

# E-scooters

## The future of mobility, or a frivolous toy?

Dr Alexa Delbosc

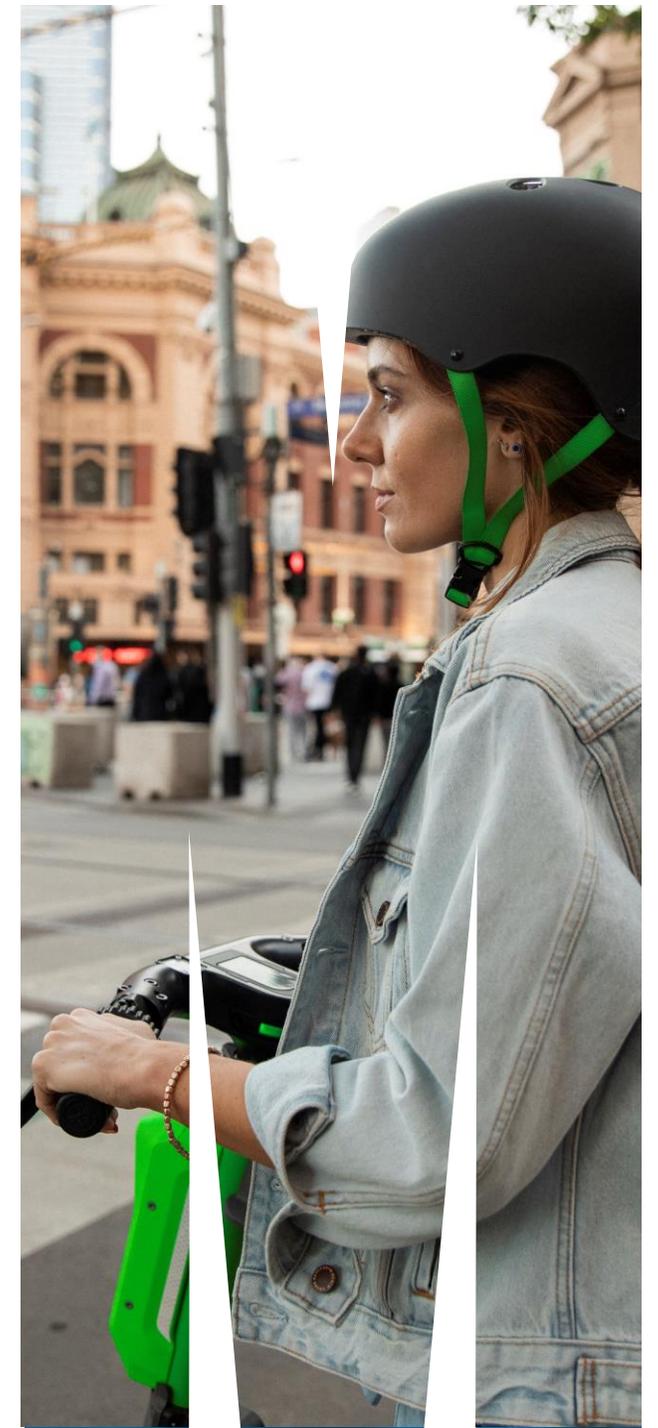


@alexadelbosc

AEVA Conference

3 November 2023

MONASH INSTITUTE OF TRANSPORT STUDIES



# Outline

The problem of e-scooters

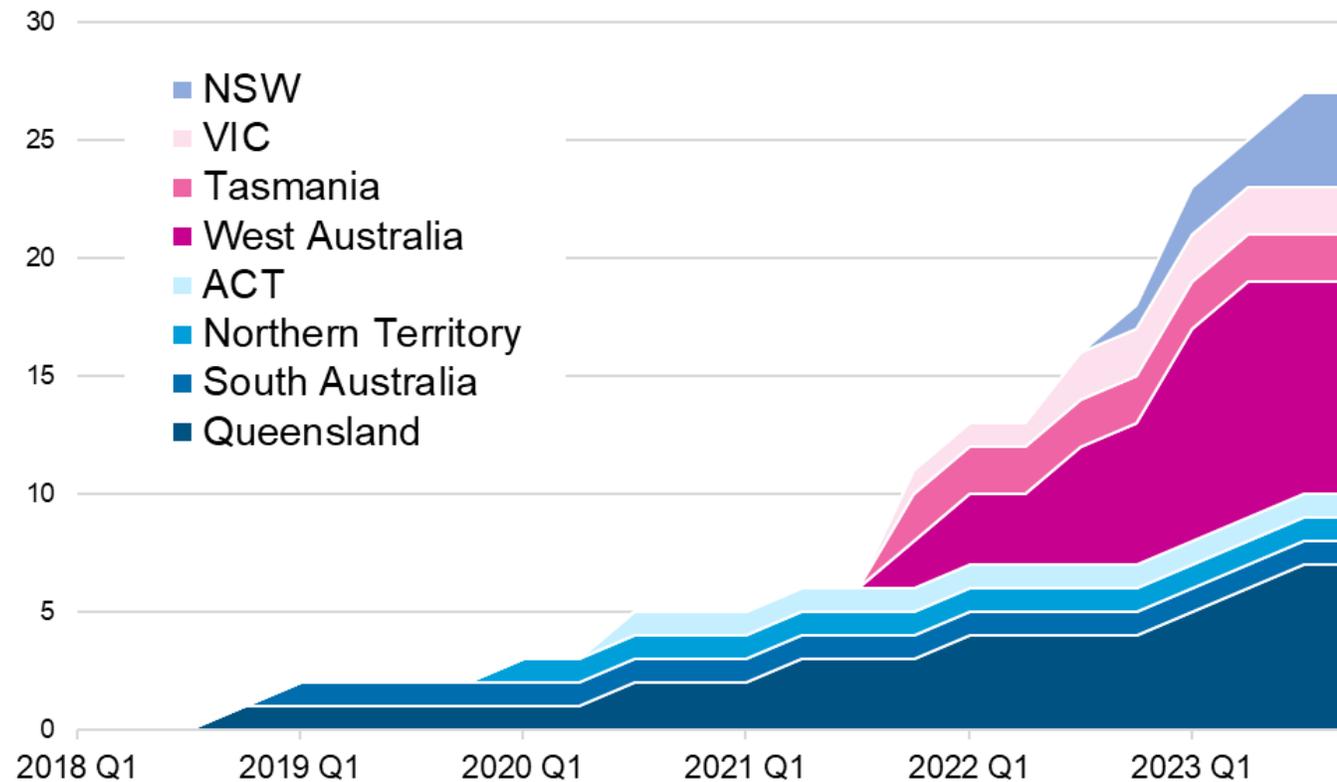
How can e-scooters help?

How can we help?



# Shared e-scooter programs are spreading across Australia

Australian localities operating shared e-scooter trials



# So far, dialogue is dominated by regulation and safety

Technology

## Melbourne e-scooters to 'shout' at riders breaking the law in major tech revamp

E-scooters that will literally "shout" at riders breaking the law are coming to one Aussie city in a major tech revamp.



Duncan Evans

@Duncanevans01 · less than 2 min read · August 11, 2023 - 4:01PM · NCA NewsWx



7NEWS Melbourne  
@7NewsMelbourne

A legal challenge lodged with the national Human Rights Commission could spell the end to Melbourne's controversial e-scooter trial. Disability advocates say scooters dumped on footpaths restrict access for people with limited mobility or vision.

For more, @Rebecca7Maddern spoke with @ShaneHryhorec, the Managing Director of @PushMobility. 7NEWS.com.au #7NEWS



4:29 pm · 18 May 2023 · 16K Views

## City of Darwin mulls putting e-scooters in bike lanes, expanding zone in review

By Evelyn Manfield

Posted Mon 19 Jun 2023 at 6:34am



## Serious e-scooter crashes on the rise in WA, as new mode of transport explodes in popularity

Posted Sat 25 Mar 2023 at 5:49pm, updated Sat 25 Mar 2023 at 7:05pm



Mr Barrett says the e-scooters at Kings Park have safety mechanisms. (ABC News: Tabarak Al Jraad )

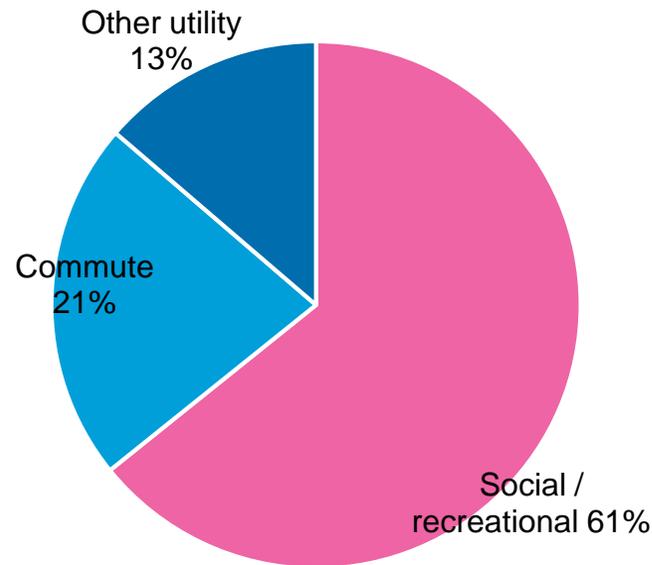
ths and onto bike baths. (ABC News: Hamish Harty)

# And the perception that they're a 'frivolous toy'

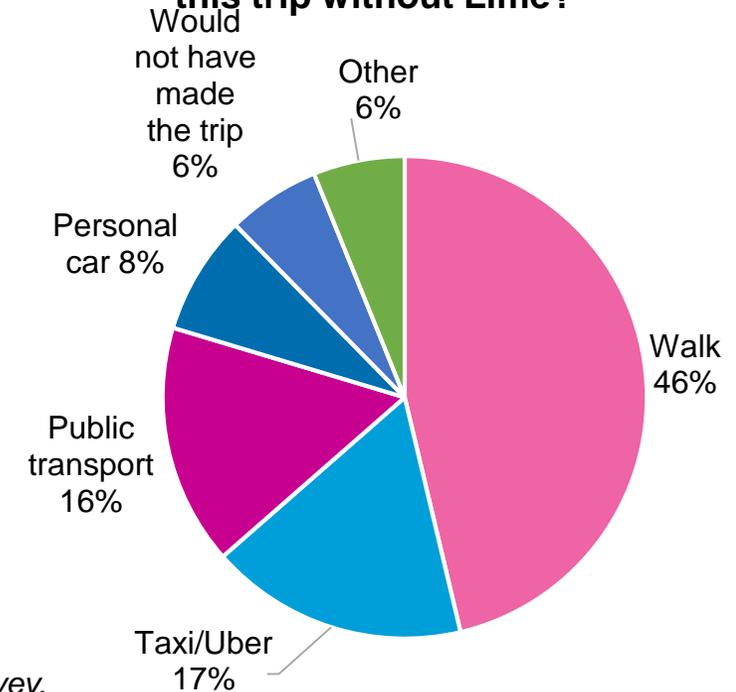
Young kids joyriding through our cities, who would otherwise have gotten some exercise!



Reason for your trip on Lime



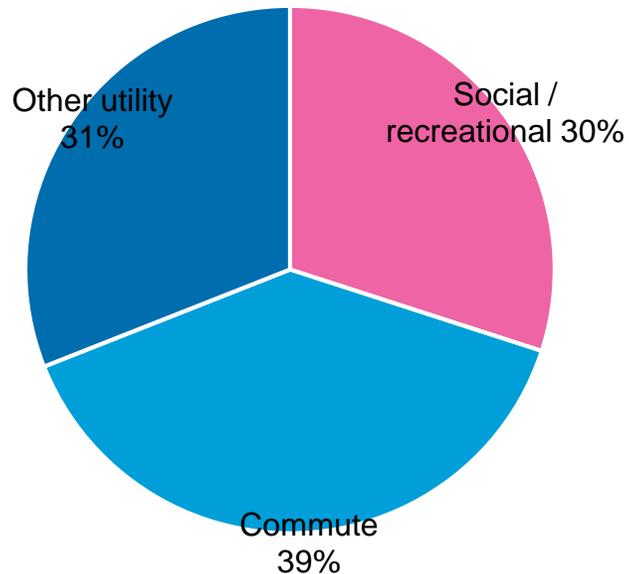
How would you have made this trip without Lime?



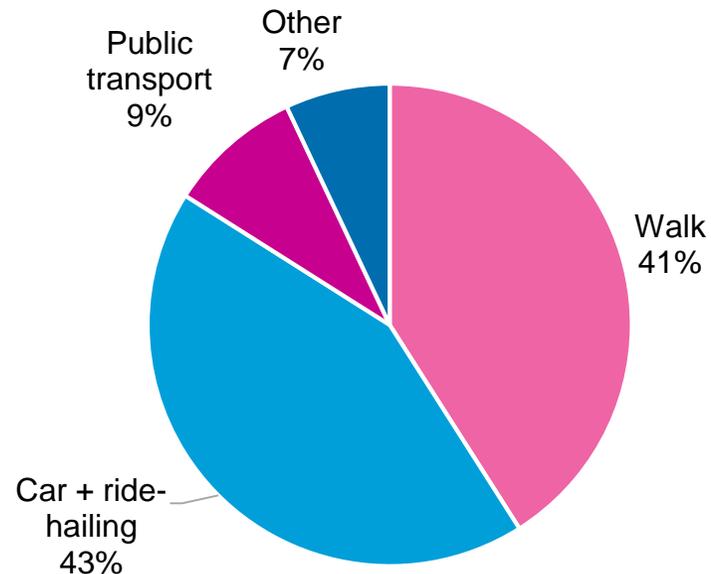
Source: 2022 Delbosc & Thigpen, Lime Access Survey, Australia/NZ responses

# But is this the only side of shared e-scooter systems?

Reason for your trip (Oslo)



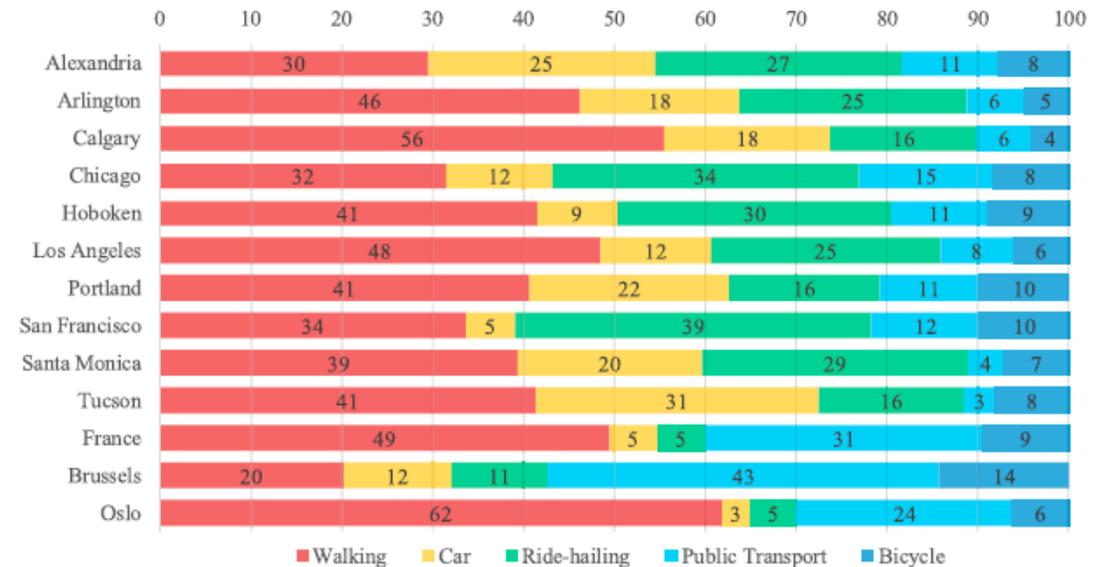
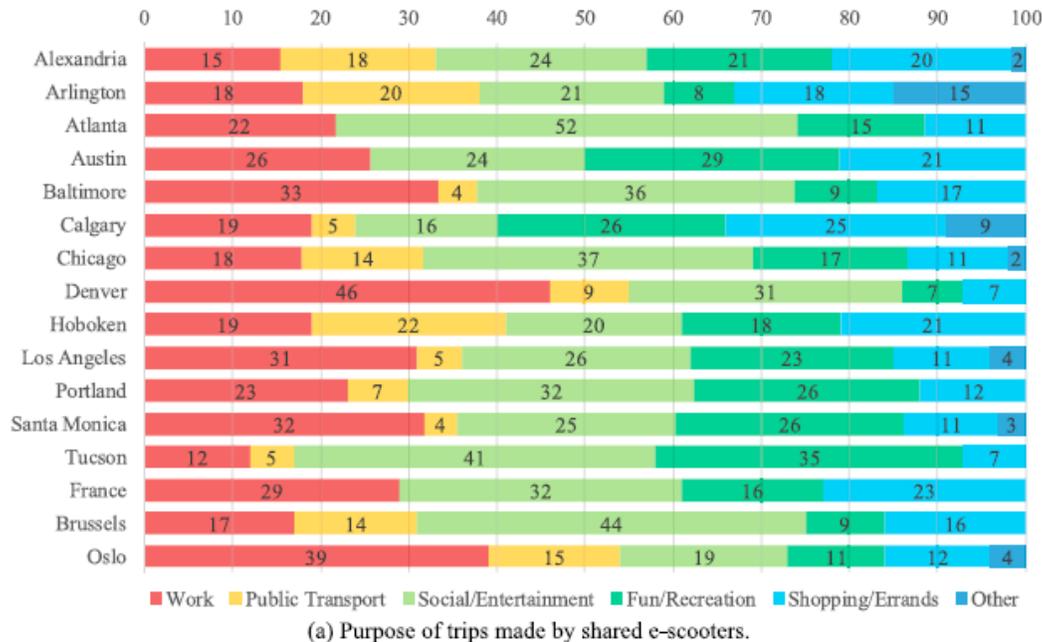
How would you have made this trip? (North American cities)



Source: 2023 Badia & Jenelius, "Shared e-scooter micromobility: review of use patterns, perceptions and environmental impacts"

# Why is there so much variation in how shared e-scooters are used?

And what can we do to help make shared e-scooter programs a sustainable part of our transport system?



Source: 2023 Badia & Jenelius, "Shared e-scooter micromobility: review of use patterns, perceptions and environmental impacts"

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How can e-scooters help?

How can we help?



# Lime was the first program to offer discounted rides to qualifying riders

- Operating 'Lime Access' since 2018, in Australia since 2021
- Other operators now have their own schemes (Beam4All, Neuron Access)
- Eligible if you have a Health Care Card or concession card



## THE LIME TIMES

Newsroom Rider Community Life at Lime City Solutions Industry Insights

CITIES SPOTLIGHT POLICY LIME ACCESS NEWS • SEPTEMBER 14, 2021

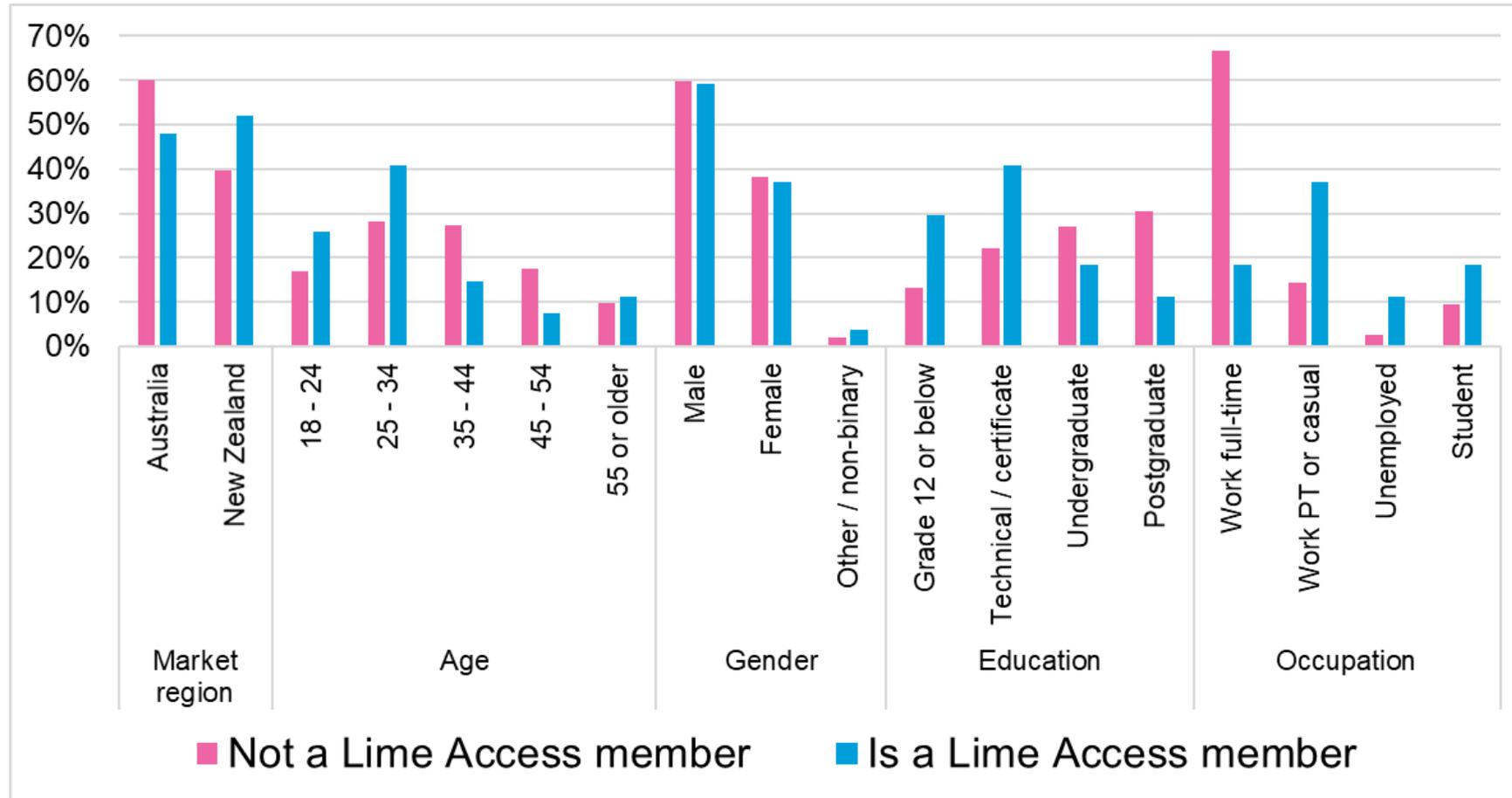
Lime Launches Equity Pricing Support Scheme and Ride to Recovery Initiative in Australia and New Zealand



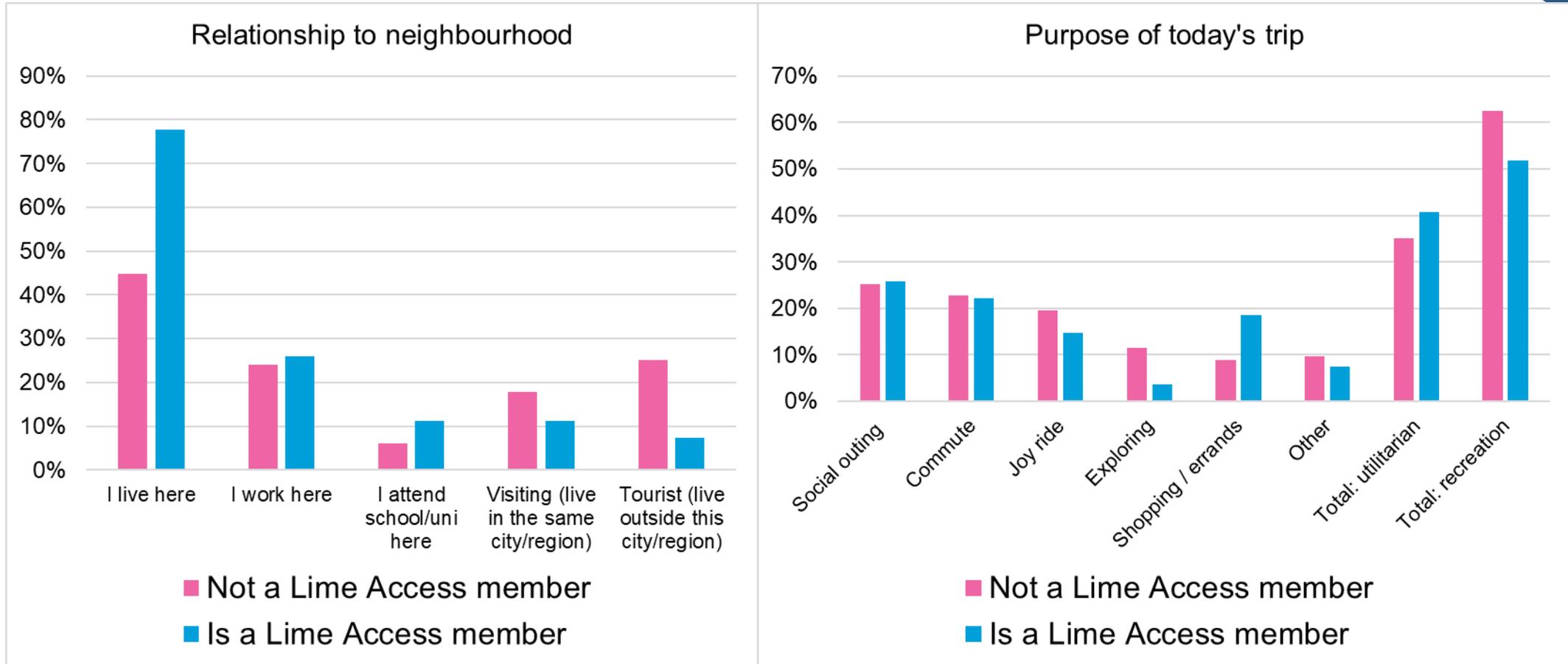
# Survey of Lime riders in Australia and New Zealand

- Designed by Monash researchers in collaboration with Lime
- Administered to Lime customers (both e-bike and e-scooter riders)
- 426 total responses in Australia/NZ – 27 of those are Lime Access members
  - Later expanded to US (with many more responses from Lime Access customers)
- Asked a range of questions about the customers
  - Ridership patterns
  - Barriers to use
  - Benefits of use
  - Demographics

# Access customers younger, less educated and less employed full-time

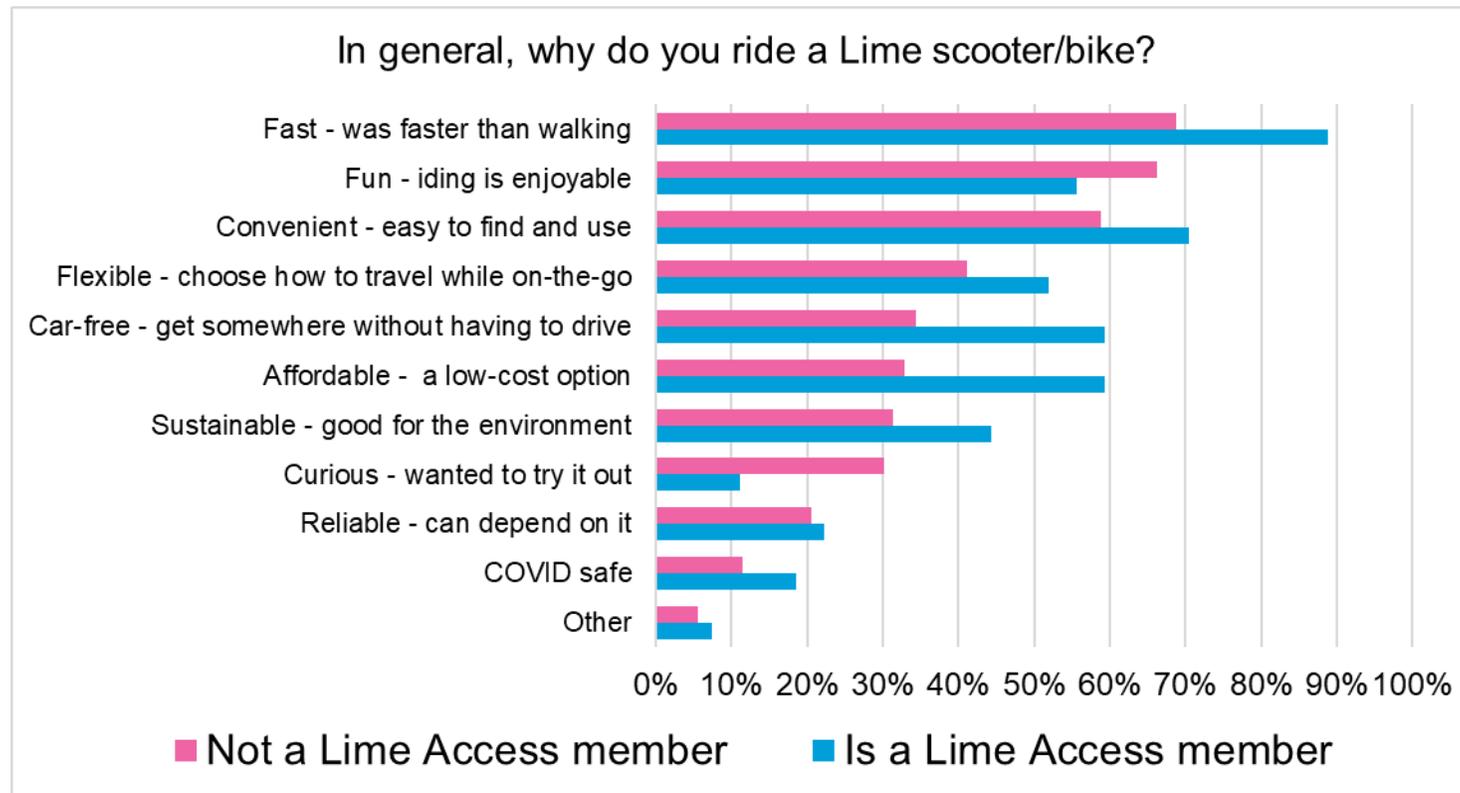


# Access customers more likely to be locals making utilitarian trips



# Fast/fun/convenient important to non-Access

# Fast/car-free/affordable important to Access



# Written responses show the benefit discounted programs can provide

“As someone on a low income who does not own a car it feels very liberating to be able to take a scooter to an area that is not serviced by public transport whenever I like.”  
- Melbourne, Australia

“I have kidney problems so the scooter saves me from fatigue of long walks.”  
- Christchurch, New Zealand



# Even more so in North America (where program has operated for longer)

“I’m ADA, which basically is handicapped, and I cannot walk all over like I used to be able to. Lime provides me independence I wouldn’t have without it! With the low income program you offer, it literally saves me! I wouldn’t be able to get groceries or run errands or do most anything I do because of Lime.”

- San Francisco, California

“It has been a huge help for me. I was forced to sell my car after losing my job during the pandemic. The cost of users and even renting Lime was prohibitively expensive. Lime access has allowed me to do things that would [not] have been feasible without it”

- Seattle, Washington



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CITIES

# WHY E-SCOOTERS ARE SO DAMNED FUN



June 17, 2020

Dr. Markman



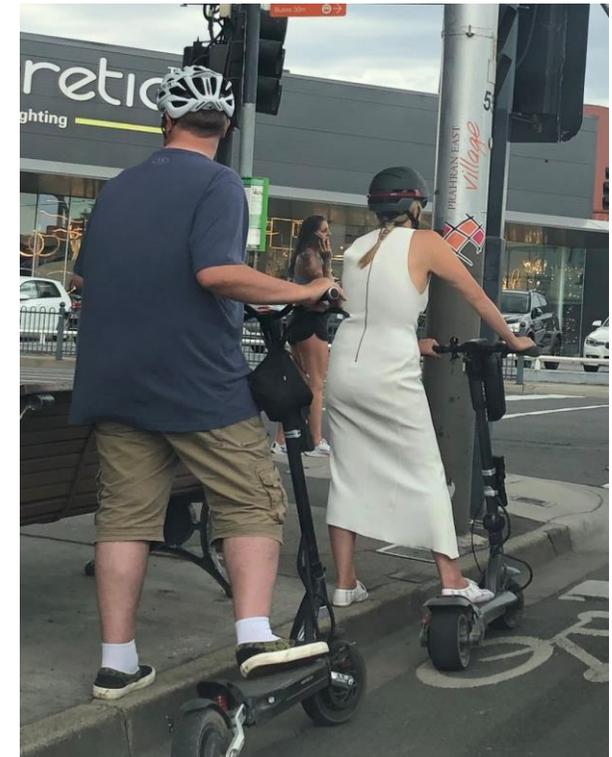
# How can we turn the dial?

Frivolous toy

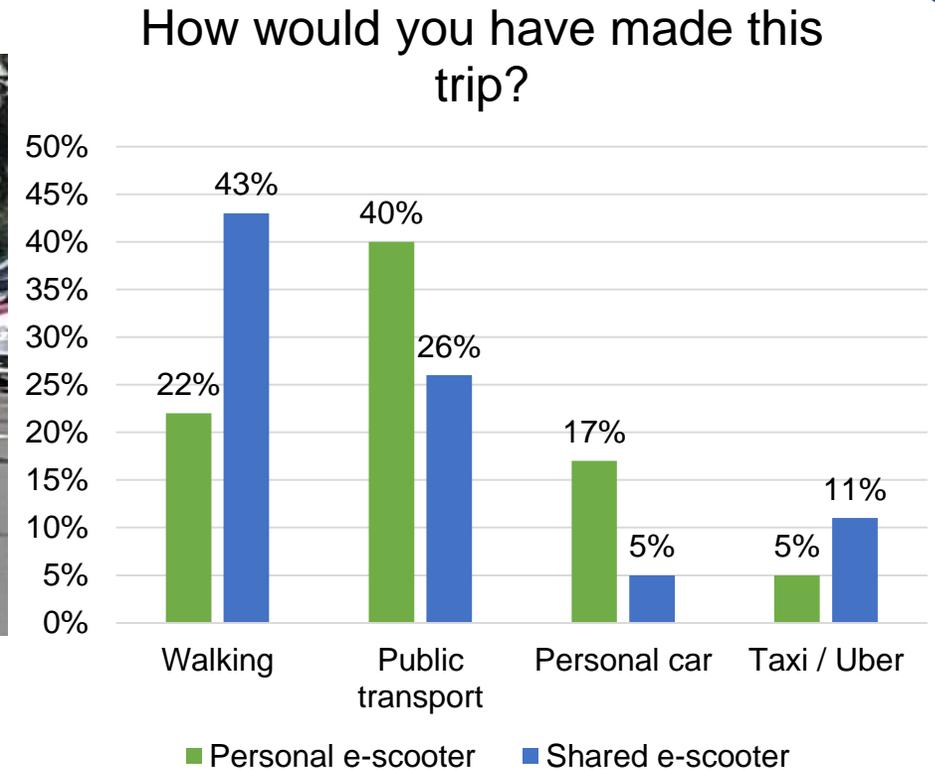
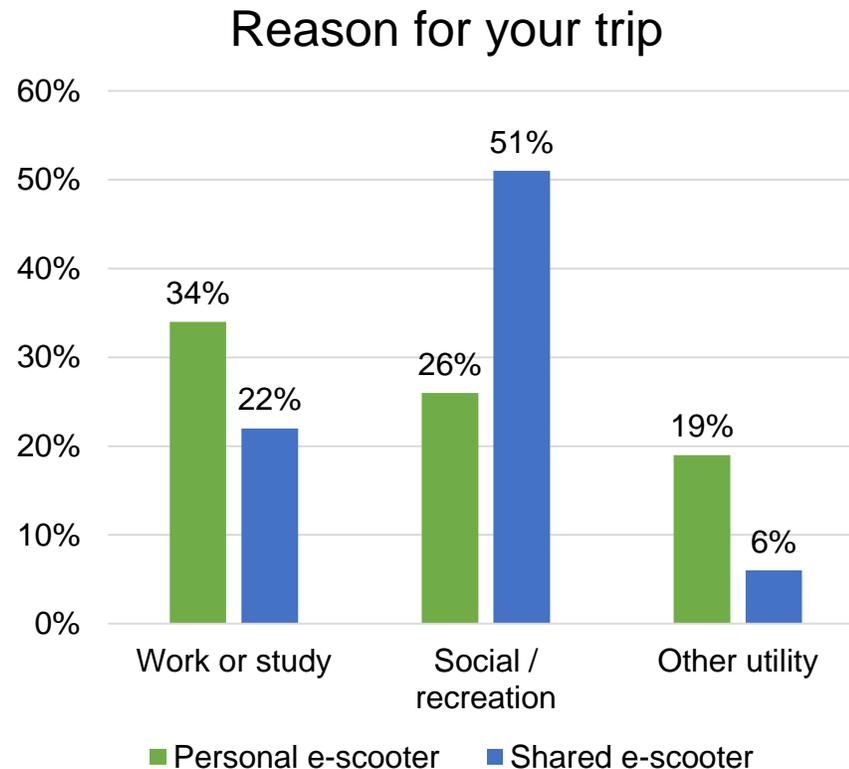


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Useful, sustainable mobility



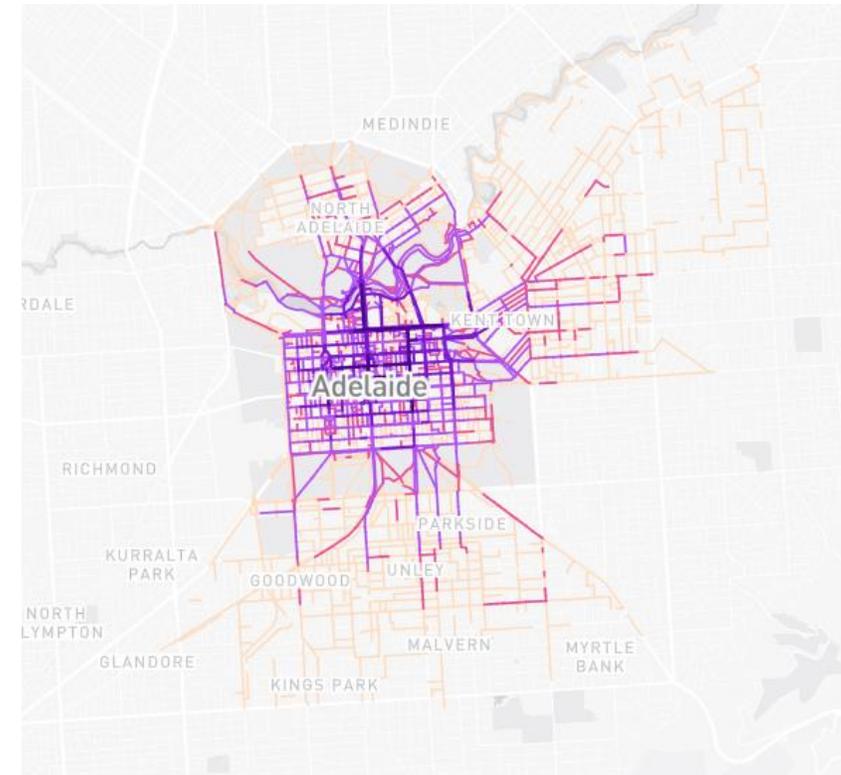
# 1) Legalise personal ownership of e-scooters



Source: 2023 Oviedo et al, "Toy or tool? Expectations, Impacts, and Contradictions of E-scooters From a Social-Exclusion Perspective"

## 2) Put shared e-scooters where they will be useful

1.6 trips/scooter/day



Source: [public.ridereport.com](http://public.ridereport.com)

# 3) Integrate them with your transit system

- Allow shared e-scooters in transit-rich neighbourhoods (first-mile) and in city centres (last-mile)
- Provide parking corrals near stations
- Integrate payments with the transit network
- Make sure there is safe infrastructure for both cyclists and e-scooters

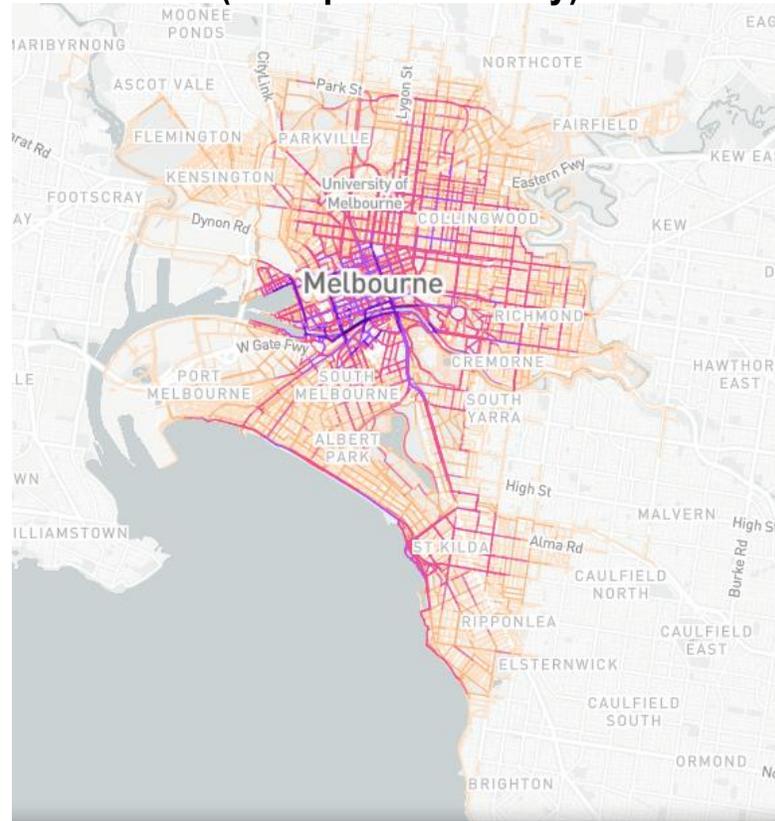


# 4) Consider the social benefits of expanding into lower-income areas

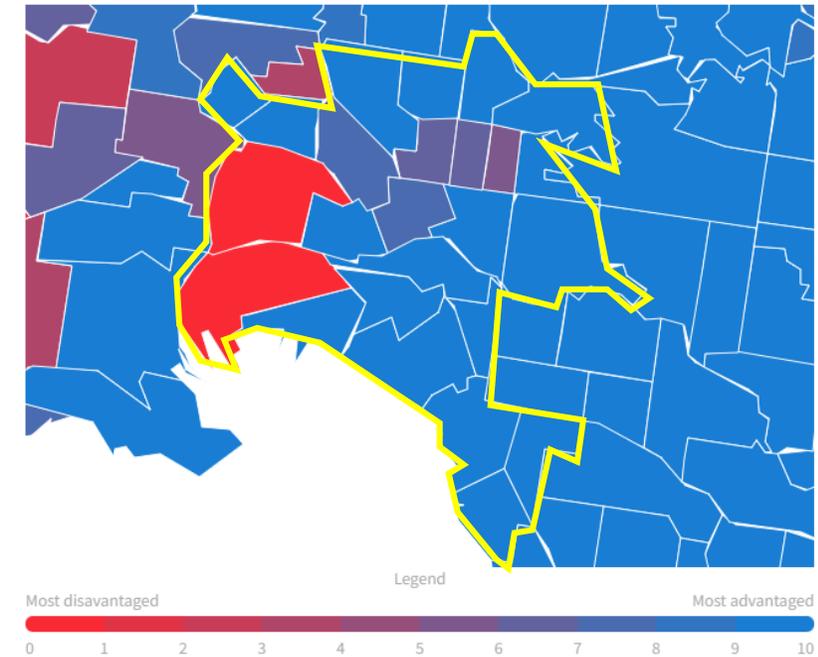
Melbourne trial area



Shared e-scooter usage  
(5.3 trips/scooter/day)



Census index of advantage-disadvantage



Source: The Age from 2016 ABS census data

<https://public.ridereport.com/melbourne>

# 5) And expand/support low-income Access programs

Currently no incentives for operators to expand their programs

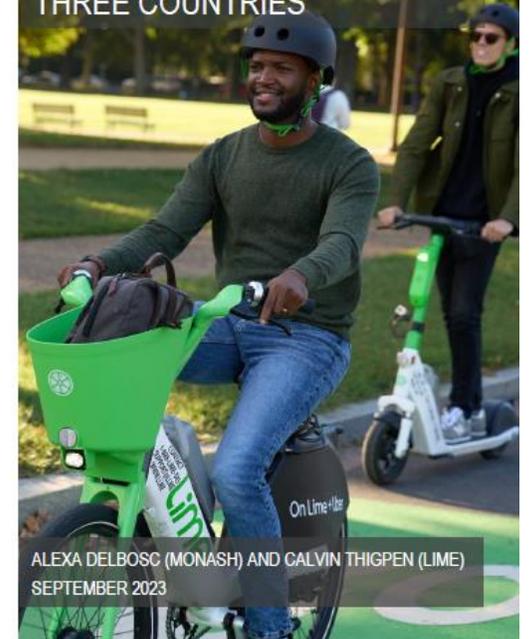
- Require operators to provide vehicles in low-income neighbourhoods
- Expand awareness of Access programs, especially in disadvantaged areas
- Provide operator fee waivers depending on uptake of Access programs
- Consider subsidising low-income access (as it loses money for operators)

Read more



WIDENING ACCESS  
TO MICROMOBILITY

UNDERSTANDING USE OF A  
REDUCED-FARE PROGRAM IN  
THREE COUNTRIES



ALEXA DELBOSC (MONASH) AND CALVIN THIGPEN (LIME)  
SEPTEMBER 2023

# Coming in 2024

Questions? Contact me: [alexa.delbosc@monash.edu](mailto:alexa.delbosc@monash.edu)



## KEY COURSE DETAILS

- One year full-time
- Part-time options available
- Hands-on, in-person learning

## WHAT YOU'LL LEARN

- Designing sustainable transport systems
- Planning urban mobility futures
- Modelling travel demand
- Understanding the economics of cities

...and more



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