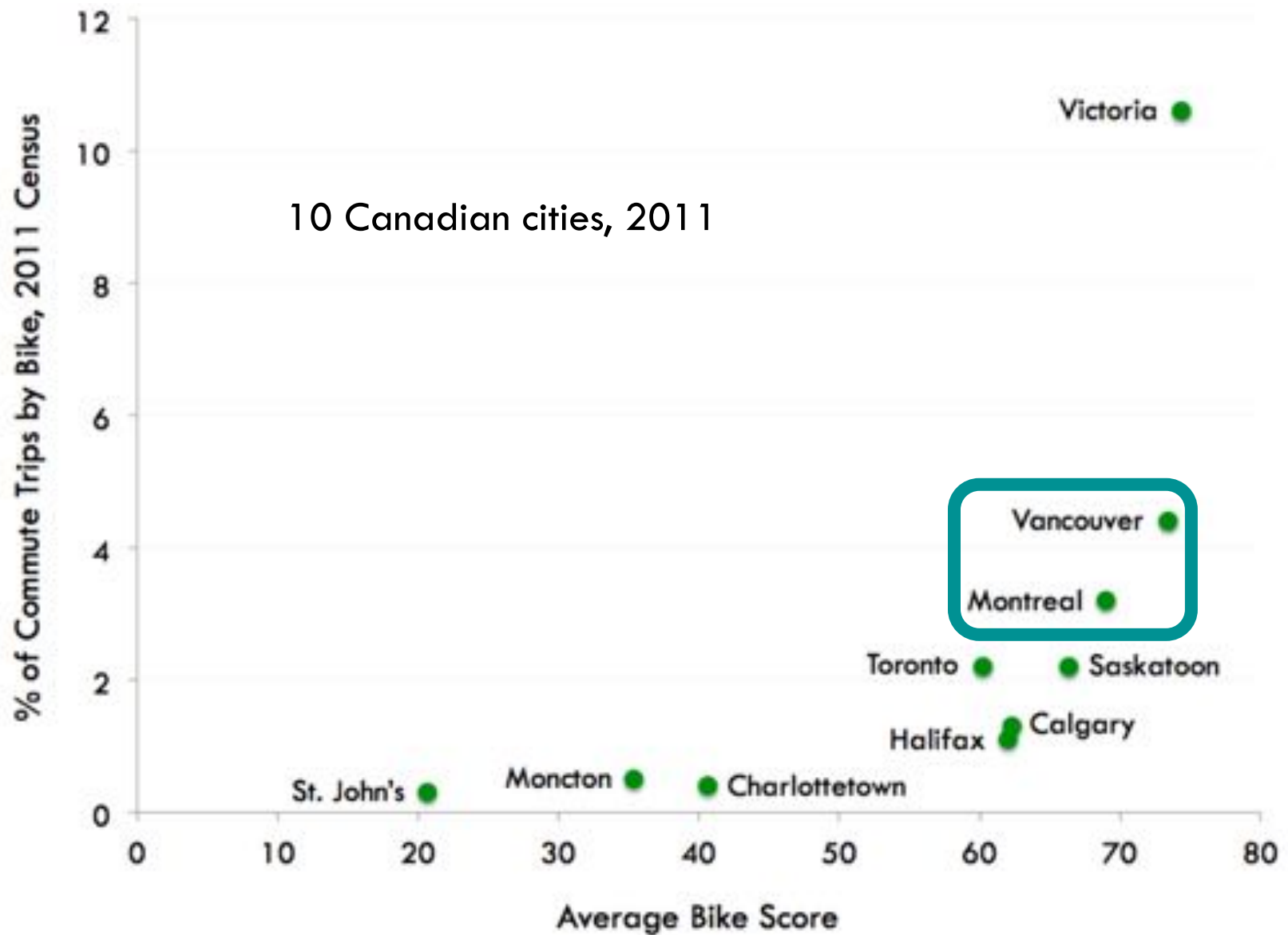


Proximity to 4 bikeway types & neighbourhood-level cycling mode share of male and female commuters

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Multiple studies: more bikeways, more cycling



Multiple studies: certain bikeway types preferred & safer



Cycle tracks

71% likely to cycle

**0.1 risk
vs. no infra**



Painted bike lanes

39% likely to cycle

0.7 risk
vs. no infra



Residential street bikeways

65% likely to cycle

0.5 risk
vs. no infra



Off-street bike paths

85% likely to cycle

0.6 risk
vs. no infra

Methods

2011 GIS data

- bikeways
- proximity from residential parcels to bikeways (surface displacement, along network)

2011 National Household Survey

- 460,000 residents of Montreal
- 140,000 residents of Vancouver
- commute mode of working population

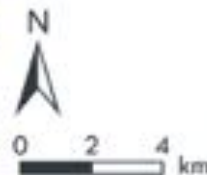
summarized & linked by census tract
(~neighbourhood), unit of analysis, n=634

Bikeway coverage, 2011

Vancouver



400 m catchment



Montréal



Bikeway lengths & types, 2011

Vancouver



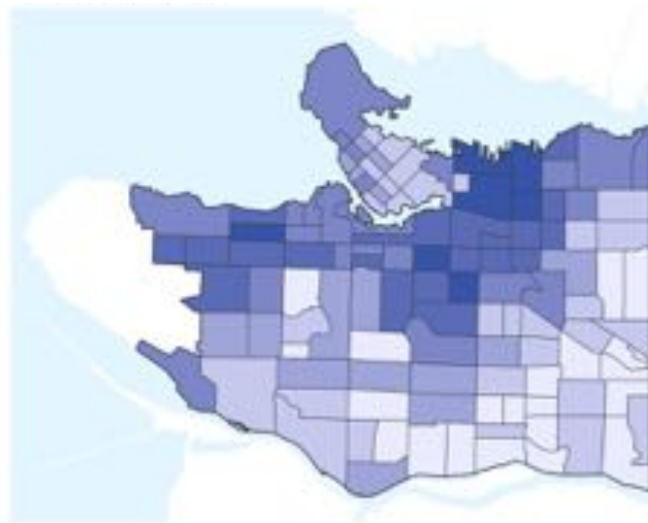
Montréal



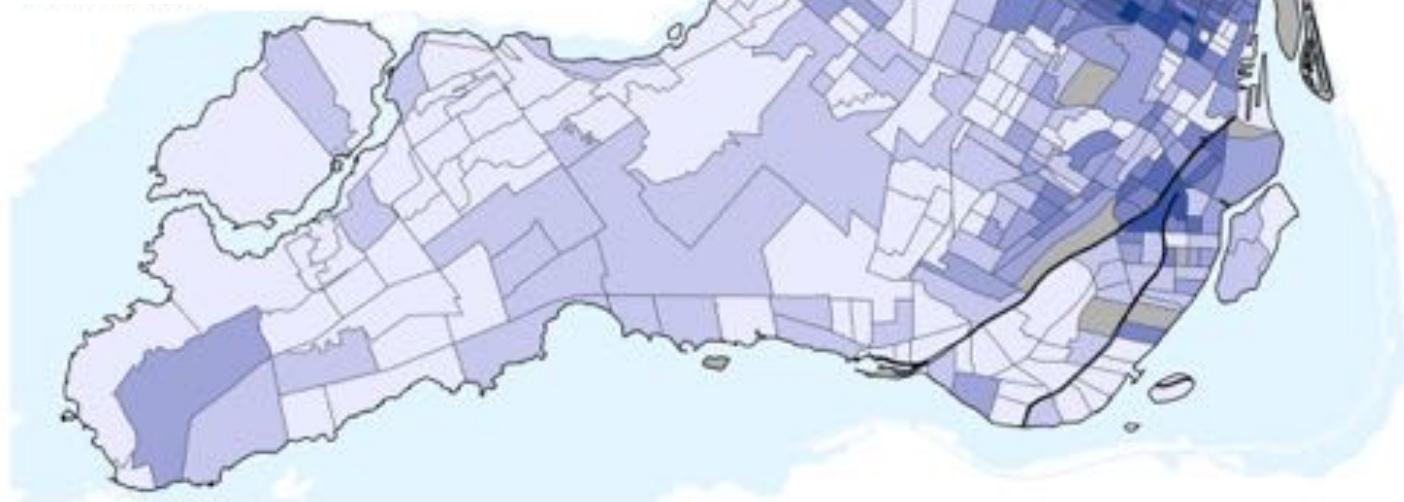
	Montréal	Vancouver
Any bikeway	448 km	241 km
..... Cycle track	25%	6%
Painted bike lane	24%	17%
— Residential street bikeway	21%	65%
— Off-street bike path	29%	12%

Cycling mode share by census tract, 2011

Vancouver (4.3% overall mode share)



Montréal (2.7% overall mode share)







Did census tract cycling mode share vary by bikeway proximity?

Relative mode share per
1 km closer proximity

Any bikeway	Both cities	3.9
Cycle track	Both cities	1.5
Painted bike lane	Montréal	1.5
	Vancouver	-
Residential street bikeway	Montréal	1.4
	Vancouver	3.2
Off-street bike path	Montréal	1.3
	Vancouver	-



Did census tract cycling mode share vary by bikeway proximity?

		Relative mode share per 1 km closer proximity	
Any bikeway	Both cities	3.9	
Cycle track	Both cities	1.5	
Painted bike lane	Montréal	1.5	
	Vancouver	-	
Residential street bikeway	Montréal	1.4	
	Vancouver	3.2	
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	Vancouver	-	

Did census tract cycling mode share vary by bikeway proximity?

Relative mode share per
1 km closer proximity

Any bikeway

Both cities

3.9

Cycle track

Both cities

1.5

Painted bike lane

Montréal

1.5

Vancouver

-

Residential street bikeway

Montréal

1.4

Vancouver

3.2

Off-street bike path

Montréal

1.3

Vancouver

-



network in Montréal

Did census tract cycling mode share vary by bikeway proximity?

		Relative mode share per 1 km closer proximity
Network in Vancouver	Any bikeway	Both cities 3.9
	Cycle track	Both cities 1.5
	Painted bike lane	Montréal 1.5
		Vancouver -
	Residential street bikeway	Montréal 1.4
		Vancouver 3.2
	Off-street bike path	Montréal 1.3
		Vancouver -



Were there differences in associations for men & women?

Relative mode share per
1 km closer proximity

Male

Female

Any bikeway	Both cities	3.3	5.7
Cycle track	Both cities	1.4	1.9
Painted bike lane	Montréal	1.4	1.7
	Vancouver	-	-
Residential street bikeway	Montréal	1.3	1.5
	Vancouver	2.8	5.1
Off-street bike path	Montréal	1.3	1.5
	Vancouver	-	-



Did more women cycle in higher cycling census tracts?

Cycling commute mode share of census tracts		% female of all cycle commuters
Low	0.5 – 2.4%	11.2%
Moderate	2.5 – 6.9%	30.3%
High	7.0 – 20.4%	43.5%





Conclusions

Variation in cycling at census tract level in Montréal & Vancouver: 0 to 20.4%

- associated with proximity to any bikeway & cycle tracks (safe, preferred)
- associated with routes that form network

In census tracts where cycle commuting more common, % female approached parity with males

Journal of Transport & Land Use 2017

Cycling in Cities, UBC
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