# **Communities at Risk Register**

This is a ranking based upon personal risk using fatal and serious crash data from the Waka Kotahi Crash Analysis System (CAS).

## Introduction

The Communities at Risk Register has been developed by Waka Kotahi to identify communities of road users that are over-represented in terms of road safety risk. The register highlights personal risk to road users by ranking communities by local authority area based on areas of concern.

# Using the register

The Communities at Risk Register highlights personal risk to road users. Personal risk is a count of deaths and serious injuries (DSI) divided by distance or time travelled. This is used to highlight areas where a crash is more likely to occur based on use of the road network. Because personal risk is not affected by population size, personal risk is one way of making crash measures comparable between local authorities.

The methodology includes an allowance for the trend in DSI over the last five years. This small adjustment, a third of one unit of Slope, differentiates those areas that are improving from those that aren't in addressing the level of present concern going forward.

Alongside these personal risk calculations are the average annual DSI counts based on the latest five year data (the collective risk at a local body level, regional level and national level). This is used to show the areas where the biggest difference can be made in terms of absolute numbers of deaths and serious injuries. Collective risk is affected by the population. This means that we would expect the collective risk for Wellington City to be higher than the collective risk for Kawerau District because more people live and travel in Wellington. Collective risk is calculated as the five year average yearly deaths and serious injuries, from 2018-2022. That is, total deaths and serious injuries over the five year period divided by five.

These are two ways to view risk and to identify concerns. Other sources of information should also be considered in addressing road safety. Individual Territorial Authorities (TAs) will then need to determine, through their road safety action planning, how this risk should be addressed, i.e. by taking into account the four safe systems pillars: safe roads and roadsides, safe users, safe speeds and safe yearless.

Fourteen strategic areas of concern are presented; in ranking personal risk for each we have identified two groups of concern:

- High concern is assigned to communities with personal risk profiles greater than one standard deviation from the mean (1 STDEV)
- Medium concern is assigned to communities with personal risk profiles greater than half a standard deviation from the mean and below one standard deviation (0.5 STDEV)

Standard deviation is a descriptive statistic that is used to understand the distribution of a dataset. It is often reported in combination with the mean (or average), giving context to that statistic. Specifically, a standard deviation refers to how much scores in a dataset tend to spread-out from the mean. If the distribution is normal then 68% of TAs, in this case, will lie within 1 STDEV of the mean. Knowing this assists in identifying where there is a concern.

# Data sources and methodology

The Communities at Risk Register uses fatal and serious injury crash data from CAS over the latest five year period, 2018-2022.

The latest five year annual average of death and serious injury (DSI) is the measure used throughout. Road user exposure to DSI through distance or time travelled relative to the specific topic is then taken into account.

The calculation of exposure to risk (death or serious injury) is based on 100 million vehicle kilometres travelled (100MVKT) from the Road Assessment and Maintenance Management system (RAMM) and, for active road users (cyclists and pedestrians) millions of hours of travel (MHrs) from the Ministry of Transport's (MoT) ongoing Household Travel Survey.

VKT data is reported to Waka Kotahi annually by TAs. It is used here by speed zones (open road, zones posted 80 km/h or greater and urban, zones posted less than 80 km/hr) to allocate use for intersections and loss of control crashes.

MoT's cyclist and pedestrian regional estimates of exposure are distributed by local population estimates from Statistics NZ (StatsNZ) to give a local level calculation of hours of travel.

For the subset of young drivers (aged 16-24 years inclusive) of light vehicles (car/wagon, SUV, van, ute excluding parked vehicles), licence counts from the Waka Kotahi Drivers Licence Register (DLR) have been used. The number of licensed young drivers locally and regionally as a proportion of all drivers locally has been used to allocate VKT use.

For the subset older road users, those persons over 74 years of age, the proportion of local population that they account for, using current estimates from Statistics NZ census results, has been used to allocate VKT as a measure of exposure.

For the subset motorcyclists, the MoT estimate of 1% of total VKT has been used across all local bodies.

For Alcohol & drugs the calculation used is counts of DSI where a driver was proven to be over the legal alcohol limit (ie cause codes 103, 105, 109, 221 are used), whereas before 2017 it included alcohol suspected.

The topic speed uses the road safety report group Travel Speed, which includes driving too fast for conditions, not just over speed limit.

Pedestrians includes people on foot, wheeled pedestrians, and skateboarders.

Intersections are defined as either at a road intersection, or at a road feature that is not a driveway, or neither exactly at a road intersection nor a road feature but the crash distance is less than 10m.

Particularly for the Cyclist and Pedestrian estimates, the numbers are based on source data some of which has has a large range of uncertainty which may cause large fluctuations from year to year.

# Overview

	All deaths & serious casualties	1
Road Safety	y Topic Areas	
	Young drivers (of light vehicles aged 16-24yrs)	2
	Alcohol & drugs	3
	Speed (too fast for conditions)	4
	Urban intersections (subset of roads & roadsides)	5
	Open road intersections (subset of roads & roadsides)	6
	All Intersections (subset of roads & roadsides)	7
	Open roads (loss of control & head-on - subset of roads & roadsides)	8
	Motorcyclists (crashes involving motorcycles & mopeds)	9
	Cyclists	10
	Pedestrians	11
	Distraction (attention diverted)	12
	Fatigue	13
	Older road users (aged 75yrs and over)	14

The Communities at Risk Register can be downloaded from: <a href="https://www.nzta.govt.nz/resources/communities-at-risk-register/">https://www.nzta.govt.nz/resources/communities-at-risk-register/</a>

Restraints (seatbelt not worn)







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All deaths and serious casualties											
	2023 Register										
PERSONAL RISK DSI/100MVKT	Ranking Territorial Authority	Standard Deviation	COLLECTIVE RISK  5yr AVG DSI	PERSONAL RISK DSI/100MVKT	Road Safety Regions	COLLECTIVE RISK  5yr AVG DSI					
14 11	Wairoa District Gisborne District		17 49	9 5	NORTHLAND AUCKLAND	194 606					
11	Far North District		89	8	WAIKATO	419					
11	Waitomo District		24	7	BAY OF PLENTY	201					
10	Otorohanga District		15	7	TARANAKI	90					
10 10	Horowhenua District South Waikato District		39 41	8 11	MANAWATŪ-WHANGANUI GISBORNE	215 49					
10	Kaipara District		33	8	HAWKE'S BAY	123					
9	Whanganui District		31	6	WELLINGTON	199					
9	Opotiki District		14	6	TASMAN NELSON MARLBOROUGH	90					
9	Whakatane District	1 STDEV	40	6	WEST COAST	33					
8	Masterton District  Hauraki District	0.5 STDEV	19 30	5	CANTERBURY OTAGO	310 147					
7	Manawatu District	0.5 STDEV	37	6	SOUTHLAND	86					
7	Matamata-Piako District		48								
7	Taupo District		51	6	NATIONAL	2,762					
7	Ruapehu District		17								
7	New Plymouth District Westland District		54 14								
7	Palmerston North City		40								
7	South Wairarapa District		11								
7	Whangarei District		72								
7	Invercargill City		28								
7	South Taranaki District		25								
7	Stratford District Clutha District		24								
7	Southland District		48								
7	Buller District		11								
7	Rangitikei District		25								
7	Hastings District		62								
7	Central Hawkes Bay District		15								
7 6	Western Bay Of Plenty District Rotorua District	MEAN	52 48								
6	Napier City	11127.117	30								
6	Thames-Coromandel District		31								
6	Kaikoura District		7								
6	Dunedin City		56								
6	Waimate District Wellington City		10 71								
6	Marlborough District		29								
6	Tasman District		36								
6	Auckland Rural North		67								
6	Nelson City		24								
6	Carterton District		7								
5	Gore District  Tararua District		27								
5	Waikato District		83								
5	Auckland Rural South		64								
5	Waipa District		38								
5	Grey District		8								
5	Auckland Urban South Hamilton City		171 59								
5	Hurunui District		21								
5	Waimakariri District		31								
5	Mackenzie District		8								
5	Central Otago District		21								
5	Kapiti Coast District Auckland Urban West		23 51								
5	Upper Hutt City		15								
5	Christchurch City		145								
4	Kawerau District		1								
4	Timaru District		24								
4	Waitaki District		22								
4	Selwyn District Hutt City		43 31								
4	Ashburton District		21								
4	Auckland Urban Central		168								
4	Tauranga City		46								
4	Porirua City		22								
4	Queenstown-Lakes District		24								
3	Auckland Urban North		79								
	Auckland Gulf Islands		6								
	Chatham Islands Council		1								







			(or light vehicles			
			2023 Register			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK	D 16 ( ) D 1	COLLECTIVE RI
DSI/100MVKT	Territorial Authority		5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
34	Kaipara District		12	25	NORTHLAND	54
27	Far North District		24	9	AUCKLAND	155
26	Wairoa District		4	15	WAIKATO	106
26	Horowhenua District		10	12	BAY OF PLENTY	48
24	Ōtorohanga District  Whanganui District		5 8	14	TARANAKI MANAWATŪ-WHANGANUI	23 58
20	Whakatane District		11	16	GISBORNE	10
20	Taupo District		15	18	HAWKE'S BAY	33
19	Clutha District	1 STDEV	8	10	WELLINGTON	47
19 19	Manawatu District  Gore District		12	10	TASMAN NELSON MARLBOROUGH WEST COAST	17 6
18	Central Hawkes Bay District		5	9	CANTERBURY	72
18	Hauraki District		8	13	OTAGO	40
17	Westland District		3	17	SOUTHLAND	26
17	New Plymouth District		15			
16	Gisborne District		10	12	NATIONAL	695
16	Western Bay Of Plenty District		13			
16 16	South Waikato District	0.5 STDEV	8			
16	Invercargill City Southland District	0.3 31DEV	14			
15	Napier City		8			
15	Masterton District		5			
15	Thames-Coromandel District		6			
15	Buller District		2			
15	Whangarei District		18			
15 15	Matamata-Piako District Central Otago District		7			
14	Ōpōtiki District		2			
14	Palmerston North City		12			
14	Hurunui District		6			
14	Kapiti Coast District		7			
14	Hastings District		16			
14	Stratford District	MEAN	3 12			
13	Waipa District Rotorua District	IVIEAN	13			
13	Auckland Rural South		20			
13	South Wairarapa District		2			
13	Ruapehu District		3			
13	Nelson City		6			
12	Rangitikei District		6			
12 12	Tasman District Timaru District		7			
12	Waitomo District		4			
12	South Taranaki District		5			
12	Waimakariri District		9			
11	Tararua District		7			
11	Auckland Urban South		51			
11	Auckland Urban West Waitaki District		6			
10	Waitaki District Waimate District		2			
10	Wellington City		16			
10	Dunedin City		14			
10	Waikato District		20			
10	Auckland Rural North		15			
10	Ashburton District		6			
9	Hamilton City Upper Hutt City		17 3			
9	Queenstown-Lakes District		5			
9	Christchurch City		34			
8	Porirua City		7			
7	Auckland Urban Central		36			
7	Hutt City		6			
6	Marlborough District		3			
6	Carterton District Tauranga City		9			
6	Selwyn District		8			
5	Auckland Urban North		20			
5	Grey District		1			
5	Kaikoura District		0			
2	Mackenzie District		0			
0	Kawerau District		0			
	Auckland Gulf Islands		1			
	Auckialla Gulf Islands		1			

Young drivers (of light vehicles aged 16-24yrs)







		Al	cohol and/or dru	ugs		
			2023 Register			
PERSONAL RISK DSI/100MVKT	Ranking Territorial Authority	Standard Deviation	COLLECTIVE RISK  5yr AVG DSI	PERSONAL RISK DSI/100MVKT	Road Safety Regions	COLLECTIVE RISK 5yr AVG DSI
3	Ōtorohanga District  Kaipara District		5	3	NORTHLAND AUCKLAND	50 105
3	Far North District		25	2	WAIKATO	72
2	Gisborne District		10	1	BAY OF PLENTY	42
2	Waitomo District		5	1	TARANAKI	18
2	Horowhenua District		8	1	MANAWATŪ-WHANGANUI	37
2	Whakatane District		9	2	GISBORNE	10
2	Taupo District South Waikato District	1 STDEV	7	1	HAWKE'S BAY WELLINGTON	18 25
2	Ōpōtiki District		3	1	TASMAN NELSON MARLBOROUGH	14
2	Western Bay Of Plenty District		13	1	WEST COAST	6
2	Hauraki District		7	1	CANTERBURY	52
2	Rangitikei District		6	1	OTAGO	22
2	Wairoa District		2	1	SOUTHLAND	15
2	Rotorua District New Plymouth District	0.5 STDEV	11	1	NATIONAL	488
1	Whangarei District	0.5 STDEV	15	-	NATIONAL	400
1	Masterton District		3			
1	Napier City		6			
1	Whanganui District		4			
1	Westland District		3			
1	Southland District		10			
1	Invercargill City Palmerston North City		5 7			
1	Ruapehu District		3			
1	Grey District		2			
1	South Taranaki District		5			
1	Thames-Coromandel District		6			
1	Manawatu District		6			
1	Buller District	MEAN	2			
1	Auckland Urban South Stratford District		35 2			
1	Matamata-Piako District		7			
1	Auckland Urban West		10			
1	Auckland Rural South		11			
1	Hastings District		9			
1	Waimate District		2			
1	Marlborough District		5			
1	Timaru District  Waimakariri District		6			
1	Dunedin City		8			
1	Clutha District		3			
1	Nelson City		4			
1	Waitaki District		5			
1	Auckland Rural North		10			
1	Kaikoura District  Tasman District		5			
1	Kapiti Coast District		4			
1	Selwyn District		8			
1	Central Otago District		3			
1	Porirua City		4			
1	Christchurch City		24			
1	Ashburton District		3			
1	Waikato District		10			
1	Auckland Urban Central South Wairarapa District		28			
1	Waipa District		5			
1	Tararua District		3			
1	Wellington City		7			
1	Hutt City		5			
1	Hurunui District		2			
1	Hamilton City  Queenstown-Lakes District		6			
0	Kawerau District		0			
0	Tauranga City		5			
0	Central Hawkes Bay District		1			
0	Auckland Urban North		10			
0	Upper Hutt City		1			
0	Carterton District		0			
0	Gore District  Mackenzie District		0			
<u> </u>	WIGGRETIZIE DISTRICT		·			
	Auckland Gulf Islands		1			
	Chatham Islands Council		0			







		Speed (t	oo fast for the co	onditions)		
			2023 Register			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RISK
DSI/100MVKT	Territorial Authority	Standard Deviation	5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
4	Gisborne District		15	2	NORTHLAND	53
3	Westland District		6	1	AUCKLAND	141
3	Far North District		26	2	WAIKATO	101
3	Whakatane District South Waikato District		13 12	2	BAY OF PLENTY  TARANAKI	59 21
3	Whanganui District		9	2	MANAWATŪ-WHANGANUI	50
2	Wairoa District		3	4	GISBORNE	15
2	Ōpōtiki District  Waitomo District		5	2	HAWKE'S BAY WELLINGTON	32 46
2	Taupo District	1 STDEV	15	1	TASMAN NELSON MARLBOROUGH	20
2	Rotorua District		16	2	WEST COAST	11
2	Kaipara District  Masterton District		7 6	1	CANTERBURY OTAGO	63 31
2	Napier City		9	1	SOUTHLAND	19
2	Matamata-Piako District		13		=	
2	Buller District Palmerston North City		11	1	NATIONAL	660
2	Hauraki District		8			
2	Horowhenua District	_	8			
2	Western Bay Of Plenty District Whangarei District	0.5 STDEV	15 20			
2	Ōtorohanga District		3			
2	South Wairarapa District		3			
2	Hastings District		6			
2	South Taranaki District Ruapehu District		4			
2	Stratford District		3			
2	Invercargill City		7			
2	Nelson City  Manawatu District	MEAN	7 8			
2	New Plymouth District		12			
2	Auckland Rural South		17			
2	Southland District Auckland Urban South		11 50			
1	Auckland Urban West		16			
1	Thames-Coromandel District		7			
1	Dunedin City  Mackenzie District		2			
1	Rangitikei District		5			
1	Grey District		2			
1	Carterton District Waipa District		9			
1	Wellington City		15			
1	Kawerau District		0			
1	Tasman District		8 5			
1	Kapiti Coast District Timaru District		6			
1	Gore District		2			
1	Waimate District		2			
1	Tararua District Waikato District		5 17			
1	Central Hawkes Bay District		3			
1	Clutha District		4			
1	Upper Hutt City Hurunui District		3			
1	Hutt City		8			
1	Hamilton City		12			
1	Marlborough District Tauranga City		5 11			
1	Central Otago District		4			
1	Ashburton District		5			
1	Christchurch City  Kaikoura District		30 1			
1	Porirua City		5			
1	Waitaki District		5			
1	Waimakariri District Selwyn District		5 7			
1	Auckland Rural North		11			
1	Auckland Urban Central		30			
1	Queenstown-Lakes District Auckland Urban North		5 15			
1	Auckland Orban NOITI		13			
	Auckland Gulf Islands		2			
	Chatham Islands Council		0			







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			2023 Register			
PERSONAL RISK	Panking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RIS
DSI/100MVKT	Ranking Territorial Authority	Standard Deviation	5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
DSI/100IVIVKI	Territorial Authority		Syr AVG DSI	DSI/100IVIVK1	Road Safety Regions	Syr AVG DSI
8	Wairoa District		1	3	NORTHLAND	17
7	Waimate District		1	2	AUCKLAND	171
7	Öpötiki District		1	3	WAIKATO	46
6	Buller District		2	3	BAY OF PLENTY	29
6	Whanganui District		10	4	TARANAKI	16
6	Waitomo District		1	4	MANAWATŪ-WHANGANUI	33
6	Rangitikei District		2	4	GISBORNE	7
5	Far North District		7	4	HAWKE'S BAY	21
5	Tararua District		2	2	WELLINGTON	50
5	Stratford District		2	2	TASMAN NELSON MARLBOROUGH	14
5	Horowhenua District		4	3	WEST COAST	3
5	Invercargill City	1 STDEV	12	2	CANTERBURY	75
4	Matamata-Piako District		4	2	OTAGO	25
4	Waitaki District		3	3	SOUTHLAND	14
4	Hauraki District		2			
4	New Plymouth District		12	3	NATIONAL	521
4	Gisborne District	0.5 STDEV	7			
4	Wellington City		25			
4	Palmerston North City		12			
3	Napier City		10			
3	Dunedin City		17			
3	Waikato District		6			
3	Ruapehu District		1			
3	Auckland Rural North		4			
3	South Waikato District		2			
3	Masterton District	NATANI	3			
3	Gore District	MEAN	1			
3	Auckland Urban South		60			
3	Whakatane District		3			
3	Kawerau District Manawatu District		2			
3	Hastings District		9			
3	Carterton District		1			
3	Central Otago District		1			
3	Nelson City		7			
3	Hamilton City		22			
3	Christchurch City		63			
3	Central Hawkes Bay District		1			
2	Ōtorohanga District		0			
2	Rotorua District		8			
2	Kaipara District		2			
2	Grey District		1			
2	Upper Hutt City		3			
2	Marlborough District		4			
2	South Taranaki District		2			
2	Auckland Urban Central		65			
2	Southland District		1			
2	Selwyn District		4			
2	Auckland Rural South		4			
2	Tasman District		3			
2	Taupo District		2			
2	Whangarei District		8			
2	Kapiti Coast District		4			
2	Tauranga City		14			
2	Hutt City Timaru District		10 3			
2	Auckland Urban West		13			
2	Western Bay Of Plenty District		13			
2	Waipa District		3			
2	Waimakariri District		2			
1	South Wairarapa District		0			
1	Ashburton District		2			
1	Thames-Coromandel District		2			
1	Auckland Urban North		24			
1	Porirua City		3			
1	Queenstown-Lakes District		3			
1	Clutha District		0			
1	Hurunui District		0			
0	Kaikoura District		0			
0	Mackenzie District		0			
0	Westland District		0			
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**Urban intersections** 







		91	en road intersect			
			2023 Register			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RI
DSI/100MVKT	Territorial Authority		5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
3	Palmerston North City		5	1	NORTHLAND	13
2	Waimakariri District		9	0	AUCKLAND	27
2	Ōtorohanga District		5	1	WAIKATO	49 18
2	Hamilton City  Manawatu District		9	1	BAY OF PLENTY  TARANAKI	18
2	Selwyn District		16	1	MANAWATŪ-WHANGANUI	27
2	Horowhenua District		5	1	GISBORNE	27
2	Whakatane District		6	1	HAWKE'S BAY	10
2	New Plymouth District		7	1	WELLINGTON	12
2	Matamata-Piako District		9	1	TASMAN NELSON MARLBOROUGH	11
1	Carterton District	1 STDEV	1	0	WEST COAST	1
1	Nelson City		2	1	CANTERBURY	45
1	South Taranaki District		4	1	OTAGO	12
1	Masterton District		2	1	SOUTHLAND	8
1	Timaru District		5			
1	Ashburton District		5	1	NATIONAL	247
1	Hauraki District		4			
1	Central Hawkes Bay District		3			
1	South Waikato District		5			
1	Invercargill City	0.5 STDEV	2			
1	Hutt City		3			
1	Upper Hutt City		2			
1	Waipa District		6			
1	Rotorua District		4			
1	Marlborough District		4			
1	Auckland Rural South		11			
1	Ōpōtiki District		1			
1	Tasman District		5			
1	Hastings District		6			
1	Whangarei District Auckland Rural North		6 10			
1	Dunedin City		4			
1	Stratford District	MEAN	1			
1	Waikato District	17127.114	12			
1	Southland District		6			
1	Tararua District		4			
1	Western Bay Of Plenty District		6			
1	Waimate District		1			
1	Far North District		6			
1	Whanganui District		1			
1	Christchurch City		6			
1	Gisborne District		2			
1	South Wairarapa District		1			
1	Wairoa District		1			
1	Napier City		1			
1	Kaipara District		2			
1	Hurunui District		3			
1	Ruapehu District		1			
1	Taupo District		4			
1	Central Otago District		2			
1	Westland District Clutha District		1			
0	Waitomo District		2			
0	Rangitikei District		2			
0	Waitaki District		2			
0	Mackenzie District		1			
0	Queenstown-Lakes District		2			
0	Kapiti Coast District		1			
0	Buller District		0			
0	Thames-Coromandel District		1			
0	Tauranga City		1			
0	Porirua City		1			
0	Auckland Urban South		3			
0	Auckland Urban West		1			
0	Wellington City		1			
0	Kaikoura District		0			
0	Gore District		0			
0	Auckland Urban North		1			
0	Auckland Urban Central		1			
0	Grey District		0			
0	Kawerau District		0			
	Auckland Gulf Islands		0			
	Chatham Islands Council		0			

Open road intersections







			All intersections			
			2023 Register			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RISH
DSI/100MVKT	Territorial Authority		5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
4	Whanganui District		12	1	NORTHLAND	30
3	Invercargill City		14	1	AUCKLAND	198
3	Palmerston North City		17	1	WAIKATO	95 48
3	New Plymouth District  Napier City		19 11	2	BAY OF PLENTY  TARANAKI	28
2	Horowhenua District		9	2	MANAWATŪ-WHANGANUI	59
2	Hamilton City		27	2	GISBORNE	9
2	Nelson City	1 STDEV	9	2	HAWKE'S BAY	31
2	Dunedin City		21	2	WELLINGTON	62
2	Wellington City		27	2	TASMAN NELSON MARLBOROUGH	24
2	Gisborne District		9	1	WEST COAST	4
2	Masterton District		5	1	CANTERBURY	121
2	Christchurch City Whakatane District		69 9	2	OTAGO SOUTHLAND	37 23
2	Kawerau District		1	2	SOUTHLAND	23
2	Manawatu District		11	2	NATIONAL	768
2	Ōtorohanga District		3			700
2	Matamata-Piako District		13			
2	Stratford District		3			
2	Selwyn District	0.5 STDEV	19			
2	Auckland Urban South		63			
2	Waimakariri District		11			
2	Wairoa District		2			
2	Carterton District		2			
2	Upper Hutt City Ōpōtiki District		5 3			
2	Rotorua District		12			
2	Hauraki District		6			
2	Hutt City		13			
2	South Taranaki District		6			
2	Far North District		13			
2	South Waikato District		7			
2	Hastings District		15			
2	Auckland Urban Central		66			
2	Timaru District	MEAN	8			
1	Central Hawkes Bay District		3 8			
1	Marlborough District Whangarei District		14			
1	Ashburton District		7			
1	Buller District		2			
1	Waimate District		2			
1	Tauranga City		15			
1	Tasman District		8			
1	Auckland Urban West		14			
1	Waipa District		10			
1	Auckland Rural South		15			
1	Tararua District		6			
1	Auckland Rural North  Waikato District		14 18			
1	Kaipara District		3			
1	Kapiti Coast District		5			
1	Waitomo District		2			
1	Southland District		7			
1	Western Bay Of Plenty District		8			
1	Rangitikei District		3			
1	Waitaki District		5			
1	South Wairarapa District		1			
1	Grey District  Auckland Urban North		1 25			
1	Ruapehu District		25			
1	Taupo District		6			
1	Gore District		1			
1	Central Otago District		3			
1	Porirua City		4			
1	Hurunui District		3			
1	Queenstown-Lakes District		5			
1	Thames-Coromandel District		3			
1	Clutha District		2			
0	Westland District		1			
0	Mackenzie District  Kaikoura District		0			
U	Naikoura District		U			
	Auckland Gulf Islands		1			
	Chatham Islands Council		0			

All intersections







## Open road road loss of control and/or head-on (speed zones >70km/hr) 2023 Register PERSONAL RISK Ranking **COLLECTIVE RISK** PERSONAL RISK COLLECTIVE RISK Standard Deviation 5yr AVG DSI DSI/100MVKT **Territorial Authority** DSI/100MVKT 5yr AVG DSI **Road Safety Regions** NORTHLAND 11 Wairoa District 12 108 AUCKLAND 11 Gisborne District 26 2 105 8 Kaipara District 21 WAIKATO 224 8 Waitomo District 16 BAY OF PLENTY 86 38 8 Far North District 53 5 TARANAKI MANAWATŪ-WHANGANUI 8 10 96 Ōtorohanga District 5 25 7 South Waikato District 11 **GISBORNE** 26 23 HAWKE'S BAY 52 7 Whakatane District 6 7 **Masterton District** 8 3 WELLINGTON 41 7 **Westland District** 1 STDEV 11 4 TASMAN NELSON MARLBOROUGH 38 6 Whanganui District 10 5 WEST COAST 23 Clutha District 19 3 CANTERBURY 94 6 6 Horowhenua District 19 4 OTAGO 68 Kaikoura District 6 6 5 SOUTHLAND 44 6 **Taupo District** 34 4 Ōpōtiki District NATIONAL 1,043 6 6 Ruapehu District 12 6 8 6 South Wairarapa District 0.5 STDEV 19 5 **Thames-Coromandel District** 5 Stratford District 6 18 5 Hauraki District 5 Whangarei District 35 5 Matamata-Piako District 28 5 Rotorua District 21 Gore District 5 6 5 **Southland District** 31 South Taranaki District 13 Central Hawkes Bay District 8 5 4 Invercargill City 6 4 Western Bay Of Plenty District 30 4 MEAN Manawatu District 19 **Grey District** 4 4 Rangitikei District 15 New Plymouth District 18 **Hastings District** 27 23 Waipa District 4 **Tasman District** 20 4 Mackenzie District 6 4 **Carterton District** 3 4 Waimate District 6 4 **Auckland Rural North** 40 4 Marlborough District 14 4 Tararua District 16 12 3 Timaru District 3 Central Otago District 13 3 Hurunui District 13 3 Waikato District 44 3 **Auckland Rural South** 34 3 **Nelson City** 4 3 Palmerston North City 6 3 Kawerau District 0 Waitaki District 13 3 3 Waimakariri District 14 3 5 Napier City 3 **Dunedin City** 12 **Hamilton City** 3 8 3 **Ashburton District** 10 2 **Upper Hutt City** 4 2 Queenstown-Lakes District 10 Kapiti Coast District Selwyn District 16 Christchurch City **Hutt City** 1 3 Wellington City 6 1 **Auckland Urban West** 3 Porirua City 3 Tauranga City 4 **Auckland Urban South** 12 1 Auckland Urban North 7 1 1 **Auckland Urban Central** 8 Auckland Gulf Islands 1 Chatham Islands Council 0







		IVI	otorcyclist invol	vea		
			2023 Negister			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RISH
DSI/100MVKT	Territorial Authority		5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
370	Wairoa District		5	161	NORTHLAND	33
251 223	South Wairarapa District Westland District		4	101	AUCKLAND WAIKATO	135 75
220	Stratford District		3	139	BAY OF PLENTY	43
207	Whakatane District		9	159	TARANAKI	17
202	Waitomo District		5	137	MANAWATŪ-WHANGANUI	37
199	Whanganui District		6	160	GISBORNE	7
196	Masterton District		4	169	HAWKE'S BAY	23
195 190	Öpötiki District Far North District		3 16	128 108	WELLINGTON TASMAN NELSON MARLBOROUGH	19
183	Thames-Coromandel District		9	162	WEST COAST	9
178	Kaipara District	1 STDEV	6	72	CANTERBURY	54
169	Hauraki District		7	67	OTAGO	20
168	Buller District		3	80	SOUTHLAND	11
166	Ōtorohanga District		3			
160	Gisborne District	0.5 STDEV	7	108	NATIONAL	528
146 146	Tasman District Rotorua District		10			
140	Auckland Rural North		17			
139	Manawatu District		7			
136	New Plymouth District		10			
136	Horowhenua District		5			
134	Waikato District		20			
127	Wellington City		16			
127 124	South Waikato District Ruapehu District		5 3			
123	Palmerston North City		7			
121	Tararua District	MEAN	6			
120	Hastings District		12			
120	South Taranaki District		4			
116	Whangarei District		12			
113	Rangitikei District		4			
113 108	Central Otago District  Auckland Rural South		5			
106	Southland District		7			
106	Tauranga City		13			
101	Upper Hutt City		3			
101	Western Bay Of Plenty District		8			
101	Auckland Urban West		10			
100 98	Taupo District  Napier City		7 5			
97	Auckland Urban South		32			
97	Auckland Urban Central		42			
96	Grey District		2			
95	Waimate District		2			
94	Carterton District		1			
93	Kapiti Coast District		5			
93 90	Christchurch City  Matamata-Piako District		30 6			
90	Nelson City		4			
89	Central Hawkes Bay District		2			
89	Hamilton City		10			
89	Marlborough District		5			
83	Timaru District		4			
83	Kawerau District		0			
83 81	Hutt City Porirua City		5			
78	Selwyn District		8			
77	Hurunui District		3			
76	Dunedin City		8			
75	Invercargill City		3			
75	Waimakariri District		4			
63	Queenstown-Lakes District		4			
60 60	Auckland Urban North  Gore District		18			
60	Waipa District		5			
56	Mackenzie District		1			
52	Kaikoura District		1			
44	Waitaki District		2			
41	Clutha District		1			
35	Ashburton District		2			
	Augustianal Cultitatara		2			
	Auckland Gulf Islands Chatham Islands Council		0			







## 2023 Register PERSONAL RISK Ranking **COLLECTIVE RISK** PERSONAL RISK COLLECTIVE RISK Standard Deviation DSI/Mhrs Territorial Authority 5yr AVG DSI DSI/Mhrs 5yr AVG DSI **Road Safety Regions** NORTHLAND Invercargill City **Southland District** AUCKLAND Queenstown-Lakes District WAIKATO Whanganui District **BAY OF PLENTY** New Plymouth District TARANAKI Central Otago District MANAWATŪ-WHANGANUI **Dunedin City GISBORNE Grey District** HAWKE'S BAY 1 STDEV WELLINGTON Waitaki District TASMAN NELSON MARLBOROUGH Palmerston North City Waipa District WEST COAST South Waikato District CANTERBURY OTAGO Whangarei District SOUTHLAND **Napier City** 0.5 STDEV **Auckland Urban Central** NATIONAL Manawatu District Tararua District Wellington City **Hamilton City** Far North District **Gore District** South Taranaki District **Buller District** Christchurch City Tauranga City Stratford District **Hastings District** MEAN Central Hawkes Bay District Kapiti Coast District Clutha District **Auckland Urban North** Horowhenua District Taupo District Matamata-Piako District Ruapehu District Whakatane District **Nelson City** Kaipara District Timaru District Ōpōtiki District **Auckland Rural North Auckland Urban West** Waikato District **Masterton District** Waimate District **Auckland Rural South Auckland Urban South** Gisborne District **Carterton District Rotorua District** Western Bay Of Plenty District **Upper Hutt City** Porirua City Marlborough District Waimakariri District **Tasman District** Selwyn District **Hutt City** South Wairarapa District Hauraki District Thames-Coromandel District Ashburton District Hurunui District Kaikoura District Kawerau District Mackenzie District Ōtorohanga District Rangitikei District Wairoa District Waitomo District **Westland District Auckland Gulf Islands** Chatham Islands Council

Cyclist involved







## 2023 Register PERSONAL RISK Ranking **COLLECTIVE RISK** PERSONAL RISK COLLECTIVE RISK Standard Deviation DSI/Mhrs **Territorial Authority** 5yr AVG DSI DSI/Mhrs 5yr AVG DSI **Road Safety Regions** Ōpōtiki District NORTHLAND Central Hawkes Bay District AUCKLAND Whakatane District WAIKATO Waitomo District **BAY OF PLENTY Napier City** TARANAKI **Thames-Coromandel District** MANAWATŪ-WHANGANUI **Buller District** GISBORNE **Hastings District** HAWKE'S BAY South Waikato District WELLINGTON Hamilton City 1 STDEV TASMAN NELSON MARLBOROUGH Wairoa District WEST COAST Hauraki District CANTERBURY Taupo District OTAGO Invercargill City 0.5 STDEV SOUTHLAND Waikato District NATIONAL **Gore District** Mackenzie District **Grey District** Matamata-Piako District Rotorua District Stratford District Westland District **Dunedin City** Tauranga City Western Bay Of Plenty District Auckland Urban Central **New Plymouth District** Waitaki District Whangarei District MEAN Ruapehu District Kaipara District Queenstown-Lakes District **Southland District** Whanganui District Palmerston North City Tararua District Rangitikei District **Auckland Urban South** Clutha District South Taranaki District Gisborne District Christchurch City Ōtorohanga District Horowhenua District Far North District **Auckland Rural South** Auckland Urban North **Auckland Urban West** Masterton District Waimate District **Carterton District** Kaikoura District Wellington City **Nelson City** Waimakariri District Timaru District Waipa District **Hutt City** Manawatu District Marlborough District **Auckland Rural North** Tasman District Central Otago District Upper Hutt City Porirua City Selwyn District Kapiti Coast District Hurunui District Ashburton District Kawerau District South Wairarapa District Auckland Gulf Islands **Chatham Islands Council**

Pedestrian involved







## 2023 Register PERSONAL RISK Ranking **COLLECTIVE RISK** PERSONAL RISK COLLECTIVE RISK Standard Deviation DSI/100MVKT **Territorial Authority** 5yr AVG DSI DSI/100MVKT 5yr AVG DSI **Road Safety Regions** Ōpōtiki District NORTHLAND Kaikoura District AUCKLAND Whakatane District WAIKATO New Plymouth District **BAY OF PLENTY** Wairoa District TARANAKI Whanganui District MANAWATŪ-WHANGANUI 1 STDEV Waitomo District **GISBORNE** HAWKE'S BAY Nelson City Far North District WELLINGTON Matamata-Piako District TASMAN NELSON MARLBOROUGH Porirua City WEST COAST South Waikato District CANTERBURY Invercargill City OTAGO Palmerston North City 0.5 STDEV SOUTHLAND Manawatu District Gisborne District NATIONAL Waikato District **Buller District Taupo District** Central Hawkes Bay District South Taranaki District Kaipara District Napier City Marlborough District Whangarei District **Hastings District** Timaru District Rotorua District Horowhenua District MEAN Selwyn District Waimakariri District **Tasman District** Wellington City Stratford District **Auckland Urban South** Kapiti Coast District Tauranga City **Southland District** Auckland Urban West Central Otago District **Hamilton City** Christchurch City Rangitikei District Waitaki District **Thames-Coromandel District** Westland District Mackenzie District **Masterton District** Clutha District Hauraki District Auckland Urban Central **Ashburton District Upper Hutt City** Western Bay Of Plenty District **Hutt City** Waipa District **Auckland Rural North Dunedin City** Tararua District **Auckland Rural South** Ōtorohanga District South Wairarapa District **Grev District** Queenstown-Lakes District Hurunui District Auckland Urban North Carterton District Ruapehu District Gore District Waimate District Kawerau District Auckland Gulf Islands **Chatham Islands Council**

Distraction (crash factor: attention diverted)







## PERSONAL RISK Ranking **COLLECTIVE RISK** PERSONAL RISK COLLECTIVE RISK Standard Deviation DSI/100MVKT DSI/100MVKT **Territorial Authority** 5yr AVG DSI 5yr AVG DSI **Road Safety Regions** NORTHLAND Waitomo District Kaikoura District AUCKLAND Ōtorohanga District WAIKATO Wairoa District **BAY OF PLENTY** TARANAKI Far North District MANAWATŪ-WHANGANUI Rotorua District 1 STDEV Gisborne District **GISBORNE** Marlborough District HAWKE'S BAY WELLINGTON Taupo District South Wairarapa District TASMAN NELSON MARLBOROUGH South Waikato District WEST COAST Hurunui District CANTERBURY Rangitikei District OTAGO Waipa District 0.5 STDEV SOUTHLAND Whangarei District NATIONAL Kaipara District Hauraki District Westland District Clutha District Matamata-Piako District Ōpōtiki District Tararua District **Tasman District** Whanganui District Thames-Coromandel District **Auckland Rural North** Whakatane District MEAN Waikato District **Buller District Southland District** Hastings District Ruapehu District Western Bay Of Plenty District **Grey District Ashburton District** Stratford District Timaru District South Taranaki District Waimate District Central Otago District Gore District **Dunedin City** Waitaki District Palmerston North City **Carterton District** Central Hawkes Bay District Manawatu District Selwyn District Masterton District **Auckland Urban West New Plymouth District Auckland Urban South** Horowhenua District Queenstown-Lakes District **Napier City** Porirua City **Auckland Rural South Hamilton City** Mackenzie District Invercargill City Nelson City **Upper Hutt City** Wellington City Kapiti Coast District Tauranga City Christchurch City **Hutt City** Waimakariri District Auckland Urban Central Auckland Urban North Kawerau District Auckland Gulf Islands **Chatham Islands Council**

**Fatigue** 







		Older road use	ers ( those aged i	75yrs and older)		
			2023 Register			
PERSONAL RISK	Ranking	Standard Deviation	COLLECTIVE RISK	PERSONAL RISK		COLLECTIVE RISK
DSI/100MVKT	Territorial Authority	Standard Deviation	5yr AVG DSI	DSI/100MVKT	Road Safety Regions	5yr AVG DSI
21 18	Mackenzie District Wairoa District		2	7	NORTHLAND AUCKLAND	15 52
16	Gisborne District		5	7	WAIKATO	33
15	Selwyn District		5	7	BAY OF PLENTY	19
13	Nelson City		5	8	TARANAKI	9
13	Horowhenua District		6	6	MANAWATŪ-WHANGANUI	16
13 12	Wellington City  South Taranaki District		7 3	16 10	GISBORNE HAWKE'S BAY	5 10
12	Ōtorohanga District	1 STDEV	1	8	WELLINGTON	23
11	Invercargill City		4	9	TASMAN NELSON MARLBOROUGH	13
11	Upper Hutt City		3	7	WEST COAST	3
11	Central Hawkes Bay District Waitomo District		2	8 5	CANTERBURY OTAGO	34 11
10	Masterton District		2	8	SOUTHLAND	8
10	Kawerau District		0			
10	Westland District		2	7	NATIONAL	251
10	Hamilton City		6			
9	Auckland Rural North	0.5 STDEV	8			
9	Whangarei District  Kaikoura District		8			
9	Hauraki District		4			
8	Carterton District		1			
8	South Waikato District		3			
8	Napier City		4			
8	Southland District		4			
8	Auckland Urban West  New Plymouth District		5			
8	Hutt City		3			
7	Auckland Urban South	MEAN	10			
7	Marlborough District		4			
7	Dunedin City		5			
7	Christchurch City Whakatane District		16 2			
7	Far North District		5			
7	Western Bay Of Plenty District		5			
7	Ōpōtiki District		1			
7	Kapiti Coast District		5			
6	Manawatu District  Grey District		3			
6	Queenstown-Lakes District		2			
6	Ruapehu District		1			
6	Whanganui District		2			
6	Tasman District		4			
6	Kaipara District		2			
6	Tauranga City  Matamata-Piako District		7			
6	Porirua City		1			
5	Waimate District		1			
5	Auckland Urban Central		14			
5	Auckland Urban North		12			
5	Ashburton District Waikato District		2			
5	Auckland Rural South		4			
5	Waipa District		4			
5	Stratford District		1			
5	Rotorua District		3			
5	Waimakariri District Taupo District		3			
4	Hastings District		3			
4	Hurunui District		2			
4	Palmerston North City		1			
4	Tararua District		2			
4	Thames-Coromandel District  Buller District		3			
4	Waitaki District		2			
3	Gore District		1			
3	Timaru District		2			
3	Rangitikei District		1			
3	Clutha District		1			
3	Central Otago District		1			
1	South Wairarapa District		0			
	Auckland Gulf Islands		0			
	Chatham Islands Council		0			







		Restra	ints (seatbelt no	t worn)		
			2023 Register			
PERSONAL RISK DSI/100MVKT	Ranking Territorial Authority	Standard Deviation	COLLECTIVE RISK  5yr AVG DSI	PERSONAL RISK DSI/100MVKT	Road Safety Regions	COLLECTIVE RISK 5yr AVG DSI
2	For North District		10	2	NODTHI AND	22
2	Far North District Gisborne District		19 9	0	NORTHLAND AUCKLAND	32 47
2	Waitomo District		3	1	WAIKATO	48
2	Ōtorohanga District		2	1	BAY OF PLENTY	24
2	Ōpōtiki District		2	1	TARANAKI -	10
2	Kaipara District South Waikato District		5	2	MANAWATŪ-WHANGANUI GISBORNE	25 9
2	Whakatane District		7	1	HAWKE'S BAY	13
1	Taupo District		9	1	WELLINGTON	17
1	Wairoa District	1 STDEV	2	0	TASMAN NELSON MARLBOROUGH	6
1	Horowhenua District		5	1	WEST COAST	5
1	Kaikoura District Buller District	0.5 STDEV	2	1	CANTERBURY OTAGO	29 14
1	Clutha District	0.5 STDEV	3	1	SOUTHLAND	8
1	Whanganui District		3			
1	Westland District		2	1	NATIONAL	288
1	Western Bay Of Plenty District		7			
1	Ruapehu District		2			
1	Hauraki District Central Hawkes Bay District		2			
1	Waimate District		2			
1	Palmerston North City		5			
1	Grey District		1			
1	Whangarei District		8			
1	South Wairarapa District		1			
1	South Taranaki District Rangitikei District		3			
1	Tararua District		4			
1	Matamata-Piako District		5			
1	New Plymouth District	MEAN	6			
1	Napier City		4			
1	Waimakariri District		4			
1	Manawatu District  Rotorua District		5			
1	Stratford District		1			
1	Southland District		5			
1	Waipa District		5			
1	Masterton District		2			
1	Carterton District		3			
1	Thames-Coromandel District  Hurunui District		3			
1	Hastings District		6			
1	Gore District		1			
1	Central Otago District		3			
1	Waitaki District		3			
1	Invercargill City Waikato District		2 8			
1	Auckland Urban West		5			
1	Auckland Rural South		7			
1	Tasman District		4			
1	Upper Hutt City		1			
0	Auckland Rural North		6			
0	Auckland Urban South Ashburton District		16 3			
0	Hutt City		3			
0	Dunedin City		4			
0	Wellington City		5			
0	Selwyn District		4			
0	Porirua City  Marlborough District		2			
0	Mackenzie District		1			
0	Christchurch City		10			
0	Kapiti Coast District		1			
0	Hamilton City		3			
0	Timaru District		2			
0	Tauranga City  Auckland Urban Central		3			
0	Nelson City		10			
0	Queenstown-Lakes District		1			
0	Auckland Urban North		3			
0	Kawerau District		0			
	Auckland Gulf Islands					
	Augkland Gulf Islands		1			





