

Roadside Impact Severity Calculator (RISC)

Crash Costs Update (released October 2013)

This Information Sheet is intended for users of the Roadside Impact Severity Calculator (RISC) software.

The RISC software estimates the likelihood of occurrence of five crash severity classifications:

- Fatality
- Hospitalisation
- Medical Treatment
- Minor Injury
- Property Damage Only (PDO).

For the purpose of economic evaluation (specifically of the treatment of roadside hazards) each of these five severity classifications is assigned a dollar value. This Information Sheet provides the most recent values for crash severity costs.

The Department of Transport and Main Roads adopts two methods of project evaluation (i) Human Capital and (ii) Willingness to Pay, the use of which is dependent upon the project funding source.

Users of RISC should seek advice from the Project Manager which set of values to use.

i. Human Capital

For most projects, it is currently appropriate to use Human Capital values, which, with some explanation, are provided in the table below.

June 2013	Urban	Rural
Fatality	\$2,422,354	\$2,600,877
Serious Injury	\$582,792	\$621,089
Medical Treatment	\$25,489	\$24,994
Minor Injury	\$25,489	\$24,994
PDO	\$9,280	\$9,280

These values are provided by TMR Strategic Investment & Asset Management Section and are derived from the Guide to Project Evaluation Part 4: Project Evaluation Data (Austroads, 2012), which provides values at June 2010. The June 2010 values are multiplied by 1.069 being the ratio of CPI for Brisbane for June 2013 and June 2010.

$Brisbane_{June\ 2013} = 102.5$ and $Brisbane_{June\ 2010} = 95.9$ (source: *Australian Bureau of Statistics catalogue 6401.0*).

The definitions of Urban and Rural in this regard are as defined by the Australian Statistical Geography Standard (ASGS). The ABS Section of State (SOS) Structure of the ASGS defines Urban and Rural. There are 4 SOS identifiers and names. These are listed below with definitions.

Definitions of Urban and Rural			
CATEGORY	Identifier	Name	Definition
URBAN	0	Major Urban	Major Urban represents a combination of all Urban Centres with a population of 100,000 or more
	1	Other Urban	Other Urban represents a combination of all Urban Centres with a population between 1,000 and 99,999

CATEGORY	Identifier	Name	Definition
RURAL	2	Bounded Locality	Bounded Localities represents a combination of all Bounded Localities
	3	Rural Balance	Rural Balance represents the Remainder of State/Territory

More information can be obtained from the online ABS publication: Australian Statistical Geography Standard (ASGS): Volume 4 - Significant Urban Areas, Urban Centres and Localities, Section of State, July 2011 (cat. no. 1270.0.55.004).

ii. Willingness to Pay (WTP)

For Projects funded by Road Safety programs, the use of Willingness to Pay (WTP) values may be appropriate.

June 2013	Generic	Low Speed	High Speed
Fatal	\$8,147,446	\$7,791,633	\$8,418,937
Serious Injury	\$365,761	\$357,430	\$382,386
Medical Treatment	\$106,907	\$105,800	\$109,618
Minor Injury	\$37,944	\$38,163	\$37,206
PDO	\$11,920	\$12,490	\$10,242

These values are determined by TMR Road And Rail Safety Section.

Advice should be sought from the Project Manager before adopting these values for any project.