

Using register data to understand the importance of sociodemographic composition

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Using register data to understand the importance of sociodemographic composition

- Today's talk – how can register data help us understand how people are affected by being exposed to one another.
- Sociodemographic composition – the characteristics of people in a certain context in terms of e.g. income, education, background etc.
- Three examples from my recently published or ongoing research

What does it have to do with register data?

- An important starting point for sociology: people affect each other
- How they affect each other is likely to depend on the characteristics of these people: inspired, encouraged, disencouraged, helped
- In the absence of register data, scholars rely on survey data, making these questions hard to tackle
- Individuals who are randomly selected, in surveys, become uprooted from their social environments, meaning that we need to assume that the whole can be understood by studying the individual parts in isolation from one another (Hedström 2005)

How can register data help?

- Even if we don't know who people interact with in registers, we know who they **can** interact with
- We know who are part of the same extended family, residential building, school, workplace, neighborhood, or even förband in military service
- Much of my research: How does exposure to people with certain characteristics in these arenas affect different life outcomes?



Three studies

- How does the resources of adults in your **neighborhood** when you grow up affect your later life income?
- How does the characteristics of (parents of) children in your **school** affect your academic aspirations?
- How does the characteristics of the people you do **military service** with affect your later partner choice?

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JOURNAL ARTICLE

Escaping one's disadvantage? Neighbourhoods, socioeconomic origin and children's adult life outcomes

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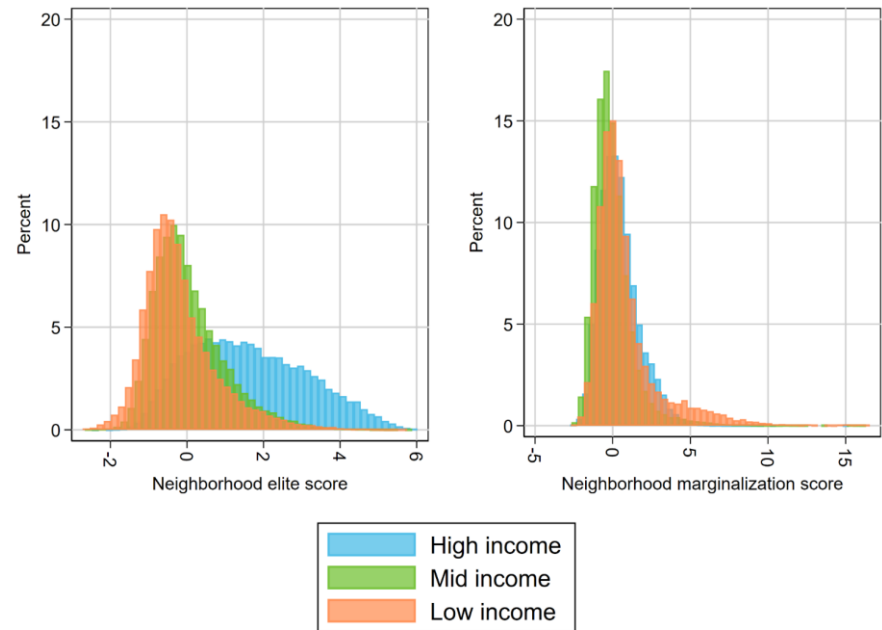
Neighborhood effects on socioeconomic outcomes

- How are the characteristics of your neighbors when you grow up associated with your income when you are aged 30-34?
 - Can resourceful neighbors compensate for lack of parental resources?
- Follow 5 cohorts born 1983-1987 from age 10 to age 30/34
- 2 outcomes capturing income
 - social welfare at age 30
 - being in the top income decile age 30-34

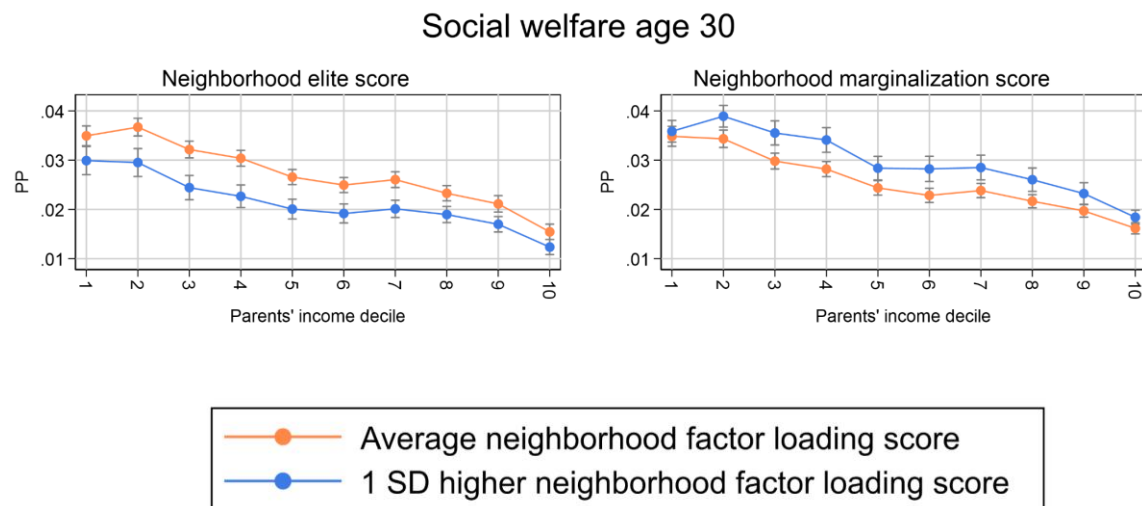


What kinds of neighborhoods do kids from different backgrounds live in at age 15?

- **Elite neighborhood**
Many highly educated and high-income neighbors
- **Marginalized neighborhood**
Many unemployed and few middle class neighbors



Probability of being a welfare recipient at the age of 30, by parents' income and neighborhood characteristics



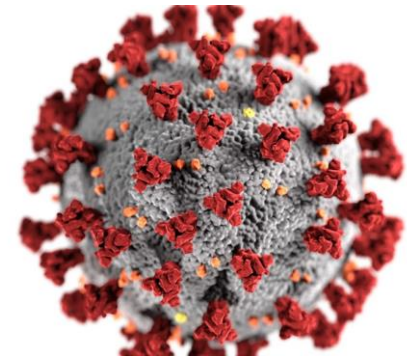
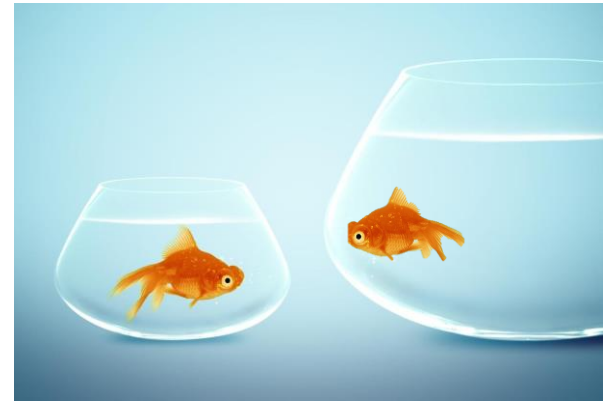
Predicted Probabilities from 4 Linear Probability Models. Controlling for year of birth, gender, immigrant background, separated parents, and SAMS fixed effects

School composition and academic decisions (ongoing work with E. Rosenqvist)

- How are academic ambitions affected by school peer composition?
- Academic ambitions in registers => does a 9th grader apply to academic upper secondary education (given that they're eligible to do so)?
- Research questions
 - How is the probability of applying to an academic upper secondary education affected by the composition of school peers?
 - Are students from different socioeconomic backgrounds (e.g. by parents' education) affected differently?

School composition and academic decisions (ongoing work with E. Rosenqvist)

- Two contradictory mechanisms
 - Big fish - small pond: Children view their skills in relation to the skills of other children
 - Contagion mechanism: Children are positively affected by the ambitions/skills of their peers

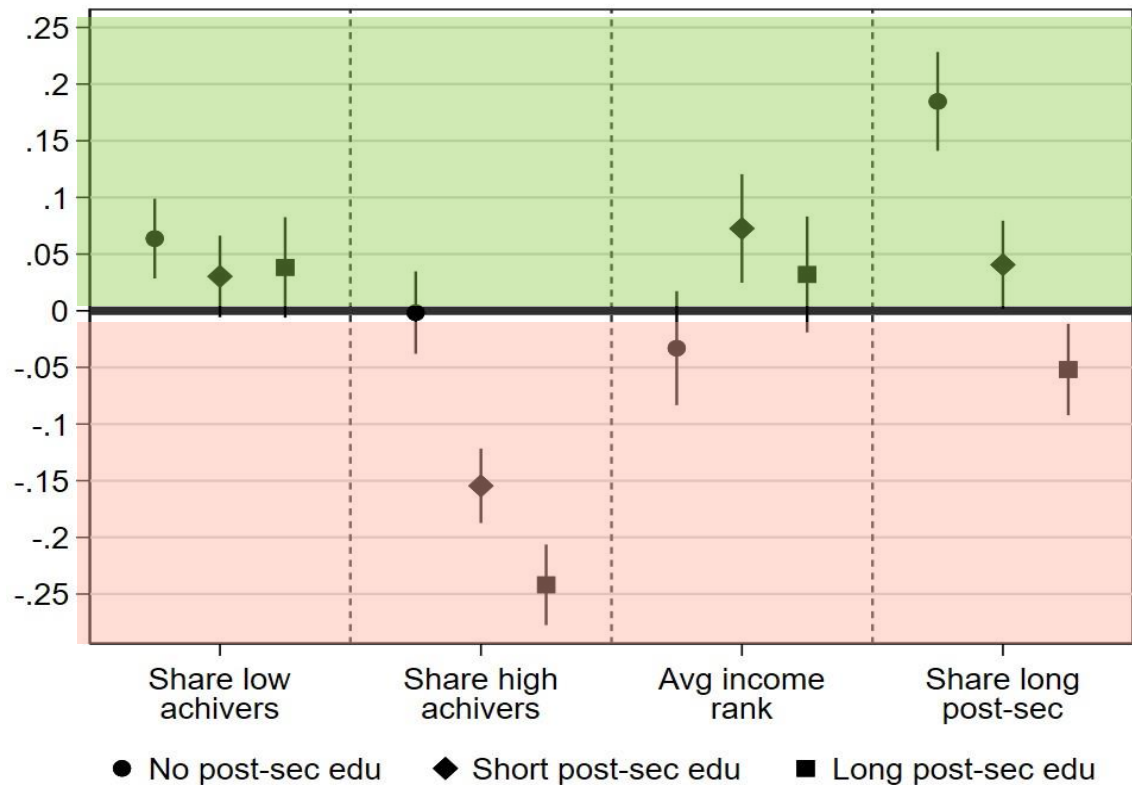


Data

- The entire population of students attending 9th grade between 2013 and 2017 (most born between 1998 and 2002)
- Four peer characteristics
 - Share low achievers
 - Share high achievers
 - Average income rank among parents
 - Share whose parents have long post-sec. ed.

Probability to select academic tracking by school composition

- Green values = the characteristic **increases** probability of academic tracking



Only those who are eligible for academic programs. We compare children who are similar in term of grades, sex, and immigrant background, and adjust for selection into schools with school fixed effects

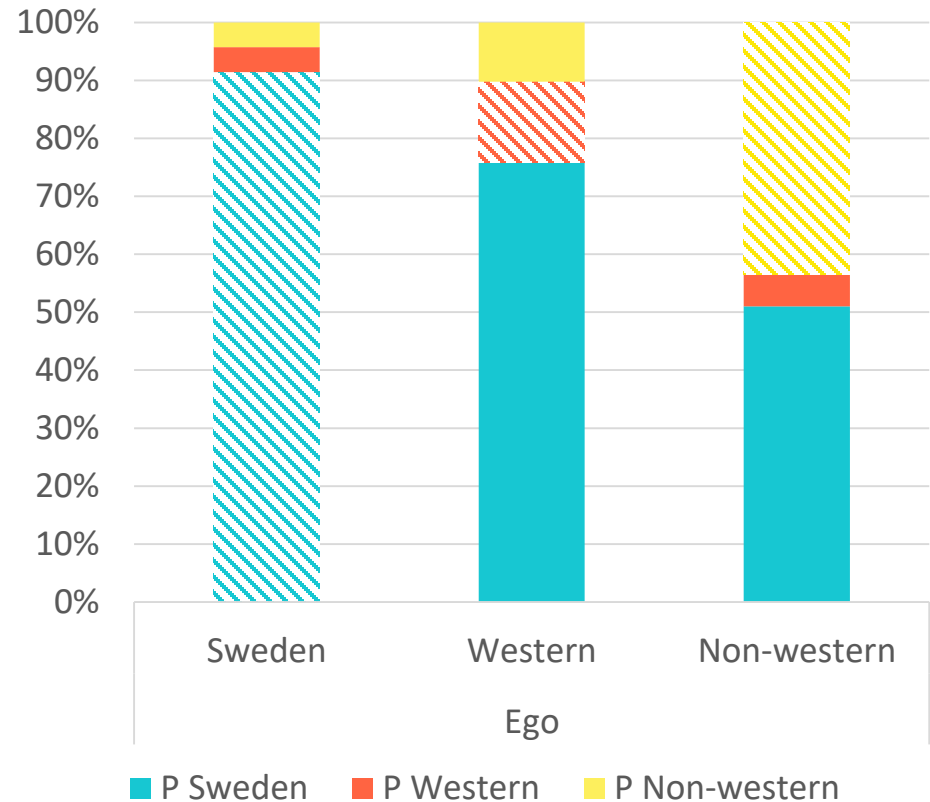
Mandatory civil service and its impact on social cohesion (ongoing work with S. Aradhya and S. Valdez)

- How can social cohesion be fostered in segregated societies?
- Intergroup contact theory (Allport 1954): Positive contact between individuals from different groups promotes positive intergroup attitudes
- We test whether military service can promote such positive intergroup attitudes across ethnic groups in Sweden



Mandatory civil service and its impact on social cohesion (ongoing work with S. Aradhya and S. Valdez)

- “Positive intergroup attitudes across ethnic groups” in register data? Partnering with someone from another immigrant background
- Hypothesis: Military service and exposure to outgroup members during military service increase the likelihood of cross-ethnic partnerships



Data

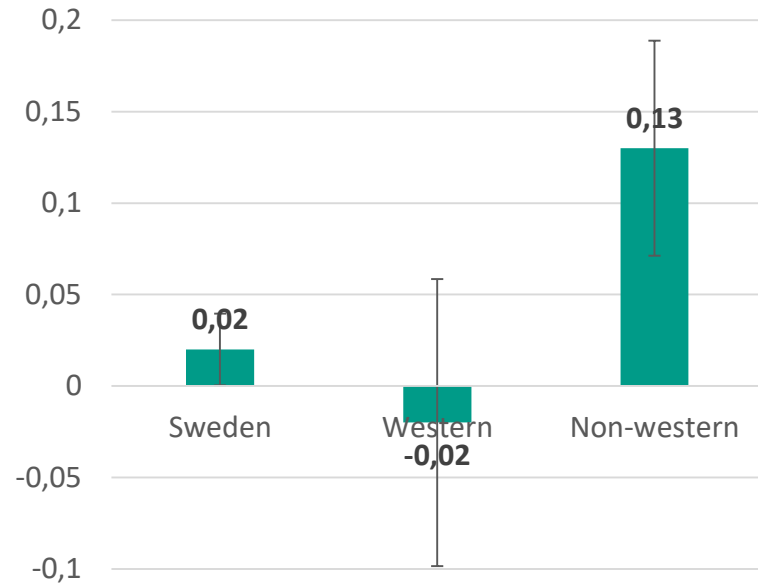
- Follow all men born 1973-1978, Swedish citizens at age 17, and who had ever had a registered opposite-sex partner by age 37
- Combine data from e.g. taxation registers, riksarkivet, krigsarkivet
- Doing military service → receive värnpliktsersättning age 19 or 20
- Exposure in military service → the share of people of same rank in your förband and year who are of different origin than you



Military service and outgroup partnering



Share of outgroup in förband and outgroup partnering (only those doing military service)



Models control for year of birth, three test scores at conscription, neighborhood ethnic and educational composition at age 18, mother's education (staff category, year of military service)

Concluding remarks

- None of these studies would be possible without register data
- A lot happening in this research domain – connecting different areas of exposure, learning more about what contexts, periods and granularities matter the most, learning more about the actual interaction between people, improving methods to deal with self-selection into contexts
- Overall: Compositional effects important case where register data enables us to ask and answer questions that we wouldn't have been able to tackle otherwise

Questions and comments welcome!

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