed limit but I do occasionally go over the posted speed limit 2
 - I often go over the posted speed limit, even if only by a small amount. 3

QG2 When you drive over the posted speed limit, by how much would you do so on average? (CLARIFY)

SR

- 1-5kph 1
- 6-10kph 2
- 11-15 kph 3
- 16-20kph 4
- More than 20kph 5

QG17 In the last six months, has your speed been checked either by a multanova camera or by police using a hand-held radar?

SR

- Yes 1
- No 2

QG17b Have you received a speeding ticket in the past 6 months?

SR

- Yes 1
- No 2

QG3 Do you drink alcohol?

SR

- Yes 1
- No 2

READ OUT: The following information will help you answer the next few questions: One 'standard drink' is equivalent to 1 middy of full strength beer, 1 can of mid strength beer, 1 small glass of wine, or 1 shot of spirits. A can of full strength beer, alcoholic soda, or cider contains one and a half 'standard drinks'.

DON'T ASK IF RESPONDENT DOESN'T DRINK ALCOHOL (NO AT QG3)

QG8 In the last 3 months, how many times have you driven when you believed yourself to be over the legal blood alcohol limit or very near to it? (wording changed from 12 months to 3 months in April 2010) (ASK RESPONDENT FOR BEST ESTIMATE) [_ _]

QG18 Have you been breath-tested at an RBT in the past 3 months (wording changed from 12 months to 3 months in April 2010) ?

SR

- Yes 1
- No 2

QG11 When you are driving and recognise that you are beginning to feel tired, how likely are you to stop for a brief nap, a cup of coffee or to change drivers:

SR

- Always..... 1
- Almost always..... 2
- Sometimes 3
- Almost never..... 4
- Never..... 5
- I never drive tired (**DO NOT READ**

OUT)..... 6

QG14 Which of the following best describes your current working status?

SR

- Work full time (35 + hours per week)..... 1
- Work part time (less than 35 hours/
week) 2
- Full time home duties/housewife..... 3
- Retired/semi retired 4
- Full time student/part time student 5
- Unemployed..... 6

CONTACT DETAILS ARE NEEDED FOR VALIDATION:

As part of quality control procedures, someone from our project team may need to recontact you to ask a couple of questions, verifying some of the information we just collected. Once the validation period has finished, your name and contact details will be removed from your responses to this survey.

RESPONDENT'S DETAILS

Respondent's Name: _____

Telephone Number: _____

Interviewer's Signature: _____

Date: _____

AT END OF QUESTIONNAIRE:

THANKS VERY MUCH FOR YOUR TIME. WE REALLY APPRECIATE IT. IN CASE YOU MISSED IT, MY NAME IS < > FROM SYNOVATE.

This interview was completed under ICC/ESOMAR Standards]

ATTACHMENT 3: MUARC WEB-BASED SURVEY – COMPARING ATTITUDES TO REDUCED SPEEDS USING DIFFERENT SURVEY ITEMS

Tables A3.1, A3.2, A3.3 and A3.4 compare all responses to reduced speeds for different road types, using two different sets of survey items (as specified in each table).

Table A3.1: Q3C Do you consider a speed limit of 40km/h appropriate for (local urban streets) and * Q3D and do you consider a speed limit of 50km/h appropriate for (local urban streets)							
		Q3D And do you consider a speed limit of 50km/h appropriate for this type of road (no. of respondents)					Total
		Far too low	A bit too low	About right	A bit too high	Far too high	
Q3C Do you consider a speed limit of 40km/h appropriate for this type of road	Far too low	14	95	65	0	0	174
	A bit too low	1	64	578	1	0	644
	About right	0	6	183	111	4	304
	A bit too high	0	0	4	0	6	10
	Far too high	0	0	1	0	2	3
Total		15	165	831	112	12	1135

Table A3.2: Q3C Do you consider a speed limit of 50km/h appropriate for (main undivided urban streets) and * Q4D and do you consider a speed limit of 60km/h appropriate for (main undivided urban streets)							
		Q4D And do you consider a speed limit of 60km/h appropriate for this type of road (no. of respondents)					Total
		Far too low	A bit too low	About right	A bit too high	Far too high	
Q4C Do you consider a speed limit of 50km/h appropriate for this type of road	Far too low	39	143	57	0	0	239
	A bit too low	1	83	469	1	0	554
	About right	1	11	211	104	2	329
	A bit too high	1	0	3	6	2	12
	Far too high	0	0	0	0	1	1
Total		42	237	740	111	5	1135

Table A3.3: Q5C Do you consider a speed limit of 90km/h appropriate for (two-lane undivided rural roads) and * Q5D and do you consider a speed limit of 100km/h appropriate for (two-lane undivided rural roads)							
		Q5D And do you consider a speed limit of 100km/h appropriate for this type of road (no. of respondents)					Total
		Far too low	A bit too low	About right	A bit too high	Far too high	
Q5C Do you consider a speed limit of 90km/h appropriate for this type of road	Far too low	18	61	11	1	0	91
	A bit too low	4	61	188	2	0	255
	About right	0	6	273	254	14	547
	A bit too high	0	0	5	94	118	217
	Far too high	0	0	0	0	25	25
Total		22	128	477	351	157	1135

Table A3.4: Q6C Do you consider a speed limit of 80km/h appropriate for (gravel rural roads) and * Q6D and do you consider a speed limit of 100km/h appropriate for (gravel rural roads)							
		Q6D And do you consider a speed limit of 100km/h appropriate for this type of road (no. of respondents)					Total
		Far too low	A bit too low	About right	A bit too high	Far too high	
Q6C Do you consider a speed limit of 80km/h appropriate for this type of road	Far too low	2	10	22	1	1	36
	A bit too low	1	4	77	34	3	119
	About right	2	2	80	313	115	512
	A bit too high	1	0	4	48	305	358
	Far too high	0	0	1	0	109	110
Total		6	16	184	396	533	1135