Towards a typology of childhood internal mobility: do migrants and non-migrants differ?

Joeke Kuyvenhoven & Helga A.G. de Valk

Netherlands Interdisciplinary Demographic Institute/KNAW/University of Groningen

Abstract

Internal mobility during childhood has, according to the few existing studies in Europe, an adverse impact on child development and well-being. However, research on internal mobility still deals with methodological challenges and data limitations. Therefore little is known about the true effects of childhood mobility. To understand mobility effects, it is first of all important to acquire more knowledge on differential childhood mobility patterns and its multidimensional nature (frequency, timing and distance). This study makes a first step in enhancing our understanding of childhood mobility by mapping patterns of residential moves of children aged 0-16 residing in the Netherlands. Since previous descriptive studies find higher internal mobility rates among migrant groups compared to the majority population, the main aim of this study is to assess whether differential patterns of mobility in terms of distance, timing and number of moves can be identified for different migrant origin groups and those without a migrant background. A combination of cluster analysis and logistic regression models is applied to develop a typology of childhood internal mobility using longitudinal full population register data of Statistics Netherlands. The typology is used to understand which children are more prone to mobility and what characteristics may indicate potential vulnerability in mobility effects in early and later life.

Extended Abstract

Introduction

It is widely recognized that the socioeconomic environment in which children grow up influences later life chances. Underlying this association is a complex set of interrelated individual, contextual and structural factors (Jelleyman & Spencer, 2008). From a life course perspective an individuals' life course is considered a "sequence of socially defined, age-graded events and roles" (Elder Jr & Shanahan, 2007, p. 667) and it is furthermore argued that the accumulation of (dis)advantages across the life course increases inequalities (Shuey & Willson, 2008). From this perspective it can be argued that internal mobility during childhood is an important life event impacting the uneven accumulation of (dis)advantage (Findlay, McCollum, Coulter, & Gayle, 2015).

Although most previous empirical studies (that by and large focus on the US) show adverse outcomes of childhood residential mobility for child well-being (see Jelleyman & Spencer, 2008

for a review), research still fails to fully map long-term patterns, influences and consequences. Most studies build on cross-sectional data where residential mobility is often simplified to being mobile or immobile. These simplified dichotomous measures fail to account for different and dynamic aspects of internal mobility (i.e. frequency, timing, distance) as well as the accumulation of (dis)advantage across the life course. With an increasing availability of longitudinal data, there have been recent advances in studying these longitudinal processes of residential mobility sequences (Coulter & Van Ham, 2013; Falkingham, Sage, Stone, & Vlachantoni, 2016; Lacroix & Zufferey, 2019). Despite these recent advances, there is still limited knowledge on the different aspects of residential mobility patterns during childhood, the variation in these patterns for different groups, and their long-term consequences.

Research on internal mobility furthermore still deals with methodological challenges that might cause an overestimation of effects (see Garboden, Leventhal, & Newman, 2017 for a review). First of all, there is often inconsistency in the operationalisation of residential mobility in terms of frequency, timing and distance. Since these conceptualisations capture different aspects of mobility, they are likely to result in different estimations (Garboden et al., 2017).

A second challenge in research on internal mobility is to capture selection bias. Since residential patterns are not random, the observed mobility effects could actually be caused by unobserved variables. The few studies using improved methods to account for this selection generally find smaller effects of residential mobility on child development (Garboden et al., 2017). Furthermore, studies analysing differences between mobile and immobile groups find that people with a migrant background are more likely to move compared to the native population. Finney and Simpson (2008) find for the UK context that these ethnic differences can largely be explained by demographic and socioeconomic differences between these groups, while Andersson (2012) finds different migration rates for migrant groups regardless of these compositional differences for the Swedish context. These contradicting findings imply that it is first of all important to gain more knowledge on the residential mobility patterns of different groups to enhance our understanding of the selection into mobility and ultimately advance our knowledge for whom childhood residential mobility might have adverse impacts on adult well-being.

The abovementioned methodological challenges as well as the limited available information on childhood residential mobility implicate that in order to assess any mobility effects it is first of all important to acquire more knowledge on differential residential mobility patterns during childhood for different migrant groups. This study will focus on the Dutch context in studying the following research questions: *Can different patterns of internal mobility in terms of distance, timing and number of moves be identified for children with different migrant backgrounds and those without a migrant background?*

Data and methods

Data and sample

To map the complete internal mobility patterns of current adults during their childhood years between ages 0-16 it is necessary to use longitudinal data. The Dutch linked population register-data from the System of Social Statistical Datasets (SSD) includes social and spatial data for the entire Dutch population for the period 1995-2019. With this register-data we can map childhood internal mobility for nine cohorts of children born between 1995 and 2003. Analysing the childhood mobility patterns for different cohorts allows us to not only study age differences, but also uncover possible differences between cohorts and structural impacts (e.g. the global economic crisis) on mobility patterns (Findlay et al., 2015). The research population will consist of all children who were aged 16 sometime in the 2011-2019 period. Applying this method, we choose to include first generation immigrants who were not born in the Netherlands while excluding children born in the Netherlands who emigrated or died before age 16.

Operationalisation

The main aspects of *internal residential mobility* that will be analysed are frequency, timing and distance. Data including all moving-instances and addresses will be used to identify mobile and immobile children and calculate the *frequency* as the number of moves between ages 0-16. This dataset will be matched to personal data to calculate the age of moving *(timing)* and to data on buildings (postal codes, coordinates) to calculate the *distance* moved. Besides these main aspects of residential mobility, two measures of stability will be included: *residential stability* measured as the years between two moves and *place stability* measured as the years within a neighbourhood. Furthermore, two geographical types of moves will be analysed: whether families move *between or within a municipality* and whether a residential move involved a *change in place type* in terms of the degree of urbanisation.

Besides the general patterns of mobility, we are specifically interested in the differential patterns of mobility for children with different *migrant backgrounds*. Dimensions of migrant background included are: generation; country of origin child (first generation) or parents (second generation); migration motivation; age of settlement child (first generation) or parents (second generation); and place of settlement child (first generation) or parents (second generation). Other individual characteristics included are: *gender* and the *number of siblings* of a child.

Socioeconomic and demographic characteristics of the family will be controlled for to account for any compositional effects. These include parental education and employment, household income, housing tenure, property value, household size, number of children in the household, household type and parental marital status. Since these are all time-varying variables, they will be measured at birth of the child and at age sixteen.

Two neighbourhood dimensions will be included: *socioeconomic composition* (based on education, income and employment) and *ethnic composition*. Individual-level data will be aggregated to the neighbourhood level using administrative neighbourhood boundaries. These neighbourhood-level variables will be constructed for each year (1995-2019).

Analytical strategy

To analyse childhood residential mobility patterns, two types of analysis will be combined. First, cluster analysis will be used to develop a typology of childhood internal mobility. Five dimensions of mobility will be included in the cluster analysis: frequency, timing, distance, stability and geographical type of move. This typology will subsequently be used as a dependent variable in a multinomial logistic regression. The first model analyses the effect of migrant background on the likelihood of these types of mobility; in the second model socioeconomic and demographic family characteristics at birth are added to control for compositional effects; in the third model neighbourhood characteristics (socioeconomic and ethnic composition) at birth are added to control for contextual effects.

Expected results and next steps

The analyses will be conducted on the Dutch register data that are specifically prepared for the purpose of the study in close consultation with the experts at Statistics Netherlands. As soon as data are available (before end 2019) the data will allow to conduct the foreseen analyses. Earlier descriptive work on childhood internal mobility in the Netherlands, using very rough measures of mobility in childhood indicated much higher levels of internal mobility among certain migrant groups compared to the majority group youth. This was not only the case for those of first generation migrant origin but also for those of the second generation (De Valk, 2010).

Acknowledgement

This paper is part of the MyMove project which has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No. 819298).

References

Andersson, R. (2012). Understanding Ethnic Minorities' Settlement and Geographical Mobility Patterns in Sweden Using Longitudinal Data (pp. 263-291).

Coulter, R., & Van Ham, M. (2013). Following people through time: An analysis of individual residential mobility biographies. *Housing Studies, 28*(7), 1037-1055.

De Valk, H.A.G. (2010). Children of Immigrants in the Netherlands: Growing Up in Diversity. *Child Indicators Research, 3*(4), 503-524. doi: 10.1007/s12187-010-9080-4

Elder Jr, G.H., & Shanahan, M.J. (2007). The life course and human development. *Handbook of child psychology, 1*.

Falkingham, J., Sage, J., Stone, J., & Vlachantoni, A. (2016). Residential mobility across the life course: Continuity and change across three cohorts in Britain. *Advances in Life Course Research, 30*, 111-123. doi: 10.1016/j.alcr.2016.06.001

Findlay, A., McCollum, D., Coulter, R., & Gayle, V. (2015). New Mobilities Across the Life Course: a Framework for Analysing Demographically Linked Drivers of Migration. *Population, Space and Place, 21*(4), 390-402. doi: 10.1002/psp.1956

Finney, N., & Simpson, L. (2008). Internal migration and ethnic groups: evidence for Britain from the 2001 Census. *Population, Space and Place, 14*(2), 63-83. doi: 10.1002/psp.481

Garboden, P.M.E., Leventhal, T., & Newman, S. (2017). Estimating the Effects of Residential Mobility: A Methodological Note. *Journal of Social Service Research, 43*(2), 246-261. doi: 10.1080/01488376.2017.1282392

Jelleyman, T., & Spencer, N. (2008). Residential mobility in childhood and health outcomes: a systematic review. *J Epidemiol Community Health, 62*(7), 584-592. doi: 10.1136/jech.2007.060103

Lacroix, J., & Zufferey, J. (2019). A Life Course Approach to Immigrants' Relocation: Linking Long- and Short- distance Mobility Sequences. *Migration letters, 16*(2), 283-300. doi: 10.33182/ml.vl.v16i2.683

Shuey, K., & Willson, A. (2008). Cumulative Disadvantage and Black-White Disparities in Life-Course Health Trajectories. *Research on Aging, 30*(2), 200-225.