Moving motivated by work or proximity to family and labour market outcomes in the Netherlands

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Abstract

The classical human-capital model of migration posits that internal migration should lead to improved individual labour market outcomes. However, later empirical and theoretical work has emphasised that the outcomes of migration may be positive for some, but negative for others, depending on, for example, gender and the motive for moving. We investigate the labour market outcomes after moves motivated by work, moves motivated by proximity to family, and moves motivated by both work and family at the same time, compared with not moving. We use data from the Netherlands' Housing Surveys of 2006, 2009, 2012, 2015, and 2018 matched with register data ($N \sim 350{,}000$ person-years). We find that men's and women's moves for work, and moves for both family and work, are positively associated with outcomes in terms of individual income, employment, and labour supply (hours worked). We do not find such positive associations for moves motivated by family proximity only, but we hardly find negative associations. We do not replicate the finding of previous research for Sweden that moves for family proximity were associated with an increased likelihood of transitions out of unemployment. However, we find some evidence that women's moves motivated by both work and family proximity are associated with an increase in labour supply.

Introduction

According to classical human-capital theory (Sjaastad, 1962), internal migration should lead to improved individual labour market outcomes. However, later empirical and theoretical work has nuanced this notion, and has shown that the economic gains of migration are by no means universal (Korpi & Clark, 2015). A better understanding of who benefits from migration is important, because it helps us understand both migration behaviour and the functioning of labour markets.

The selectivity of improvements in labour market outcomes after migration is less surprising if we consider motives for moving. As one would expect, in a study for Britain focussing on men, positive labour market outcomes of migration were particularly observed among those whose stated motivation for a move was related to work (Böheim & Taylor, 2007). At the same time, work is certainly not the only motive for moving.

According to Morrison and Clark (2011), a minority of those at working ages who moved between labour markets in New Zealand did so primarily for employment motives. In Australia, the United Kingdom and Sweden, respondents aged 18–74 mentioned employment more frequently as a motive for longer distance than shorter distance moves, but at no distance did more than around a third report this motive (Thomas et al., 2019). The same study also showed that, in all three countries and for all moving distances, 20–35% of respondents mentioned family-related motives (not further specified). In Australia, family motives were reported even more frequently than employment motives. This was true for the entire distance range of 20–120 km the authors considered. From a further analysis of the family motives mentioned in the UK, Thomas (2019) observed that more than half of these were driven by the desire to live closer to non-resident family or friends. In a Swedish survey in which multiple open-ended questions were asked about motives for moving, almost a quarter of respondents mentioned non-resident family as a motive for moving—almost exclusively in terms of moving towards them (Gillespie & Mulder, 2020).

In the research on labour market outcomes of moving, proximity to nonresident family is a particularly interesting motive to consider. This is because there are theoretical arguments for expecting negative outcomes after such moves, but also for expecting positive outcomes (see Background section). In an investigation of the labour market outcomes of moves motivated by proximity to family (compared with moves for other reasons), Gillespie et al. (2021) found a negative association between moving for proximity to family and improvements in work conditions after moving within Sweden. In contrast, they observed a positive association with post-moving employment among those who were unemployed before the move. In a study of earnings and income after job loss in Norway, Huttunen, Møen, and Salvanes (2018) found worse labour market outcomes for those who moved to a region where family lived than for those who moved to a region where no family lived and those who did not move.

With this paper, we aim to improve the understanding of the labour market outcomes of moves motivated by proximity to family. We address the following research question: *How are women's and men's individual income, employment, and hours worked associated with moving motivated by nonresident family and moving motivated by work, compared with not moving?* Following Gillespie et al. (2021), we distinguish between moving for nonresident family (but not for work), moving for work (but not for family), and moving for both nonresident family and work.[1] We study a different context than Gillespie and colleagues did: the Netherlands. A major difference between Dutch and Swedish labour markets is that the Netherlands has a much greater proportion of part-time workers, particularly among women. We therefore not only study income and employment, but also labour supply in terms of hours worked. This more gendered labour market also leads us to pay more attention to gender differences than Gillespie and colleagues did. Another difference is that we incorporate non-movers in our analysis. We think that this is conceptually more appropriate than only studying movers (see

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[1] This distinction was not possible for the analysis where employment is the outcome variable; see Data and Methods section.

background section). Gillespie and colleagues did not have this option, as their data did not include non-movers.

To answer our research question, we employ data from the Netherlands' Housing Surveys of 2006, 2009, 2012, 2015, and 2018 matched with register data (sample size ranging from 344,819 to 359,336 depending on the labour market indicator). We analyse these data using linear regression (for income and labour supply) and logistic regression (for employment). Our analysis should be considered as descriptive; we do not make causal claims.

Background

The labour market outcomes of moves for work reasons[2]

Classical human-capital theory asserts that movers weigh the monetary benefits of moving against the costs. They then decide to move if the benefits outweigh the costs (Sjaastad, 1962). In line with this framework, Kennan and Walker (2011) have demonstrated a positive association between expected income and internal migration. According to human-capital logic, the labour-market outcomes of migration should be positive (Herzog et al., 1993). However, this needs not always be the case. Migration might be undertaken for different reasons and for the sake of others than the individual, and different migration decisions might be made in different life-course phases (White & Lindstrom, 2005). As a result, the labour-market outcomes of migration may not be positive for all movers. Indeed, such positive outcomes have been observed for a minority of those who migrate (Morrison & Clark, 2011), and mainly found for the highly educated, those who move to large cities, those with lower incomes (Korpi & Clark, 2015), men (Cooke, 2003; Mulder & Van Ham, 2005), and those who actually change jobs (Bartel, 1979).

At first sight, moving for work reasons should represent the ideal–typical case in which the mover anticipated an improvement in labour market outcomes that was worth the effort of moving. In line with this reasoning, labour market outcomes of migrating within Britain were positive particularly among those whose moves were motivated by work (Böheim & Taylor, 2007). Likewise, Gillespie et al. (2021) observed a greater likelihood of respondents reporting improved work conditions after their move, and a smaller likelihood of deteriorated conditions, if the move was motivated by work than by other reasons. We expect that *the labour market outcomes of those moving for work reasons will be more positive than those of non-movers* (*Hypothesis 1*).

Despite the above-mentioned evidence supporting this hypothesis, Morrison and Clark (2011) surprisingly found for New Zealand that, even among those reporting a work-related motive for their move, almost as many survey respondents experienced a decrease as an increase in income. Among those reporting moving for work, some might move to reduce their commuting time rather than to change jobs. Others might move for a new job that does not offer better pay, for example after having been laid off from the previous job or because the new job offers other advantages (for example, more income

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[2] Note that, for readability, we use 'motives' and 'reasons' interchangeably, even though specialised scholars might view these as different.

security or better income prospects in the long run). Therefore, as obvious as Hypothesis 1 seems to be, it is not completely self-evident that it will be supported.

Given longstanding gendered specialisations in paid work among men versus household work among women (Becker, 1991), we may expect gender differences in our findings. In the family migration literature, both the human-capital theory and the gender-role theory of family migration predict lesser economic gains from moving for male than for female partners in two-gender couples (Cooke, 2003; Cooke et al., 2009). In the long run of individual life courses, migration histories are more strongly associated with men's than women's occupational achievement (Mulder & Van Ham, 2005). Such gender differences could, first of all, show up in a lesser tendency among women to report moving for work reasons. Given a move for work reasons, women's labour-market outcomes might also be less positive, for example because their career ambitions might be lower as a consequence of these gender differences. We expect a *less positive association between women's moves for work reasons and labour market outcomes than men's* (*Hypothesis 1, gendered*).

The labour market outcomes of moves motivated by proximity to nonresident family

With regard to moves motivated by proximity to nonresident family, we build on two contrasting arguments. The first is related to the sacrifices those moving for proximity to family might make in the work domain (Gillespie et al., 2021; Mulder & Kooiman, 2024). Likely, many of those who move for proximity to family seek companionship, support or refuge, or may move to provide support (Mulder, 2018; Mulder & Gillespie, 2024; Wall & Von Reichert, 2013). These movers might therefore prioritise opportunities for contact and support exchange with family over economic considerations. In a study of labour market outcomes after transitions to caregiving for an ageing parent in the United States, Brady (2023) observed a decrease in women's wages after such transitions. This notion of sacrifice leads us to expect *a negative association between moving for proximity to nonresident family and labour market outcomes* (*Hypothesis 2a*). The evidence of a negative association between moving for proximity to family and improvements in work conditions after moving within Sweden among employed respondents (Gillespie et al., 2021) is in line with this hypothesis.

By contrast, moves motivated by proximity to nonresident family might be related to the function of family as a social resource in the labour market (Mulder, 2018; see Lin, 1999, for the social-resource theory). Family members might offer a job, or might help find one through their local network. They might also help with childcare, allowing parents to focus on work. This social-resource argument leads us to expect *a positive association between moving for proximity to nonresident family and labour market outcomes* (*Hypothesis 2b*, which competes with Hypothesis 2a). There is indeed evidence that inter-generational geographical proximity decreases poverty risks (Fischer-Neumann & Böhnke, 2021) and that proximity to family is associated with a decreased likelihood of precarious labour market conditions among women (Mulder et al., 2022). The social-resource effect of family might particularly hold for finding employment (Bähr & Abraham, 2016). In line with Hypothesis 2b, Gillespie et al. (2021) demonstrated a positive association between moving for proximity to family—compared with other reasons—and transitions from unemployment to employment.

The association between moving for proximity to nonresident family and labour market outcomes could well be gendered. Family ties are more important to women than men (Rossi & Rossi, 1990). This could, first of all, imply that women are more likely to move for proximity reasons than men (Gillespie & Mulder, 2020). It could also lead to different labour-market outcomes of moves for proximity, but it is difficult to predict in which way. It might imply that women are more willing to sacrifice economic gains for proximity to family (stronger version of Hypothesis 2a for women than for men). However, it might also imply that they rely more on family support to free up time for occupational progression or working more hours (stronger version of Hypothesis 2b for women than for men). As long as women take on more childcare responsibilities than men, particularly women might benefit from family help with childcare.

The labour market outcomes of moves for both work and nonresident family

The combination of a work motive and a nonresident family motive may signify different scenarios. In the first scenario, the move is similar to a move for work only, and the presence of family is a secondary advantage of the new location. If this situation prevails, this would lead to expecting a positive association with labour market outcomes (same as Hypothesis 1). In the second scenario, the mover accepts lower economic gains because of the presence of family at the destination. If this situation prevails, this would lead to expecting *a less positive association with labour market outcomes for moves motivated by nonresident family and work than for moves motivated by work only* (*Hypothesis 3a*). In the third scenario, the additional family motive is related to finding work (or better-paying work) through family or to the opportunity to take up a job (or a better job, or increased working hours) thanks to family help, for example with childcare. If this situation prevails, this would lead to expecting *a more positive association with labour market outcomes for moves motivated by nonresident family and work than for moves motivated by work only* (*Hypothesis 3b*, which competes with Hypothesis 3a).

The complexity arising from this range of scenarios is further enhanced by potential gender differences. Both the second and the third scenario might be more prevalent among women: They might be more willing to sacrifice economic gain, but their labour market outcomes might also benefit more from family support.

Variations with income and through the life course

The associations between moving for work or family and labour-market outcomes might not only differ by gender, but also by income (Korpi & Clark, 2015) and through the life course: by age or household situation. We therefore explore such variations in the associations.

The Dutch labour market and part-time work

An important feature of the Dutch labour market is the extraordinarily high share of particularly women, but—albeit at a much lower level—also men working part-time. The majority of women who work for pay work part-time against less than a quarter of men (Roeters & Craig, 2014). The Netherlands is among the countries where social policies and norms strongly support reduced working hours, especially among women (Beham et al., 2019). Part-time working women tend to have high levels of satisfaction

with work-life balance (Beham et al., 2019), as well as high job satisfaction and a low desire to change their working hours (Booth & Van Ours, 2013). Part-time work comes in many forms in the Netherlands: from small to substantial in size, and from marginalised to well-paid. Because of this specific position of part-time work in the Dutch labour market, we think labour supply in terms of hours worked is a relevant labour market outcome to investigate.

Data and methods[3]

Our main interest is in changes in individual labour market outcomes over a short period of time, but we also look into somewhat longer periods. We look into the association between such changes and moving for specific stated reasons in particular. An advantage of focussing on a short period is that changes in labour market outcomes will likely be directly linked to the move. Our main comparison is between moving for a specific reason and not moving. We think that this is appropriate, because it fits with the theoretical notion of costs and benefits of migrating compared with not migrating. This choice leaves untouched that comparing between moves for different reasons can be useful, for example when data on non-movers are lacking (as in Gillespie et al., 2021). We also compare moves motivated by work and family at the same time with moves for work only.

We consider all moves motivated by work and proximity to nonresident family, except those within the neighbourhood. Also, our interest is in uncovering associations rather than in detecting causal relations. Naturally, many of those who move for work reasons will expect some kind of reward after the move, and decide to move precisely because of that reward. Likewise, those who move for proximity to family might expect either to make some kind of sacrifice in terms of labour market outcomes or to benefit from proximity to family. We do not intend to rule out this kind of endogeneity in our analysis.

Data sources
The data were derived from two sources: the Netherlands' Housing Surveys (Dutch acronym WoON) and the System of Social-Statistical Datasets (SSD). We employed the five consecutive WoON survey rounds 2006, 2009, 2012, 2015, and 2018. The year of interview was either the year of the survey round or the year before. In the handful of cases in which the interview took place in the year after the survey round, we coded the interview year as the year of the survey round. WoON is commissioned triennially by the Dutch government. The main aim is estimating housing demand, with moving as an important topic. Information about moves includes motivations and some retrospective information about the situation before the move. The total N fluctuates between around 62,000 (2006) and 68,000 (2012), with the exception of 2009 ($N \sim 77,000$). The surveys were conducted among a stratified random sample (with municipalities as the higher stratum) among individuals aged 18 and older not living in institutions. The sample was designed to be representative of this population, and drawn from the population register. Response rates varied between 58 and 63%. In 2006, 65% of the interviews were

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[3] Some text parts in this section were summarised or adapted from Mulder and Kooiman (2024).

conducted by telephone (CATI), 35% face-to-face (CAPI), and 0.2% were web interviews (CAWI). Over time, the interview mode shifted gradually towards 66% CAWI, 20% CATI, and 14% CAPI in the 2018 survey round. WoON, and its very similar predecessor, titled Housing Demand Survey, have a long history of work on residential relocations (De Groot et al., 2011a, 2011b; Kooiman, 2020; Mulder & Hooimeijer, 1995, 2002; Mulder & Kooiman, 2024) and labour-market outcomes after moving (Smits, 2001).

Using a unique personal identification number, the data from the WoON surveys have been micro-linked (that is, matched at the individual level of the respondent) to SSD data (Bakker et al., 2014) from administrative registers. These data cover the entire registered population of the Netherlands. The population register formed the sampling frame for the WoON surveys. The SSD data we employ originate from the population register, the tax register, social security registers (data on welfare benefits), and education registers (data on enrolment in education). We use SSD data from 2002 (one year before the first observed moves in WoON 2006) to 2019 (1 year after the last observed moves in WoON 2018). In this way, and by employing some of the retrospective questions about the situation before a potential move, we could observe respondents over a 3-year period. We removed a few tens of respondents for whom no match could be made with the register data.

Analytical sample

The information about moves in WoON is related to the last move occurring in the 2 years preceding the date of interview, whereas the information about labour market outcomes is related to calendar years. To match these different time frames whilst keeping the measurements of labour market outcomes before and after a potential move as close in time as possible, we constructed person-years as units of analysis. Each of these person-years contains information from the year itself (notably whether a move took place), the year before and the year after. The number of person-years per respondent depends on whether and when the respondent moved. Person-years after a reported move were removed from the data. Respondents who did not move have the maximum of three person-years: the calendar year in which the interview took place, and the 2 years before that year. Respondents who moved in the year of interview also have three person-years. Respondents who moved before the year of interview have fewer person-years. For example, respondents interviewed in 2005 who reported a move that took place in 2003 have one observed person-year (for 2003), and those who did so for 2004 have two (for 2003 and 2004).

We selected person-years in which respondents were aged 26–56 at the time of observation, to minimise the chances of observing moves associated with transitions from education to the labour market (lower age limit) or from work to retirement (upper age limit). Even so, in a small percentage of person-years, respondents were registered as retired (6,928, or 1.5%) or as student (5,187, or 1.1%). We removed these from the data. The total number of person-years after these first selections was 235,122 for women and 221,612 for men. For the main analyses, we also removed person-years for which respondents reported a move for other reasons than work or proximity to family (mostly housing, partnership formation or dissolution; we kept these person-years in sensitivity analyses). Furthermore, we removed person-years in which respondents moved within

Table 1 Sample characteristics (person-years): % (*mean, standard deviation*)

	Income sample		Employment sample		Labour supply sample	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**
Income year t − 1	*50.79, 22.93*	*70.52, 21.91*				
Income year t + 1	*51.69, 23.27*	*71.27, 22.01*				
Employed year t − 1			80.12	89.80		
Employed year t + 1			79.58	88.92		
Labour supply year t − 1					*74.15, 24.85*	*95.00, 14.01*
Labour supply year t + 1					*74.36, 24.29*	*95.08, 13.81*
Whether moved by motive: no	99.52	99.43	99.55	99.45	99.51	99.42
Work only	0.30	0.37	0.26	0.35	0.30	0.39
Proximity only	0.15	0.14	0.16	0.15	0.15	0.14
Proximity & work	0.04	0.06	0.04	0.06	0.04	0.06
Age	*41.90, 8.54*	*42.06, 8.62*	*42.40, 8.59*	*42.37, 8.65*	*41.95, 8.53*	*42.08, 8.60*
Education: up to lower secondary	20.65	23.81	25.54	25.26	20.50	23.73
Middle/higher secondary	39.72	38.16	38.77	38.09	39.52	37.95
Tertiary: vocational	28.68	25.27	25.55	24.21	29.05	25.50
University	10.95	12.76	10.14	12.44	10.94	12.82
Immigrant background: none	82.25	83.27	79.03	81.46	82.90	83.85
1st generation	10.95	10.11	13.97	11.56	10.51	9.71
2nd generation	6.79	6.61	7.01	6.98	6.59	6.44
Urban area year t	57.25	55.32	58.15	56.54	57.03	54.96
Region year t: Randstad	45.36	43.14	45.74	43.70	45.22	42.90
Intermediate zone	29.19	29.99	29.53	30.37	29.06	29.89
Periphery	25.45	26.87	24.73	25.92	25.72	27.21
Survey round: 2006	13.43	15.20	2.04	2.24	17.22	19.43
2009	24.99	23.22	29.18	26.81	23.71	22.02
2012	22.35	22.97	25.11	26.20	21.38	21.79
2015	19.40	19.01	21.66	22.08	18.60	17.98
2018	19.83	19.59	22.01	22.66	19.09	18.77
Household situation year t: single	17.36	22.28	17.58	25.08	17.41	21.63
Couple without children	19.64	18.59	19.14	17.86	19.94	18.93
Couple with children	49.90	52.84	48.78	50.20	49.95	53.38
Single parent	12.01	4.40	13.32	4.73	11.65	4.27
Other	1.09	1.88	1.17	2.12	1.05	1.79
N person-years	166,094	178,346	183,134	171,278	163,543	178,890
N respondents	53,887	57,633	63,819	59,613	58,001	63,800

Italic values indicate mean, standard deviation

the neighbourhood (225 for those who moved for work only, 126 for those who moved for proximity only, and 16 for those who moved for both proximity and work). After this selection, our sample consisted of 223,986 person-years for women and 210,856 for men.

The size of the analytical samples was restricted further by the availability of information from SSD. We kept those respondents for whom the measure of the labour market outcome was available for the years before and after a potential move, so that we could observe change. Information on the labour market indicators was missing if a respondent was not registered as inhabitant of the Netherlands on January 1 in the person-year. Income and labour supply were not available for those who, according to the registers, did not work for pay. Furthermore, our measure of individual income was not available

for 2002 and 2003. Employment was not available for 2002–2004. For income, these restrictions led to 42% missing values in WoON 2006 and percentages missing varying between 15 and 17 in later WoON rounds. Employment had 91% missing values in the 2006 round and around 1% from 2009 onwards. Missing values for labour supply decreased gradually over time, from 26% in 2006 to 19% in 2018. The final sample sizes by gender are shown in Table 1 (sample characteristics).

Dependent variables

For each person-year record, we denote the calendar year of observation (the year in which we potentially observe a move) as t0. The year before t0 is t − 1 and the year after is t + 1. The dependent variables (indicators of labour market outcomes) were measured in year t + 1. We included the same indicators measured at t − 1 in the independent variables, so that the coefficients of the other variables can be read as associations given the previous situation, and thus, with change in the dependent variables (Schmid, 2001). In sensitivity analyses we also consider the years t + 2 and t + 3.

Individual income was measured in percentiles (1–100) of the annual individual gross incomes from labour of the entire population of the Netherlands for whom an income was available in the register data in the year after a potential move. We used percentiles—rather than amounts of income—to account for fluctuations in annual income changes (for example owing to economic fluctuations or inflation levels) in a straightforward way. Income change is thus measured as change in the income hierarchy. On average, one would expect individuals to move up in the percentile range through their labour market career, or at least stay at the same level.

To measure *employment status,* we used an SSD variable indicating the main socio-economic category in the year of observation, which was derived from tax registers, social security registers and educational registers. If this category was salaried worker, self-employed, working for the firm of a family member, director, or firm owner, the respondent was categorised as employed. In all other cases (for example benefit recipient), they were categorised as not employed.

Labour supply was calculated by Statistics Netherlands, and measured as a percentage of full-year, full-time employment. Lower percentages can stand for part-time work or periods of non-employment; the data do not allow distinguishing between these. This variable was derived from the tax registers. For employees, it was based on the number of contract hours registered by the tax authorities. For self-employed, Statistics Netherlands estimated labour supply based on their annual income. Because we do not know how accurate this estimate is, we performed a sensitivity analysis of labour supply in which we excluded the self-employed.

Main independent variable: whether moved for work, proximity to family, or both

The main independent variable was whether a respondent reported their last move in the year of observation (t0), combined with whether work or proximity to nonresident family were among the reported motives for the move. These questions about moves were asked irrespective of whether the respondent moved on their own or with other household members. Respondents who reported a move in the past two years were first asked whether their household composition was different after the move (or, if they moved

more than once, their last move) than before. If it was, they were asked whether they had moved for partnership formation, separation, or gaining independence. If it was not, they were given other answer categories for reasons for moving, with the option to give multiple answers. This procedure implies that we might miss out on work or proximity to family as an additional reason for moving among those who moved for partnership formation, separation, or independence.

It should also be noted that the question was phrased as pertaining to the individual respondent, without an option to answer that reasons differed between household members. An important downside of this phrasing is that some respondents might have reported they moved for work, whereas they actually moved for the partner's work. Because women are more frequently tied movers who move for their partners' work than men (Cooke, 2003), this might happen more frequently for women than men, and might show up in the results as a gender difference.

One of the answer categories of interest was 'to live closer to family, friends or acquaintances.' Consequently, some respondents might have had others in mind than family. In a Swedish study in which motives for moving were measured using open-ended questions, however (Gillespie & Mulder, 2020), respondents rarely mentioned proximity to friends as a reason for moving unless they also mentioned proximity to family. Another response category was 'work'. Unfortunately, this answer category did not distinguish between moving for the respondent's own work and the partner's work. Respondents who used the response category 'proximity to family'—but not the response category 'work'—were categorised as 'moved for proximity to family'. Those who used the response category 'work'—but did not fall into the category 'moved for proximity to family'—were categorised as moving for work. Following Gillespie et al. (2021), we treated moving for both work and proximity as a separate category where this was possible: in the analyses of income and labour supply. In these analyses, the main independent variable thus has four categories: Did not move (reference), moved for work only, moved for proximity only, and moved for both work and proximity. In the analyses where employment was the outcome variable, we could not use the fourth as a separate category, because there were too few non-employed respondents who mentioned both motives. In those analyses, we therefore used one category for those who mentioned work and potentially also proximity to family.

Moves for work reasons and moves for reasons of proximity to family are likely related to covering distances and changing locations (e.g., White & Lindstrom, 2005). Yet, the assumption that moves for work or proximity to family cover long distances may not always be correct. Because of data restrictions, we could not impose restrictions on the distance of the move.[4] However, in all survey rounds, the respondents reported on whether the move was within the neighbourhood, and we excluded such moves over very short distances. It should also be noted that any distance threshold is arbitrary. Even though moves for work reasons are overrepresented with greater moving distances,

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[4] We would have to derive the measurements of distance and motive for moving from different data: the distance comes from SSD (in which the move is supposed to take place at the time of registration at the new address), the motive from WoON (in which the respondent reports about the move). There can be discrepancies between the two data sources, for example if the timing of a move differs between the survey and the register, or if a move is recorded in one data source but not in the other. Because of these discrepancies, there were many missing values on moving distance.

they also occur at shorter distances; Motives related to proximity to family also occur at various distances (Thomas et al., 2019).

Other independent and stratifying variables

In every model, a measure for the *labour market outcome in year* $t-1$ was included in the independent variables to ensure that the coefficients of all other independent variables can be read as associations with change (see subsection 'dependent variables' above). The associations between labour market outcomes at $t-1$ and $t+1$ should logically be strong and positive.

Socio-demographic variables were taken from the WoON surveys. We included gender, mainly as a stratification variable, to account for the stark gender differences in the Dutch labour market (there was no category in the data for those who did not identify as female or male). Age was measured as calendar year minus year of birth, for year t0 in each person-year. We also included age squared to allow for non-linear age effects. Level of education was measured in four categories: up to lower secondary, middle or higher secondary, tertiary vocational, and university. Immigration background was measured as having been born abroad ('first generation'), or having at least one parent who was born abroad ('second generation'), with not having an immigrant background as the reference category. In sensitivity analyses, we also employed information about whether the respondent lived with a partner and whether the respondent had children living in the household, derived from WoON.

To capture geographical differences in labour market conditions, we controlled for urbanicity and region, using the respondent's municipality of residence in year t0 after the potential move took place. This could be the municipality of residence either at the time of the WoON interview (if the respondent did not move, or if they moved in year t0) or before the move (if t0 of the person-year observation was before the move). Municipalities were coded as 1 ('urban') if the address density classification provided by Statistics Netherlands was 'strongly urban' or 'very strongly urban' (defined as more than 1500 addresses per square km), and as 0 otherwise. We also employed a regional classification that distinguishes municipalities into being part of the core (Randstad) region of the Netherlands (reference), the intermediate zone, or the periphery. This classification was also used by Kooiman and Das (2022) and is based on the number of jobs accessible within 50 km. We also included a categorical variable for survey round. Because this variable not only stands for genuine changes through time but also changes in, for example, response selectivity and survey design, we refrain from interpreting the results for this variable.

Analytical methods

In addition to the sample characteristics (Table 1), we report descriptive statistics of the labour market outcomes by the levels of the main independent variable that measures whether moved and whether the move was for work, proximity to family or both. Furthermore, to assess the selectivity of moving for work or proximity, we pay attention to the associations between the other control variables and the main independent variable.

We tested the hypotheses using linear regressions of income percentile (1–100), logistic regressions of whether the respondent was employed (0, 1), and linear regressions

of labour supply in percent of full-time full-year employment (1–100). Standard errors were corrected for the clustering of person-years in respondents. We present separate models for women and men. The results from models for women and men together provided little additional information; they were between those from the separate models. We therefore do not show them, but we report the parameter for the dummy variable 'female' in these models. We also estimated models that included an interaction between 'female' and the main independent variable indicating whether the respondent moved for work, family, or both (versus no move). From the results for these interaction terms, we derived the *p* value for the difference between men and women.

We ran the following sensitivity analyses. We estimated models for the longer run than just a year. We estimated models in which those who moved for other reasons than work or proximity to family were included. We included information about household situation in models for only those respondents whose partnership situation did not change between year $t-1$ and year $t+1$ in relation to a move. We ran models by age category, household situation, and income category. For labour supply, we estimated models from which we excluded those whose major income source was self-employment.

Results

Descriptive findings

The descriptive statistics for the dependent and independent variables (Table 1) show the large gender gap in income and labour supply in the Netherlands. Women's incomes in the year after the observation were in the 51th percentile on average; men's were in the 71th. Women's labour supply was 74.4% of full-year full-time employment, compared with 95.1% for men. Employment also differed by gender, with 80% of women employed versus 89% of men. From year $t-1$ to $t+1$, average income percentiles shifted upwards by 0.9 (women; see difference between $t-1$ and $t+1$) and 0.8 (men). This change likely reflects the growth in income—and the accompanying shift in the income distribution—that comes with accumulated labour market experience.

Only a few respondents reported moving for work or proximity to nonresident family: around 0.5% of the samples of person-years (Table 1; note that moves for other reasons are not in these samples). This looks like a tiny percentage, but it should be borne in mind that it is a percentage of person-years. If we could observe the respondents longitudinally over the 31-year life span we examine and the same annual percentage would apply, around 15% would move for work or proximity. Particularly, the observed numbers of moves for both work and proximity were low. Depending on the analytical sample, the absolute numbers were 63–68 women and 101–103 men. The findings for this category should therefore be interpreted with extra care.

To assess the selectivity of movers for work and proximity to family, we take a look at the associations between the moving variable and the other independent variables in the main models. As we anticipated, moves for work are overrepresented among men (Table 1). As Appendix A shows, moves for work are also overrepresented among the university educated, those with a first-generation immigrant background, those living in urban areas after the move, those living in the core Randstad region after the move, those in households without children, and those in 'other' households. Moves for proximity are overrepresented among first-generation immigrants, those in households

Table 2 Labour market outcomes by whether moved and motive for moving (mean or percentage)

	Income		Employment		Labour supply	
	Year t − 1	Year t + 1	Year t − 1	Year t + 1	Year t − 1	Year t + 1
Female						
Whether moved by motive: no	50.77	51.66	80.11	79.56	74.11	74.32
Work only[a]	56.12	59.46	87.71	89.01	84.23	82.93
Proximity only	52.36	53.57	77.03	77.70	77.80	78.22
Proximity & work	59.63	63.67			82.10	86.04
Male						
Whether moved by motive: no	70.54	71.27	89.80	88.90	95.00	95.08
Work only[a]	65.57	71.80	92.95	96.12	93.55	95.61
Proximity only	68.70	70.31	85.54	85.14	95.11	94.83
Proximity & work	64.05	71.14			94.90	95.00

[a] For employment: includes proximity & work

without children, and those in 'other' households. On average, non-movers are considerably older than all categories of movers. Those moving for both work and proximity are the youngest on average, followed by those moving for work only, followed by those moving for proximity only.[5]

As shown in Table 2, the patterns of labour market outcomes by whether the respondent moved and whether the move was for work, proximity or both differed between the genders. Among women, the lowest average income percentiles both before and after the year of observation, as well as the smallest average growth, were found for non-movers. Income percentiles and growth were both greater for women moving for proximity, greater yet for women moving for work, and greater yet for women moving for both work and proximity. Among men, the ordering of income growth was the same, with the exception that similar income growth was found for men moving for work and men moving for both work and proximity. The ordering of income itself was different, with the highest income percentiles for non-movers. These different patterns likely indicate gender differences in labour-market attachment and career progression over the life course, despite similar peaks in moving propensities at younger ages. Steady career progression and income growth are common among men, as opposed to decreases in labour supply—and thus income—among women at childbearing ages. For women, we indeed see the highest labour supply in terms of hours worked among movers—particularly for work and work combined with proximity—and the lowest for non-movers. For men, the differences in labour supply between movers and non-movers are much smaller. For employment, a gender difference was observed in the overall level (80% employed women and 90% employed men), but not in the ordering between the categories of the moving variable: those moving for work are most likely to be employed in year t + 1, followed by the non-movers and those moving for proximity only.

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[5] In a previous study in which we used the same data, we showed that the locations of family members are the most important factors underlying moves motivated by proximity (Mulder & Kooiman, 2024). Some of the descriptive findings in the current study differ from those in Mulder and Kooiman (2024). These differences are related to differences in the analytical samples (e.g., age selection, whether or not the data were converted into person-years).

Table 3 Linear regression of individual income (percentiles)

	Female		Male		Difference
	Coeff.	P>|t|	Coeff.	P>|t|	P>|t|
Whether moved by motive (ref. did not move)					
Work only	1.968	0.011	3.129	0.000	0.174
Proximity only	0.446	0.549	− 0.025	0.977	0.995
Proximity & work[a]	3.063	0.030	3.899	0.005	0.592
Income year t − 1	0.847	0.000	0.802	0.000	
Age	0.220	0.000	− 0.069	0.090	
Age squared	− 0.003	0.000	0.000	0.863	
Level of education (ref. up to lower secondary)					
Middle/higher secondary	1.444	0.000	1.655	0.000	
Tertiary: vocational	3.852	0.000	4.003	0.000	
University	5.984	0.000	5.422	0.000	
Immigrant background (ref. none)					
1st generation	− 0.070	0.537	− 1.333	0.000	
2nd generation	0.154	0.280	− 0.444	0.002	
Urban area year t	0.471	0.000	− 0.383	0.000	
Region year t (ref. Randstad)					
Intermediate zone	− 0.485	0.000	− 0.327	0.000	
Periphery	− 0.617	0.000	− 0.847	0.000	
Survey round (ref. 2006)					
2009	0.732	0.000	− 0.160	0.143	
2012	0.017	0.872	− 0.775	0.000	
2015	0.030	0.789	− 0.738	0.000	
2018	0.206	0.065	0.394	0.000	
Constant	1.954	0.015	16.094	0.000	
N person-years		166,094		178,346	
N respondents		53,887		57,633	
F, P	20,254.06, *0.000*		11,266.48, *0.000*		

All p values were derived from standard errors that were corrected for the clustering of person-years in respondents. *P* value for 'Difference' refers to the difference between men and women. It was derived from the interaction between 'female' and the moving variable in a model including all respondents

[a] *P* value for difference with 'Work only': women 0.495, men 0.609

Regression results: income

For income, we find strong support for Hypothesis 1 that the labour market outcomes of those moving for work reasons would be more positive than those of non-movers. According to the model results, income growth was 2.0 percentiles higher for women, and 3.1 percentiles higher for men, who moved for work than for non-movers (Table 3), with $p = 0.011$ and 0.000. The finding that the point estimate of the difference in income percentiles between those who moved for work and those who did not move was smaller for women than for men was also in line with the gendered version of Hypothesis 1, but the p value of the interaction term for gender and moving for work exceeded the conventional levels of statistical significance ($p = 0.174$). Thus, we found that both men's and women's incomes benefited from moving for work.

For moving for proximity to nonresident family only, we found a positive parameter for women (0.4 income percentile) and a parameter near zero for men, with high p values. Thus, we neither found evidence supporting Hypothesis 2a (negative association

between moving for proximity and labour market outcomes owing to a prioritisation of contact and support exchange with family over economic considerations) nor evidence supporting Hypothesis 2b (positive association owing to the social-resource function of family). This null finding could be caused by the lack of a clear association between moving for proximity to family and income. It could also signify that moving for proximity comes with income sacrifices for some population categories, and income gains for others. Given the small number of moves in the data, we unfortunately cannot differentiate the analyses any further than by gender.

For those moving for a combination of work and proximity motives, we find considerably more income growth than for non-movers. In the Background section, we sketched three hypothetical scenarios. In the first, the additional proximity motive would be inconsequential and there was no reason to expect different labour market outcomes compared with work only. In the second (*Hypothesis 3a*), the additional proximity motive would signal a sacrifice in terms of labour market outcomes. In the third (*Hypothesis 3b*), the additional proximity motive would signal the social-resource function of the family. The results were in the same direction as those for the 'work only' motive. For women, the estimated association was more positive than for moving for work only (3.1 rather than 2.0 percentiles); for men, it was also larger (3.9 rather than 3.1). This finding might indicate a social-resource function of family, but the *p* values for the difference (0.495 for women, 0.609 for men) were too large to conclude that Hypothesis 3b was supported.

Logically, income in year $t-1$ was positively associated with income in year $t+1$. With respect to the other control variables, women's income growth was estimated to increase until around age 40 but decrease afterwards. Men's income grew less with higher age.[6] For women and men alike, income growth was much higher for those with higher levels of education. The incomes of men with an immigrant background grew less than those of men without an immigrant background; no statistically significant associations were found for women. Women's incomes grew more in urban than less urban areas. For men, the opposite was found. This gender difference might indicate selective location choice in urban areas among couples and families in which women are particularly attached to the labour market (Costa & Kahn, 2000). For both women and men, we find less income growth in the intermediate zone and peripheral regions of the Netherlands than in the core region of the Randstad. Finally, in a model for all respondents that included gender (not shown), women's incomes were estimated to grow 3.4 percentiles less than men's, with *p* 0.000.

Logistic regression results: employment

Given employment status in the year before the observation, the estimated log-odds of being employed the year after the observation were 0.47 higher for women who moved for work than for women who did not move (Table 4; the odds were thus exp[0.47] = 1.61 times as high; see Appendix B for average marginal effects). For men, the corresponding coefficient was 1.27, with odds ratio exp(1.27) or 3.55. We thus

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[6] We calculated the minimum or maximum of the estimated parabolas for the associations with age using the original Stata estimations with 7 digits behind the decimal dot. The maximum of the parabola for female respondents was estimated at age 39.8. The minimum for men was estimated far outside the observed age range, at age 411.9.

Table 4 Logistic regression of employment

	Female		Male		Difference
	Coeff.	P >|z|	Coeff.	P >|z|	P >|z|
Whether moved by motive (ref. did not move)					
Work (and proximity)	0.475	0.089	1.266	0.000	0.045
Proximity only	0.061	0.795	− 0.249	0.362	0.426
Employed year t − 1	4.266	0.000	4.367	0.000	
Age	0.144	0.000	0.100	0.000	
Age squared	− 0.002	0.000	− 0.001	0.000	
Level of education (ref. up to lower secondary)					
Middle/higher secondary	0.488	0.000	0.431	0.000	
Tertiary: vocational	0.893	0.000	0.816	0.000	
University	0.921	0.000	0.903	0.000	
Immigrant background (ref. none)					
1st generation	− 0.485	0.000	− 0.530	0.000	
2nd generation	− 0.234	0.000	− 0.315	0.000	
Urban area year t	− 0.145	0.000	− 0.325	0.000	
Region year t (ref. Randstad)					
Intermediate zone	− 0.079	0.003	− 0.065	0.046	
Periphery	− 0.103	0.000	− 0.190	0.000	
Survey round (ref. 2006)					
2009	− 0.195	0.002	− 0.262	0.001	
2012	− 0.432	0.000	− 0.532	0.000	
2015	− 0.499	0.000	− 0.563	0.000	
2018	− 0.184	0.005	− 0.208	0.011	
Constant	− 3.815	0.000	− 2.248	0.000	
N person-years		183,134		171,278	
N respondents		63,819		59,613	
Likelihood Ratio Chisq, P	36,499.39, *0.000*		23,821.91, *0.000*		
Pseudo-R-squared		0.5104		0.4661	

All *p* values were derived from standard errors that were corrected for the clustering of person-years in respondents. *P* value for 'Difference' refers to the difference between men and women. It was derived from the interaction between 'female' and the moving variable in a model including all respondents

found support for Hypothesis 1 for employment, like we did for income. The finding that the coefficient for moving for work was higher for men than for women was in line with the gendered version of Hypothesis 1, with $p = 0.045$.

The parameter estimates for moving for proximity to family only rather than not moving were close to zero for women, and somewhat negative (− 0.249) but non-significant for men. So, we find support for neither Hypothesis 2a nor 2b (negative versus positive association between moving for proximity and labour market outcomes). We do not replicate Gillespie et al. (2021) finding that moving for proximity to family was positively associated with transitions to employment following migration.

With regard to the control variables, a noteworthy finding was the lower likelihood of employment for those living in urban areas than less urban areas. This finding could possibly indicate selective location choice in suburban and rural areas among those more firmly established in the labour market, for example connected with differences in housing stocks (more social rented and less owner-occupied housing in cities).

Those living in the intermediate and peripheral regions were less likely employed than those living in the Randstad region.

Regression results: labour supply

As with income and employment, the results for the association between moving for work and growth in labour supply were in line with Hypothesis 1, although they were not statistically significant for women (Table 5). For moving for proximity only compared with not moving, parameters were positive for women and negative for men. Once again, however, *p* values were high and did not warrant firm conclusions. The findings for the combination of work and proximity motives, however, showed a clear, gendered pattern. Given labour supply in year $t-1$, moving for both work and proximity was strongly positively related to women's labour supply in year $t+1$ compared with not moving (coefficient 4.7, $p=0.026$) and with moving for work only ($p=0.056$). For men, we did not find such an association, and the *p* value for the gender difference was 0.012. For women, this finding could indicate that the additional family motive was related to the opportunity to increase working hours thanks to family help. The results thus support Hypothesis 3b for women but not men. Because of the small numbers or respondents who reported moving for both work and proximity, however, this finding should be interpreted with caution.

Reliance on family help to increase labour supply might be specifically relevant for women. We therefore tried to estimate a separate model for women with children. Unfortunately, however, the number of women with children who mentioned both work and proximity to family as motives for their moves was too small to obtain a reliable estimate.

For men, the results for individual and regional control variables are quite similar to those for employment. This should come as no surprise because of the rather low proportion of men working part-time, and thus, a considerable overlap between labour supply and employment. For Dutch women, there is less overlap between these labour market indicators, and changes in labour supply are more frequently related to a change in hours worked per week. Consequently, we see some differences in the direction of results between the analyses of labour supply and employment. Women with an immigrant background are less likely to be employed than other women, but work more hours. The same holds for women living in urban areas compared with those living in less urban areas.

Sensitivity analyses

To check the robustness of the results, we ran four sets of sensitivity analyses. In the first, we explored associations between moving and labour-market outcomes in the longer run than the year after a potential move (Appendix C). We distinguished between non-movers whose last move was less than 4 years ago and those for whom it was 4 years ago or more (Table 6). The findings for the categories of movers were very similar to those in the main models, or at least in the same direction. The only coefficient that changed sign was 'work only' in the model of labour supply for women, but this coefficient was non-significant in both cases. Longer durations were associated with less income growth for both men and women and less growth in labour supply for women (suggesting a

Table 5 Linear regression of labour supply

	Female		Male		Difference
	Coeff.	*P*>|t|	Coeff.	*P*>|t|	*P*>|t|
Whether moved by motive (ref. did not move)					
Work only	0.305	0.731	0.980	0.035	0.843
Proximity only	1.305	0.241	−0.598	0.448	0.204
Proximity & work[a]	4.674	0.026	−0.331	0.763	0.012
Labour supply year t−1	0.731	0.000	0.531	0.000	
Age	0.294	0.000	0.101	0.010	
Age squared	−0.003	0.000	−0.002	0.000	
Level of education (ref. up to lower secondary)					
Middle/higher secondary	1.323	0.000	0.360	0.000	
Tertiary: vocational	2.973	0.000	0.616	0.000	
University	4.661	0.000	0.706	0.000	
Immigrant background (ref. none)					
1st generation	1.291	0.000	0.768	0.000	
2nd generation	0.753	0.000	−0.635	0.000	
Urban area year t	1.053	0.000	−0.383	0.000	
Region year t (ref. Randstad)					
Intermediate zone	−0.440	0.000	−0.008	0.919	
Periphery	−0.447	0.000	−0.283	0.001	
Survey round (ref. 2006)					
2009	0.956	0.000	0.189	0.054	
2012	−0.199	0.187	−0.209	0.038	
2015	0.221	0.153	−0.118	0.264	
2018	0.676	0.000	0.529	0.000	
Constant	11.160	0.000	43.506	0.000	
N person-years		163,543	178,890	178,890	
N respondents		58,001	63,800	63,800	
F, P	6380.86, *0.000*		470.16, *0.000*		

All *p* values were derived from standard errors that were corrected for the clustering of person-years in respondents. *P* value for 'Difference' refers to the difference between men and women. It was derived from the interaction between 'female' and the moving variable in a model including all respondents

[a] *P* value for difference with 'Work only': women 0.056 and men 0.271

potential long-term effect of moving), a similar likelihood of employment for women and growth in labour supply for men, and a greater likelihood of employment for men (suggesting a positive relationship between residential stability and employment). We also estimated models with lagged dependent variables: labour market outcomes measured in years t+2 (Table 7) and t+3 (Table 8) rather than t+1.[7] For women, the results for income were very similar for year t+2 compared with t+1, but smaller and non-significant for t+3. The parameters for employment were very small (t+2) or non-significant (t+3). Women's moving for work only was positively associated with growth in labour supply in the models for both t+2 and t+3 (which was not the case for t+1). For men, negative associations between moving for proximity only and several labour market outcomes in t+2 and t+3 (which were not found for t+1) are noteworthy.

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[7] Owing to the research design, the number of cases dropped by around one-third for t+2 and another third for t+3.

In the second set of sensitivity analyses, we kept the person-years in which respondents reported moving for other reasons than work or proximity to family (Appendix D). We used two alternative specifications. In one, we added the categories 'household/housing' and 'other reasons' to the moving variable (Table 9); in the other, we added these person-years to the category 'did not move (for work or proximity; Table 10)'. The results for the categories of interest were very similar to those in the main models.

Labour market outcomes likely differ by household situation. However, moving frequently coincides with household change. In those cases, it is difficult to disentangle the labour market outcomes of household change from those of moving. Even though we excluded respondents who reported union formation or separation as their motive for moving from the main analyses, there were respondents who reported union formation or separation but reported work or proximity to family as their motive for moving. In the third set of sensitivity analyses, we excluded these, and added a control variable for household situation (Appendix E). Most of the coefficients for the variables measuring moves and motives for moving were in the same direction as in the main models, but some of the *p* values were higher. The findings for household situation itself differed markedly by gender, reflecting the gendered Dutch labour market. Among women in couples and particularly couples with children, income and labour supply grew less than among single women without children, but women in couples were more likely to be employed in year $t + 1$ than single women without children. Single mothers' income growth was similar to single women's without children, but they were more likely to be employed and their growth in labour supply was lower. For men, the findings for all three labour market outcomes were in the same direction. Some of these findings were the opposite of those for women. The most positive outcomes were found for men in couples with children, followed by men in couples without children, then single fathers, then single men without children.

The fourth set of sensitivity analyses are models for specific population categories (Appendix F). To explore life-course differentiation in the associations between moving and labour market outcomes, we estimated models by age category and household situation after a potential move. Associations between income growth and moving for work, or both work and proximity, are mainly found for age 26–34 rather than 35–56 (Table 11). Among women, we find such an association for singles but not for those living with a partner (Table 12). Among men, we do not find a similar difference between those without and those with a partner. The association between women's labour supply and moving for both work and proximity is mainly found for age 35–56 and for women living with a partner. Results from models of income growth by income category (Table 13) show that moving for work is only (women) or mainly (men) positively associated with income growth among those with lower initial incomes (see also Korpi & Clark, 2015). Finally, we ran models of labour supply after excluding respondents for whom labour supply was estimated by Statistics Netherlands rather than taken from the tax register: those known in the register data as self-employed (Table 14). The results were very similar to those from the main models.

Conclusions and discussion

In this paper, we investigated how women's and men's individual labour market outcomes (indicated by income, employment, and hours worked) were associated with moving motivated by nonresident family, moving motivated by work, and moving motivated by both nonresident family and work. With this investigation, we contributed to the literature that nuances the traditional human-capital model of migration. This literature has argued that internal migration is beneficial to the labour market outcomes of certain categories of workers, but not to all (see references in the Introduction). Our contribution provides additional empirical evidence substantiating this argument.

For all three labour market indicators, and for both women and men, we found convincing support for Hypothesis 1 that the labour market outcomes of those moving for work reasons would be more positive than those of non-movers. Thus, our findings are not in line with those of Morrison and Clark (2011) for New Zealand that, even among those reporting a work-related motive for their move, almost as many experienced a decrease as an increase in income. Some of the associations were stronger for men than for women (providing some support for the gendered version of Hypothesis 1), but not to the extent that associations were only found for men.

No strong associations were found between moving for proximity to family only (rather than not moving) and the three labour market outcomes, although, for men, the associations with employment 2 and 3 years after the potential move (rather than one) were negative and statistically significant. Consequently, some support was found for Hypothesis 2a (derived from the notion that moving proximity to family could lead to sacrifices in the labour market) but not for the alternative Hypothesis 2b (derived from the notion that proximate family might function as a social resource). Taken together, our findings confirm those of Böheim and Taylor (2007) that the wage returns of migration are primarily found for those explicitly stating their move was for work. We also identified a category of movers for whom their moves do, on average, not seem to lead to labour market benefits: those whose moves were motivated by proximity to nonresident family.

We did not replicate Gillespie et al.'s (2021) finding for Sweden that transitions to employment were positively related to such moves. Following their approach, we also looked at moves motivated by a combination of work and proximity to family where this was possible: in the analyses of income and labour supply. The general tendency in the findings was that the outcomes of such moves were similar to those of moves for work. A particularly noteworthy finding for such moves, however, was the strong positive association with women's labour supply in terms of hours worked. This finding was in line with Hypothesis 3b, which was based on a scenario in which the additional family motive next to a work motive is related to finding work or taking up a job with increased working hours. In the Dutch context of a gendered labour market characterised by a large proportion of women working part-time with a great deal of variation in fractions of a full-time working week, making use of family resources might be an important strategy for women to increase labour supply. Moving close to family increases the opportunities to employ family resources, and may thus facilitate such a strategy. However, this finding was based on small numbers of women moving for both work and proximity, and should be interpreted with caution.

It might be no coincidence that the Swedish findings pointed to a role of moving for proximity to family in the transition to employment, whereas our findings pointed to such a role in women's increases in hours worked. For Swedish women, decisions on labour market participation might mostly pertain to whether to work or not—and proximity to family might facilitate the decision to work. In the Dutch labour market in which part-time work is a common and thus realistic option, women's decisions on labour market participation might mostly pertain to working more hours or not—and proximity to family might facilitate the decision to work more hours.

We emphasise once more that we do not intend to make causal claims. Except in specific cases such as forced or urgent moves, it is likely that most movers take into account the labour market outcomes of their move ahead of time. They would indeed do so according to human-capital and other cost–benefit approaches of moving: in these approaches, that started from Sjaastad (1962), the decision to move is based on weighing the envisaged costs and benefits of the move.

Our data were derived from five rounds of the Netherlands' Housing Surveys (WoON). These data contain information about moves and their motivations. They also contain some basic information on situations before and after the potential move, but are otherwise largely cross-sectional. These data were enriched with register data (SSD). An important advantage of this design was the opportunity to add data on labour market indicators from the years before and after the year of observation. This additional information made it possible to study change—which would not be possible with WoON data only. However, this design also came with limitations and caveats. One of these was the lack of exact correspondence between WoON measures of moving (based on a survey question about moves in the last two years) and SSD measures (based on changes of address reported in the population register). The small number of respondents reporting both work and proximity to nonresident family as motives for moving was also unfortunate. Another data limitation was the imperfect measurement of motives for moving. In particular, the pre-coded work motive did not distinguish between the respondent's own work and their partner's work. SSD data are also very costly. This limits the options to request data.

We only looked into labour market outcomes in the year after the observation year, with sensitivity analyses for a few extra years. Future research may investigate labour market outcomes over a longer period of time. We also ignored moves for education rather than work, and moves of young adults that were motivated by proximity to family (for example, return moves after completing education). It could be interesting to focus on specific categories of the population, such as single parents. It could also be interesting to study the labour market outcomes of other specific types of moves, such as moves towards family after separation or other adverse events. Such analyses would not be feasible with the current data. Even though the sample size is large, it quickly runs out if smaller populations are selected or uncommon events are analysed. The way to go forward for such analyses will be to use register data not matched to survey data, which implies sacrificing information on motivations for sample size.

Appendices

Appendix A: Whether moved and motive by levels of other independent variables (row %/mean, standard deviation)

	Did not move	Work only[a]	Proximity only	Proximity and work
Education: up to lower secondary	99.63	0.19	0.16	0.03
Middle/higher secondary	99.54	0.26	0.16	0.04
Tertiary: vocational	99.33	0.42	0.18	0.04
University	98.40	1.28	0.19	0.13
Immigrant background: none	99.47	0.33	0.16	0.05
1st generation	98.93	0.79	0.22	0.06
2nd generation	99.36	0.37	0.21	0.07
Less urban area year t	99.48	0.30	0.18	0.04
Urban area year t	99.32	0.46	0.17	0.06
Region year t: Randstad	99.34	0.45	0.15	0.06
Intermediate zone	99.44	0.33	0.19	0.05
Periphery	99.40	0.37	0.19	0.04
Household situation year t: single	99.12	0.64	0.24	
Couple without children	99.08	0.70	0.22	
Couple with children	99.59	0.30	0.11	
Single parent	99.64	0.15	0.20	
Other	98.77	0.89	0.34	
Age	42.25, 8.61	35.96, 8.25	37.80, 9.02	35.50, 7.90

$N = 434{,}842$. [a]For household situation: includes proximity & work

Appendix B: Model of employment: average marginal effects

	Female		Male	
	dy/dx	P > |z|	dy/dx	P > |z|
Whether moved by motive (ref. did not move)				
Work (and proximity)	0.030	0.078	0.050	0.000
Proximity only	0.004	0.794	− 0.012	0.389
Employed year t − 1	0.285	0.000	0.207	0.000
Age	0.010	0.000	0.005	0.000
Age squared	0.000	0.000	0.000	0.000
Level of education (ref. up to lower secondary)				
Middle/higher secondary	0.037	0.000	0.023	0.000
Tertiary: vocational	0.064	0.000	0.041	0.000
University	0.066	0.000	0.044	0.000
Immigrant background (ref. none)				
1st generation	− 0.035	0.000	− 0.028	0.000
2nd generation	− 0.016	0.000	− 0.016	0.000
Urban area year t	− 0.010	0.000	− 0.015	0.000
Region year t (ref. Randstad)				
Intermediate zone	− 0.005	0.003	− 0.003	0.046
Periphery	− 0.007	0.000	− 0.009	0.000

	Female		Male	
	dy/dx	P > |z|	dy/dx	P > |z|
Survey round (ref. 2006)				
2009	− 0.012	0.002	− 0.011	0.001
2012	− 0.028	0.000	− 0.024	0.000
2015	− 0.033	0.000	− 0.026	0.000
2018	− 0.012	0.004	− 0.009	0.010
N person-years		183,134		171,278

Appendix C: Coefficients from sensitivity analyses: longer durations of residence and lagged effects

See Tables 6, 7, 8.

Table 6 Longer versus shorter duration of residence

	Female		Male	
	Coeff.	P > |t|	Coeff.	P > |t|
Income percentile				
Work only (ref. no move last 4 years)	1.698	0.028	2.944	0.000
Proximity only	0.162	0.829	− 0.221	0.802
Proximity & work	2.787	0.048	3.714	0.007
Moved > 4 years ago	− 0.406	0.000	− 0.276	0.002
Employment				
Work (ref. no move last 4 years)	0.476	0.089	1.309	0.000
Proximity only	0.062	0.793	− 0.204	0.456
Moved > 4 years ago	0.001	0.966	0.060	0.083
Labour supply				
Work only (ref. no move last 4 years)	− 0.361	0.686	0.976	0.036
Proximity only	0.596	0.593	− 0.602	0.446
Proximity & work	3.985	0.058	− 0.335	0.761
Moved > 4 years ago	− 1.013	0.000	− 0.006	0.947

Table 7 Lagged effect of moving: Moved 2 years ago

	Female		Male	
	Coeff.	P > |t|	Coeff.	P > |t|
Income percentile (n = 115,703 person-years for women, 124,474 for men)				
Work only (ref. did not move)	2.412	0.000	2.525	0.000
Proximity only	0.400	0.616	− 1.321	0.136
Proximity & work	3.616	0.013	1.183	0.452
Employment (n = 122,863 person-years for women, 115,166 for men)				
Work (Ref. did not move)	0.072	0.734	0.866	0.001
Proximity only	− 0.039	0.862	− 0.604	0.013
Labour supply (n = 108,727 person-years for women, 118,578 for men)				
Work only (ref. did not move)	2.515	0.001	1.480	0.002
Proximity only	− 0.655	0.569	− 2.594	0.012
Proximity & work	3.027	0.189	0.952	0.420

Table 8 Lagged effect of moving: moved 3 years ago

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Income percentile (n = 55,228 person-years for women, 59,232 for men)				
Work only (ref. did not move)	0.118	0.874	0.474	0.506
Proximity only	0.499	0.650	− 1.508	0.250
Proximity & work	− 0.129	0.947	1.515	0.451
Employment (n = 60,558 person-years for women, 56,799 for men)				
Work (ref. did not move)	− 0.414	0.101	0.143	0.668
Proximity only	− 0.210	0.578	− 0.484	0.216
Labour supply (n = 51,905 person-years for women, 56,459 for men)				
Work only (ref. did not move)	2.021	0.028	− 0.017	0.978
Proximity only	− 0.029	0.987	− 2.038	0.084
Proximity & work	1.127	0.543	3.125	0.033

Appendix D: Coefficients from sensitivity analyses: different ways of handling those moving for household, housing, or other reasons

See Tables 9, 10.

Table 9 Models in which other motives for moving are included as categories

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Income percentile (n = 171,295 person-years for women, 183,932 for men)				
Work only (ref. did not move)	1.930	0.012	3.074	0.000
Proximity only	0.430	0.564	− 0.043	0.961
Proximity & work	3.030	0.031	3.849	0.005
Household/housing	0.997	0.000	0.579	0.012
Other	0.525	0.063	− 0.142	0.635
Employment (n = 188,344 person-years for women, 176,323 for men)				
Work (ref. did not move)	0.471	0.089	1.252	0.000
Proximity only	0.060	0.800	− 0.252	0.352
Household/housing	− 0.152	0.058	− 0.088	0.390
Other	− 0.146	0.121	− 0.284	0.003
Labour supply (n = 168,670 person-years for women, 184,521 for men)				
Work only (ref. did not move)	0.311	0.726	0.953	0.040
Proximity only	1.300	0.242	− 0.609	0.439
Proximity & work	4.680	0.026	− 0.347	0.751
Household/housing	1.518	0.000	0.120	0.579
Other	0.712	0.066	− 0.079	0.770

Table 10 Models in which moving for other motives is treated as not moving

	Female		Male	
	Coeff.	**P > |t|**	**Coeff.**	**P > |t|**
Income percentile (n = 174,308 person-years for women, 186,943 for men)				
Work only (ref. did not move)	1.836	0.017	3.001	0.000
Proximity only	0.359	0.630	− 0.091	0.918
Proximity & work	2.944	0.036	3.780	0.006
Employment (n = 191,544 person-years for women, 179,305 for men)				
Work (ref. did not move)	0.471	0.089	1.251	0.000
Proximity only	0.063	0.789	− 0.252	0.352
Labour supply (n = 171,549 person-years for women, 187,483 for men)				
Work only (ref. did not move)	0.217	0.807	0.918	0.047
Proximity and work	4.592	0.029	− 0.377	0.731

Appendix E: Coefficients from models including household situation

	Female		Male	
	Coeff.	**P > |t|**	**Coeff.**	**P > |t|**
Income percentile (n = 164,245 person-years for women, 174,920 for men)				
Whether moved by motive (ref. did not move)				
Work only	2.026	0.008	3.185	0.000
Proximity only	0.143	0.849	1.093	0.179
Proximity & work	2.392	0.080	3.367	0.020
Household situation (ref. single, no children)				
Couple, no children	− 0.980	0.000	1.613	0.000
Couple, child(ren)	− 1.750	0.000	1.920	0.000
Single parent	− 0.098	0.437	0.451	0.016
Employment (n = 180,964 person-years for women, 167,586 for men)				
Whether moved by motive (ref. did not move)				
Work	0.456	0.126	1.340	0.000
Proximity only	0.173	0.491	− 0.243	0.379
Proximity & work	1.218	0.142	0.877	0.070
Household situation (ref. single, no children)				
Couple, no children	0.277	0.000	0.708	0.000
Couple, child(ren)	0.383	0.000	0.859	0.000
Single parent	0.076	0.040	0.133	0.017
Labour supply (n = 161,787 person-years for women, 175,620 for men)				
Whether moved by motive (ref. did not move)				
Work only	0.176	0.838	0.954	0.039
Proximity & work	3.953	0.064	0.198	0.858
Household situation (ref. single, no children)				
Couple, no children	− 2.807	0.000	0.836	0.000
Couple, child(ren)	− 5.892	0.000	0.996	0.000
Single parent	− 1.558	0.000	0.208	0.280

Appendix F: Coefficients from sensitivity analyses: models by population category

See Tables 11, 12, 13, 14.

Table 11 Models by age category

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Age 26–34, income percentile (n = 39,344 person-years for women, 41,900 for men)				
Work only (ref. did not move)	2.649	0.012	4.022	0.000
Proximity only	0.533	0.594	1.371	0.205
Proximity & work	3.429	0.094	5.081	0.011
Age 35–56, income percentile (n = 126,750 person-years for women, 136,446 for men)				
Work only (ref. did not move)	0.294	0.786	1.154	0.190
Proximity only	0.359	0.744	− 1.382	0.326
Proximity & work	2.187	0.224	2.090	0.241
Age 26–34, employment (n = 40,647 person-years for women, 38,802 for men)				
Work (ref. did not move)	0.455	0.205	1.374	0.001
Proximity only	0.213	0.498	− 0.338	0.260
Age 35–56, employment (n = 142,487 person-years for women, 132,476 for men)				
Work (ref. did not move)	0.380	0.320	1.113	0.005
Proximity only	− 0.051	0.873	− 0.128	0.761
Age 26–34, labour supply (n = 38,451 person-years for women, 41,826 for men)				
Work only (ref. did not move)	0.513	0.662	1.327	0.027
Proximity only	1.848	0.228	− 0.108	0.915
Proximity & work	2.744	0.386	1.035	0.443
Age 35–56, Labour supply (n = 125,092 person-years for women, 137,064 for men)				
Work only (ref. did not move)	− 0.308	0.820	0.141	0.833
Proximity only	0.731	0.633	− 1.067	0.363
Proximity & work	5.843	0.031	− 1.843	0.293

Table 12 Models by partnership status after a potential move

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Without partner, income percentile (n = 48,783 person-years for women, 47,592 for men)				
Work only (ref. did not move)	4.576	0.000	3.959	0.000
Proximity only	1.135	0.384	0.181	0.906
Proximity & work	5.013	0.002	7.922	0.002
With partner, income percentile (n = 115,500 person-years for women, 127,399 for men)				
Work only (ref. did not move)	− 0.009	0.993	2.471	0.001
Proximity only	− 0.200	0.823	0.851	0.368
Proximity & work	1.330	0.511	2.043	0.170
Without partner, employment (n = 56,595 person-years for women, 51,070 for men)				
Work (Ref. did not move)	1.309	0.008	1.982	0.000
Proximity only	0.246	0.356	− 0.211	0.583
With partner, employment (n = 124,400 person-years for women, 116,575 for men)				
Work (Ref. did not move)	0.057	0.867	0.349	0.317
Proximity only	− 0.025	0.950	− 0.217	0.568
Without partner, labour supply (n = 47,530 person-years for women, 46,340 for men)				
Work only (ref. did not move)	0.851	0.550	1.482	0.092
Proximity only	− 0.950	0.594	− 1.167	0.401
Proximity & work	2.043	0.592	− 0.285	0.886
With partner, labour supply (n = 114,296 person-years for women, 129,349 for men)				
Work only (ref. did not move)	− 0.394	0.723	0.696	0.191
Proximity only	2.265	0.105	0.411	0.646
Proximity & work	6.046	0.005	− 0.163	0.900

Table 13 Models of income percentile by income category before the observation

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Income percentile 1–61 before move (n = 111,639 person-years for women, 53,108 for men)				
Work only (ref. did not move)	3.727	0.000	6.555	0.000
Proximity only	1.106	0.249	0.502	0.794
Proximity & work	3.670	0.160	4.757	0.113
Income percentile 62–100 before move (n = 54,455 person-years for women, 125,238 for men)				
Work only (ref. did not move)	− 0.423	0.717	0.544	0.328
Proximity only	− 0.875	0.453	− 0.223	0.806
Proximity & work	2.394	0.089	3.003	0.000
Difference between percentile 1–61 and 62–100				
Work only (ref. did not move)		0.009		0.000
Proximity only		0.331		0.942
Proximity & work		0.671		0.543

P values for 'Difference' derived from interaction between income category and moving by motive from models for male and female respondents together

Table 14 Models of labour supply, self-employed excluded

	Female		Male	
	Coeff.	***P* > |t|**	**Coeff.**	***P* > |t|**
Work only (ref. did not move)	0.209	0.823	0.993	0.036
Proximity only	0.745	0.491	− 0.814	0.343
Proximity & work	5.271	0.018	− 0.590	0.615

Author contributions
Clara H. Mulder carried out the data work, with help and advice from Niels Kooiman. Mulder performed the data analyses, and wrote the text with feedback and input from Kooiman.

Availability of data and materials
The data can be requested from Statistics Netherlands at a cost. They remain at the Statistics Netherlands remote-access facility.

Declarations

Competing interests
The authors declare no competing interest.

References
Bähr, S., & Abraham, M. (2016). The role of social capital in the job-related regional mobility decisions of unemployed individuals. *Social Networks, 46*, 44–59. https://doi.org/10.1016/j.socnet.2015.12.004
Bakker, B. F. M., Van Rooijen, J., & Van Toor, L. (2014). The system of social statistical datasets of Statistics Netherlands: An integral approach to the production of register-based social statistics. *Statistical Journal of the IAOS, 30*(4), 411–424. https://doi.org/10.3233/SJI-140803
Bartel, A. P. (1979). The migration decision: What role does job mobility play? *The American Economic Review, 69*(5), 775–786.

Becker, G. S. (1991). *A treatise on the family. Enlarged edition*. Harvard University Press.

Beham, B., Drobnič, S., Präg, P., Baierl, A., & Eckner, J. (2019). Part-time work and gender inequality in Europe: A comparative analysis of satisfaction with work-life balance. *European Societies, 21*(3), 378–402. https://doi.org/10.1080/14616696.2018.1473627

Böheim, R., & Taylor, M. P. (2007). From the dark end of the street to the bright side of the road? The wage returns to migration in Britain. *Labour Economics, 14*(1), 99–117. https://doi.org/10.1016/j.labeco.2005.04.004

Booth, A. L., & Van Ours, J. C. (2013). Part-time jobs: What women want? *Journal of Population Economics, 26*, 263–283. https://doi.org/10.1007/s00148-012-0417-9

Brady, S. (2023). New role, new pay check: The impact of women's wages when becoming a caregiver for an aging parent. *Research on Aging, 46*, 197–209. https://doi.org/10.1177/01640275231217297

Cooke, T. J. (2003). Family migration and the relative earnings of husbands and wives. *Annals of the Association of American Geographers, 93*(2), 338–349. https://doi.org/10.1111/1467-8306.9302005

Cooke, T. J., Boyle, P. J., Couch, K., & Feijten, P. (2009). A longitudinal analysis of family migration and the gender gap in earnings. *Demography, 46*(1), 147–169. https://doi.org/10.1353/dem.0.0036

Costa, D. L., & Kahn, M. E. (2000). Power couples: Changes in the locational choice of the college educated, 1940–1990. *The Quarterly Journal of Economics, 115*(4), 1287–1315. https://doi.org/10.1162/003355300555079

De Groot, C., Mulder, C. H., Das, M., & Manting, D. (2011a). Life events and the gap between intentions to move and actual mobility. *Environment and Planning A, 43*(1), 48–66. https://doi.org/10.1068/a4318

De Groot, C., Mulder, C. H., & Manting, D. (2011b). Intentions to move and actual moving behaviour in the Netherlands. *Housing Studies, 26*(3), 307–328. https://doi.org/10.1080/02673037.2011.542094

Fischer-Neumann, M., & Böhnke, P. (2021). Facets of parent-child relations in adulthood and their role in transmitting economic deprivation across generations. *Advances in Life Course Research, 48*, 100397. https://doi.org/10.1016/j.alcr.2020.100397

Gillespie, B. J., & Mulder, C. H. (2020). Nonresident family as a motive for migration. *Demographic Research, 42*(13), 399–410. https://doi.org/10.4054/DemRes.2020.42.13

Gillespie, B. J., Mulder, C. H., & Thomas, M. J. (2021). Migration for family and labour market outcomes in Sweden. *Population Studies, 75*(2), 209–219. https://doi.org/10.1080/00324728.2020.1800068

Herzog, H. W., Schlottmann, A. M., & Boehm, T. P. (1993). Migration as spatial job-search: A survey of empirical findings. *Regional Studies, 27*(4), 327–340. https://doi.org/10.1080/00343409312331347595

Kennan, J., & Walker, J. R. (2011). The effect of expected income on individual migration decisions. *Econometrica, 79*(1), 211–251. https://doi.org/10.3982/ECTA4657

Kooiman, N. (2020). Residential mobility of couples around family formation in the Netherlands: Stated and revealed preferences. *Population, Space and Place, 10*(1), e2367. https://doi.org/10.1002/psp.2367

Kooiman, N., & Das, M. (2022). Understanding couple migration towards core and peripheral regions: The role of men's and women's education. *Comparative Population Studies, 47*, 287–320. https://doi.org/10.12765/CPoS-2022-12

Korpi, M., & Clark, W. A. V. (2015). Internal migration and human capital theory: To what extent is it selective? *Economics Letters, 136*, 31–34. https://doi.org/10.1016/j.econlet.2015.08.016

Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology, 25*(1), 467–487. https://doi.org/10.1146/annurev.soc.25.1.467

Morrison, P. S., & Clark, W. A. V. (2011). Internal migration and employment: Macro flows and micro motives. *Environment and Planning A, 43*(8), 1948–1964. https://doi.org/10.1068/a43531

Mulder, C. H. (2018). Putting family centre stage: Ties to nonresident family, internal migration, and immobility. *Demographic Research, 39*, 1151–1180. https://doi.org/10.4054/DemRes.2018.39.43

Mulder, C. H., & Gillespie, B. J. (2024). Moving and staying in the context of the family: A review and an introduction to the Special Issue. *Population, Space and Place, 30*(3), e2712. https://doi.org/10.1002/psp.2712

Mulder, C. H., & Hooimeijer, P. (1995). Moving into owner-occupation: Compositional and contextual effects on the propensity to become a home-owner. *Netherlands Journal of Housing and the Built Environment, 10*(1), 5–25. https://doi.org/10.1007/BF02498056

Mulder, C. H., & Hooimeijer, P. (2002). Leaving home in the Netherlands: Timing and first housing. *Journal of Housing and the Built Environment, 17*(3), 237–268. https://doi.org/10.1023/A:1020264417389

Mulder, C. H., & Kooiman, N. (2024). Moving for proximity to family, care needs and the locations of family members: An analysis of matched survey and register data. *Population, Space and Place, 30*(3), e2713. https://doi.org/10.1002/psp.2713

Mulder, C. H., Palomares-Linares, I., & Vidal, S. (2022). Internal migration, living close to family, and individual labour-market outcomes in Spain. *Comparative Population Studies, 47*(28), 3–28. https://doi.org/10.12765/CPoS-2022-01

Mulder, C. H., & Van Ham, M. (2005). Migration histories and occupational achievement. *Population, Space and Place, 11*(3), 173–186. https://doi.org/10.1002/psp.365

Roeters, A., & Craig, L. (2014). Part-time work, women's work-life conflict, and job satisfaction: A cross-national comparison of Australia, The Netherlands, Germany, Sweden and the United Kingdom. *International Journal of Comparative Sociology, 55*(3), 185–203. https://doi.org/10.1177/0020715214543541

Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course.* Aldine de Gruyter. https://doi.org/10.4324/9781351328920

Schmid, C. H. (2001). Marginal and dynamic regression models for longitudinal data. *Statistics in Medicine, 20*(21), 3295–3311. https://doi.org/10.1002/sim.950

Sjaastad, L. A. (1962). The costs and returns of human migration. *Journal of Political Economy, 70*(5, Part 2), 80–93. https://doi.org/10.1086/258726

Smits, J. (2001). Career migration, self-selection and the earnings of married men and women in the Netherlands, 1981–93. *Urban Studies, 38*(3), 541–562. https://doi.org/10.1080/00420980120080091

Thomas, M. J. (2019). Employment, education, and family: Revealing the motives behind internal migration in Great Britain. *Population, Space and Place, 25*(4), e2233. https://doi.org/10.1002/psp.2233

Thomas, M. J., Gillespie, B. J., & Lomax, N. (2019). Variations in migration motives over distance. *Demographic Research, 40*, 1097–1110. https://doi.org/10.4054/DemRes.2019.40.38

Wall, T., & Von Reichert, C. (2013). Divorce as an influence in return migration to rural areas. *Population, Space and Place, 19*(3), 350–363. https://doi.org/10.1002/psp.1719

White, M. J., & Lindstrom, D. P. (2005). Internal migration. In D. L. Poston & M. Micklin (Eds.), *Handbook of population* (pp. 311–346). Kluwer Academic/Plenum.

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