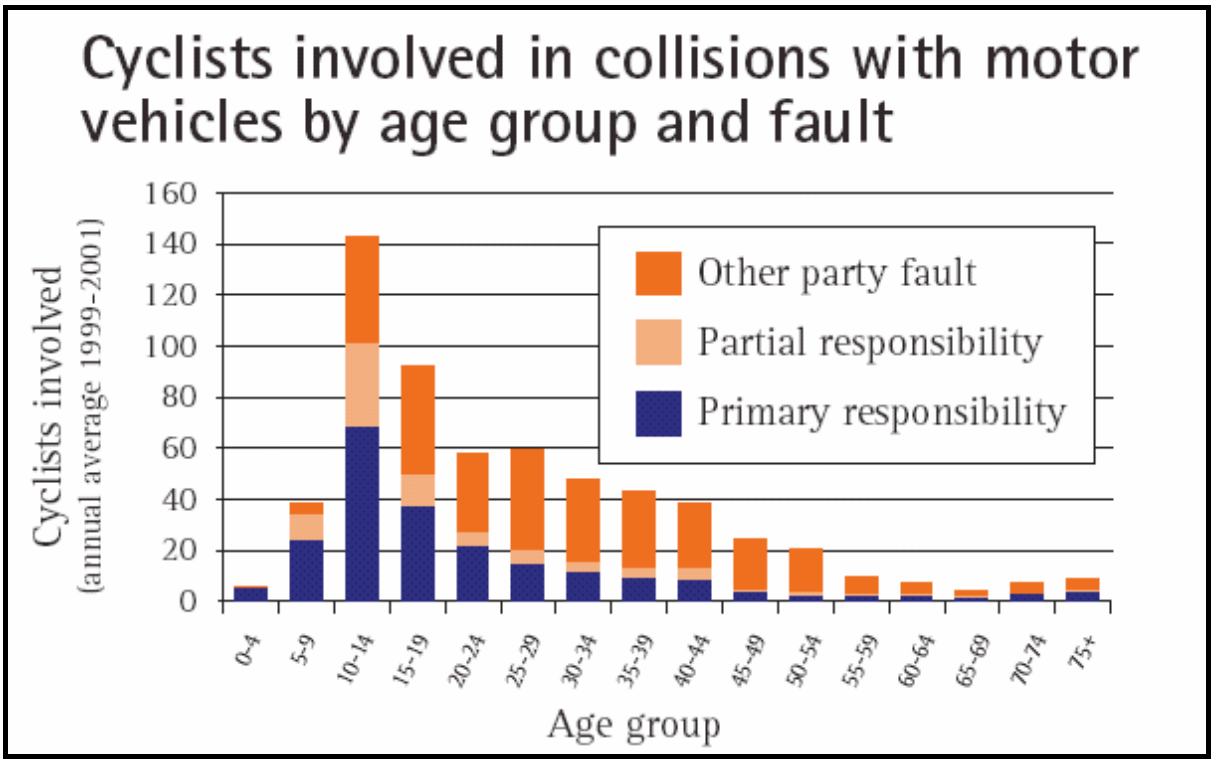
Cycling Research

THE BUTLER DID IT

Cyclists and drivers tend to be fairly antagonistic groups at times (even though many of us are both!). Regular letters to the editor will complain about the other crowd's poor driving / riding behaviour, breaking of traffic rules, and other unsafe practices. Still others will blame the roading authorities for providing unsafe facilities. So who's to blame when it comes down to road crashes?

The Land Transport Safety Authority recently provided some interesting figures on this in its regular *Road Safety NZ* newsletter (LTSA 2002). The graph below shows who is deemed to be at fault, by age group, in cyclist-vs-motor vehicle crashes (1999-2001 data). Overall, cyclists were primarily responsible for only about 35 percent of collisions involving motor vehicles. For crashes at either intersections or while making a manoeuvre, the cyclist has the primary responsibility for only 27% of collisions.



What is interesting however are the splits by age. If we look at cyclists over 25 (the age at which we also tend to get less worried about drivers) they are usually only at fault in about 22% of cases. However cyclists are increasingly more likely to be at fault as they get younger. Indeed, child cyclists under the age of 15 are more likely to be at fault than motorists, with 51% having the primary responsibility and a further 23% having partial responsibility.

This is not surprising really, given the lack of experience and road sense, and heightened risk-taking usually seen in younger cyclists. While this underlines the need to train young cyclists in road skills, it also highlights though why we should emphasise driver education:

a) for the older cyclists, it's probably the motorist's fault anyway, and

b) for the younger cyclists, it is probably easier to educate "grown-up" motorists to look out for the other party.

One thing not clear from the above analysis is the contribution of the roading environment to crashes. A quick inspection of LTSA's crash database reveals that, during 1999-2001, 5% of cycle crashes had road features mentioned and 4% listed other factors such as weather or animals. This may not be a true reflection of road problems present, as it is dependent on the attending officer identifying a feature as being deficient.

Of course, not all cycle crashes actually involve a motor vehicle. People fall off their bike or hit objects for various reasons, and they may also collide with pedestrians, animals, and other cyclists. In fact, Munster *et al* (2001) estimated from New Zealand hospital data that four times as many cyclists are injured from non-motor-vehicle crashes on the road or footpath (not including off-road mountain-biking track accidents) than those involved in a motor vehicle collision.

As part of that research, people involved in such crashes were surveyed on what they felt was the primary cause of their crash. In about half of the cases, a secondary contributory factor was also identified. The table below shows the breakdown of causes.

Factor	% Primary Cause	% Secondary Cause
Action by Self	34%	41%
Road Feature	28%	27%
Cycle Problem / Failure	16%	18%
Actions by Other Party	11%	2%
Trying to Avoid Something	7%	4%
Misc. / Unknown	4%	8%

Self-infliction aside, it is significant how much of a factor road features are deemed to be a major cause of these cycle crashes. Gravel in particular was a big concern, with roadwork signs, potholes, drains and railway tracks also featuring prominently. It is also noticeable that older cyclists were more likely than younger ones to attribute blame to external features rather than themselves. This may be a reflection of the inexperience of younger cyclists (who are probably more likely to lose control of their own accord); however it may also signify that they aren't as experienced at identifying road faults.

So who's to blame? As you can see, the answer is a bit of everyone. Cyclists need to have proper cycle training, particularly when they're young. Drivers need ongoing encouragement to share the roads safely with cyclists. And roading authorities need to make sure their roads and paths aren't hazardous.

References

- LTSA, 2002, "Stats: How to stay safe as a cyclist", in *Road Safety NZ*, Oct 2002.
- Munster D. *et al* 2001, "Role of Road Safety Features in Cycle-Only Crashes in New Zealand", Transfund NZ Research Report No. 211.