CAN HADDON'S MATRIX BE EXTENDED TO BETTER ACCOUNT FOR WORK-RELATED ROAD USE?

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I note that there are some STAYSAFE Committee members in the audience this afternoon, including Mr John Bartlett MP, Member for the Port Stephens electorate, and our Vice-Chairman, the Hon. Ian West MLC, whom I can see at a quick glance, and also the Hon. John Jobling MLC, and Mr Andrew Stoner MP, Member for Oxley. I would invite participants to talk to those STAYSAFE Committee members during the break, because the Committee Members are quite interested in this issue.

Why is the STAYSAFE Committee interested in worker safety when using the roads? It is within our terms of reference, as resolved by the Legislative Assembly and Legislative Council, to focus on driver licensing matters. Work-related road safety issues relate to the kinds of things that you can do to manage drivers more effectively, once they have passed through the novice driver phase where graduated driver licencing interventions such as learner licences, knowledge and ractical testing of driving and road skills, and interventions within a provisional or probationary licensing phase. Many participants here this afternoon were meeting about that this morning, as members of the National Fleet Safety Forum sponsored by the Australian Transport Safety Bureau. Today's seminar follows a major seminar that we held back in 1996 which was released as the STAYSAFE 36 report. This report was one of the first major reports in this area that tried to integrate the kinds of issues that we are addressing. Subsequent to that, in 1997 and 1998, the Committee has heard the testimony of quite a number of the attendees here today about the kinds of practices that they were operating within their companies—about how they were going about trying to improve their work-related road safety record. So that, by way of introduction, sets the context of what I am going to speak about.

The matter that I want to talk about is a theoretical question. It is not the practical material that Dr Murray was just talking about; it also is not the kind of experimental material that Dr Gregersen was talking about. I will try to address what seems to be an undercurrent when you start to consider work-related road safety from the point of view of the traditional road safety community. The attitude appears to be, "Oh, but that's a bit tangential. It's not really what our core business should be about." I will present a model based on very familiar concepts that may allow a better integration of the kinds of issues that we are discussing here today within that traditional road safety format. This model has been developed within the STAYSAFE Committee, in collaboration with Dr Julia Irwin, from the Department of

Psychology at Macquarie University. She has general research interests in the processes of learning and decision-making, and a particular interest in safety matters.

SLIDE:

The Haddon Matrix

This would be, I think, a slide that is fairly familiar to the participants here today. It is the original form of the Haddon matrix—a fairly classic way of looking at injury prevention activities in general—which was derived from looking at motor vehicle crash injury prevention specifically. It features two dimensions that are unrelated to each other, thatis, there are orthogonal to each other. There is the temporal dimension of activities, or actions, that can be taken in the circumstances or the period leading up to the pre-crash situation. That does not mean the circumstances immediately preceding where a crash occurs; it also refers to quite a long period of time beforehand. It also includes the actual crash sequence itself, and what kinds of things can be effective in operating within a crash to prevent injury to a human being. And then it looks at what happens once the wheel stops turning and the dust starts to settle. So it is that post-crash issue of rescue, salvage, treatment, rehabilitation and so on. That is the temporal dimension.

The other dimension is a sort of epidemiological dimension, where we are talking about what happens when a motor vehicle is involved in delivering abnormal discharges of energy—usually mechanical energy—to a human being, causing injury, within the context of some kind of road environment. That is the typical sort of model used by the road safety community to provide a conceptual context in which to ask: "What happens when a motor vehicle is involved in the injury-occurring process as a result of road use?"

I indicated that the Haddon matrix, and this way of thinking it depicts, is derived from motor vehicles and road safety concerns, but it has been used very successfully, essentially, in any

injury prevention context. That does not necessarily mean unintentional injury—the road accident, or the home fall, on farms, across occupational health and safety areas, or whatever. It can also apply in areas of intentional injury such as assault, use of firearms, suicides, and so on.

One of the features of this kind of approach is that, not only was it a theoretical or conceptual way of thinking about road safety; it also influential in the way of road safety related organisations are structured. Taking the New South Wales public sector as a typical example, organisations like the old Traffic Accident Research Unit (TARU), the Traffic Authority of New South Wales (TANSW), or the various structures that have existed in the Roads and Traffic Authority, such as the Road Safety Bureau (RSB), the Road Safety and Traffic Management Directorate (RSTM), or the current Road Safety and Road User Management Directorate (RSRUM), have all been organised to varying degrees as applications of the concepts embodied within the Haddon matrix. Road safety, traditionally, looks at the pre-crash and within-crash factors, and does not look at post-crash factors because they belong to health and rehabilitation services, ambulance and police and legal entities and so on.

The Haddon matrix essentially has been unchanged over its 40-year history. One of the issues that I wanted to raise was to say that, because the conceptual thinking has been reflected in organisational structures, this may have limited consideration of some of the material that I raise today.

The expanded Haddon matrix

The major change to the Haddon matrix, is exemplified by an analysis presented by Allan Williams at a National Injury Prevention Conference in Brisbane a couple of years ago, recognises that what previously had been a single road environment epidemiological component is better divided into two parts: a physical road environment (in which the crash occurs); and a social-cultural-legal environment—the legislation, the standards, attitudes, beliefs, groups norms, all of the kinds of issues that Will Murray and Nils Gregersen have just spoken about. That is probably the most significant change and widespread change that has occurred. It could be described as a "modified or expanded Haddon matrix", but there has been such acceptance of the separation of physical and social environmental categories that it is probably easier to consider the two forms as being essentially the same.

Regardless of the whether the original form of the Haddon matrix, or the expanded Haddon matrix, is used, there remains a degree of debate about whether it is 'appropriate' (or 'correct') to choose countermeasures that eliminate the chance of an injurious event occuring at all, or to choose countermeasures that allow the event to occur but minimise or avoid any injury to a person involved. This form of debate appears when decisions are being considered for modification of the vehicle or road environment as opposed to attempting to modify human behaviour, or in arguments about human injury versus property damage. It seems that this form of debate underpins much of the current controversy about the Vision Zero principle.

The Haddon-Runyan matrix

More recently, Carol Runyan, from the University of North Carolina, has proposed a three-dimensional extension of the Haddon matrix. Her aim was to facilitate the use of the matrix for making decisions about which countermeasures to apply to address a specific injury problem. In essence, Runyan argues that if you consider the injury producing event as a sequence of actions within a continuum – which may have its origins days, months or years before, then decisions about interventions can be seen to be anchored within each researcher or policy maker's experience and knowledge, but you can invite comment and contribution from a wider set of knoweldge, skills and experiences. She writes:

> If participants are from different disciplines, they will bring different perspectives to the problem and to solutions, enriching the overall pool of ideas. By applying the principles of brainstorming in which all ideas are recorded without critical comment before discussion, the process can yield a wide variety of options [for invention] ...
>
> Once alternative intervention strategies are identified, program planners and decision makers need to choose among the strategies. By applying principles of policy analysis, this process can become systematized, permitting concrete articulation of those values that guide the decision process.
>
> Policy analysis typically involves a series of steps including: problem identification, identification of alternative policy options, and identification of values to be assessed relative to each option. Then the analyst uses a process by which each option is assessed according to the extent to which it adheres to the values identified as important. Following this, the analyst chooses among the options. Once they are implemented, others can evaluate their success and the information can be incorporated into future analyses of alternatives. The policies or other interventions considered can be new or may reflect policies or programs already in place."

Runyan proposes that a further dimension could be added to the Haddon matrix incorporating standard criteria for evaluating policies (with additional ones added for specific problem areas). The criteria she suggests include: effectiveness, cost, freedom, equity, stigmatization, preferences of the affected community or individuals, and feasibility. To date, there has been little reaction to what I term the Haddon-Runyan matrix.

While I endorse Runyan's approach, it would seem to me that much of what she is proposing is already reflected in good research and decision-making practice, for example, as outlined through such analysis tools as Kipling's "serving men" (who, what , where, when, how and why?), search conferencing (what it it be like if everything is 'blue skies', 'doom and gloom', or 'business as normal'?), and STEP analysis (examination of the social, technological, economic and political aspects of an issue).

The Haddon-Faulks matrix

What struck me, when I was doing this work with the STAYSAFE Committee in relation to work-related driving, was that this model in itself does not really start to address motivational issues—the kinds of issues that Nils Gregersen referred to in that fairly long listing of factors that may motivate or influence drivers, with safety being but one of a dozen or so. I started thinking about the concept of travel purpose – the reason why a person chooses to use the road transport system. What I am proposing today is that if you can incorporate a mechanism

for trip purpose (or the general purpose for travel, the primary reason why you are seeking to use the road) within the Haddon matrix, you may get some better marriage of a variety of disciplines—travel planning, traffic management, transport logistics, and road trauma prevention. A whole variety of disciplines might better integrate back into occupational health and safety concerns and road safety concerns.

The inclusion of a trip purpose component, I would suggest, should not be surprising, although it is surprising, I think, to road safety workers, because we tend not to use it very much. It is a common concept that is used in travel planning and traffic engineering. I will quote from a New Zealand review of the setting of targets about road safety. This was in a strategic planning document. Tony Bliss and some of his colleagues. Tony said:

> Some types of trips are more risky than others. For instance, night-time recreational trips are more risky than peak hour commuting. A change in the travel mix may therefore change road safety outcomes without any change in the volume of traffic.

They then went on to note that—unfortunately, to a certain extent—in the current ways that you collect data—going back to those structural issues I referred to before—you cannot really assess travel purpose very accurately. That is going to be a problem with the model that I present to you, but I will present it nonetheless.

As I indicated, what I would like to do is to take the 3 x 4 cells in the two dimensional Haddon matrix ('temporality', and 'epidemiological categories') and include another dimension which is 'functionality'—a dimension of the purpose of trip and the reason for going on the road. I would like to just quickly present that now.

SLIDE:

What I have done here is suggest that what we can do is break up the reason for going out on the road—the primary reason why someone is doing something—which can be encapsulated within three broad categories.

Work-related road use

First, let's look at work-related road use. This is a category that recognises that the reason why you are on the road is because you are engaged in some business or work-related activity. You are commuting to work or you are commuting back home from work or to some other place and you are actually engaged in work when you are using the road. Note that this goes beyond the title which was suggested for the seminar which relates to work related driving. This is work-related road use, and it includes such obvious users as truck drivers, courier and parcel delivery drivers, armoured car crews, police officers, parking patrol officers and council rangers, tradesmen travelling to and from work sites, retail and wholesale transport staff, business executives travelling to meetings – the list is extensive and we would probably need the agency involved in occupational health and safety regulation and promotion (WorkCover) to provide a definitive listing.

We modify our roads to deal with work-related road use. We have special roadways for commuters (bus-only lanes for commuters, transit lanes for drivers and two or three passengers), and special roadway rules for commuting and common working hours (clearways, parking restrictions for certain times of the day, S-lanes, etc.).

Some vehicles are exclusively used for work – trucks, many light trucks and vans – and most vehicles are used for work-related purposes at least some of the time.

A very important element that would fall out of this kind of conceptualisation is recognition of the fact that a lot of pedestrian movements are work-related or business-related activities. Typically that is not recognised within a fleet management, workplace driving type of context. It has been recognised, I must add, within the United Kingdom's Interagency Work-related Road Safety Task Force which Will Murray referred to, at least in their preliminary material inviting comment.

Work-related road use also includes – and at least the STAYSAFE Committee did recognise this in 1996 – bicycle couriers who work within the Sydney central business district. The Committee examined issues associated with bicycle couriers it is STAYSAFE 30 report and explicitly recognised three types of bicycle use in the Sydney central business district: cycling for work-related purposes; cycling for commuting purposes; and cycling for recreation or leisure. I note that the report and the testimony obtained for the report are being used extensively in a civil case before, I think the New South Wales Court of Appeal that addresses the issue of employer and employee relationships. The case involves Crisis Couriers – I recall the company name actually is Vabu Pty Ltd – and a man called Hollis who was badly injured in a pedestrian-bicycle courier collision on a footpath in Ultimo or Pyrmont.

Tourism and recreational road use

Next, let's look at tourism and recreational road use. We just went through a very, very exciting year in New South Wales and Sydney in particular. It was the year 2000 when we had the Sydney Olympics. One of the issues that was raised was generated by Professor Jeff Wilkes (who worked at the Centre for Road Accident Research and Road Safety at the Queensland University of Technology previously) who is interested in travel medicine-related issues – he wondered what would be the effect on road safety in New South Wales and the rest of Australia as a result of the influx of interstate and international visitors into Sydney for the Olympics—visitors who might be very unfamiliar with the roads and the fact that we have left-hand side road rules as opposed to the more general right-hand side road rules that operate worldwide and so on.

The STAYSAFE Committee held a public hearing into tourism, road safety and the impact of the Sydney Olympics in 2000. In late 1999 the Committee held a roundtable conference whereby we asked the Roads and Traffic Authority, Tourism New South Wales, the Centre for Accident Research and Road Safety – Queensland, and a variety of other organisations to talk to us. The result of that was some rather engaging activity undertaken by theRoads and Traffic Authority and local councils in Sydney to address this notion of tourists moving into Sydney and around the area in unfamiliar circumstances. So the second category I am proposing is one that can loosely be called a 'tourism, holiday or recreational' purpose of road use. A way of putting that into earthier terms is to describe it as going out onto the road with the intention of having fun. You are not doing any work-related activity; you are going out onto the road intending to travel somewhere to have some fun and that could just be the pure fun of actually going out on the road and driving, for example. It includes tourism activities and holiday activities and so on, and covers tourists from overseas, interstate visitors and holiday makers, and day trippers.

Again, some vehicles are used almost exclusive for tourism, holiday or recreational purposes. For example, many towing combinations would fall under this category (towing a caravan, a boat trailer, or a horse float). As well, there are a large number of road users who ride motorcycles or bicycles for recreational purposes, and whole classes of older vehicles are almost exclusively used this way, such as veteran and vintage motor vehicles.

Many roads serve a predominant tourism or recxreational function, even to the point of carrying names such as Tourist Road (in Bellawongerah, near Berry on the South Coast). These roads are often in localities popular with holiday makers or day trippers, and are noted more for their picturesque locales than their road safety performance. Within the immediate Sydney area, roads such as the Old Pacific Highway around the Hawkesbury, the road through the Royal National Park, the roads in the north west leading through Wisemans Ferry and into the Hunter Valley all are known as roads used for tourist-related travel.

Home and life maintenance-related road use

The last category I would like to mention is a category which is completely mundane and that is probably the commonplace way of talking about it. It is the home and life maintenance-related activities, such as the shopping, the school run and the family rounds to go to the doctor or the hairdresser and all those sorts of things.

Some features of this category of road use are that it is predominantly local travel, often limited to the home suburb or streets with occasional medium distance travel, and that it often

involves vehicles that are used as a 'second' or minor vehicle, and thus may be older, or may be of a type that allows carriage of goods as well as passengers (e.g., station wagons, passenegr vans, 4WD vehicles).

What I am proposing in this context is that if you start to think about the Haddon Matrix to include these sorts of concepts within it, you start to get a better marriage between what are seen to be tangential or disparate aspects of road safety or non-core aspects of road safety which relate to the very matter we are discussing today, namely, fleet safety. But it also includes the tourism and holiday matters.

I will not go into a detailed exploration of some of the issues but, hopefully, I may have atracted your attention and started you thinking about ways to provide a better integration of the concepts we are talking about today. Is this a unique way of looking at the issues? Well, yes, it is, in terms of integrating trip purpose into the Haddon matrix to from a three-dimensional model that can be called the Haddon-Faulks matrix to distiguish it from Runyan's three-dimensional model of the Haddon matrix, and it is unique because it includes all classes of road user and all types of road environments. But the idea of putting a greater focus on trip purpose is also attracting attention elsewhere. I'm indebted to Will Murray for darawing my attention to the work of Stephen Stradling from Napier University in Edinburgh. Strading has been working with the United Kingdom Department of Environment, Transport and the Regions on a study of factors that affect peoples' choice of car use. He has identified several types of car trips:

1. driving as part of work
2. driving to and from work
3. ferrying kids around – both to school and to other places
4. life and network maintenance tasks such as shopping, visiting friends and relations, and evenings out
5. the car of a load carrier
6. driving for holidays and weekends away
7. life enhancement activities such as voluntary work, hobby support or just driving for pleasure

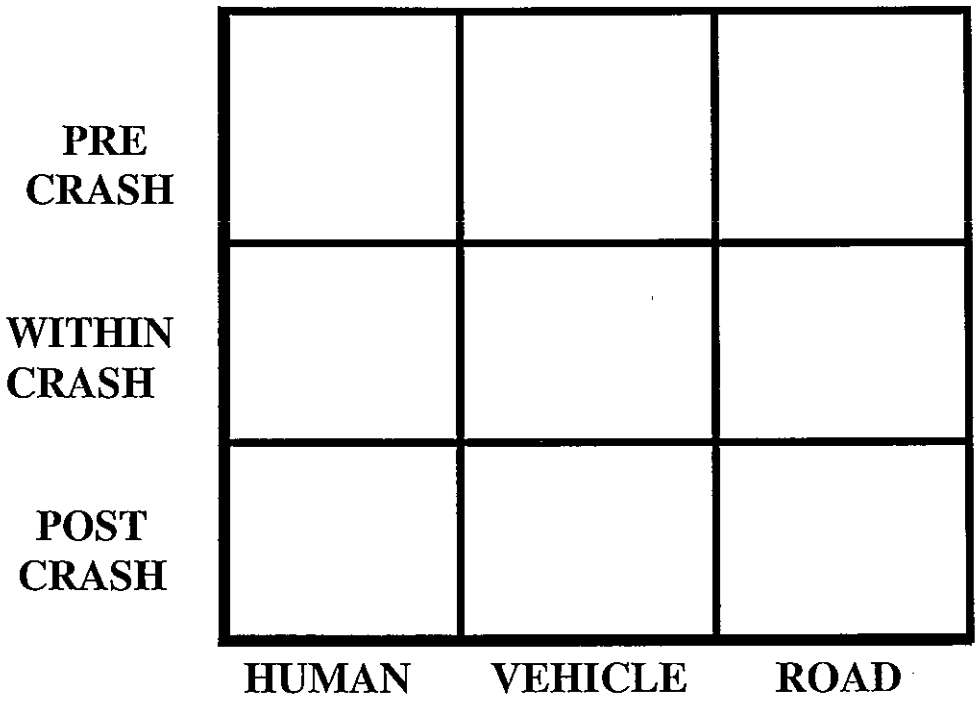
In terms of the model discussed in this paper:

- work-related driving equates to Stradling's Type 1 and Type 2 trips;
- tourism and recreational road use equates to Type 6 and Type 7 trips; and
- home and life maintenance-related activities equate to trips of Types 3-5

That is probably all I wanted to mention within that context, but I do take comfort that the thinking undertaken by Julia Irwin and I to address the motivational aspect or trip purpose aspect of why people travel on our roads is validated by the complementary work by Stradling and his colleagues.

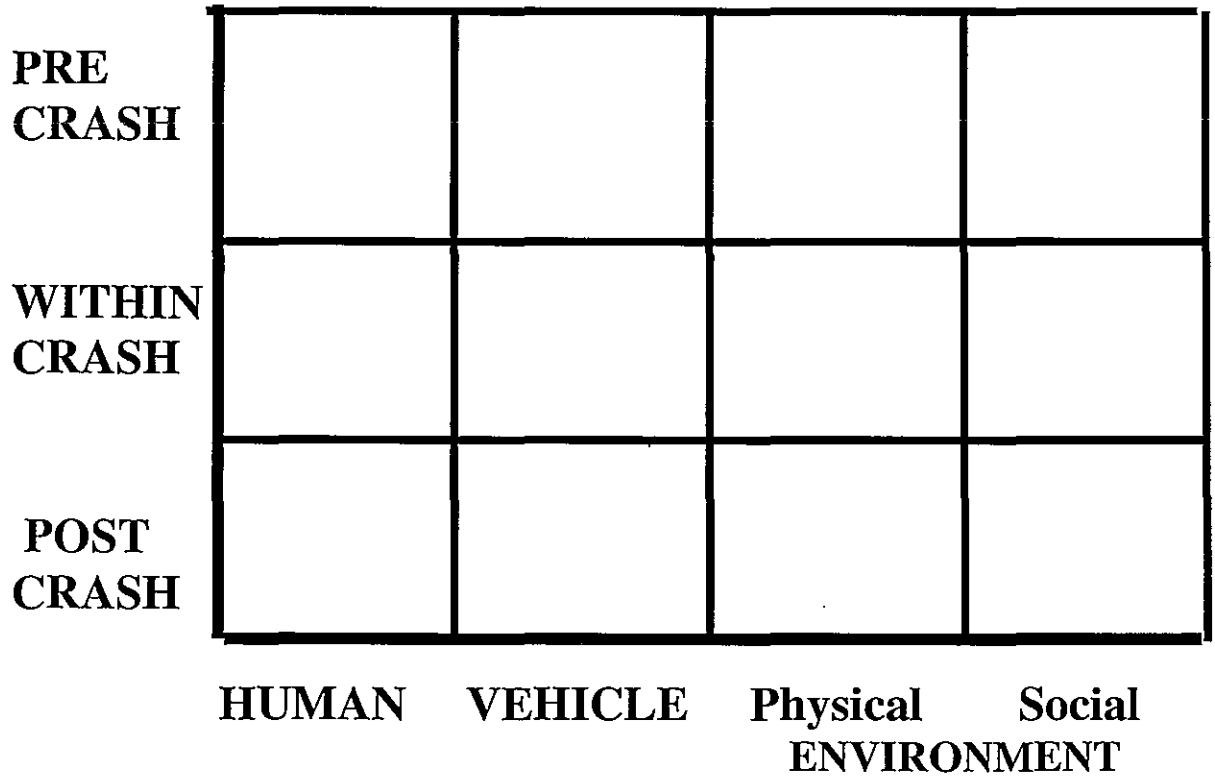
The extension of the Haddon matrix to incorporate work-related road use within the context of a new dimension of trip or travel purpose seems to be a reasonably complete, and if I might say elegant, conceptual model that starts to address some of the issues and problems with the basic forms of the Haddon Matrix.

HADDON MATRIX



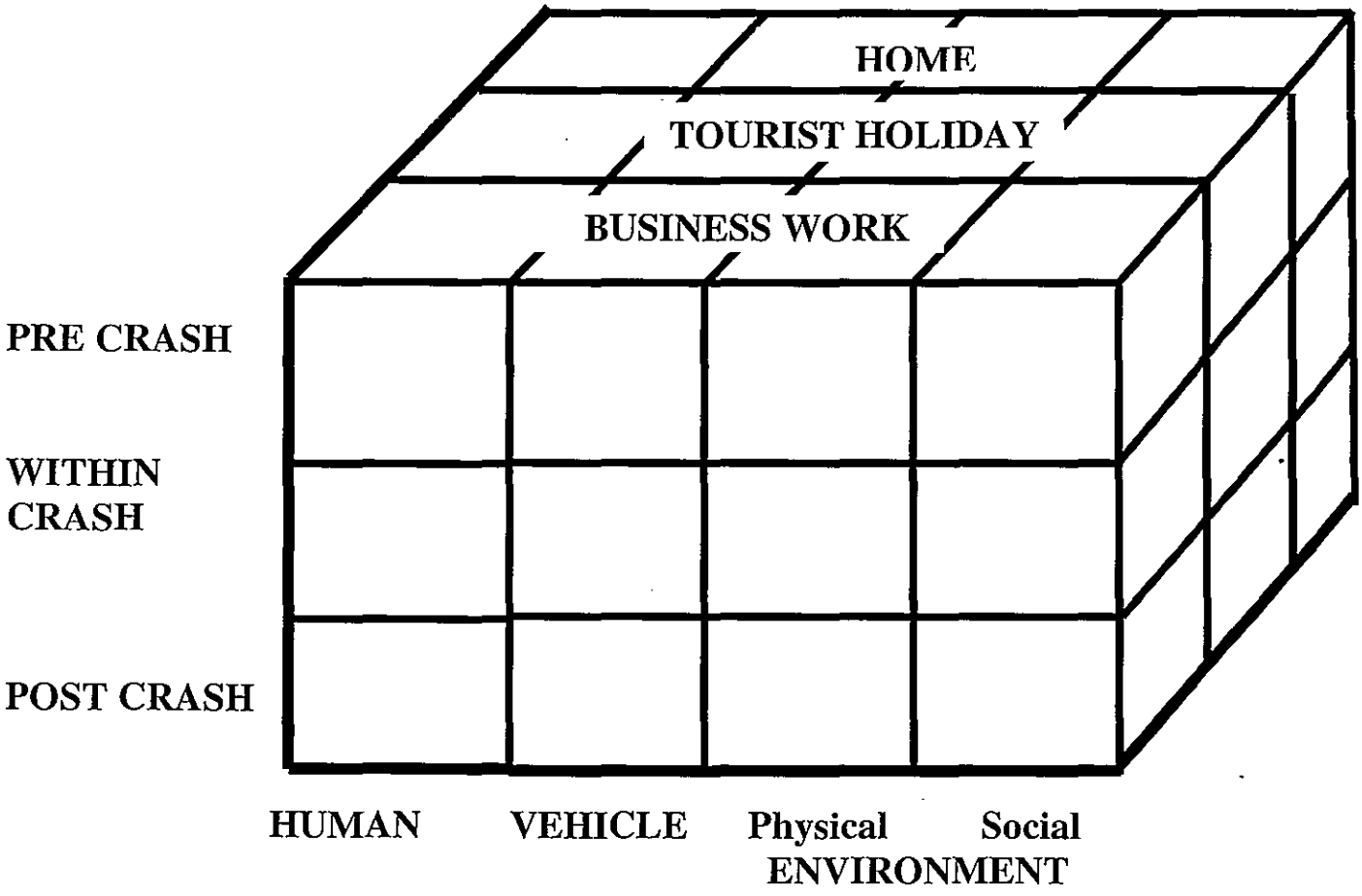
HADDON MATRIX

(Williams, 1999)



HADDON MATRIX

(Faulks & Irwin, 2001)



SAFER VEHICLES SAVE LIVES

Mr James Holgate & Mr Phil Sochon
Roads and Traffic Authority

Introduction

The Roads and Traffic Authority is committed to improving road safety through the promotion of driver and vehicle safety in organisations. Organisations such as government departments, businesses and not for profit agencies provide an effective environment for improving safety through the application of management measures. The reasons why organisations will participate in promoting road safety are the need to reduce costs and the need to meet occupational health and safety requirements.

As well as reducing the road toll through safer drivers operating safer vehicles, the general level of safety in the whole public vehicle fleet will be improved as safer organisational vehicles replace older, less safe vehicles in the second hand market.

The effective implementation of organisational driving safety requires the adoption of best practice driving safety management systems as part of the occupational health and safety (OHS) management system.

The New South Wales government has indicated its priority for organisational driving safety by incorporating this issue in its major strategic document Road Safety 2010.

Road Safety 2010 Strategy

The strategy aims to save 2000 people in the ten years leading to 2010. Major initiatives will target the three key areas of safer people, safer vehicles and safer roads. A specific focus on fleet safety is linked particularly to the safer vehicles strategy where some other key initiatives include a focus on increased use of technology, using safety as a selling point for vehicles, increased occupant protection and State Government purchasing safer vehicles. This latter focus includes a safe fleet policy for the government's own fleet and the subsequent promotion of this policy to other corporate fleet buyers.

What is organisational driving safety?

There is a range of terminology that is currently being used to describe these kinds of activities such as fleet safety, organisational driving safety and occupational driving safety. For the purposes of this discussion, all these terms are taken to mean the same thing.

The concept is workplace based driving safety programs that seek to improve driver and vehicle safety in organisations of any size. There can be any number of vehicles that are

supplied or funded in part or whole by the organisation for use by the employee for work or private purposes.

As well as targeting drivers primarily, this approach also values the role of passengers who are affected by driver and vehicle safety. In addition, passengers can influence driver behaviour particularly if they feel their safety is being threatened.

Why focus on organisational driving safety?

Work driving contributes significantly to the crash total

Workplace driving safety is significant to the Roads and Traffic Authority because workplace vehicles and workplace-related drivers account for a significant proportion of the total vehicle fleet and total driving population. Workplace drivers account for the majority of drivers on the roads during normal working hours and, in the case of transport/freight, a significant proportion of vehicles out of hours on major transport routes are vehicles "at work".

Of the total number of crashes in New South Wales, about 59 percent occur between the hours 0600 and 2000 Monday to Friday, when people are mostly travelling to/from work or driving at work. The total number of fatal crashes in this same period of time is 42 percent of the total.

Work related vehicles are significant

Of the total new vehicles sold in New South Wales, between 50% and 60% are sold to fleets or organisations. Most of these are sold into the second hand market after 2 to 4 years so represent a staple supply for private buyers. Work-related vehicles in New South Wales comprise about 20 percent of the total stock of 4 million registered vehicles. There are no figures available as to the exposure of work related vehicles. However it is reasonable to assume that organisation-related vehicles account for a high proportion of total vehicles exposed to crash risk during the week.

Work drivers are a significant road safety problem

Work undertaken in the United Kingdom identified that:

- Company car drivers covered 30,000 km annually as part of their job and a further 10,000 km on non-work activities.
- Overall accident frequency for these drivers was 0.19 accidents pa (or 1 accident for every 5 workers).
- Company car drivers have about 50% more accidents than other drivers even after their greater exposure has been taken into account.
- Car and van drivers who travel 40,000 km annually as part of their job are at virtually the same risk of being killed at work as coal miners.

Noting that work-related vehicles account for about 800,000 vehicles registered in New South Wales and assuming at least one driver for every vehicle, work driving initiatives can potentially impact on at least 800,000 drivers in New South Wales. Fleet drivers are of course

also private drivers and any improvements in their safety awareness and behaviour is likely to have a spin off to the private driving scenario that will bring benefit to the wider road safety issue.

If it is then assumed that for the 800,000 work vehicle drivers, that at least one other driver will be influenced towards better safety, another 800,000 drivers will benefit from the impact of improved organisational driver safety. This means that there are 1.6 million drivers who could possibly improve their safety through driving safety initiatives in the workplace.

Significant savings are possible

As shown in the STAYSAFE 36 report and other publications, examples of savings that have been achieved through organisational driving safety initiatives are:

- New south Wales police in early 1990's saved $2M in premiums and a further $2M in refunds for reduced claims - in one year
- 3M achieved a 36% cost reduction from a reduction of 6% in vehicle crashes
- Telstra made significant reductions in cost from a major driving safety awareness program
- Orica reduced claims by 28% and 35% in successive years, leading to savings of nearly $1 million.

Management tools can be used to improve driving safety

Alongside the better known tools of "engineering, education and enforcement", fleet programs represent a fundamentally different approach to road safety. Powerful organisational processes such as continuous improvement, performance management and other change management tools can be used to improve the performance of an organisation's fleet, just as they are often used to improve other key processes in the business.

In combination with these factors is the important factor of occupational health and safety (OH&S) which places significant regulatory requirements on organisations to ensure that workplace driving is managed so as to minimise risks to safety.

The benefits to be achieved by organisations that have adopted these organisational and occupational health and safety approaches are:

- human, in reducing the involvement of staff in fatal and injury crashes,
- financial, in reduced running and other costs, and
- legal, in a reduced exposure to action under occupational health and safety legislation

Improved means of impacting on drivers

The Roads and Traffic Authority has traditionally sought to change public driver behaviours through a mix of legislation (speed, blood alcohol limits, etc.) and public education and awareness, mainly through advertising. The opportunity to use organisational influence that is motivated by occupational health and safety in targeting driver behaviours provides new efficient mechanisms to communicate with drivers.

Using organisations to deliver road safety education and awareness means the Roads and Traffic Authority can now target individual drivers, in the language that is relevant to the particular workplace culture, backed up by a range of management measures. This creates a very effective way to change behaviour and to create environments via safer workplace cultures that will continue to reinforce the driving safety message. Apart from being very cost effective, this approach offers the opportunity to communicate more complex road safety messages.

Opportunity for continuing incremental improvements

Another advantage of using the organisational environment to deliver road safety is that it facilitates continuing improvement. For example, assuming that a company is achieving a crash rate that is 5 percent below the industry benchmark, it is conceivable that the company may reduce further below the industry benchmark. In this way, well above average safety outcomes can be achieved by organisations, groups of organisations and even whole industry sectors, thus further reducing the road toll.

Organisational driving safety management systems

The various elements of fleet safety fit together in an integrated way in what might be described as a "driving safety management system".

The key components of the system are:

- Driving Safety Policy that stipulates responsibilities for driving safety with senior management, line management, drivers and passengers
- Procedures and management practices that give effect to the policy
- Selection of safer vehicles and safe maintenance and operation
- Selection of safer drivers and reinforcement of safer behaviours through education, training, incentives and disincentives
- Collection, analysis and reporting of crash and cost data to determine trends and key issues to be addressed by behavioural initiatives
- Continuing process of review and audit to ensure continuous improvement

The system incorporates the needs of a number of stakeholders including:

- Occupational health and safety - workplace driving is an occupational health issue that is governed by the Occupational Health and Safety Act 1983, which means that vehicles are "places of work" under the Act.
- Risk management - driving has a direct impact on workers compensation (travel at work and to/from work) and vehicle insurance premiums
- Finance - vehicle crash and running costs as well as insurance costs need to be provided to line managers
- Human Resources - driving safety impacts on recruitment, education and training, and potentially on performance management of drivers
- Fleet Managers - purchasing and maintaining vehicles

Vehicle safety issues

Selection of safer vehicles and maintenance of organisational vehicles to higher safety standards will produce significant safety benefits. Safer vehicles lead to fewer crashes through better crash prevention measures and fewer/less severe injuries due to improved crash performance/passenger protection. In addition, as the new car market is becoming more focussed on safety features such as air bags, it is probable that buyers will be attuned to safety features as standard in used cars thereby ensuring that safety feature costs will be recovered. A number of specific aspects need to be considered in purchasing new cars to ensure that organisations are providing vehicles that meet the safety needs of organisations.

Vehicle selection and additional safety features

ANCAP Crash rating

The Australian New Car Assessment Program (ANCAP) assesses occupant protection of most popular makes under laboratory conditions. This examines crash performance in frontal and side impacts. These are the most frequent crash types associated with serious injury. The test performance for each model is converted into a "star" rating whereby increasing safety outcomes range from ★ to ★★★★. This system has been in use in Europe for some time and ANCAP has increased the number of vehicles provided with a rating by including models sold in Australia that have European equivalents.

No new vehicles are unsafe. However, over the last seven years, these ANCAP tests have demonstrated that the level of protection offered can vary significantly with different vehicles.

For example, the 98/99 Subaru Forester with airbag resulted in an overall severe injury risk to the driver of 9% in the standard frontal test at 64 km/h. By comparison, the 97/99 Kia Sportage with no airbag resulted in a severe injury risk to the driver of 65%.

ANCAP test results are available from the Roads and Traffic Authority motor registries and also at the NRMA web site. It is strongly recommended that when selecting vehicles crash performance outcomes are used to discriminate between vehicles.

Additional occupant protection measures

Airbags - Driver and passenger frontal and side airbags will significantly reduce the level of injury in crashes.

Cargo barriers - A cargo barrier provides very significant safety benefits to drivers and passengers, as unsecured objects assume very significant weight when subjected to the force of a crash stop. This means that even though a driver and passenger may survive the initial crash, they might sustain severe injury or death from being struck by flying objects. Even light objects unrestrained in the rear of a car can result in serious injury. For example, a tissue box weighing 200 gms will assume the weight of a house brick in a crash at 60 km/h. An unrestrained 20 kg toolbox or suitcase would inflict damage with a force of half a tonne. Cargo barriers are subject to an Australian standard, and can be obtained for a range of situations including the familiar setting behind the rear seats in a station wagon as well as netting covers secured over objects on the floor of a rear section of a station wagon. Drivers and passengers should be encouraged to ensure that no loose objects are left lying anywhere

in a vehicle. It is highly recommended that all station wagons, four-wheel drive wagons and vans include cargo barriers.

Additional crash prevention measures

ABS brakes - Whilst not offering reduced stopping distances, ABS brakes offer improved road handling in poor traction situations on sealed roads. ABS brakes are available for many vehicle models, and are recommended.

Colour - The conspicuity or level of visibility of vehicles can be a significant factor in crashes. European research has shown for example that black vehicles were involved in 22 percent of crashes whilst they only comprised 4.4 percent of the vehicle population. Separate research has shown that bright coloured cars could be seen some 2 to 4 times further than dark cars during times of lower visibility. A Mercedes Benz study showed that the highest visibility ratings in descending order were white, light ivory, aqua blue, yellow, pastel white, off white and maple yellow. Interestingly, signal red scored less than 50 percent in the rating scheme. Australian studies have shown that highly visible colours are white, light grey, light blue and light brown.

Daytime running lights - Whilst there is currently insufficient data to justify the regulatory adoption of daytime running lights as standard equipment, their use does offer significant road safety advantages. These lights significantly enhance visibility of vehicles, particularly darker vehicles. This will not only reduce the risk of not being seen by the other driver, it also means that pedestrians will be able to see the vehicle more easily. Daytime running lights cost about $100 to fit at production, although this figure can be doubled for post production fitment. Many vehicles provide headlight switching so that headlights can remain switched on at all times and will automatically extinguish when the ignition is turned off. This facility can provide an effective daytime operation but relies on the headlights to be turned on manually.

Safer operation and maintenance

Whilst it is very important to select only safer vehicles to reduce the risk of injury and injury severity, it is important to note that the safe operation of vehicles to their design optimum relies on the features being available in their designed state. For example, the effectiveness of ABS brakes will be reduced if tyre pressures are too low as the tyres will not be able to provide the requisite level of traction. This means that it is important that vehicles are kept in serviceable state and that drivers and maintainers work together to achieve that outcome. .

Tyres - correct tyre pressures can make a difference in crashes as well as fuel economy. Tyres that are under-inflated will result in reduced handling capability by taking further to turn corners and longer to stop. This comes about due to the tyre being less rigid and therefore distorted in shape that leads to reduced performance.

Under-inflated rather than over-inflated tyres will lead to blow outs, and over-inflated tyres will lead to undue wear on the crown of the tyre. Tyres that are just 10 percent under-pressure (say 27 psi instead of the recommended 30 psi) will lead to an increased fuel consumption of nearly 3 percent or about $150.00 per year for a vehicle consuming $100.00 worth of fuel per week. Tyre tread can also make a difference. Tyres with the legal minimum tread of 1.6 mm will take 43% longer to stop than new tyres with 8 mm tread.

Driver programs

Clearly the amount of safety inherent in vehicles will have a significant impact on the overall organisational driving safety situation. However it is critical to ensure that the drivers are safety conscious. This is not assured by the fact that a person has an Roads and Traffic Authority licence because competence is not directly linked to behaviour. If a competent driver does not appreciate the need to drive in a low risk manner, he or she will be less likely to obey speed limits and will be more likely to take unnecessary risks in driving the organisation's vehicle.

Leading organisations have obtained low risk driving performance through a range of measures that impact on drivers throughout their life cycle in the organisation and also across the range of different driving scenarios.

The kinds of measures that they adopt are:

1. Development of a best practice safe driving policy and procedures.

2. A communications program to raise awareness of the safe driving policy and to ensure that drivers and managers are aware of their OHS responsibilities in driving safety.

3. Improved recruitment processes for positions that include a significant amount of driving to include checks on driver safety records, review of job descriptions and interviews incorporating driving safety aspects.

4. Enhanced driver involvement in maintaining vehicle safety by having drivers undertake basic vehicle checks and care for vehicles.

5. Drivers more involved in workplace safety discussion groups that analyse driving safety problems and provide driver-sourced solutions.

6. Limits and guidelines for work/driving hours to reduce fatigue.

7. Incentives for safe driving based on team performances, targets for fuel consumption and crash reduction according to industry benchmarks, positive feedback to safe drivers, and public feedback processes such as 1800 phone number stickers.

8. Disincentives for unsafe driving including a process to remove authority to drive vehicles where repeated unsafe driving has been demonstrated, and monitoring individual driver crash history and traffic infringements.

9. Understanding crash causes by ensuring crashes are investigated by managers using occupational health and safety procedures and establishing an organisation-wide crash review committee to continuously review crashes and to recommend corrective measures (such as management process changes and education and awareness programs).

10. Managers more responsible for safe driving performance by acting as the key point of contact for safe driving performance of drivers, and providing counselling to drivers on the basis of crash and other data provided regularly to them.

11. Managers accountable for crash costs by establishing budget processes and cost recording to reflect injury and crash costs by work area.

12. Education and awareness programs and driver training to address identified trends towards unsafe driving, induction package on driving safety, use of occupational health and safety facilitators to promote and monitor the programs, and management briefings on safe driving responsibilities.

13. Regular evaluation of the driving safety management system by organisational self-assessment process, and driving safety in the occupational health and safety audit process and in business improvement plan.

What can organisations do?

The key actions recommended are:

1. Obtain senior management support for the establishment of a major driving safety policy initiative

2. Develop and implement a best practice driving safety management system that embraces the key points listed above

3. Select safer vehicles

BENCHMARKING IN FLEETS

PETER GIALANTZIS
Lumleys Insurance

Thank you for the opportunity to talk to you about benchmarking and what Lumleys has put together over a number of years. It was good to hear Will mention that he has seen what we have put together and he thinks that we are probably a little further ahead than they are in England. However, it is a good opportunity for us to learn from one another, and hopefully after the discussion today you can take away something worthwhile.

The first question is: Why benchmark? You are measuring your performance by comparing your results internally and externally. Internally, you are doing it by cost centre versus cost centre. Externally, you are doing it against similar industries or other types of fleets. You can look at it in three ways: Direct competition, your own industry and against other types of fleets. You are trying to create a picture and to see where you fit in that picture. It is wonderful tool to go to your management to show how you are performing and what you need to do to achieve certain targets.

What we at Lumleys benchmark is as follows. These are just some of the things you can benchmark. There are a number of other things available that you can do as well. You can see in brackets AfMA – the Australian Fleet Management Association - which has a benchmarking program. Once you join that organisation you can give it information which is put together for you in a manner which is quite useful. The first thing we at Lumleys benchmark is incident rate. I emphasise the word "incident". We at Lumleys are moving away from the word "accident". An accident is something that happens by chance; basically, it is unavoidable. An incident is an occurrence, an event, a happening; basically, it is preventable in most instances. It is avoidable.

Even if you are not at fault in an incident you may have put yourself in a position to be hit. So all the time we are trying to see how you can not put yourself in a position to be involved in an incident. It is fairly important to look at that in the sense that, for example, a vehicle driving in a car park scraps its mirror against a wall. You are looking at six centimetres. Take the mirror away and the vehicle is only six centimetres away from scraping the whole side of the vehicle and possibly injuring the driver. So to us it is important to get the incident from the point of every dollar. From the first dollar onwards, record it and know what is going on.

A lot of people talk about their claims as such, but all they are talking about is above the excess. We should be looking at it from the ground level upwards. For the purposes of Lumleys, as I said, that is what we like to use the word "incident" for. You can see that we have incident rate per 100 vehicles, at fault incident rate. What we are looking at there is where your drivers are the cause of the incident. They are the area that you need to target. If you can target those drivers, that is where you will make the best reduction because you have control there.

We look at the driver at fault percentage. That is the number of times that your drivers are in an incident with another vehicle. We look at client vehicle only; it is your driver only where they are at fault. They may reverse into a bollard, they may have an incident in a car park, hit a trolley, whatever the case may be, but you are trying to make the differential between one to the other so you know what is going on. We also look at unknown third party at fault percentages. It is available to you to look at the cost per one million kilometres, the number of incidents per one million kilometres, the average incident cost and the cost per vehicle.

What we have here are the statistics that Lumleys has used to put its benchmarks together for the past four years. As you can see, the club itself has grown. The number of participants was 57 last year; this year it looks like it will increase significantly in number, due to the number of clients who have come on board. Last year there were 65,000 sedan-like commercial vehicles—we are talking up to two tonnes, so we are talking about normal passenger vehicles—and also your Hiaces, expresses, what have you.

Below that we have the heavy vehicle component. That is a lot smaller sample of 18 organisations last year with just on 12,000 vehicles. We look at the same period. So we are looking at the same period for everyone. The reason for that is that we do not want a situation where the weather or whatever else may occur affects the final result. We in the insurance industry and fleet managers would remember the hail storms. It was important to know the costs involved in that. That is just one example.

We break up our clients into what we believe are the most relevant groups or industries. What we are looking at doing now is moving on from just doing that in a specific industry and looking at the vehicle type as to its use. It was spoken about earlier: the management vehicle at a coal company or at an organisation like Coles is still a management vehicle, a sales vehicle is a sales vehicle, and a service vehicle is a service vehicle. That is something we are looking at long term. It is probably a couple of years down the track before we get the data we want but that is something we have on the drawing board which will then give organisations an idea of how they are performing with their vehicle types.

These are the actual benchmarks and the averages from our club. I will go into that in more depth as we go along. You will see there the benchmark for driver at fault and CVO. You will note that the average actually improved quite significantly for the driver at fault, and the benchmark is quite high. What happens with this particular benchmark is that it is a living, breathing item so we look at that, we try to see what is occurring. Then what we are looking at changing in our benchmark is driver at faults because of the improvement that has occurred. If you look at the CVO, our benchmark is way below. There has been an increase in the number of single vehicle incidents that have occurred within the fleet we are looking at. I will go into the reason for that later.

These are what the benchmarks look like when we present them. We put the clients in a specific group. In this instance we have picked on or tried to show the media. The particular area we are looking at is unknown third party at fault percentage. Each client has its own individual code and an industry code. In that instance, CC or C is the media code so straight away they can see that they are in that particular area. What we do is let them compare against each other. They then look at the group average. So all the Cs get to see how they perform within C. Then they can look at the whole benchmark. That is 57 companies with 65,000 vehicles. Once again, all we are trying to do is create a picture and enable them to know where they are at and what they have to do to try to achieve something else.

What you see on this sheet is two bits of information on one graph. In this instance it is the incident rate. We are pointing out the at-fault incident rate and the total incident rate. Again, the at-fault incident rate is something that is preventable and targetable within an organisation. This is also information showing two bits of detail. This is in relation to at-fault percentage of claims. So there we are looking at that fault, which is a two-vehicle incident or more, and the CVO, which is a single vehicle incident. As you can see, the averages are shown and what the benchmarks are right across the board so you get a fairly good idea. If you are CV you know exactly how you are performing within the different areas.

This overhead shows you every industry against one another. That way, the media can see how it is performing right across the board, across the club average, which is the last column, and then against everyone else. As you can see, they had a wonderful 1999-2000. This slide shows the benchmarks I spoke about earlier. As you can see, there was a marked improvement in relation to driver at fault. We found a significant decrease in the number of multiple vehicle incidents that occurred within the Lumleys client group. Unfortunately, that was balanced by the number of single vehicle incidents that occurred. They increased significantly, which is also shown within the cost.

If you look at the average cost, there has actually been a decrease. You might ask why there has been a decrease if there has been an increase in one area. The reason is that the most cost that occurs with a vehicle incident is when it is involved with another vehicle. That is when your costs are quite high. Single vehicle incidents are quite low in cost when you take in the repair and the claims costs involved in administering that particular claim. s you can see there has been a difference. If we move on to the next slide. This is the heavy vehicles or commercial vehicles and it is the same scenario. You will see that there has been a marked improvement within our group when it comes to multiple vehicle incidents. There has been a slight improvement also with the CVOs at the bottom you will see that that is shown within the difference in averages there.

The particular spreadsheet you see here has been and is being used by a client of ours. We have the cost centre so that within their own company they are benchmarking, trying to see how all the different divisions are performing. The most important columns are the last four. What they are looking at is the percentage of the different types of incidents that are occurring—third party at fault, driver at fault, CVO and the accident rate. You would really want to look at least 30, perhaps more, vehicles within a division to make it worthwhile, but they do it right across the board.

That is a wonderful tool. We were talking earlier about accountability. A manager that sees that all of a sudden sees his accountability coming right in front of him. An organisation can then use that tool to make sure that the right costs are sent to the right division. If you want to make people move or change something you hit them on the bottom line and you get a real result. That is the type of tool you can use.

The next two slides I am going to show you are four simple steps that a number of organisations have implemented and that we at Lumleys think are vital as a starting point. The very first thing in relation to implementing a risk management program, no matter what organisation you have, is to have your management support. If you do not have management support, in the long term you will fail. You will see that we are suggesting you formalise a plan, involve people who are responsible for vehicles and their safety. Further down you will

see it refers to reporting in data. Make sure you know where all the incidents are occurring within your organisation, and communicate that information onwards to the management and to the drivers.

I will move to the next slide—employment and training. That follows on from what Phil was saying at the end of his presentation, that it is important to get the right person. It is a lot easier to improve someone's skills than it is to change their attitude. People with the wrong attitude who are involved with driving a vehicle are more likely to have an accident. We were involved in a particular exercise. We looked at a number of our clients a number of years ago and that showed us that the worst—or should I say, the highest—risk takers in the top 33 per cent were involved in more than 60 per cent of the incidents that occurred in those organisations across the board. Corresponding to that was the workers compensation related to that, and also absenteeism in an organisation.

The bottom 3 per cent who were not risk takers amounted to around about 4 per cent of the incidents that occurred within an organisation and about 0.4 per cent of workers compensation claims and absenteeism. As you can see, attitude is vital. The next two slides that I will show you relate to two organisations that Lumleys have worked with over a number of years. They have implemented a full risk management program. From the point of getting management commitment; they do induction programs and training; they follow that up with follow-up training and awareness; and they have done attitude testing. These are the results they have achieved.

This particular client took about 18 months to two years to get that result but, as you can see, the number of incidents dropped from 299 to 130 and the costs went from $669,000 to $344,000. It is quite important to realise that that is not the real cost of the incidents. We are talking there only about repair costs and what it has cost Lumleys to administer the claim. When you take into account the indirect costs of downtime and a number of other areas—administration, retraining, workers compensation, whatever the case may be—you are looking at about three times that amount.

I like to show the next slide because most people look at it and think: Why would an organisation still be so interested? This particular company is a chemical company, absolutely obsessed with safety. The company's attitude is safety, safety, safety and more safety on top of that. They have 199 vehicles and they had 35 incidents worth $72,000. Most organisations would think they are going brilliantly. How good is that! Not for this organisation. They have an attitude of safety and their goal is to get to a stage where they will have zero incidents costing zero dollars. It is hard to believe, but that is what they are aiming for. That is their goal. The whole attitude within that organisation is to do that. They have incorporated a full program that fits in with that. As you can see long term it will work for organisations that bite the bullet and take the hard moves to organise the company in a way that is structured to achieve a target like that. That is my presentation, thank you.

Motor Fleet Risk Management

ACRS Benchmark Presentation

Benchmarking

Why?.....

Measure your performance by comparing your results internally and externally:

Internally

cost centre vs. cost centre

Externally

against similar industries or other types of fleets

Management tool

Setting achievable targets.

Benchmarking

What We Benchmark?....

Incident rate (per 100 vehicles) (A*f*MA)

At fault incident rate (per 100 vehicles)

Driver at Fault % (A*f*MA)

Client Vehicle Only %

Unknown third party at fault %

Benchmarking

Average cost of incidents per 1,000,000 kms (AfMA)

Average no. of incidents per 1,000,000 kms (AfMA)

Average incident cost (AfMA)

Average incident cost per vehicle (AfMA)

Benchmarking

Statistics

➢ **Sedans & Light Commercial**	**96/97**	**97/98**	**98/99**	**99/00**
Companies	46	54	55	57
Vehicles	51,275	54,906	58,334	65,399
➢ **Heavy Vehicles**				
Companies	23	16	15	18
Vehicles	10,916	9,858	9,997	12,186
Period Analysed	30/6/99 -	30/6/00		

CLIENT GROUP CODES

A - State/Federal Government

B - Religious/Charity Organisations

C - Media

D - Manufacturing

E - Transport

F - Finance

G - Emergency Services

H - Building & Construction

I - Bus & Coach Services

K - Service

L - Technology

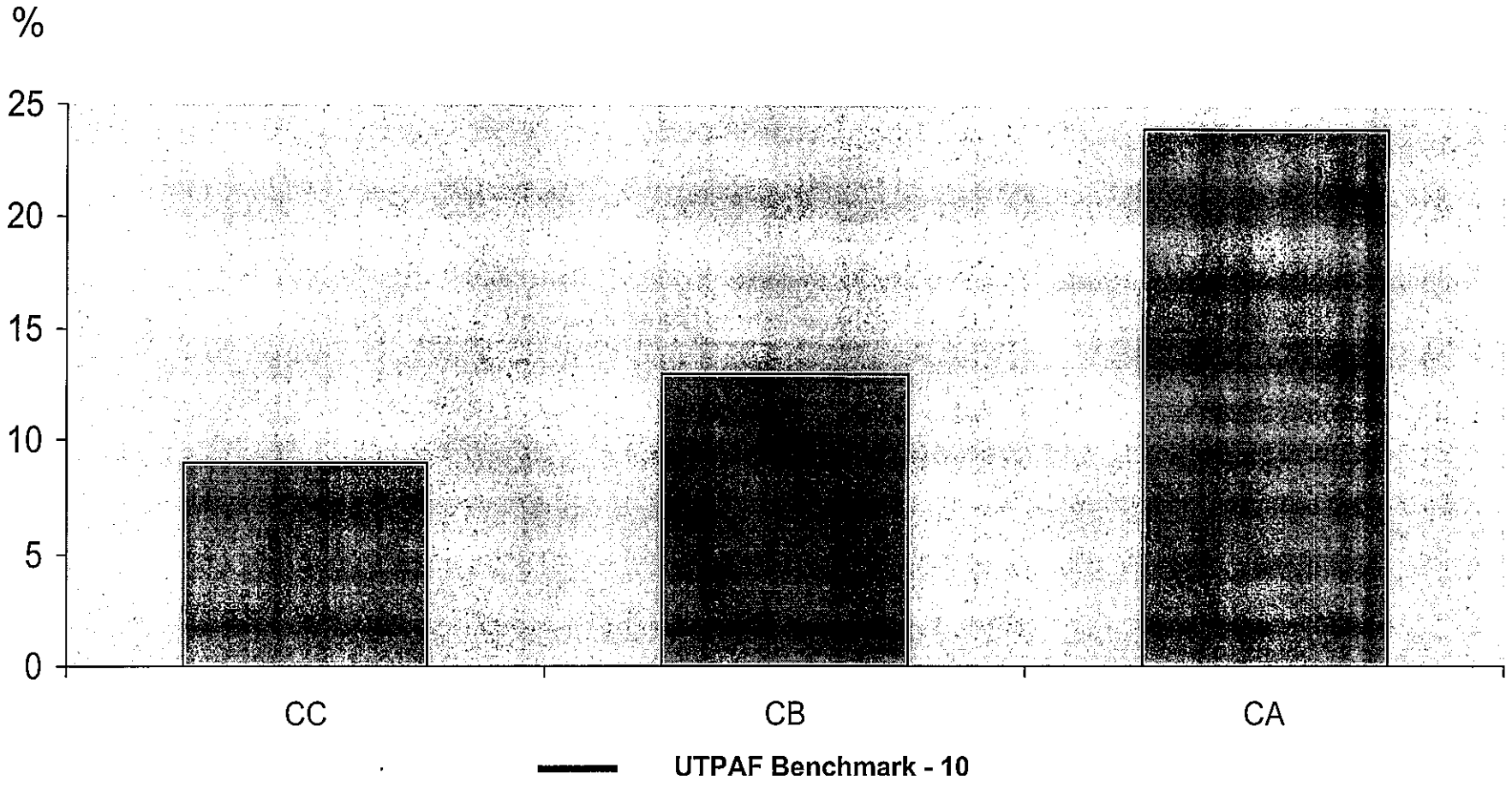
Z - Agricultural

Lumley Motor Fleet
Benchmarks 1999/2000
Sedans/Light Commercials up to 2 tonne

	Benchmark	Average 1999/2000	Average 1998/1999
Incident Rate per 100 vehicles	20	28	36
At Fault Incident Rate per 100 vehicles	8	16	21
Driver At Fault	30%	25%	30%
Client Vehicle Only	10%	32%	25%
Unknown Third Party at Fault %	10%	15%	15%
Average Incident Cost		$1,670	$1,947
Incident Cost per vehicle		$467	$629

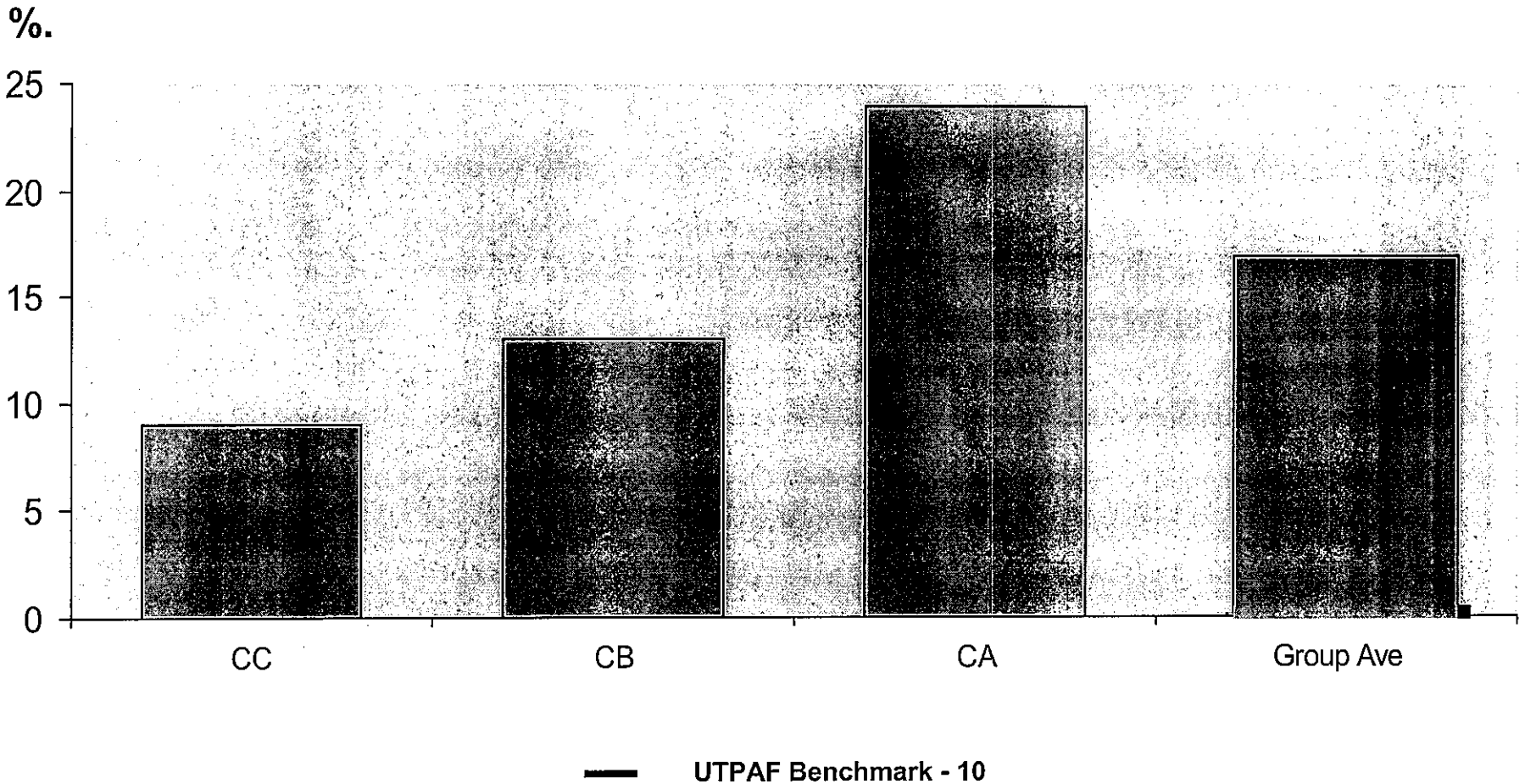
Media

Sedans / Light Commercials up to 2 tonne
UNIDENTIFIED THIRD PARTY AT FAULT %



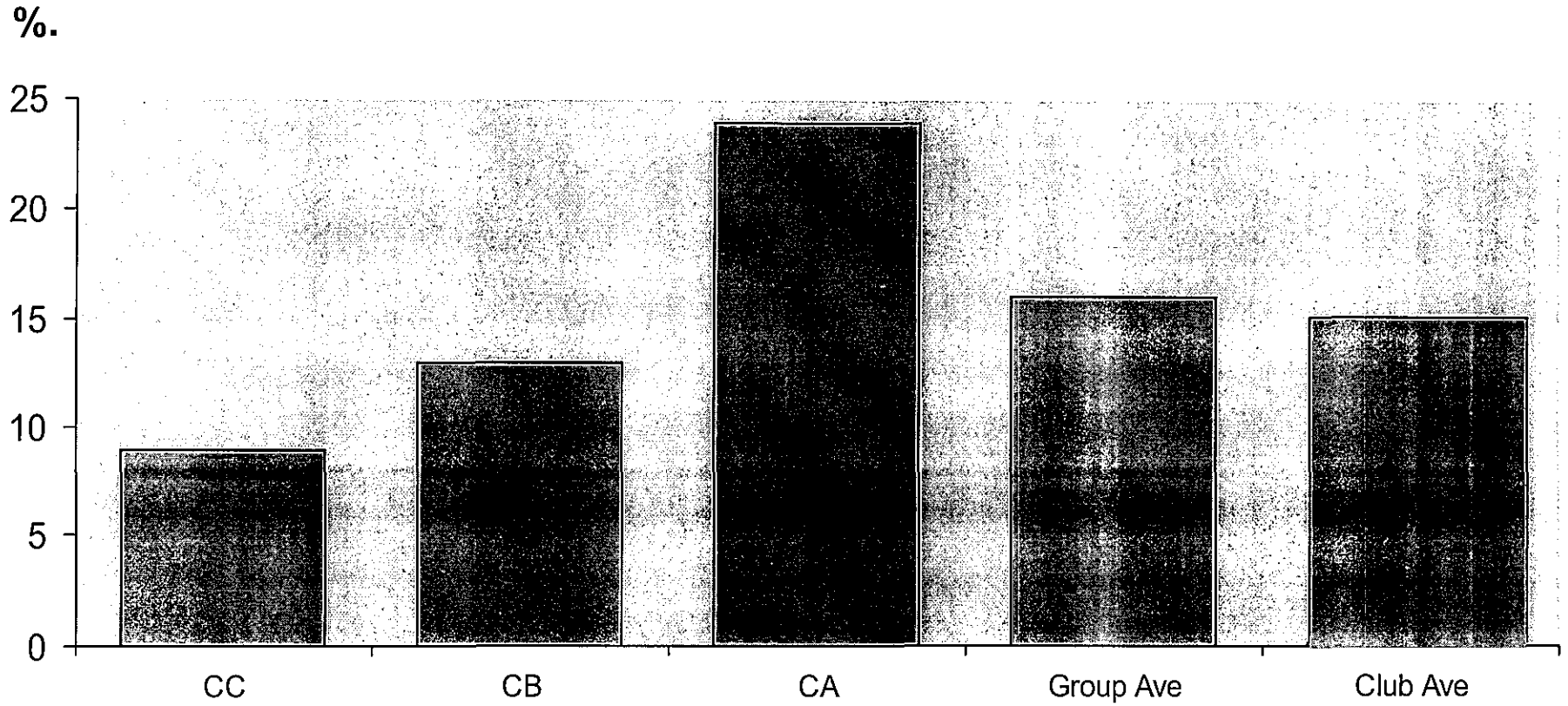
Media

Sedans / Light Commercials up to 2 tonne
UNIDENTIFIED THIRD PARTY AT FAULT %



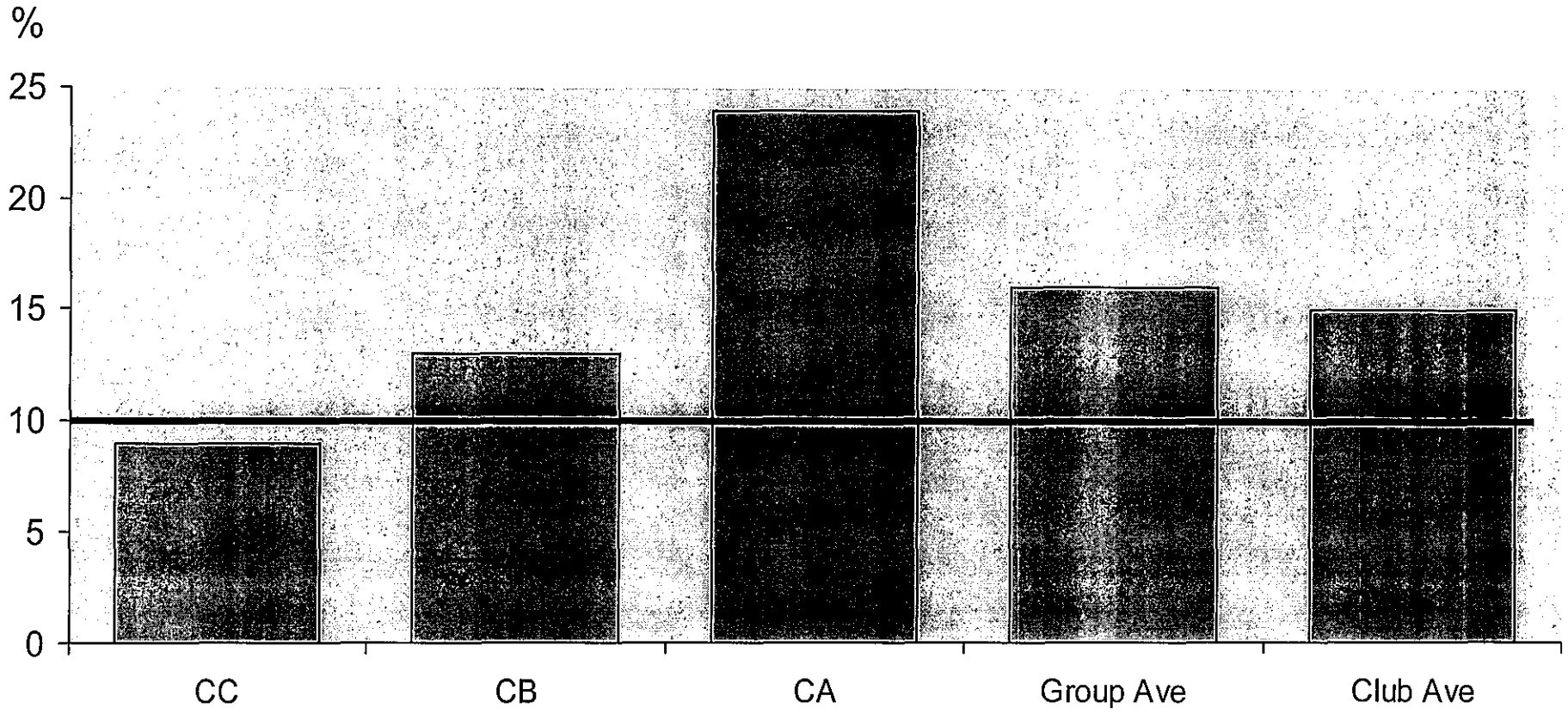
Media

Sedans / Light Commercials up to 2 tonne
UNIDENTIFIED THIRD PARTY AT FAULT %



Media

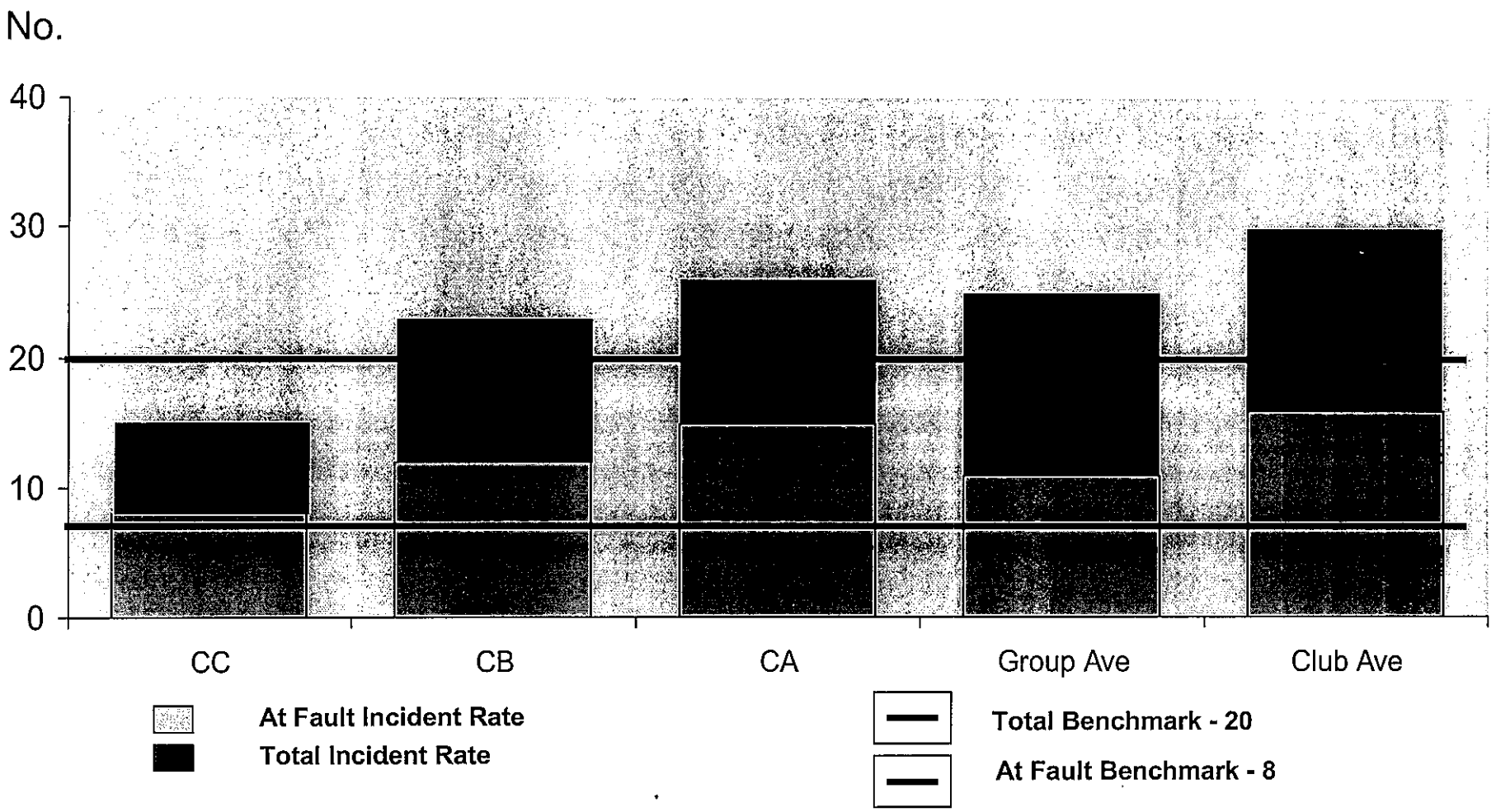
Sedans / Light Commercials up to 2 tonne
UNIDENTIFIED THIRD PARTY AT FAULT %



Media

Sedans / Light Commercials up to 2 tonne

INCIDENT RATE (per 100 vehicles)

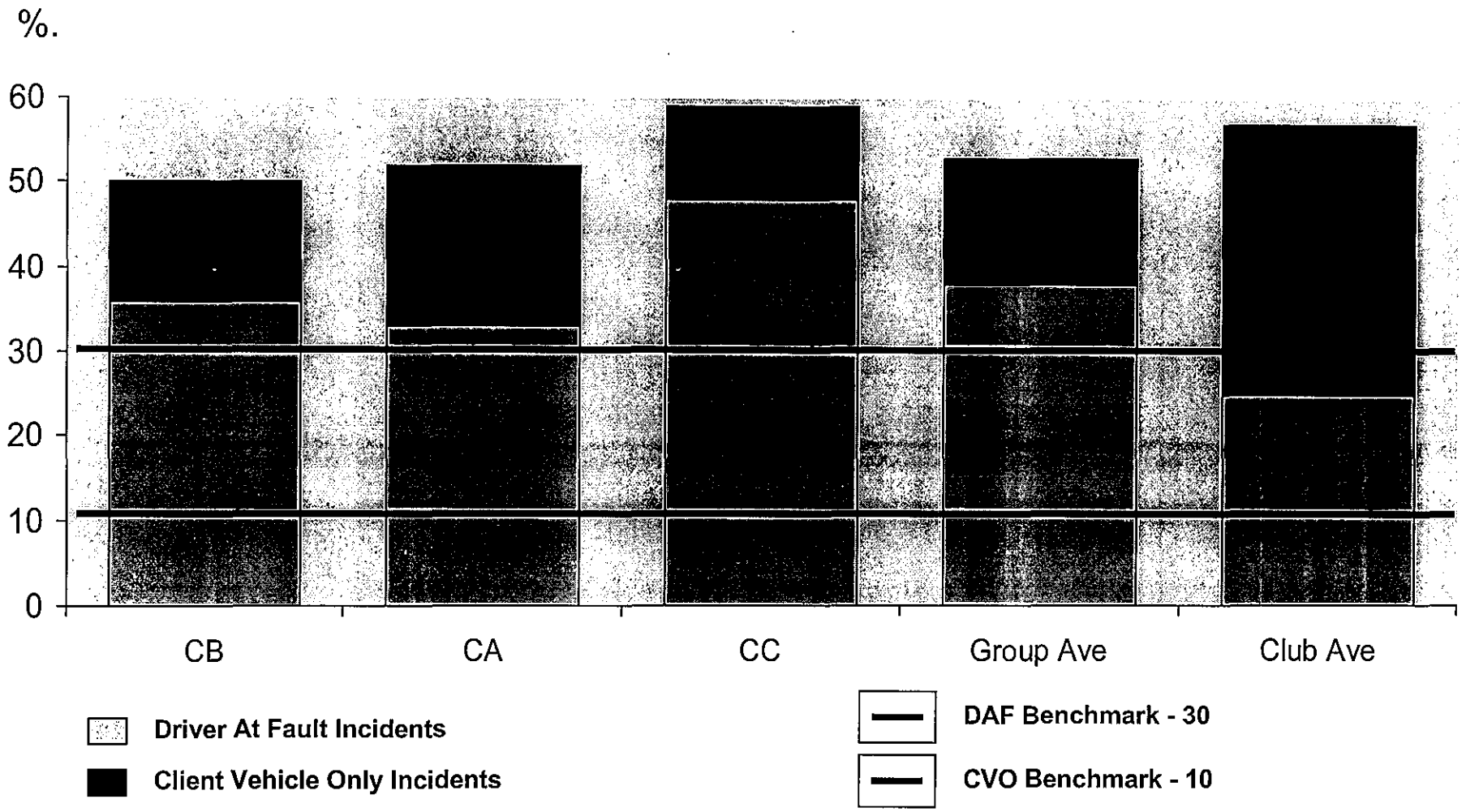


Lumley Motor Fleet Benchmarks - 99/00

Media

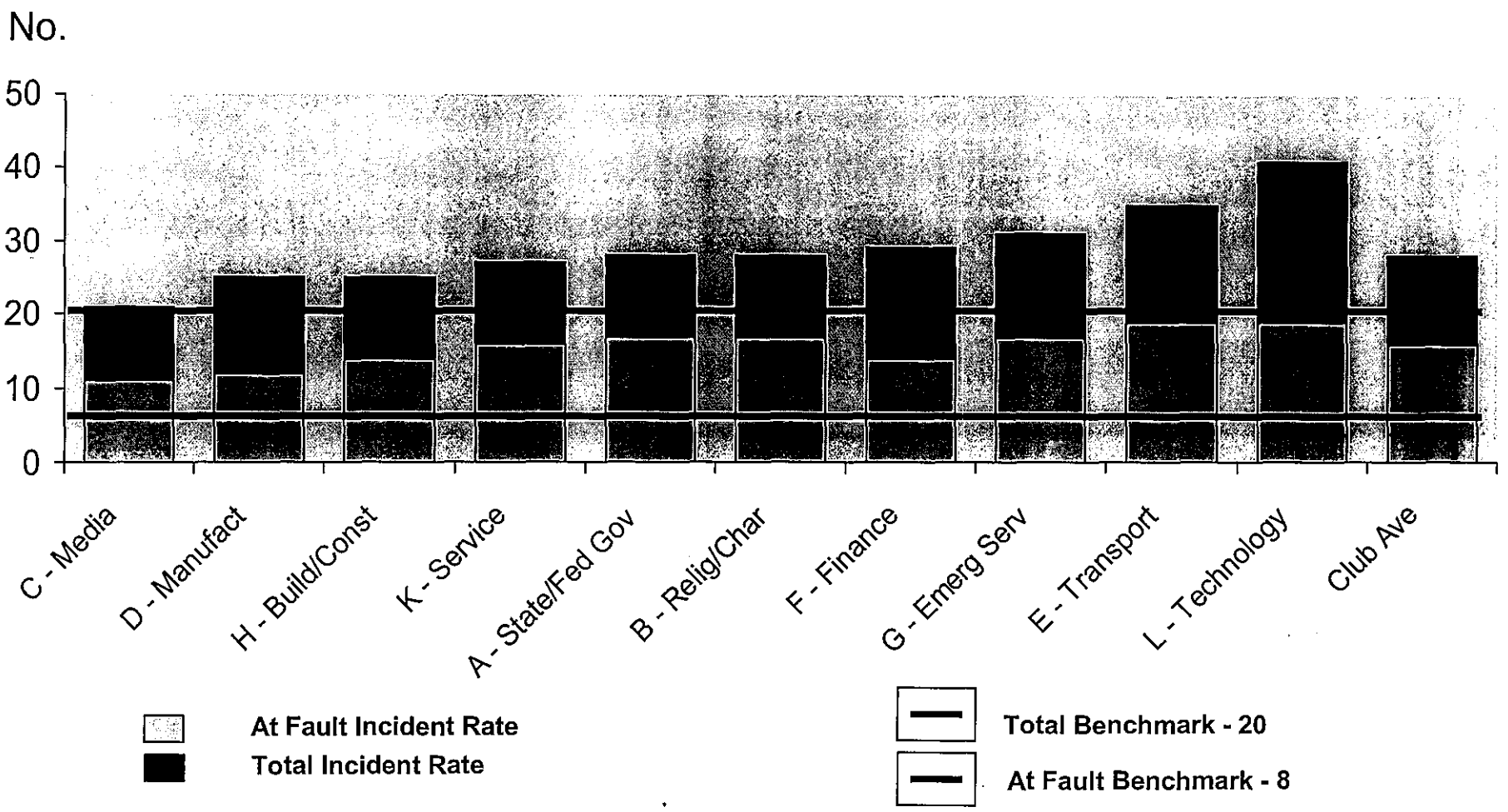
Sedans / Light Commercials up to 2 tonne

AT FAULT % (Driver At Fault & Client Vehicle Only Incidents)



Lumley Motor Fleet Benchmarks - 99/00

Client Group Comparison
Sedans / Light Commercials up to 2 tonne
INCIDENT RATE (per 100 vehicles)



Lumley Motor Fleet Benchmarks - 99/00

Lumley Motor Fleet
Benchmarks 1999/2000
Sedans/Light Commercials up to 2 tonne

	Benchmark	Average 1999/2000	Average 1998/1999
Incident Rate per 100 vehicles	20	28	36
At Fault Incident Rate per 100 vehicles	8	16	21
Driver At Fault	30%	25%	30%
Client Vehicle Only	10%	32%	25%
Unknown Third Party at Fault %	10%	15%	15%
Average Incident Cost		$1,670	$1,947
Incident Cost per vehicle		$467	$629

Lumley Motor Fleet
Benchmarks 1999/2000
Commercial Vehicles > 2 tonne

	Benchmark	Average 1999/2000	Average 1998/1999
Incident Rate per 100 vehicles	10	12	20
At Fault Incident Rate per 100 vehicles	4	5	15
Driver At Fault	30%	28%	59%
Client Vehicle Only	10%	11%	13%
Unknown Third Party at Fault %	5%	2%	3%
Average Incident Cost		$3,276	$3,461
Incident Cost per vehicle		$378	$558

Management Tool

COST CENTRE	VEHS	CLMS	CLMS $	AV/CLMS	PER UNI	% DAF	$ % CVO	$ % UTP	$ UTP %	*DAF %*	*CVO %*	*A/RATE*
Cost Centre	86	12	$ 62,567	$ 5,214	$ 728	47%	16%	36%	8%	*58%*	*33%*	*14*
Cost Centre	82	26	$ 57,028	$ 2,193	$ 695	56%	4%	5%	12%	*46%*	*4%*	*32*
Cost Centre	79	26	$ 48,086	$ 1,849	$ 609	33%	15%	13%	19%	*23%*	*19%*	*33*
Cost Centre	64	12	$ 19,291	$ 1,608	$ 301	82%	12%	0%	0%	*50%*	*8%*	*19*
Cost Centre	61	5	$ 7,577	$ 1,515	$ 124	20%	0%	0%	0%	*60%*	*0%*	*8*
Cost Centre	55	10	$ 37,782	$ 3,778	$ 687	15%	0%	54%	40%	*20%*	*0%*	*18*
Cost Centre	42	6	$ 17,868	$ 2,978	$ 425	0%	9%	0%	0%	*0%*	*17%*	*14*
Cost Centre	38	1	$ 3,378	$ 3,378	$ 89	0%	100%	0%	0%	*0%*	*100%*	*3*
Cost Centre	35	8	$ 16,549	$ 2,069	$ 473	51%	34%	0%	0%	*25%*	*38%*	*23*
Cost Centre	28	2	$ 2,635	$ 1,318	$ 94	0%	0%	0%	0%	*0%*	*0%*	*7*
Cost Centre	24	5	$ 9,475	$ 1,895	$ 395	40%	0%	0%	0%	*20%*	*0%*	*21*
Cost Centre	21	5	$ 8,511	$ 1,702	$ 405	58%	0%	0%	0%	*40%*	*0%*	*24*
Cost Centre	16	1	$ 3,216	$ 3,216	$ 201	100%	0%	0%	0%	*100%*	*0%*	*6*
Cost Centre	15	8	$ 22,813	$ 2,852	$ 1,521	0%	9%	7%	25%	*0%*	*25%*	*53*
Cost Centre	15	2	$ 9,251	$ 4,626	$ 617	100%	0%	0%	0%	*100%*	*0%*	*13*
Cost Centre	14	8	$ 6,808	$ 851	$ 486	55%	16%	9%	13%	*50%*	*13%*	*57*
Cost Centre	3	8	$ 13,737	$ 1,717	$ 4,579	71%	29%	0%	0%	*50%*	*38%*	*267*
Cost Centre	2	2	$ 2,901	$ 1,451	$ 1,451	96%	0%	0%	0%	*50%*	*0%*	*100*
Cost Centre	1	1	$ 291	$ 291	$ 291	0%	0%	0%	0%	*0%*	*0%*	*100*
Cost Centre	15	1	$ 4,750	$ 4,750	$ 317	0%	0%	0%	0%	*0%*	*0%*	*7*
Cost Centre	11	1	$ 342	$ 342	$ 31	0%	0%	0%	0%	*0%*	*0%*	*9*
Cost Centre	0	10	$ 9,171	$ 917	#DIV/0!	68%	6%	19%	50%	*30%*	*10%*	*#DIV/0!*
Cost Centre	0	2	$ 17,332	$ 8,666	#DIV/0!	0%	0%	0%	0%	*50%*	*0%*	*#DIV/0!*
Group	**707**	**162**	**$381,359**	**$ 2,354**	**$ 539**	**40%**	**10%**	**15%**	**13%**	*35%*	*14%*	*23*
LUMLEY BENCHMARK (Best Prac) Average												
1998/99				*$ 1,947*	*$ 629*				*(10) 15 %*	*(30) 30%*	*(10) 25 %*	*(20) 36%*

MOTOR RISK MANAGEMENT PROGRAMME

4 STEPS TO SUCCESS

Step 1 – Formalise a Plan

A. Involve all persons who are responsible for vehicles and or safety.

B. Review the following steps and develop a strategy.

C. Present a formal strategy to Senior Management to gain support and funding.

D. Advise all relevant management of the strategy and their responsibility.

(If Step 1 is not achieved in total, the programmes effectiveness will be decreased)

Step 2 – Reporting and Data

A. For reporting purposes ensure vehicles are allocated to cost centres.

B. Ensure claims data above and below excess is captured and allocated to cost centres.

C. Ensure the group and cost centre Managers receive claims data each quarter.

D. Quarterly advise drivers of their cost centre performance and reinforcement of safe driving techniques.

MOTOR RISK MANAGEMENT PROGRAMME

4 STEPS TO SUCCESS

Step 3 – Employment and Training

A. Check license and driving history as part of employment process

B. Establish an induction programme specifically for vehicle drivers.

C. Establish an In-vehicle and In-house Driver Training Programme.

D. Provide drivers with written instructions via a driver handbook.

Step 4 – Accountability

A. Establish what is a not acceptable performance for cost centres / drivers.

B. Develop disciplinary / incentive measures.

C. Allocate cost centre premiums on a performance basis / set targets.

D. Interview drivers following accidents to investigate circumstances.

Results

Example 1 - Fleet of 593 vehicles

299 Incidents	worth	$669,035
	REDUCED	
130 Incidents	worth	$344,419

Results

Example 2 - Fleet of 199 vehicles

35 Incidents	worth	$72,706
	REDUCED	
19 Incidents	worth	$53,530

Motor Fleet Risk Management

ACRS Benchmark Presentation