



BikeSpot 2023

National Report

September 2024



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Photo credit: Adam Hollingworth, City of Sydney

September 2024

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Acknowledgements

Thank you to the Amy Gillet Foundation and the Australian Government for the initial funding of BikeSpot 2023.

Thank you also to everyone who participated and all of our Project Supporters.

Australian Local Government Association

AusCycle

Arevoapp

Bicycle Network

Bicycle NSW

Bike SA

Bicycle Queensland

Boroondara BUG

City of Monash

City of Ballarat

Good Cycles

Kidical Mass Adelaide

Lime

Merribek BUG

NRMA

Pedal Power

Port Phillip BUG

RACV

Shoalhaven City Council

Tamar BUG

Transport for NSW

We Ride

West Cycle

Yarra Bicycle Users Group



Executive Summary

A lack of safety is widely recognised as the major barrier to people getting on their bikes. How safe it feels to ride a bicycle has an impact on people's willingness to ride. BikeSpot 2023¹ provided the opportunity for all Australians to share their perceptions of cycling safety (safe or unsafe) via a web-based interactive map. The aim is for the data collected to help develop fresh insights for the prioritisation of cycling safety improvements across the country.

The map was open for submissions (spot, comments or 'supports') for over two months between 19 October 2023 - 31 January 2024 and attracted over 10,000 individuals to add 72,844 submissions. Along with providing their Safe or Unsafe Spot, users were also able to provide location specific information that included the sub-category (cycle lane ends, traffic speed, etc.), a cycling stress rating (applicable only for Unsafe Spots) in addition to personal information such as the individuals level of cycling confidence, age and gender. Overall, key insights uncovered from the crowdsourced data set include:

Greater separation the key to safer riding

- 75.6% of Unsafe Spots relate to insufficient or unsafe cycling infrastructure
 - *'Dangerous intersection'* (20.4%), *'No bicycle lane'* (18.5%) and *'Narrow'* (13.4%) were the top three main sub-categories of Unsafe Spots

¹ BikeSpot 2023 is the third iteration of BikeSpot following similar project in 2016 and 2020

- 77.7% of Safe Spots relate to having more space from motor vehicle traffic
 - *'Off-road path'* (45.2%), *'Separated bicycle lane'* (17.7%) and *'Not much vehicle traffic'* (14.8%) were the top three main sub-categories of Safe Spots

No cycling infrastructure stressful for cyclists

- The *'No bicycle lane'* category is the highest stress-related experience, rating 4.14 out of 5 (5 = *Highest Stress*) for all Unsafe Spots. This was followed by *'Too much vehicle traffic'* and *'Traffic speed'* with rating of 4.12 and 4.05 respectively
- For the *'Interested but concerned'* cohort, *'Traffic speed'* and *'Car dooring'* were most stressful on average, both with 4.5 out of 5.
- *'No bicycle lane'*, *'Too much vehicle traffic'* and *'Traffic speed'* were the top three the most stressful issues for more confident riders.

Female riders are relatively younger, less confident and experience higher levels of cycling stress

- On average, female riders expressed higher rates of cycling stress than male riders across most issue categories.

Driver behaviour, a daily concern

- *'Poor driver behaviour'*, *'Car dooring'* and *'Aggressive behaviour'* were the top three issues where users indicated them as being experienced on a daily basis.

Intersections a significant issue along priority cycling corridors across capital cities

- Intersections and vehicle cross-overs at key cycling routes a major concern across most capital cities
 - VIC: Upfield Shared Path, St Georges Rd Trail and Capital City Trail in the Docklands
 - NSW: Epping Rd Shared Path (Lane Cover), Bourke Rd (Alexandria) and Wilson St (Newtown)
 - QLD: Sylvan Rd (Toowong), Witton Rd (Indooroopilly) and the Woolloongabba Bikeway.
 - TAS: Northern section of the Intercity Cycleway
 - ACT: Northbourne Ave, Lyneham
- **Top Safe Spot in each State – Off-road and dedicated cycling infrastructure dominates across capital cities**
 - Canning St, Carlton Nth (Vic), Wilson St, Newtown (NSW), Bicentennial Bikeway (QLD), Rail Bikeway, Woodville/Croydon (SA), South Tce, Fremantle (WA), Wendouree Dr, Parkes (ACT), Intercity Cycleway south of Tasman Bridge (ACT)
- **Top Unsafe Spot in each State – Busy and complex roads feature as most unsafe riding locations**
 - Hopkins St, Footscray (VIC), Victoria Rd, Rozelle (NSW), Sylvan Rd, Toowong (QLD), Franklin St, Adelaide (SA), Tydeman Rd & Pearse St intersection (WA), Northbourne Ave, Lyneham (ACT), Tasman Bridge (TAS)

Table of Contents

1. Background and Introduction	8
2. The BikeSpot Map	9
3. Participation.....	12
4. Submissions.....	19
5. Safe Spots.....	27
6. Unsafe Spots.....	29
7. Top Spots in each State	36
8. Recommendations	44
APPENDIX A – MEDIA	45

1. Background and Introduction

Riding a bike is healthy and sustainable, but unfortunately it is commonly perceived to be an unsafe activity due to the lack of dedicated cycling infrastructure. This is a major barrier to people getting on their bikes. Less than 1% of Australians ride a bike to work². Research has also shown that the key barrier to getting more people on bikes is how unsafe they feel when riding, particularly around cars. More than three-quarters of people are interested in riding a bike, but only when separated from cars³, such as on off-road paths or protected bike lanes. To build a safer cycling network we need to better understand why and where people feel safe and unsafe while riding.

BikeSpot 2023 is an interactive map that allows anyone with experience riding a bike in Australia, to say where they feel safe or unsafe whilst riding. By adding a Safe or Unsafe Spot to the BikeSpot map, participants collectively create a user-generated spatial dataset representing perceptions of cycling safety. The aim of the project is to develop insights that contribute to identifying and prioritising future safe cycling infrastructure improvements. Previous BikeSpot projects (2016 and 2020) were in Victoria only so this the first time the project has been national. The BikeSpot 2023 map opened for submissions on 19 October 2023 and closed over three months later on 31 January 2024. To assist in ensuring the data is utilised to inform the cycling infrastructure priorities, the BikeSpot data has been de-identified and made publicly available. In addition to CrowdSpot, other project partners initially included The Amy Gillett Foundation⁴ and the Australian Government as part of their funding for the Safe Cycling Program.

² ABS Census 2021

³ <https://theconversation.com/3-in-4-people-want-to-ride-a-bike-but-are-put-off-by-lack-of-safe-lanes-172868>

⁴ On 29 February 2024, The Amy Gillett Foundation announced they were no longer operating. This report is an in-kind contribution by CrowdSpot.

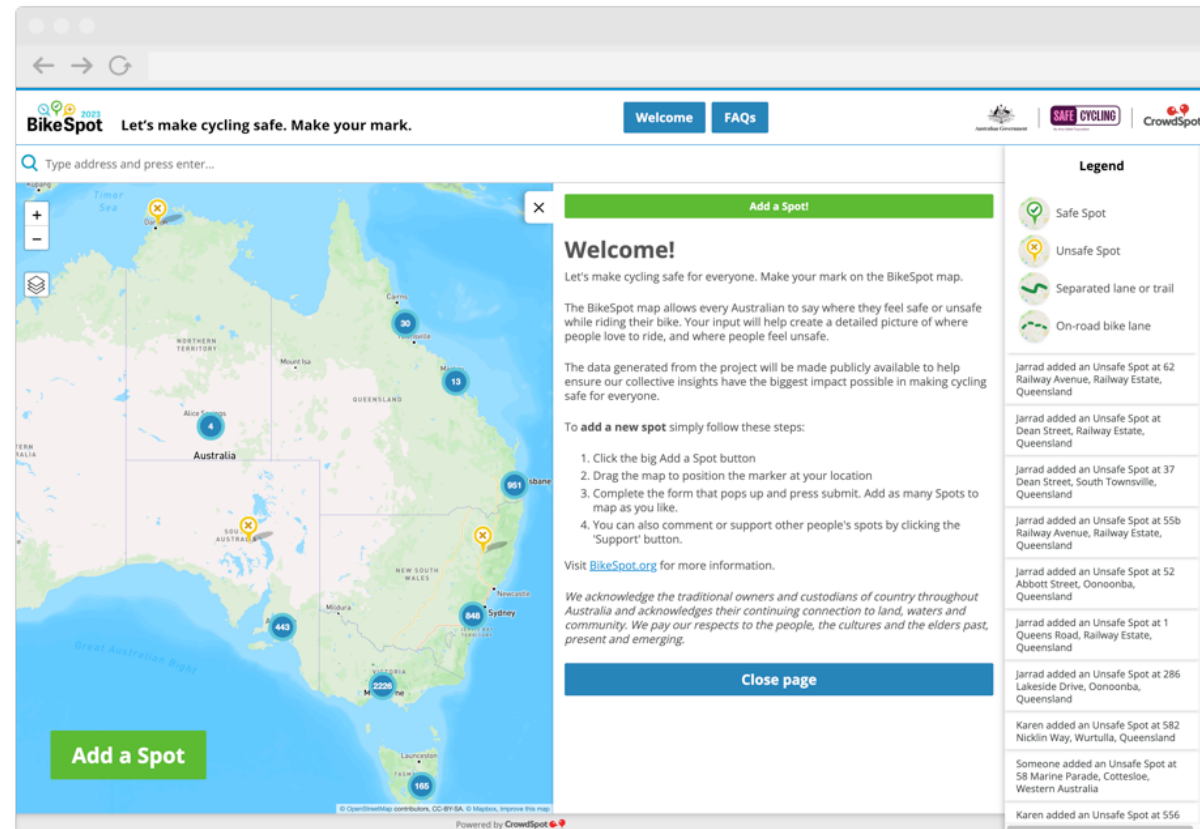
2. The BikeSpot Map

The BikeSpot 2023 web map was hosted at bikespot.crowdspot.com.au (Figure 1). The website was accessible across all devices via any browser.

Participants were able to **'add a spot'** to the map (Figure 2) via a survey form that contained a combination of location specific questions (safe/unsafe, reasons/issues, etc.) and some additional questions about the user (age, gender, riding confidence, etc.).

People could also **comment** on existing spots already added to the map or add their support for a spot by clicking the **support** button (Figure 3).

Figure 1 - BikeSpot 2023 Interactive Map



BikeSpot Let's make cycling safe. Make your mark.

Welcome

FAQs

SAFE CYCLING

🔍 143-145 Brunswick Street, Fitzroy, Victoria

Move the map to set your pin into position, then scroll down and submit.

Your spot is set to the below location.
*(You can edit the location below if necessary) **

143-145 Brunswick Street, Fitzroy, Victoria

What type of spot is this? *

Safe Spot

Unsafe Spot

Please select spot type. Then scroll down and complete your submission.

Legend

- Safe Spot
- Unsafe Spot
- Separated lane or trail
- On-road bike lane

Taylor added an Unsafe Spot at Bogong High Plains Road, Mount Beauty, Victoria

Someone commented on 590 Coronation Drive, Toowong, Queensland

Someone commented on 38 Aberleigh Road, Herston, Queensland

Nev added an Unsafe Spot at 87 Queens Road, St Kilda, Victoria

Nev added an Unsafe Spot at 155 Fitzroy Street, St Kilda, Victoria

Nev added an Unsafe Spot at 72-180 Fitzroy Street, St Kilda, Victoria

Nev added an Unsafe Spot at 630 St Kilda Road, Melbourne, Victoria

Batzman added an Unsafe Spot at 6017 Hutt Road, Adelaide, South Australia

Batzman added an Unsafe Spot at 164 Fullarton Road, Adelaide, South Australia

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Powered by **CrowdSpot**

Figure 3 – Example spot

BikeSpot 2023 Let's make cycling safe. Make your mark.

Welcome | FAQs

178 Moor Street, Fitzroy, Victoria

30 Support

King Street Cycleway, Sydney, New South Wales

James added this Unsafe Spot 6 months ago

Description: The missing link in the King St cycleway, cyclists forced into traffic as lane abruptly ends at the Clarence St intersection

3 comments

Agreed - this missing link needs to be built ASAP

Chris
around 5 months ago

Was supposed to be built end of last year. The abrupt end makes it dangerous at the end, and even more dangerous to join for a westbound route.

Gregoreau
around 3 months ago

Legend

- Safe Spot
- Unsafe Spot
- Separated lane or trail
- On-road bike lane

Taylor added an Unsafe Spot at Bogong High Plains Road, Mount Beauty, Victoria

Someone commented on 590 Coronation Drive, Toowong, Queensland

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Powered by CrowdSpot

3. Participation

3.1 Website Analytics

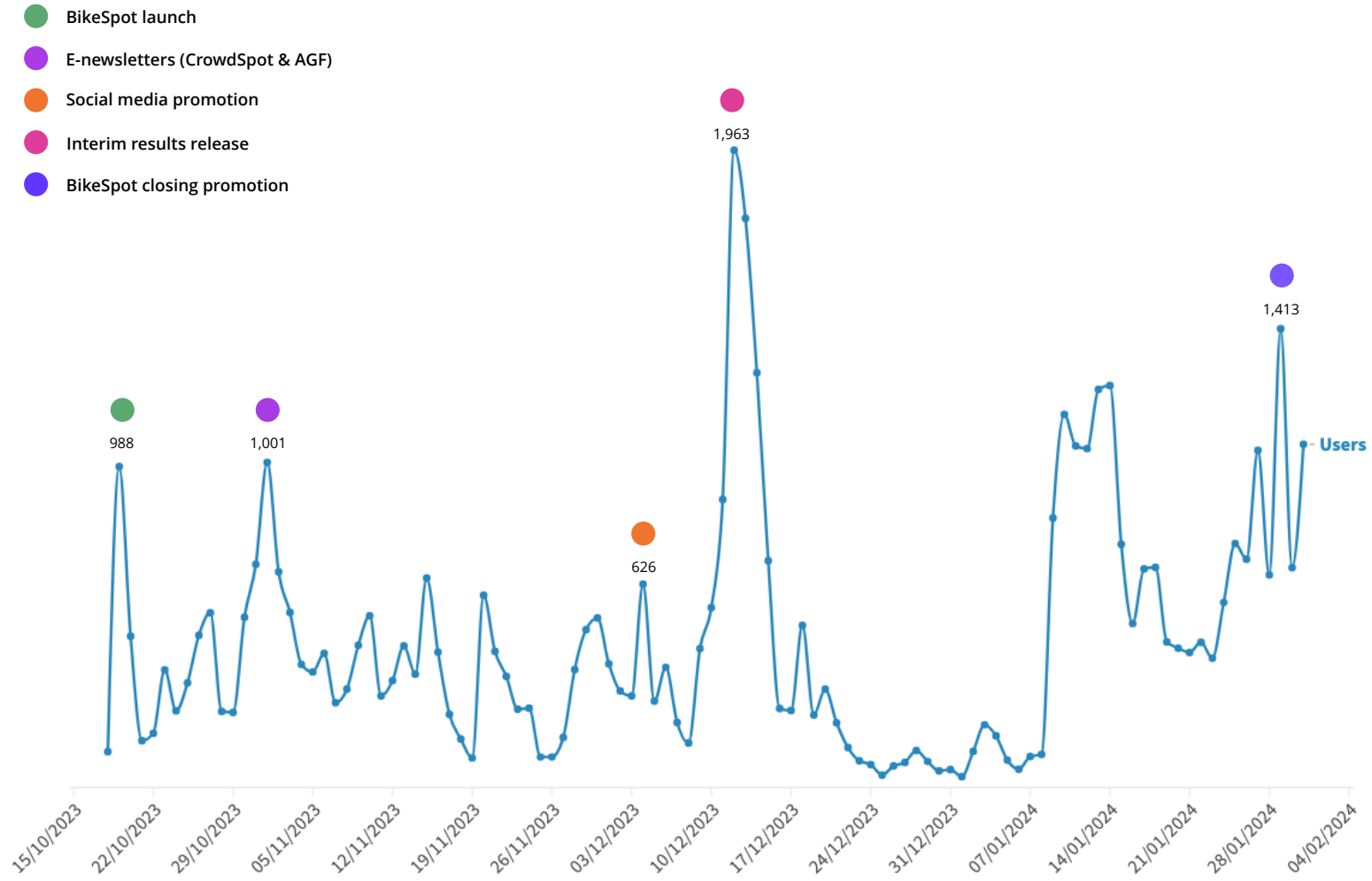
There were 10,530 unique individuals who made a submission (spot, comment or support) to the map. In addition, there was a total of 44,000 users who visited the BikeSpot map from across the world. These users generated over 630,000 pageviews.



Figure 4 - Participation metrics

Individuals were encouraged to make submissions through targeted social media channels, e-newsletter inclusions with collaborators and the interim results media release. Figure 5 on the following page outlines the total number of pageviews per day over the entire engagement period. There were 460 average daily page views and the peak of 1,963 pageviews occurred on 12 of December. This peak coincided with the interim results release, that generated 93 media items across print, online new, radio and TV including exclusives with *The Age* and *The Sydney Morning Herald*. In addition to recruiting participants through the media, the enthusiastic audiences were targeted via the social media channels and e-newsletter inclusions with collaborators.

Figure 5 – Pageviews



3.2 Gender

Most spots (68.1%) added to the map by unique submitters by users who identified themselves as male (Figure 6). Women submitted 28.2% of spots and remaining 3.8% was made by other gender preferences and identities. This gender breakdown tends to be representative of cycling participation in urban environments⁵ where men typically outnumber women two to one.

Figure 6 - Gender (unique Vs all spots)

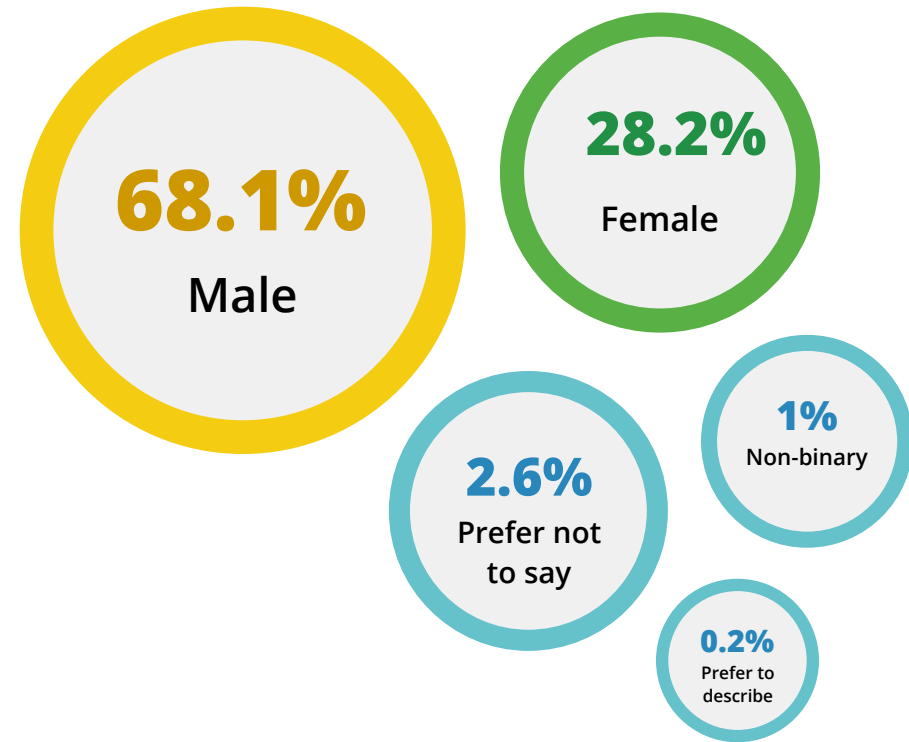


Figure 7 - Gender (unique submitters)

Gender	Unique submitters		All spots	
	No.	%	No.	%
Male	4,200	68.1%	10,561	70.0%
Female	1,739	28.2%	3,807	25.2%
Non binary	60	1.0%	187	1.2%
Prefer not to say	161	2.6%	480	3.2%
Prefer to describe	11	0.2%	45	0.3%
	6,171	100%	15,080	100%

⁵ <https://theconversation.com/how-to-get-more-women-on-bikes-better-biking-infrastructure-designed-by-women-202147>

3.3 Age

The most active submission age group was the 35-39 range, which added 12.6% of all spot (Figure 8) on the map. In terms of unique submitters, it was the 50-54 age range that was the most active, representing 12.8% of unique individuals.

The age groups between 30-59 each accounted for between 11.5% and 12.6% of all spots on the map. This represents an even spread of age group representation for key ridership cohorts. These age groups accounted for 71.3% of all spots on the map.

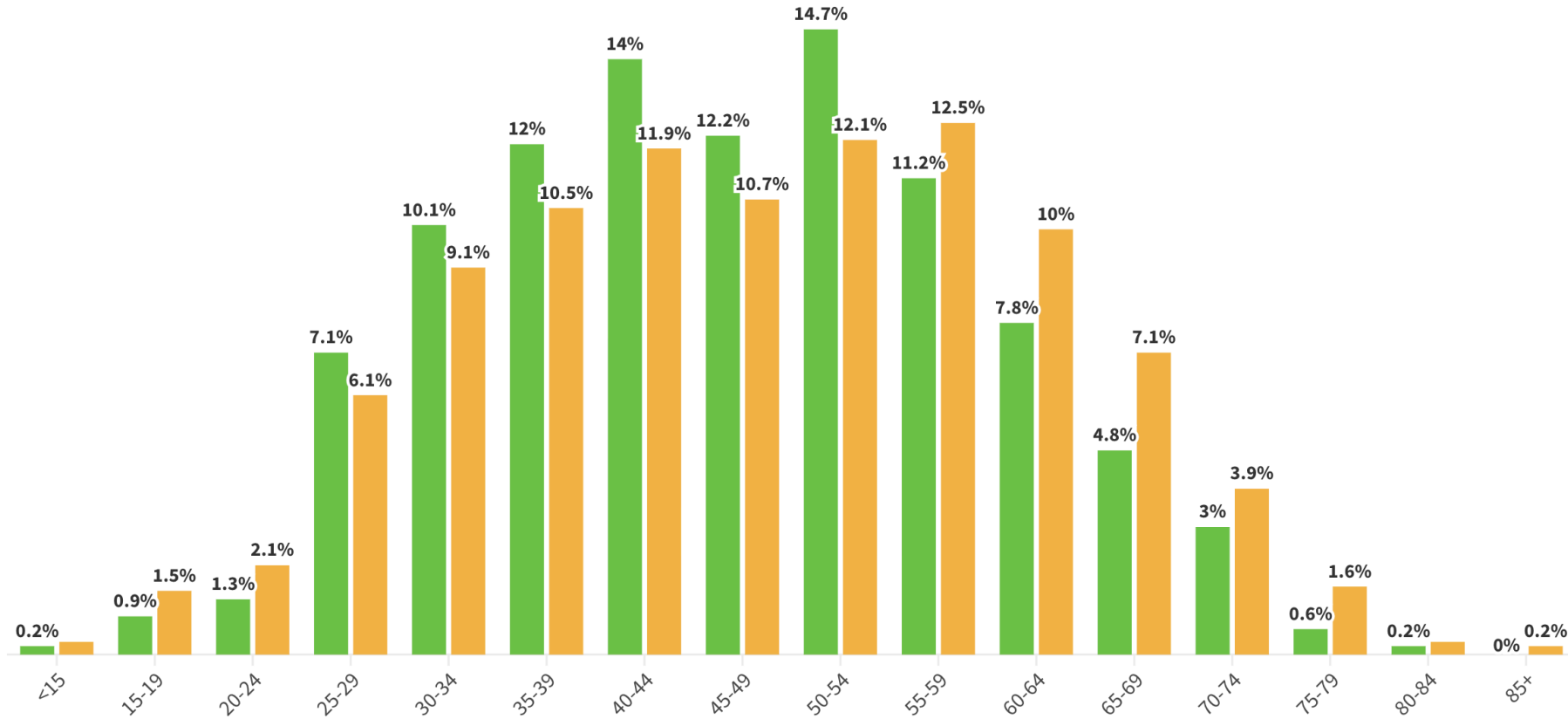
Figure 9 on the following page visualises age broken down by Male and Female genders. Women who added spots on the map are more represented in younger age groups (25-44) whilst men have more representation in older age ranges (55+).

Figure 8 - Age (unique Vs all spots)

Age	Unique submitters		All spots	
	No.	%	No.	%
<15	22	0.4%	30	0.2%
15-19	84	1.4%	162	1.1%
20-24	121	2.0%	366	2.4%
25-29	410	6.6%	1,233	8.2%
30-34	588	9.5%	1,814	12.0%
35-39	677	11.0%	1,900	12.6%
40-44	769	12.5%	1,779	11.8%
45-49	687	11.1%	1,750	11.6%
50-54	789	12.8%	1,778	11.8%
55-59	732	11.9%	1,731	11.5%
60-64	579	9.4%	1,367	9.1%
65-69	389	6.3%	651	4.3%
70-74	221	3.6%	380	2.5%
75-79	77	1.2%	105	0.7%
80-84	18	0.3%	23	0.2%
85+	8	0.1%	11	0.1%
	6,171	100%	15,080	100%

● Female ● Male

Figure 9 - Age by gender



n = 6,171

3.4 Rider Confidence

Participants were asked to select their level of riding confidence. The vast majority (70.7%) of unique submitters described themselves as 'Very confident' (Figure 9), followed by 'Somewhat confident' (25.7%) and 'Interested but concerned' (3.5%).

As the project focuses on capturing the collective knowledge of existing riders it is logical that over 96% of participants indicate a degree of confidence when riding. This is because people need to be riding to reflect on their personal safety riding experiences and they are passionate enough to actively participate in the project.

When comparing rider confidence by gender, figure 11 shows that 77.8% of men selected 'Very confident', whereas only 54.4% of women selected 'Very confident'. This data indicates as widely accepted view that female riders are more risk-averse than male riders.

Figure 10 - Rider confidence (unique Vs all spots)

Rider confidence	Unique submitters		All spots	
	No.	%	No.	%
Very confident	4,219	70.7%	10,535	71.5%
Somewhat confident	1,536	25.7%	3,673	24.9%
Interested but concerned	211	3.5%	520	3.5%
	5,966	100%	14,728	100%

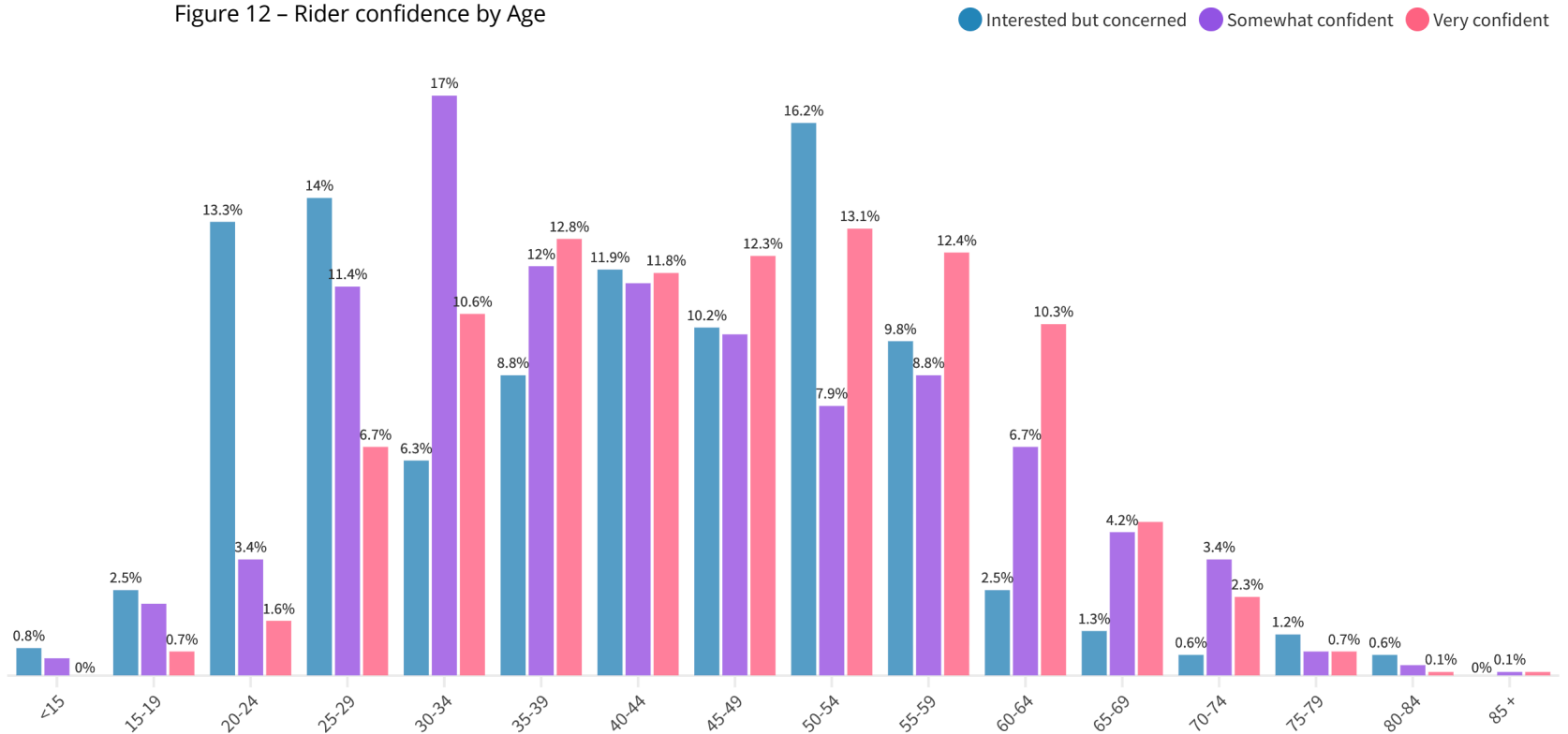
Figure 11 - Rider confidence by gender



n = 5,966

Figure 12 below presents rider confidence cohorts across each age range. Interestingly, 27.3% of the 'Interested but concerned' cohort fall within the 20-29 age ranges. The other popular age group for the 'Interested but concerned' is the 50-54 age group with 16.2%. The peak for 'Somewhat confident' riders are in the 30-34 age range, presumably as younger new riders become more experienced and gain confident. At the other end of the age spectrum, the more experienced older generations account for 43.5% of participants aged 50+.

Figure 12 – Rider confidence by Age



Interested but concerned: n = 520, Somewhat concerned: n = 3673, Very confident: n = 10535

4. Submissions

4.1 Overall Submissions

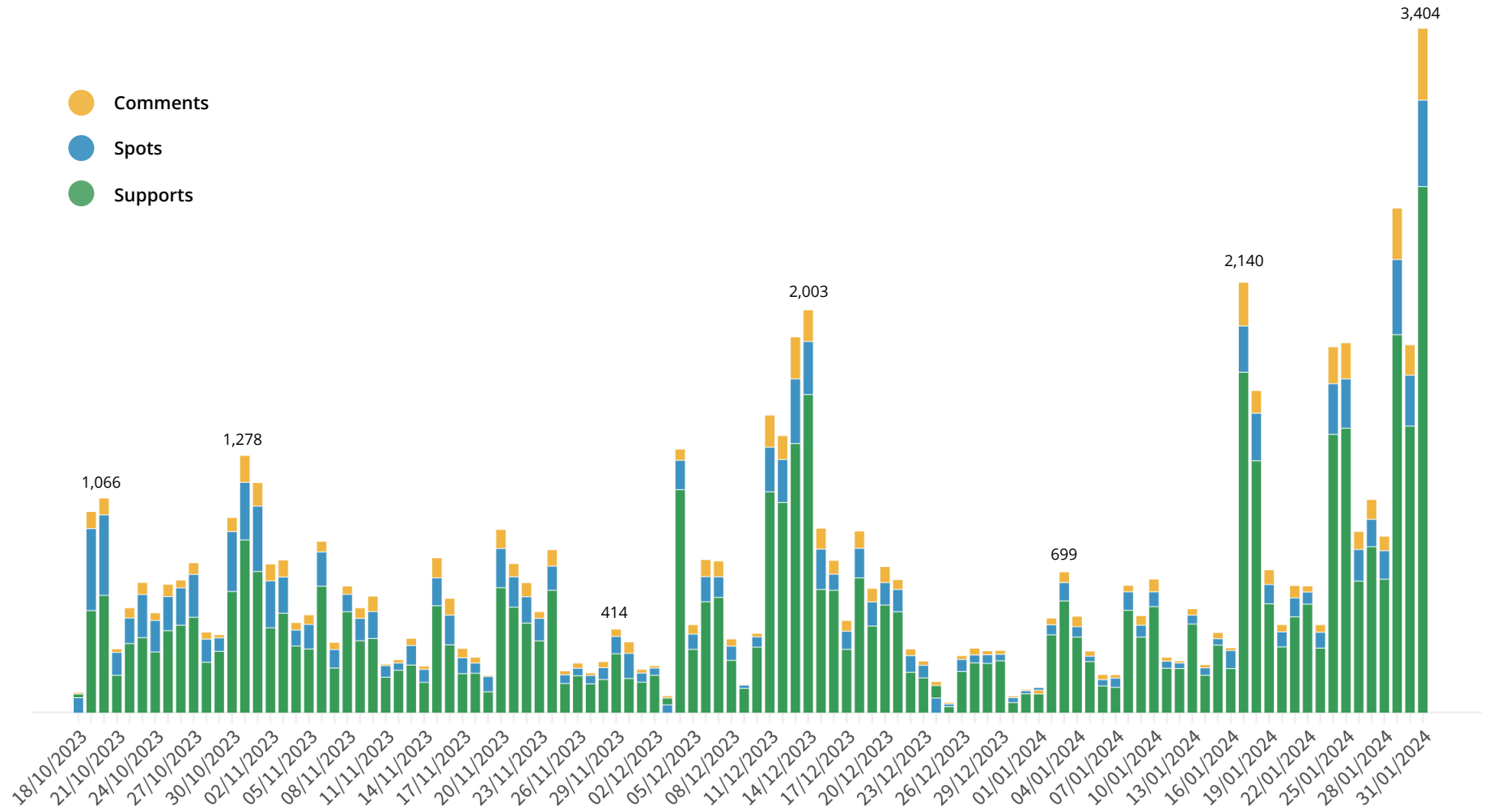
There was a total of 72,844 submissions (figure 13) made up of spots (15,080), comments (6,252), and supports (51,512).

Figure 14 on the next page represents submissions over time. There was an average of 659 daily submissions, whilst the largest single day of submissions was 3,404 on 31 January (final submission day).

Figure 13 - Overall submissions



Figure 14 - Submissions over time



4.2 Total submissions by State & Territory

Victoria received the majority of submissions across the country with over 37,000 submissions. This represents just over 50% of all project submissions. As this is the third BikeSpot project to take place in Victoria it is not surprising that so many submissions.

After Victoria, New South Wales (13%) and Queensland (12.8%) rounded out the top three States. These were then followed by South Australia (8.6%), Western Australia (7.1%), Tasmania (4.2%), ACT (3.3%) and Northern Territory (0.1%).

Figure 15 - Map of Australia (% of submissions)

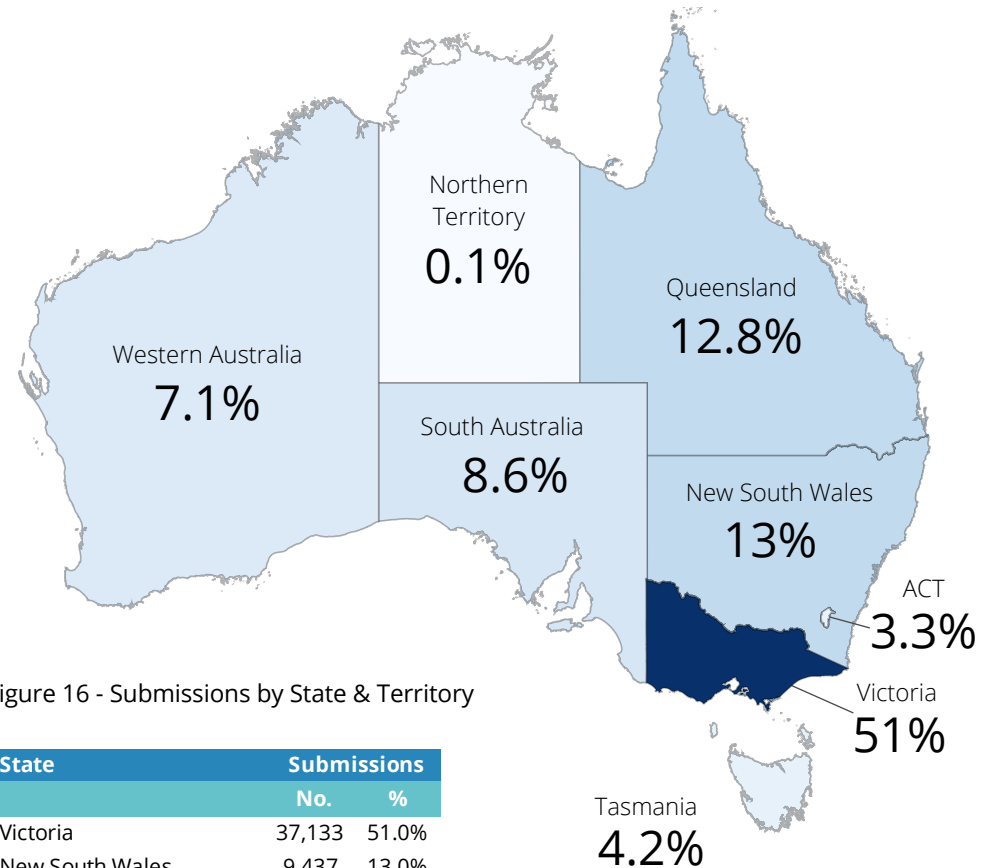


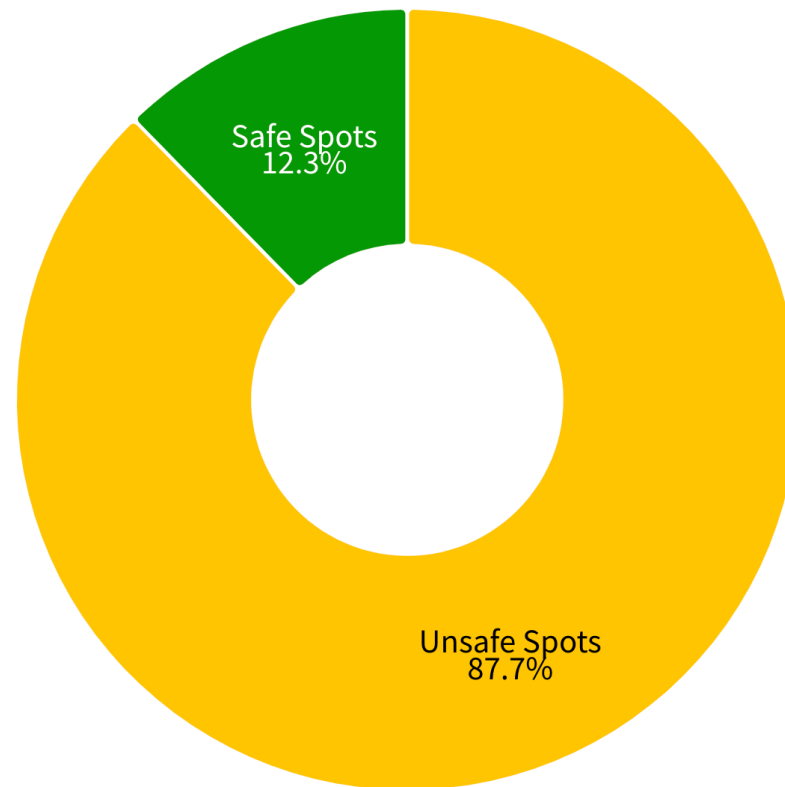
Figure 16 - Submissions by State & Territory

State	Submissions	
	No.	%
Victoria	37,133	51.0%
New South Wales	9,437	13.0%
Queensland	9,309	12.8%
South Australia	6,282	8.6%
Western Australia	5,167	7.1%
Tasmania	3,044	4.2%
Australian Capital Territory	2,405	3.3%
Northern Territory	67	0.1%
	72,844	100%

4.3 Spot Type

A little under 88% (13,230) of all spots added to the map are 'Unsafe Spots' whilst just over 12% (1,850) of all spots are 'Safe Spots'. This breakdown is very consistent with past BikeSpot projects.

Figure 17 - Spot type (Safe Vs Unsafe)



n = 15,080

4.4 Spot Infrastructure Type

Participants were asked what type of infrastructure exists at the location of the spot they were submitting. 47.5% of all spots were indicated as having 'No cycling infrastructure'. The remaining 52.5% of spots were categorised as having 'On-road' (26.9%) or 'Off-road' (25.6%) cycling infrastructure.

Figure 19 on the following page break down the top-level infrastructure typology by Unsafe or Safe Spots. It is no surprise that 51.9% of Unsafe Spots were related to 'no cycling infrastructure' or that 57.4% of Safe Spots were submitted at locations considered 'Off-road'.

The 'On-road' selection was evenly balanced between Safe and Unsafe Spot types. 26.8% of Unsafe Spots were considered to be on-road whilst 27.9% Safe Spots were also on-road.

Figure 18 - Spot infrastructure type

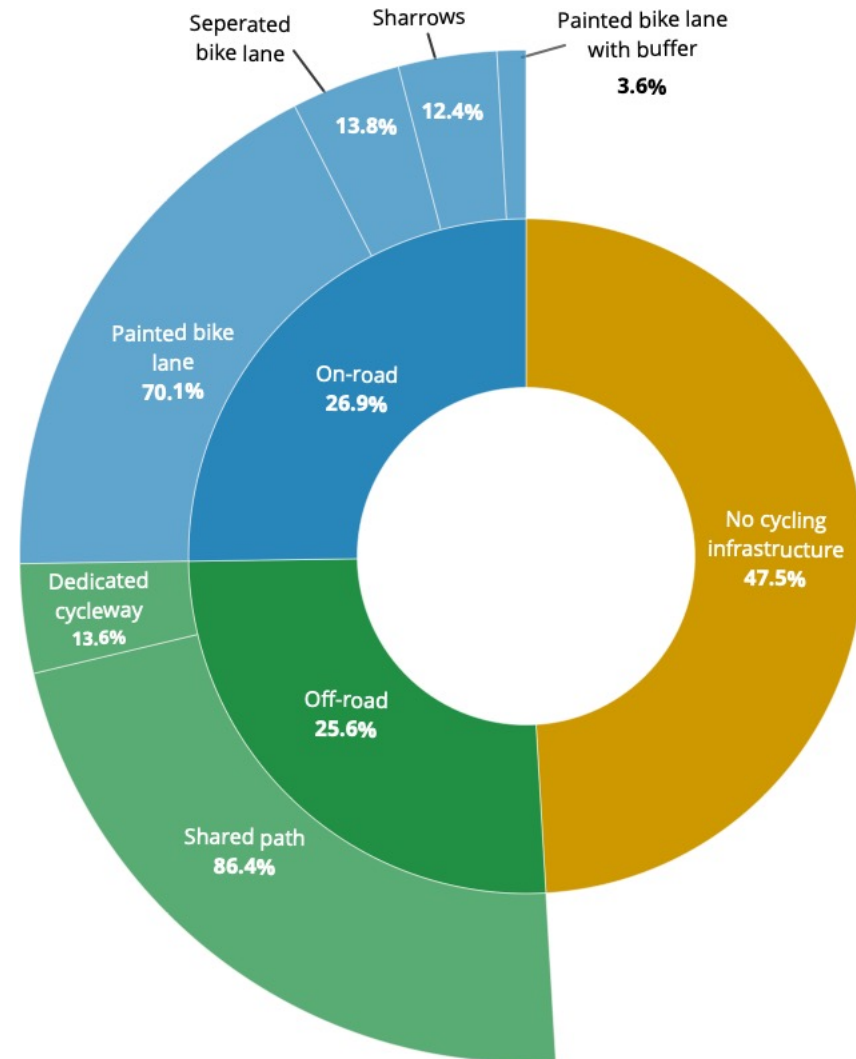
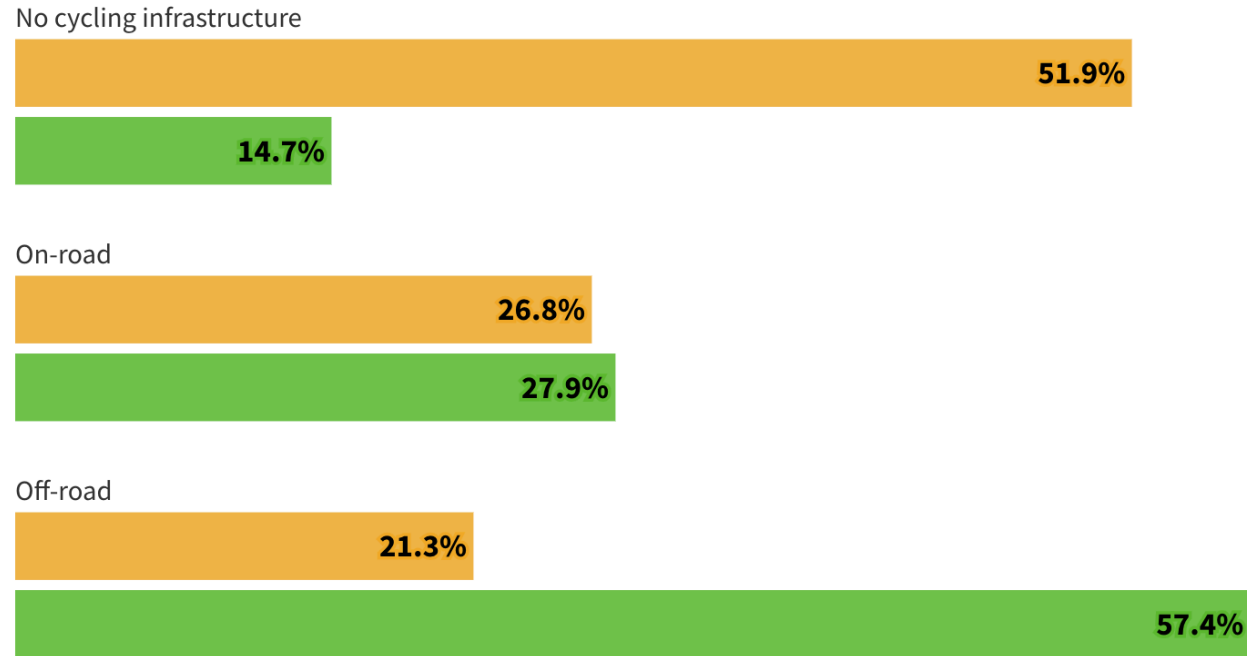


Figure 19 - Spot infrastructure by spot type

● Unsafe Spots
● Safe Spots



n = 13,690

Figure 20 - Spot infrastructure (table)

Spot infrastructure	Total		Unsafe Spots		Safe Spots	
	No.	%	No.	%	No.	%
No cycling infrastructure	6,501	47.5%	6,261	51.9%	240	14.7%
On-road	3,682	26.9%	3,227	26.8%	455	27.9%
Off-road	3,507	25.6%	2,571	21.3%	936	57.4%
Grand Total	13,690	100%	12,059	100%	1,631	100%

4.5 Spot Activity

Participants were asked about the type of activity or purpose for riding at their chosen spot. Overall, 51.1% of spots are associated with 'Commuting', followed by 'Recreation' (20%), 'Tasks and errands' (14.4%), 'Fitness' (9.6%) and 'With kids' (4.9%).

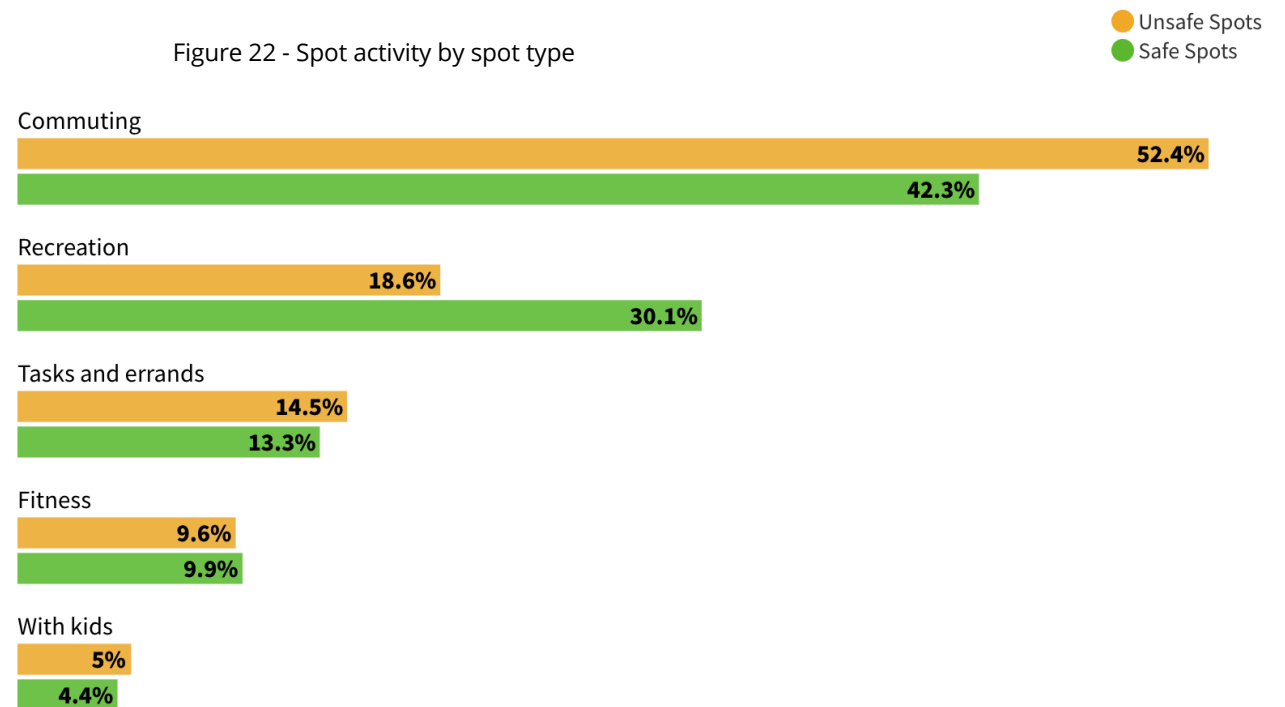
Figure 21 - Spot activity (table)

Spot activity	Total		Unsafe Spots		Safe Spots	
	No.	%	No.	%	No.	%
Commuting	7,394	51.1%	6,649	52%	745	42%
Recreation	2,887	20.0%	2,358	19%	529	30%
Tasks and errands	2,080	14.4%	1,846	15%	234	13%
Fitness	1,388	9.6%	1,213	10%	175	10%
With kids	709	4.9%	632	5%	77	4%
	14,458	100%	12,698	100%	1,760	100%

Figure 22 represents these activity types by spot type. For example, 52.4% of Unsafe Spots and 42.3% Safe Spots related to commuting.

Recreational riding activities were much more prominent with Safe Spots (30.1%) compared with Unsafe Spots 18.6%). There was relatively even split between Unsafe and Safe spots for the activity types.

Figure 22 - Spot activity by spot type



n = 14,458

4.6 Spot Frequency

The most popular selection for how frequent a user rides at their spot was 'A few times a week' with 40.5% of all spots (figure 22). 'Daily' (18.3%) was the next most common response, followed by 'Once a month' (14.4%).

Figure 23 breaks down the frequency categories by spot type. Interestingly, 73% of all Unsafe Spots are indicated as being ridden at least once a week. This effectively means that riders are continuously cycling at locations where they experience a consistent level of cycling stress. Whilst confident riders can persist in riding at these 'unsafe' locations, it is reasonable to assume that these level of cycling stress would prevent less confident riders from riding more frequently or from riding at all.

Figure 23 - Spot frequency by spot type

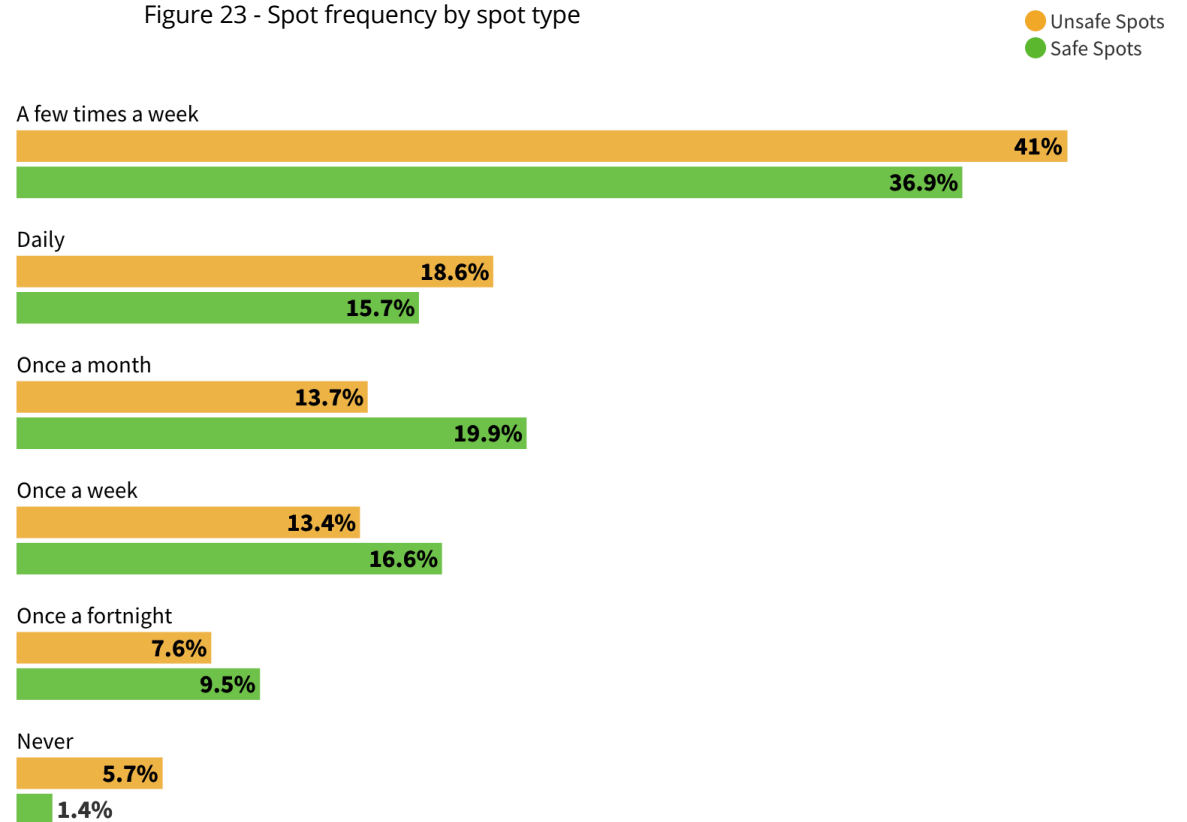


Figure 24 – Spot frequency (table)

Spot frequency	Total		Unsafe Spots		Safe Spots	
	No.	%	No.	%	No.	%
A few times a week	5,957	40.5%	5,303	41.0%	654	36.9%
Daily	2,686	18.3%	2,408	18.6%	278	15.7%
Once a month	2,119	14.4%	1,766	13.7%	353	19.9%
Once a week	2,021	13.8%	1,727	13.4%	294	16.6%
Once a fortnight	1,146	7.8%	978	7.6%	168	9.5%
Never	762	5.2%	737	5.7%	25	1.4%
	14,691	100.0%	12,919	100.0%	1,772	100.0%

n = 14,458

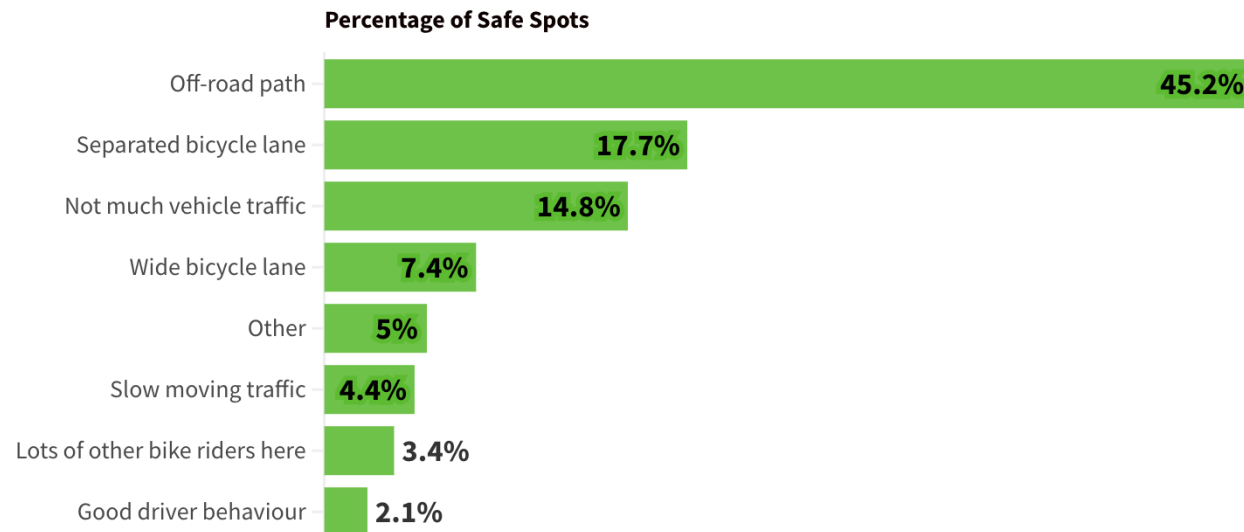
5. Safe Spots

5.1 Safe reasons

When adding a 'Safe Spot', users were asked to identify the **main reason** they feel safe at their chosen location. 'Off-road path' (45.2%), 'Separated bicycle lane' (17.7%) and 'Not much vehicle traffic' (14.8%) were the top three most common categories (Figure 25).

A combined 77.7% of safe spot submissions relate to having more space from motor vehicles when cycling⁶. The bottom three safe spot categories of 'Slow moving traffic', 'Lots of other bike riders here' and 'Good driver behaviour' are non-infrastructure related safety reasons.

Figure 25 - Safe spots by reason



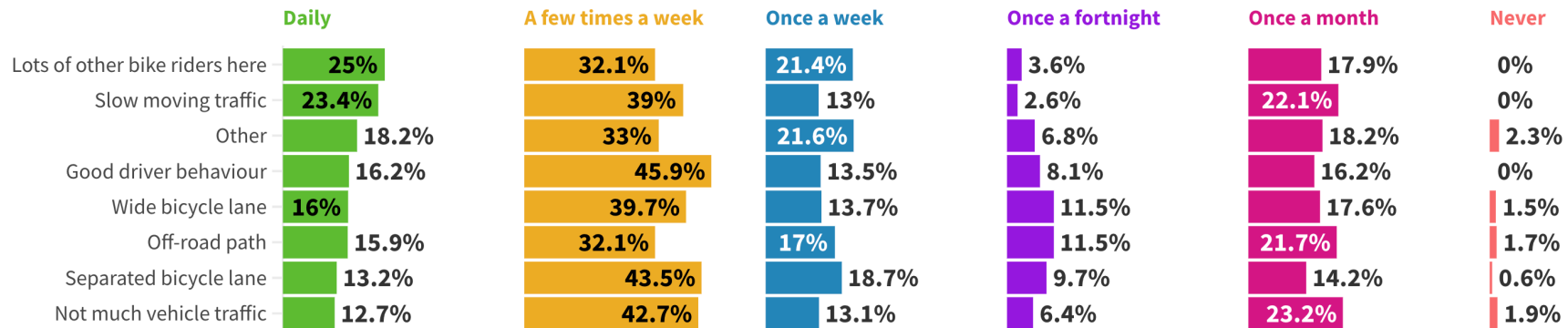
n = 1,850

⁶ Combining 'Off-road path', 'Separated bicycle lane', 'Not much vehicle traffic' and 'Wide bicycle lane'

5.2 Safe Reasons by Frequency

Overall, the top daily 'Safe Spot' experience was 'Lots of other bike riders here' (25%). On a weekly basis, 'Lots of other bike riders here' (78.6%), 'Good driver behaviour' (75.7%) and 'Separated bicycle lane' (75.5%) were the top safe experiences. These results validate that riders gravitate towards safe cycling infrastructure which in turn makes them feel safer, riding amongst others.

Figure 26 - Safe reason by frequency



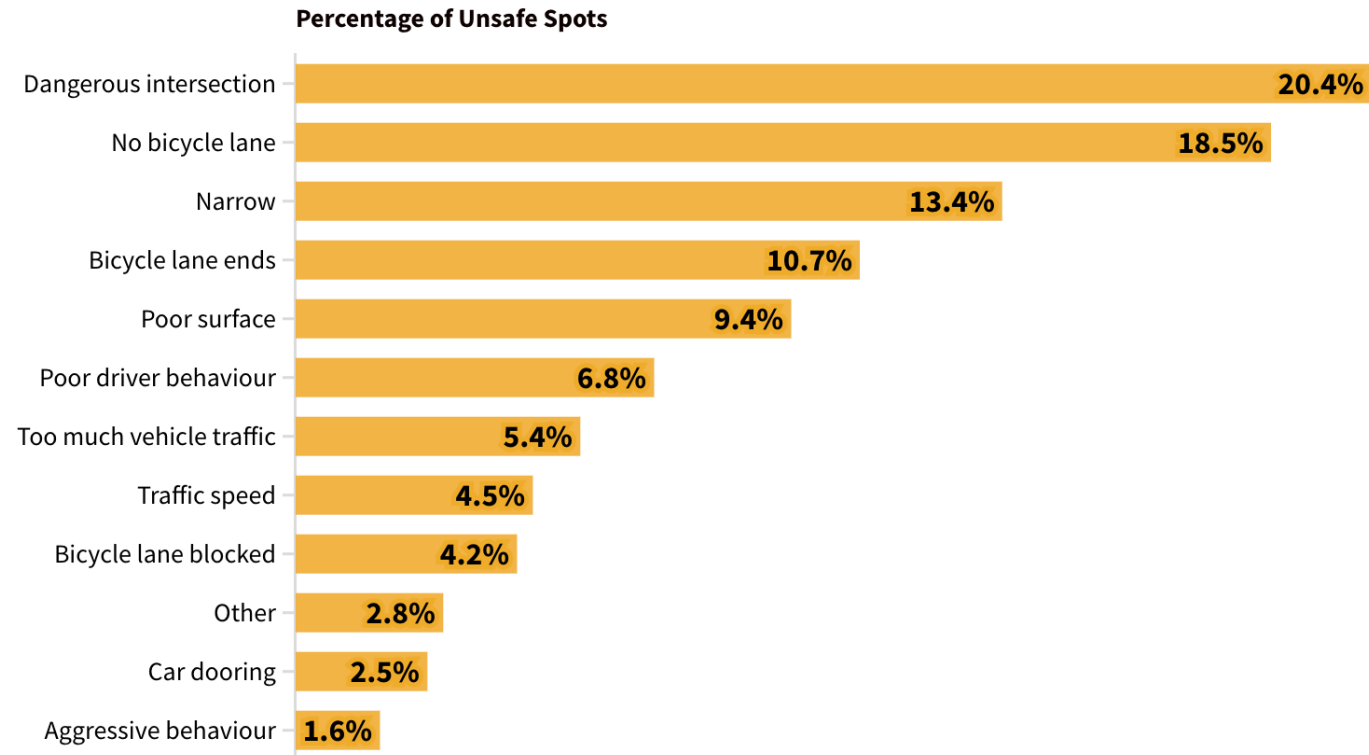
n = 1,772

6. Unsafe Spots

Figure 27 - Unsafe spot by issue

6.1 Unsafe Issues

In the process of adding an 'Unsafe Spot', users were asked to identify their **main issue** at their chosen location. 'Dangerous intersection' (20.4%), 'No bicycle lane' (18.5%) and 'Narrow' (13.4%) were the top three categories overall (Figure 27). Collectively, 75.6% of Unsafe Spots relate to insufficient or unsafe cycling infrastructure⁷.



n = 13,223

⁷ Combining 'Dangerous intersection', 'No bicycle lane', 'Narrow', 'Bicycle lane ends', 'Poor surface' and 'bicycle lane blocked'

6.2 Unsafe Issues by Gender

Figure 28 represents the proportion of unsafe issues by gender. Relatively, female participants have added more spots than men with issues associated with 'dangerous intersections', 'no bicycle lanes', 'poor driver behaviour', 'too much vehicle traffic' and 'traffic speed'. Male participants on the other hand have greater representation with issues associated with 'narrow', 'poor surface', 'bicycle lane blocked' and 'car dooring'.

Interestingly, the divergence in issues may be associated with riding speed. Generally, male bike riders have a higher risk appetite and possible do travel at faster speeds. The issues they have greater prominence with become much more unpredictable and therefore stressful when traveling at faster speeds.

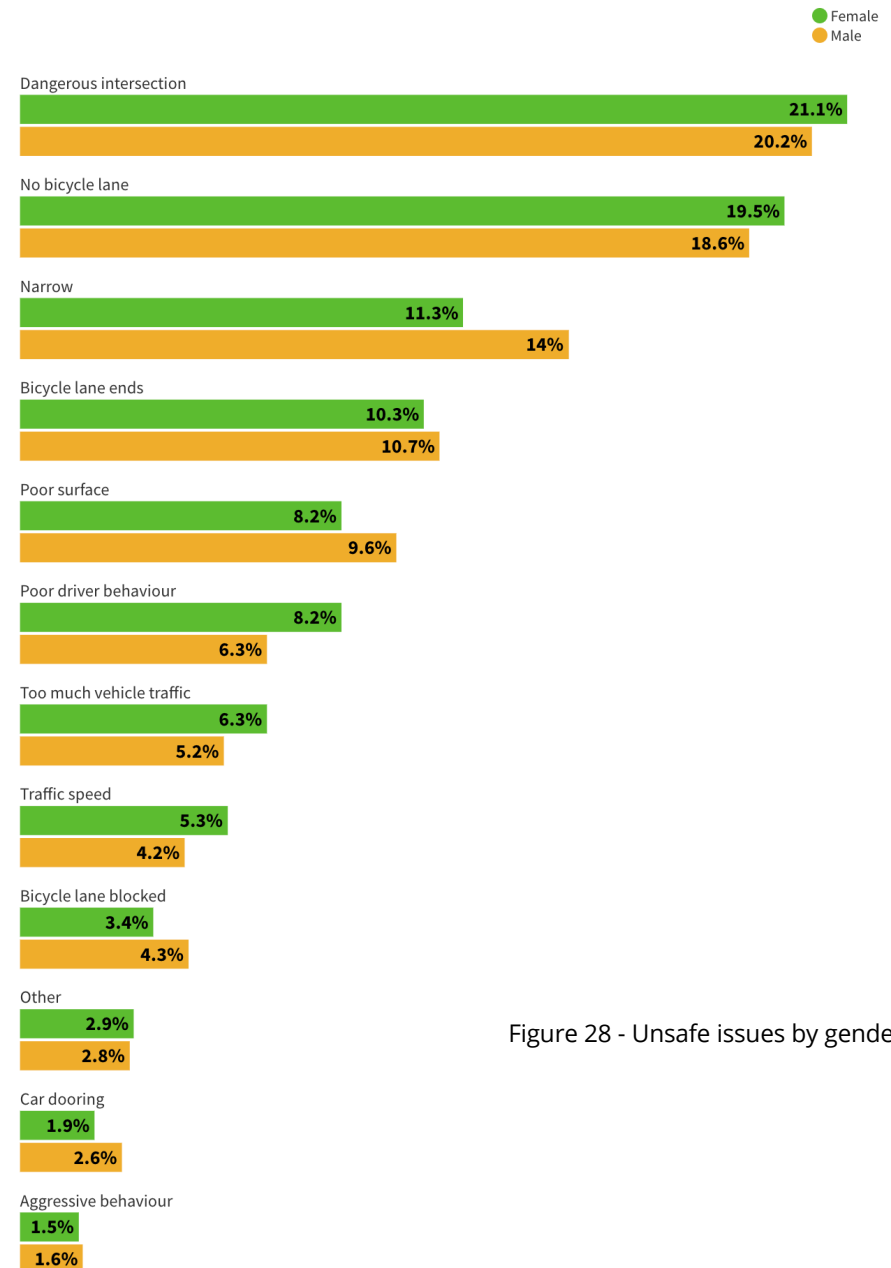


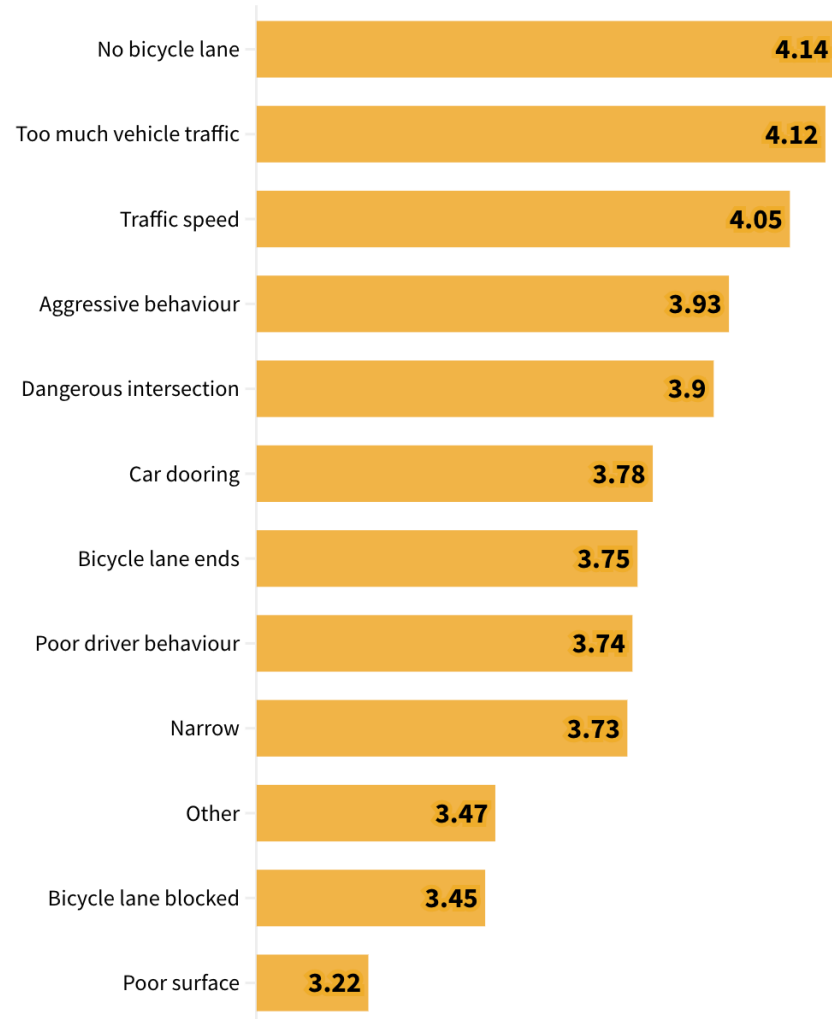
Figure 28 - Unsafe issues by gender

6.3 Issues by Cycling Stress

Participants adding an 'Unsafe Spot' were asked to rate their level of cycling stress on scale of **1 - 5** (where 1 = low stress, 5 = high stress) in relation to the experience they were submitting. 'No bicycle lane' (4.14), 'Too much vehicle traffic' (4.12) and 'Traffic speed' (4.05) were on average the top 3 most stressful categories. Interestingly, two of these three categories relate to motor vehicle driver behavior rather than cycling infrastructure. Whilst 'Too much vehicle' and 'Traffic speed' are at the top of average cycling stress ratings they in the bottom half for the proportion of spots submitted (Figure 27). 'No bicycle lane', however, is the most stressful issue and is associated with the second most number of Unsafe Spots.

Understandably, in seeking to avoid high cycling stress environments, cyclists typically gravitate to safer areas where there are lower speed limits and greater space from other vehicles.

Figure 29 - Unsafe issues by avg. cycling stress



n = 13,223

6.4 Unsafe Issues by Average Cycling Stress and Gender

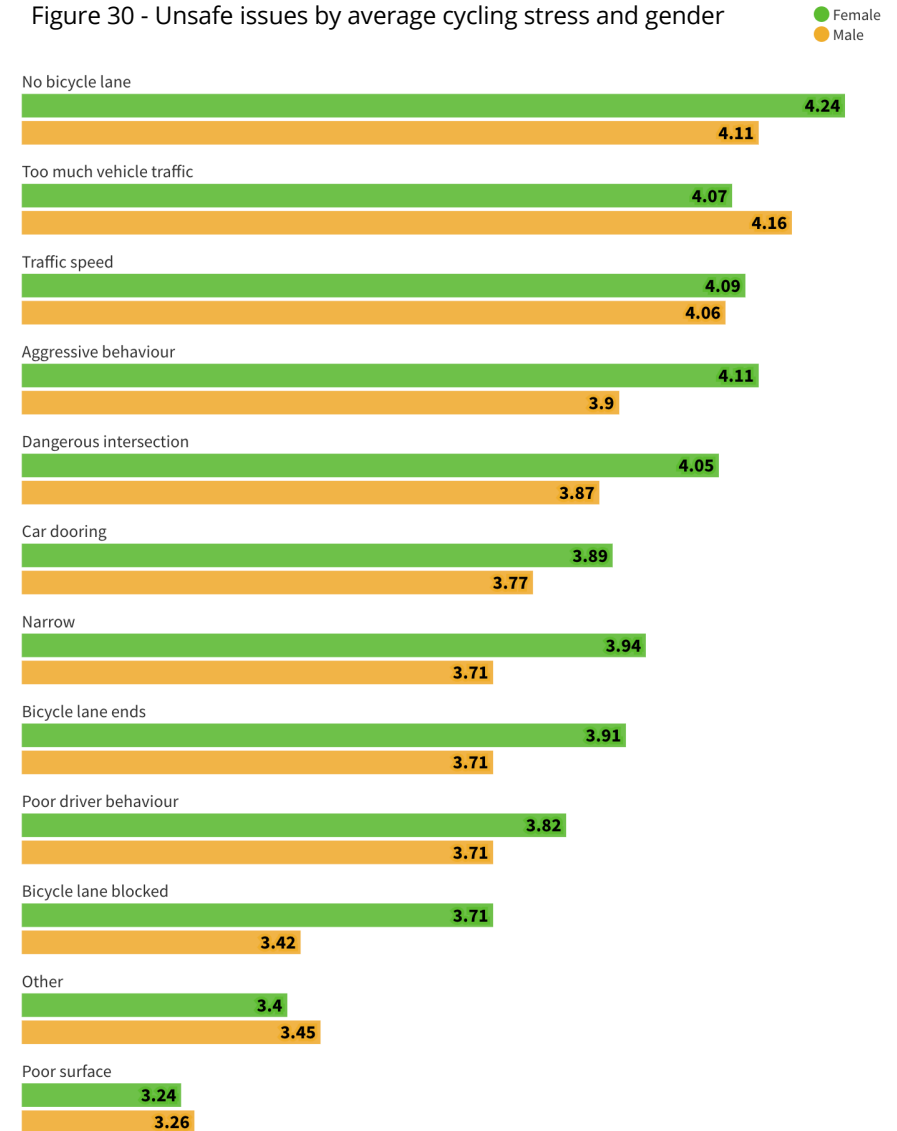
Figure 30 represents the unsafe issues by average cycling stress and gender.

On average, the top three cycling stress issue ratings for female riders is 'No bicycle lane' (4.1), 'Aggressive behaviour' (3.94) and 'Car dooring' (3.89). The top three for male riders is 'Too much vehicle traffic' (3.99), 'No bicycle lane' (3.92) and 'Traffic speed' (3.89).

Interestingly, but perhaps not surprisingly, the average cycling stress for female riders is higher than male riders for all *but* the three categories of 'Too much vehicle traffic', 'Traffic speed' and 'Other'.

Figure 31 on the following page presents all issues relative to their cycling stress and proportion of the number of Unsafe Spots added to the map. 'No bicycle lane' and 'Dangerous intersection' clearly the biggest issues being the cause of high stress levels across a large number of locations.

Figure 30 - Unsafe issues by average cycling stress and gender



n = 13,223

Figure 31 - Issues by gender, average cycling stress and % proportion of Unsafe Spots

● Female ● Male

Avg. Cycling Stress (0-5)

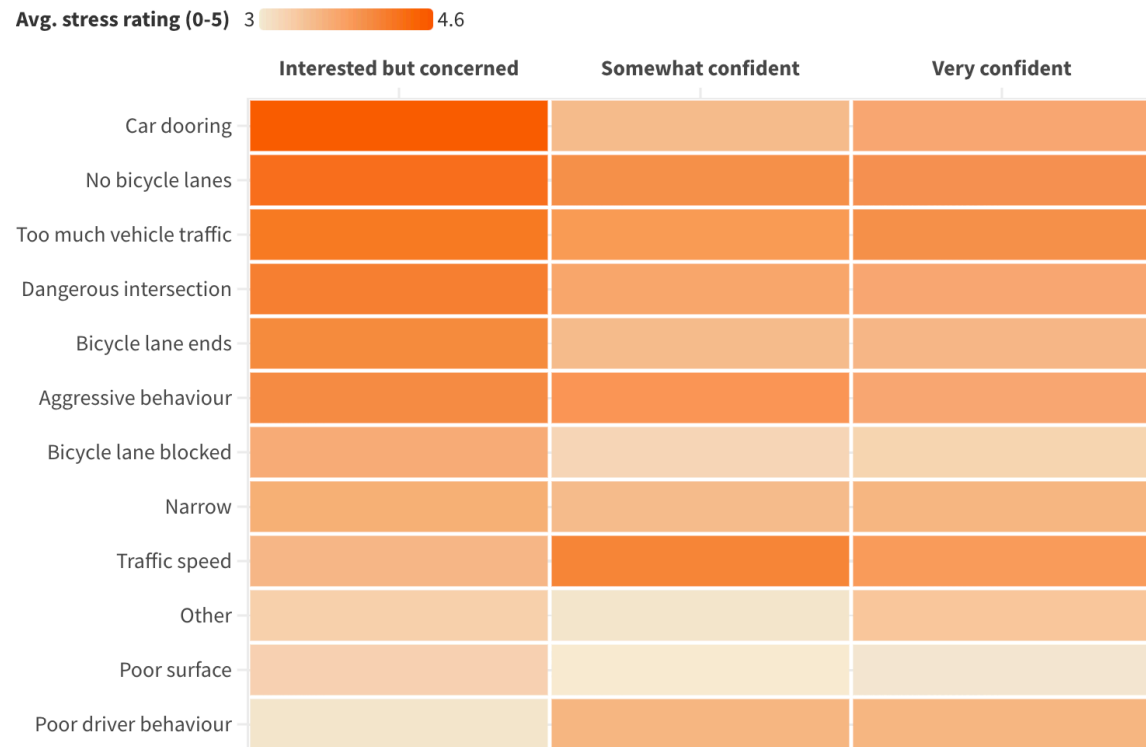


6.5 Unsafe Issues by Cycling Stress and Rider Confidence

As the level of cycling stress for an individual is likely to influence their willingness to ride, it is important to assess the differences in relative cycle stress for individuals with different levels of riding confidence.

Figure 32 is a heatmap grid, where darker shades represent high average stress ratings. Understandably, the least confident 'Interested but concerned' rider cohort has relatively darker shades almost across the set of issues. 'Traffic speed' and 'Car dooring' are equal most stressful for less confident riders. 'Too much vehicle traffic', 'No bicycle lanes' and 'Dangerous intersection' are the next three on average most stressful experiences for less confident riders. 'No bicycle lane', 'Too much vehicle traffic' and 'Traffic speed' were the top three the most stressful issues for more confident riders.

Figure 32 - Unsafe issues by cycling stress and rider confidence

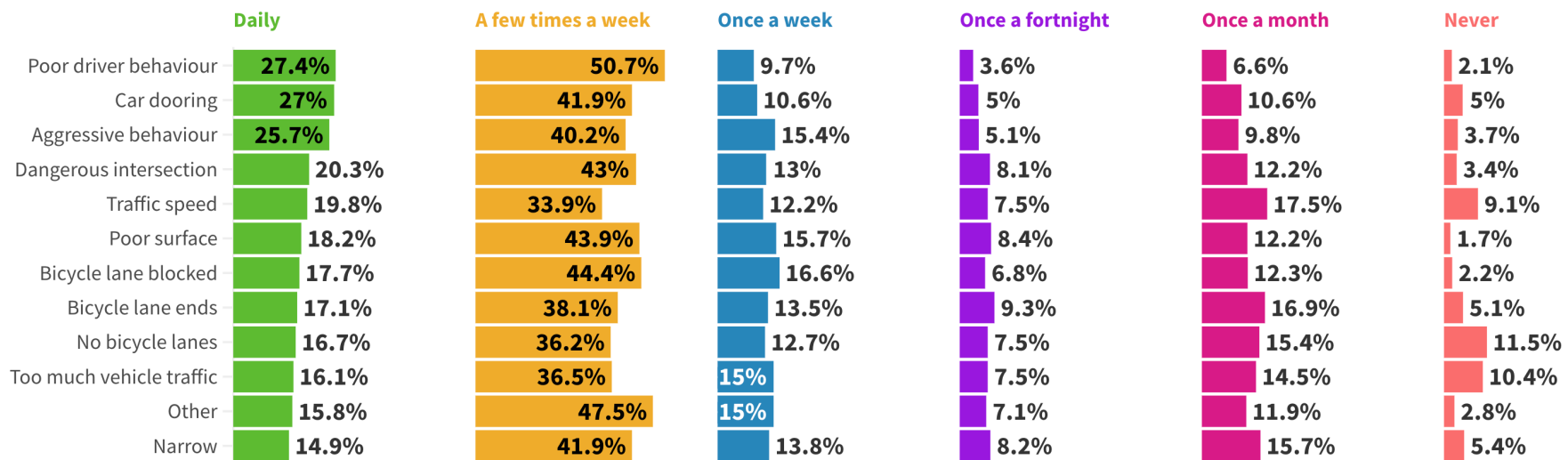


National: n = 12914 (Interested but concerned: n = 466, Somewhat confident: n = 3146, Very confident: n = 9302)

6.6 Unsafe Issues by Frequency

Figure 33 below lists the unsafe issues by how frequently they are experienced. On a daily basis, 'Poor driver behaviour' (27.4%), 'Car dooring' (27%) and 'Aggressive behaviour' (25.7%) are the most experienced concerns or cause of cycling stress. Interestingly these concerns are associated with driver behaviour rather than cycling infrastructure, although car dooring risk is reduced dramatically by creating greater separation on the road.

Figure 33 - Unsafe issues by frequency



n = 12,912

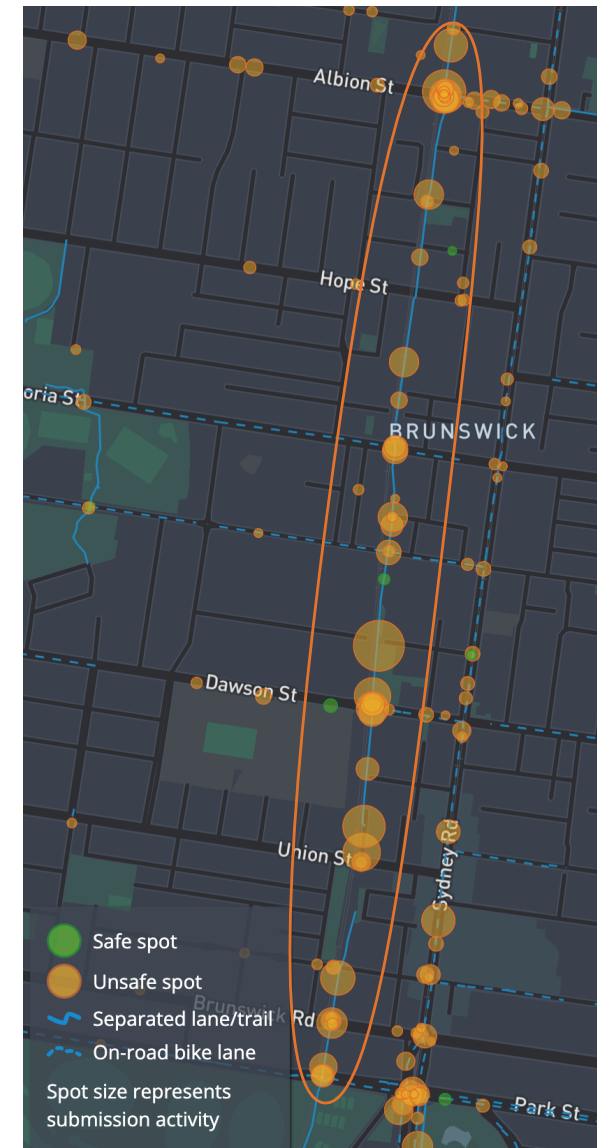
7. Top Spots in each State

Crowdsourcing submissions on an interactive map enables the top locations, both safe and unsafe, to be determined. These 'top spots' represent a set of community priorities, where top safe spots validate the importance of safe cycling infrastructure and top Unsafe Spots highlight required improvements.

The top spots are determined by the amount of submission activity a spot receives. Spots in proximity to each other that share the same sentiment are combined. Similarly, spots with similar sentiment along a stretch of road or path are also combined. In understanding that bike riders face multiple issues on their journey a wholistic approach has been taken for sections of road, paths or common bike routes. For example, The Upfield Shared Path (Figure 34) in Melbourne's inner north is a popular off-road path alongside the railway line. The path is popular because it is off-road but there are issues at the intersecting roads along the riding corridor. So, rather than looking at the intersections in isolation the eight intersections and the associated spots that share the same sentiment have been combined. This section of the report includes a top spot map for each State and Territory⁸.

⁸ Insufficient data for Northern Territory

Figure 34 - Section of Upfield Shared Path



- Top Safe Spot in each State – Off-road and dedicated cycling infrastructure dominates across capital cities
 - Canning St, Carlton Nth (Vic), Wilson St, Newtown (NSW), Bicentennial Bikeway (QLD), Rail Bikeway, Woodville/Croydon (SA), South Tce, Fremantle (WA), Wendouree Dr, Parkes (ACT), Intercity Cycleway south of Tasman Bridge (ACT)

- Top Unsafe Spot in each State – Busy and complex roads feature as most unsafe riding locations
 - Hopkins St, Footscray (VIC), Victoria Rd, Rozelle (NSW), Sylvan Rd, Toowong (QLD), Franklin St, Adelaide (SA), Tydeman Rd & Pearse St intersection (WA), Northbourne Ave, Lyneham (ACT), Tasman Bridge (TAS)

- Intersections and vehicle crossings at key cycling routes a major concern across most capital cities
 - VIC: Upfield Shared Path, St Georges Rd Trail and Capital City Trail in the Docklands
 - NSW: Epping Rd Shared Path (Lane Cover), Bourke Rd (Alexandria) and Wilson St (Newtown)
 - QLD: Sylvan Rd (Toowong), Witton Rd (Indooroopilly) and the Woolloongabba Bikeway.
 - TAS: Northern section of the Intercity Cycleway
 - ACT: Northbourne Ave, Lyneham

Figure 35 - VIC top spots



Figure 36 - QLD top spots



Figure 37 - SA top spots



Figure 38 - WA top spots

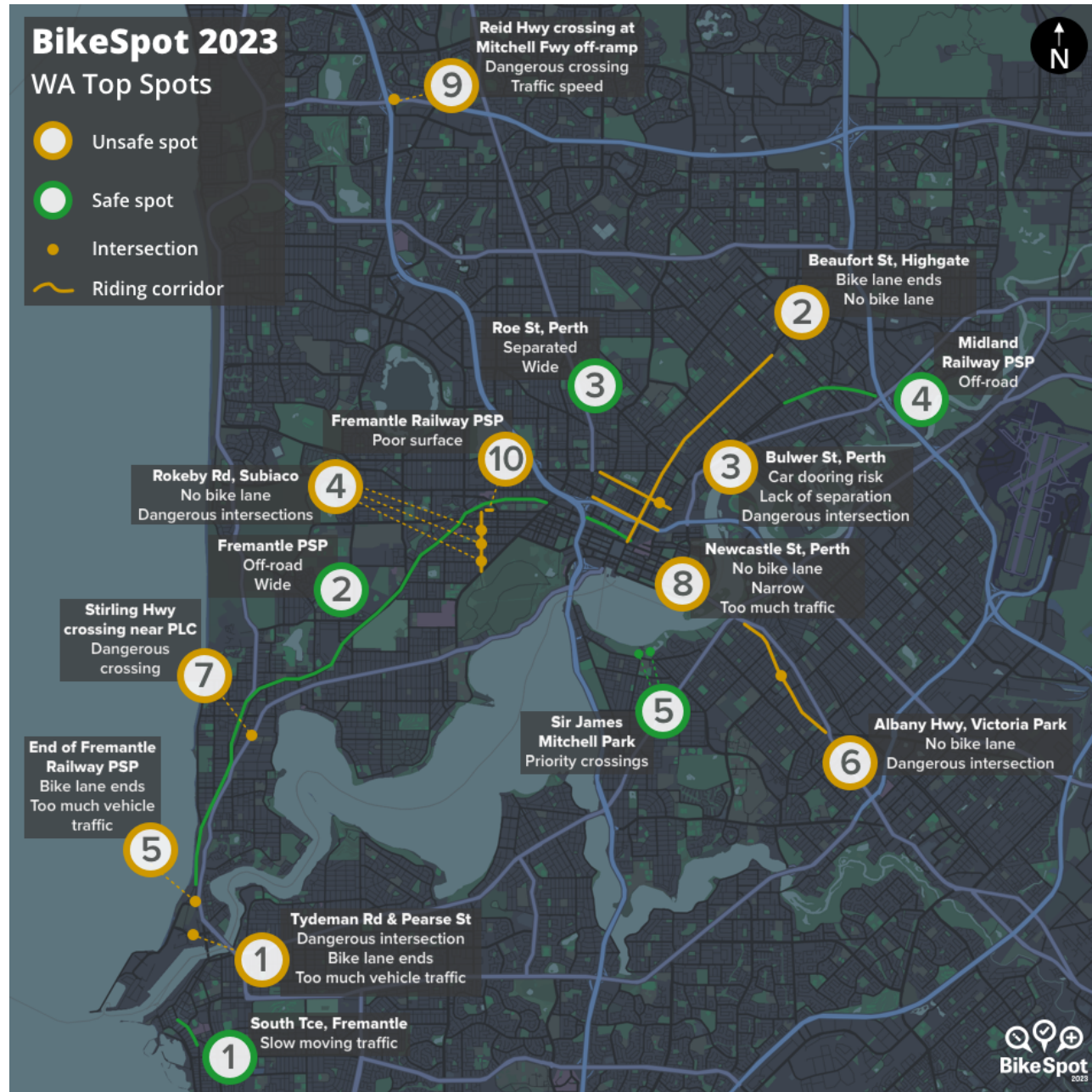


Figure 39 - ACT top spots

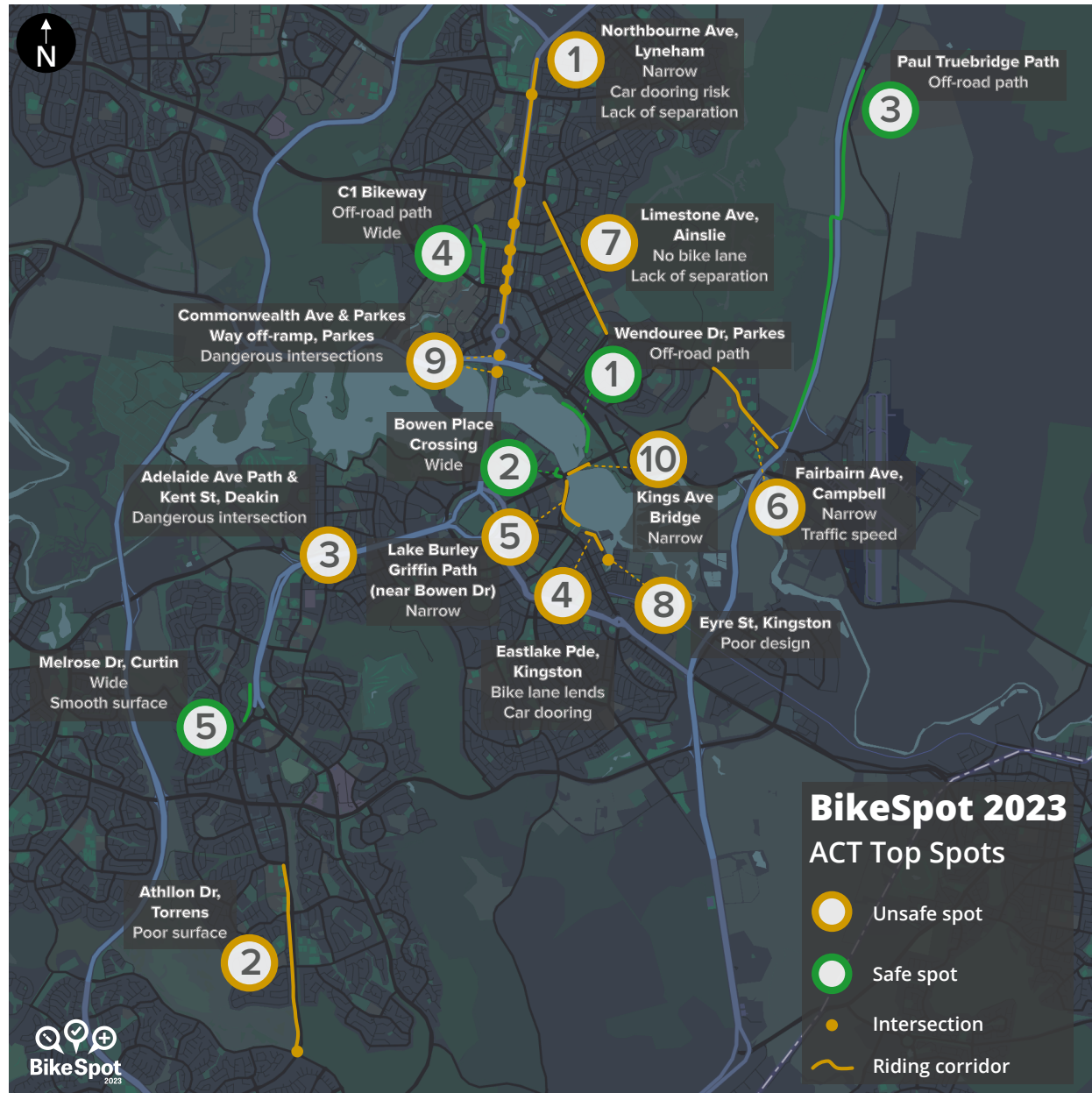
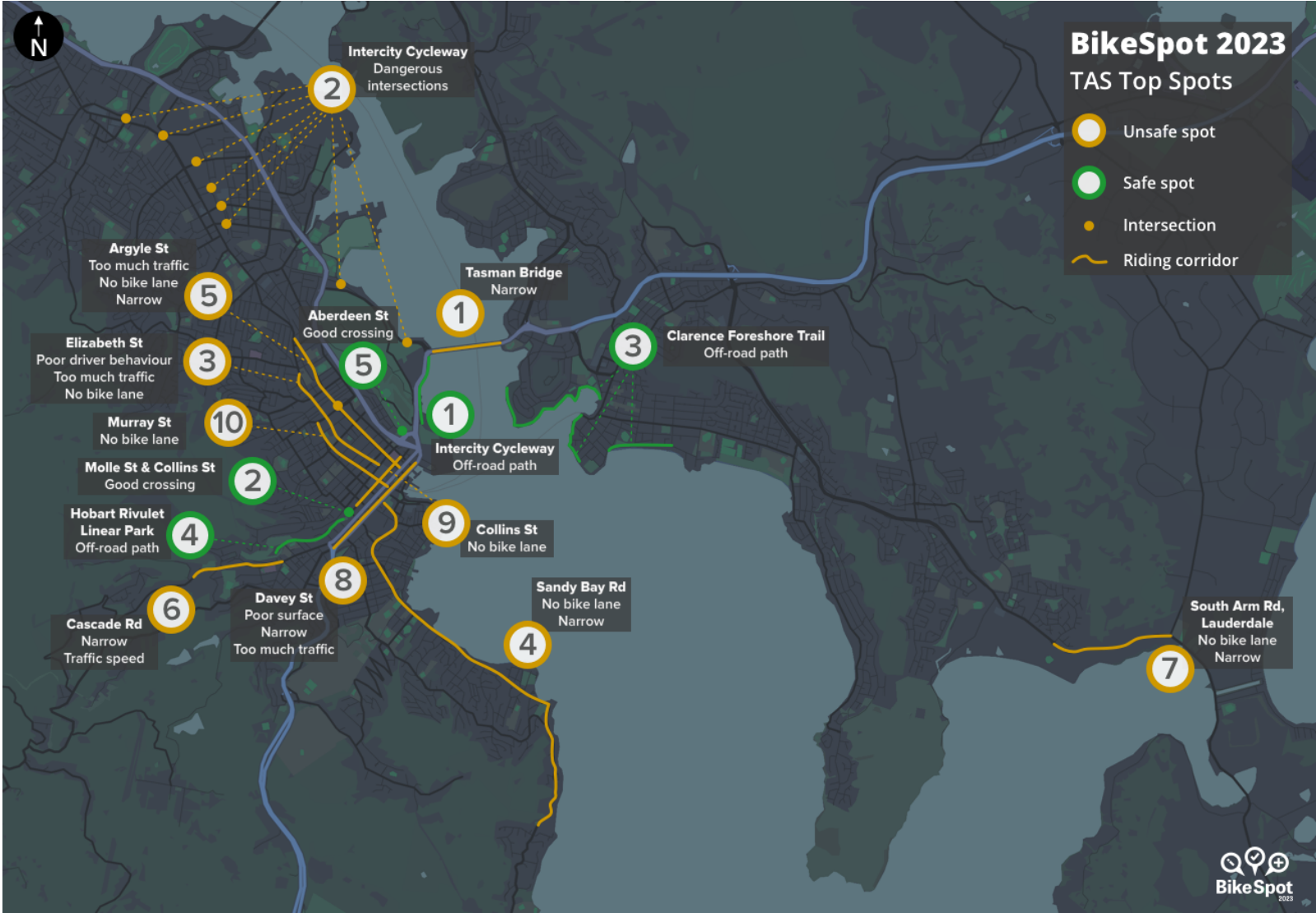


Figure 40 - TAS top spots



8. Recommendations

Overall, the two most significant concerns throughout Australia in terms of quantity of submitted issues and the average stress levels they generate, are 'No bike lanes' and 'Dangerous intersections'. It is clear that bike riders want a designated and safe place to ride while also highlighting significant room for improvement at intersections, where the mixing of transport modes must occur. BikeSpot 2023 submissions confirm that riders gravitate towards riding locations that have some form of cycling infrastructure and lower levels of cycling stress. As a result, many of the top unsafe spots are located on popular or priority riding routes where there are safety gaps and opportunities to make further improvements, particularly at intersections. Below are three key recommendations:

- Create greater separation along popular cycling routes, especially where there are no bike lanes.
- Improve intersections along existing priority riding routes. This may involve design interventions that encourage motor vehicle drivers to slow down or stop when approaching intersections with priority cycling routes.
- Build a continuous and connected safe cycling network – Whilst experienced and confident riders accept higher levels of cycling stress where there are gaps in the network, the less confident 'interested but concerned' cohort are more easily discouraged by stressful cycling experiences.

APPENDIX A – MEDIA

Interim Results Media Summary

Newspaper: 14

Online News: 55 (Including Syndicates)

Radio: 18

TV: 6

TOTAL: 93

- 24 November 2023 – ABC Radio Hobart
- 24 November 2023 – Mirage News
- 26 November 2023 – Sunday Tasmanian
- 26 November 2023 – The Mercury
 - Syndicated by:
 - Toowoomba Chronicle
 - Daily Telegraph
 - Adelaide Now
 - Cairns Post
 - Townsville Bulletin
 - The Courier Mail
 - Gold Coast Bulletin
 - Geelong Advertiser
 - Northern Territory News
- 1 December 2023 – Surf Coast Times
- 11 December 2023 – Sydney Morning Herald
- 11 December 2023 – ABC Radio Sydney
- 11 December 2023 – In The Cove
- 12 December 2023 – ABC Newcastle
- 12 December 2023 – The Age
 - Syndicated by:
 - WA Today
 - Sydney Morning herald
- 12 December 2023 – 3AW Melbourne
- 12 December 2023 – NBN News -
 - Brisbane Times
- 12 December 2023 – Newcastle Herald
 - Syndicated by:
 - Manning River Times
 - Gloucester Advocate
 - Port Macquarie News
- 13 December 2023 – The Age
- 13 December 2023 – Newcastle Herald
 - Syndicated by:
 - Singleton Argus
 - Muswellbrook Chronicle
 - Cessnock Advertiser
 - Maitland Mercury
 - Hunter Valley News
 - Macleay Argus
 - 13 December 2023 – WA Today
 - Syndicated By:
 - Sydney Morning Herald
 - Brisbane Times
 - The Age
- 13 December 2023 – ABC Illawarra
- 13 December 2023 – ABC Radio Perth
- 13 December 2023 – 6PR Perth
- 13 December 2023 – 3AW Melbourne
- 13 December 2023 – ABC Radio Melbourne
- 13 December 2023 – Channel 9 Melbourne
- 13 December 2023 – Channel 9 Perth
- 13 December 2023 – Channel 9 National
- 14 December 2023 – ABC Ballarat

- 14 December 2023 – ABC Central Victoria
- 14 December 2023 – ABC Radio Canberra
- 14 December 2023 – 5AA Adelaide
- 14 December 2023 – ABC Radio Adelaide
- 14 December 2023 – 2CC Canberra
- 14 December 2023 – WIN Canberra
- 15 December 2023 – Canberra Times
- 15 December 2023 – Braidwood Times
- 15 December 2023 – ABC Radio Canberra
- 15 December 2023 – Geelong Advertiser
 - Syndicated by:
 - The Courier Mail
 - Geelong Advertiser
 - Cairns post
- 15 December 2023 – Toowoomba Chronicle
- 15 December 2023 – Upper Yarra Mail
- 15 December 2023 – Daily Telegraph - Geelong
 - Syndicated by: Cairns Post
- 15 December 2023 – Daily Telegraph - Adelaide
 - Syndicated by: Cairns Post
- 16 December 2023 – Adelaide Advertiser
- 16 December 2023 – Canberra Times
- 16 December 2023 – Geelong Advertiser
- 16 December 2023 – Adelaide Advertiser
 - Syndicated by:
 - The Mercury
 - Toowoomba Chronicle
 - Gold Coast Bulletin
 - The Courier Mail
 - Townsville Bulletin
 - Northern Territory News
 - Adelaide Now
 - Geelong Advertiser
- 16 December 2023 – Courier Mail
 - Syndicated by:
 - The Courier Mail
 - Toowoomba Chronicle
 - Cairns Post
 - Daily Telegraph
 - Adelaide Now
 - The Mercury
 - Townsville Bulletin
 - Geelong Advertiser
 - Northern Territory NEWS
 - Gold Coast Bulletin
- 17 December 2023 – Sunday Mail Brisbane
- 17 December 2023 – Southern Highland News
 - Syndicated by:
 - Milton Ulladulla Times
 - Southern Highland
 - South Coast Register
 - Illawarra Mercury
- 18 December 2023 – Ballarat Courier
- 18 December 2023 – Illawarra Mercury
- 18 December 2023 – Illawarra Mercury
- 18 December 2023 – 4BC Brisbane
- 18 December 2023 – WIN Toowoomba
- 19 December 2023 – Mountain Views Mail
- 20 December 2023 – Maribyrnong & Hobsons Bay Star Weekly
- 20 December 2023 – WAVE FM, Wollongong