

Young adults' walkability preference profiles and walking behavior

Anna Kajosaari, 9.2.2021

Planning for walkable residential environments

**What about *residential
self-selection?***

Residential consonants

individual
preferences



environmental
characteristics

Residential dissonants

individual
preferences

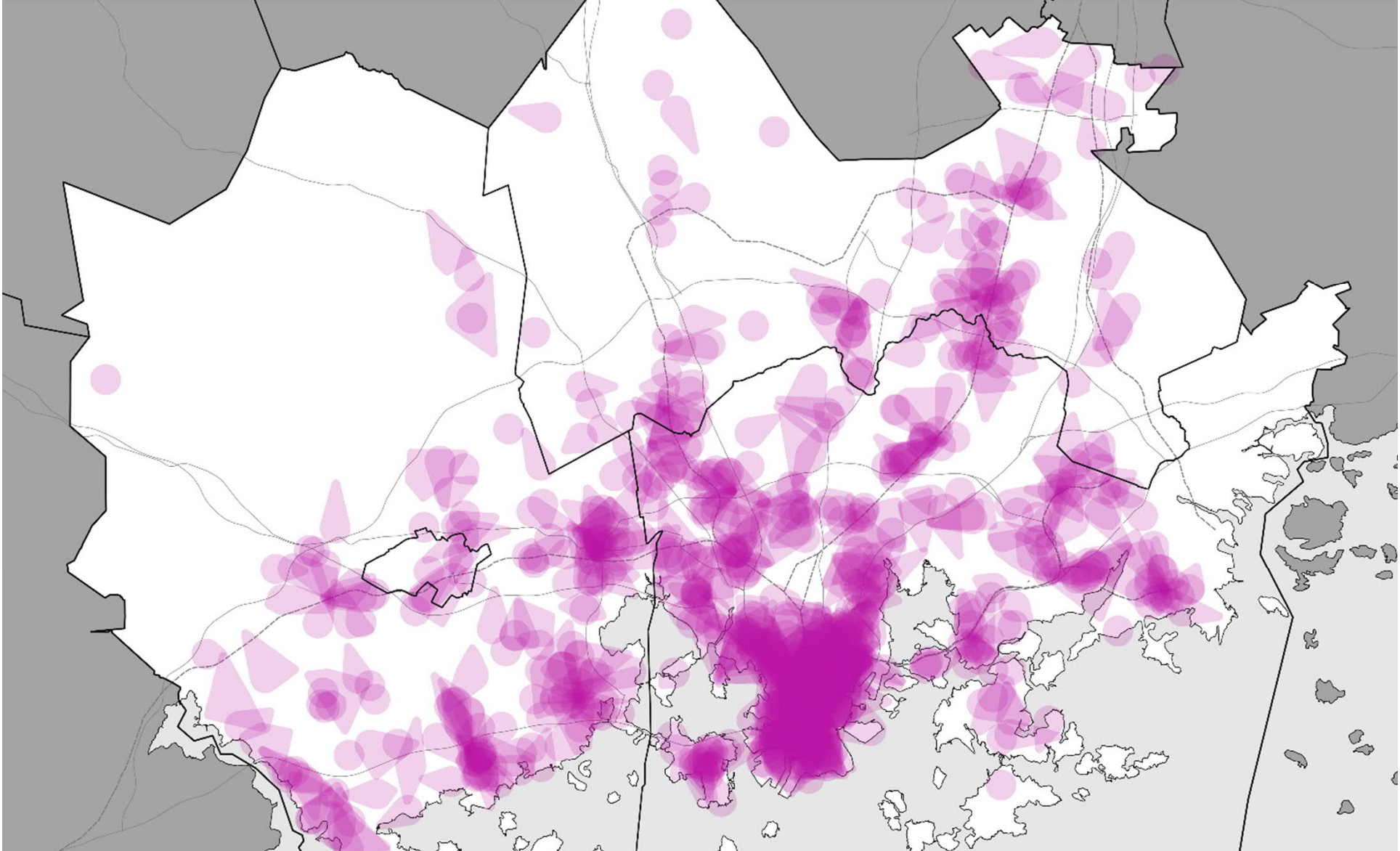


environmental
characteristics

Study area and population:

- **Helsinki Metropolitan Area, Fall 2016**
- **Young adults aged 25 to 40 years**
- **PPGIS-survey with mapping tasks on places visited in day-to-day life and attitudes related to residential environment**
- **772 respondents**

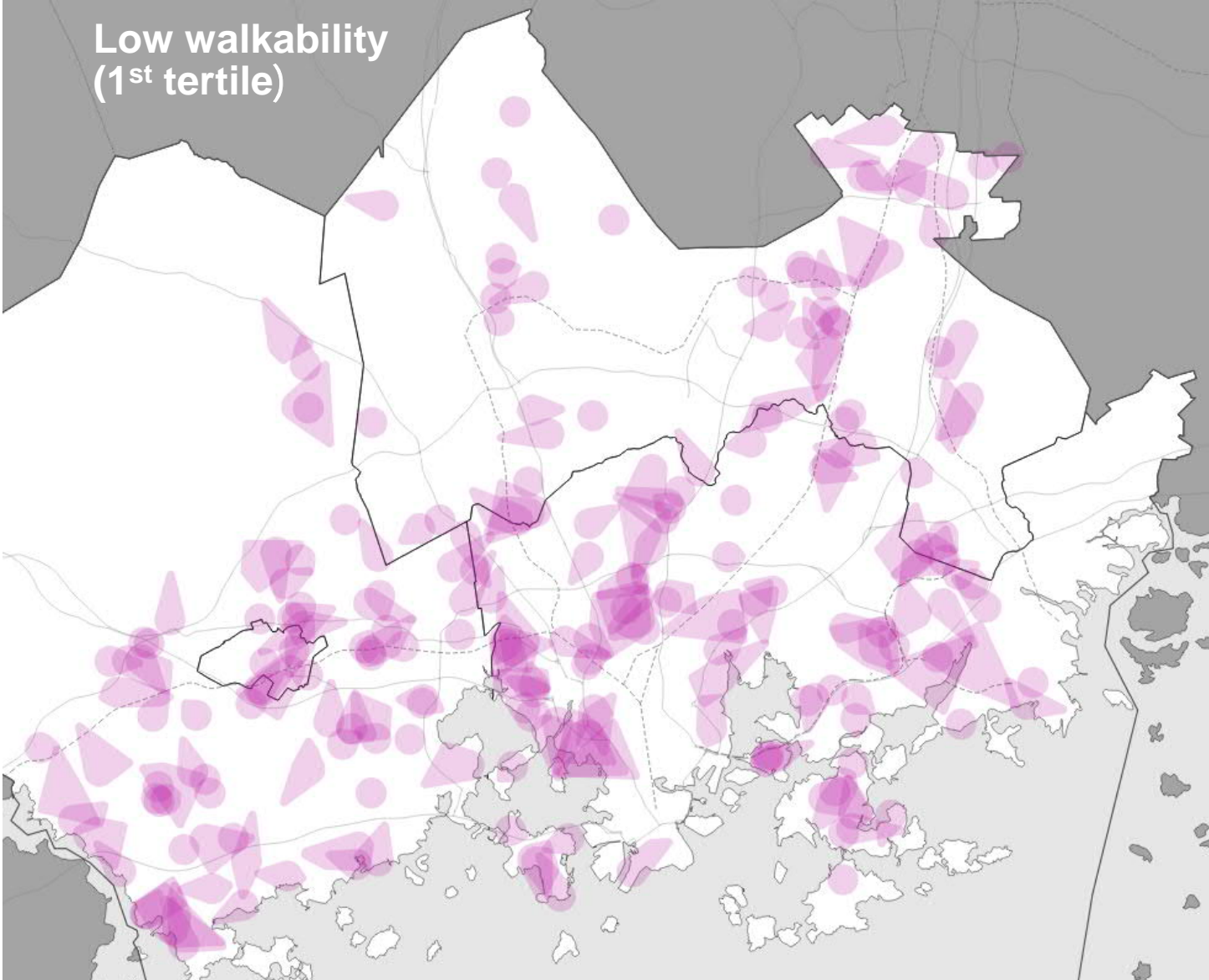
**How walkable is
your neighborhood?**



Walkability index (Frank et al. 2010) as a measure of observed walkability:

- **Residential density**
- **Commercial density**
- **Intersection density**
- **Land-use mix**

Low walkability
(1st tertile)



Walking to
leisure-time
destinations:

22%

of distance

38%

of trips

Utilitarian
destinations:

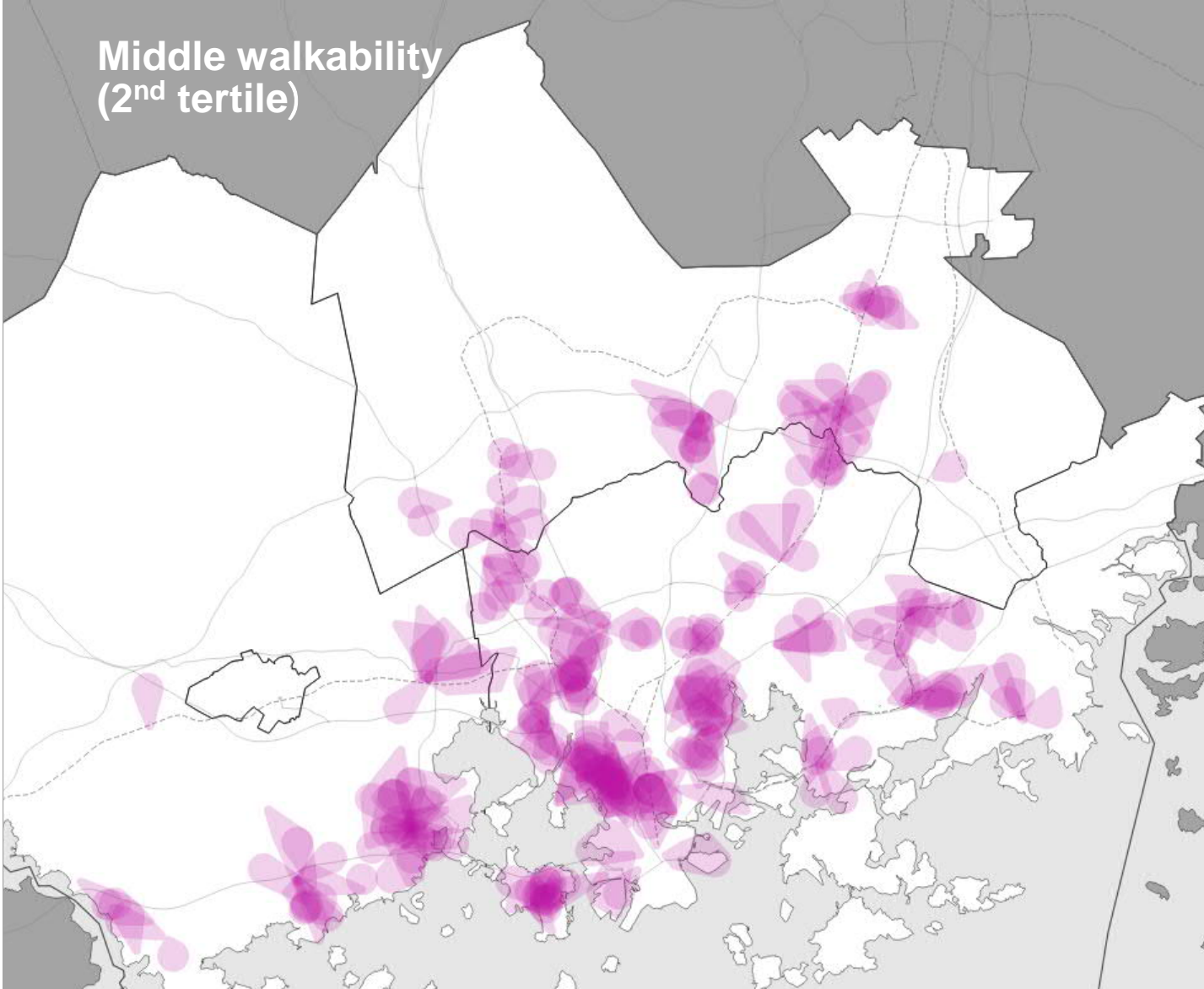
26%

of distance

34%

of trips

Middle walkability
(2nd tertile)



Walking to
leisure-time
destinations:

28%

of distance

40%

of trips

Utilitarian
destinations:

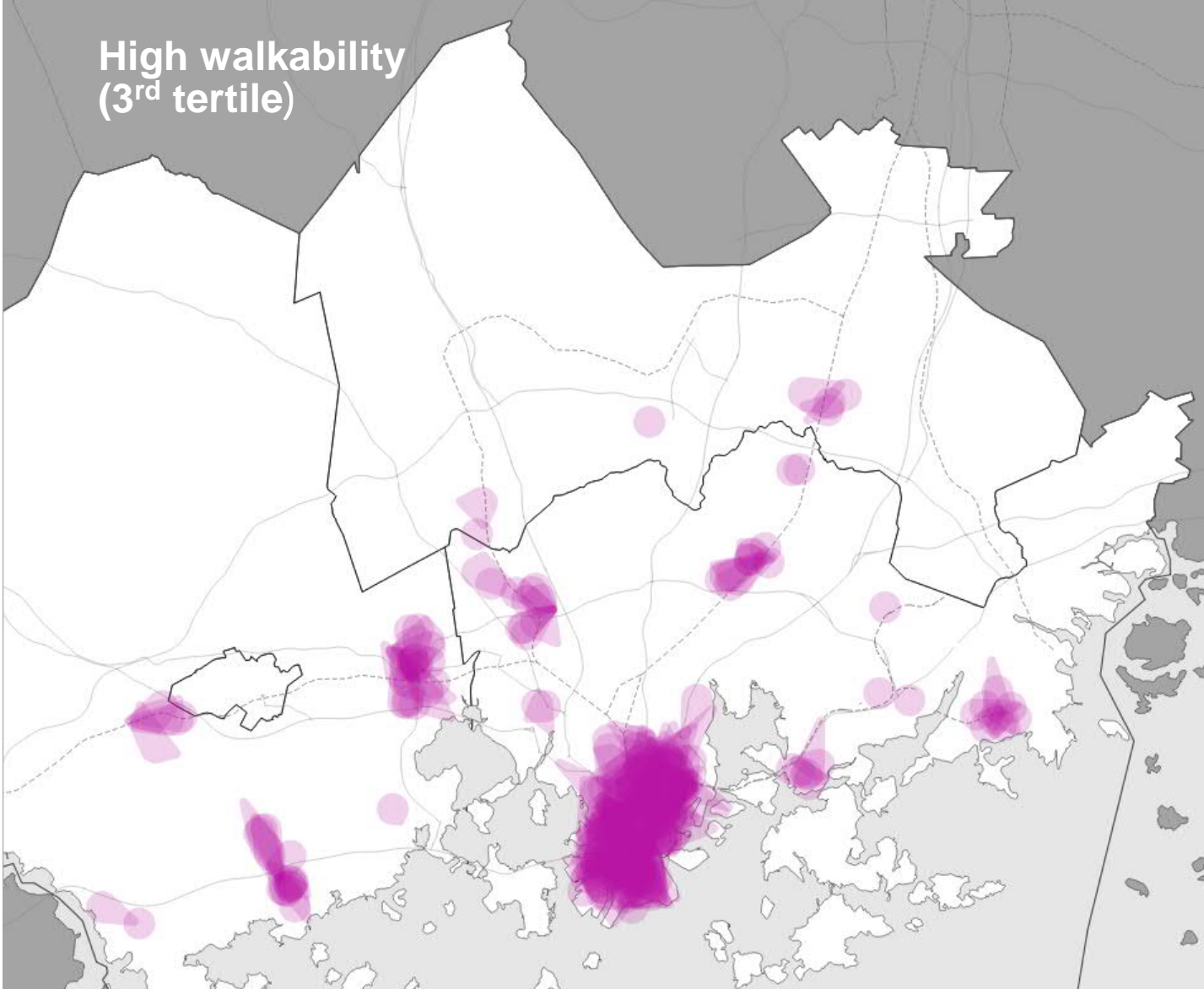
41%

of distance

49%

of trips

High walkability
(3rd tertile)



Walking to
leisure-time
destinations:

40%
of distance

52%
of trips

Utilitarian
destinations:

59%
of distance

66%
of trips

**Young adults'
preferences for walkable
residential environments**

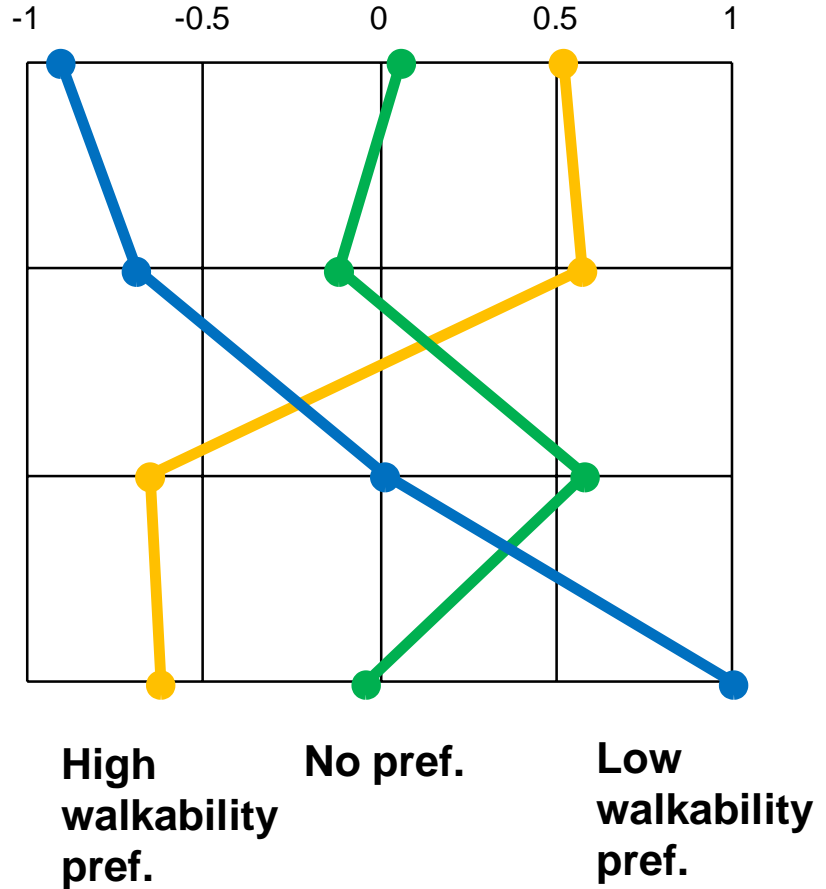
	Factor 1	Factor 2	Factor 3	Factor 4
I can be comfortable living in close proximity to my neighbors	.631			
I like living in a neighborhood where there is a lot going on	.523			
I am comfortable riding with strangers	.440			
Living in a multiple family unit would not give me enough privacy	-.375			
Having shops and services within walking distance of my home is important to me		.691		
I don't mind travelling a bit longer for the services I use		-.613		
I want to live close to vast nature and recreational areas			.734	
I appreciate tranquillity and calmness in a residential area			.550	
I like to have a large yard at my home			.355	
I appreciate good travel connections by car				.718
I don't mind getting around using public transportation				-.492
For short distances, I prefer getting around in an active way such as walking or cycling				-.447

Factor 1 - Residential density

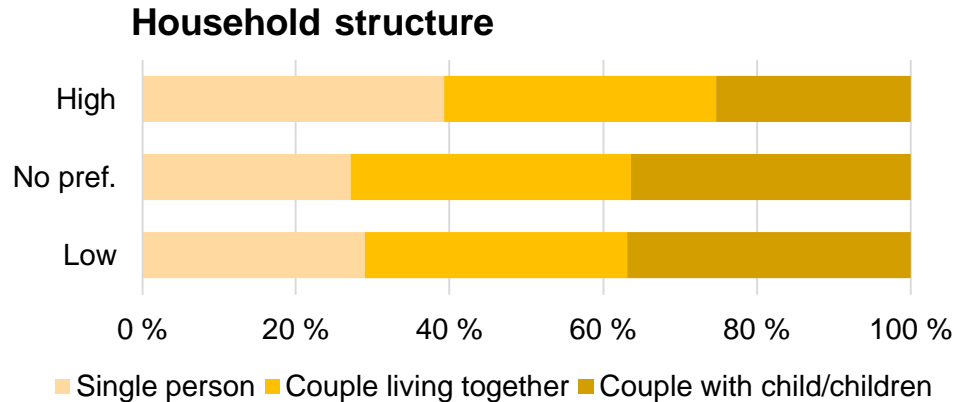
Factor 2 - Closeness to shops and

Factor 3 - Tranquility and access to recreational areas

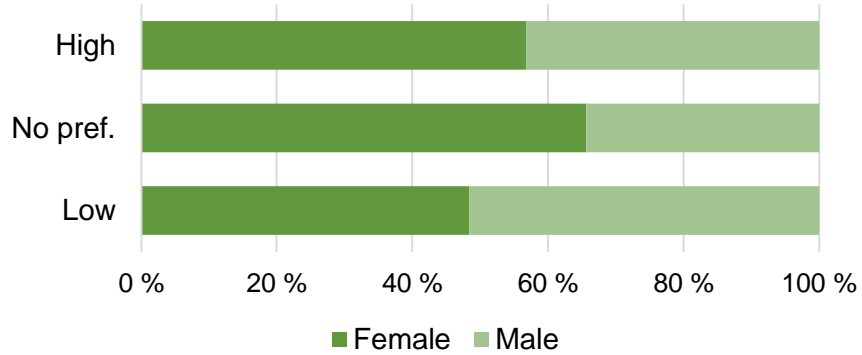
Factor 4 - Car dependency



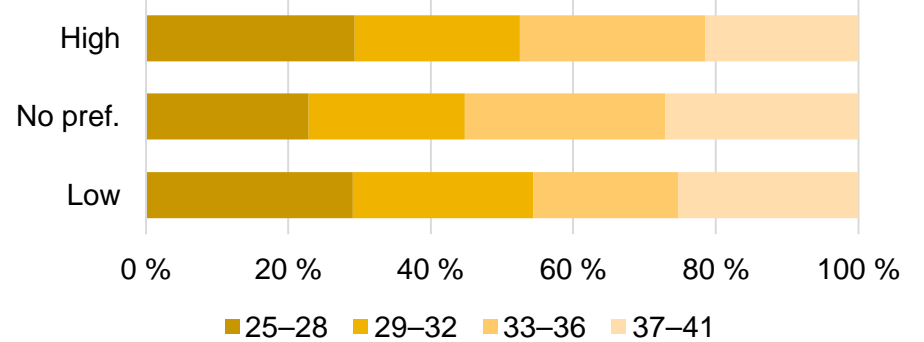
Walkability preference clusters by personal characteristics



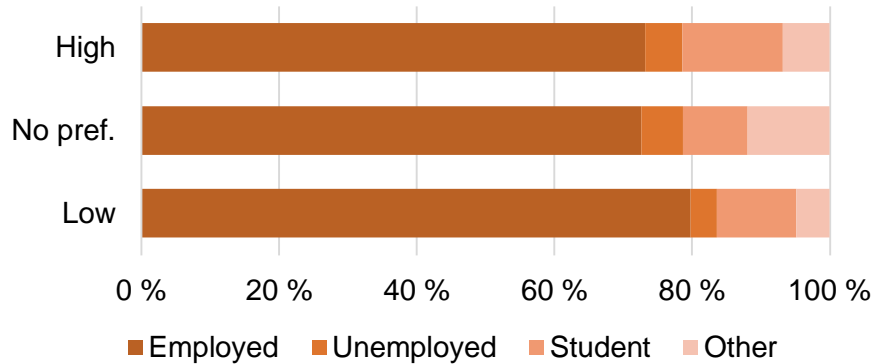
Gender



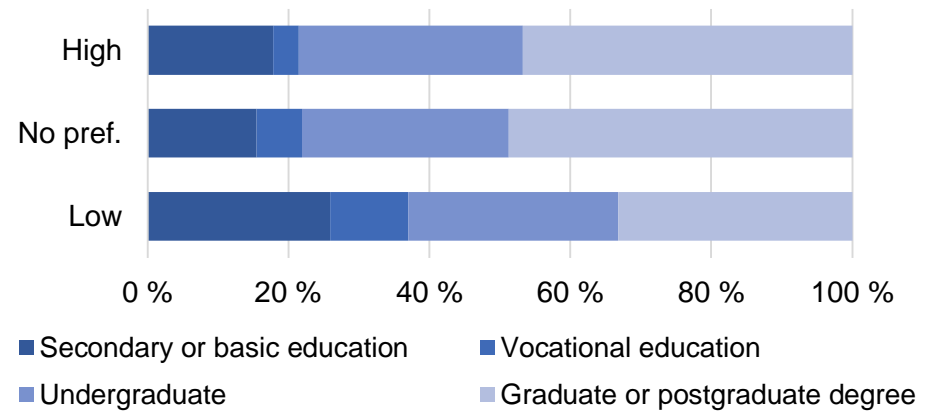
Age



Employment

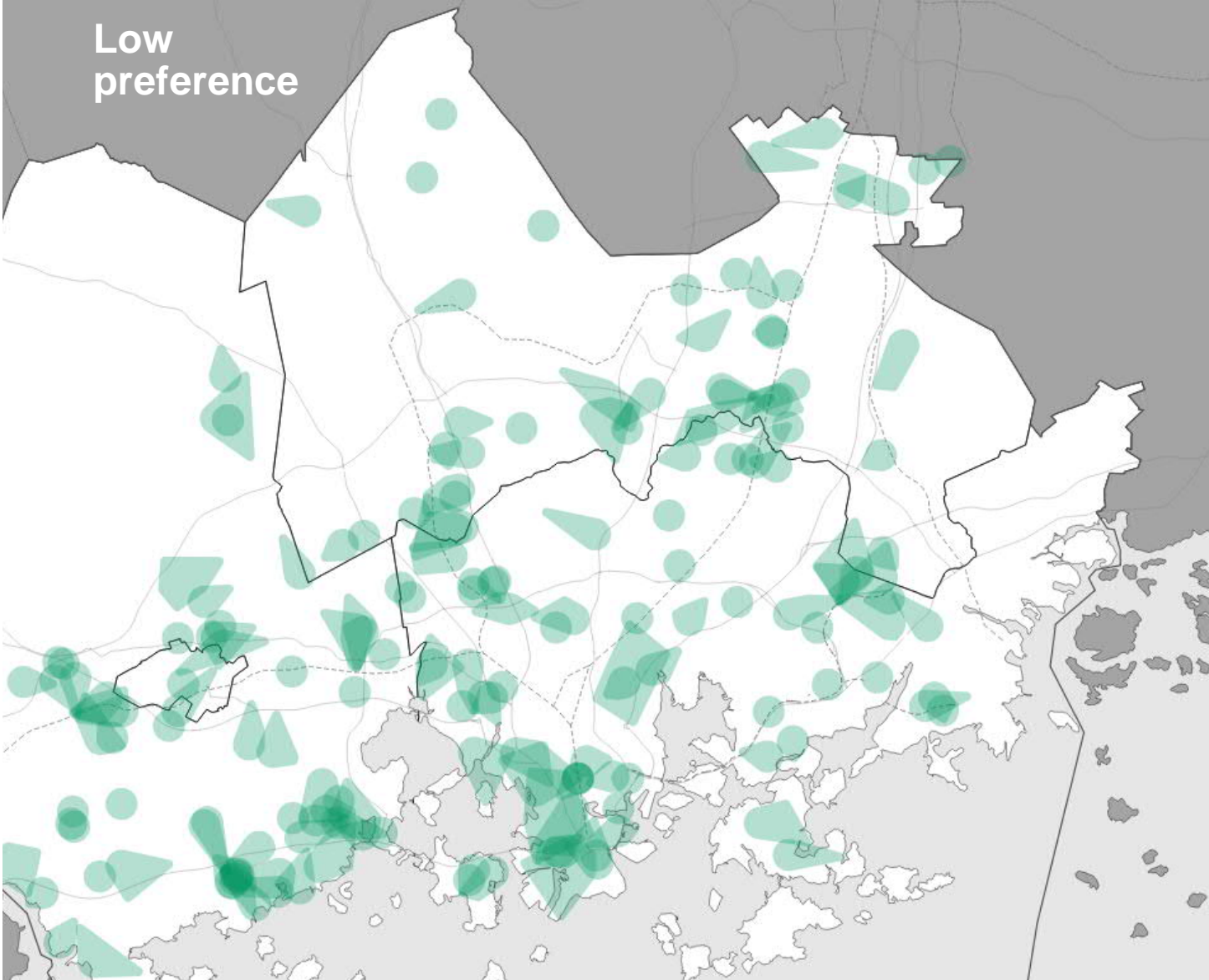


Education



- **Significant in-group differences in gender, employment, household structure, and education level**
- **No significant differences in age**

Low
preference



**Walking to
leisure-time
destinations:**

22%

of distance

37%

of trips

**Utilitarian
destinations:**

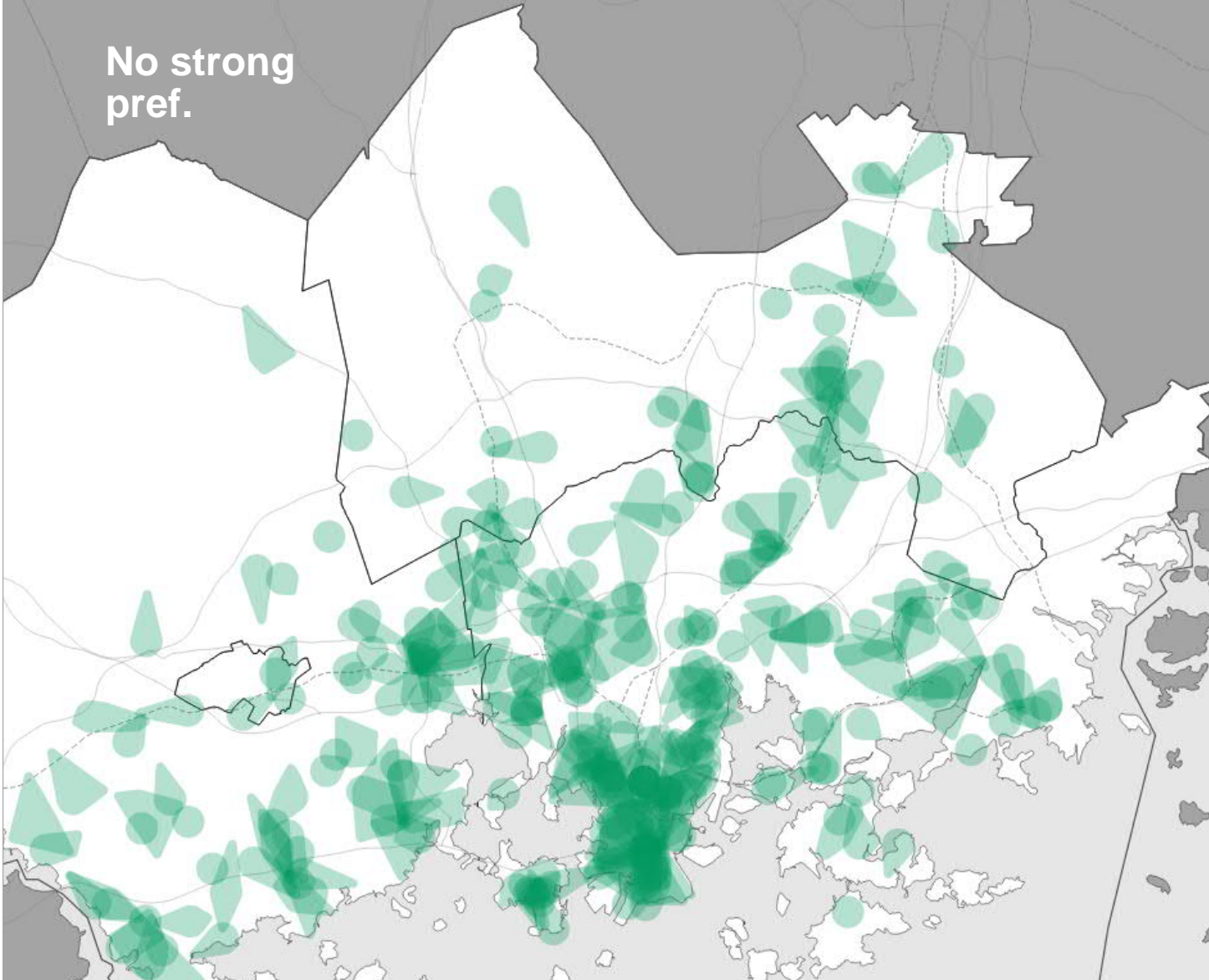
31%

of distance

39%

of trips

No strong
pref.



**Walking to
leisure-time
destinations:**

27%

of distance

41%

of trips

**Utilitarian
destinations:**

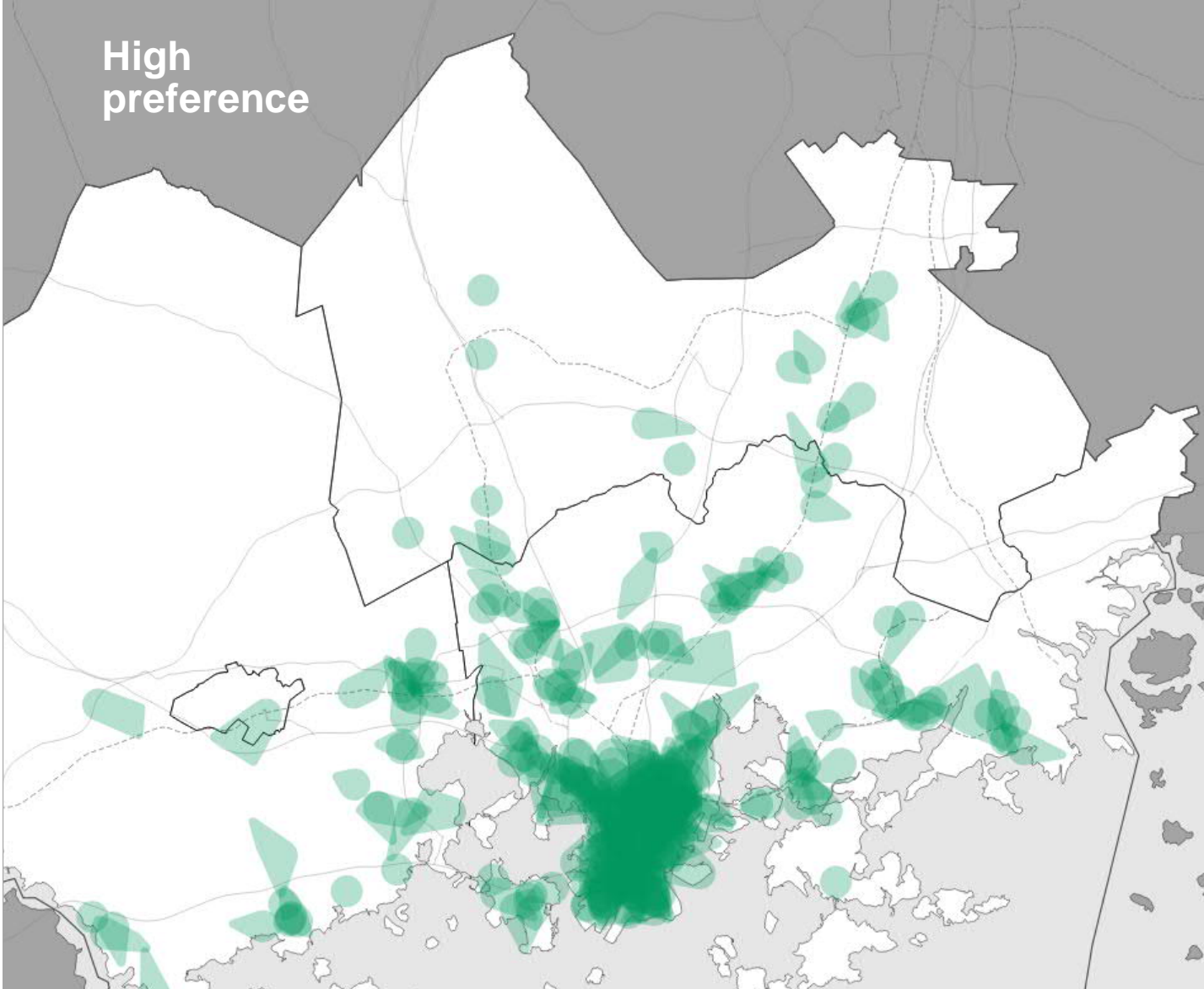
36%

of distance

43%

of trips

High
preference



Walking to
leisure-time
destinations:

38%

of distance

52%

of trips

Utilitarian
destinations:

57%

of distance

64%

of trips

	Leisure-time destinations		Utilitarian destinations	
	Trips (OR)	Distance (OR)	Trips (OR)	Distance (OR)
Low observed walkability				
Low walkability pref.	0.34	0.25	0.10	0.10
No preference	0.40	0.30	0.21	0.19
High walkability pref.	0.50	0.44	0.36	0.35
High observed walkability				
Low walkability pref.	0.43	0.39	0.47	0.43
No preference	0.53	0.45	0.57	0.57
High walkability pref.	Ref.	Ref.	Ref.	Ref.

Significant values ($p < 0.05$) bolded

OR = Odds Ratio

- **Different interactions by destination type**
- **Walking to utilitarian destinations had the strongest associations with **observed walkability****
- **Walking to leisure-time destinations was associated both with **walkability preference** and **observed walkability****

- **The results support the interconnectedness of both intrapersonal and built environment characteristics in facilitating walking**
- **Walkable neighborhoods increase the likelihood of walking to everyday errands (e.g. grocery shopping, daycare) – also for residents that prefer more car-dependent neighborhoods**

Thank you!

Kajosaari, A., Hasanzadeh, K., & Kyttä, M. (2019) Residential dissonance and walking for transport. *Journal of Transport Geography*, 74, 134-144.

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