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Kooiman, Niels; Das, Marjolijn

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Understanding Couple Migration towards Core and Peripheral Regions: The Role of Men's and Women's Education

Niels Kooiman, Marjolijn Das

Abstract: Numerous studies have demonstrated that men's educational profiles dominate couple migration decisions. However, most of these investigated the US context or were conducted in the previous century. This study examines the role of both partners' educational attainments in couple migration in recent years in a new context: the Netherlands. The Netherlands is one of the countries in which women surpass men in educational attainment. We take a geographical perspective and test *Costa and Kahn's* (2000) hypothesis that power couples – two partners with university degrees – are more likely than other couples to migrate to metropolitan areas with dense labour markets in order to solve their “colocation problem.” Data are derived from the Dutch Labour Force Survey between 2006 and 2015. The research population consists of all opposite-sex married and unmarried couples aged 18-45 (N = 90,314 couples). By linking the respondents to integral register data, we tracked all couples until three years after the interview date. The results show that both men's and women's human capital increases migration propensities, although effect sizes are relatively small. Social factors such as the geographical distance to birthplace and parents appear to play a significant role in couple migration. We found only partial support for *Costa and Kahn's* (2000) colocation hypothesis. Power couples who live in the core region are less likely than other couples to migrate to more peripherally located regions. However, periphery-to-core migration is only affected by the male partner's human capital, not by hers. Hence, the concentration of power couples in Dutch metropolitan areas probably stems from highly educated, single, young, urban adults who migrated there individually and who tend to stay there after union formation.

Keywords: Internal migration · Family migration · Human capital · Core and peripheral regions · Gender (in)equality

1 Introduction

In many countries, younger generations of women have strengthened their relative socio-economic position vis-à-vis their male partners during recent decades. This is best illustrated by women's closure – and in some countries even reversal – of the gender gap in education. As a result, the number of couples of which both partners have a degree in tertiary education is on the rise and women increasingly have an educational advantage over their partners in newly formed unions, especially in Europe (*Esteve et al.* 2016). Women's labour market participation has increased accordingly (*Cipollone et al.* 2014), which caused the gender gap in full-time equivalent (FTE) employment rates to narrow in most European countries between 2005 and 2017 (*EIGE* 2020). As a result, dual-career couples have become increasingly common.

These trends might have important implications for family migration patterns. For dual-career couples a work-motivated migration for the sake of one partner's career likely involves sacrificing the other's, which is referred to as the "two-body problem" (*Benson* 2014). Earlier, as many women were lesser educated than their partners and were either secondary earners or not active on the labour market at all, women were more likely to end up as tied movers following their husbands' careers (*Cooke* 2008). From a human-capital perspective on couple migration, women's increased educational position compared with their partners can be expected to strengthen women's voices in family migration decision-making (*Mincer* 1978). In addition, when women are more highly educated than their male partners, they are more likely to be the household's main breadwinner (*Esteve et al.* 2016), which may increase their bargaining position (*Lundberg/Pollak* 2003) in couple migration decision-making processes.

Still, it remains unclear whether these trends have altered patterns of couple migration. Numerous studies based on twentieth century data drawn predominantly from the United States underline the dominance of men's income and education on family migration (*Boyle et al.* 2003, 2009; *Cooke et al.* 2009; *Shihadeh* 1991; *Bielby/Bielby* 1992; *McKinnish* 2008; *Shauman/Noonan* 2007; *Shauman* 2010; *Compton/Pollak* 2007). In contrast, more recent Scandinavian-based studies indicate that highly educated women increasingly influence family migration decisions in the twenty-first century (*Brandén* 2013; *Foged* 2016; *Tano et al.* 2018).

Examining interregional migration of dual-earner couples in the Netherlands between 2006 and 2018, the aim of this paper is to analyse the role of men's and women's educational attainments in couple migration. The study contributes to the literature in two respects. First, this study adds contemporary empirical evidence from another European, non-Scandinavian country. In terms of gender equality, the Netherlands has an intermediate position in Europe. Although women have surpassed men in tertiary education among younger generations, gender equality in terms of labour force participation and the allocation of time spent doing care and domestic work is lower than in Scandinavian countries (*EIGE* 2020).

Second, this study takes a geographical perspective on family migration and distinguishes between three potential destinations based on labour market density:

the core area (*Randstad*, the main metropolitan area), peripheral regions (mainly rural areas) and semi-peripheral regions (the intermediate zone). Two decades ago, *Costa and Kahn* (2000) argued that the two-body problem is most severe for couples in which both partners are highly educated because of their specialised careers. Therefore, these “power couples” were argued to be most likely to migrate to metropolitan areas that offer large, dense labour markets. To date, only limited evidence for *Costa and Kahn’s* colocation hypothesis was found in the US (*Compton/Pollak* 2007; *Cooke* 2011; *Chen/Rosenthal* 2008). In Europe, studies that approach couple migration from a geographical perspective are scarce (but see *Tano et al.* 2018).

For urban and regional housing market policies and planning it is important to gain better insights into internal migration patterns of couples and families, which consist more and more of dual earners with equal educational attainments. Furthermore, distinctive migration patterns of power couples might exacerbate socio-economic disparities between regions and between urban and rural areas and even enhance social polarisation. This study therefore aims not only to analyse the effect of women’s and men’s education on couple migration in general, but also to explore whether distinctive patterns take place for periphery-to-core and core-to-periphery migration.

2 Background

2.1 Internal migration and education

Internal migration can be defined as a long-distance move in which people change the area in which their daily activities take place (*Dieleman/Mulder* 2002) and which likely entails the severance of local social ties (*Kan* 2007) and location-specific capital (*DaVanzo* 1981). From a micro-economic perspective, internal migration is conceptualised as an investment in the human agent with the intention to generate future returns in the form of accumulated human capital, increased wages or labour career progression (*Sjaastad* 1962; *Becker* 1962; *Fielding* 1992; *Böheim/Taylor* 2007). Long-distance moves are therefore predominantly driven by economic motives (*Niedomysl* 2011). Employment and education are the most cited motives for moves over distances longer than 40 kilometres, although family motives are also often mentioned (*Thomas et al.* 2019). Among couples near retirement, consumer amenities become more important (*Chen/Rosenthal* 2008). Migrating towards family can also be beneficial from an economic perspective as proximity to family members may protect people – women in particular – from precarious labour market positions (*Mulder et al.* 2022) and increase their labour force attachment (*Compton/Pollak* 2014).

A consistent finding among industrialised countries is that highly educated individuals are more likely to migrate than their lesser educated counterparts (*Bernard/Bell* 2018). Several mechanisms underlying the positive relationship between educational attainments and internal migration have been proposed

(Faggian *et al.* 2015). The most important factor concerns the occupations for which highly educated workers are qualified. It is argued that highly educated individuals are more prone to migrate because they hold occupations for which job change and migration is beneficial: they can expect higher returns. Furthermore, the more prestigious and specialised jobs they compete for tend to be more sparsely distributed across space (Halfacree 1995; Moretti 2012). Hence, in order to find suitable employment and to enable career progression, highly educated individuals often need to expand their geographical search area (Van Ham *et al.* 2001). Empirical studies have indeed demonstrated that internal migration of the highly educated is most often motivated by employment (Niedomysl 2011; Thomas 2019) and that they experience the strongest rise in income after migration (Morrison/Clark 2011).

Other mechanisms that are suggested to fuel the positive relationship between education and migration include a stronger reliance on local networks of family and friends among the lesser educated, which increases their psychological costs of migration (DaVanzo 1983). An important reason that more highly educated individuals tend to have weaker local ties is that they often already left their home region and migrated towards university towns to enrol in higher education (Faggian/McCann 2009; Kooiman *et al.* 2018).

2.2 Couple migration, education and gender role theory

Migration propensities peak during young adulthood – a phase in which only a minority is restricted by life commitments such as home-ownership, a partner or children – and remain relatively high when people are in their early thirties (Dennett/Stillwell 2010). This is especially true among the more highly educated (Kooiman *et al.* 2018).

For couples, the decision on whether or not to migrate is more complex than for singles, as the interests and desires of one partner may well conflict with those of the other partner. Couple migration typically benefits the career of one partner to the detriment of the other (Cooke 2008). If both partners have a professional career, both are more tied to their current location. Indeed, dual earners are found to be more likely to stay put than single-breadwinner couples (Vidal *et al.* 2017; Cooke 2013a). Therefore, the rise of dual-earner couples is argued to be one of the causes of declining migration rates (Cooke 2013b; Kalemba *et al.* 2020). More recently, scholars have argued that internal migration is not only restricted by other household members, but also by linked lives outside the household (Coulter *et al.* 2016; Vidal/Huinink 2019), especially family ties (Mulder/Malmberg 2014; Thomas 2019; Thomas *et al.* 2019).

Empirical studies that are mainly based on data from the last decades of the twentieth century demonstrated how family migration was predominantly a function of men's education whereas highly educated women had less or no influence (Shihadeh 1991; Smits *et al.* 2004; Nivalainen 2004; Compton/Pollak 2007; Swain/Garasky 2007; McKinnish 2008; Boyle *et al.* 2009). This gendered effect of educational attainments on migration is introduced after couple formation: Single men and women exhibit identical migration patterns and are equally responsive

to better job opportunities elsewhere (*Jürges 2006; Venhorst et al. 2011; Geist/McManus 2012; Abraham et al. 2019*) and female university graduates are even more mobile than their male counterparts in the UK and Italy (*Faggian et al. 2007; Coniglio/Prota 2008*).

Human capital theory conceptualises family migration as a joint decision-making process in which migration occurs if the total expected benefits of all family members exceed the total expected costs (*Sandell 1977; Mincer 1978*). This approach is essentially rational and assumes that potential benefits for men and women are equally weighted in family migration decision-making. In contrast, sociological gender role theorists argue that men's careers are prioritised and emphasise the importance of traditional societal norms on family roles, which prescribe men to be the main breadwinner and women to take responsibility for domestic work and childcare (*Bielby/Bielby 1992; Shihadeh 1991; Jürges 2006; Lersch 2016*). These gender-role beliefs are still present in attitudes of partnered men and women on employment-driven migration. Recent European survey studies have demonstrated that partnered women are less willing than partnered men to migrate for equally attractive hypothetical job offers and that they are more willing to migrate for the sake of their partner's career progression. This gendered effect enters the scene after union formation – single men and women are equally prone to migrate for hypothetical job offers (*Abraham et al. 2019*). Instead, human capital theory provides a structural explanation for the empirical evidence of male-dominated patterns of couple migration by indicating gender differences in potential wage growth due to segregation and inequality in the labour force (*Mincer 1978*). Even among equally highly educated men and women, women are more likely than men to work in occupations for which migration is less beneficial: lower wages, lower prestige, less opportunities for career advancement, greater geographic ubiquity and smaller wage differentials across regions (*Halfacree 1995; Shauman/Noonan 2007; Brandén 2013; Perales/Vidal 2013*). Hence, it is argued to be less likely that women's potential gains from remote career opportunities outweigh their male partners' losses and less likely that women's lost earnings outweigh their male partners' potential wage benefits elsewhere. In addition, spatial ubiquity of female-dominated occupations facilitates the search for comparable employment among female-tied migrants (*Shauman 2010*).

Some empirical studies on family migration consider more sound measures of both partners' earnings potentials, which do justice to the possibility that men and women segregate into spatially constrained and flexible occupations. Results regarding the weights attributed to men's and women's career opportunities are mixed. In the US, men's careers tend to be prioritised (*McKinnish 2008; Shauman 2010*), although *Benson (2014)* found gender neutrality, supporting the human capital approach. Recent research based on two Scandinavian countries – Denmark and Sweden – is also consistent with gender-neutral family migration (*Brandén 2013; Foged 2016*). These are leading countries in terms of gender equality (*EIGE 2020*).

In this study, we measure both partners' earnings potential by their educational attainments and the migration rates associated with their occupations observed among "unconstrained" singles. Derived from human capital theory and gender

role theory and based on recent empirical evidence from Scandinavian countries and the somewhat more traditional gender practices in the Netherlands (see below), it is hypothesised that: *H1: Both partners' earnings potential will positively affect interregional mobility of couples (H1a) and the effect of men's will be stronger than the effect of women's (H1b).*

2.3 The geographical dimension of the colocation problem

As dual-career couples migrate primarily for the sake of the career of one partner, labour market characteristics of the destination region shape the opportunities for the secondary migrant to find adequate employment within an acceptable commuting distance. *Costa and Kahn (2000)* postulated that the necessity for dual-earner couples to facilitate two careers from one residential location – the colocation puzzle – was most severe among couples made up of two highly educated partners because of their specialised careers and that this puzzle would be best solved in large metropolitan areas. Based on cross-sectional data they argued that a distinct migration pattern of these so-called “power couples” is the primary explanation for their increased concentration in metropolitan areas between 1940 and 1990. Analyses of longitudinal data, however, found only limited support for *Costa and Kahn's* colocation hypothesis in the US. *Compton and Pollak (2007)* demonstrated that not the joint educational profile of the couple but only the husband's education affected the likelihood of couples to migrate to large metropolitan areas. Not migration patterns but assortative mating among highly educated singles was found to be the primary explanation for the clustering of power couples in large metropolitan areas. *Chen and Rosenthal (2008)* did find partial support for *Costa and Kahn's* colocation hypothesis, but only among young, highly educated couples.

In Europe, empirical studies testing *Costa and Kahn's* colocation hypothesis are scarce. In Sweden, *Tano et al. (2018)* recently showed that female partners exert a substantial positive impact on the propensity to move towards large cities, although it is smaller than that of males (*Tano et al. 2018*).

Based on *Costa and Kahn's (2000)* colocation hypothesis and the fact that the Dutch core region functions as a hub of highly specialised knowledge work (see below), it is hypothesised that:

H2: Couples with highly educated (male or female) partners selectively migrate to the core region (H2a) and this effect is stronger if both partners are highly educated (H2b).

2.4 The Dutch case

This study examines internal migration patterns of married and unmarried couples in the Netherlands between 2006 and 2018. From the 1990s onwards, women reversed the gender gap in education among younger generations and narrowed the gender employment gap. In terms of educational equality, the Netherlands is ranked second within the European Union (*EIGE 2020*). Labour force participation of women is high and has increased in the Netherlands, but still most women work part-time (*Statistics*

Netherlands/SCP 2018). As a result, among parents in particular, the “one-and-a-half earner” model prevails with one partner (usually men) working full-time and the other (usually women) part-time. In terms of the full-time equivalent employment rate, the Netherlands is ranked 19th on the work participation domain of the Gender Equality Index, which is only slightly above the average of all EU member states and below the scores of Scandinavian countries (*EIGE* 2020), indicating gender practices that are more traditional than those of Scandinavian countries.

Geographically, the Netherlands is a relatively small and densely populated country. Most economic activities are concentrated in the polycentric core region in the western part of the country, called the *Randstad* (*Kloosterman/Musterd* 2001). This region experienced the strongest population growth in recent decades and comprises the four largest cities (Amsterdam, Rotterdam, The Hague and Utrecht) and several medium-sized cities. The *Randstad* includes the political capital, the financial capital, a world port and a world airport. It offers the densest labour market (*Van Ham et al.* 2001) and access to specialised jobs and knowledge-based industries (*Tordoir et al.* 2015; *Statistics Netherlands* 2020). Beyond the *Randstad*, the region of Eindhoven in the southern part of the country also comprises a knowledge-based economy (Brainport Eindhoven). Housing prices are generally lower outside the core region.

Although – or maybe because – the country is quite small, the tolerance for daily travel within the country is low. On average, a one-way commute of Dutch workers is 18 kilometres (*Ritsema van Eck/Hilbers* 2018), but large differences exist between social groups. Highly educated workers, full-time employees and men commute over longer distances than lesser educated workers, part-time employees and women (*Burger et al.* 2014; *Ritsema van Eck/Hilbers* 2018). Highly educated full-time workers commute 28 kilometres on average (*Ritsema van Eck/Hilbers* 2018). Daily commutes predominantly take place within urban regions, but for highly educated workers interurban networks have gained importance, although most of them commute between neighbouring cities. Commuting flows between the four largest cities in the *Randstad* and between neighbouring cities in the southern province of North-Brabant have intensified among highly educated workers, while commutes at a higher spatial scale remain relatively rare (*Tordoir et al.* 2015). Workers tend either to change their workplace or to migrate as distances between home and workplace extend their urban region or neighbouring urban regions. Hence, among moves over at least 40 kilometres, the most cited motive for moving was work-related (*Feijten/Visser* 2005). The social costs of migration in terms of family relations are also significant. Proximity to family is an important determinant for support exchange and relatively short distances can already form a barrier for practical support. For instance, parents helping their adult children with childcare is significantly less common when they live at a distance of more than 20 kilometres (*Knijn/Liefbroer* 2006).

We identified regions within which the vast majority of workers is assumed to both work and live and distinguished three macro-zones based on the number of jobs accessible within a 50-kilometre distance: a core region (which corresponds largely to the *Randstad*), a semi-periphery and a national periphery.

3 Data and methods

3.1 Data

Data were drawn from two sources: the Dutch Labour Force Survey (EBB) and the System of Social Statistical Datasets (SSD) (*Bakker et al.* 2014). The Labour Force Survey provides detailed information for both partners on educational attainments and labour market characteristics, including occupations (ISCO). It is a rotating household panel with 5 samples per household over 15 months (i.e., one every quarter). The SSD is a set of integral and longitudinal administrative government registers that cover the entire population of the Netherlands. The SSD adds longitudinal information on place of residence, residential mobility, household characteristics, primary income and distances from family members. We pooled all Labour Force Surveys between 2006 and 2015 (first quarter samples) and linked the respondents to the SSD based on person unique identifiers. We used the moment of the LFS interview as the start of the observation window (t_0). Subsequently, we took information from the SSD on the sampling moments exactly one (t_1), two (t_2) and three (t_3) years after the interview date.

Units of analysis are couples. We selected all couples of which both partners were between 18 and 45 years old ($N = 113,956$). We excluded same-sex couples, couples who separated between t_0 and t_3 ¹ and couples of which one or both partners were enrolled in education between t_0 and t_3 . We conducted separate analyses on dual-earner couples because the colocation puzzle only applies to couples in which both partners belong to the labour force and because we also want to include information on occupational characteristics that are not available for respondents who are not (self-) employed. Dual earners were defined in a broad sense since small jobs of only a few hours per month are enough to meet this criterion. Couples with jobs in the armed services were excluded because mobility of military personnel is often externally imposed.² This resulted in a research population of 90,314 couples of which 73,044 (81 percent) were dual earners at t_0 .

¹ Excluding couples who separate after a joint migration might bias our results if couples who separate are more or less likely to have migrated in the recent past and especially if this relationship is associated with educational profiles. We found no significant effect of internal migration on the likelihood of separation after internal migration. Among internal migrants (4.1 percent) the separation rate between t_1 and t_3 was even slightly lower than among stayers (4.6 percent). As a robustness check, we included couples who eventually broke up in our models to examine whether this would alter our results. The overall model fit and the parameter estimates remained highly identical, also those of our main interest (education and occupation). Hence, we conclude that no selectivity problems arose by dropping the separated couples.

² We excluded 943 couples because one or both partners were employed in armed forces occupations. We dropped these couples since military personnel are much more likely than other employees to have no “free” location choice; they often migrate as a result of a transfer of armed services. Our study focuses on deliberate couple migration decisions. We tested whether our models are sensitive to including couples with armed forces occupations. Including this group yielded identical results.

3.2 Analytical strategy

To study determinants of long-distance couple migration in general we performed a binary logistic regression analysis. In these models, the dependent variable is *internal migration*: whether couples have moved long distance (40 kilometres or more) between t_0 and t_3 , yes (1) or no (0). The threshold of 40 kilometres was selected because among moves over at least 40 kilometres the most cited motive for moving was work-related (Feijten/Visser 2005).³ Euclidean distances were measured between the centroids of the municipalities in which a couple lived at t_0 and t_3 . Of 90,314 couples, 3,612 (4.0 percent) moved to another municipality at a short distance (< 40 km) and 1,050 (1.2 percent) migrated (> 40 km) during the first three years following the interview. The 3-year time span was chosen based on a trade-off between collecting a substantial number of migrations and the gradual devaluation of information gathered at t_0 . Multiple migrations within three years (onward and return) were neglected, but this only concerns a very small number of cases ($n = 41$).

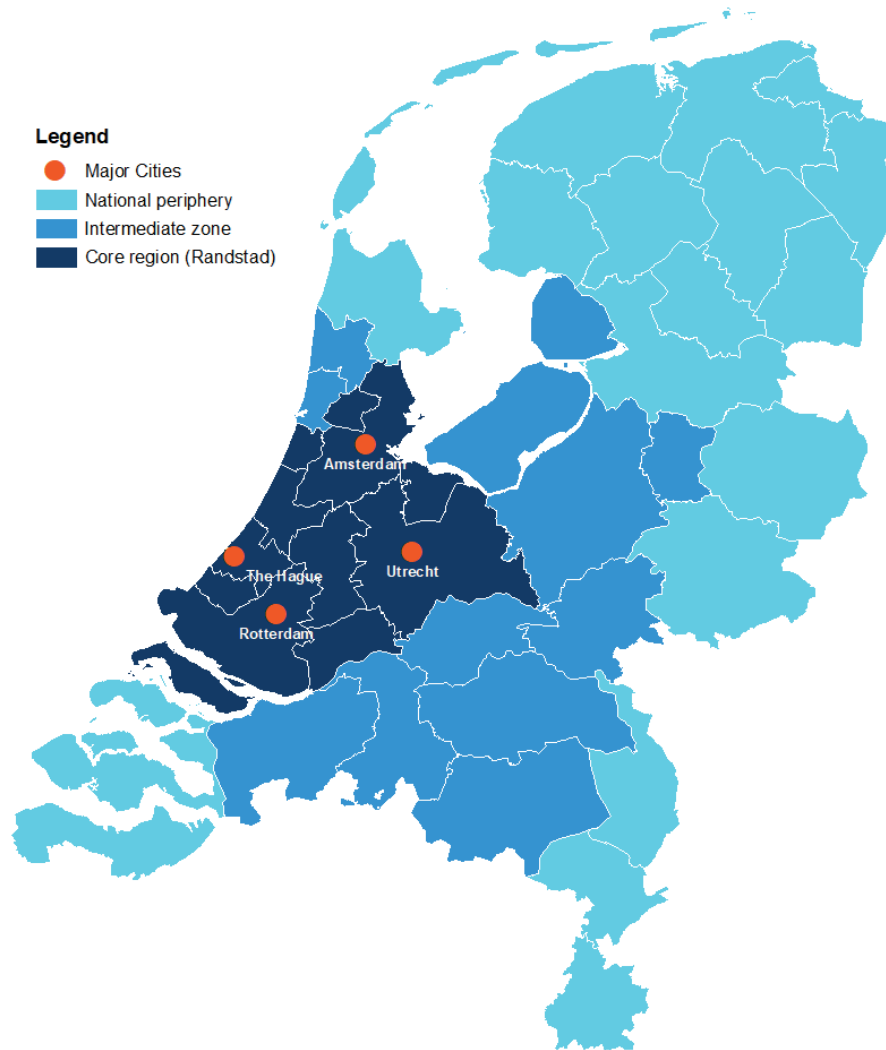
Subsequently, we modelled couple migration as a choice set of three destinations and performed a multinomial logistic regression analysis to get insights into the determinants of couple migration towards specific destinations. The dependent variable in this analysis is *destination region*: whether couples have moved long distance to the national periphery (1), the intermediate zone (2) or the core region (3) between t_0 and t_3 . These macro zones were created based on the number of jobs accessible within a radius of 50 kilometres and are depicted in Figure 1. We ran separate analyses for couples living in the national periphery, the intermediate zone and the core region at t_0 . The reference category consists of couples that did not move or moved within 40 kilometres.

Independent variables

The independent variable of main interest is the couple's human capital profile, expressed in the educational attainments of both partners. We aligned with the compound measure also used in earlier studies, for instance by Compton and Pollak (2007), which distinguishes four categories based on partners holding a university degree (ISCED 7-8, referring to master's, doctoral or equivalent level) (UNESCO 2011): couples with no university graduates (low-power couples, 79 percent of our sample), couples with only a female university graduate (female-power couples, 7 percent), couples with only a male university graduate (male-power couples, 7 percent) and couples with two university graduates (power couples, 7 percent). About 14 percent of men and women in our research population hold a university degree. Men are more often the highest educated partner among the older couples in our sample (aged > 35), whereas female-power couples outnumber male-power

³ As a robustness check we estimated the same models with a distance threshold of 30 and 50 km. These models yielded highly comparable results.

Fig. 1: Geographical macro-zones based on job density (2017)



Source: Authors' design from Statistics Netherlands (CBS)

couples among younger couples (< 35). This is in line with the reversed gender gap in education among younger generations in the Netherlands (*Statistics Netherlands/SCP 2018*). We decided to set the threshold value on university degrees because university graduates stand out with regard to internal migration propensities in the Netherlands (*Venhorst et al. 2010; Kooiman et al. 2018*).

To examine to what extent the differential effects of men's and women's human capital can be explained by the occupations they hold, we included the migration propensities related to specific occupations (ISCO, 1 digit at t_0) based on migration

behaviours of single workers. These were derived from an analysis of migration behaviours of single (self-)employed LFS-respondents over the 2006-2015 period. These single workers are considered “unconstrained optimisers” (Jürges 2006) and hence the migration propensities of singles with specific occupations can be argued to be an expression of the potential benefits of migration for workers with these occupations. Almost 4 percent of the singles migrated, which underlines their greater mobility compared to couples. Among high-mobility occupations are health professionals, business and administration professionals and ICT professionals. Among low-mobility occupations are crafts and related trade workers and elementary occupations. Table A1 in the appendix provides information on singles’ migration rates disaggregated by occupation in more detail.

We controlled for several factors, which have been demonstrated to be related to (couple) migration (Faggian *et al.* 2015). The mean age of the couple was controlled for because, in line with the human capital perspective, migration propensities tend to decrease with age (Dennett/Stillwell 2010). In the Netherlands spatial mobility starts to drop when people reach their mid-twenties (Kooiman *et al.* 2018). Since migration is costly, a lack of economic resources might prevent couples from migrating (Lee 1966). Therefore, we included economic resources measured by the standardised disposable household income in percentiles. As a measure of the bargaining power of both partners and to distinguish equal dual earners from one-and-a-half earners and single earners, we included a measure of the income equality within couples. We also added a dummy indicating whether or not the female partner is the main breadwinner (yes (1) or no (0)). Marital status at t_0 and marriages between t_0 and t_3 are controlled for since unmarried cohabiters are more likely than married persons to have egalitarian gender role attitudes (Liefbroer 1991). We controlled for the presence of children in the household (including the age of the oldest child) because children tend to strengthen the ties to a location, especially when they have reached school age (Clark/Davies Withers 2007). In addition, we included a dummy variable that indicates whether or not a child was born between t_0 and t_3 since the event of childbirth is related to increased residential mobility (Kulu/Milevski 2007), especially towards rural destinations (Kulu 2008). As a proxy for local economic ties, we included the current job duration in months and the housing tenure. The year of interview is controlled for because internal migration rates are associated with economic business cycles. Because migration rates first decreased and then increased during the observation period, a squared term of the time variable was added. To control for local social ties outside the household, we included the geographical distance to both partners’ place of birth and their parents. We measured Euclidean distances based on geographical coordinates of the municipalities of residence. With regard to the location of parents, we measured the distance to the nearest parent. We created a distinct category for those partners who had no parents living in the Netherlands. Except for the binary variables measuring childbirth and marriages, all independent variables were measured at t_0 . Descriptive statistics of the variables included in the models and migration rates across the categories of the independent variables are provided in the appendix (Table A2).

The binary logistic regression analysis aims to test the first hypothesis. It consists of five models. The first and second model include all couples regardless of the labour market position of both partners. In the first model, we included all control variables except for the geographical distance to both partners' birthplace and parents. In the second model, we added these geographical controls to be able to assess how they influence the effect of education on couple migration. As the highly educated tend to live farther away from their birthplace and parents, inclusion of these variables might decrease the effect of education (*Mulder/Malmberg 2014*). The third, fourth and fifth model are estimated for the sub-population of dual earners for whom we can include occupational information. Model 3 includes control variables only, in model 4 the geographical controls were added and in model 5 the occupational migration propensities were added. The multinomial logistic regression analysis tests the second hypothesis and reflects the full binary model.

4 Results

4.1 Descriptive findings

Power couples are highly overrepresented in the Dutch core region and underrepresented in peripheral regions (Table 1). Whereas couples of which neither partner holds a university degree are distributed equally across the three macro zones, more than 60 percent of the power couples live in the core region and only 14 percent live in peripheral regions. The spatial distribution of couples with one university graduate is between that of low-power couples and power couples, regardless of which partner holds a university degree.

Moves, especially those over longer distances, are strongly associated with the educational profile of couples (Table 2). Regardless of gender, a couple's migration rate increases with any university graduate partner. Couples with two university

Tab. 1: Spatial distribution of couples with different educational profiles, t0 (column percentages)

Region of residence, t0	University degree				Total
	Neither partner	Only female partner	Only male partner	Both partners	
National periphery	33.4	24.0	23.0	14.2	30.7
Intermediate zone	33.3	29.2	31.0	25.4	32.3
Core region	33.3	46.9	46.0	60.4	37.0
Total	100.0	100.0	100.0	100.0	100.0
N	71,445	5,854	6,813	6,202	90,314

Source: Authors' calculations from Statistics Netherlands (CBS)

graduates are more mobile than couples with one university graduate and those are more mobile than couples with no university graduate partner. These low-power couples migrated more than six times less often than power couples. Short-distance moves are less related to a couple's educational profile.

Tab. 2: Moves of couples with different educational profiles, t0..3 (column percentages)

Migration, t0...3	University degree				Total
	Neither partner	Woman only	Man only	Both partners	
Did not move between municipalities	95.9	90.8	92.5	88.5	94.8
Moved < 40 km	3.4	6.9	5.3	7.2	4.0
Moved ≥ 40 km	0.7	2.4	2.2	4.3	1.2
Total	100.0	100.0	100.0	100.0	100.0
N	71,445	5,854	6,813	6,202	90,314

Source: Authors' calculations from Statistics Netherlands (CBS)

4.2 Binary logistic regression on migration

Average marginal effects of the binary logistic regression analyses are given in Table 3. Model 1 includes all couples and contains control variables except from the geographical controls. It demonstrates that couples are more likely to migrate if partners are highly educated and that couples' migration propensities increase with any university graduate partner, regardless of whether the female or the male partner. The baseline migration propensity of low-power couples is 0.7 percent. The estimated migration propensity of power couples is 3.5 percent, which is five times as large. Estimated migration propensities for female-power couples (2.0 percent) and male-power couples (2.2 percent) are between those of low-power and power couples and are not statistically different from each other.

The inclusion of geographical controls in model 2 strongly reduced the effect size of a couple's educational profile. Controlled for distance to birthplace and parents, power couples are 40 percent more likely to migrate than low-power couples. Couples with one university graduate partner – whether the female or the male partner – are equally likely to migrate as power couples. The strong reduction of the effect size of education after including geographical controls indicates that greater migration propensities among highly educated couples are largely attributed to the fact that these couples are less constrained by family ties or other local ties. The highly educated more often live further away from their parents and their place of birth and proximity to parents and birthplace strongly constrain migration. Additionally, living closer to family and friends may be a motive for migration.

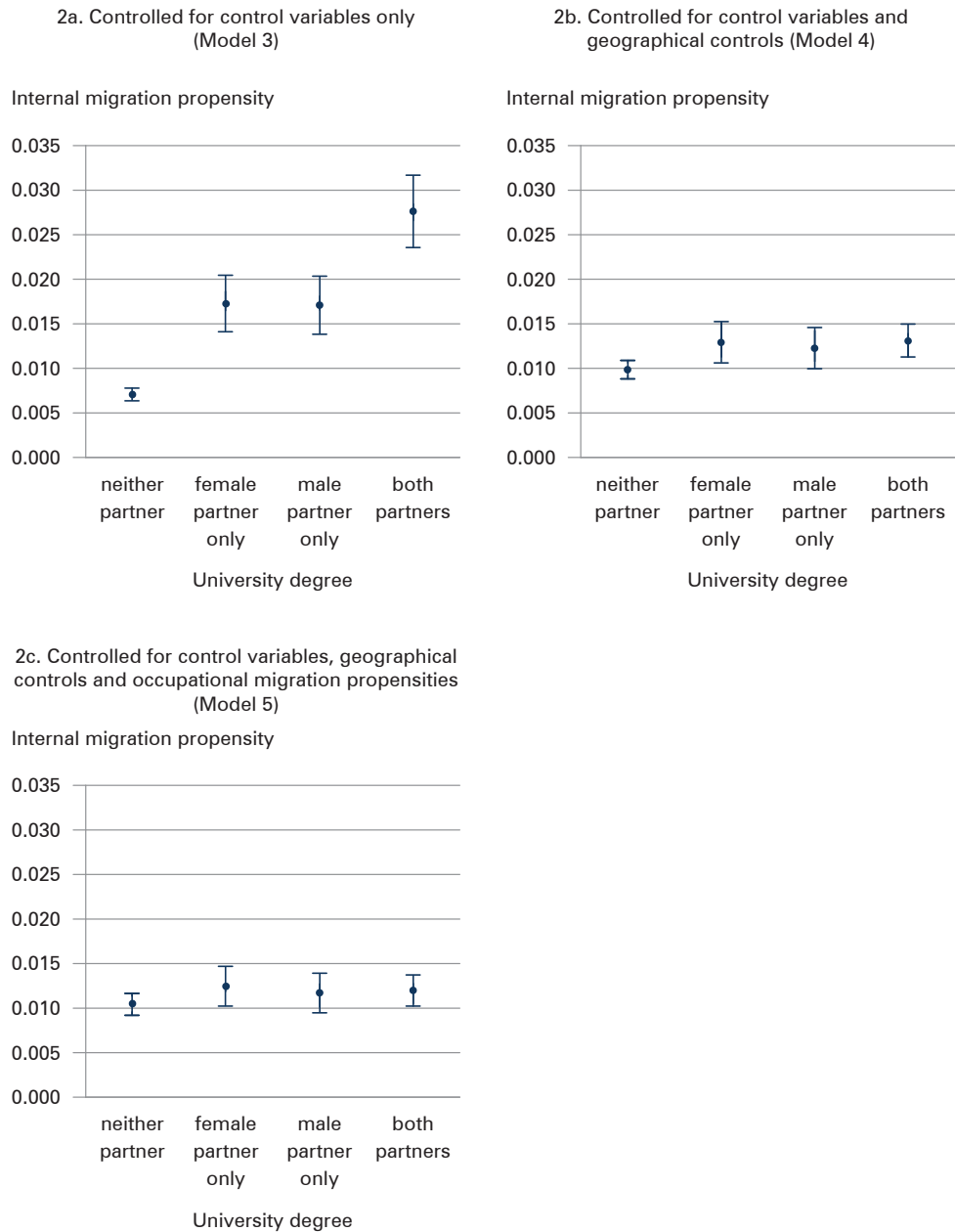
Furthermore, model 2 indicates that a couple's educational profile is not among the most important predictors for couple migration. Not only distance to parents and place of birth, but also age, family status and housing tenure appear more important. As expected, young couples, couples without children or with only preschool-aged children and couples in rental dwellings are more likely to migrate than older couples, couples with school-aged children and couples who own their dwelling. In addition, dual earners migrate less often than single-breadwinner couples and unemployed couples. Married couples migrate more often than unmarried couples, especially the recently married. Couples of which both partners have an international migration background are less likely to migrate. Household income is not related to couple migration, which indicates that a low income does not constrain couples from migrating.

Models 3, 4 and 5 include dual earners only, which allows for the introduction of work-related variables. Predicted probabilities disaggregated by educational profiles are derived from these models and depicted in figure 2 (a-c). Also, among dual earners the inclusion of geographical controls (Model 4) strongly reduces the effects of both partners' education on couple migration compared to the model with control variables only. If geographical controls are not taken into account (Model 3), power couples are almost four times more likely to migrate than low-power couples, whereas both female-power and male-power couples are more than twice as likely to migrate than low-power couples. After the inclusion of distance to birthplace and distance to parents, the estimated migration propensity of dual-earner couples with one or two university graduates is 30 percent higher than that of dual earners without university degrees. There is no statistically significant difference between dual earners with one and two university graduates. Effects of control variables largely resemble those in the models among all couples. The effect of job duration matches expectations: As male or female partners hold the same job for a longer period of time the likelihood of couple migration is significantly reduced. Dual-earner couples with an unbalanced income ratio are slightly more likely to migrate than couples with more equal incomes, regardless of which partner earns a higher income.

The inclusion of occupational migration propensities in model 5 hardly improves the model fit, but does further reduce the effects of both partners' education. If both male and female partners hold a high-mobility occupation, couples are more likely to migrate. The estimated effect of the male partner's occupation is slightly stronger but not significantly different from the estimated effect of the female partner's occupation. After including occupational migration propensities, the educational attainments of both women and men are no longer significantly related to couple migration. This indicates that the small positive effect of education that was left after adjusting for the geographical distance to birthplace and parents can be explained by the different occupations held by university graduates and their lesser educated counterparts.

In sum, the results of the binary logistic regression analysis support hypothesis 1A as both men's and women's human capital are positively related to family migration. This is true for both the total population and for the subgroup of dual earners, but

Fig. 2: Predicted probabilities (and 95 percent confidence interval) of dual-earner couple migration disaggregated by a couple's educational profile



Source: Authors' calculations from Statistics Netherlands (CBS)

Tab. 3: Binary logistic regression results on migration (>40 km), average marginal effects. Reference category is no move or a move within 40 km

	All couples					Dual-earners				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
<i>T (survey year)</i>	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**	-0.003**
<i>T²</i>	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**
<i>Partners with university degree, t=0</i>										
Neither partner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Only female partner	0.013**	0.003**	0.010**	0.003*	0.002	0.013**	0.003**	0.010**	0.003*	0.002
Only male partner	0.015**	0.004**	0.010**	0.002*	0.001	0.015**	0.004**	0.010**	0.002*	0.001
Both partners	0.028**	0.004**	0.021**	0.003**	0.002	0.028**	0.004**	0.021**	0.003**	0.002
<i>Mean age partners, t=0</i>	-0.000**	-0.001**	0.000	-0.000**	-0.000**	-0.000**	-0.001**	0.000	-0.000**	-0.000**
<i>Married, t=0</i>	0.001	0.002**	0.002*	0.003**	0.003**	0.001	0.002**	0.002*	0.003**	0.003**
<i>Wedding, t=0...3</i>	0.002*	0.003*	0.003*	0.003*	0.003*	0.002*	0.003*	0.003*	0.003*	0.003*
<i>Age oldest child, t=0</i>										
No children	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
< 4 years old	-0.001	0.000	0.001	0.001	0.001	-0.001	0.000	0.001	0.001	0.001
4-11 years old	-0.007**	-0.005**	-0.006**	-0.005**	-0.005**	-0.007**	-0.005**	-0.006**	-0.005**	-0.005**
12-18 years old	-0.009**	-0.006**	-0.009**	-0.007**	-0.006**	-0.009**	-0.006**	-0.009**	-0.007**	-0.006**
<i>Childbirth, t=0...3</i>	0.002*	0.001	0.002	0.002	0.001	0.002*	0.001	0.002	0.002	0.001
<i>International migration background</i>										
Neither partner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Only female partner	0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.002
Only male partner	0.001	-0.001	0.001	0.001	0.000	0.001	-0.001	0.001	0.000	-0.000
Both partners	-0.003*	-0.004**	-0.003*	-0.004*	-0.003*	-0.003*	-0.004**	-0.003*	-0.004*	-0.003

Tab. 3: Continuation

	All couples				
	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Housing tenure</i>					
Rental	Ref.	Ref.	Ref.	Ref.	Ref.
Owner-occupied	-0.009**	-0.007**	-0.008**	-0.006**	-0.006**
<i>(Self-)employed</i>					
Both partners	Ref.	Ref.			
Neither partner	0.021**	0.013*			
Only female partner	0.004	0.003			
Only male partner	0.005**	0.003*			
<i>Household income (percentiles)</i>					
0-30%	0.000	0.000	0.000**	0.000	0.000
30-40%			0.001**	0.000*	0.000*
40-50%			0.001	0.000	0.000
50-100%			-0.001**	-0.000**	-0.000**
<i>Income difference between partners (deciles)</i>					
0-30%			0.001**	0.000**	0.000**
30-40%			0.001**	0.000**	0.000**
40-50%			0.001**	0.000**	0.000**
50-100%			0.001**	0.000**	0.000**
<i>Female partner higher income</i>					
0-30%			Ref.	Ref.	Ref.
30-40%			-0.002	-0.002	-0.001
40-50%			-0.003*	-0.003	-0.002
50-100%			-0.001	-0.002	-0.001
<i>Years in current job, female partner</i>					
0-30%					
30-40%					
40-50%					
50-100%					
<i>Years in current job, male partner</i>					
0-30%					
30-40%					
40-50%					
50-100%					
<i>Woman's relative contribution to household income</i>					
0-30%					
30-40%					
40-50%					
50-100%					

Tab. 3: Continuation

	All couples					Dual-earners	
	Model 1	Model 2	Model 3	Model 4	Model 5		
<i>Distance to woman's parent(s)</i>							
< 2 km	Ref.	Ref.		Ref.	Ref.		Ref.
2-5 km	-0.000	-0.000		-0.001	-0.001		-0.001
5-10 km	0.002*	0.002*		0.001	0.001		0.001
10-25 km	0.003**	0.003**		0.003*	0.003*		0.003*
25-50 km	0.011**	0.011**		0.009**	0.009**		0.009**
>= 50 km	0.018**	0.018**		0.016**	0.016**		0.016**
No parents in the Netherlands	0.007**	0.007**		0.006**	0.006**		0.006**
<i>Distance to man's parent(s)</i>							
< 2 km	Ref.	Ref.		Ref.	Ref.		Ref.
2-5 km	0.003**	0.003**		0.004**	0.004**		0.004**
5-10 km	0.003**	0.003**		0.003**	0.003**		0.003**
10-25 km	0.005**	0.005**		0.005**	0.004**		0.004**
25-50 km	0.010**	0.010**		0.010**	0.010**		0.010**
>= 50 km	0.017**	0.017**		0.016**	0.015**		0.015**
No parents in the Netherlands	0.009**	0.009**		0.008**	0.008**		0.008**
<i>Distance to woman's place of birth</i>							
Lives in same municipality	Ref.	Ref.		Ref.	Ref.		Ref.
Other municipality, < 10 km	0.003	0.003		0.003	0.003		0.003
Other municipality, 10-25 km	0.001	0.001		0.001	0.001		0.001
Other municipality, 25-50 km	0.005**	0.005**		0.006**	0.006**		0.006**
Other municipality, >= 50 km	0.006**	0.006**		0.006**	0.006**		0.006**
Place of birth unknown	0.004*	0.004*		0.004*	0.004*		0.005*

Tab. 3: Continuation

	All couples			Dual-earners	
	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Distance to man's place of birth</i>					
Lives in same municipality		Ref.		Ref.	Ref.
Other municipality, < 10 km		-0.001		-0.002	-0.002
Other municipality, 10-25 km		-0.000		-0.000	-0.000
Other municipality, 25-50 km		0.001		0.001	0.001
Other municipality, > = 50 km		0.003		0.002	0.002
Place of birth unknown		0.003		0.003	0.002
<i>Migration rate woman's occupation</i>					
<i>Migration rate man's occupation</i>					0.001*
					0.001**
Obs.	90,314	90,314	73,044	73,044	73,004
Pseudo R-squared	.09	.20	.11	.21	.21
BIC	10437.78	9652.194	8290.882	7635.576	7653.195

** p<0.01, * p<0.05

Source: Authors' calculations from Statistics Netherlands (CBS)

only if not adjusted for their occupations. Furthermore, effect sizes of both partners' education are relatively small. We need to reject hypothesis 1B, because we found no significant differences between couples with a male university graduate and couples with a female university graduate. We also found gender equality with regard to the effect of contribution to the household income and occupation.

4.3 Multinomial logistic regression on destination region

Next, we investigated the destination of migrating couples and their determinants in a multinomial logistic regression using the same independent variables as in the binary logistic regression. We estimated separate models for couples who lived in the core region, the intermediate zone and the national periphery at t_0 . Among couples who already lived in the core region, power couples are less likely than low-power couples to migrate to the national periphery (Table 4). This effect was found both among all couples and among the subgroup of dual earners. Couples with one university graduate were equally likely as low-power couples to migrate from the core region to the national periphery, regardless of the gender of the university graduate. In addition, power couples were also more likely to move over long distances within the core region than low-power couples. To a lesser extent, this also holds true for female-power and male-power couples, but these effects were statistically insignificant among dual earners. These results indicate a stronger tendency among power couples to stay in the core region if they already live there and, if they migrate, to choose other destinations within the core region.

Tab. 4: Multinomial regression analysis on destination region (origin = core region), average marginal effects. Reference category is no move or move within 40 km

	All couples (N = 33,400)			Dual-earners (N = 26,841)		
	Periphery	Semi-periphery	Core region	Periphery	Semi-periphery	Core region
<i>University degree, t=0</i>						
Neither partner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Only female partner	-0.000	0.001	0.003*	-0.002	-0.000	0.002
Only male partner	-0.001	-0.001	0.004**	-0.002	-0.001	0.002
Both partners	-0.003**	-0.001	0.005**	-0.003**	-0.001	0.004**
<i>Migration rate woman's occupation</i>						
				-0.000	0.000	0.000
<i>Migration rate man's occupation</i>						
				0.000	0.000	0.000
Pseudo R ²		.17			.18	

** p<0.01, * p<0.05

Source: Authors' calculations from Statistics Netherlands (CBS)

Among couples who lived in the semi-periphery, power couples were more likely than low-power couples to migrate to the core region (Table 5). Educational attainments of the male partner are more important than those of the female partner: Whereas couples with only a male university graduate migrated more often to the core region than low-power couples, there was no difference between couples with only a female university graduate and low-power couples. We found this effect both among all couples and among the subgroup of dual earners. Among couples who lived in the national periphery those with only a male university graduate were more likely than low-power, female-power and power couples to migrate to the core region (Table 6). Among dual earners living in the national periphery, those with a man holding a high-mobility occupation more often migrated towards the core region, whereas her occupation had no effect. These results indicate that the likelihood for couples to migrate to the core region depends mainly on his earnings potential, not on hers. Hence, our results provide only partial support for our hypothesis that power couples tend to migrate to the core region. If power couples already live in the core region, they are more likely than other couples to stay there or to migrate within the core region. However, among couples who live in semi-peripheral or peripheral regions, predominantly his educational attainments and occupation influence the likelihood of migration towards the core region.

The effect estimates of control variables are all comparable to those in the binary model. We limit the description to one marked difference with respect to destination regions. Notably, couples with an international migration background appear to be oriented more towards the core region. They are equally likely to migrate to or

Tab. 5: Multinomial regression analysis on destination region (origin = semi-periphery). Reference category is no move or move within 40 km

	All couples (N = 29,180)			Dual-earners (N = 23,712)		
	Periphery	Semi-periphery	Core region	Periphery	Semi-periphery	Core region
<i>University degree, t=0</i>						
Neither partner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Only female partner	0.001	0.001	0.000	0.001	-0.001	0.001
Only male partner	-0.000	0.000	0.003*	-0.000	-0.001	0.003*
Both partners	0.001	0.001	0.004**	0.001	-0.000	0.004**
<i>Migration rate woman's occupation</i>						
				0.000	0.001*	-0.000
<i>Migration rate man's occupation</i>						
				0.000	0.000	0.000
Pseudo R ²		.23			.25	

** p<0.01, * p<0.05

Source: Authors' calculations from Statistics Netherlands (CBS)

within the core region but less likely to leave the core region than their counterparts with a Dutch background.

Tab. 6: Multinomial regression analysis on destination region (origin = national periphery). Reference category is no move or move within 40 km

	All couples (N = 27,734)			Dual-earners (N = 22,419)		
	Periphery	Semi-periphery	Core region	Periphery	Semi-periphery	Core region
<i>University degree, t=0</i>						
Neither partner	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Only female partner	0.002	-0.000	0.001	0.002	0.000	0.001
Only male partner	0.001	0.001	0.006**	0.000	0.001	0.002
Both partners	0.000	0.002	0.002	-0.001	0.001	0.001
<i>Migration rate woman's occupation</i>				0.000	0.000	-0.000
<i>Migration rate man's occupation</i>				-0.000	0.000	0.001**
Pseudo R ²	.23			.27		

** p<0.01, * p<0.05

Source: Authors' calculations from Statistics Netherlands (CBS)

5 Conclusion and discussion

The aim of this study was to analyse the role of men's and women's educational attainments in couple migration in the contemporary Dutch context, where younger generations of women have reversed the gender gap in education to their advantage. By analysing couple migration between 2006 and 2015, we found that both men's and women's human capital increases migration propensities in the Netherlands, although effect sizes are relatively small. Among dual earners, the small effect of educational profiles became non-significant if adjusted for their occupations.

We found no gender differences in the effect of education on couple migration in general. This absence of gender asymmetry contradicts a wide array of empirical studies indicating the dominance of men's human capital while women are in the position of the "trailing wife" (Cooke 2008). These studies, however, were based on twentieth century data and mainly on the US context. In the meantime, women have increased their labour market participation and closed or even reversed the gender gap in education in many countries. These trends seem to have strengthened the position of women in couple migration decision-making. Our results are more in line with recent empirical evidence from Sweden demonstrating only very minor gender differences in the effect of education on couple migration (Brandén 2013; Tano *et al.* 2018). However, we did find some signs that men's careers are still attributed

more weight in couple migration decision-making than women's. First, migration propensities of dual earners are slightly stronger related to men's occupation than to women's. Second, migration towards the core region increases with his education, but does not respond to hers.

A second aim of this study was to take a geographical perspective on couple migration and to test *Costa and Kahn's* (2000) colocation hypothesis, which postulates that power couples – couples with two highly educated partners – are more likely to migrate to large metropolitan areas because of their dense labour markets that allow them to accommodate two specialised careers from one place of residence. We demonstrated that power couples are indeed overrepresented in the Dutch core region. However, we found only partial support for the hypothesis that power couples migrate disproportionately towards the core region. On the one hand, power couples are more likely than other couples to stay in the core region or to migrate within the core region if they already live there. On the other hand, however, among couples who live in semi-peripheral or peripheral regions, power couples are not more likely to migrate to the core region. Propensities of periphery-to-core migration are only related to the male partner's human capital. These results align with earlier findings from the US (*Compton/Pollak* 2007). Given these findings and the low migration rate among partnered individuals in general it is likely that the concentration of power couples in the Dutch core region stems from highly educated single young adults who migrate to the core region individually in order to achieve upward mobility (*Fielding* 1992; *Kooiman et al.* 2018) and later on find a partner who is also highly educated (*Gautier et al.* 2010). Power couples formed in the core region thereafter tend to stay in their region.

Our study puts the influence of educational attainments on couple migration in perspective and supports the notion that migration is a social practice and strongly related to linked lives outside the household (*Coulter et al.* 2016; *Vidal/Huinink* 2019). In line with evidence from Sweden (*Mulder/Malmberg* 2014), we showed that couple migration is highly constrained if parents of both the male and the female partner live nearby. Furthermore, the effect of human capital was strongly reduced after adjusting for the distance to parents. This indicates that the more highly educated are more likely to migrate partly because they tend to live farther away from their parents. Importantly, from this study we cannot say whether the family ties are a pull factor – do people tend to move back to their family? – or merely that there are less constraints for a long distance move in any direction if the family lives far away. In a future study we aim to find answers for these questions by studying the destinations in more detail.

Increasing regional urban-rural contrasts are a concern for policymakers around the world. Young people with high potentials migrate to cities and generally do not return to their place of origin later in life, leading to a potential brain drain in rural areas (*Kooiman et al.* 2018). *Kooiman et al.* (2018) showed that long-distance migration of young individuals for purposes of education and career progression plays a large role in the "geographical sorting" of human capital within the Netherlands. This study shows that couple migration for labour market reasons may play only a minor role in this respect given the limited effects of human capital and the low migration

propensities among couples in general. The low migration rates among couples and the tendency for power couples to stay in the core region tends to maintain the geographical segregation of human capital that is driven by the selective migration of highly educated young adults to the core region.

One limitation of this study is that register data do not include stated intentions to move. Although work is the most-cited motive for long-distance mobility in the Netherlands (*Feijten/Visser* 2005) and our analyses included robustness checks with different distances, we may well have missed some short-distance job-related moves. Furthermore, at this point we do not know whether couples' mobility truly benefited either partner's career. A future study aims to gain more insights by studying the development of both partners' careers after the migration.

The "take-home message" of this study, as well as the recent Swedish studies, is that a crucial change may be taking place in recent years with respect to women's human capital and labour market positions and their perceived importance within the household. Women have surpassed men in higher education, their labour participation is increasing and their weight in couples decision-making around migration appears to be increasing accordingly. For future research, it would be worthwhile to focus on comparative research on the role of men and women in couple migration in different countries, both in Europe and beyond. In addition, this study is based on pre-Covid 19 data. During the pandemic, working from home has become a widespread phenomenon. If this leads to a more permanent shift towards working from home after the pandemic, this may alter patterns of internal migration among workers for whom working from home is most realistic – that is highly educated, white collar workers. It might enhance the attractiveness of peripherally located regions and decrease the necessity for power couples to be located in expensive, large and diverse labour markets.

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Niels Kooiman (✉). Statistics Netherlands. The Hague. The Netherlands. University of Amsterdam. Amsterdam, The Netherlands. E-mail: c.kooiman@cbs.nl

Prof. Dr. Marjolijn Das. Erasmus University Rotterdam. Rotterdam, The Netherlands.
E-mail: das@essb.eur.nl
URL: <https://www.eur.nl/people/marjolijn-das>

Appendix

Tab. A1: Migration rates of employed singles aged 18-45 in the three years following the interview date (2006-2015), disaggregated by occupation

	N	Moved > 40 km (%)
Managers	2,395	3.72
Clerical support workers	5,034	2.82
Service and sales workers	6,730	3.24
Skilled agricultural, forestry and fishery workers	632	1.27
Craft and related trades workers	3,293	1.64
Plant and machine operators, and assemblers	1,629	2.46
Elementary occupations	2,565	2.11
Science and engineering professionals	1,387	5.91
Health professionals	1,405	7.05
Teaching professionals	2,167	5.03
Business and administration professionals	3,266	5.97
Information and communications technology professionals	2,180	5.60
Legal, social and cultural professionals	2,149	5.96
Science and engineering associate professionals	1,338	2.91
Health associate professionals	1,340	3.66
Business and administration associate professionals	3,597	4.53
Legal, social, cultural and related associate professionals	1,576	4.00
Information and communications technicians	251	5.18
Occupation unknown	573	4.71
Total	41,813	3.89

Source: Authors' calculations from Statistics Netherlands (CBS)

Tab. A2: Descriptive statistics of the variables used in the analyses

	% in sample (N = 90,314)	% migrants (N = 1,050)
Total	100	1.2
<i>Partners with paid work, t0</i>		
Neither partner	0.9	2.4
Female partner only	2.6	1.4
Male partner only	15.6	1.2
Both partners	80.9	1.1
<i>Year of interview</i>		
2006	10.8	1.4
2007	10.3	1.3
2008	10.2	1.1
2009	8.1	1.1
2010	12.5	0.8
2011	8.5	0.8
2012	13.2	1.0
2013	9.5	1.3
2014	8.5	1.4
2015	8.4	1.6
<i>Marital status, t0</i>		
Unmarried	30.9	1.6
Married	69.1	1.0
<i>Marriage, t0...3</i>		
No	93.1	1.1
Yes	6.9	2.2
<i>Family status, t0</i>		
No children	23.3	2.0
Age oldest child < 4	20.3	1.7
Age oldest child 4-11	37.3	0.7
Age oldest child >= 12	19.1	0.4
<i>Childbirth, t0...3</i>		
No	74.4	0.9
Yes	25.6	1.9
<i>Migration background</i>		
Neither partner	75.5	1.1
Female partner only	8.6	1.6
Male partner only	6.7	1.4
Both partners	9.2	1.1

Tab. A2: Continuation

	% in sample (N = 90,314)	% migrants (N = 1,050)
<i>Area of residence, t0</i>		
National periphery	30.7	0.9
Intermediate zone	32.3	0.9
Core region	37.0	1.6
<i>Distance to woman's municipality of birth, t0</i>		
In municipality of birth	29.3	0.3
< 10 km	12.5	0.4
10-25 km	18.9	0.5
25-50 km	9.9	1.8
>= 50 km	17.7	3.5
Birthplace unknown	11.8	1.4
<i>Distance to man's municipality of birth, t0</i>		
In municipality of birth	32.3	0.4
< 10 km	12.37	0.4
10-25 km	18.19	0.6
25-50 km	9.4	1.7
>= 50 km	17.42	3.3
Birthplace unknown	10.32	1.3
<i>Distance to woman's parent(s), t0</i>		
< 2 km	28.0	0.2
2-5 km	15.11	0.2
5-10 km	11.93	0.4
10-25 km	12.6	0.6
25-50 km	7.7	2.3
>= 50 km	13.7	4.5
No parent in the Netherlands	10.9	1.3
<i>Distance to man's parent(s), t0</i>		
< 2 km	30.5	0.3
2-5 km	15.7	0.5
5-10 km	11.3	0.5
10-25 km	11.6	0.8
25-50 km	7.4	2.1
>= 50 km	13.2	4.4
No parent in the Netherlands	10.3	1.2
<i>Dwelling owner-occupied, t0</i>		
No	20.7	2.2
Yes	79.3	0.9

Tab. A2: Continuation

	% in sample (N = 90,314)	% migrants (N = 1,050)
<i>Relative contribution woman to household income, t0</i>		
< 30%	25.7	0.9
30-40%	27.0	0.8
40-50%	28.9	1.3
>= 50%	18.4	1.7
<i>Partners with university degree, t0</i>		
Neither partner	79.1	0.7
Female partner only	6.5	2.4
Male partner only	7.5	2.2
Both partners	6.9	4.3
	All couples mean	Migrant couples mean
<i>Age partners (18-45), t0</i>	35.8	33.6
<i>Standardised household income (0-100), t0</i>	55.6	59.4
<i>Job duration woman (in years), t0</i>	7.2	4.8
<i>Job duration man (in years), t0</i>	8.0	5.0
<i>Migration rate woman's occupation, t0</i>	4.1	4.8
<i>Migration rate man's occupation, t0</i>	3.7	4.9

Source: Authors' calculations from Statistics Netherlands (CBS)

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