Making cycling a transport option for both men & women

Evidence from the Cycling in Cities Research Program

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Photo: Ken Ohrn

Photos: Ken Ohrn

In typical Canadian cities
women & girls make up
½ the population & take

½ of motor vehicle trips
½ of walking trips
½ of transit trips

… but only
¼ of bike trips

Top deterrents (women … & also men)

Route safety

- car, bus & truck traffic
- vehicles driving faster than 50 km/h
- motorists who don't know how to drive safely near bikes
- risk of injury from car-bike collisions

Only 10% of cycling research focuses on route design

Photo: Ken Ohrn

Opinion Survey

Preference for 16 route types

N=1400
in Metro Vancouver

Injury Study

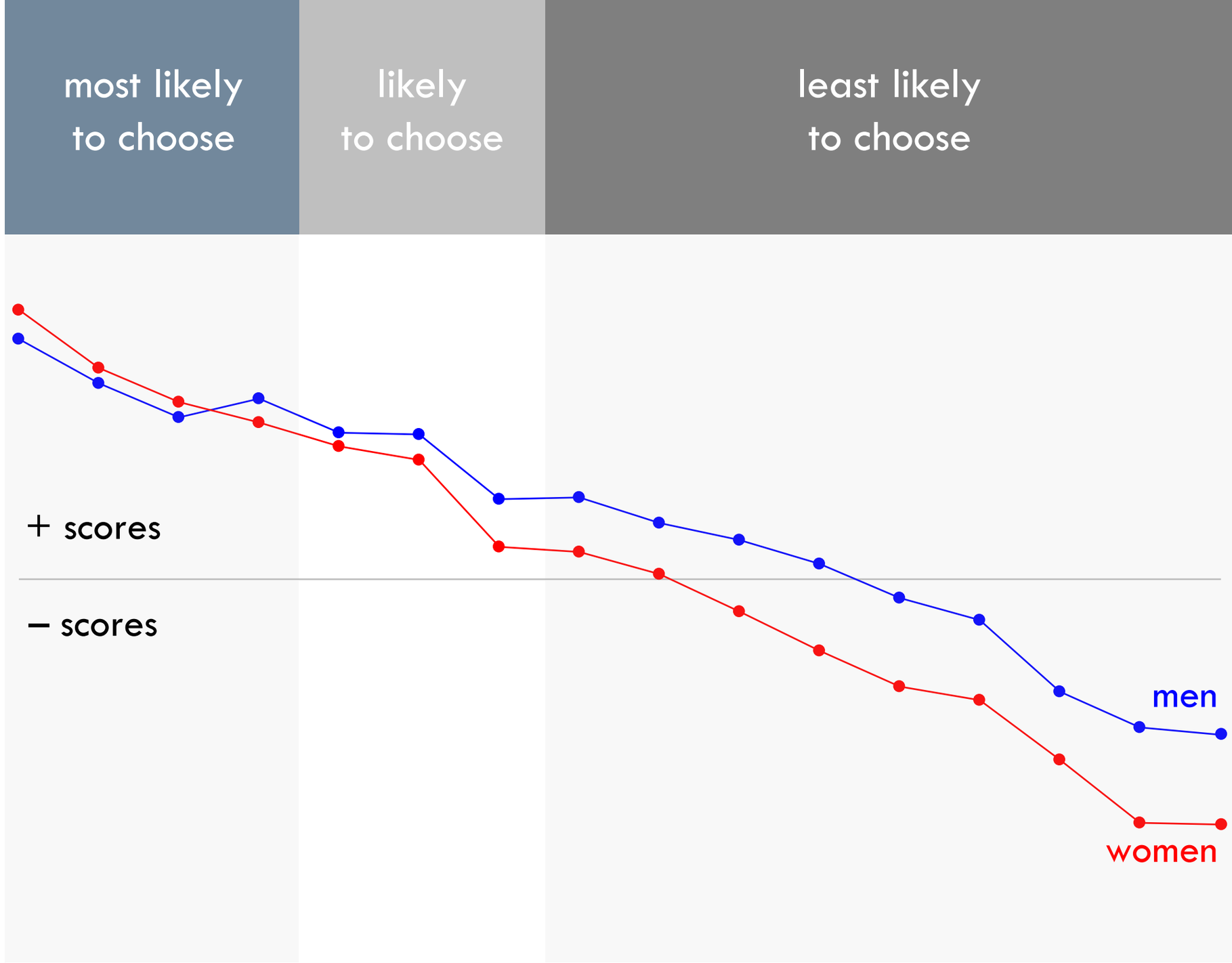
Injury risk of 15 route types

N=690
in Vancouver & Toronto

Photo: Martin Dee, UBC

People have clear route preferences

Differences between men & women?



Route type also matters for injury risk & largely agrees with preferences

Photo: Ken Ohrn

Busy streets . . . arterials, collectors

Busy street, parked cars, no bike infrastructure

Least safe, greatest deterrent to cycling

Photos: Hallgrimsson

Busy street, parked cars, painted bike lane

Not safer, deters cycling

Photos: CyclingSavvy, North Shore News

Busy street, no parked cars, painted bike lane

Safer (-45%), neutral impact on cycling

Photo: Google Streetview

Busy street, protected bike lane

Safest (-90%), motivates cycling

Photos: ECF, Ken Ohrn

Quiet streets . . . local, residential

Quiet street

Safer (-50%), neutral impact on cycling

Quiet street, bikeway

Safer (-50%), motivates cycling

Quiet street, bikeway with traffic circle

Not safer, motivates cycling

Photo: Ken Ohrn

Quiet street, bikeway with traffic diversion

Safest (-55%), motivates cycling

Photo: City of Vancouver

Off-street . . . sidewalks, bike/multiuse paths

Sidewalk

Not safer

Photo: San Francisco Citizen

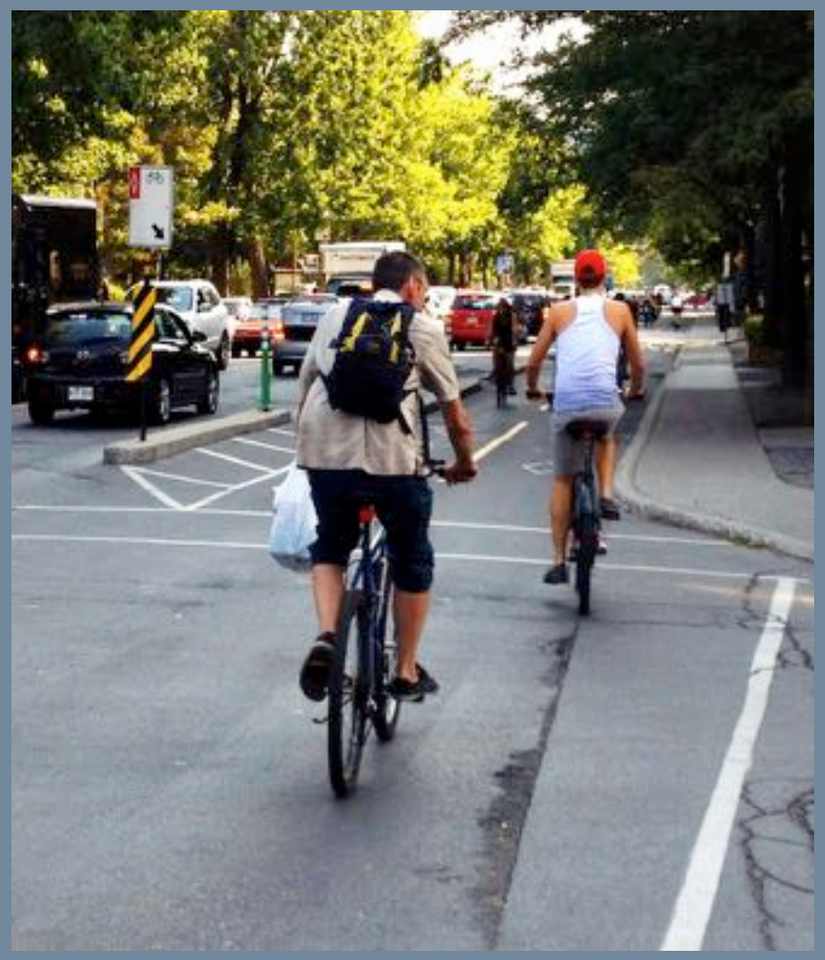
Multi-use path

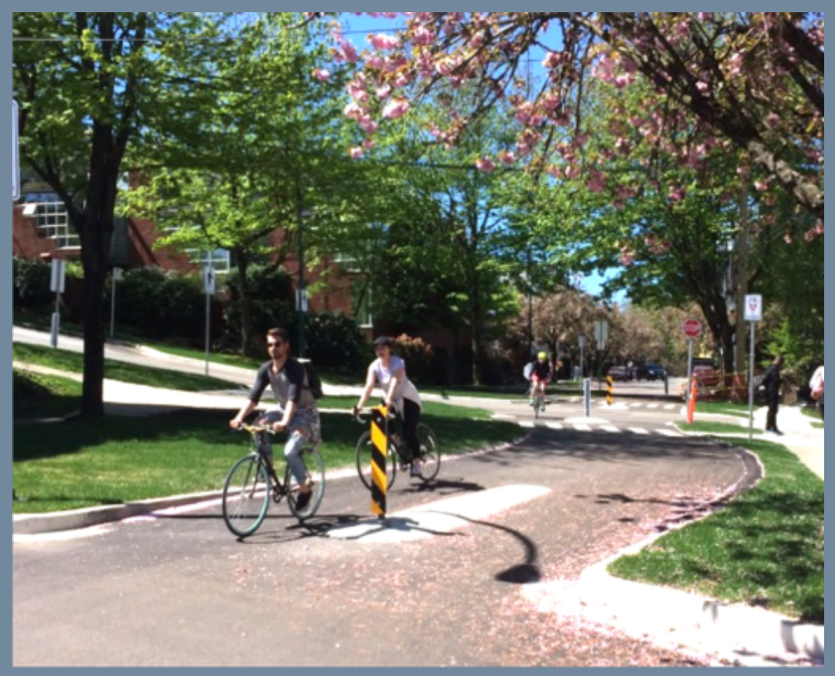
Not safer, motivates cycling

Bike path

Safer (-40%), strongest cycling motivator

Most preferred & safest facilities for 3 different scenarios:



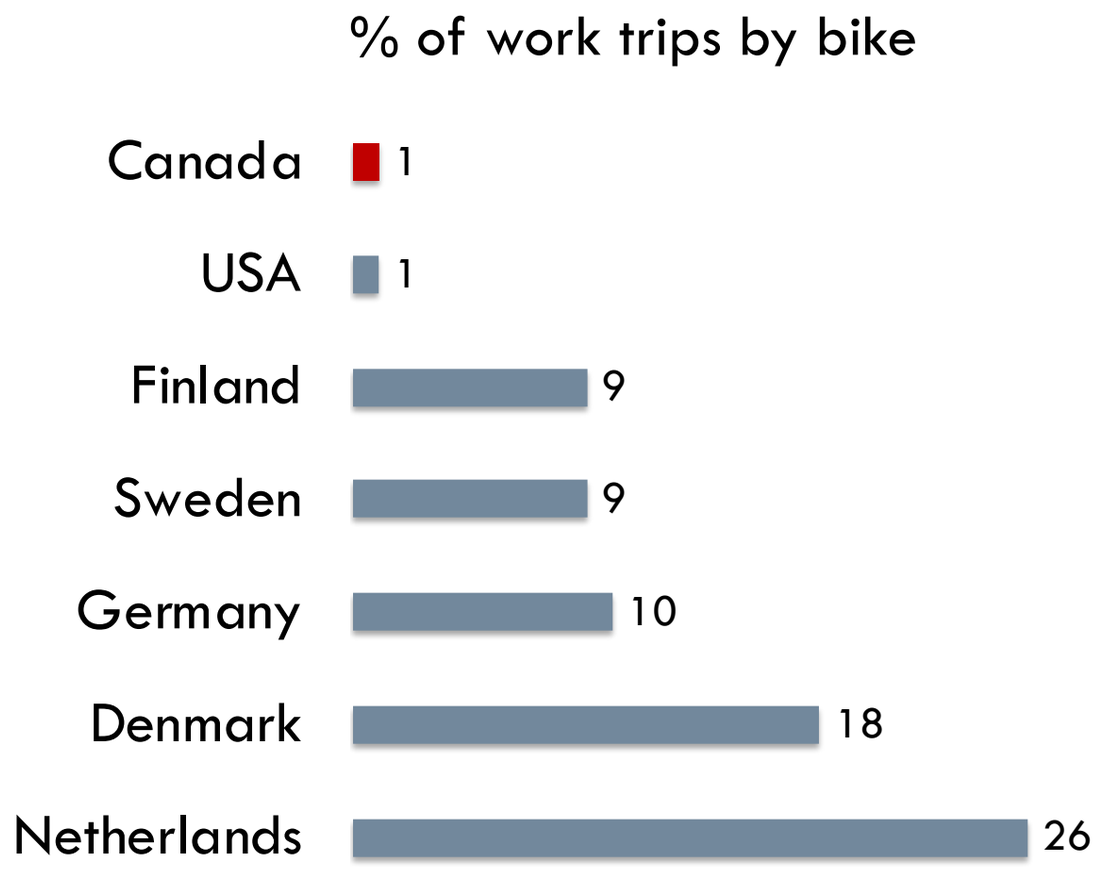


- busy streets: **protected bike lanes**
- quiet streets: **bikeways with traffic diversion**
- off-street: **well designed bike paths**

Photos: City of Calgary, City of Vancouver, Ken Ohrn, Alastair Smith, vikapproved

Comparing Canada to other countries

Photo: Ken Ohrn



Sources: Census 2016; Pucher & Buehler, City Cycling, 2012

Comparing Canadian cities, 2016 Census data

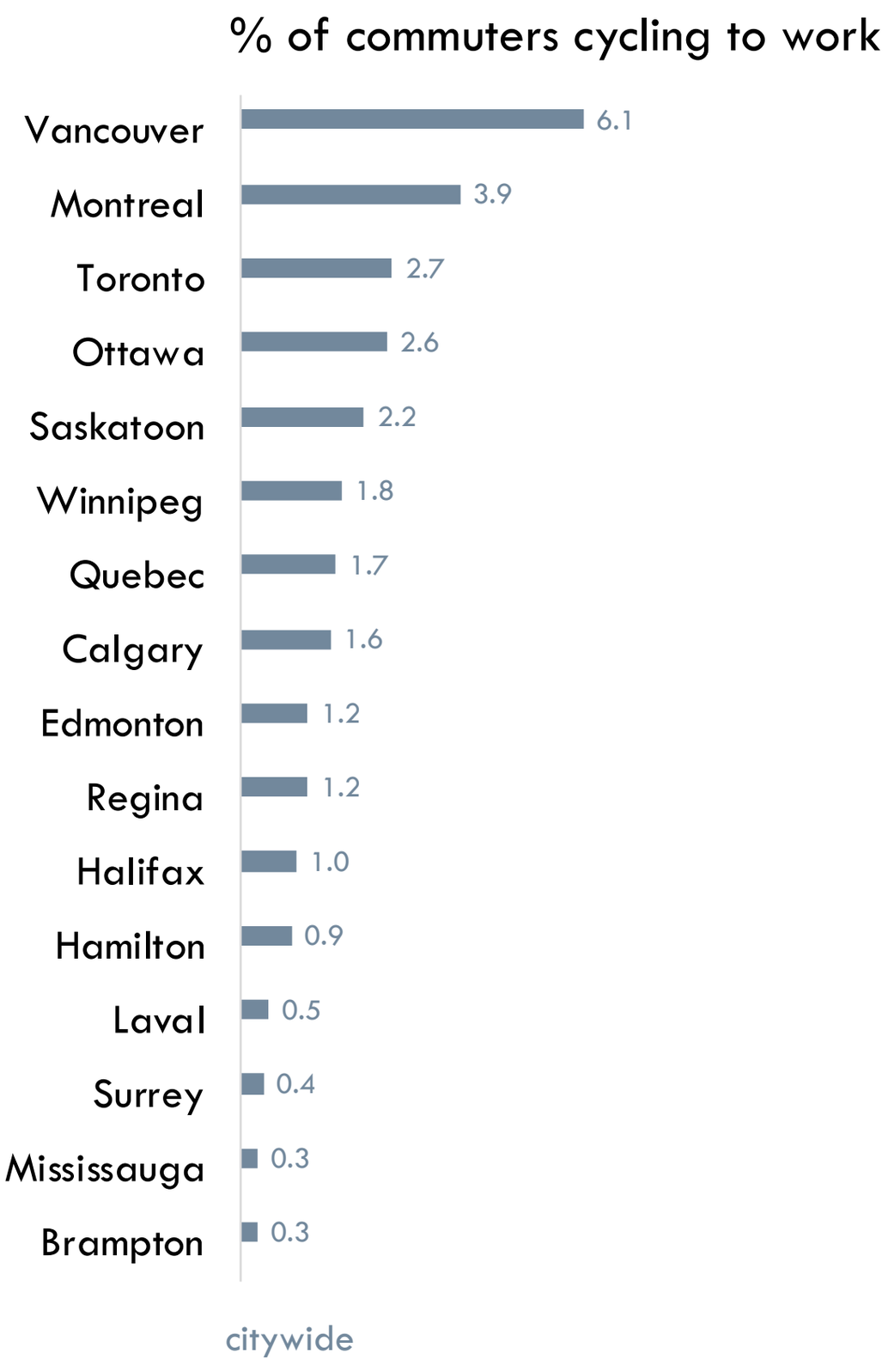



Photo: Ken Ohrn

Also differences within Canadian cities

Photo: Ken Ohrn

Within-city differences: Do routes make a difference?

More cycling for each km closer to the best route types

Men → 3x more
Women → 6x more

Within-city variability in cycling: Do routes make a difference?

Areas with least cycling

→1/10 of trips by women

Areas with most cycling

→ 1/2 of trips by women

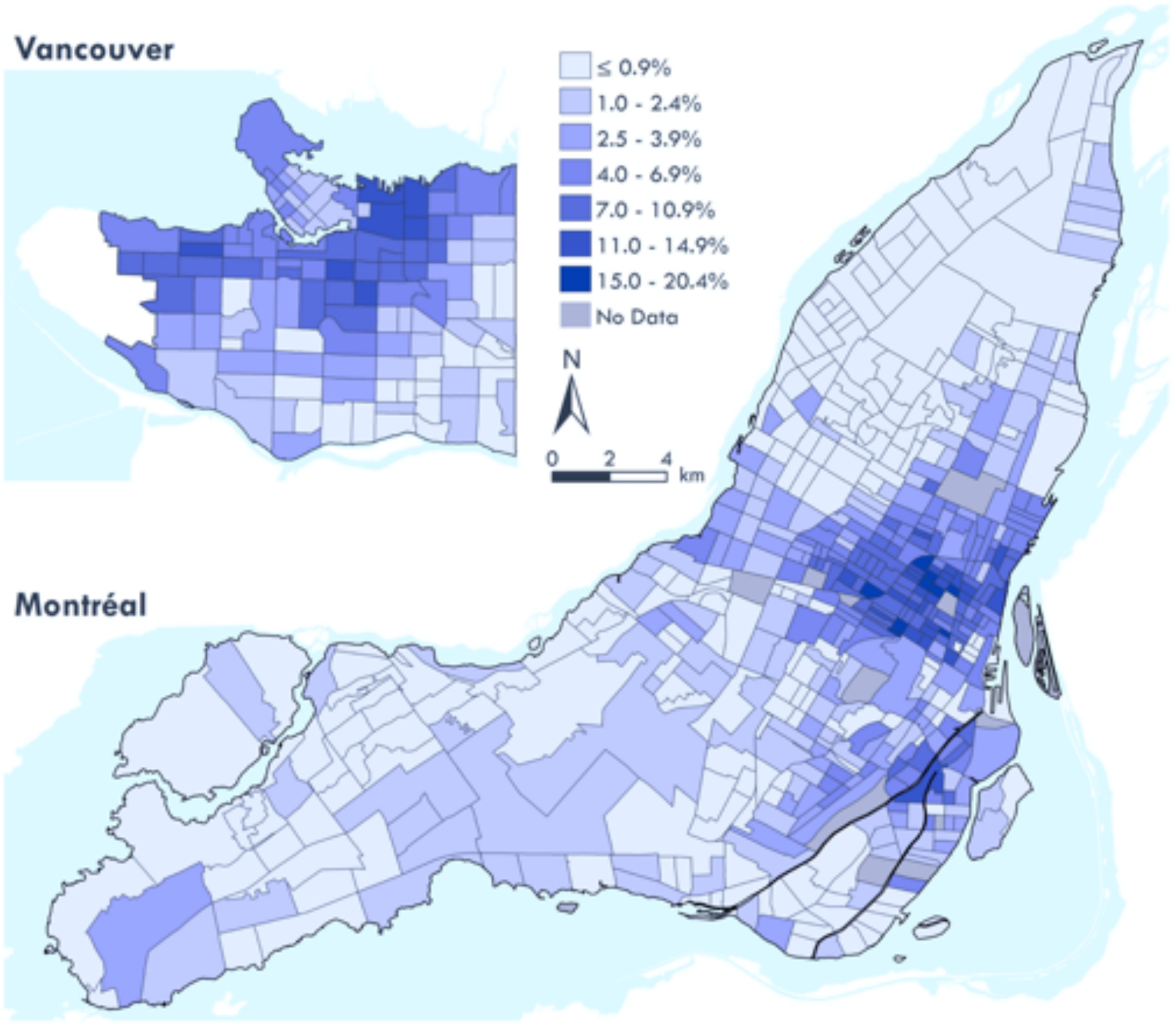


Photo: The Alternative Department for Transport

Women = "indicator species" for cycling

If ½ of people cycling are female
→ you are building it right