

Beyond the Parent-Child Dyad: Linking Family Migration Histories and Lifetime Internal Migration in 19th-Century Netherlands

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Abstract

Family ties influence a wide range of demographic behaviors, including migration. While previous studies have extensively examined how kinship shapes migration events and patterns, less is known about how kin migration experience affects an individual's likelihood of moving—and even less about the influence of the migration experience of kin beyond the parent–child dyad. Using historical family reconstruction data from Dutch archives (HSN-LINKS), we analyze the relationship between family migration histories and individual internal migration trajectories in 19th -century Netherlands. Our preliminary results indicate that having relatives with prior migration experience increases the likelihood of moving within the Netherlands. This association holds for all types of kin examined so far—parents, grandparents, and aunts and uncles—and varies according to both the individual's gender and the gender of their relatives. Although parental migration backgrounds are the strongest predictors, grandparents' and aunts' and uncles' migration experiences also contribute significantly, especially among females. By analyzing family migration histories within a historical context, we highlight the important role of both close and extended kin migration experiences in shaping internal migration patterns. This study advances our understanding of the long-term effects of kin migration on individual mobility and the broader influence of extended family networks on demographic behavior. In the next steps, we will expand the analysis to cover other Dutch provinces and include additional kin, such as siblings and cousins.

Introduction

Family plays a crucial role throughout the migration process. Migration is often a family decision: individuals may move together with family members, or they may migrate after some relatives have already done so. The presence of local family ties has been found to deter migration, whereas having community members who have already migrated tends to encourage others to leave the same community (Garip and Asad 2016). Moreover, the presence of kin at the destination influences both the decision to migrate and the choice of destination. Kesztenbaum (2008) introduced the concept of spatial capital, defined as the portfolio of different locations represented among kin, and found that greater spatial capital increases the likelihood of migration (Kesztenbaum 2008). Despite the extensive literature on the role of kin in shaping migration patterns, evidence on the intergenerational transmission of migration remains limited. Migration has often been overlooked in studies on intergenerational transmission, compared to other demographic behaviors. Yet, as with other demographic phenomena, it is reasonable to expect that kin transmit attitudes and knowledge about migration, which may make individuals more likely to move.

The concept of migration capital has been used to describe the set of skills, attitudes, and resources accumulated through a family's migration history and lived migration experiences, which facilitate future migration (Bernard and Perales 2024). Individuals may learn from the migration experiences of parents and other relatives, especially when those experiences are positive, and internalize related behaviors and attitudes during their socialization period. Existing evidence on the intergenerational transmission of migration capital is largely limited to parent-to-child transmission. Studies show that individuals with parents who have a migration background are more likely to migrate themselves (Bernard and Perales 2024; Brunarska and Ivlevs 2024; Ivlevs and King 2012). Furthermore, most existing evidence focuses on contemporary and international migration. Since family migration history is one way to accumulate migration capital, it is worth exploring what happens when we extend the focus beyond parental migration to include other family members. A recent study on contemporary China, for example, shows that having a sibling with migration experience increases the likelihood of migrating, highlighting the importance of including extended family members in migration research (Li and Huang 2025). However, data limitations often prevent the inclusion of information on extended and non-coresident kin.

In this paper, we aim to move beyond the traditional two-generation (parent-to-offspring) perspective on intergenerational influence (Mare 2011) and thus consider more distant kin across multiple generations, incorporating kin who are not part of the same household—non-coresident relatives who are often neglected in migration research.. The dataset we use, HSN-LINKS (Mourits, van Dijk, and Mandemakers 2020), overcomes many of these limitations. It contains historical family reconstructions from Dutch archives, providing a valuable source for studying multiple generations and tracing migration trajectories over time. This allows us to examine the mechanism of the intergenerational transmission of migration behavior, including the influence of more distant kin.

Our study addresses the following research question: how did kin migration history—operationalized as whether the kin had previous migration experience—shape individuals’ propensity to migrate within the historical Netherlands among those born in the 19th century?

Data

In our study, we use the LINKing System for historical family reconstruction (LINKS), a dataset based on digitized certificates from the Dutch civil registries. Specifically, we employ data from the Zeeland 2017.01 release (Mourits et al. 2022), which includes life course and family reconstructions for all individuals who were born, married, or died in the province of Zeeland. Comparable datasets are also available for the Dutch provinces of Limburg, Groningen, and Drenthe, which will be analyzed for the final version of the paper.

The LINKS dataset enables the reconstruction of individuals’ kinship networks through documented child–parent links. This structure allows us to trace the life courses of relatives across multiple generations. The civil registration data provide precise information on the dates and locations of vital events—birth, marriage, and death. A key advantage of LINKS is that it allows the reconstruction of complete family networks, regardless of being in the same household. This contrasts with the Historical Sample of the Netherlands (HSN), a related dataset which only includes individuals residing in the same household. Consequently, the HSN does not allow researchers to follow the life courses and vital events of kin living elsewhere. These characteristics make the LINKS dataset particularly suitable for studying kin migration histories and for examining the often-overlooked influence of extended kin on individual migration trajectories (van den Berg et al. 2021; Mourits and Puschmann 2023).

Because each LINKS dataset records only events occurring within that province, our migration measure captures inter-municipal moves within Zeeland. Location information is available only for vital events—birth, marriage, the birth of children, and death—so we classify a person as a migrant if at least one of these events was registered in a different municipality (Adams, Kasakoff, and Kok 2002). Estimating the exact year of migration is more challenging, as the data provide only the years and locations of vital events. Thus, we can determine only that a move occurred between two known events, not the precise timing of the migration itself.

- Sample Selection

Our original dataset contains 1,930,189 individuals, all of whom were born, married, or died in the province of Zeeland. However, for more than 60% of these individuals, information on the exact locations of vital events is missing. To analyze kin migration histories, we need to know whether individuals have at least one relative of a given type in the province of Zeeland, and whether information on that relative’s vital event locations is available. The dataset includes 45,060 individuals with information on their father, 49,390 with information on their mother, 15,504 for grandfathers, 18,929 for grandmothers, 53,609 for uncles, and 54,203 for aunts. However, the number of individuals for whom information is available for all these relatives is 11,340 (see Table 1 and Table 2 for the detailed sample sizes).

Methods

Since we can only determine between which vital events a migration occurred, we chose not to consider the year or age at migration. Instead, we focus on whether individuals ever moved within the province during their lifetime, that is, whether they undertook at least one inter-municipal move. To identify such moves, we compare the locations recorded for each individual's birth, marriage, children's births, and death. If at least one of these locations differs, we infer that the person moved within the province. This measure is reliable, as a change in location across vital events necessarily indicates at least one internal migration. Having experienced at least one internal move thus serves as our event of interest, and we estimate a logistic regression model to analyze the association between the migration history of kin and the likelihood of moving.

Our analysis focuses on kin from earlier generations—parents, aunts and uncles, and grandparents. The migration history of each relative is constructed in the same way as for individuals, by identifying whether there is at least one change in location across their own vital events. To better capture the influence of kin migration background and to distinguish these effects from joint moves that occur together with the individual, we restrict the analysis to kin moves that took place before the individual's birth. Finally, we conduct the analysis separately by both relatives' gender and individuals' gender, acknowledging that migration patterns and the role of kin in shaping them can be gender-specific. This differentiation allows us to uncover potential nuances in the relationship between kin networks and individual migration behavior.

The logistic regression analysis is conducted in two steps, to evaluate whether similar results are obtained across different samples of individuals and to assess whether some of the observed effects may instead capture broader family migration history or whether relatives' migration backgrounds have independent effects. First, we estimate a separate logistic regression model for each type of relative, since the availability of demographic information, and therefore the number of individuals with complete kin data, varies by relative type. Second, we estimate a logistic regression model that includes all types of kin migration backgrounds simultaneously. To do this, we rely on a dataset that contains complete information for all relatives, which substantially reduces the number of individuals in our sample ($N = 11,340$ individuals).

Preliminary Results

Figure 1 illustrates the percentage of individuals who moved and the percentage of individuals with at least one relative with a migration background, by type of relative. More than 60% of individuals have moved at least once within the province. Approximately half of the respondents have a father with past migration experience, a share similar to those whose mother has a migration history. Around 60% of individuals report having at least one grandfather with a migration background, and similar proportions are observed for those with at least one uncle or aunt who has previously migrated. Over 60% of individuals have at least one grandmother with a migration history.

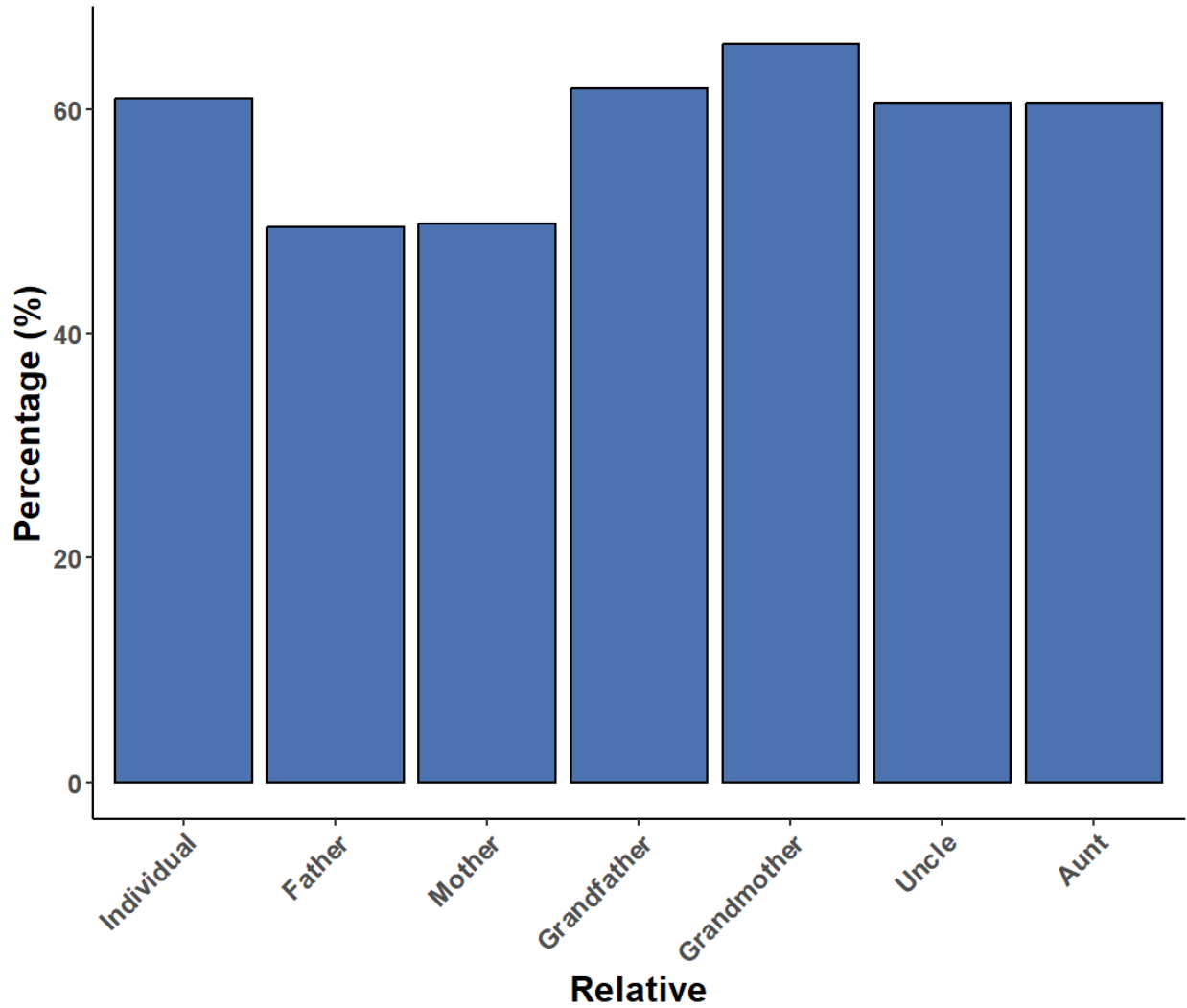


Figure 1: *Percentage of individuals born in the 19th century who have moved at least once within the Zeeland province, and percentage of individuals with at least one relative with a migration background, by type of relative.*

We first estimate a separate model for each type of relative, with the results presented in Figure 2 and Table 1. Across all relatives analyzed, individuals with kin who have migration experience exhibit a higher probability of moving. Compared to those whose relatives have never moved within the province, having a father or mother with migration experience shows the strongest association with an individual’s likelihood of moving. In all models, males are also more likely to move than females. Individuals whose father has a migration background have more than twice the odds of moving compared to those whose father does not. Having a mother with migration experience increases the odds of moving by 92%, while having at least one grandparent who already moved increases the odds by about 50%, and having at least one aunt or uncle with migration background increases it by around 60%.

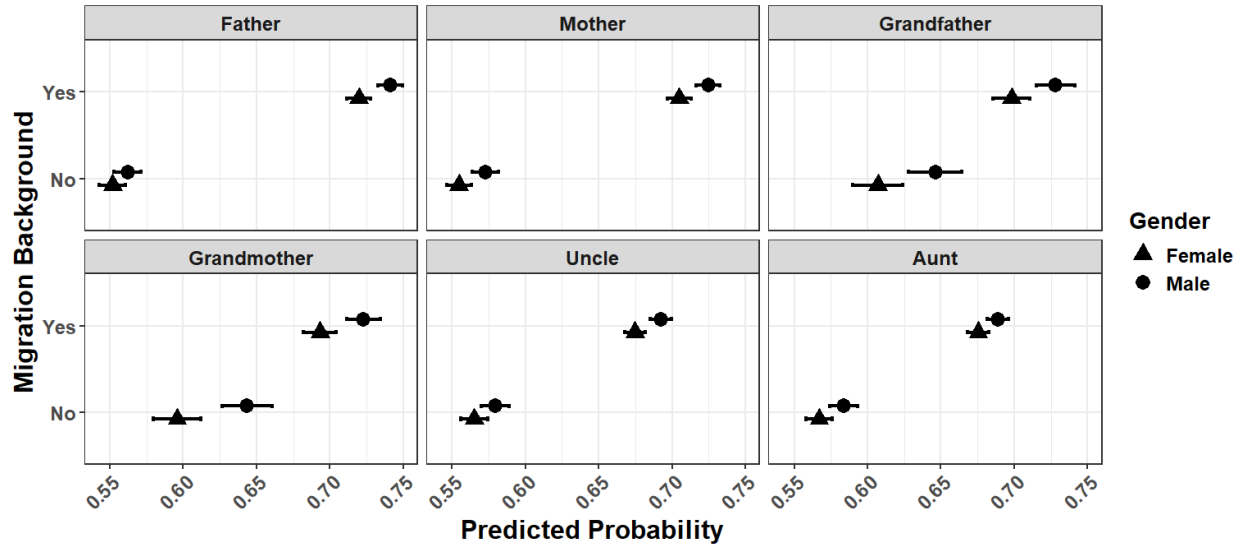


Figure 2: Average predicted probability of moving within the Zeeland province, by kin’s migration background and individual’s gender. A separate model has been estimated for each type of relative.

Table 1: Coefficients from the logistic regression models of moving within the Zeeland province. A separate model has been estimated for each type of relative. Standard errors are shown in parentheses.

Variable	Father	Mother	Grandfather	Grandmother	Uncle	Aunt
Intercept	0.026 (0.174)	9.566 (72.463)	0.440 (0.457)	0.682 (0.359)	10.527 (48.764)	0.670 (0.707)
Gender (ref: female)	0.042 (0.027)	0.072** (0.026)	0.167** (0.054)	0.203*** (0.052)	0.059* (0.028)	0.069* (0.028)
Migration background (ref: no)	0.738*** (0.028)	0.653*** (0.026)	0.405*** (0.047)	0.427*** (0.044)	0.469*** (0.025)	0.464*** (0.025)
Gender × Migration	0.067 (0.040)	0.024 (0.038)	-0.021 (0.071)	-0.059 (0.065)	0.024 (0.037)	-0.006 (0.037)
AIC	57,163	63,280	19,326	23,650	69,271	70,083
N	45,060	49,390	15,504	18,929	53,609	54,203

Note: Coefficients with standard errors in parentheses. Significance level: ***p < .001, **p < .01, *p < .05. The models also include a variable denoting individuals’ birth cohort.

Figure 3 and Table 2 present results from a logistic regression model that includes all types of kin migration backgrounds simultaneously. The migration histories of the father and mother have the strongest positive effects on the likelihood of migrating within the province. Even when considering all relatives together, having kin with migration experience continues to increase the probability of migration for both men and women. Notable gender differences emerge. Among males, the effects of having at least one grandparent or aunt or uncle with a migration background are not statistically significant, while they are significant for females.

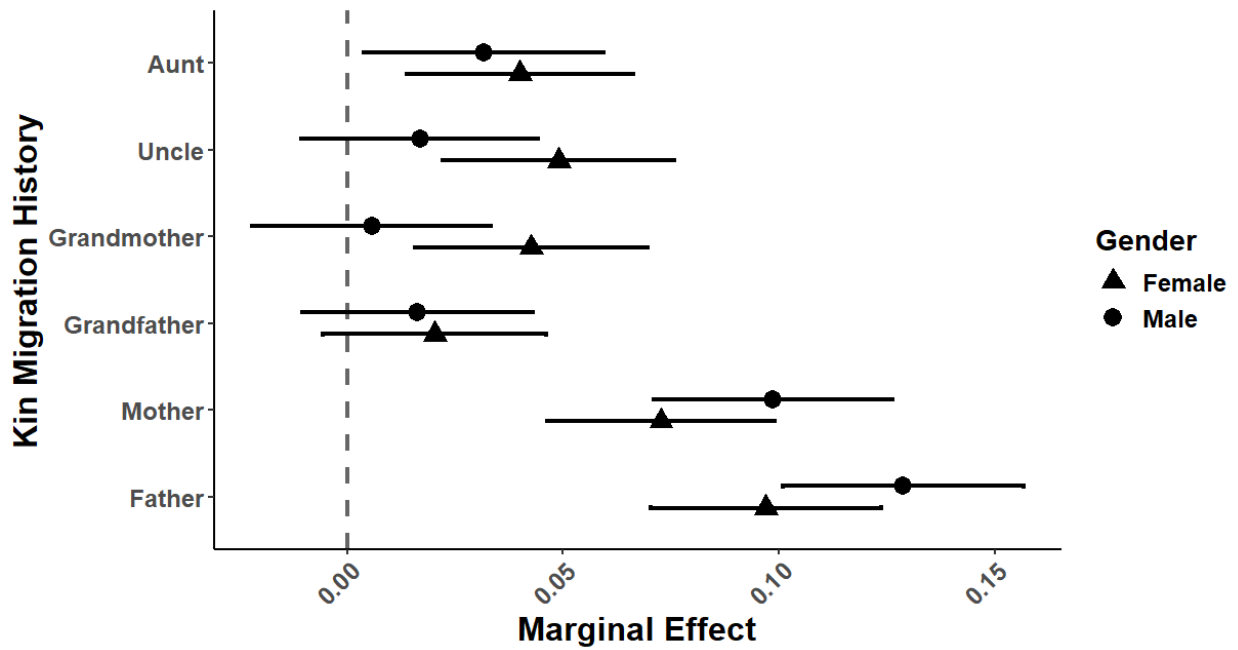


Figure 3: Marginal effects of kin's migration history on the probability of moving within the Zeeland province, by individual's gender. Each term indicates whether the individual's relative has a migration background. A model including all types of kin migration backgrounds simultaneously has been estimated.

Table 2: *Coefficients from the logistic regression model of moving within the Zeeland province. A model including all types of kin migration backgrounds simultaneously has been estimated. Standard errors are shown in parentheses.*

Variable	Coefficient (SE)
Intercept	0.564 (0.672)
Gender (ref: female)	0.268** (0.096)
Father's migration background (ref: no)	0.445*** (0.062)
Mother's migration background (ref: no)	0.335*** (0.062)
Grandfathers' migration background (ref: no)	0.094 (0.061)
Grandmothers' migration background (ref: no)	0.196** (0.063)
Uncles' migration background (ref: no)	0.225*** (0.062)
Aunts' migration background (ref: no)	0.184** (0.061)
Gender × Father's migration background	0.190* (0.094)
Gender × Mother's migration background	0.155 (0.094)
Gender × Grandfathers' migration background	-0.013 (0.091)
Gender × Grandmothers' migration background	-0.167 (0.094)
Gender × Uncles' migration background	-0.140 (0.093)
Gender × Aunts' migration background	-0.027 (0.092)
AIC	13,683
No. of observations	11,340

Note: Coefficients with standard errors in parentheses. Significance level: ***p < .001, **p < .01, *p < .05. The model also includes a variable denoting individuals' birth cohort.

Overall, our findings indicate that individuals with relatives who have migration experience are more likely to move within the province. This relationship remains significant even when considering more distant relatives, highlighting the importance of extended kin and more distant generations in shaping migration behavior. These results underscore the need to account for broader family networks in migration policy and demographic research.

Next Steps

For the final version of the paper, we plan to extend the analysis currently conducted for the province of Zeeland to the other Dutch provinces for which historical family reconstructions are available—Limburg, Groningen, and Drenthe. This extension will enable us to compare migration patterns across provinces during the same historical period and to identify similarities and differences in the relationship between family migration histories and an individual’s likelihood of migrating within the province. Furthermore, we aim to refine our estimation of the year and age at migration. To achieve this, we plan to replicate the analysis on several smaller subsamples, allowing us to focus on cases with more closely spaced vital events—such as the births of children—which would provide more precise estimates of migration timing. This approach would facilitate the construction of a person-year dataset, enabling a more detailed examination of changes in location across the life course, as well as the evolution of individual and family migration behaviors over time and age. As a next step, we will analyze the association between an individual’s migration experience and the migration histories of their siblings and cousins, respectively. Finally, we intend to explore spatial and socio-economic variations in migration patterns, including differences between rural and urban areas. Socio-economic background will be approximated by occupational status, which is available in our dataset and standardized using the Historical International Standard Classification of Occupations (HISCO).

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