



FATALITIES, INJURIES AND NEAR MISSES ON THE AUSTRALIAN HEAVY RAIL NETWORK 2001-2021

SEPTEMBER 2022

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INTRODUCTION

This report has been prepared by the TrackSAFE Foundation to increase knowledge and inform prevention activities in order to reduce fatalities, injuries and near misses on the Australian heavy rail network.

The TrackSAFE Foundation, established by the Australasian Railway Association and UGL in 2012, is Australia's only harm prevention charity focused on reducing deaths, injuries and near misses on the rail network. TrackSAFE also works to improve the wellbeing of rail employees.

Every life lost and injury on the rail network is a tragedy and the impacts on family, friends, communities, rail and recovery staff and witnesses can be profound. These incidents together with thousands of near hits each year can cause trauma and work-related stress and illness to rail and recovery staff.

They also cause disruption and delays to hundreds of services each year impacting customers and economic efficiency. The average annual economic burden of railway safety incidents in Australia during the period 2007-2015 was estimated to be approximately \$360.1 million¹.

Working closely with rail organisations, the TrackSAFE Foundation is actively engaged in a wide range of rail safety activities including public awareness campaigns and facilitation of the annual Rail Safety Week. To prevent suicides on the rail network, it advocates for fencing and other barriers to reduce access to the rail corridor, encourages individuals to seek help before and at the time of crisis and is currently exploring bystander intervention options. It also promotes the responsible reporting of suspected and attempted suicides by the media.

In partnership with Lifeline Australia, TrackSAFE implements public awareness campaigns to encourage individuals to contact Lifeline on 13 11 14 whether they are in crisis or just needing someone to talk to. The [Pause.Call.Be Heard](#) signage is used widely in the rail corridor as well as being delivered digitally in bursts to those in and near the corridor.

More information on TrackSAFE's activities is available via its [website](#).

Some people may find the content of this report confronting or distressing. The information included here places an emphasis on data, and as such, can appear to depersonalise the pain and loss behind the statistics. If this material raises concerns for you contact Lifeline on 13 11 14.

1. RISSB 2015 AS 7644. 2015. Rail Corridor Access Infrastructure Standard p4.

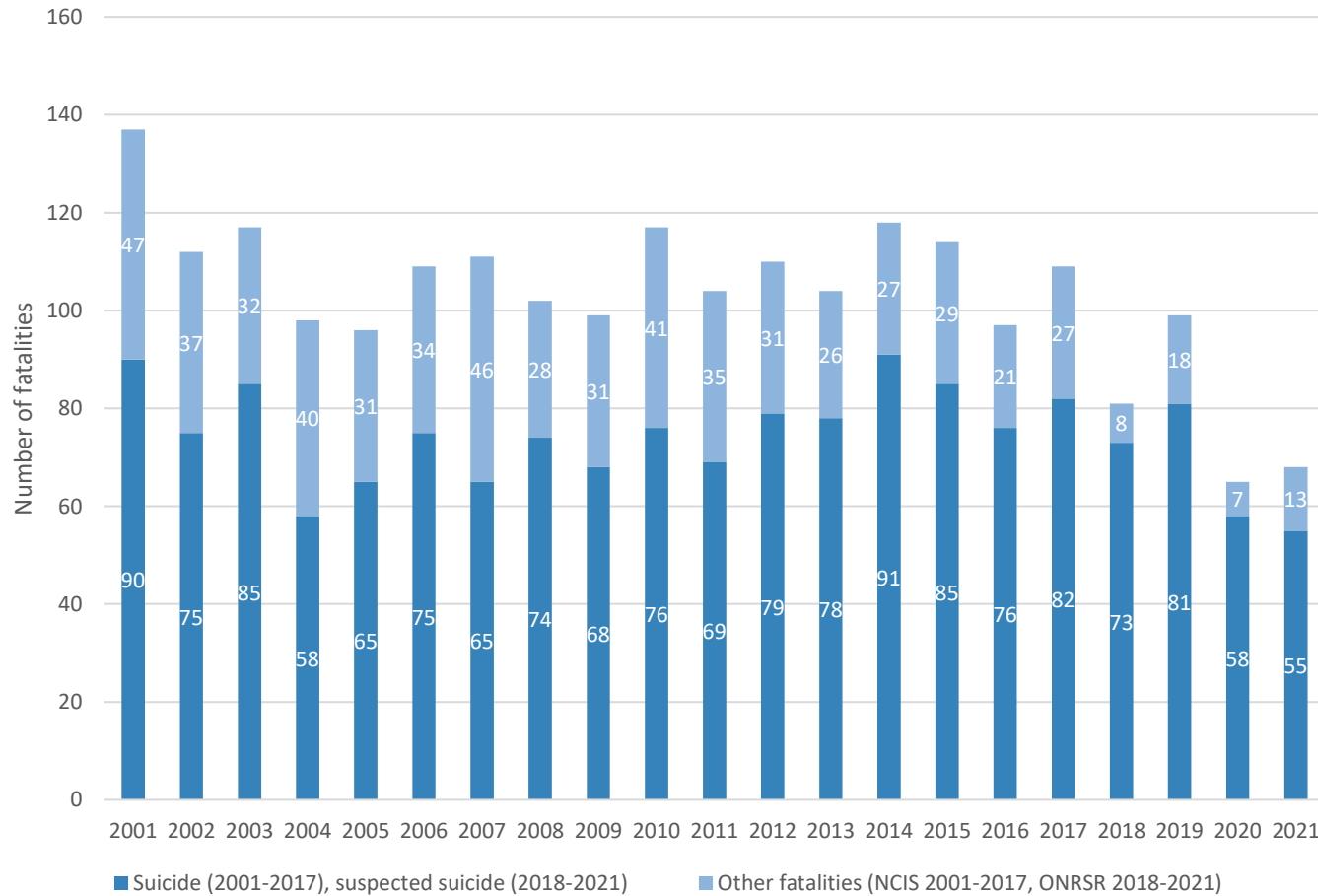
NOTES ON THE DATA IN THIS REPORT

- Fatality, injury and near miss data in this report has been sourced from either the National Coronial Information System (NCIS) or the Office of the National Rail Safety Regulator (ONRSR).
- Where data is described as 'suicide', the data has been sourced from a report commissioned by the TrackSAFE Foundation from the NCIS for the period 2000-2017. Information about the limitations of this data can be provided by TrackSAFE.
- Where a fatality is described as 'suspected suicide', the data has been obtained by ONRSR and includes incidents notified to the Regulator by rail operators as required by the Rail Safety National Law National Regulations. These incidents are notified to ONRSR shortly after the incident. The Coroner may make a different determination about the cause of death.
- The number of suicides in 2016 & 2017 (76 & 82 respectively) as determined by Coroners' and included in the NCIS report is lower than the suspected suicides reported in the ONRSR database (77 & 94 respectively).
- There is some variability in the time period used for the analysis included in this report due to the form and availability of data.
- Some of the information presented in this report for 2016-2021 has been interpreted and coded from free-form text in the ONRSR database by TrackSAFE. This includes sex, location and action.
- TrackSAFE has calculated the railway suicide/suspected suicide rate per 100,000 population using Australian Bureau of Statistics (ABS) annual June population estimates. The ABS advises that care should be taken comparing 2019 suicide data with previous years as some ABS data has been subject to quality improvement processes and revisions.
- Two amendments were made to the ONRSR occurrence database by TrackSAFE. A 2017 Victorian tram incident that resulted in a serious injury is excluded and suspected suicide fatality in NSW in 2016 was misclassified as a minor injury.

SUMMARY

- Between 2001-2021 there were 2,167 fatalities - 1,558 suicides or suspected suicides and 609 other fatalities on the Australian heavy rail network. This is a total annual average of 103 fatalities per year (74 suicides & suspected suicides and 29 other fatalities), or 2 each week.
- Most occur in Victoria (44%) followed by New South Wales (31%), Queensland (12%), Western Australia (9%) and South Australia (4%) and 7 in the Northern Territory, 5 in Tasmania and 2 in the Australian Capital Territory.
- Of the suicides (2001-2017) and consistent with the wider community suicide trends, three quarters of those that died were men. However, those who choose rail to take their own life are younger, with 42% under the age of 30 years.
- Since 2016 rail operators have been required to report to ONRSR occurrences – be they fatalities, injuries or near misses in accordance with the National Rail Safety National Law. Between 2016-2021 there were:
 - a total of 1,132 fatalities, injuries and attempted suicides with no injuries reported on ONRSR, an average of 189 per year.
 - 509 fatalities, an average of 85 per year. 438 of these fatalities were suspected suicides (an average of 73 per year and 86% of all fatalities).
 - 402 attempted suicides. There are likely to have been many more attempted suicides and threats of self-harm that did not meet the regulatory reporting threshold.
 - 44 fatalities and 96 injuries to trespassers. In addition, there were 5,279 near misses with trespassers, an average of 880 per year. There are likely to have been many more near misses that did not meeting the regulatory reporting threshold.
 - 18 fatalities and 111 injuries as a result of collisions with a road vehicle at a level crossing and 9 fatalities and 14 injuries as result of collisions with a pedestrian at a level crossing. In addition, there were 5,843 near misses at level crossings, an average of 974 per year. There are likely to have been many more near misses that did not meeting the regulatory reporting threshold.

FATALITIES ON THE AUSTRALIAN HEAVY RAIL NETWORK 2001-2021^{1,2,3}



In this period there were 2,167 fatalities - 1,558 suicides or suspected suicides and 609 other fatalities. This is a total annual average of 103 fatalities per year (74 suicides & suspected suicides and 29 other fatalities), or 2 each week.

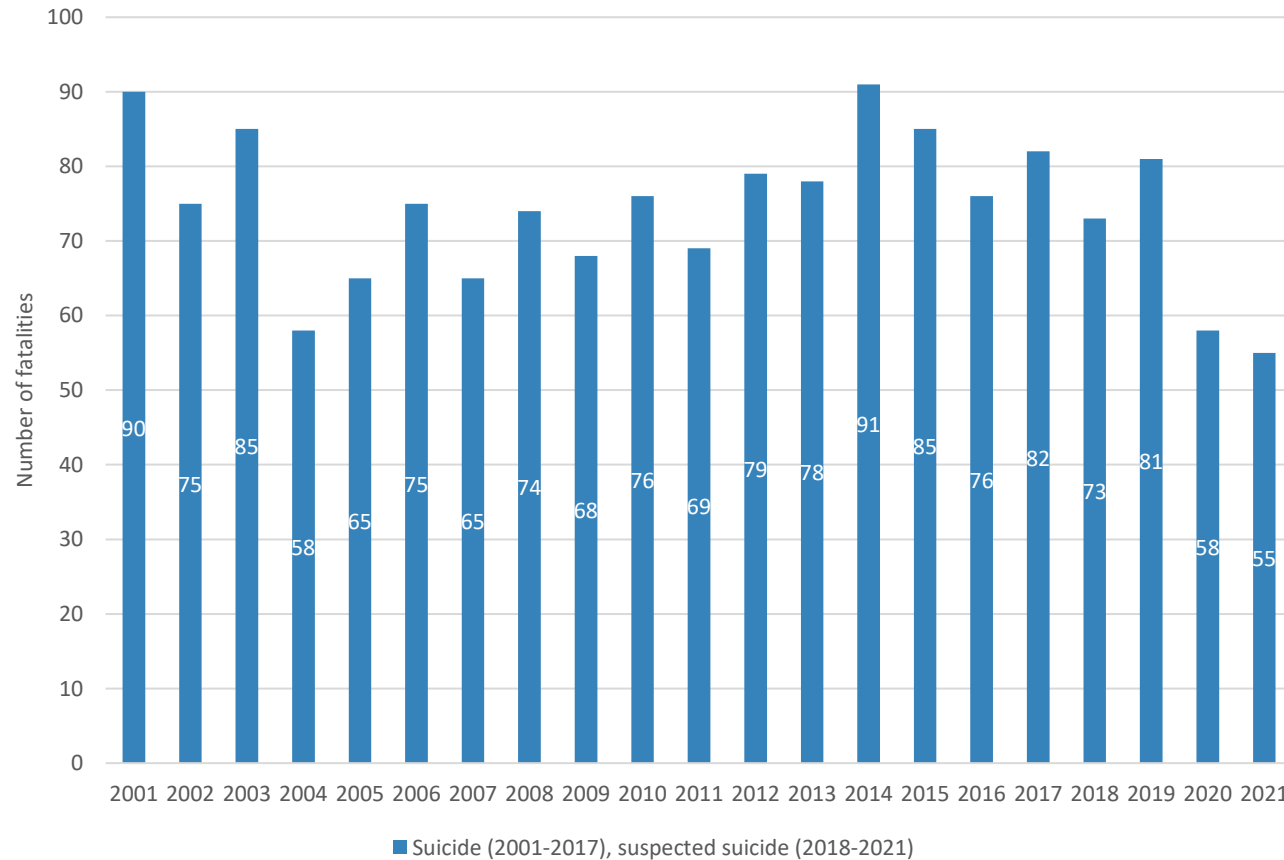
STATE DISTRIBUTION OF FATALITIES



In addition, there were 5 fatalities in TAS, 7 in the NT and 2 in the ACT.

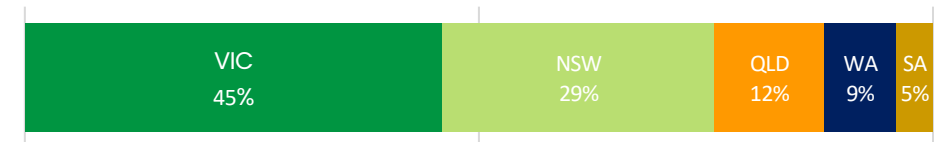
1. National Coronial Information System, 2020 Intentional Self-harm deaths at Australian railway locations 2000–2017, (DR20-31 and DR20-31A), November, Melbourne Australia (for 2001-2017 suicide data), National Coronial Information System, 2021, Non-intentional self-harm deaths at Australian railway locations 2000-2017 (DR20-43), February, Melbourne Australia (for 2001-2017 other fatality data).
2. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021 (for 2018-2021 data). The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences to ONRSR
3. NCIS report less suicides in 2016 & 2017 compared to ONRSR suspected suicides (76 and 82 reported by NCIS for 2016 and 2017 respectively compared to 77 and 94 suspected suicides reported by ONRSR).

SUICIDES (2001-2017)¹ & SUSPECTED SUICIDES (2018-2021)^{2,3} ON THE AUSTRALIAN HEAVY RAIL NETWORK



In this period there were 1,558 suicides & suspected suicides, an average of 74 per year and equivalent to 71% of all fatalities.

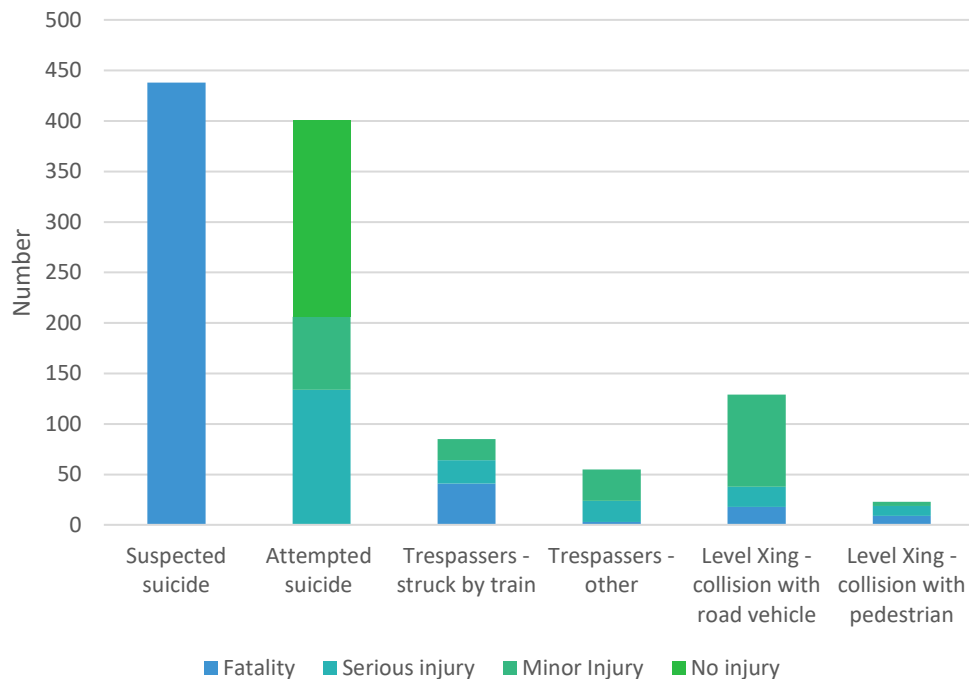
STATE DISTRIBUTION OF SUICIDES & SUSPECTED SUICIDES⁴



1. National Coronial Information System, 2020 Intentional Self-harm deaths at Australian railway locations 2000–2017, (DR20-31 and DR20-31A), November, Melbourne Australia (for 2001-2017 data).
2. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021 (for 2018-2021 data). The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences to ONRSR.
3. NCIS report less suicides in 2016 & 2017 compared to ONRSR suspected suicides (76 and 82 reported by NCIS for 2016 and 2017 respectively compared to 77 and 94 suspected suicides reported by ONRSR).
4. In 2004 & 2005 there were a total of 5 deaths by suicide in SA & WA.. This 5 is included in the Australian totals but is excluded from the state distribution graph. This graph also excludes 1 suicide in the ACT in 2001 and 1 suicide in TAS in 2011 however these are included in the Australian totals.

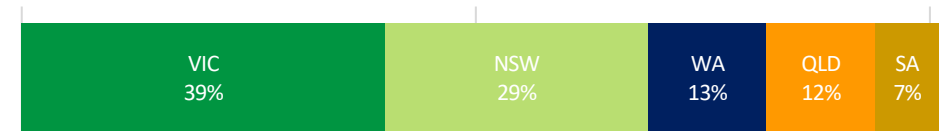
FATALITIES & INJURIES BY CAUSE ON THE AUSTRALIAN HEAVY RAIL NETWORK 2016-2021¹

In this period there were 1,132 fatalities, injuries and attempted suicides with no injury reported to the Office of the National Rail Safety Regulator, an average of 189 per year.



	Fatality	Serious injury	Minor Injury	No injury	Total
Suspected suicide	438				438
Attempted suicide		134	73	195	402
Trespassers - struck by train	41	23	21		85
Trespassers - other	3	21	31		55
Level Xing - collision with road vehicle	18	20	91		129
Level Xing - collision with pedestrian	9	10	4		23
Total	509	208	220	195	1,132

STATE DISTRIBUTION OF OCCURENCES



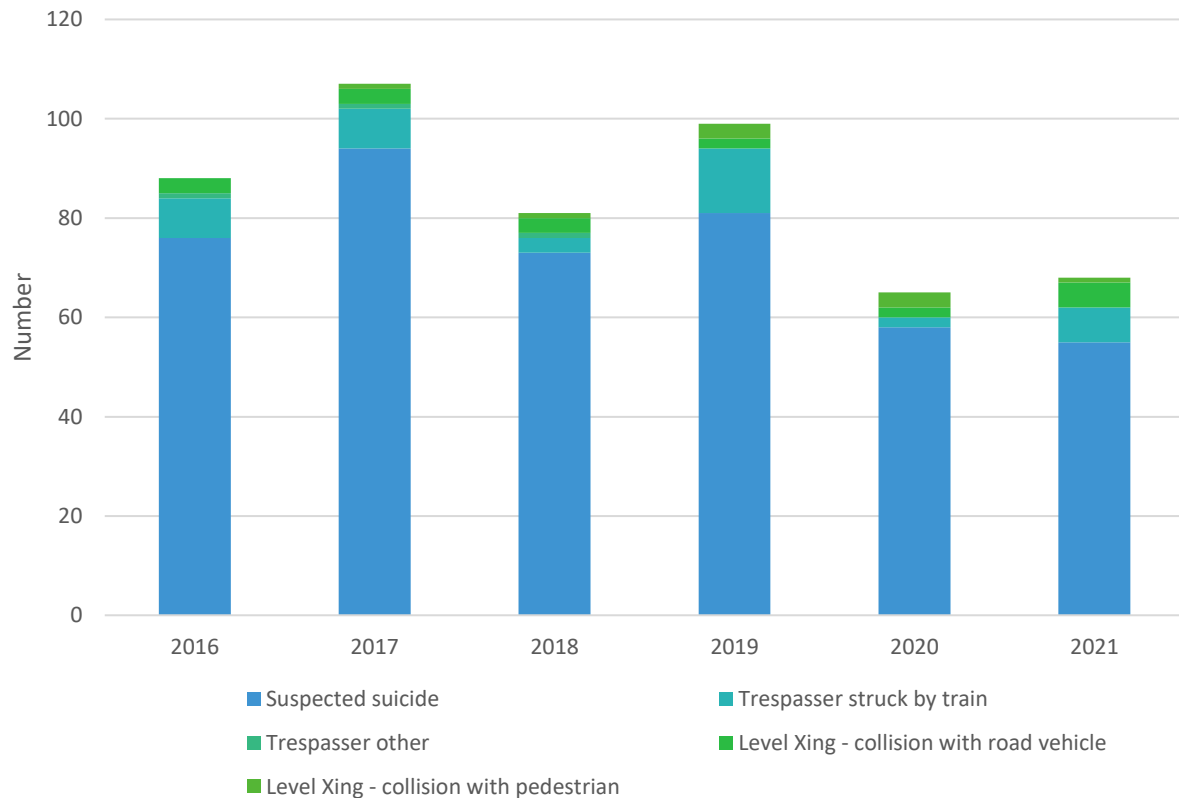
There were 2 injury incidents in NT, 1 in TAS and 0 in ACT

1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

Note: This data is sourced from ONRSR only. NCIS report less suicides in 2016 & 2017 compared to ONRSR suspected suicides (76 and 82 reported by NCIS for 2016 and 2017 respectively compared to 77 and 94 suspected suicides reported by ONRSR). National Coronial Information System, 2020 Intentional Self-harm deaths at Australian railway locations 2000–2017, (DR20-31 and DR20-31A), November, Melbourne Australia

FATALITIES ON THE AUSTRALIAN HEAVY RAIL NETWORK BY YEAR & CAUSE 2016-2021¹

In this period there were 509 fatalities reported to ONRSR, an average of 85 per year, including 73 suspected suicides.



	Suspected suicide	Trespasser struck by train	Trespasser other	Level Xing - collision with road vehicle	Level Xing - collision with pedestrian	TOTAL
2016	77	8	1	3	0	89
2017	94	8	1	3	1	107
2018	73	3	1	3	1	81
2019	81	13	0	2	3	99
2020	58	2	0	2	3	65
2021	55	7	0	5	1	68
TOTAL	438	41	3	18	9	509

STATE DISTRIBUTION OF FATALITIES



There were no fatalities in NT, TAS, ACT

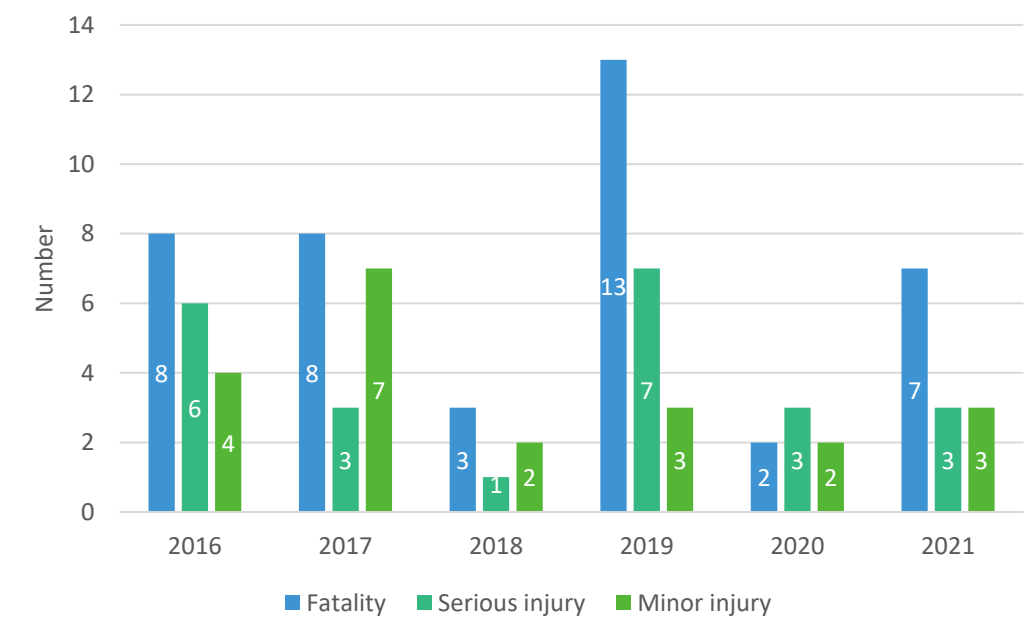
1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

Note: NCIS report less suicides in 2016 & 2017 compared to ONRSR suspected suicides (76 and 82 reported by NCIS for 2016 and 2017 respectively compared to 77 and 94 suspected suicides reported by ONRSR). National Coronial Information System, 2020 Intentional Self-harm deaths at Australian railway locations 2000–2017, (DR20-31 and DR20-31A), November, Melbourne Australia

TOTAL TRESPASS OCCURENCES 2016-2021¹

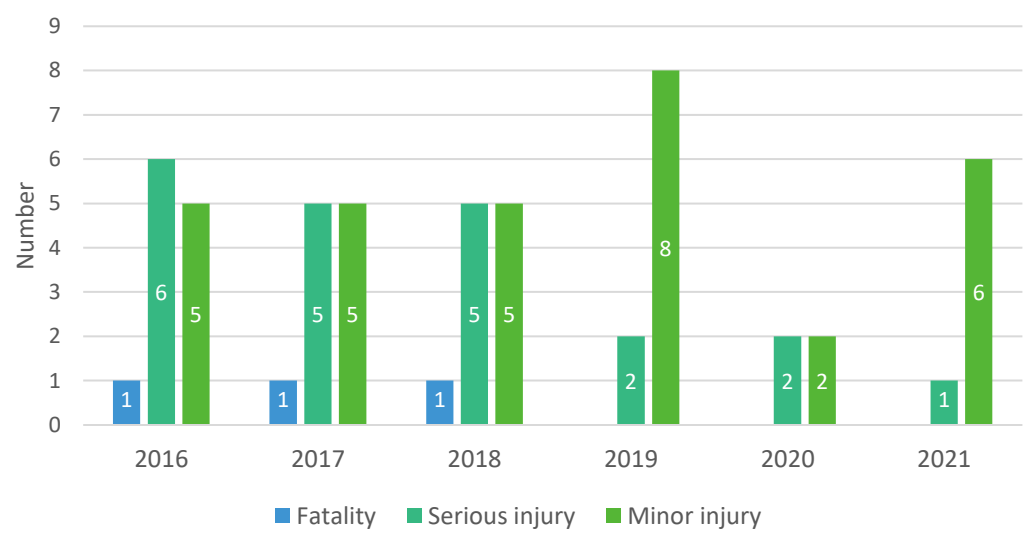
TRESPASSER STRUCK BY TRAIN

In this period there were 85 trespassers struck by a train resulting in 41 fatalities, 23 serious injuries and 21 minor injuries.



TRESPASSER OTHER INCIDENT

In this period there were 55 other trespasser incidents resulting in 3 fatalities, 21 serious injuries and 31 minor injuries.

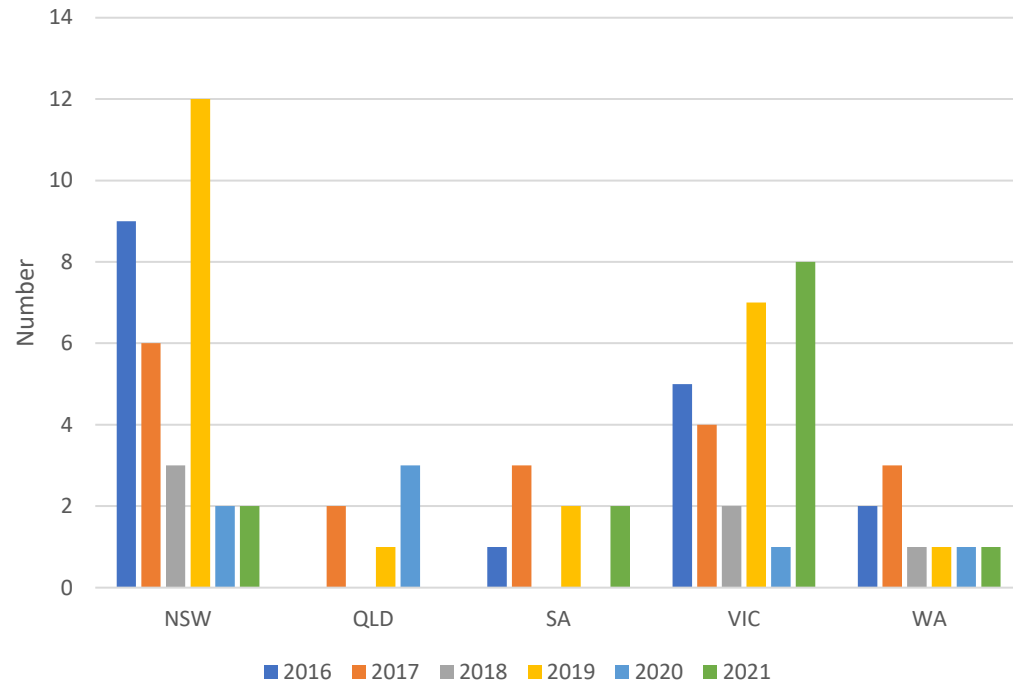


1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.



TRESPASSER STRUCK BY TRAIN ON THE AUSTRALIAN HEAVY RAIL NETWORK 2016-2021¹

In this period there were 85 trespassers struck by a train resulting in 41 fatalities, 23 serious injuries and 21 minor injuries.



	NSW	NT	QLD	SA	VIC	WA	TOTAL
2016	9	1	0	1	5	2	18
2017	6	0	2	3	4	3	18
2018	3	0	0	0	2	1	6
2019	12	0	1	2	7	1	23
2020	2	0	3	0	1	1	7
2021	2	0	0	2	8	1	13
TOTAL	34	1	6	8	27	9	85

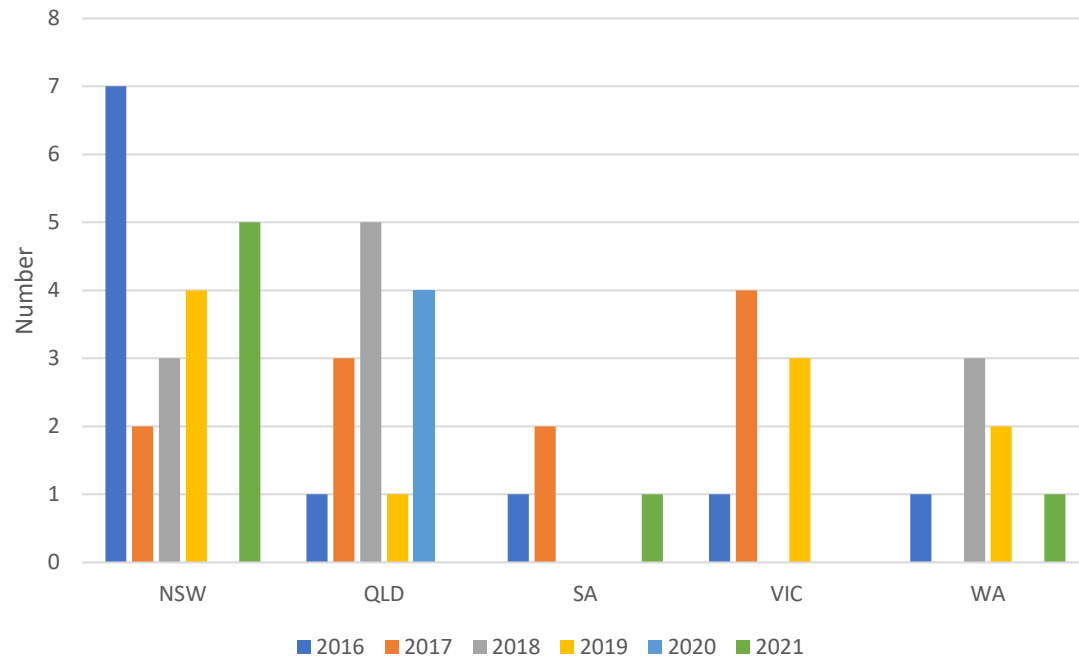
There were no incidents in the ACT or TAS.

	Fatality	Serious injury	Minor injury	TOTAL
2016	8	6	4	18
2017	8	3	7	18
2018	3	1	2	6
2019	13	7	3	23
2020	2	3	2	7
2021	7	3	3	13
TOTAL	41	23	21	85

1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

TRESPASSER - OTHER ON THE AUSTRALIAN HEAVY RAIL NETWORK 2016-2021¹

In this period there were 55 other trespasser incidents resulting in 3 fatalities, 21 serious injuries and 31 minor injuries.



	NSW	NT	QLD	SA	VIC	WA	TOTAL
2016	7	1	1	1	1	1	12
2017	2	0	3	2	4	0	11
2018	3	0	5	0	0	3	11
2019	4	0	1	0	3	2	10
2020	0	0	4	0	0	0	4
2021	5	0	0	1	0	1	7
TOTAL	21	1	14	4	8	7	55

There were no incidents in the ACT or TAS.

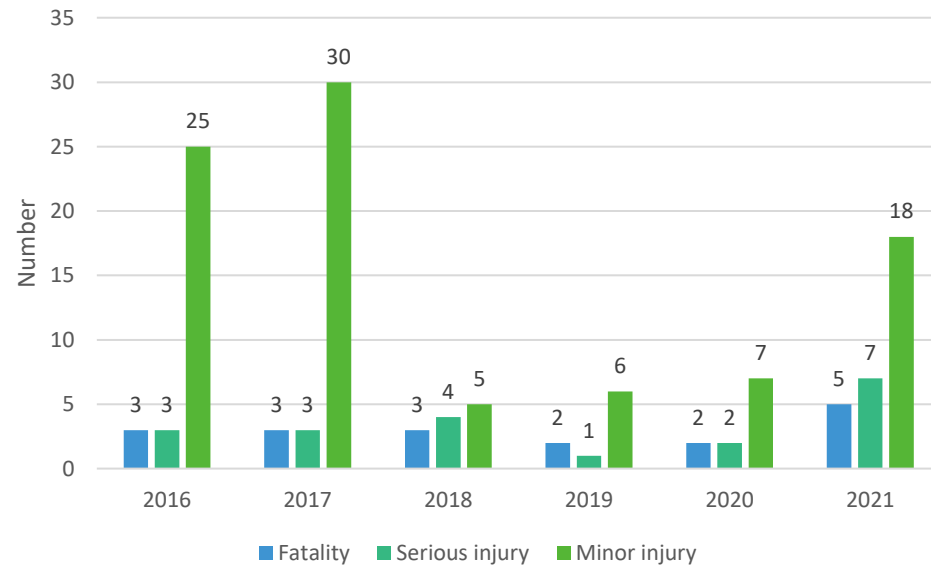
	Fatality	Serious injury	Minor injury	TOTAL
2016	1	6	5	12
2017	1	5	5	11
2018	1	5	5	11
2019	0	2	8	10
2020	0	2	2	4
2021	0	1	6	7
TOTAL	3	21	31	55

1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

TOTAL LEVEL CROSSING OCCURENCES 2016-2021¹

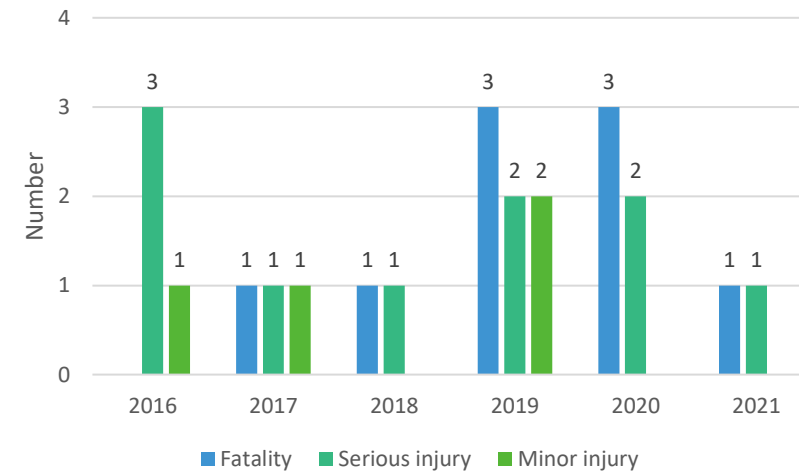
COLLISION WITH A ROAD VEHICLE

In this period there were 18 fatalities and 111 injuries as a result of road vehicle collisions at a level crossing.



COLLISION WITH A PEDESTRIAN

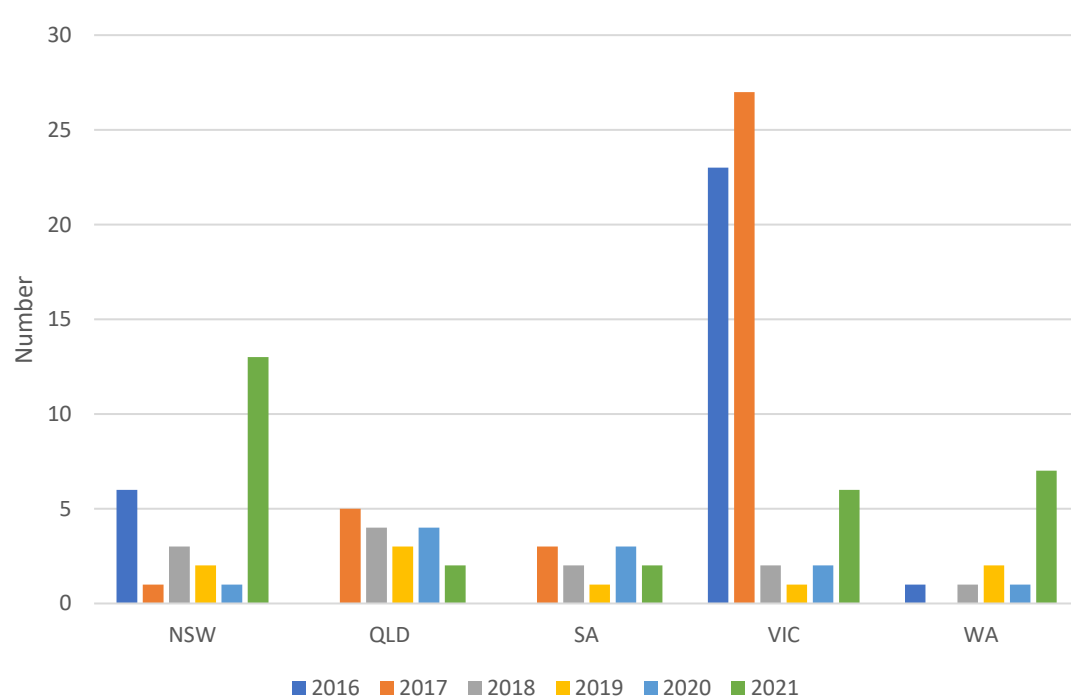
In this period there were 9 fatalities and 14 injuries as a result of collisions with a pedestrian at a level crossing



1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

LEVEL CROSSING – COLLISION WITH A ROAD VEHICLE 2016-2021¹

In this period there were 18 fatalities and 111 injuries as a result of road vehicle collisions at a level crossing.



	NSW	QLD	SA	TAS	VIC	WA	TOTAL
2016	6	0	0	1	23	1	31
2017	1	5	3	0	27	0	36
2018	3	4	2	0	2	1	12
2019	2	3	1	0	1	2	9
2020	1	4	3	0	2	1	11
2021	13	2	2	0	6	7	30
TOTAL	26	18	11	1	61	12	129

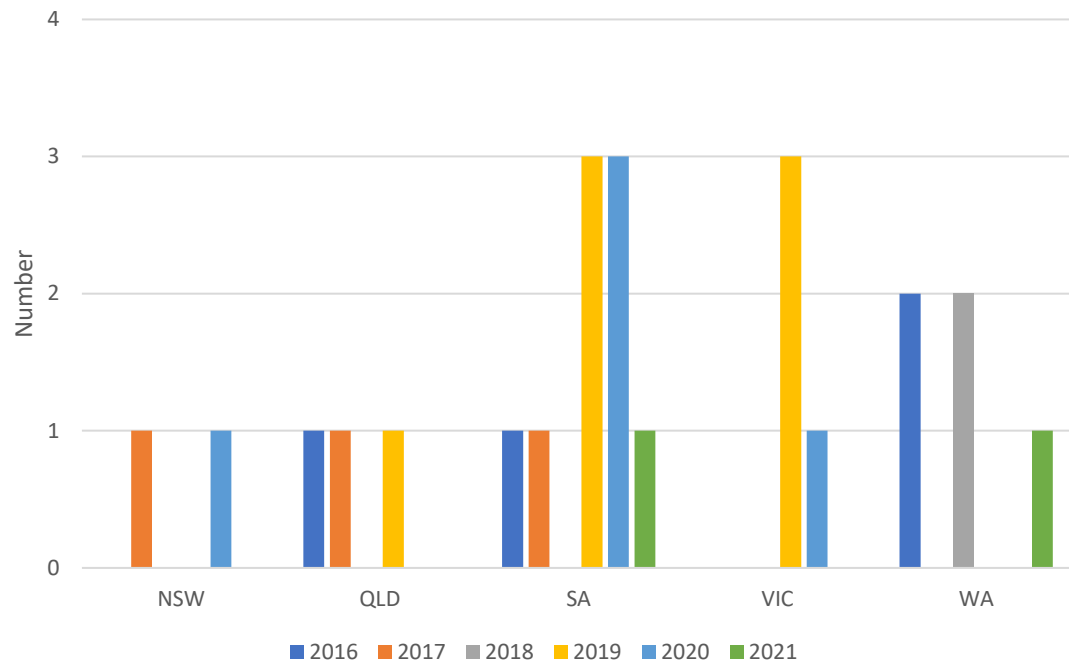
There were no incidents in the ACT or NT.

	Fatality	Serious injury	Minor injury	TOTAL
2016	3	3	25	31
2017	3	3	30	36
2018	3	4	5	12
2019	2	1	6	9
2020	2	2	7	11
2021	5	7	18	30
TOTAL	18	20	91	129

1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

LEVEL CROSSING – COLLISION WITH A PEDESTRIAN 2016-2021¹

In this period there were 9 fatalities and 14 injuries as a result of collisions with a pedestrian at a level crossing.



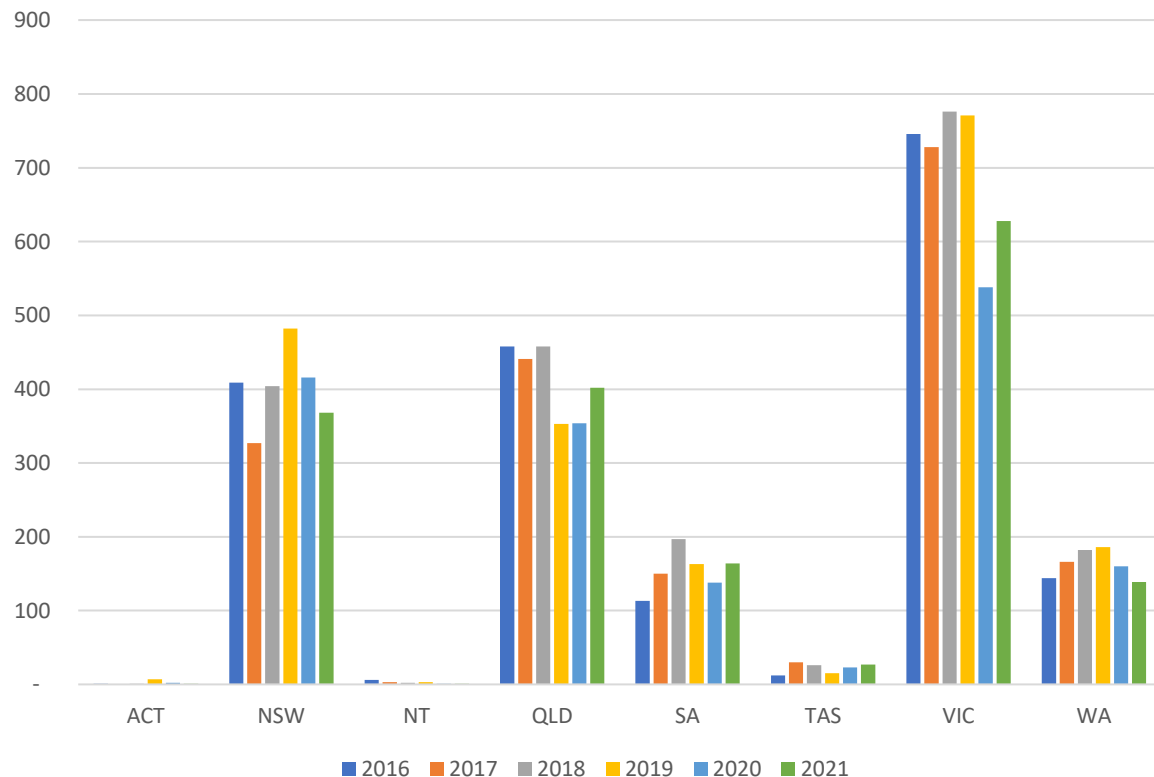
	NSW	QLD	SA	VIC	WA	TOTAL
2016	0	1	1	0	2	4
2017	1	1	1	0	0	3
2018	0	0	0	0	2	2
2019	0	1	3	3	0	7
2020	1	0	3	1	0	5
2021	0	0	1	0	1	2
TOTAL	2	3	9	4	5	23

There were no incidents in the ACT, NT or TAS.

	Fatality	Serious injury	Minor injury	TOTAL
2016	0	3	1	4
2017	1	1	1	3
2018	1	1	0	2
2019	3	2	2	7
2020	3	2	0	5
2021	1	1	0	2
TOTAL	9	10	4	23

1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

TOTAL NEAR MISS WITH TRESPASSER AND AT LEVEL CROSSINGS 2016-2021¹



In this period there were 11,122 near misses with a trespasser and with road vehicles and pedestrians at a level crossing reported to ONRSR, an average of 1,854 per year. There are likely to have been many more near misses that did not meeting the regulatory reporting threshold.

NEAR MISS BY TYPE

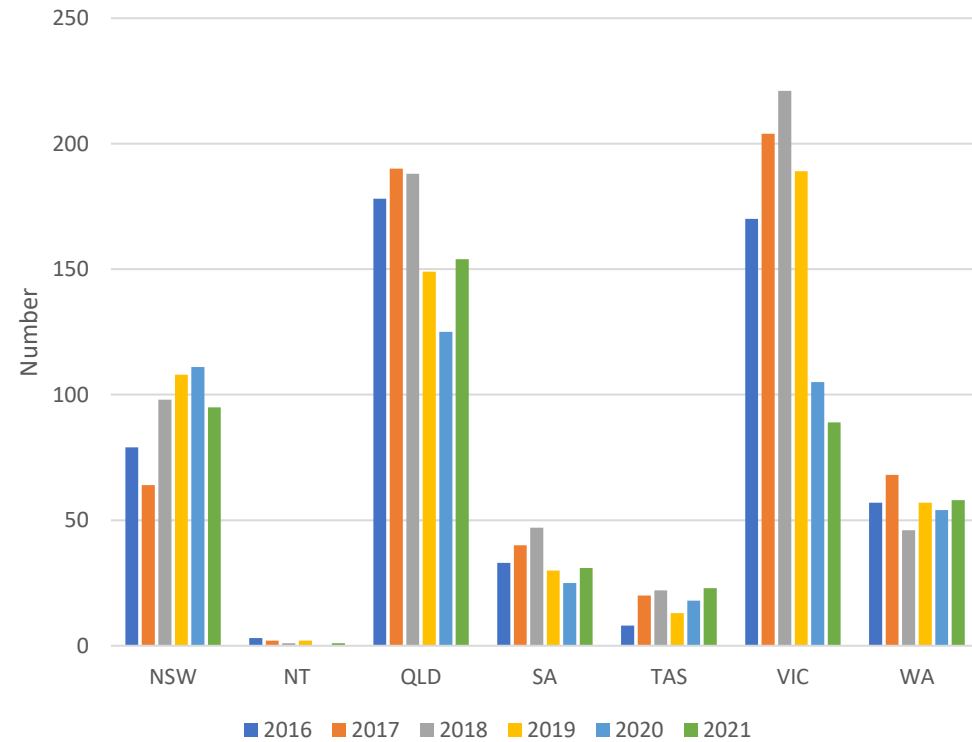


1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

NEAR MISS AT LEVEL CROSSINGS 2016-2021¹

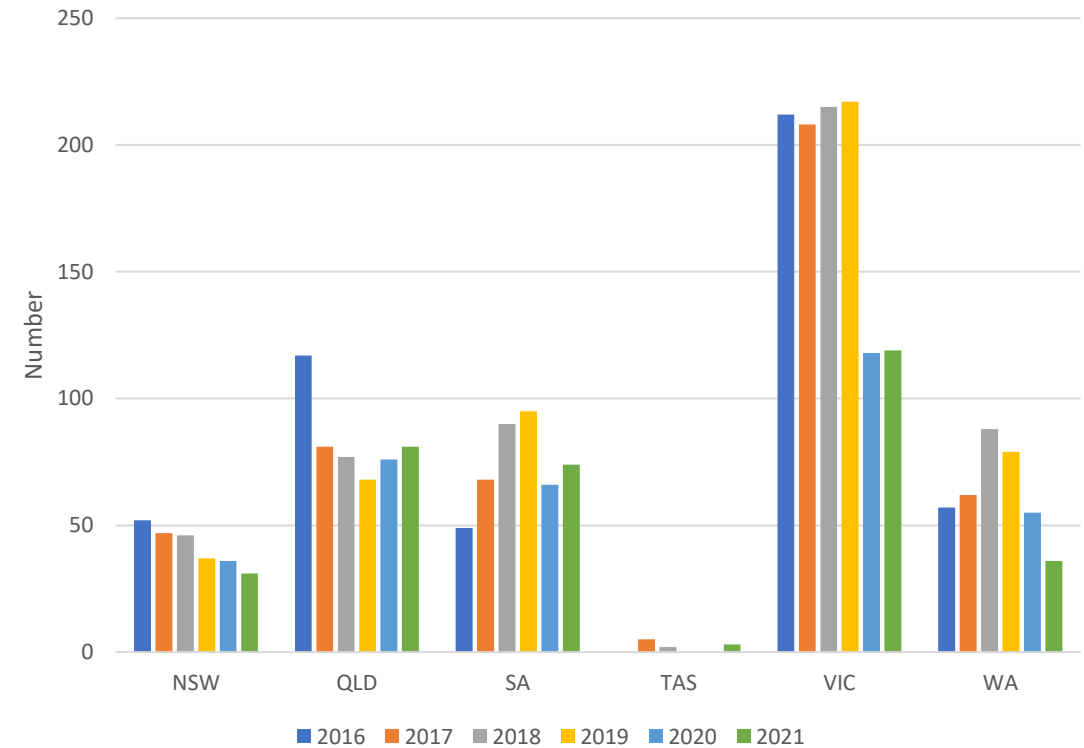
NEAR MISS WITH ROAD VEHICLE

In this period there were 3,176 near misses with a road vehicle at a level crossing, an average of 529 per year.



NEAR MISS WITH PEDESTRIAN

In this period there were 2,667 near misses with a pedestrian at a level crossing, an average of 445 per year.



1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

NEAR MISS AT LEVEL CROSSINGS 2016-2021¹

NEAR MISS WITH ROAD VEHICLE

In this period there were 3,176 near misses with a road vehicle at a level crossing, an average of 529 per year.

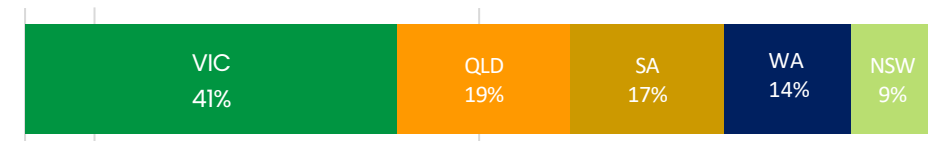
	NSW	NT	QLD	SA	TAS	VIC	WA
2016	79	3	178	33	8	170	57
2017	64	2	190	40	20	204	68
2018	98	1	188	47	22	221	46
2019	108	2	149	30	13	189	57
2020	111	-	125	25	18	105	54
2021	95	1	154	31	23	89	58
TOTAL	555	9	984	206	104	978	340
AVERAGE	93	2	164	34	17	163	57



NEAR MISS WITH PEDESTRIAN

In this period there were 2,667 near misses with a pedestrian at a level crossing, an average of 445 per year.

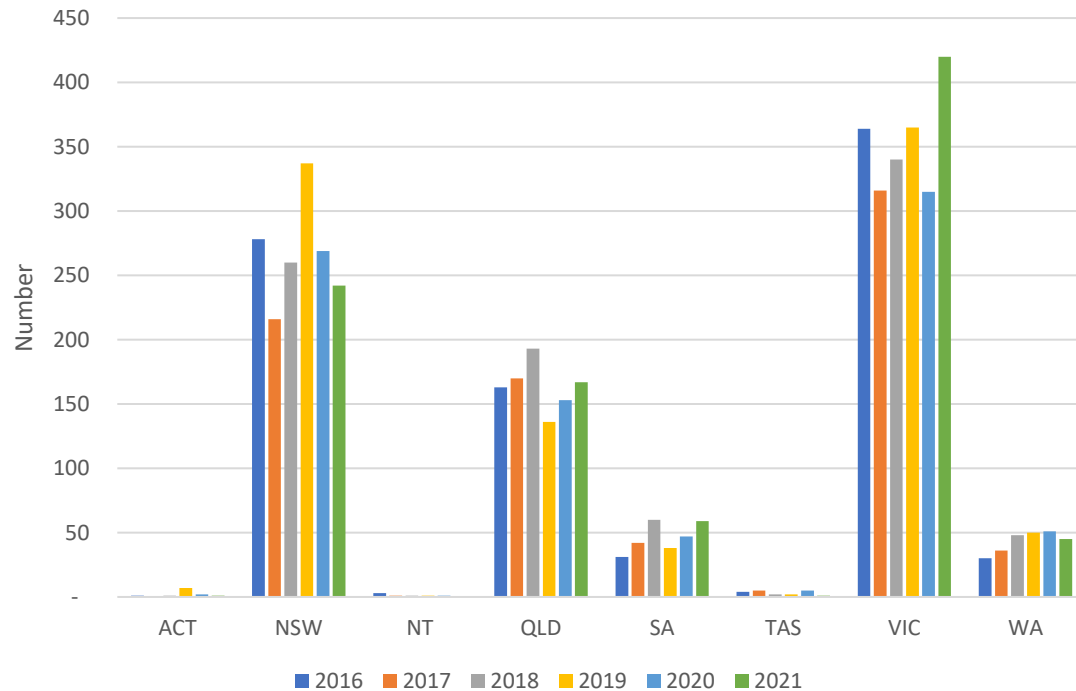
	NSW	QLD	SA	TAS	VIC	WA
2016	52	117	49	-	212	57
2017	47	81	68	5	208	62
2018	46	77	90	2	215	88
2019	37	68	95	-	217	79
2020	36	76	66	-	118	55
2021	31	81	74	3	119	36
TOTAL	249	500	442	10	1,089	377
AVERAGE	42	83	74	2	182	63



1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

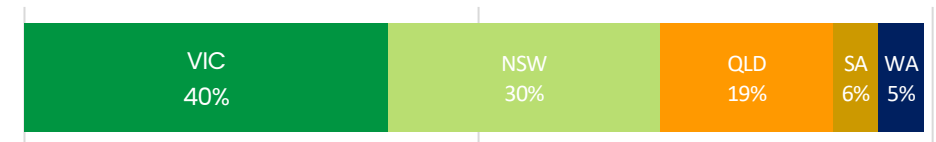
NEAR MISS WITH TRESPASSER 2016-2021¹

In this period there were 5,279 near misses with a trespasser, an average of 880 per year.



	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
2016	1	278	3	163	31	4	364	30
2017	-	216	1	170	42	5	316	36
2018	1	260	1	193	60	2	340	48
2019	7	337	1	136	38	2	365	50
2020	2	269	1	153	47	5	315	51
2021	1	242	-	167	59	1	420	45
TOTAL	12	1,602	7	982	277	19	2,120	260
AVERAGE	2	267	1	164	46	3	353	43

DISTRIBUTION OF NEAR MISS WITH TRESPASSER BY STATE



1. Office of the National Rail Safety Regulator, Occurrence extract-fatalities, serious injuries, minor injuries, attempted suicide no consequence July 2015–December 2021. The requirements for operator reporting of notifiable occurrences are set out in the Reporting Requirements for Notifiable Occurrences. See [here](#) for information about notifiable occurrences.

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TrackSAFE
Foundation

