2 WALK and CYCLE
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FOUR TYPES OF CYCLIST IN CHRISTCHURCH?

A study to determine cyclist user types and their infrastructure preferences in Christchurch, NZ

(University of Canterbury MET research project)

VIASTRADA
TRANSPORT PLANNING AND DESIGN

Christchurch City Council

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

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Presentation Outline

- Project Overview
- Study Methodology
- Results and Analysis
- Discussion and Conclusion
- Further Research

Project Overview

Catalyst

- More funding available in Christchurch to implement better cycle facilities, to increase cycling numbers
- Need to better understand the types of facilities that would attract **new cyclists**
  - As opposed to what might work fine for ***existing*** riders

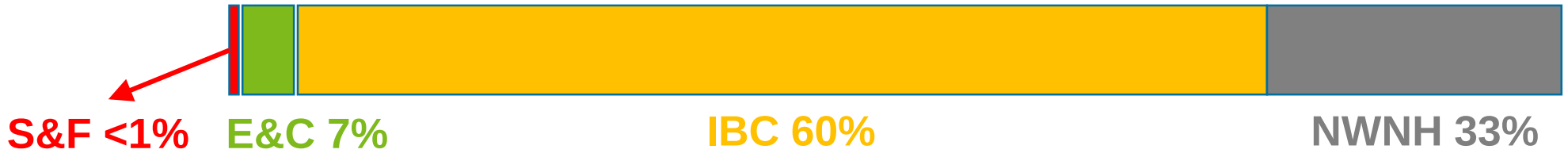
Aim

- *To understand the **types** of existing and potential cyclists that live in Christchurch and how they might be attracted to taking up cycling by implementing new infrastructure to address their concerns*

Roger Geller's Cycling Typology (2006)

Identified **four** Types of Cyclists to help predict potential cyclists:

- Strong and Fearless (S&F): will ride *"regardless of roadway conditions"*
- Enthused and Confident (E&C): comfortable riding on a road with motor vehicles, but appreciate efforts made to improve cycling infrastructure
- Interested but Concerned (IBC): keen to try cycling, but are apprehensive about how safe they will be when travelling with or beside motor vehicles
- No Way No How (NWNH): not going to ride a bicycle, *"for reasons of topography, inability, or simply a complete and utter lack of interest"*

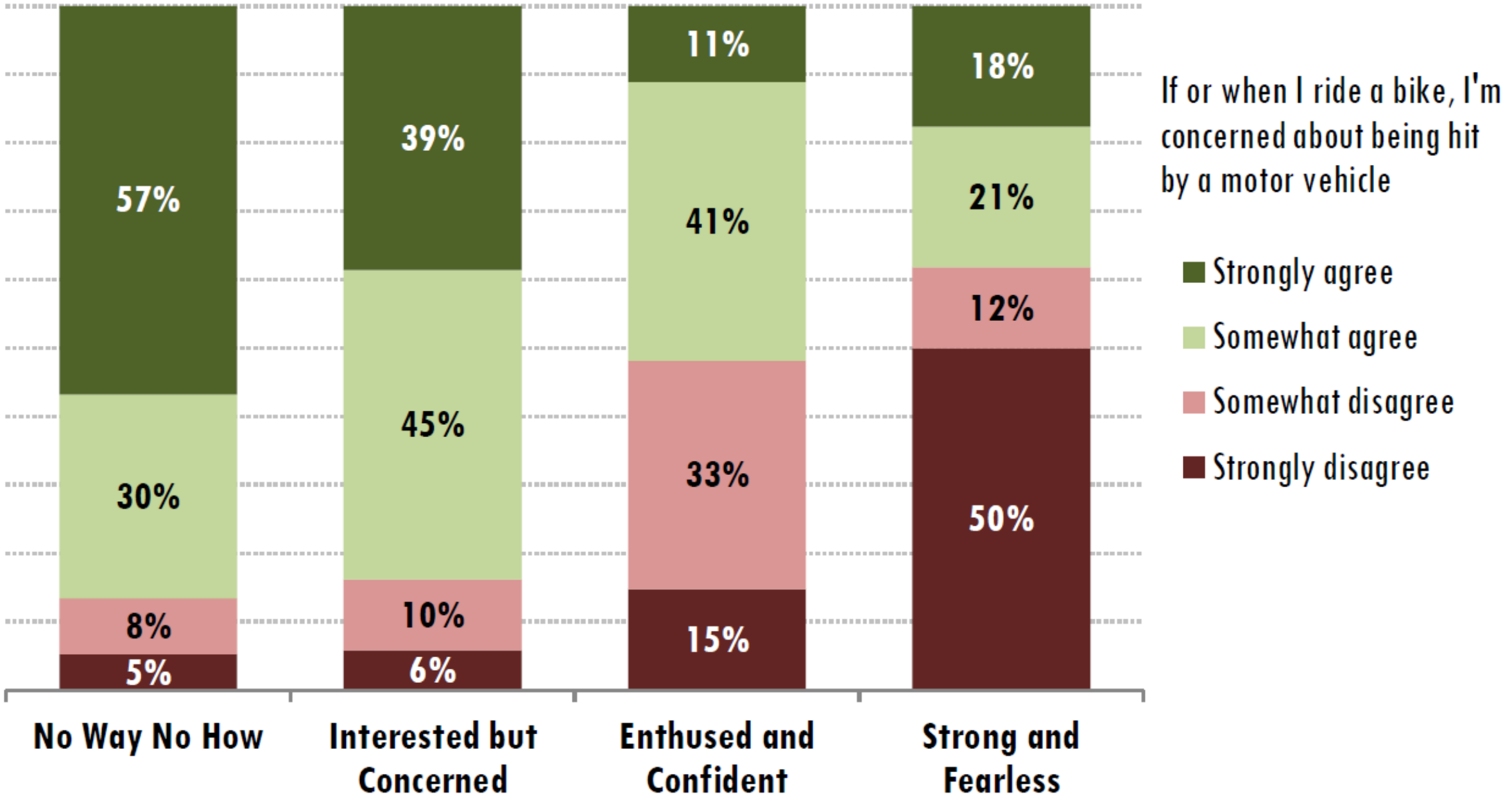


Developing the Methodology

- Dill and McNeil (2012) undertook a random phone survey of Portland (OR) residents to:
  - Validate Geller's Four Types of Cyclists
  - Understand who falls into each type
  - Use the typology to explore what might increase levels of cycling for transportation
- Typology and target groups were used to confirm the usefulness of using the categories to plan investment in infrastructure

This approach formed the basis for the Christchurch survey

Dill & McNeil (2012)



Developing the Methodology cont'd

Dill and McNeil (2012) found that:

- Majority (60%) of the respondents fit in the IBC category
  (c.f. S&F 6%, E&C 9%, and NWNH 25%)
  - Thought to be the key target market for increasing cycling for transportation
- The level of interest in cycling more is ***not*** necessarily consistent with current cycling behaviour
- Cycle infrastructure that increases ***physical separation*** from motor vehicles increases the IBC group's level of comfort significantly

Christchurch Survey Questionnaire

- Developed to find out
  - Whether Geller's Four Types of Cyclists exist in the Chch community
  - How new infrastructure could be targeted to their needs to encourage them to take up cycling
- Questions devised to identify the respondents'
  - Current travel behaviour
  - Attitudes to cycling
  - Preferences for cycling infrastructure
- Distributed as an online survey (Qualtrics)
  - 1359 participants completed the survey in late 2014

Christchurch Survey Questionnaire cont'd

Questions:

- ***Travel Preferences*** – travel to work, distance, access to a bicycle, cycle for any purpose (incl. recreation) and how often, considered cycling to work/study, cycle user group and what would encourage them to cycle (list was provided)
- ***General Street Treatments*** – what degree of separation from motor vehicles on links would make them feel comfortable
- ***Intersection Treatments*** – what degree of separation from motor vehicles at intersections that would make them feel comfortable
- ***Children on Bikes*** – did respondents' children currently cycle to school, what might encourage them to cycle
- ***Demographics*** – gender and age group

Q18. How comfortable would you feel on a painted cycle route with speed reduction measures for motor vehicles?

Example of a painted cycle route with speed reduction measures for motor vehicles

- ○ Very comfortable
- ○ Comfortable
- ○ Uncomfortable
- ○ Very Uncomfortable

Q25. How comfortable would you feel at an intersection using a hook turn box to separate cyclists from traffic?

Example of an intersection with a hook turn box to separate cyclists from traffic

- ○ Very comfortable
- ○ Comfortable
- ○ Uncomfortable
- ○ Very Uncomfortable

Results

Private Car (alone)	42%
Car Pool / Passenger in a Private Car	6%
Motorcycle / Scooter	2%
Bus	5%
Bicycle	34%
Walk / Run	6%
Other (please state)	3%
I do not travel for work/study	2%

Main mode of transport to and from work/study

I am not interested in any way and would not ride a bike on the streets	4%
I'm interested, but have some concerns, so I never or rarely ride a bike on the streets	32%
I'm enthusiastic and confident while I ride a bike on the streets	39%
I'm strong and fearless while I ride a bike on the streets	8%
None of these describe how I feel (comments optional)	18%

Best description of how you feel about cycling in your neighbourhood

Results cont'd

- Results show that there is a substantial proportion of respondents who identified themselves with Geller's Four Types of Cyclists (82%)
- The IBC group made up 32% of respondents
  - Smaller than reported by Dill and McNeil
  - Probably reflecting bias response of survey (more S&F / E&C)
- Results further refined to remove existing sustainable mode users from the responses
  - Found that **51%** of remaining drivers or passengers were in the IBC group

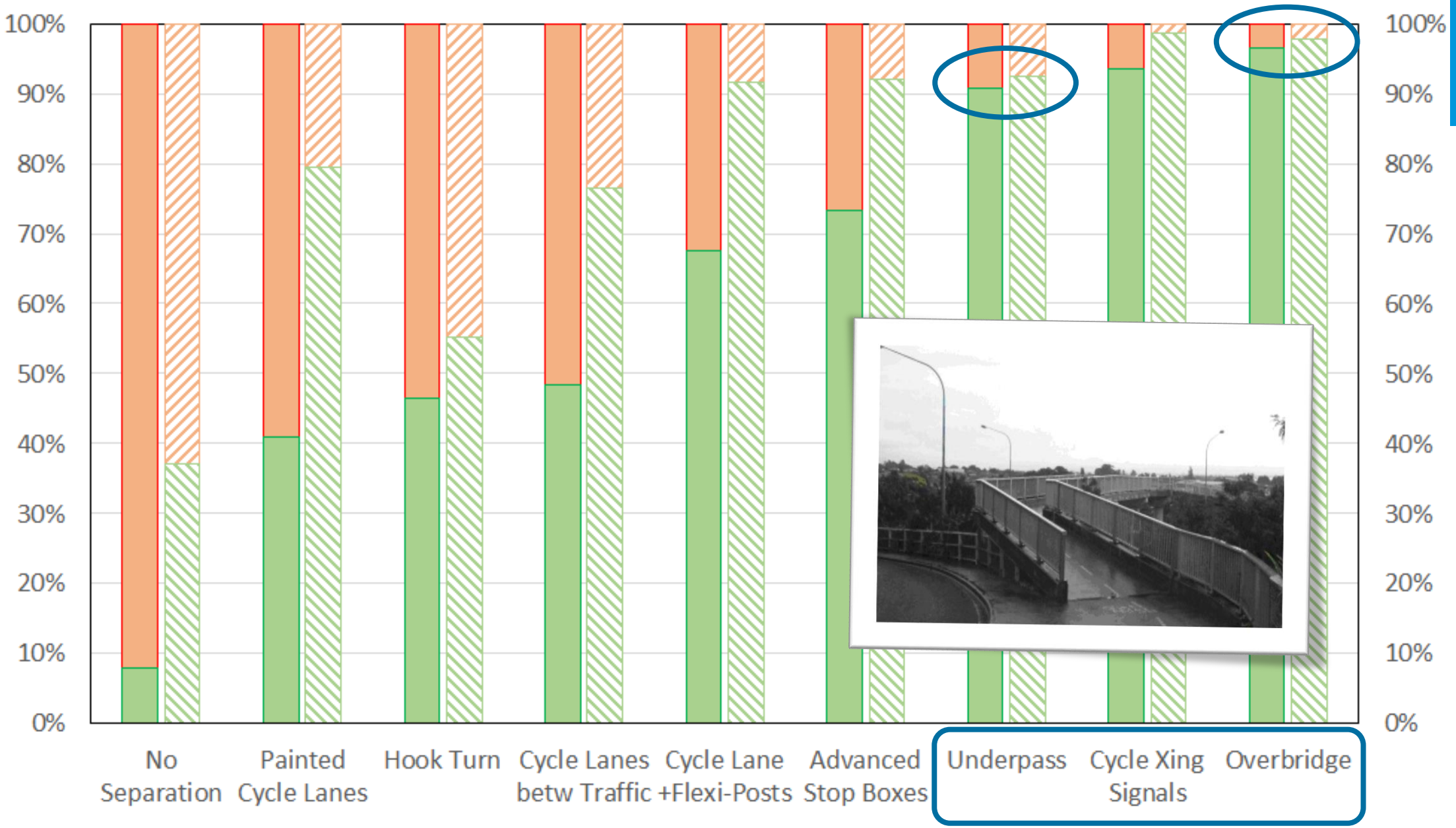
Results cont'd

- **Safety** was identified as the key barrier to mode change by the IBC group
  - Separation from motor vehicles was a major influence on whether people would feel safe cycling

- Other comments influencing potential cycle use:
  - Driver behaviour
  - Route consistency
  - Access to locker/shower facilities at work
  - Improvement in the number of road work sites
  - User confidence
  - Less traffic
  - Integration with other modes

How comfortable would you feel on a street with...?

How comfortable would you feel travelling through an intersection with...?



Conclusions

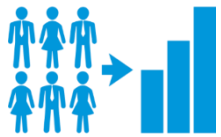
- Safety remained the most inhibiting factor to encouraging cycle use
  - Creating a safe network is the most important influencing factor to encourage new cyclists

- Other factors:
  - driver behaviour
  - user confidence
  - route consistency
  - less traffic

Conclusions cont'd

- Significant effort should be made in creating as much separation as possible to increase bicycle mode share
- A consistent and connected network is a key part of cycle network planning
- The whole cycling network should integrate to make connections legible for new users

Future Work



- Further research is required to ensure that the responses are truly representative of potential users

- Post-implementation monitoring should be undertaken when new cycleways are constructed and operating
  - In order to ensure that the design has been executed appropriately and that cyclists are comfortable using the facilities

Thank You!

Any Questions?

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