### MOBILE SPEED CAMERA ENFORCEMENT PROGRAMS IN NSW

Organisation: Bullbar Council

Date Received: 9 July 2021

### <u>NSW Joint Standing Committee of Inquiry on Road Safety</u> (Staysafe Committee) Inquiry into Mobile Speed Camera Enforcement Programs in NSW

### <u>July 2021</u>

### **Bullbar Council Submission**

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Burns/Wright/Clements

Staysafe Committee of Inquiry Parliament House Macquarie St Sydney NSW 2001

> Bullbar Council PO Box 167, Westgate NSW 2048

The Bullbar Council wishes to thank the Staysafe Committee for the opportunity to comment on this important issue and possible amendments in order to ensure the ongoing safety of road users across NSW.

The Bullbar Council is a representative group for rural residents, motorists and riders. Established in 2014, the council is recognised as representative of those living in rural and regional areas requiring protection from Australian wildlife in their daily driving lives, the council has Subject Matter Experts on many complex issues dealing with driving in rural areas including crash data and statistics and traffic data and currently has 4,700 members across various regions.

Chairman and founder Mr Nick Wright has an array of experience growing up in regional NSW on a dairy farm and working in western NSW through his apprenticeship as a mechanic and then welder. He has also served 16 years with the NSW RFS progressing to his current role as Captain in a highly active brigade that covers the Pacific Highway bypass from Glenthorne to Coopernook at Taree with the brigade acting as first responders to motor vehicle crashes in the area. He has also served 4 years whilst in QLD in the Queensland Fire and Emergency Services as an Auxiliary firefighter. Nick currently owns and manages a Heavy Vehicle driving school in Taree, servicing businesses such as Jim Pearson transport, Lindsay Brothers, NSW Police and Fire and Rescue NSW.

Secretary Mr Christopher Burns is former Chairman of the Motorcycle Council of NSW and has been a representative on numerous road safety committees and working groups including but not limited to;

- Road Safety Advisory Committee to the Minister for Roads and Ports
- Vehicle Safety Working Group
- Helmet Standards Working Group
- Working groups for Vehicle Standards Information (VSI) sheets;
  - VSI06 Light Vehicle Modifications
  - VSI09 Guidelines for Alternative Wheels and tyres
  - VSI21 Guidelines for modifying vehicles for people with disability
  - $\circ$   $\,$  VSI60 Carrying motorised mobility devices and motorcycles on vehicles
  - o VSI64 Aftermarket forward facing lamps
  - o Technical Specifications for vehicle frontal protection on light vehicles

Christopher has also appeared before numerous Staysafe Committees of inquiry as a subject matter expert since 2010. Chris has raced rally cars, motorcycles, go karts and has worked as a first responder to motor vehicle crash scenes. Chris currently works at Taronga Zoo with a portion of his duties requiring critical situation management and is also Team Co-ordinator for the Taronga Zoo Community Fire Unit. He volunteers for the Bullbar Council to improve road safety for all. We are committed to road safety and the wellbeing of our members and their families. Regards,

Christopher James Burns Secretary, Bullbar Council

### **Inquiry Terms of Reference**

The Committee will inquire into, and report on recent changes to the mobile speed camera program in NSW, with reference to:

- a) the nature and timing of those changes
- b) research, modelling, and the evidence base of fatality and serious injury reduction
- c) the views of key road user groups, including the community views towards these changes
- d) the nature and oversight of compliance or enforcement contracts with government and private companies
- e) the projected impact on revenue generated by these changes
- f) the ongoing funding of road safety and the Community Road Safety Fund, both through fines and enforcement activities, and future government contributions
- g) enforcement activities, including the balance between direct police enforcement and camera enforcement
- h) the impact to people living in regional and rural areas
- i) those of low socio-economic backgrounds and Indigenous people
- j) the impact on P plate drivers
- k) any other related matters

### The nature and timing of the changes to mobile speed camera enforcement

Hard to see how the timing could be justified as the NSW 2020 fatality rate was at an all-time low, the lowest since World War II in fact. Given the current COVID situation with less traffic on the roads this may give the impression that the road toll is dropping due to the removal of signage when in fact it is the lower traffic volumes associated with a pandemic.

Whilst the current NSW Government has been following a policy of selling off a lot of assets, an outside observer may come to the conclusion that there is a need for additional funds to continue running the Government.

### Research, modelling, and the evidence base of fatality and serious injury reduction

The NSW Government appears to be justifying the recent removal of signage from Mobile Speed Cameras on a single report from MUARC.

The majority of the research is based upon NSW Police reporting of crashes which is still fairly rudimentary with officers often not even recording details of minor crashes if no one his hurt and no vehicle is towed. The majority of general duties police record the basic information and don't carry out investigations into causal factors.

Research and modelling has always been a contentious issue as centres similar to MUARC and TARS need to maintain their funding levels from research to continue to exist. The majority of that funding comes from people with money to be made and a need for justification. There is very little funding available to entities that are trying to alter the status quo or present a contrary opinion and in my capacity as Chairman of the Motorcycle Council of NSW the majority of our funding for research came from the NRMA or was carried out pro bono. Essentially the more money one can supply for research the louder the argument.

There are any number of theses from overseas students contradicting various research carried out by more formal profit driven research groups and this has led to a perception that some research is cash for comment. A prime example of this is the various arguments for and against wire rope

barrier installation. Any number of papers for and against the use of WRB's can be found, each contradicting the other. A leading researcher has even contradicted himself in research into WRB's. A leading researcher was also accused of bias as one of his students was the son of the owner of a leading Wire Rope Barrier producer and supplier.

There appears to be scant research or investigation into root cause of vehicle crashes and apart from a passing comment in the Towards Zero Safe Systems;

*People sometimes make mistakes – but this shouldn't cost anyone their life.* Source; <u>https://towardszero.nsw.gov.au/roadsafetyplan</u>

The majority of the focus seems to be on speed and speed alone, not root cause analysis. Speed doesn't cause a crash. And remember, people make mistakes.

### The views of key road user groups, including the community views towards these changes

There is a significant viewpoint that the current change from overt to covert Mobile Speed Cameras is simply a cash grab simply because the fine is sent out some 6 weeks later. This is certainly the case with our membership base.

It is also a belief of the majority of our members that the introduction of speed cameras and associated signage originally installed in black spot locations was a safety measure to reduce crashes in those locations.

## The nature and oversight of compliance or enforcement contracts with government and private companies

We are unable to comment on the oversight or compliance with contracts due to a lack of information on the subject as we do not have access to the contracts themselves.

A reasonable person, as an outside observer could come to the conclusion that there is a conflict of interest if a company is being paid a percentage of the revenue raised. If the enforcement company were being paid on an hourly rate basis alone, that then would negate the conflict.

### The projected impact on revenue generated by these changes

We are unaware of what the projected revenue impact was to be but it is very apparent that revenue from Mobile Speed camera enforcement is seeing vastly increasing returns to the Government coffers. Below is an extract from Revenue NSW statistics

Revenue from Mobile Cameras in the under 10KPH over the speed limit has increased by \$17.5 mil alone;

SPEED_CAMERA_IND	Y	OR	RED_LIGHT_CAMERA_I	Y	
SELECT WALVES FRO	THE DROPDOWN BOX				
SPEED_CAMERA_IND	(AII)	1			
RED_LIGHT_CAMERA_I					
CAMERA_TYPE	Mobile Digital Speed	a cra			
LOCATION_DETAILS	(AII) *				
SPEED_BAND	EXCEED SPEED IOKM	OR UNDER			
SCHOOL_ZONE_IND	<i>(AII)</i> *				
		_			
		- SPEED_CAMERA		Total NUMBER	Total VALUE
OFFENCE_FINYEAR		NUMBER	VALUE		
= 2020-2021	May	14,815	2,633,959	14,815	2,633,959
	Apr	25,612	3,742,786	25,612	3,742,786
	Mar	27,796	3,747,130	27,796	3,747,130
	Feb	27,853	3,669,953	27,853	3,669,953
	Jan	16,283	2,138,219	16,283	2,138,219
	Dec	10,001	1,287,657	10,001	1,287,657
	Not	6,064	784,758	6,064	784,758
	Oct	3,222	410,978	3,222	410,978
	Sep	3,682	466,590	3,682	466,530
	Aug	3,653	463,265	3,653	463,265
	Jel	3,565	446,553	3,565	446,553
2020-2021 Total		142,546	19,791,848	142,546	19,791,848
= 2019-2020	Jan	1,569	195,161	1,563	135,161
	May	1,547	193,676	1,547	193,676
	Apr	1,253	157,887	1,253	157,887
	Mar	1,637	201,925	1,637	201,925
	Feb	1,215	152,088	1,215	152,088
	Jan	1,332	166,711	1,332	166,71
	Dec	1,267	158,135	1,267	158,135
	Not	1,433	184,955	1,433	184,955
	Oct	1,475	187,414	1,475	187,414
	Sep	1,655	208,214	1,655	208,214
	Aug	2,040	255,289	2,040	255,283
	Jel	1,980	246,099	1,980	246,093
2019-2020 Total		18,403	2,307,554	18,403	2,307,554
B 2018-2019	Jan	1,553	193,327	1,553	193,327
	May	1,639	200,487	1,639	200,487
	Apr	1,479	183,343	1,479	183,343
	Mar	1,616	200,606	1,616	200,606
	Feb	1,485	188,317	1,485	188,317
	Jan	1,750	217,980	1,750	217,980
	Dec	1,920	236,306	1,320	236,306
	Not	2,022	250,114	2,022	250,114
	Oct	1,583	199,991	1,589	199,991
		1050	167,766	1,350	167,766
	Sep	1,350	101,100		
	Sep Aug	1,350	200,586	1,586	
					200,586 164,858

Overall figures have generated an additional \$75 mil dollars revenue in FY20/21 compared to FY19/20 and this is only since the signage was removed from Nov 2020 and any tolerance levels removed. Based upon the below figures one can reasonably assume an increase of revenue of \$128.6 mil per annum. This does not take into account the as yet to be implemented additional hours of operation for camera operators.

SPEED_CAMERA_IND	(AII)	-
RED_LIGHT_CAMERA_I	(AII)	
CAMERA_TYPE	(AII)	
LOCATION_DETAILS	(AII)	-
SPEED_BAND	(AII)	
SCHOOL_ZONE_IND	(AIII)	

		SPEED_CAMERA		RED_LIGHT_CAMERA		Total NUMBER	Total VALUE
OFFENCE_FINYEAR	·· OFFENCE_MONTH *	NUMBER	VALUE	NUMBER	VALUE		
	May	58,595	14,713,833	7,024	4,804,423	65,613	19,518,26
	Apr	101,035	20,641,923	11,431	6,332,623	112,466	26,974,54
	Mar	108,084	20,999,201	12,415	6,385,426	120,433	27,384,6
	Feb	103,013	19,125,920	11,104	5,501,748	114,117	24,627,66
	aeL	90,089	15,472,189	10,085	4,929,314	100,174	20,401,5
	Dec	103,070	18,752,892	13,304	6,526,636	116,374	25,279,54
	Not	100,637	18,737,294	13,052	6,364,554	113,749	25,101,8
	Oct	85,780	16,117,764	13,099	6,387,819	98,879	22,505,5
	Sep	78,019	15,159,665	12,681	6,104,328	30,700	21,264,5
	Aug	64,943	13,215,516	12,307	5,341,140	77,250	19,156,6
	Jel	50,132	10,677,817	11,998	5,763,287	62,130	16,441,1
2020-2021 Total		943,457	183,614,014	128,500	65,041,964	1,071,957	248,655,97
= 2019-2020	Jea	33,933	7,786,110	10,617	5,033,449	44,550	12,819,5
	May	42,090	10,174,980	10,046	4,776,503	52,136	14,351,4
	Apr	37,317	3,341,641	7,755	3,748,323	45,072	13,089,9
	Mar	44,300	10,674,412	11,839	5,594,869	56,133	16,263,2
	Feb	33,502	7,821,680	13,278	6,310,667	46,780	14,132,3
	Jan	31,508	7,051,943	11,287	5,356,848	42,795	12,408,
	Dec	39,214	9,098,312	13,267	6,317,032	52,481	15,415,3
	Not	40,461	9,326,795	14,276	6,763,073	54,737	16,083,8
	Oct	37,733	8,733,424	12,637	6,006,623	50,370	14,740,0
	Sep	36,747	8,441,970	13,252	6,230,414	49,999	14,732,3
	Aug	39,145	8,931,597	12,811	6,101,225	51,956	15,032,8
	Jel	36,263	8,178,480	12,070	5,737,432	48,333	13,915,5
2019-2020 Total		452,213	105,561,344	143,135	68,036,458	595,348	173,597,80
2018-2019	Jea	32,036	7,203,662	11,546	5,386,372	43,642	12,590,0
	May	37,797	8,448,618	13,553	6,324,932	51,350	14,773,5
	Apr	33,078	7,394,560	12,646	5,942,764	45,724	13,337,3
	Mar	40,083	9,093,399	13,968	6,515,792	54,051	15,603,
	Feb	35,211	7,995,005	13,200	6,167,676	48,411	14,162,6
	Jan	32,637	7,121,135	12,419	5,817,062	45,056	12,938,
	Dec	40,950	9,230,299	15,791	7,325,393	56,741	16,555,6
	Not	41,123	9,431,757	16,085	7,537,664	57,208	16,363,4
	Oct	33,498	7,589,708	14,475	6,797,996	47,973	14,387,7
	Sep	37,859	8,675,328	14,611	6,832,060	52,470	15,507,3
	Aug	39,500	9,067,936	14,130	6,621,625	53,630	15,689,5
	Jel	34,797	7,742,777	12,811	6,017,007	47,608	13,759,7
2018-2019 Total		438,629	98,994,244	165,235	77,286,343	603,864	176,280,5
= 2017-2018	Jea	33,271	7,410,750	12,468	5,703,868	45,739	13,120,6
	May	42,212	9,573,481	14,550	6,702,564	56,762	16,276,0
		00,000	3 000 034	40.305	C 000 0T0	12000	10 50 0 4

### The ongoing funding of road safety and the Community Road Safety Fund, both through fines and enforcement activities, and future government contributions

No doubt the current Government would be able to reduce its contribution to the various road safety schemes based on revenue raised from covert speed cameras and spend the reduced contributions on a host of other items such as Stadiums or sporting grants in marginal seats.

The NSW Government introduced the 3X3 Levy to fund road works. This levy is still in existence and should be raking in a small fortune. It would be nice if someone followed up on that.

Essentially the NSW Governments initiative on covert speed cameras are a tax by stealth and would seem to be unjustifiable given the decreasing road toll.

## Enforcement activities, including the balance between direct police enforcement and camera enforcement

NSW Police appear to have spent much of their direct enforcement activities on nothing more than speed enforcement using LIDAR/RADAR with little to no emphasis on other road safety issues such as running stop signs, U-turns over double white lines etc. The oft used response to questions about broadening the scope of enforcement activities is often along the lines of "limited resources so we continue with LIDAR/RADAR speed enforcement operations" which is just picking the low hanging fruit. There have been some campaigns on other issues, but they should not be campaigns, they should be all the time, everywhere.

That being said if a Highway Patrol officer pulls someone over for speeding they also get the opportunity to carry out a breath test and/or drug test along with checking the condition of the vehicle, licence check and warrant check. All of this is more likely to change the behaviour of an errant driver than a letter in the mail advising you that you have erred somewhere sometime.

## In the MUARC report, used as a basis for the Governments decision on removal of signage, the report states;

The initial use of a small number of overtly operated speed cameras in Victoria could not be shown to reduce casualty crash frequency and its effect on speeds was limited to within 1-2 km of the enforcement site. This implies that the overt use of speed cameras is only effective in reducing speeds in the vicinity of the camera site and may produce small, localised casualty crash reductions......

#### Source; https://www.monash.edu/muarc/archive/our-publications/reports/muarc200

Essentially a small number of cameras did produce a result within a 1 to 2 kilometre radius of the mobile camera thereby justifying the use of hi visibility enforcement placed in areas that have a high crash rate. This is borne out by the placement of speed cameras at many high crash rate areas;

- Great Western Highway, Warrimoo NSW
- Spit Road corner of Ida Avenue Mosman NSW
- Pacific Highway, Urunga
  - $\circ$  ~ One incident involved a truck ended up in the front of a house

Placement of signposted speed cameras at these locations lead to a dramatic decrease in crash rates, not much revenue raised but revenue is not the point is it?

Using the comments from the MUARC report one could quite reasonably come to the conclusion that Signposted Mobile Speed Camera units placed at known blackspots would reduce the crash rate for a 1 to 2 kilometre radius. Given that this entire exercise is about life and limb surely signposted mobile cameras should be the preferred option as they can target local areas.

The Centre for Road Safety report into fixed speed cameras;

# CRASH ANALYSIS OF THE NSW FIXED SPEED CAMERA PROGRAM

MAY 2011

A previous independent evaluation of the NSW Fixed Speed Camera Program demonstrated significant reductions in vehicle speeds (a 6km/h drop both 12 and 24 months after installation), percentage of vehicles exceeding the speed limit (approximately 70% reductions), injury crashes (20% along camera-installed blacklengths), and fatal crashes (approximately 90% along camera-installed blacklengths).



Home / News and events / Media Releases / Speed camera review proves they save lives

### Speed camera review proves they save lives

Published 10 Oct 2019

Fixed speed cameras across the state have reduced fatalities by 80 per **Tagged** cent, according to the latest annual performance review.

Country F

Minister for Roads Andrew Constance said the review analysed all NSW speed camera locations finding fewer fatalities and injuries, despite an overall increase in traffic.

Signposted speed cameras produced a 90% reduction in fatal crashes in 2011 and 80% in 2019! Signpost the cameras and put them in the right places.

### The impact to people living in regional and rural areas

The initial impact will be a large amount of licences lost due to covert enforcement and given the current run of plague, pestilence, drought, floods etc will place an additional burden on already struggling farmers and support workers. Regional NSW already deals with a large number of suicides per annum and it would not be unreasonable to assume that loss of licence could then be a contributing factor in an increase.

Unmarked cameras on rural roads may cause further issues to road safety due to drivers slowing unnecessarily on roads with limited vision, this will lead to impatience and drivers overtaking slower overly cautious drivers in dangerous situations

### Those of low socio-economic backgrounds and Indigenous people

A friend of ours was recently fined for less than 10k's over the speed limit on Ryde Road Epping and in her words;

"lost 1 demerit point & got \$128 fine, now I'll have to pay an extra \$100 for the next 3 years for my ctp!"

So we can also expect the CTP insurers to profit handsomely from the covert speed cameras as well. This consequential additional cost for CTP is based upon no claims history with no "No claim bonus" applied to your policy but is based purely upon a single mistake.

### The impact on P plate drivers

Sure to be an increase in walking teenagers.

### Any other related matters

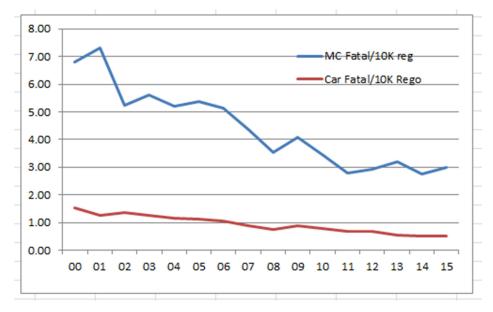
Essentially the location and placement of covert speed cameras is determined by target acquisition (line of sight) and not a propensity for high numbers of crashes in that area therefore making the entire exercise miss the point, which is targeted crash reduction in areas prone to crashes and thereby reducing the road toll by action at the blackspots. At the moment more than 90% of speed enforcement is carried out on roads with less than 3% of the fatalities due to the need for target acquisition.

Targeted speed enforcement has been shown to create results and there are any number of statistics available from the Centre for Road Safety showing results for fixed speed red light cameras. Make the cameras visible and get an instant reduction in crashes.

There have been massive reductions in fatalities over the years with well defined changes in numbers. Most of these have been due to significant changes and are easily tracked, seatbelts and random breath testing are two of those initiatives.

Double demerit points have little effect as shown by the yo-yo levels of fatalities during long weekends and holiday periods. When the road toll is up the authorities shrug their collective shoulders and say they don't know why and when the toll is down they claim victory without knowing why.

What has been a proven way to reduce the road toll is professional training and this has been borne out by the decreasing death toll vs registration numbers of motorcyclists in NSW who are the only road user group that receive professional training and a skills based operator test to gain their provisional licence. Whilst the average number of deaths p/a for riders has stayed roughly level at approximately 60 fatalities this has essentially been reducing as the number of registered motorcycles has tripled in the last ten years. If the statistics are proposed as fatalities per 10,000 registered vehicles it looks like this;



Train them all, train them well and the results will speak for themselves.

### Conclusion;

Even the Centre for Road Safety's own research shows that signposted speed cameras are a significant deterrent and life saver in both 2019 and 2011. Ultimately this is about life and death and should not be about money, signpost and save lives.

Sources;

NSW revenue Speed cameras and red light cameras revenue jump in 2019

https://www.revenue.nsw.gov.au/help-centre/resources-library/statistics

https://www.news.com.au/technology/motoring/motoring-news/revenue-from-mobile-speedcameras-in-nsw-smashes-record/news-story/87c89e4bd1790c3912bd3f76be8cc2ff

### CRS Crash Stats

https://roadsafety.transport.nsw.gov.au/statistics/interactivecrashstats/index.html

NSW Gov announcement on removal of signs Nov 202

https://roadsafety.transport.nsw.gov.au/speeding/speedcameras/mobile-speed-cameras.html

Home About the ce	ntre Staying safe Campaigns Statistics Speeding Research Contact us					
Our strategy     NSW Centre for Road Safety > Driving too fast > Speed cameras > Mobile speed cameras FAQs						
<ul> <li>Speed cameras</li> </ul>	Mobile speed cameras FAQs					
<ul> <li>Current locations</li> <li>2019 review</li> <li>2018 review</li> <li>2017 review</li> <li>2016 review</li> </ul>	Speed camera enforcement is one of the most effective, evidence-based measures to reduce speeding, save lives and prevent injuries. Research shows that best practice mobile speed camera programs with sufficient hours, a high number of enforcement sites, unmarked and unsigned operations and highly randomised deployment can deliver consistent, network wide 20-30 per cent reductions in casualty crashes. On 19 November 2020, Minister for Transport and Roads, Andrew Constance and Minister for Regional Transport and Roads,					
<ul> <li>2015 review</li> <li>2014 review</li> <li>2013 Review</li> <li>Speed camera reviews</li> </ul>	Paul Toole announced changes to NSW's mobile speed camera program, which include increased enforcement hours, as well as a reduction in high visibility livery on vehicles and the removal of warning signs. These changes bring NSW into line with how other Australian jurisdictions run their programs and better practice, as outlined in the <u>Mobile speed camera operations in other Australian jurisdictions</u> . <u>Research Report (PDF, 367Kb)</u> (4)), and were recommended by the NSW Auditor General.					
<ul> <li>How do they work?</li> <li>Mobile speed cameras FAQs</li> </ul>	Monash University Accident Research Centre's independent analysis (PDF, 1Mb) (a) identified that these enhancements to the NSW mobile speed camera program may save between 34 and 43 lives and prevent around 600 serious injuries in NSW each year.					
<ul> <li>Red-light speed camera FAQs</li> </ul>	We want people to know they can be caught anywhere, anytime on the NSW road network, to reduce speed-related trauma or NSW roads.					
<ul> <li>Average speed camera FAQs</li> </ul>	Your questions answered					
<ul> <li>Calibration and certification</li> </ul>	1. Why are speed cameras used in NSW? 2. What is the scale of the program?					
<ul> <li>Speed zones and advisory speed signs</li> </ul>	3. <u>Why is the program outsourced?</u> 4. <u>Are there signs to warn motorists approaching the cameras?</u> 5. What happens to the revenue from mobile speed cameras?					
<ul> <li>Speed Adviser</li> </ul>	6. How do we know the cameras are accurate? 7. What do the cameras areacrd?					

#### Cycle fatalities on the rise

#### SMH report

https://www.caradvice.com.au/912761/nsw-posts-lowest-road-toll-in-97-years-national-data-duemid-january/

#### Transport Info Transport for NSW Roads and Maritime Services Change text size 👫 🖍 Print this page 🚔 🛛 Skip to content Transport Centre for Road Safety NSW > Search Q Google" Custom Search for NSW Staying safe About the centre Campaigns Statistics Speeding Contact us Home Research NSW Centre for Road Safety > Statistics > Fatality trends Interactive crash statistics Fatality trends Fatality trends 🛃 Listen Serious iniuries Roads busier, but safer Road Traffic Crash Fatalities per 100,000 Population, Reports and publications NSW, 1908-2019p The number of road deaths per 100,000 population in 1070 /28 0 NSW has dropped over the past five decades, from 100,000 population How to use this 28.9 in 1970 to 4.4 in 2019 (provisional figure), with a information 2! low of 4.1 in 2014. Continued government investment and key road safety 13 interventions, such as the compulsory use of seatbelts per . and the introduction of random breath testing, have had a significant impact on reducing the fatality rate -Fatalities at the same time as NSW roads have become much busier. In 2019, there were more than 5.6 million 920 930 1940 1950 1960 970 980 registered motor vehicles in NSW, up from about 4000 motor vehicles in 1910. More data · Fatality trends interactive report shows road crash data from 1996 onwards NSW Road Toll-Daily document (PDF 65kB) and the NSW Road Toll-Monthly document (PDF 129kB) have updated information on road deaths · Reports and publications has road crash analysis documents for download Data sources Fatality rate data sourced from Dr JW Knott - Road traffic accidents in New South Wales, 1881-1991. Australian Economic History Review 1994; 34: 80-116; and NSW Transport authorities. NSW Government | Accessibility | Copyright & Disclaimer | Privacy | Sitemap | Feedback ▼ Details © Transport for New South Wales Last Updated: 20 August 2020 Fixed speed cameras signposted reduce 80% https://www.transport.nsw.gov.au/news-and-events/media-releases/speed-camera-review-proves-

#### Low road tolls 2019 almost as low as 2014

they-save-lives-1

**MUARC** Research paper

https://www.monash.edu/muarc/archive/our-publications/reports/muarc200

MUARC Anal Road Safety benefits increased mobile spped camera

https://roadsafety.transport.nsw.gov.au/downloads/msc-expanded-benefits.pdf

ACT study showing short term reductions in ACT then rising again

UNSW Study for ACT by TARS

https://www.cityservices.act.gov.au/ data/assets/pdf file/0007/1686310/2014 UNSW Camera E valuation Report.pdf

### **End Of Document**