

# **Fatigue and Rest Taking- A Snapshot of Victorian Motorist's Perceptions**

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## **Biography**

Natasha Anderson is the Road User Research Officer with the RACV Public Policy Department. Her role is to provide professional advice to RACV senior management and members, develop and advocate policies and represent RACV on issues related to road safety behaviour. Some of the more recent areas that Natasha has focused on are fleet safety, rural road safety, alcohol, road toll analysis, and young driver behaviour.

Prior to joining RACV, Natasha completed a Bachelor of Arts degree (majoring in psychology and statistics) at Monash University and a Graduate Diploma in Psychology at Deakin University.

## **Abstract**

The Royal Automobile Club of Victoria (RACV) represents approximately 1.3 million members and is responsible for advocating on behalf of members on a range of motoring and road safety issues. As part of this role, RACV periodically conducts market research surveys exploring public attitudes and self reported behaviours related to a range of road safety related issues. This paper presents the results of a recent survey aimed at exploring public perceptions of fatigue and rest taking amongst Victorian motorists.

Fatigue is a major contributing factor in road trauma. Rest areas are provided along our major highways to encourage motorists to stop and take regular breaks or povernaps on long trips. RACV commissioned an independent market research specialist to explore motorist's opinions of rest areas and rest taking. Through a series of focus groups and telephone questionnaires, the survey participants were asked to identify the extent to which they utilise these rest areas, which facilities they find most useful and those which they find lacking. The broader aims of the research were to determine the extent to which Victorians incorporate rest areas into their trip planning and what actions they take to avoid or manage driver fatigue.

The vast majority of respondents say that they take regular breaks when travelling on long distance trips. Approximately half of the sample claim to travel on trips where they plan their rest breaks beforehand and a small proportion claim to select their routes based on the rest areas available. They may stop for a combination of reasons including a rest break, povernap, food/drink and petrol, but they believe they are serviced well by the range of rest areas available on Victoria's highway network. The survey also showed that driver age, trip purpose and the presence of passengers were all important factors in determining rest-taking behaviours.

## **1. INTRODUCTION**

Driver fatigue is a major contributing factor in road trauma in Victoria. In recognition of this, VicRoads maintains a network of rest areas across the Victorian highway system in order to encourage motorists to stop and take regular breaks or powernaps on long trips. Drivers have the opportunity to use these facilities or to take breaks at commercial facilities or in towns along the way.

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## **2. TERMINOLOGY**

There are four basic forms of rest area in Victoria, defined predominantly by the range of facilities available at each one. They are:

- **Wayside stops:** Wayside stops are the most basic form of rest area. They provide safe entry and exits and a suitable all-weather parking surface.
- **Designated Rest Areas:** Rest areas provide car and truck parking and an opportunity for motorists to 'stretch their legs' or take a nap in safety. The facilities provided vary and may include such things as toilets, picnic/ barbeque facilities, drinking water and rubbish bins.
- **Service Centres:** Service centres provide all the features of a rest area as well as a combination of other facilities such as take away food, full meal service and 24 hour fuel.
- **Truck Bays:** Truck parking bays are designed specifically to accommodate trucks and provide an all-weather, generally level parking surface. They are typically located in quieter areas and are usually free of cars.

For the purpose of this research, the term 'rest area' encompasses the entire range of stopping facilities available including rest areas, wayside stops, truck parking bays, service centres as well as stopping places in towns.

## **3. OBJECTIVES**

The current project seeks to explore motorists' views on rest areas through a market research approach. The key objectives of the project are:

- To identify the extent to which motorists utilise rest areas, the facilities they find most useful and those which they find lacking.
- To determine whether patronage of these facilities is influenced by demographic factors, life stage and by residence (metropolitan or rural).
- To determine whether the requirements of motorists and patronage vary with trip purpose, trip length and the time of day.
- To gauge driver perceptions about the quality and placement of rest areas in Victoria, with a breakdown by rest area type i.e. service centres, rest areas, wayside stops and truck stops.
- To determine the role, if any, that rest areas play in trip planning and route selection.

#### 4. METHODOLOGY

A two-staged approach was adopted, involving an initial qualitative stage in the form of focus group discussions, followed by a quantitative phase involving telephone questionnaires. Participants for all surveys were randomly selected so that the Victorian driver population would be properly represented and the survey could also form an effective benchmark.

Five focus groups were conducted, with participants grouped according to their age and place of residence (ie Melbourne or Regional Victoria). All motorists were reasonably regular travellers on rural trips extending over three hours on highways outside Melbourne.

Telephone interviews were conducted with 532 randomly selected Victorian drivers, of whom 366 were from the metropolitan area and 166 from rural Victoria. This paper presents some of the key findings of the quantitative research.

The findings documented in this report summarise an RACV Report entitled 'Public perception of rest areas', available from the RACV Public Policy Department.

#### 5. RESULTS OF THE QUANTITATIVE SURVEYS

##### Factors contributing to road crashes

Participants were asked, unprompted, to nominate the factors that they believe to contribute most to accidents and deaths on Victoria's roads. Speed (68%) and alcohol (46%) were the top two factors nominated as contributing to crashes. Fatigue / tiredness was mentioned by 18% of the sample, placing it fifth in the overall list of nominated factors, behind inattention/ lack of concentration (25%) and inexperience (23%). The factors nominated did not vary greatly between metropolitan and rural-based Victorians (Table 1).

**Table 1: Factors believed to contribute most to crashes on Victoria's roads**

	Total Sample (532) %	Location	
		Metro (366) %	Non-Metro (166) %
Speed	68	69	67
Alcohol	46	48	43
Inattention/ lack of concentration	25	26	24
Inexperience	23	24	19
Fatigue / tiredness	18	19	16
Arrogance / bad attitude	16	18	9
Drugs	14	15	12
Road conditions	7	5	12
Ignorance / stupidity	3	3	4

##### Frequency of Driving on Long Distance Trips

Participants were asked how often they travelled on long distance trips. For the purpose of the research, any trip involving two or more hours of driving was defined as a long distance trip.

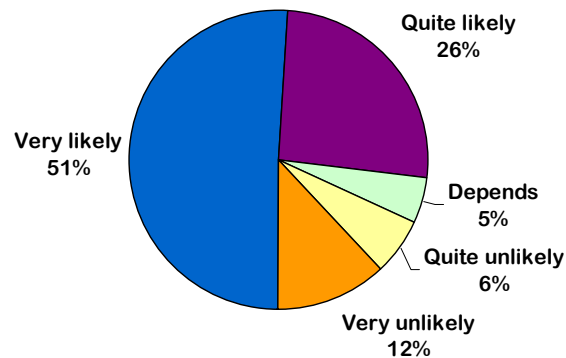
In total, 22% of respondents were classified as 'heavy' trip takers (fortnightly or more), 36% were 'medium' (every 3-4 weeks to every 3-4 months), 32% less often than this and 10% claimed to

never take long distance trips. Males accounted for a little under two-thirds (63%), of those that were classified as 'heavy' trip takers.

Ninety percent of the sample claimed that they drive on long distance trips during daylight hours and 58% do so at night.

### Likelihood of Stopping at a Rest Area

A total of 76% of participants claimed they were likely to stop at a rest area during a long distance trip with 50% claiming it was very likely that they would stop (Figure 1). In total, 19% of participants claimed they were unlikely to stop at a rest area or that it would depend on certain factors such as the urgency of their arrival and how rested they were when they started driving.



**Figure 1: Likelihood of stopping at a rest area during a long distance trip**

While the majority of participants claimed they would tend to make a stop at a rest area, it is interesting to note the following:

- The less frequently people drive on long distance trips, the more likely they are to stop at a rest area.
- Metropolitan residents are more likely to stop (81%) than rural residents (65%).
- The older the driver, the more likely they are to stop at a rest area.

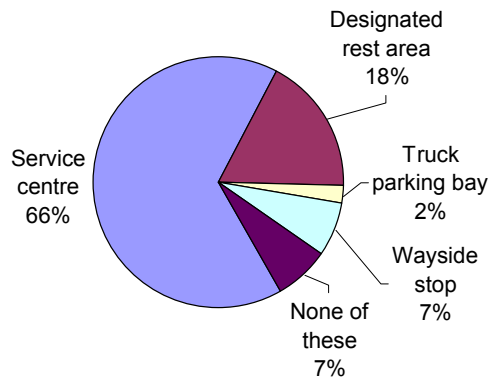
### Length of Time Driven Before Stopping at a Rest Area

When asked how long they would drive before pulling over for a rest, 22% answered that "it varies" but most respondents (63%) claim to generally drive two to three hours before a rest with two hours mentioned twice as much as one hour (42% compared to 21%).

### Powernaps and Planning for Rest Breaks

Within the sample, 29% of participants claimed to take "powernaps" while on a long distance trip in Victoria. A larger proportion of these participants nominated fatigue as a contributing factor (31%) compared to those who claimed they never take powernaps (14%).

## Patronage of Specific Rest Areas / Facilities



**Figure 2: Type of rest areas used most often**

Figure 2 shows that service centres are easily the most popular rest areas used, however a considerable proportion of people are attracted to designated rest areas. When asked which type of rest area they use most often, 18% cited designated rest areas, 7% said wayside stops and 2% said truck-parking bays.

Each of the rest area types are reasonably popular during the daytime, but only service centres hold a high level of appeal at night time. Forty percent of respondents stated that they would never use any form of rest area at night time, whether it be a wayside stop or a service centre.

### Main Reasons for Stopping

Participants cited the following as the main reasons why they might stop at a rest area:

- For food and drink (36%)
- To counter tiredness (35%) / refresh (31%)
- For a toilet break (16%)

In exploring motorists' perceptions of rest areas and rest taking, a number of interesting attitudes were revealed:

	Total Agree %
You're more likely to stop if you're on a holiday drive	81
You stop more often if you've got passengers in the car	78
I believe in taking rests on long trips but I like to keep them pretty short	68
More people stop at rest areas when they give out free food and drinks	60
I'm concerned about how secure some of the rest areas are	51
On long driving trips I want to get where I'm going as quickly as possible	48
When I do stop it's really only for petrol or a toilet break rather than a rest	41
There is not enough advertising warning drivers about fatigue	31
Often you don't see the rest area until you're past it	31
I only stop driving when I've nearly fallen asleep at the wheel	9
Breaking a drive to have a rest is just wasting time	7

## **Main Reasons for Not Using Specific Rest Areas / Facilities**

In trying to understand rest taking behaviour, it is not only important to understand why motorists stop at rest areas, but also why they don't stop.

The majority of long distance trip drivers hold favourable views about all types of rest areas. While the number of unfavourable views was not pronounced, they were held more so by regular takers of long distance trips than irregular takers and were generally influenced by the following factors:

- Lack of cleanliness / maintenance especially for wayside stops and rest areas.
- Security concerns (not for service centres).
- Lack of toilets (more for wayside stops).
- 'Not enough of them' (more for designated rest areas and service centres).
- Price and food quality (for service centres).

## **Trip Purpose and rest taking**

In exploring why some people tend to take breaks more often than others, some interesting patterns emerged. When travelling on business related trips, there is a greater sense of urgency and rest breaks, if taken at all, tend to be shorter and more for 'essential' services. These drivers will utilise service centres for petrol and a quick bite to eat, but will often not take a prescribed rest break. To some, the focus on reaching their destination can lead to potentially dangerous behaviour, with the research revealing a small proportion of respondents who think that breaking a drive to have a rest is just wasting time (7%), or claim they only stop driving when they have nearly fallen asleep at the wheel (9%). Further investigation is required into the behaviours and risks taken by business travellers.

People travelling on holiday tend to be less rushed with 81% claiming they are more likely to stop on a holiday drive as compared to work related travel. It is worth noting that there are likely to be more people in the car on a holiday trip including children and pets. All age groups claim they are more inclined to stop (even if not specifically for a rest) when they have passengers in the vehicle.

## **Younger drivers**

Drivers between 18 and 25 are the most over-represented age group in crashes. They make up about 15% of the driving population, but account for over one-quarter of driver fatalities and serious injuries.

Younger drivers are over represented in fatigue related crashes when compared to their older driver counterparts. Only 36% of drivers aged 18-25 claimed they were likely to take a rest break on a long distance trip compared to 70% of drivers aged 55+. Younger drivers tend to feel that the holiday starts once they have arrived at their destination and want to get there as quickly as possible. Older drivers tend to consider the time in transit as part of the holiday and are more likely to stop along the way. While service centres appeal to these travellers for petrol, they will seek out the more pleasant surroundings of designated rest areas and wayside stops for a break, especially as many within this age group are in the habit of travelling by caravan or taking food and refreshments with them. It should be remembered that the older / retired motorist segment are leisure travellers and most likely have less urgency to their schedule.

In terms of their attitudes to fatigue, younger drivers tend to consider themselves in better physical condition and able to drive longer distances without being affected by fatigue. Combined with a desire to reach their destination as quickly as possible, drivers in this group tend to push themselves more. These findings are of particular concern given the over

representation of young drivers in crashes and the increased tendency for young drivers to be involved in fatigue related crashes. Older drivers claim to be more aware of their physical constraints, including becoming tired more easily and being able to concentrate for shorter periods. Older drivers also claim to be more responsible than their younger counterparts in terms of identifying the onset of fatigue and acting upon it.

Public education campaigns should challenge biases that may exist in drivers' perceptions about personal vulnerability to fatigue-related road crashes and emphasise that drivers may not be aware that their driving is impaired by fatigue while they are driving.

The differences observed in the attitudes and rest taking behaviour of younger drivers compared to their older counterparts' warrants further investigation.

## **6. CONCLUSIONS**

Public perceptions about the adequacy of available rest area facilities play an important role in determining the likelihood that drivers will utilise roadside stopping places. RACV believes that the reduction and ultimate prevention of fatigue-related road crashes should include a broad range of initiatives which encompass the road environment and behavioural issues, as well as innovations in vehicle design and technology that reduce the likelihood of road crash-involvement. Initiatives aimed at achieving greater awareness and responsibility on the part of individuals, companies and governments in dealing with fatigue are also important in reducing fatigue-related road crashes.

RACV believes that the priorities in terms of rest areas, at a Federal, State and Local government level, include:

- Developing a coordinated strategy for placement of rest area facilities.
- Increasing education about the causes of fatigue.
- Providing adequate roadside stopping places, in terms of both travel distance and time, on all major highways and tourist routes.
- Placing rest areas in such a way that motorists in rural areas have the option of selecting appropriate stops at least every 60 minutes.
- Supplementing these rest areas with wayside stops to offer motorists even more flexibility and opportunities to make a stop.
- Increasing the number of road signs showing details of travel times and distances to the next rest area.
- Introducing more initiatives to promote powernaps.
- Increasing the installation of 'powernap area' signs at suitable rest areas.
- Conducting an audit of existing rest area facilities to assess their adequacy with regard to public perceptions about essential components of rest area facilities (including such aspects as cleanliness, security, safety, adequacy of advance warning signage, etc).
- Ensuring rest areas are regularly maintained and serviced.

Driven by these priorities and supported by the findings of the current study, RACV will continue to monitor the state of rest areas along major Victorian routes, to advocate that these facilities are well maintained and safe in design.