

Supplementary information to the manuscript titled “*Perceived Accessibility Scale adapted to cycling – What insights can it provide in the context of Stockholm?*”.

S1. Detailed hypotheses for RQ2

For RQ2, the following hypotheses were tested:

- Socio-demographics:
 - Perceived cycling accessibility differs by gender, age, education, and whether respondents live with children.
- Mobility characteristics:
 - Perceived cycling accessibility differs by household car ownership, type of car access, driving license and public transport card ownership, cycling confidence and commute length.
- Social characteristic:
 - Perceived cycling accessibility differs between those who know someone who cycles and those who do not.
- Spatial characteristic:
 - Perceived cycling accessibility varies according to the level of cycling infrastructure and the density of destinations in an individual’s residential neighbourhood.

S2. Policy recommendations

The findings of this study therefore point to a need for targeted interventions aimed at car owners, long-distance commuters, and those lacking cycling confidence such as reducing car dependency through parking policy, creating cycling shortcuts to reduce commute times, and offering skill-building programs to increase confidence in mixed-traffic conditions. Leveraging social influence through campaigns like cycle-to-work or cycle-to-school, where community peer support is highlighted, may also be effective. Further, significant differences in the relationship of peer influence and perceived accessibility, given cycling frequency suggest that interventions aimed at improving perceived accessibility may thus require different approaches for frequent vs infrequent cyclists.

S3. Binomial logistic regressions predicting high vs. low cycling frequency from perceived accessibility (PAC).

Predictor of cycling frequency (high vs. low)	OR (95% CI)	p-value	OR (95% CI)	p-value
	Model 1 (N=491)		Model 2 (N=243)	
PAC factor	3.39 [2.29, 5.11]	<0.001	2.62 [1.16, 6.04]	0.021
Gender (ref: female)	–	–	1.74 [0.68, 4.49]	0.245
Education (ref: lower)	–	–	0.50 [0.10, 1.84]	0.340
Age group (ref: <30)	–	–	1.41 [0.39, 4.94]	0.592
Living with children	–	–	1.12 [0.35, 3.60]	0.843
Household car ownership	–	–	0.99 [0.34, 2.89]	0.978
Driving license	–	–	0.39 [0.07, 1.61]	0.239
Public transport subscription	–	–	0.23 [0.07, 0.76]	0.014
Cycling confidence: low-traffic, no separated lane (ref: high-traffic, no separated lane)	–	–	0.52 [0.20, 1.41]	0.188
Cycling confidence: separated bike paths (ref: high-traffic, no separated lane)	–	–	0.52 [0.09, 4.64]	0.500
Daily commute duration (ref: less than 30 minutes)	–	–	0.30 [0.11, 0.76]	0.012
Having peers who cycle (count)	–	–	0.90 [0.60, 1.37]	0.625
Level of cycling infrastructure – ratio of suitable to unsuitable	–	–	1.03 [0.10, 12.79]	0.982
Shops density	–	–	1.00 [0.97, 1.03]	0.844
Amenities density	–	–	1.00 [0.98, 1.01]	0.791
Leisure locations density	–	–	1.00 [0.96, 1.05]	0.863
Offices density	–	–	1.09 [0.93, 1.31]	0.326
McFadden’s R²	0.10		0.22	
AIC	342.8		174.6	

