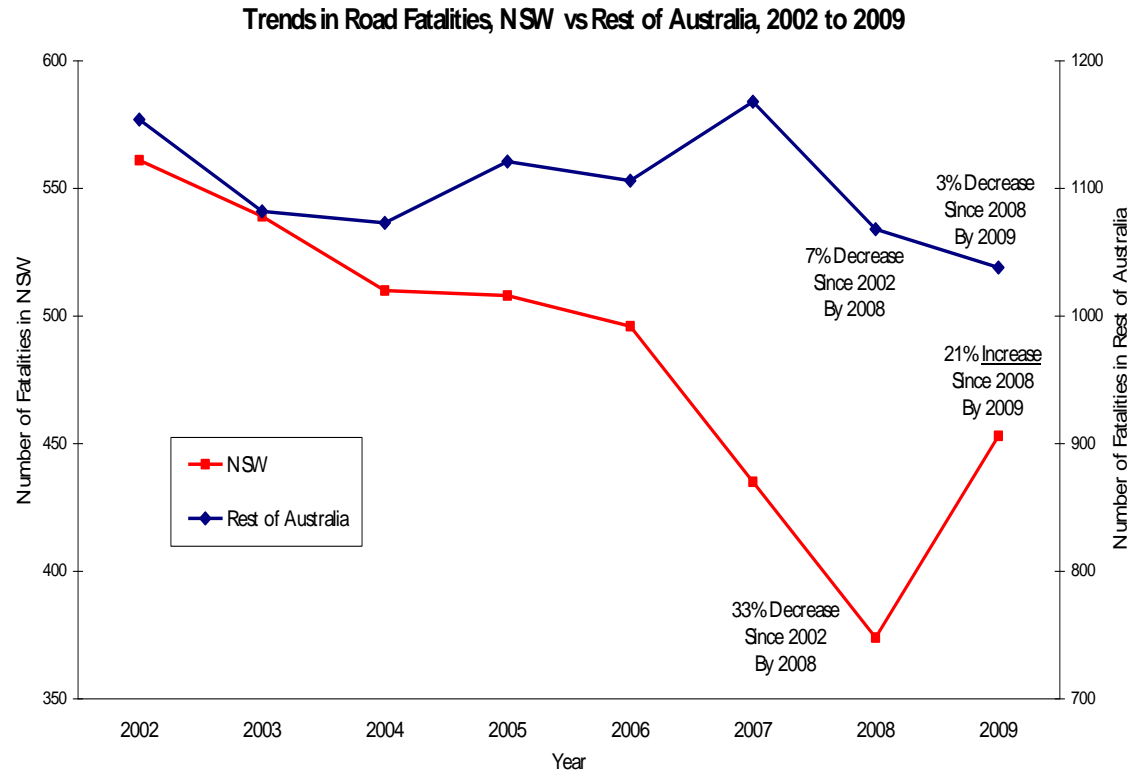


NSW Road Toll Response Package – Application of the General Evaluation Framework to the Ongoing Monitoring of Completed Road Safety Engineering Projects

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Background



- In response to 2009 fatality increase, the NSW Government announced the \$170 million Road Toll Response Package (RTRP) across five years in March 2010
- RTRP includes a number of road safety measures, with road engineering treatments a major component

RTRP Overview

- Aim = To improve road safety in NSW by reducing road casualty crashes and resultant road trauma, with a focus on reducing fatalities on NSW roads

SAFER ROADS	Improvements to roads and roadsides resulting in reduction of casualty crashes and less severe injury outcomes in the event of a crash
SAFER SPEEDS	Increase in road user compliance with speed limits resulting in reduction of casualty crashes and less severe injury outcomes in the event of a crash
SAFER VEHICLES	Safe and efficient operation of freight and logistics industry resulting in reduction of heavy vehicle casualty crashes and less severe injury outcomes in the event of a crash
SAFER PEOPLE	Adoption of safer practices by all road users, including pedestrians and motorcyclists, resulting in reduction of casualty crashes and less severe injury outcomes in the event of a crash

- Specific projects within each pillar include:
 - re-introducing mobile speed cameras
 - highway route safety reviews
 - safety upgrades on high crash areas
 - development and implementation of safety strategies
 - heavy vehicle road safety initiatives
 - pedestrian safety initiatives

Summary of RTRP Engineering Works Program

- Four programs:
 - **Safety Barriers** – roll-out of wire-rope safety barriers and other barrier types, with associated shoulder widening and audio-tactile lines
 - **Local Government Road Review and Work** – targeted safety works to rectify safety concerns on poor performing council managed roads
 - **Route Safety Reviews** – comprehensive multi-disciplinary review of four State highways, supported by a tailored package of safety works
 - **Pedestrian Fencing** – rollout of pedestrian fencing at locations with a high pedestrian crash history to better protect pedestrians
- An Analytical Framework guided state-wide analysis, identification, assessment, selection and prioritisation of RTRP Road Safety Engineering Works
 - Based on crash cluster analysis and identification of specific crash types

General Evaluation Framework for RTRP

- Transparent and accountable to the public
- Developed upfront to allow for clear direction and outcome measures for the duration of the package
- Multi-tiered approach to ensure diversity and complexity of the Package is fully explored
- Overarching approach for RTRP as a whole, to be used for program-level approaches for program streams
- Target high risk crash locations for immediate road safety benefits, and long term gains through systemic research and strategies

General Evaluation Framework for RTRP

- Undertaken at the following three levels:
 - Level 1 (Community Results) – Evaluation focusing on assessing the success of the overall aim of the program to reduce road casualty crashes and resultant road trauma on NSW roads
 - Level 2 (Safe System Results) – Evaluation that will focus on assessing the primary objectives of the program area in line with a safe system approach to road safety
 - Level 3 (Individual Program Results) – Evaluation that will assess the specific effect of individual RTRP projects

Evaluation Framework for RTRP Engineering Works Program

- Aligns with RTRP General Evaluation Framework
- Informed by best-practice literature review
- Includes design for each of the four program streams
- Process evaluation
 - comparison of program delivery against program plans and timelines
 - analysis of minutes, issues logs and file notes from steering committee meetings
 - review of any subsequent changes made to the program

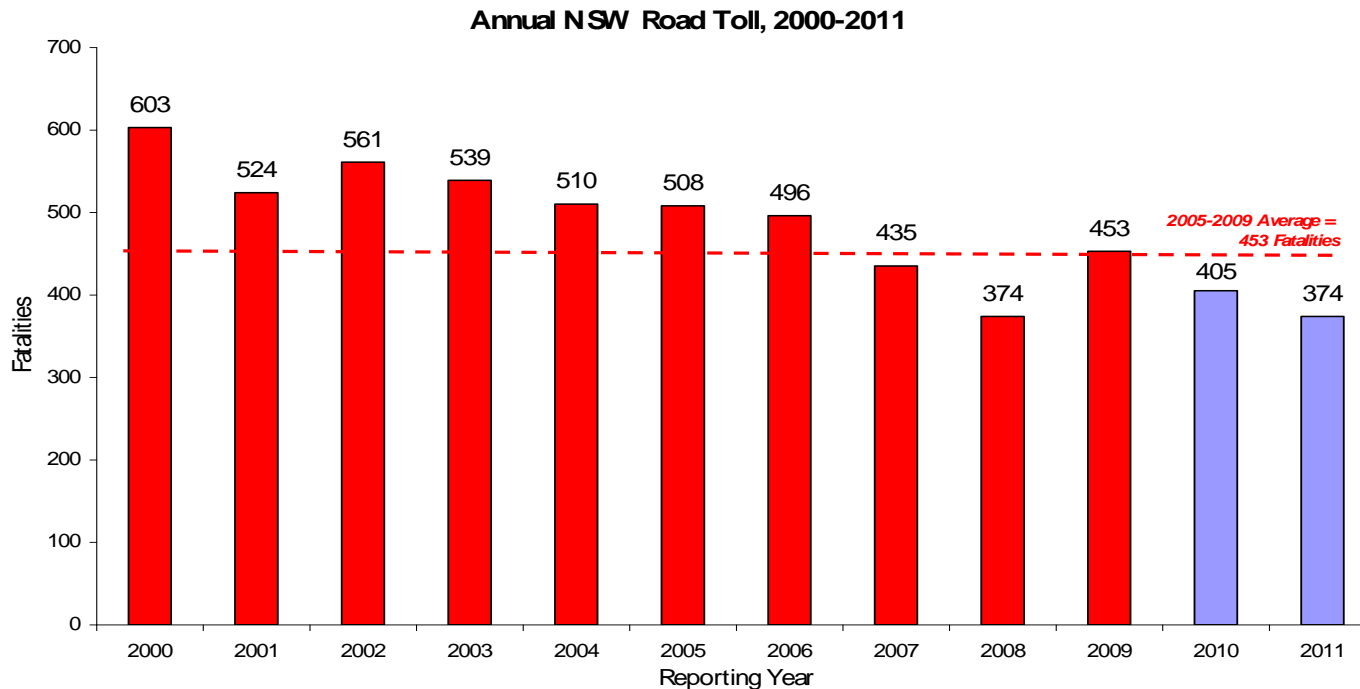
Outcome Evaluation Approach

- Crash analysis based on relevant crash types for each program:
 - Safety Barriers – Head-on casualty crashes, off-path casualty crashes
 - Local Government Road Review and Work – Intersection crashes, same direction crashes, head-on crashes and off-path crashes on local and regional roads where the posted speed limit is 70km/h or more
 - Route Safety Reviews – All casualty crashes on an identified route of the reviewed State highway
 - Pedestrian Fencing – Pedestrian casualty crashes
- Before-after analysis of crash/casualty rates (per VKT) at treatment locations compared to control locations (where possible)
- Crash data collated and analysed annually to monitor progress, and 5-year data aggregated for longer-term analysis



Preliminary Findings – Level 1

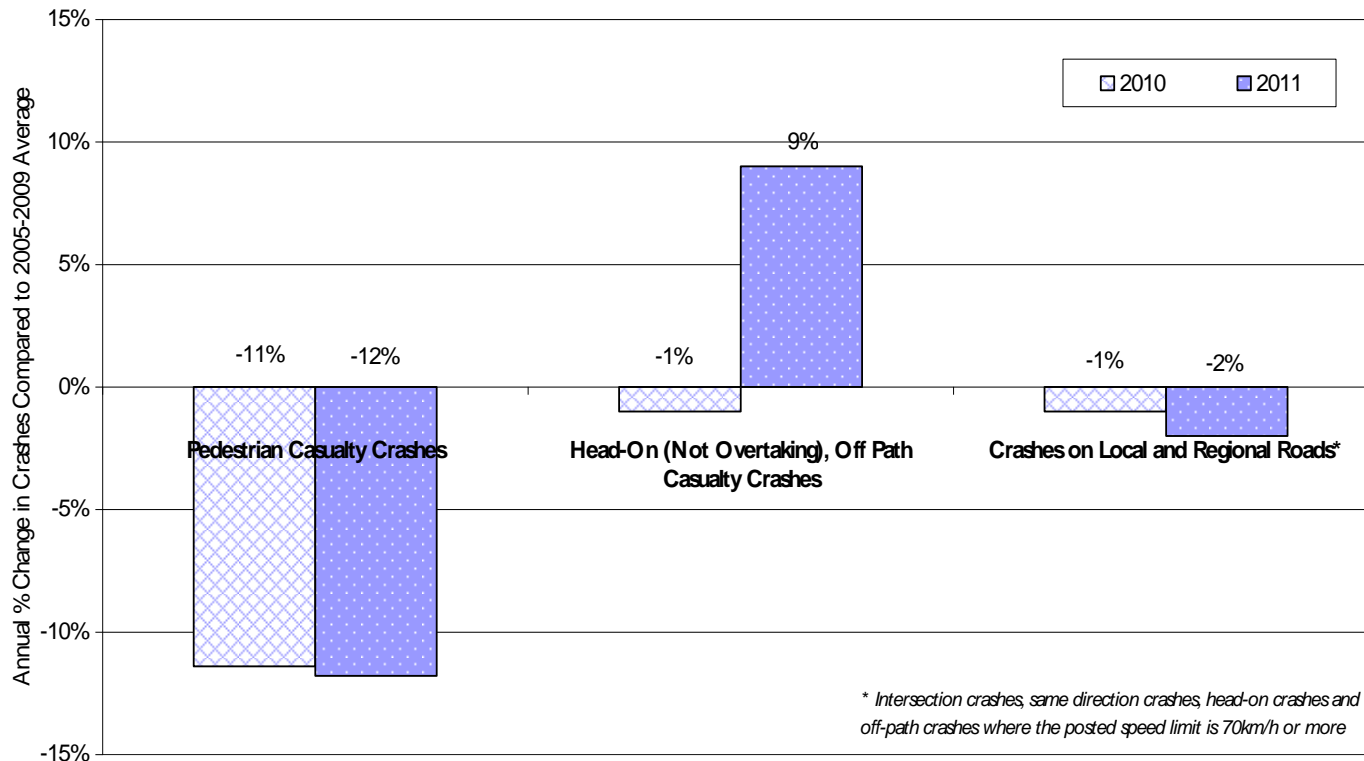
- NSW road toll dropped by 11% between 2009 and 2010, and by another 8% between 2010 and 2011, both below the five-year average
- Consideration of other measures (e.g. modelling)



Preliminary Findings – Level 2

- Reductions in relevant crash types in 2010
- Reductions continued in 2011 for 2 of 3 crash types

Annual Percentage Change in NSW Crashes for Crash Types Relevant to the RTRP Engineering Works Program, 2010 and 2011 Compared to 2005-2009 Average



Annual Monitoring of Completed Engineering Projects – Level 3

- Based on 26 completed engineering projects (as at October 2012):
 - 12 casualty crashes (resulting in 13 injuries) approximately one year after implementation
 - 21 casualty crashes (resulting in one fatality and 22 injuries) before implementation
- Location report prepared for each completed project
- Further work needed to rigorously evaluate the RTRP Engineering Works program

E.g. Pedestrian Fencing Project – Before Treatment



E.g. Pedestrian Fencing Project – After Treatment



Summary

- Application of a broad evaluation framework to a specific part of a broader package of road safety countermeasures
- Initial monitoring of RTRP Engineering Works program demonstrates a crash reduction of almost 50% at current completed engineering project locations in their first year
- Further work needed to rigorously evaluate the program according to evaluation framework parameters



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Thank You

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