Gender, Safety and Bike-Riding

DATA INSIGHTS REPORT

PREPARED BY SHE'S A CROWD

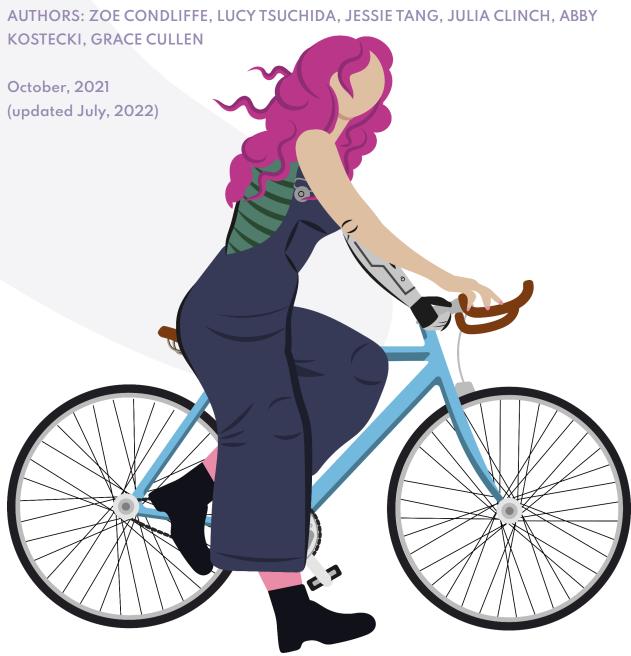




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Acknowledgments

We would like to acknowledge the traditional owners of the land in which we work, and pay our respects to elders past, present and emerging. She's A Crowd and Bicycle Network have conducted this project on the lands of the Kulin Nations. Sovereignty was never ceded; this was, and always will be, Aboriginal Land.

Overview and context of project

ABOUT SHE'S A CROWD

She's A Crowd is a data-driven tech-startup which uses crowdsourced data to make cities safe for women. Our safe and anonymous reporting platform allows anyone to share their story. Our data are analysed for insights which help decision makers initiate preventative policy and planning to address women's safety. Our vision is for a world where anyone with access to the internet can log timestamped, geotagged stories of gender-based violence and that data can be used locally, regionally and globally by decision-makers to understand and address the issue.

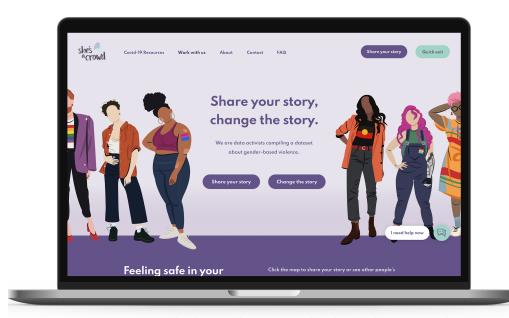


Figure 1: Laptop displaying She's A Crowd website. She's A Crowd.



PROJECT BACKGROUND

A national study has found women are less likely to ride bicycles to work than men because they feel unsafe. Having questioned more than 1000 women, the Cycling Promotion Fund and the National Heart Foundation of Australia found more than 60 per cent of women would cycle more often if they were not so concerned about their safety. Women are often attacked by drivers more, which decreases their perception of safety.

A 2015 report that found female cyclists were twice as likely to be abused or harassed on the roads than men. According to recent research from the University of Minnesota, drivers are also significantly more likely to pass dangerously close to women than men.

"Safety is the primary concern for women who aren't bike riding. We need connected cycling infrastructure built to create a network that will enable everyone to ride a bike in a safe environment," commented Kim Lavender, Bicycle NSW Communications Manager. This comment echoes the broad consensus throughout cycling research and advocacy, including in research by Bicycle Network, that safety needs to be prioritised.

The University of NSW study of Melbourne cycling behaviour has also revealed a deep gender divide on the city's roads and bike paths. Fewer than one in five riders is female, the study found, a clear sign that Melbourne has a long way to go before it can badge itself as a truly bike-friendly city.

And yet, cycling holds many benefits for cities and individuals. When asked what bike riding felt like, participants in our focus groups mentioned that it felt freeing, speedy, healthy, flexible, sustainable, convenient and fun.

What does bike-riding feeling like or mean to you?

What does bike-riding feeling like or mean to you?





Figure 2: Word clouds of polls conducted during She's A Crowd groups. She's A Crowd (sic: feel like).



Key concepts and frameworks



GENDER

She's A Crowd chooses to focus its attention on the experiences of women and non-binary people, because they are unique and to this day, largely ignored when developing policy for public spaces. When referring to women and girls throughout this report, we refer to all women (trans, intersex and cis), and all those who currently identify or identified as a woman at the time of data collection. We also acknowledge that all gender experiences are different, and that non-binary and gender diverse individuals have a different lived experience to individuals who identify as women. However, gender diverse individuals also experience gender based violence and harassment, and so when referring to gender based violence and harrasment, we aim to include the experiences of non-binary and gender diverse people.



GENDER-BASED VIOLENCE (GBV)

She's A Crowd uses Kelly's continuum of gender-based violence to understand this issue. This continuum positions incidents such as feeling unsafe, harassment, everyday sexism, sexual assault and other forms of gendered violence on a spectrum. This allows us to understand the incidents in relation to each other; not as isolated issues but as part of a larger problem. We understand gender-based violence as a symptom of broader power structures that need to be addressed from a preventative standpoint

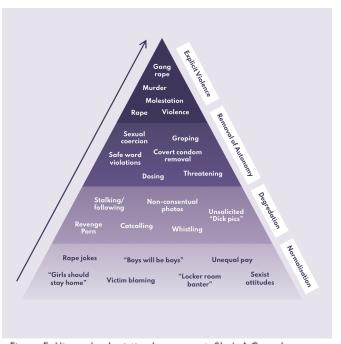


Figure 5: Hierarchy depicting harassment. She's A Crowd.





STREET HARASSMENT

Street harassment is a form of gender-based violence and can be defined as ogling, wolf-whistling, unwanted verbal comments, following someone, car-horn honking, and groping, while some definitions also include sexual assault and rape¹. She's A Crowd has begun to map these experiences to provide greater insight into how sexual harassment and sexual assaults play out across space from the perspective of the victim-survivor. Nine out of 10 Australian women have experienced street harassment and modified their behaviour in response². The Human Rights Commission Report into Sexual Assaults on Campus found that 51% of students were sexually harassed in 2016, and for one in four students, this occurred in a university setting³.



FEELING UNSAFE

She's A Crowd is concerned with women's perceptions of safety as well as "actual" incidents of harassment and assault. This is because we know that perceptions of safety (such as feeling scared or uncomfortable) in a place affects women's ability to move freely around a space. Therefore, we take reports which refer to women feeling unsafe in a particular area seriously, regardless of whether "actual" incidents occurred.

¹ Fileborn, B. (2019) Speaking the Unspeakable Harm of Street Harassment, Violence Against Women, Vol 25 (2) 223-248

² Bennett. E, & Johnson. M. (2015). Everyday Sexism. The Australia Institute

³ Change The Course: National Report on Sexual Assault and Sexual Harassment at Australian Universities (2017) | Australian Human Rights Commission. Retrieved 15 November 2020, from https://humanrights.gov.au/our-work/sex-discrimination/publications/change-course-national-report-sexual-assault-and-sexual



WEB APP

Crowdsourced data gives people a new avenue to anonymously report experiences of harassment, assault, and perceptions of fear and safety in public spaces. In capturing this data we gain vital insight into the experiences of some of the most vulnerable people in our city, and are thus better able to design cities as safer, and more accessible and inclusive spaces for all.

She's A Crowd's safe and anonymous reporting platform allows anyone with a web browser to share their story.

All stories are geotagged, timestamped, and de-identified as per our strict privacy policy and data security policies. Data is stored in a secure environment hosted by AWS in Sydney.

Throughout this project we were able to collect 127 stories, in total, of women and gender-diverse people's experiences travelling by bicycle. Below are the fields available through the She's A Crowd web app (share.shesacrowd.com/map):

- Mode of transport
- Route/station/stop
- Exact geo-coordinates
- Time of day/date
- Incident type
- Motivating factors
- Qualitative story
- Demographic data including ethnicity
- Motivation for incident
- Aftermath of incident



Section One: Demographics and high level insights

OVERVIEW OF RESULTS

To understand riders' experiences, we conducted focus groups, surveys with riders and used data from She's A Crowd's anonymous reporting platform.

Focus group

Three focus groups were conducted in total:

- Focus group #1 = 6 participants,
- Focus group #2 = 4 participants,
- Focus group #3 = 6 participants

Survey

Total number of survey respondents = 57

Story data

Total number of riding stories collected through the app (up and till the 12/10) = 134 Total number of riding stories collected through comments on She's A Crowd Instagram posts during the campaign = 29

Summary of data collected

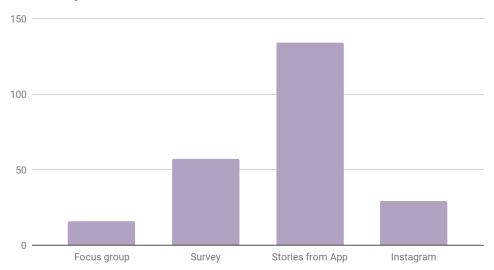


Figure 12: Summary of data collected. She's A Crowd.



DEMOGRAPHIC OF RESPONDENTS

Demographic data was gathered by participants through a voluntary process. Whereby participants were able to self-identify as belonging to the selected marginalised groups. This data was collected to understand the diversity of participants and appropriately identify solutions for the demographic at hand (all women and gender diverse folk living in Melbourne). A breakdown of the demographic data is provided below. Some demographic data was not necessary for data collection and hence has not been recorded for all data sources. Specifically, no demographic data was collected from Instagram comments.

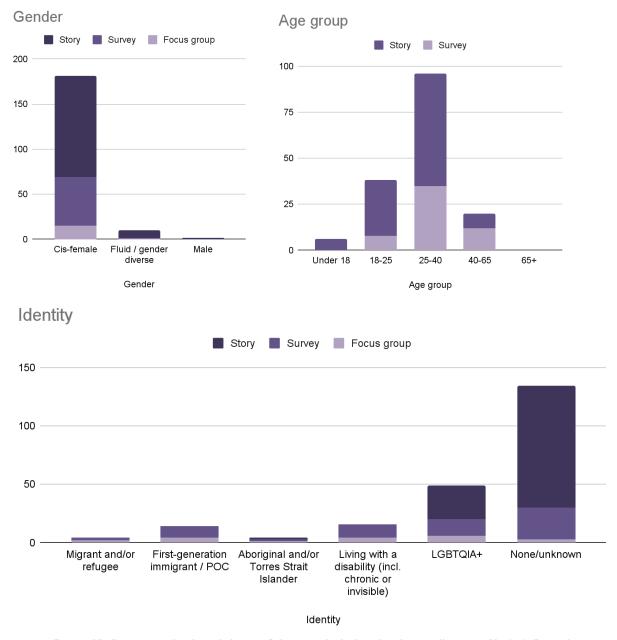


Figure 13: Demographic breakdown of those included in the data collection. She's A Crowd.



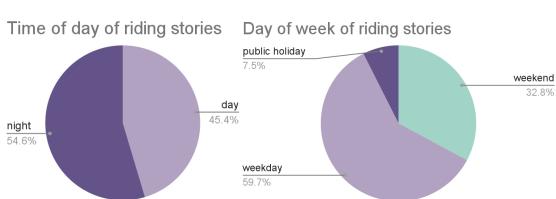
HIGH LEVEL INSIGHTS

High level data was analysed by She's a Crowd data team through the SAC database. Riders indicated what time and day of the week they rode, what type of experiences they had, what they believed the motivation was behind it and what they did next.

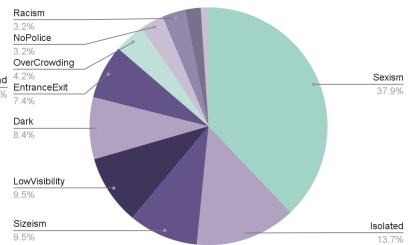
This data was collected to help Bicycle Network to understand the behaviour and patterns of women and non-binary riders in Melbourne Australia and implement appropriate solutions to improve their riding experiences.

A breakdown of this data indicates that **27.7% of riders feel unsafe** when riding in Melbourne and **15.1% are intimidated**. A whopping **37.9%** of those who reported experiences relating to cycling, believe that **sexism is the biggest motivation** behind incidents of harassment or sexual assault they experienced, with **12.2% riders** who indicated they would **stop visiting** the area as a result.

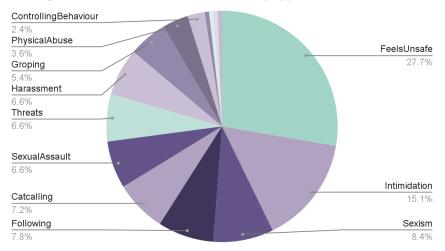




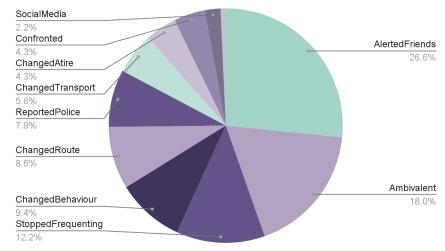
Riding stories collected based on perceived motivation



Riding stories collected based on story type



Riding stories collected based on what happened after





Section Two: A thematic analysis on womens' experiences while bike riding

Within Australia, there is a substantial gender divide on the city's roads and bike paths. According to the The University of NSW study of Melbourne cycling behaviour, fewer than I in five cyclists are women⁴. The gendered divide between Melbourne's cyclists is clear, as just 18% of riders within Melbourne are women. This divide is furthered by the lack of young riders on Melbourne's roads, with just 5% of riders being under the age of 26 ⁵. However, the number of female riders on the roads is increasing as Victoria begins to prioritise cyclists' perception of safety through the implementation of new laws and policies. According to Victoria's cycling strategy of 2018-2028, 60 percent of Victorians are curious about cycling and like to ride, but they don't cycle, or cycle less due to safety concerns⁶. Therefore, with the application of new safety measures, stronger transport networks, and inclusive cycling policies, Melbourne is expected to witness a rapid growth in cycling.

SAFETY (IMMEDIATE RISKS)

The gender divide amongst cyclists in Melbourne is attributed to the barriers that prevent women from utilising cycling as a mode of transport. Across all genders, the primary reason that prevents people from cycling is the belief that cycling is an unsafe mode of transport. Further, the biggest concern regarding safe cycling is traffic stress, as well as inadequate or no information signs, and hills. However, traffic stress when using the roads is the most important factor that prevents people from cycling. According to a commercial Bike Chasers survey, 43% of Australians feel unsafe when cycling. These statistics are exacerbated by one key factor: **gender**. In particular, women feel more unsafe than men when cycling, which significantly impacts their mode of transport. This is due to the increased harassment that women face, the architecture of roads, and the lack of safety when cycling at night⁸.

⁴ Adam Carey, "Cycling Still Mostly a Male Affair in Melbourne," The Age, 2017, https://www.theage.com.au/national/victoria/cycling-still-mostly-a-male-affair-in-melbourne-20170209-gu9coh.html

⁵ "Cycling Still Mostly a Male Affair in Melbourne."

⁶ Transport for Victoria Department of Economic Development, Jobs, Transport and Resources, "Victorian Cycling Strategy 2018-28," 2017.

⁷ Sean Lee, "43% of Aussies Feel Unsafe Cycling on Roads," Bike Chaser News, 2018, https://www.bikechaser.com.au/news/cycling-on-the-roads/.

⁸ Helen Pidd, "Women Shun Cycling because of Safety, Not Helmet Hair," The Guardian, 2018, https://www.theguardian.com/commentisfree/2018/jun/13/safety-women-cycling-roads.



These themes were reflected in both the focus group and the survey. When asked how they plan their journey to stay safe, participants often responded with considerations for their immediate risk to safety such as planning routes with lower volumes of traffic, with one participant reflecting that "safety is like a huge element of why I [choose backroads], because big roads terrify me and cars are insane".

"Big roads terrify me and cars are insane"

Participants in the focus group also expressed concerns around aggressive or ignorant cars, dangerous bike paths, and unaware pedestrians leading to unsafe environments when riding.

RISK MITIGATION FOR WOMEN RIDERS

An ongoing theme from our focus groups, survey data and story data was the number of changes that women make to their behaviour in preparation for riding or while they are riding. This act of conformity is a protective factor for many women to increase their sense of safety while riding. Almost all participants suggested that they have had to modify their behaviour or prepare for a ride. The behaviour changes can be grouped according to **route considerations**, clothing considerations, accessories and sharing their journey either physically or by location.

One survey participant commented that in order to stay safe while riding they have their "bike lights on, all times of the day. I have a rear view mirror and check it frequently. I got wider tyres so I stop slipping on grates and pot holes in the bicycle gutters. I always wear high vis gloves so I don't hurt my hands when I crash, and people can see me indicate (I am unsure it makes a difference though). Check my road presence, weighing up safety options depending on the situation (generally keep clear of the door zone, unless the car behind me is getting too close or seems pissed off, then move over into the door zone. Give way to all entries on roundabout, not just to people on the right/already in roundabout. Etc.). Maintain my bike well. Dress ugly (I do this as a defence mechanism on and off the bike). Check in with my partner before, during and after the trip (another on and off the bike). My GPS location is always on and visible by my partner."

Route considerations

During the survey and the focus group, when discussing what participants do to stay safe while riding, many participants mentioned planning their routes and being selective of their



routes. Participants generally opted for routes that had lower traffic, backstreets, familiar areas, were well lit or which had bike paths. One participant stated:

"I choose my entire biking route based on using bike lanes, quiet roads, or best of all bike paths, even if it takes longer just to feel a bit safer"

Additionally, it was found that riders also take into consideration the time of day and the weather when planning their journey. Weather conditions proved to be a significant deterrent for riding, as did night time.

While on route, participants expressed how they would also take measures to stay safe such as stay in the front of the traffic, use pedestrian crossings, and sometimes even use footpaths.

These route considerations are also reflected in research by the City of Sydney with the top five factors which influence the cycling route survey respondents (who were primarily women) choose to take being⁹:

- There are separated cycleways available
- There are bike lanes available
- The roads are quiet to ride on
- It's off the main road
- It feels safe

Clothing considerations

Choice of clothing when riding a bike can involve safety in a myriad of ways. Clothing choice can be related to visibility while riding, safe contact with the bike and avoidance of unwanted attention.

In the focus groups and survey, participants explained how they wear reflective material and high visibility clothing to ensure they are seen on the road. This is to ensure that cars and other vehicles on the road are able to clearly see them and account for them on the road which is largely universal for all riders.

⁹ City of Sydney, "ON THE GO: HOW WOMEN TRAVEL AROUND OUR CITY", 2020, https://www.cityofsydney.nsw.gov.au/surveys-case-studies-reports/on-the-go-how-women-travel-around-our-city.



However, there are some considerations that were identified in both the focus group and the survey which can be attributed to the experience of women being sexualised in society. For example, some participants felt that external pressures of how women are 'meant' to present while in a working environment was not conducive to riding, and required careful considerations to ride and uphold this standard. It was also mentioned by participants that they would often dress in a way that they hoped would avoid unwanted attention, particularly after experiences of harassment.

Participants mentioned the significant amount of planning that might be involved with such considerations, "if I want to ride to work, I feel like I really have to think about what I'm going to wear and this and that… wearing pants or having a change of clothes or am I going to sweat my makeup off? Am I going to have to bring makeup to redo my face once I've sweated all off?" In some cases, this was enough to deter participants from riding, with one participant from the focus group sharing that they "love cycling, but biggest reason I don't cycle to/from work is because I need to shower afterwards and when you work in a corporate environment as a female you are expected to have clean hair/makeup etc. So it's a whole process, not just a quick rinse and run".

"When you work in a corporate environment as a female you are expected to have clean hair/makeup etc. So it's a whole process, not just a quick rinse and run"

Accessories

Focus group and survey participants mentioned accessories which they use when riding. These included a repair kit, helmet, phone, panniers with ample room for shopping, and using keys as a weapon. Although repair kit, helmet and phone are all accessories that the average rider might have or consider to be helpful, panniers and using a key as a weapon can be gendered. With women often being tasked with a larger proportion of domestic labour, it follows that if their riding, then these also need to be sufficient to carry out this work. Additionally, women are often targeted by perpetrators of assault and using a key as a weapon has evolved as a self-defence mechanism to stay safe.



"I have heaps of room for panniers and stuff on my bike compared to [their partner's] because I do all the shopping."

Sharing Journey

From the focus groups and the survey, participants described that they would share their journey with others either by alerting their friends or family of their travel while riding, or riding with others as a measure for safety. This has also been identified as a safety precaution by women throughout their journey on other modes of transport. One participant mentioned that "if it's somewhere I don't know or haven't been before, I won't ride by myself if it's a new route or an evening".

RIDING CULTURE

The culture around cycling is not always welcoming or conducive of a good experience. When asking about negative experiences participants had while riding, particularly because of their gender, participants consistently mentioned male cyclists and pro-cyclists behaviour.

Specifically, the issues with these two groups of people was the lack of consideration for others on the road with dangerous behaviour including riding too close, riding very fast and cutting in front at lights. Participants expressed frustration at these behaviours as well as concern for their safety. Ultimately this behaviour de-incentivises participants from riding.

Similarly, drivers can also be inconsiderate with their driving behaviour, and participants expressed concerns with aggressive and ignorant cars. A study in 2019 found that over half of car drivers think riders are not "completely human" 10. This study also uncovered links between this attitude of bike riders and aggressive acts towards riders on the road. Considering the power of drivers, this is a major concern for riders 11.

HARASSMENT

The changes in behaviour that women often implement, discussed above, can often be a result of experiences of harassment. Within this research, it was found that there can be harassment while riding, as well as harassment from riders. This research focuses on

¹⁰ Delbosc, Alexa, Farhana Naznin, Nick Haslam, and Narelle Haworth. "Dehumanization of Cyclists Predicts Self-Reported Aggressive Behaviour toward Them: A Pilot Study." Transportation Research Part F: Traffic Psychology and Behaviour 62 (2019): 681-89. https://doi.org/10.1016/j.trf.2019.03.005.

¹¹ Ibid



harassment while riding as we are interested in the experiences of riders. Harassment while riding was often experienced by either pedestrians, drivers or other riders. The types of harassment that were identified included verbal harassment, being followed and physical harassment. These can be summarised by a story shared on the app "I can barely count how many times I've been intimidated by (mostly men) in cars when I'm riding my bike; abused, lewd comments, swerved at, followed by carloads of men."

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This is not always gendered, there is general animosity from some cars and pedestrians towards riders as discussed in the riding culture.

Verbal harassment

Verbal harassment which participants in the focus groups, the survey and story data experienced included being honked at, yelled verbal abuse at, and receiving comments about their body or appearance. Much of the verbal harassment which participants shared was by male drivers and pedestrians in the broader vicinity.

One participant reflected how unsettling it can be to be harassed while riding, "I don't think people who drive and don't ride understand how dangerous and scary it can be to be yelled at from a car - like it is, you know, a shock and can destabilise you when you're cycling".

Another participant described their experience being catcalled, "I have been catcalled by men in cars, whilst stopped at traffic lights. Also by groups of men sitting in a park as I cycled by. It felt horrible".

Being followed

Another form of harassment which emerged from the focus groups and story data included being followed or chased. This included being followed by pedestrians, riders as well as drivers. A participant in the focus group described an experience where they were chased by a rider on an electric bike, and how this challenged their belief that they were safe on a bike because they could outride others.



"You know, when you feel someone's like behind you, and you're like, do I just go a bit faster? Do I wait for them?...I just kept going faster and faster. And he kept trying to talk to me"

Physical harassment

Lastly, participants described forms of physical harassment, such as drivers swerving and pedestrians deliberately obstructing the path or the way of the rider. One participant described their experience, "I was taunted by a driver who was swerving to pretend to hit me. He passed me and then pulled over. When he got out of the car he had a golf club with which he swung at my head whilst laughing. It was scary and unnecessary. I was riding in the bike lane and minding my own business. He clearly had a problem with cyclists".

"I was taunted by a driver who was swerving to pretend to hit me."

INFRASTRUCTURE

Infrastructure related to riding was consistently mentioned in the focus groups, survey and story data. Specific characteristics of the infrastructure participants engaged with which impacted cycling experiences included **paths**, **lighting**, **surveillance**, **and access to other public transport**.

One participant recommended that there should be "More separation from cars, more people riding, roads designed with bikes in mind - traffic lights staying orange for longer, bike lanes ending abruptly etc, able to plan a trip using a tool that shows safest biking options".

Paths

According to the UNSW study, women are more likely to cycle if there is well-connected infrastructure such as bike paths and routes¹². However, Melbourne "city's network of bike paths don't connect to each other and don't go to the places that as a general rule, women need to go"¹³. Roads in Australia are designed for cars, which significantly increases the risk

https://cyclestyle.com.au/cycling-melbourne-youre-woman/.

¹² Nicole McNamara, "Gender and Cycling in Sydney," University of NSW, 2013, http://unsworks.unsw.edu.au/fapi/datastream/unsworks:11534/SOURCE01?view=true.

¹³ Cycle Style, "Cycling in Melbourne When You're a Woman," CycleStyle Australia, 2017,



of cycling. The lack of sufficient infrastructure and bike paths contributes to the disparity between male and female cyclists.

"When you don't have bike paths that go to where women need to go and bike paths that aren't built in a safe manner where they're protected from traffic, women won't use bikes as their preferred mode of transport."

This was iterated throughout the focus groups and the survey. A focus group participant shared their experiences first hand of disconnected bike paths, "the cycling path just stops immediately, and you're just kind of forced into this two lane, like a thing of cars with no extra room, even that would be on a normal kind of road... that stopped me from using my bike because my means of transport for getting to work". Additionally, when asked what factors would encourage participants to ride more during the survey, wider bike paths emerged as a theme, as well as improved intersections for bikes.

Apart from more connected and wider bike paths, this research also indicated that other factors along the bike path are important including lighting and the number of people around. For example one participant mentions "The bike path here is often eerily quiet and it's very poorly lit. I feel unsafe here regularly, and not just at night. I know of a number of sexual attacks on women which have occurred here".

"The bike path here is often eerily quiet and it's very poorly lit. I feel unsafe here regularly, and not just at night."

Surveillance

Surveillance is the monitoring or observation of public spaces. Surveillance can include CCTV, police presence, staff presence, and crowds. Police presence, staff presence and crowd are a specific type of surveillance known as passive surveillance. Passive surveillance reduces the chance of violence as well as improves the perception of safety.

Participants' desire for surveillance was indicated through their interest in CCTV, police presence, and crowds. In particular, one participant mentioned that they would not have felt confident to stand up for themselves without the presence of people, "I was abused by a man

¹⁴ "Cycling in Melbourne When You're a Woman."



for not performing his assumed knowledge of bike lane etiquette. As this was a display of fully blown entitlement, I told him to fuck off .. but there were lots of people around. If I had been alone I would not have felt safe to stand up for myself".

"There were lots of people around. If I had been alone I would not have felt safe to stand up for myself"



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