

Targeting young drivers? Need to re-think

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Abstract

Many publicity campaigns target young drivers. Close targeting of a group can reduce a campaign's impact. There is a trade-off between

- the fewer people impacted, and
- a greater impact on each group member.

Despite their higher risk, young drivers are a minority of fatality involved drives. Demographic changes imply a further decline in this proportion. Target groups should be set so as to optimise resource use, which means a close interaction between those who define a road safety problem (based on crash data and research data) and those who design countermeasures.

Introduction

Young drivers have a higher risk (per kilometre and per driver) on average than other drivers. This has been reported many times. Motor vehicle crashes are a leading cause of death in 15 to 24 year olds (1).

On their own, these are insufficient reasons to target young drivers in road safety communications.

Targeting decisions should be, and often are, based on more sophisticated analysis. Communications should relate to a particular problem behaviour (such as speeding). Decisions about targeting depend on expectations about the amount of the problem that can be overcome by targeting young drivers rather than others. The expected effect size in turn depends on:

- the proportion of the problem represented by young drivers;
- the extent to which the relevant young driver behaviour can be changed, which includes how persuadable young drivers are on the relevant issue.

The NSW Roads and Traffic Authority's *Speed Problem Definition and Countermeasure Summary* (2) suggests that although involvement in speeding related crashes was once considered a young person's problem, it is now one for all age groups (*page 12*).

This change in the proportional involvement of young drivers does not apply only in relation to speeding crashes; it is more general. Young drivers represent a minority (albeit substantial) proportion of the road toll. And this proportion is diminishing, as explained below.

Young drivers' involvement

To consider the proportional involvement of young drivers, I will use the readily available (3) reliable statistics relating to fatally injured drivers. These are not the same as statistics on drivers involved in fatal crashes, but I have used fatally-injured statistics as a proxy. It appears that the proportion of fatally injured is slightly greater than the proportion of fatal crash involved. For example, in NSW from 1995 to 1999, 33% of fatally injured drivers were 25 or younger while 30% of fatal crash involved drivers were 25 or younger (based on published NSW RTA statistics). Therefore, these statistics on fatally injured drivers seem sufficiently suitable for this general analysis.

Figure 1 shows the number of fatally injured drivers in each of 4 age groups, from 1979 to 1998 in Australia. In 1979, the under 25 years group was clearly the largest group. The under 25 group's involvement diminished at a faster rate than other groups, until by 1998 the under 25 group included less fatalities than the 35 to 54 group.

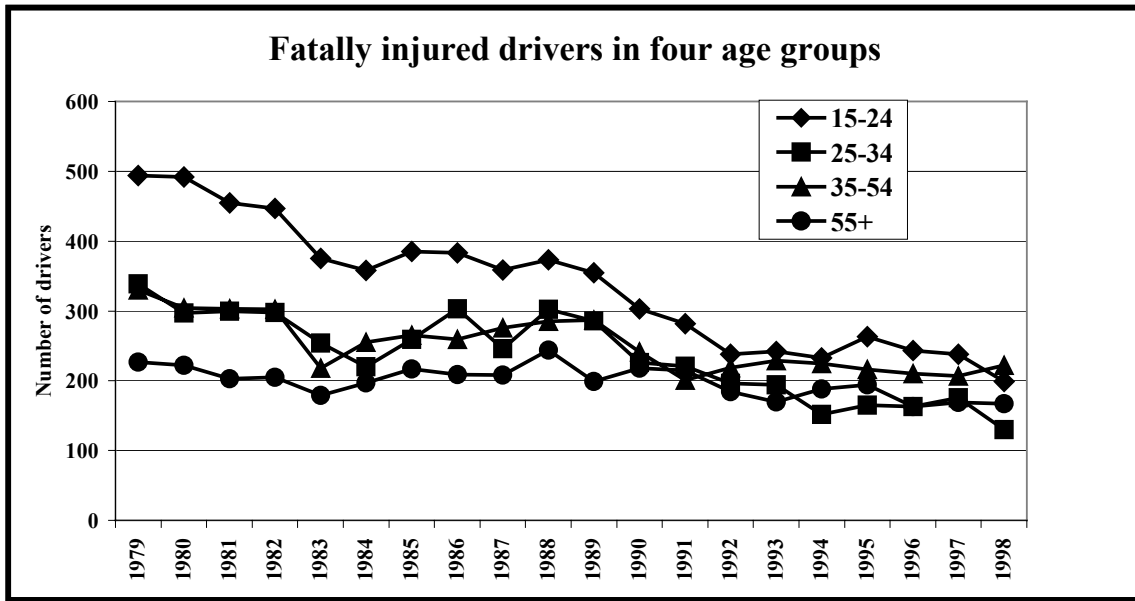


Figure 1: Number of fatally injured drivers in Australia in four age groups.
Source: National Injury Surveillance Unit (3)

Figure 2 is based on the data used for Figure 1, and shows the under 25 driver fatalities as a proportion of total driver fatalities. The proportion diminished from more than 35% in the early 1980s to 30% and less for much of the 1990s.

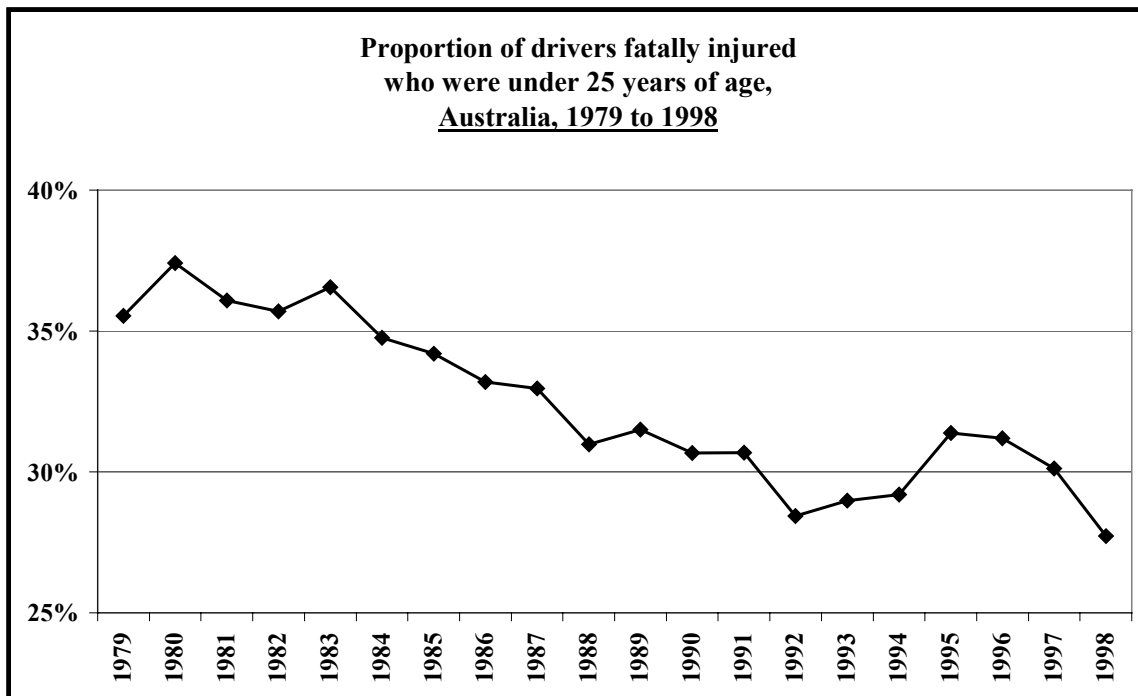


Figure 2: Proportion under 25 years of age of fatally injured drivers.

Nevertheless, the risk for young drivers has remained higher than that of other groups, as indicated by fatality rates per head of population. These are shown in Figure 3.

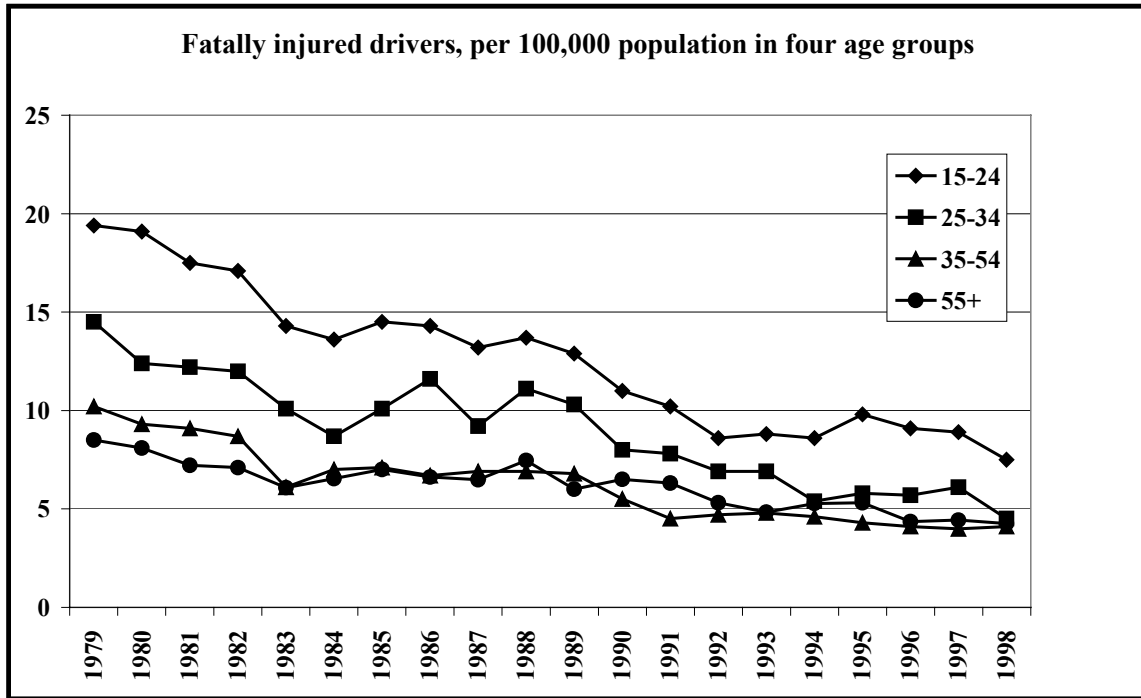


Figure 3: Per capita driver fatality rate for each of four age groups.

Although the per capita fatality rate has improved for each group, the under 25 group clearly retains the worst rate throughout the series. At first sight of Figure 3, the fatality rate for under 25s appears to have improved more than that of other groups. But, since the under 25s' rate was so much greater than the other groups' at the beginning of the series, the proportional improvement might not be any greater.

To compare the proportional improvement in per capita fatality rates across the four groups, I took an average over each of the four sets of five years (1979-1983, 1984-1988, 1989-1993, and 1994-1998) for each of the four groups. Then, for each group, the average for 1979 to 1983 was set as the baseline. Each subsequent set of five years was shown as a percentage of the 1979 to 1983 average. Figure 4 shows the results.

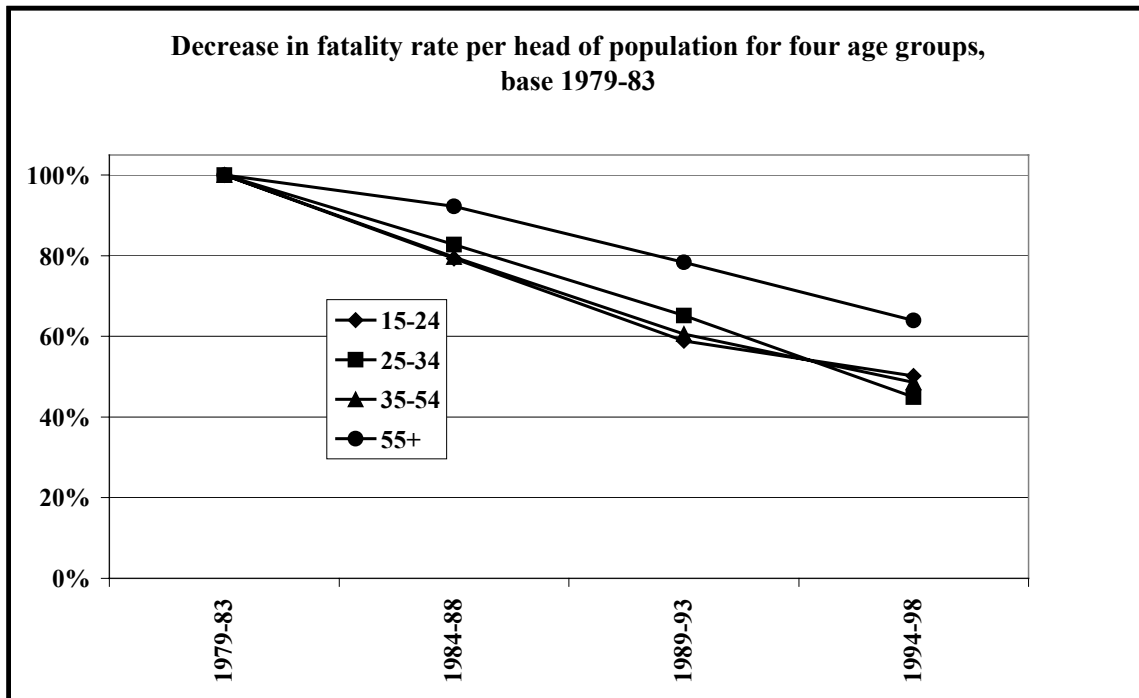


Figure 4: Decrease in per capita driver fatality rate for each of four age groups. The average per capita fatality rate for each group for 1979 to 1983 was set at 100%.

Figure 4 indicates that the per capita rate has improved about the same for three of the four groups. The 55+ group's rate has improved less than the other groups'.

In summary, the per capita fatality rate for young drivers has not improved more than those of other drivers (except the 55+ group). Yet, the proportion of fatally injured drivers who are under 25 has decreased. The reason is that young drivers are now a smaller proportion of the drivers on the road.

The median age of the Australian population increased between June 1980 and June 2000, from 29 years to 35.2 years (4). Australia's age distribution change influences the age distribution of licensed drivers. For example, the Roads and Traffic Authority of NSW (5, page 35) charted changes in the age distribution of licensees between 1988 and 1998 (inclusive). They looked at three age groups: 29 years and under, 30 to 59 years, and 60 years and over. The greatest increase was in drivers aged 30 to 59 years. The number of drivers aged 60 and over, although smaller absolutely, had the fastest growth rate. The number of drivers aged 29 and under decreased in the early 1990s and then showed a very slight increase.

Targeting

We identify target groups for purposes of communication design and media choice. Usually, a message designed for an 18-year-old differs from one designed for the average 50-year-old. Agencies place the advertisement in the media where the target audience is likely to see or hear it. For example, advertisements designed for young people are played on radio stations that are popular with the young.

Sophisticated targeting techniques relate to much more than age. Although there is much to be said, this paper is not about targeting techniques generally.

Likely persuadability should influence targeting. In relation to drink driving communication, even if the age range of drink drivers is long, targeting the young might be the best approach, if older drink drivers are less persuadable (see for example 6). What applies in relation to drink drivers might not apply in relation to speeders. Answers to such questions will depend on research done in relation to campaign development.

A communication that is designed for one group might not interest or might repel another group. An element of best practice in road safety advertising is the use of positive modelling (7). Differences in age between the model and the audience member will often have implications for persuasion. Moreover, young people change rapidly; they develop psychologically and socially and take on new roles. A communication made just right for the youngest audience members might repel people only a few years older.

Arithmetic of targeting

Wright and Esslemont (8) examine the logic of directing advertising to one particular group. Their argument relates to product advertising, not road safety. They ask us to imagine a campaign that targets one market segment, and achieves a major response. But it gets no response from other segments. They show that greater total sales can sometimes result from a campaign that achieves a response from several segments. They point out that the objective is not a major response from one segment; the objective is maximising total sales. They provide hypothetical examples. Rather than repeating their examples, I will provide hypothetical road safety examples, to illustrate the logic.

Imagine that NSW had had further campaigns, during 1995 to 1999, that had focused closely on drivers in the 20 and under age group. These (hypothetical) campaigns had been so successful that they prevented 5% of this group's involvement in fatal crashes. But they did not influence any other age groups. This would mean that NSW would have had about 20 fewer fatal crashes in those 5 years. Broader targeting might have had less effect on the very young, but a larger total effect.

Table 1 presents a few options for additional (hypothetical) campaigns.

	age group ⇒	20-	21-25	26-39	40-59	60+	<i><u>Total</u></i>
Close target	Effect	5%	zero	zero	zero	zero	
	Fatal crashes prevented	20	zero	zero	zero	zero	20
Broader	Effect	2%	3%	1%	zero	zero	
	Fatal crashes prevented	8	14	8	zero	zero	30
Broader	Effect	1%	2%	3%	2%	1%	
	Fatal crashes prevented	4	9	25	12	3	53

Table 1: The hypothetical effects of three hypothetical campaigning targets and the number of fatal crashes prevented in five years.

A campaign that closely targets teenagers might repulse others, whereas a broader main target might include others. In these above hypothetical examples, the broader the campaigns the better the overall effect.

Because the examples are invented, it is obviously not possible to conclude that broader campaigns are better. What we can conclude, however, is that there is no logical reason to believe that just because young drivers have the worst crash risks these are the ones we should concentrate upon.

The main point is that as you target more closely, you will

- more effectively influence;
- fewer people.

For example, if you can broaden your targeting to address three times as many people, this will have a positive effect, unless the closer targeting gives you more than three times the average effect of the broader targeted campaign. The benefits need to be considered against any additional costs of broader targeting.

Possible consequence of blaming the young

Wright and Esslemont's argument related to product marketing. In their examples, the marketer ran the risk that the repelled market segment would not buy. Sales would then be less than otherwise.

In road safety, the risk is greater. We run the risk that drivers in the non-targeted segments will behave worse than otherwise.

Many studies in many countries over the last 25 years have shown that most drivers consider themselves to be above average. Australian drivers said (9) that "other drivers" are a major safety problem and that the worst drivers are the young (under 25s) and the old (over 65s).

If advertisements depict drivers involved in serious crashes as always young, this will reinforce the view that young drivers are to blame. Drivers over 25 then presumably relax, a little more confident in the belief that safety is not their problem.

Close targeting teenagers could result in less safety in older groups.

Conclusions

Although they experience higher risk, young drivers are a minority of fatality involved drivers.

Because of changes in the Australian population's age distribution, young drivers are becoming a smaller proportion of those involved in fatal crashes.

Logically, targeting a minority group can result in less overall effect than a communication with a broader target.

In designing and placing communications, we should look for the biggest effect for our money. This depends on research relating to the communication as well as crash and casualty data. This means a close interaction between those who define a road safety problem and those who design countermeasures.

References

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