

Study puts average economic cost of each quad bike death at \$2.3m

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Credit: a d c b b

The average cost to the Australian economy of each quad bike related fatality is \$AUD2.3 million, according to [fresh research](#) that tallied up the cost of lost earnings, emergency services, accident investigations and other factors.

There are around 220,000 four-wheeled motorbikes in operation around

Australia, with each quad bike weighing around 250kg.

The organisation [Farmsafe Australia](#) describes quad bikes as "a leading cause of death and serious injury on Australian farms" due to the risk of entrapment when the vehicle rolls.

In a [study](#) published in the *Australian and New Zealand Journal of Public Health*, University of Sydney researchers examined data on the 124 fatal quad bike accidents that occurred between 2001 and 2010, 65% of which occurred on farms.

Among the factors included in their calculation were "estimates on loss of earnings due to [premature death](#) and direct costs based on coronial records for ambulance, police, hospital, premature funeral, coronial and work safety authority investigation, and death [compensation costs](#). All costs were calculated to 2010 dollars," the paper said.

"The estimated total economic cost associated with quad bike fatalities over this period was \$288.1 million, with an average cost for each fatality of \$2.3 million. When assessing the average cost of incidents between age cohorts, those aged 25-34 years had the lowest number of fatalities but had the highest average cost (\$4.2 million)."

However, the researchers said simple changes would drive down the total economic cost of quad bikes.

"With over 60% of all deaths involving a rollover, such interventions should focus on design approaches to improve the safety of quad bikes in terms of stability and protection in the event of a rollover. Additionally, relevant policy (e.g. no children under 16 years riding quads, no passengers) and intervention approaches (e.g. training and use of helmets) must also support the design modifications," the paper said.

Resistance by manufacturers

Associate Professor Tony Lower, director of the Australian Centre for Agricultural Health and Safety at the University of Sydney and lead author of the study, said quad bike manufacturers had resisted design modifications proposed by safety experts.

In an [editorial](#) published in the same edition of the *Australian and New Zealand Journal of Public Health*, Professor Lower said "the strident industry opposition in the face of mounting evidence to the contrary, is reflective of stances taken by other recalcitrant industries (alcohol, asbestos, food, tobacco) where vested interests work in contravention of public health outcomes."

Professor Lower said quad bike manufacturers "wanted all attention diverted away from the safety of the product itself and simply wanted to address rider error and helmet use."

They also appeared to be targeting younger consumers, he said.

"There is significant investment in Australia to encourage the purchase of allegedly appropriate-sized quad bikes for children, even to the extent of free giveaways when a larger unit is purchased," he said.

"What is less well publicised by the manufacturers is that there have been at least five recorded fatalities on these smaller quad bikes of children under 16 years, all of them wearing a helmet. Four of the five involved a rollover incident."

Professor Raphael Grzebieta, Chair of Road Safety at the University of NSW's Transport And Road Safety Research Centre said the findings did not surprise him.

"If a person on a farm is killed, not only is it devastating from a family perspective, but the ripple effect costs to the family and the surrounding farming community are significant," he said.

"We need to see interventions toward improving the design of quad-bikes in regards to stability and handling, collision avoidance and rollover protection. It needs to be recognised that quad bikes cannot travel over all terrains safely nor are they the 'safe work horses' that some users believe they are.

Professor Grzebieta said side-by side-vehicles may be a safer choice in some farming environments.

"The current major UNSW study on quad bike performance funded by the NSW WorkCover Authority is carrying out hundreds of tests on 11 quads and five side by side vehicles to provide a star safety rating for stability, handling and rollover crashworthiness [for quad bikes]," he said.

"Such a star rating system ([ANCAP](#)) for motor vehicles has fostered major improvements to vehicle safety, and we expect similar improvements for [quad bikes](#)."

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