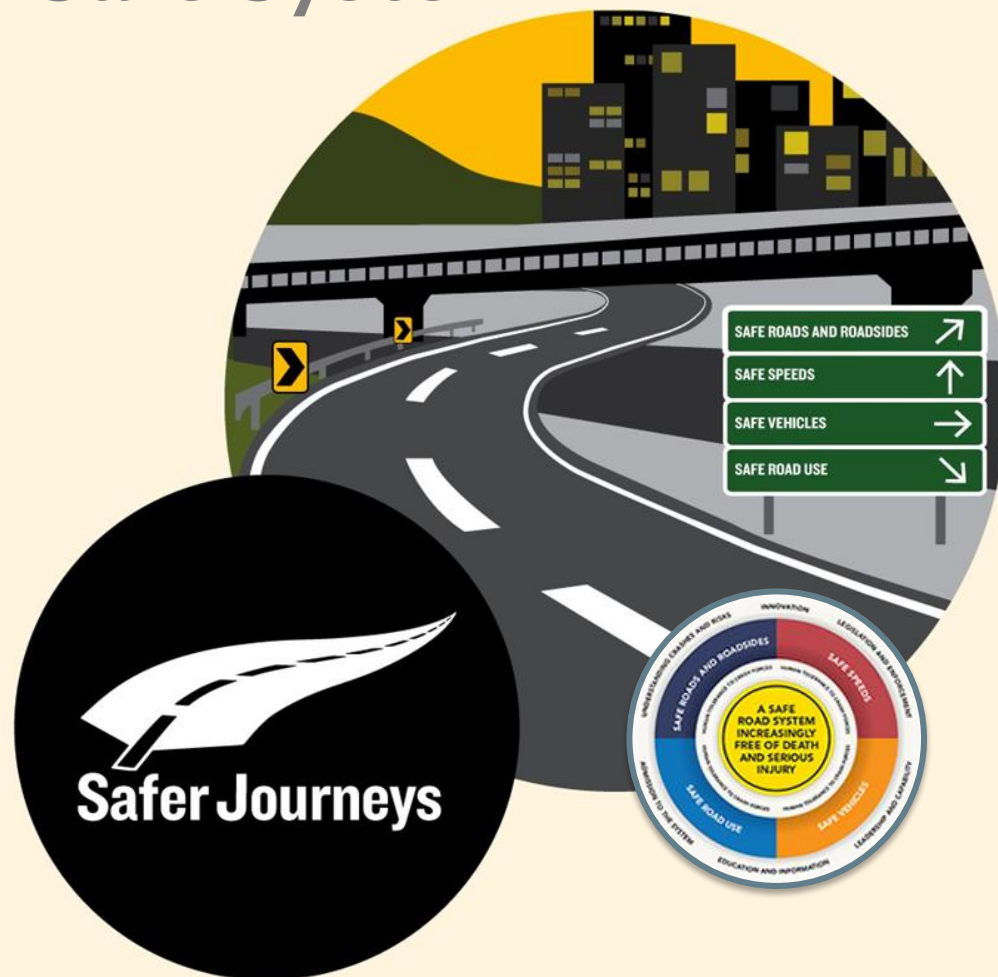


Implementing the Safe System Approach in New Zealand

Colin Brodie
Chief Advisor Safety
NZ Transport Agency
September 2016



NEW ZEALAND

HOME OF MIDDLE EARTH
AND N Z TRANSPORT AGENCY





WE ARE UP HERE

**YOU ARE DOWN
HERE
SOMEWHERE**

Some Facts About New Zealand

- It is NOT part of Australia
- 268,680 KM² – A bit smaller than Finland
- Approximately 100,000 km of roads
- Population: 4.7 Million Humans
30 Million Sheep
7 Million cows
- New Zealanders are called Kiwis



Our Places





THAT'S HOW WE SAY HELLO!



New Zealand's Road Safety Performance

Road traffic fatality rates per 100 000 population, by WHO region

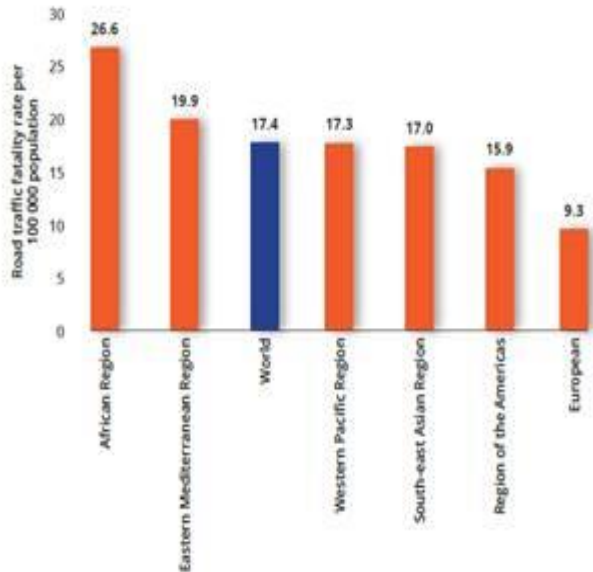
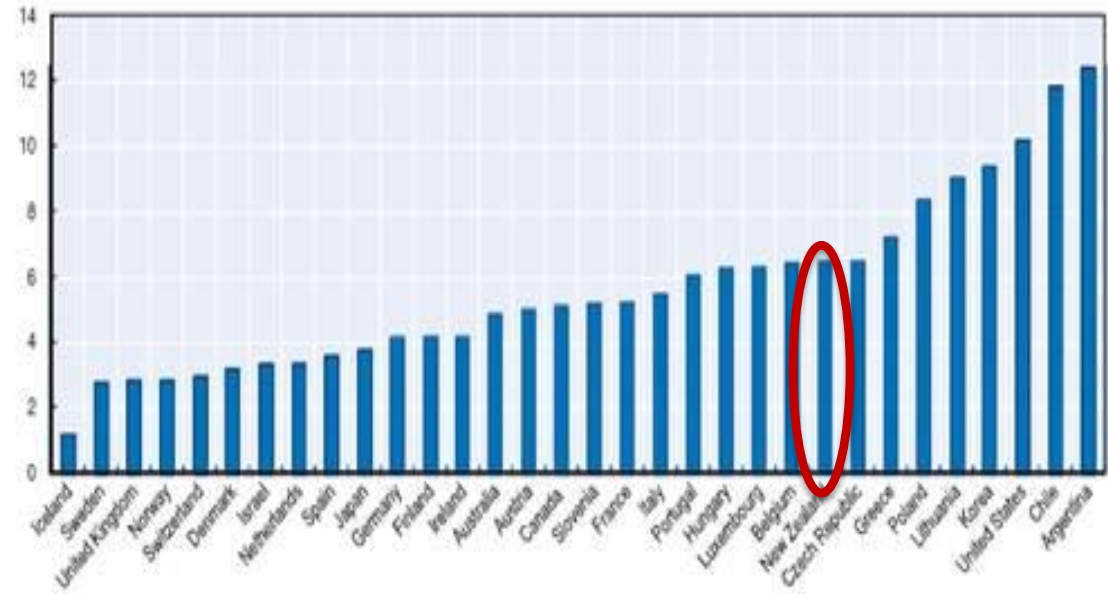


Figure 1.2. Road fatalities per 100 000 inhabitants, 2014



Source: Global Status Report on Road Safety (WHO 2015)

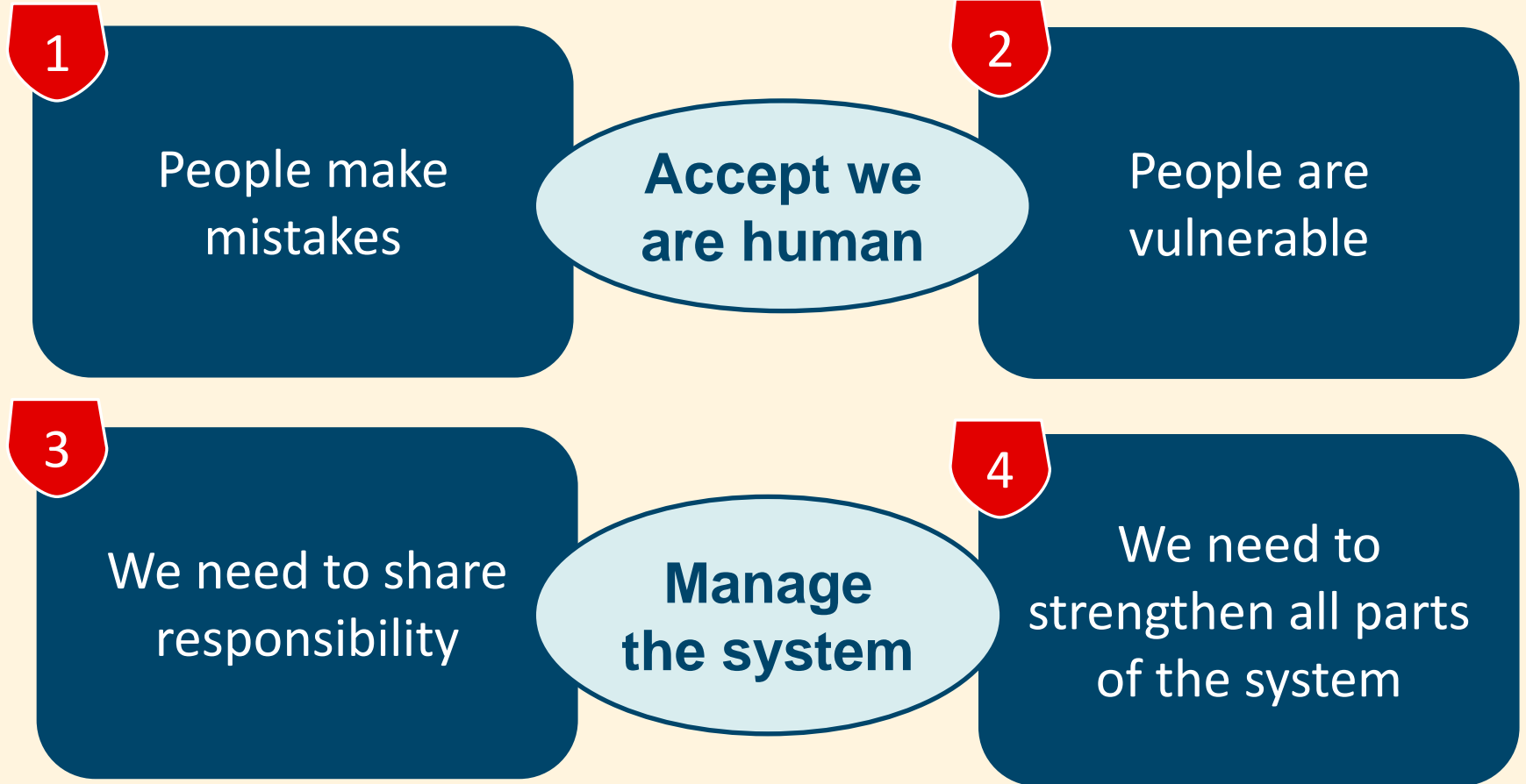
Source: IRTAD Road Safety Annual Report (2016)

Safer Journeys: New Zealand's Road Safety Strategy 2010–2020

- Adopted Safe System approach
- Shift away from blaming the driver
- Whole of system approach



New Zealand's Safe System principles




New Zealand's Safe System Elements



Change Management Process

- Communicate: International Experts
Develop Resources
- Embed: Technical Guides
- Build Capacity: Training courses
- Enact: Demonstration Projects

Communicate: International Expert Visits





Rural traffic safety - a Swedish perspective

- problems
- solutions
- outcomes
- innovations
- research areas

2011-04-14

TRAFIKVERK

Torsten Bergh (Sweden)



Bruce Corben (Australia)



Trafinz Conference 2011: "Action"
16– 18 November, Hamilton NZ

Theme - Traction

**Towards a Safe System
the Challenge of Implementation**

Bruce Corben
Associate Director
Research Translation & Partnerships
Monash University Accident Research Centre

MONASH University
Accident Research Centre

**Implementing the
Safe System approach**

Safer Journeys

What's happening?

Eric Howard, Safe System expert and Principal of Whiting Maize, a Strategic Road Safety Advisory Consultancy, will visit six NZ Transport Agency offices in April 2013 to speak about implementing the Safe System approach. All road safety partners are encouraged to participate.

Embedding the Safe System approach is a strategic priority for the NZ Transport Agency. These sessions build on Eric's highly successful visit to New Zealand in 2010 when *Super Journeys* was launched. Now, three years on, we can all benefit from Eric's insight into how to deliver this transformational approach to saving lives and reducing serious injuries.

Eric's background

Eric is an internationally recognised expert on strengthening road safety management capacity within government and the development of practical, effective road safety policies and strategies involving relevant stakeholders.

Eric was responsible for the introduction of the Safe System approach to road safety in Australia. He continues to provide advice to government road safety agencies in most Australian states and to the national government.

He has lead and co-authored road safety management capacity reviews, drafted road safety strategies and provided road safety advice for the World Bank and governments in more than 25 developed and developing countries.

What will the seminar cover?

The focus of this session will be on delivering the Safe System approach. It will have a practical focus for system designers - planners, policy makers, engineers, investors, communicators, enforcers. Eric will begin the session with a presentation followed by plenty of time for a Q&A session, so bring along your questions.

How to register

If you are interested in attending the seminar in your region, please use the details below to RSVP.

Region	Auckland
Date	Friday 12th April 2013
Time	Breakfast: 8am
Venue	NZTA, HSBC
RSVP details	melanie.hartle

www.saferjourneys.govt.nz




Eric Howard (Australia)

Communicate: Safe System Resources


We produced a range of simple resources to help explain what Safe System means for various groups.

Embedding the Safe System approach to road safety

A Safe System recognises that people make mistakes and are vulnerable in a crash. It reduces the price paid for a mistake so crashes don't result in loss of life or limb



Mistakes are inevitable – deaths and serious injuries from road crashes are not



Safer Journeys for engineers



A safe road system is engineered well

Safer Journeys is New Zealand's road safety strategy to 2020, with the vision of a 'safe road system increasingly free of death and serious injury'.

At the heart of Safer Journeys is the Safe System approach, which recognises that people make mistakes and some crashes are inevitable. It states that people need to be protected from crash forces, and accommodates Safe System principles in the design and maintenance of roads and roadsides.

The responsibility of the road engineering sector is to help take New Zealand toward the vision of a safe road system increasingly free of death and serious injury. The sector will do this by creating a more forgiving road system that reduces the price paid for human error. No one should pay for a mistake with their life or limb.

Good road engineering sets the foundation for a Safe System that protects people from death and serious injury when mistakes occur.



Safer journeys for planners

A safe road system starts with good planning

Safer Journeys is New Zealand's road safety strategy to 2020, with the vision of a 'safe road system increasingly free of death and serious injury'.

At the heart of Safer Journeys is the Safe System approach, which recognises that some error and some crashes are inevitable. It states that people need to be protected from crash forces, and accommodates these principles in the design and planning of transport systems.

The responsibility of the transport and planning sectors is to take New Zealand toward the vision of a safe road system increasingly free of death and serious injury. The sectors will do this by creating a more forgiving road system that reduces the price paid for human error. No one should pay for a mistake with their life or limb.

Good planning and design sets the foundation for a Safe System that protects people from death and serious injury when mistakes occur.

Communicate: Mistakes advertisement



“Other people make mistakes”

https://www.youtube.com/watch?feature=player_embedded&v=bvLaTupw-hk

Communicate: Video



**The difference
between life
and death**

A SAFE ROAD SYSTEM



Embed: Technical guides on-line

High-risk rural roads guide

This document provides guidance on the government's Safer Journeys 2020 Strategy initiative to focus efforts on high-risk rural roads.



New Zealand Government

High-risk intersections guide



New Zealand Government



Safer journeys for motorcycling on New Zealand roads



NZ TRANSPORT AGENCY
WAKA KOTAHĪ



Road Controlling Authorities Forum
ROAD CONTROLLING AUTHORITIES FORUM
Road Controlling Authorities Forum (New Zealand) Incorporated



NZ TRANSPORT AGENCY
WAKA KOTAHĪ

Build Capacity: Training Courses



Safe System in Practice

2 day course

Over 1200 people



**The Safe System in
practice
Course book 2013**



Enact: Demonstration Projects From This



BEFORE

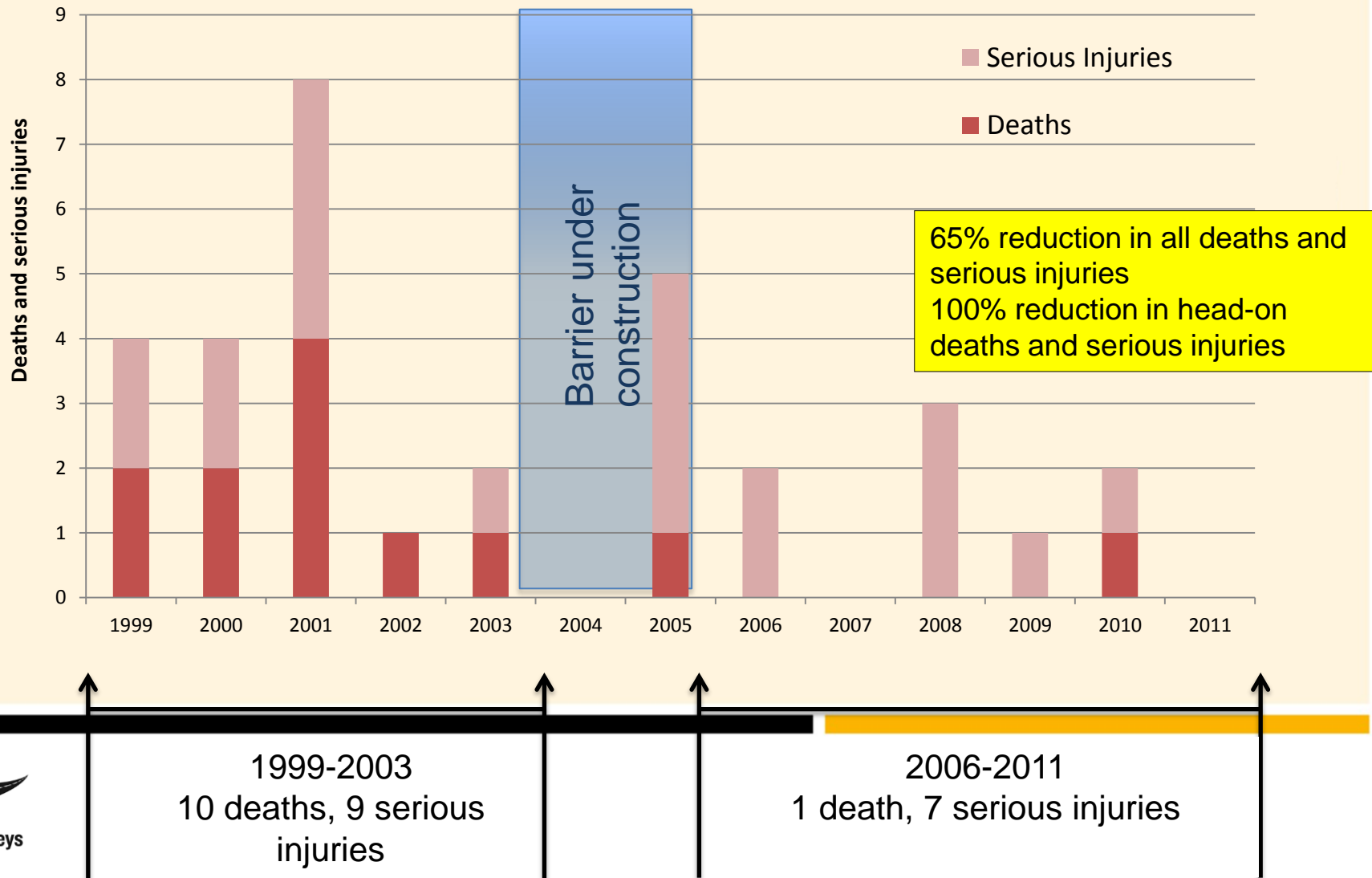
Enact: Demonstration Projects To This



AFTER

Evaluate: Before and after results

Deaths and serious injuries from **all crash types**
before & after installation of wire rope barrier





Austrorads Safe System Assessment Framework

	ROR	HO	INT	OTHER	PED	CYC	M/C	
Exposure	High volume × 4/4	High volume × 4/4	High vol. on Burwood Hwy × Moderate vol. on Terrara Rd – 4/4	High volume × 4/4	Low pedestrian volumes ✓ 1/4	Low cyclist volumes ✓ 1/4	Low motorcyclist volumes ✓ 1/4	
Likelihood	Steep grade × Deceleration lane ✓ Presence of intersection × No shoulders × Moderate clear zone – No barriers × 3/4	Divided, wide/raised median ✓ Intersection movements/conflict points minimal for HO crash ✓ 1/4	% turning movements × No. of lanes and conflict points × High speed × Poor sight distance × Protected turn lanes ✓ 3/4	High no. of lanes × Protected turn lanes ✓ Short decel. lanes × Buses stopping × 3/4	Service lane with footpath ✓ No crossing facilities at intersection × Many lanes to cross × 4/4	Service lane – some separation ✓ No crossing facilities at intersection × 4/4	No delineation × Well surfaced ✓ Straight road ✓ 3/4	
Severity	High speed × No barriers × Steep grade × Poles and trees to hit × 3/4	High speed × Low speed in side road ✓ 3/4	High speed × Bad conflict angles × 4/4	High speed × 3/4	High speed × No crossing facilities × 4/4	High speed × 4/4	High speed × Some roadside hazards × 4/4	Total
Product	$4 * 3 * 3 = 36/64$	$4 * 1 * 3 = 12/64$	$4 * 3 * 4 = 48/64$	$4 * 3 * 3 = 36/64$	$1 * 4 * 4 = 16/64$	$1 * 4 * 4 = 16/64$	$1 * 3 * 4 = 12/64$	176/448

