
Native-origin families with children as
drivers of ethnic residential segregation

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Väestötieteen jatko- ja täydennyskoulutusseminaari, 8-9.11.2018

Back- ground

- × **Starting point: residential segregation may have negative effects on the segregated population groups or on the society as a whole.**
- × **Previous studies suggest that 1) ethnic residential segregation is pronounced among children or among households with children, 2) intra-urban migration of the native-origin population increases ethnic segregation, and 3) schools' catchment areas may have a role**
 - **But: lack of research directly analyzing how residential mobility by type of household is related to schools' catchment areas**
- × **AIM: To provide more detailed evidence on ethnic segregation by the type of household & analyze residential mobility of different types of households & try to determine the effects of school catchment areas on this mobility**

Research questions

1. How does the residential segregation between Finnish-origin and non-Western-origin households in Helsinki differ by the household type?
2. Are there differences in levels of ethnic segregation by household type after controlling for income?
3. Are the migration flows of the Finnish-origin households with children below school-starting age more strongly directed towards school catchment areas with lower shares of immigrants than the migration flows of other types of Finnish-origin households?
4. Are the moves of Finnish-origin families with children structured by the catchment areas of elementary schools?

Data

- × Longitudinal individual-level register-based dataset from Statistics Finland
 - Contains the whole population of Helsinki annually between 2005 and 2014
 - Residential location: 250 m * 250 m grid cell
 - Catchment areas (N=85-89) are approximated by combining grid cells
- × Household-level analyses
 - ‘Finnish’ origin: parents of all household members were born in Finland, all household members have Finnish as the mother tongue
 - ‘Non-Western’ origin: parents of all household members were born outside ‘Western’ countries and Eastern Europe (or in the absence of that information, the person him/herself)

RQ 1-2 Methods

- × **Calculation of segregation indices: index of systematic dissimilarity (Åslund and Nordström Skans 2009)**
 - Ethnic segregation among different types of households, comparing observed segregation to that expected under random allocation
 - How much ethnic segregation remains after ‘controlling’ for income?
- × **Decomposition of the information theory index H into segregation between catchment areas and segregation within catchment areas (cf. Owens 2017)**
 - whether a larger share of ethnic segregation is between catchment areas among households with children

RQ 3

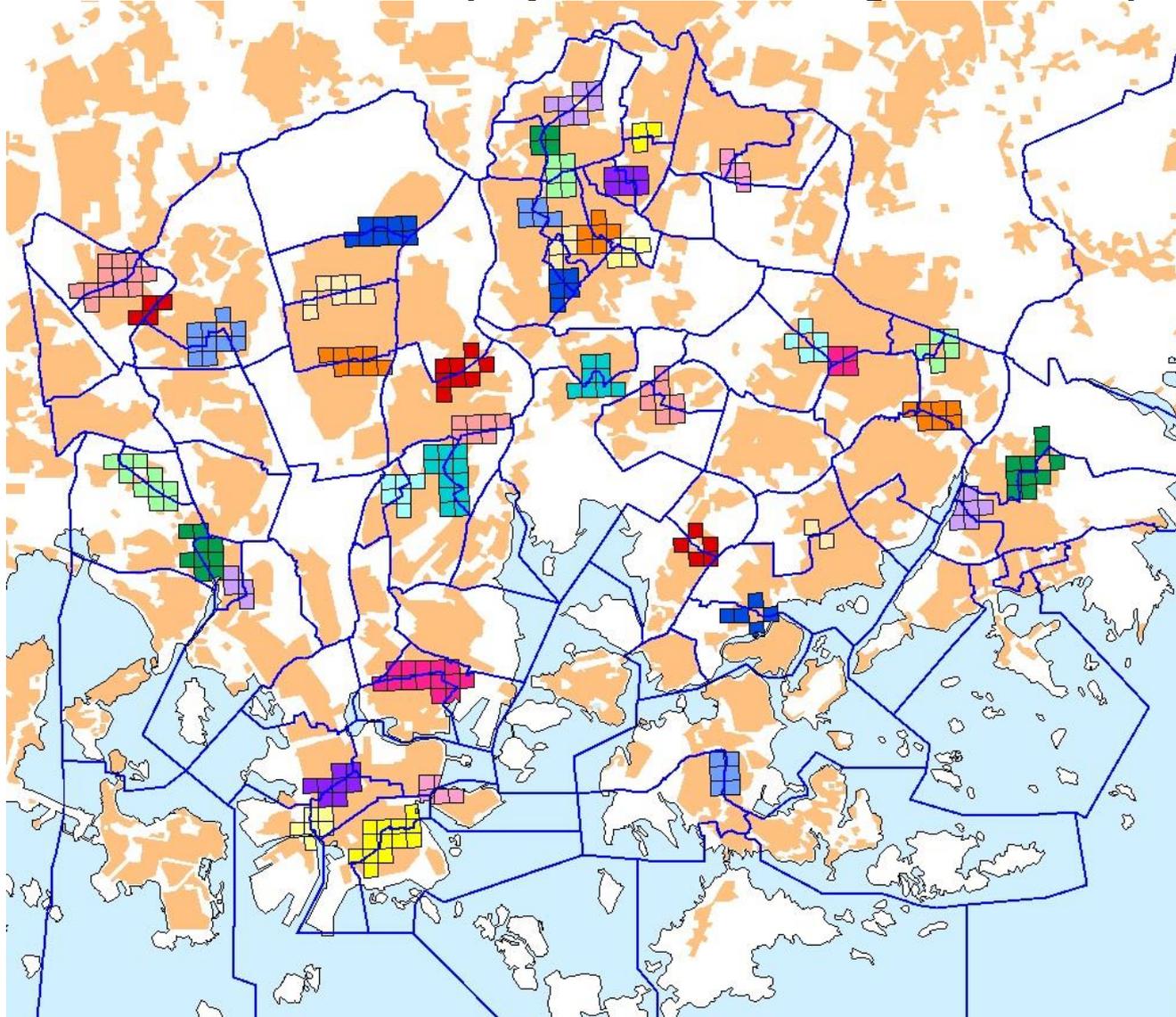
Migration flow analysis

- × **‘Gravity’ model of migration to describe the migration flows between the catchment areas (cf. Bakens et al. 2018) in 2006-10 & 2011-14**
 - Negative binomial regression
 - **Outcome:** (log) number of mover households between each catchment area
 - **Main explanatory variables:** difference in standardized shares of non-Western-origin children in the 7-15-years-old population, (log) distance between the catchment areas, (log) number of (family) dwellings in the destination area, (log) number of households of the given type in the origin area in the end of the previous year (as an offset term)
 - **Other control variables:** (log) distance of the destination area to the city center, % of (family) dwellings in apartment buildings in the destination area, % of (family) dwellings in social rental housing, % of dwellings being family-size dwellings (at least two bedrooms)

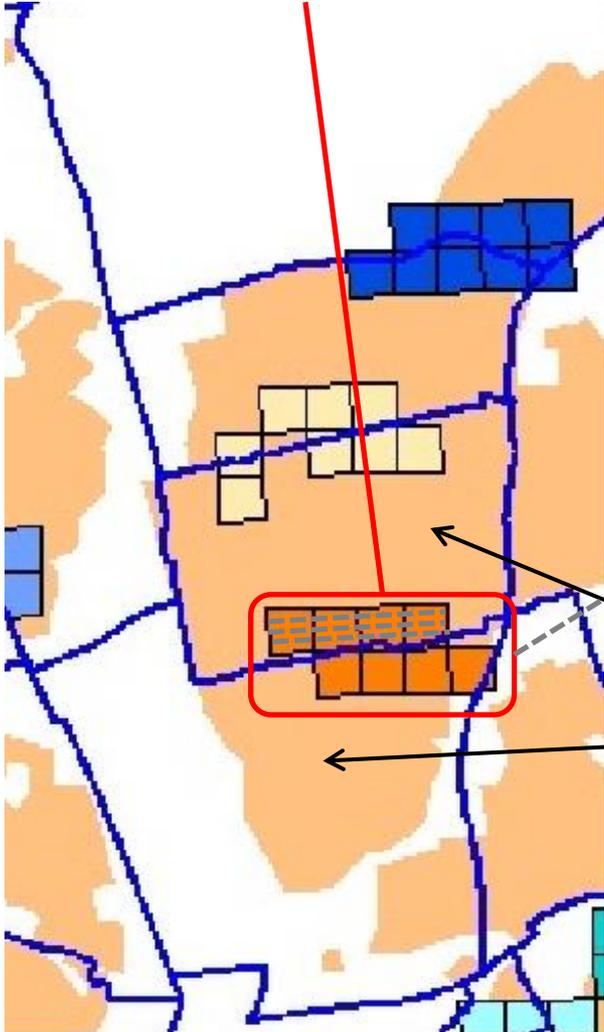
Main findings of segregation and migration flow analyses

- × **Ethnic segregation is stronger among households with children than among childless households.**
 - This seems to be related to a large extent to higher income of Finnish-origin households with children as compared to similar non-Western-origin households.
 - In childless households, stronger segregation among younger households & two-person households
- × **Intra-urban mobility flows between catchment areas re-create ethnic segregation, and in the case of Finnish-origin households, this concerns particularly (higher-income) households with children.**

Final analysis: a boundary discontinuity analysis of the significance of catchment area borders (only for the Finnish-origin households)



Boundary region



Control variables measuring mostly characteristics of the housing stock on the different sides of the boundary region

Catchment area predictors calculated from the non-boundary-region grid cells before the study period

- Including, as a test, the % state-subsidized rental dwellings

RQ 4

Boundary dis- continuity analysis

- × Fixed-effects negative binomial regression
- × Unit of analysis: a group of grid cells on one side of a particular catchment area boundary (years pooled)
- × Outcome (for each household type): the number of households of this type moving from anywhere in Helsinki to vacated dwellings
 - Offset: the total number of vacated dwellings
- × The main explanatory variable: standardized share of non-Western-origin children in the 7-15-years-old population of the catchment area
- × The fixed effect of the whole “boundary region” controls for the unobserved local characteristics shared by both sides of the boundary
- × Control variables: (log) distance of the destination area to the city center, % of dwellings in apartment buildings, % of dwellings in social rental housing, % of vacated dwellings being family-size dwellings (at least two bedrooms)

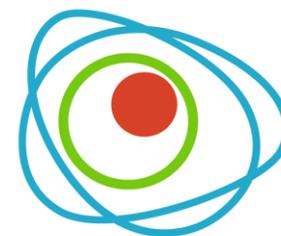
Ways in which we attempt to measure causal effects

- × **Addressing other relevant locational factors besides the catchment area characteristics**
 - The boundary region fixed effect controls for those constant unobserved factors that affect outcomes similarly in both sides of the boundary
 - Variables controlling for differences in the different sides of the boundary especially in housing stock
- × **Endogeneity between the explanatory catchment area factor and residential mobility**
 - Temporal ordering: explanatory variables are measured before the study period
 - Measurement of these factors from different grid cells than those under analysis
 - Using % state-subsidized rental dwellings as an explanatory variable, as it should not be affected by the process we study
- × **Some concerns remain!**

Conclusions

- × Ethnic segregation is stronger among households with children than among childless households.
 - This seems to be related to a large extent to higher income of Finnish-origin households with children as compared to similar non-Western-origin households.
- × Intra-urban mobility flows re-create ethnic segregation, and this concerns particularly (higher-income) households with children.
- × There seem to be causal effects of the catchment area boundaries, but they appear to affect high-income households generally (except for singles)
 - “Social multiplier” effect on housing prices?
 - Detailed income measurement → more support for a “preference” effect among households with children
- × We can’t determine the exact catchment area characteristic having effects
- × Possible additional analysis: % foreign-language pupils of the school of the catchment area

Thank
you.



URMI

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