

# Research Design Presentation

ENVS441: Qualitative Research Methods

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# Introduction

Where Do Ethno-Linguistic Groups Meet? How Copresence during Free-Time Is Related to Copresence at Home and at Work

Toomet, O. et al. (2015)

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Toomet, O. et al. (2015)

- Analyses ethnic segregation in Tallin, Estonia
- Estonian majority with a mainly Russian speaking minority
- Looks at segregation in work, places of residence, and free time
- Mobile phone data used to track segregation

# Methods Overview

- Language spoken determined through phone SIM settings
- 'Call Detail Records' used, tracks time and location when a call or text made
- When individuals made a call or text in a shared location, at a particular time, this was considered to be co-presence
- Home and work locations inferred from the most frequent location during home and work hours
- Free time activities were determined through proximity to work and home locations

# Methods Overview

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$$p_{ij} = \sum 1(c_{jk} \in C_i)$$

$$h_i = \frac{s_i}{s_i + d_i}$$

$$h_i^F = \alpha_0 + \alpha_1 h_i^R + \alpha_1 \rho_i + \alpha_2 h_i^W + \alpha_2 \omega_i + \beta' \mathbf{X}_i + \epsilon_i$$

# Results

Type	Place by type (%)				Homophily (%) by place	
	Estonian	Mixed	Russian	All	Estonian.1	Russian.1
Home	38.1	44.9	47.1	43.5	50.2	65.5
Work	32.9	30.5	34.1	32.4	56.1	65.2
Free	29.0	24.6	18.8	24.1	58.3	54.4

Work and Home dissimilarity Index: ( $DF^W = 0.46$ ) and ( $DF^R = 0.41$ ).

Free-time Dissimilarity Index:

$$(DF^F = 0.24)$$

# Results

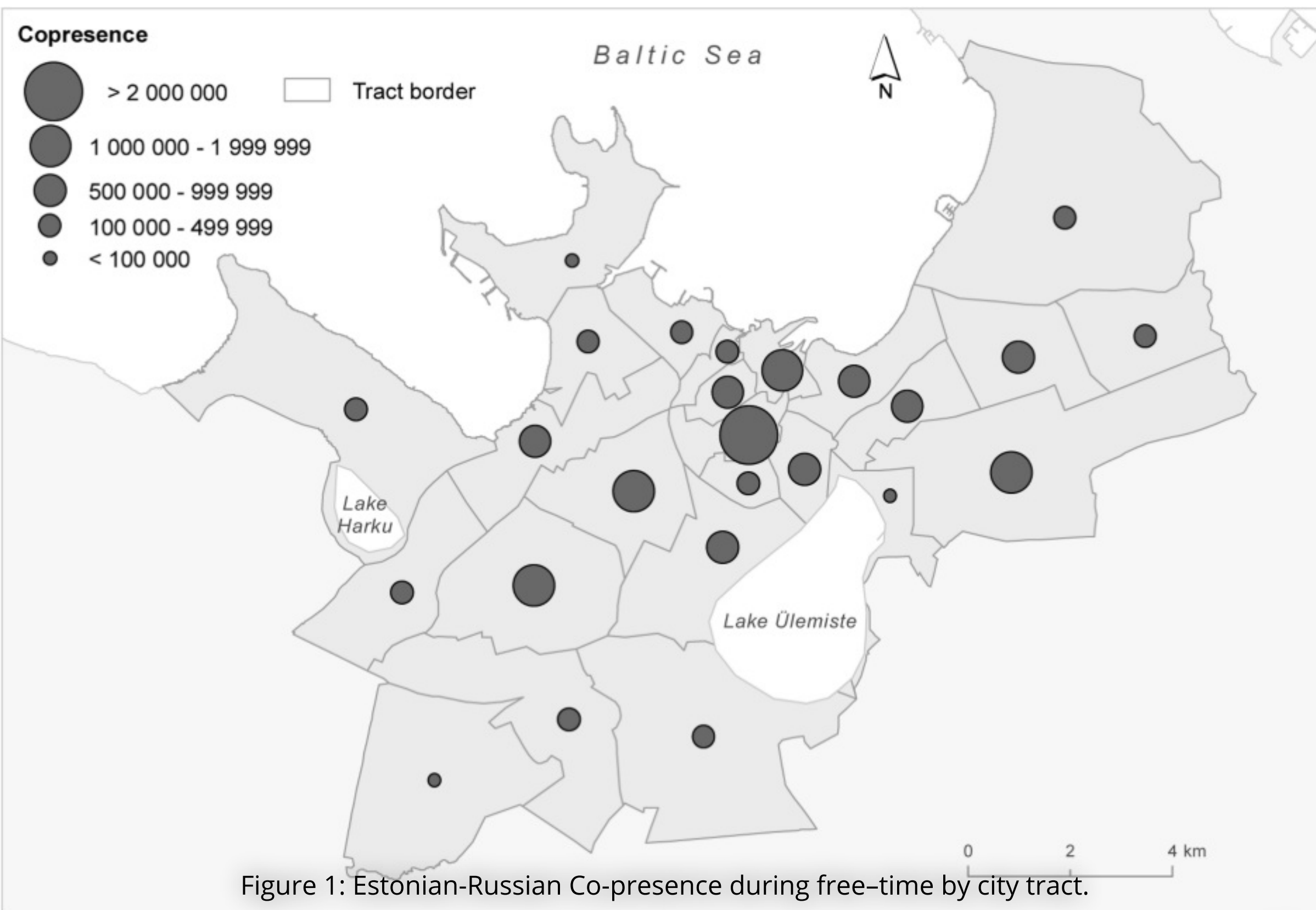
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Work and Home dissimilarity Index: ( $DF^W = 0.46$ ) and ( $DF^R = 0.41$ ).

Free-time Dissimilarity Index:

$$(DF^F = 0.24)$$

1. Highest levels of meetings observed at home
2. Higher similarity (meaning segregation) at home and work
3. Free time mixing higher, especially in the city centre





# Critique

- Using mobile phone data allows for a large amount of quantitative data to be analysed
- Due to how co-presence is calculated, it more accurately represents the potential for people to meet within a one hour time-frame rather than co-presence
- The affects of co-presence are not considered. Does co prescence lead to improved interactions between groups, or does it increase hostility?

"More research is needed here." (Toomet, O. et al., 2015)."

# Mixed Methods

Bagheri, N. (2014). Mapping women in Tehran's public spaces: a geo-visualization perspective.

Peters, K., & de Haan, H. (2011). Everyday spaces of inter-ethnic interaction: The meaning of urban public spaces in the Netherlands.

- How does observed co-presence relate to the public opinion of ethnic divide.
- Incorporate Quantitative GIS (QGIS) methods to produce a mixed methodology
- Qualitative data to compliment the quantitative data
- Directed interview questioning to determine public opinion on the level of co-presence

## References

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