



Family Migration in a Cross-National Perspective: The Importance of Institutional and Cultural Context

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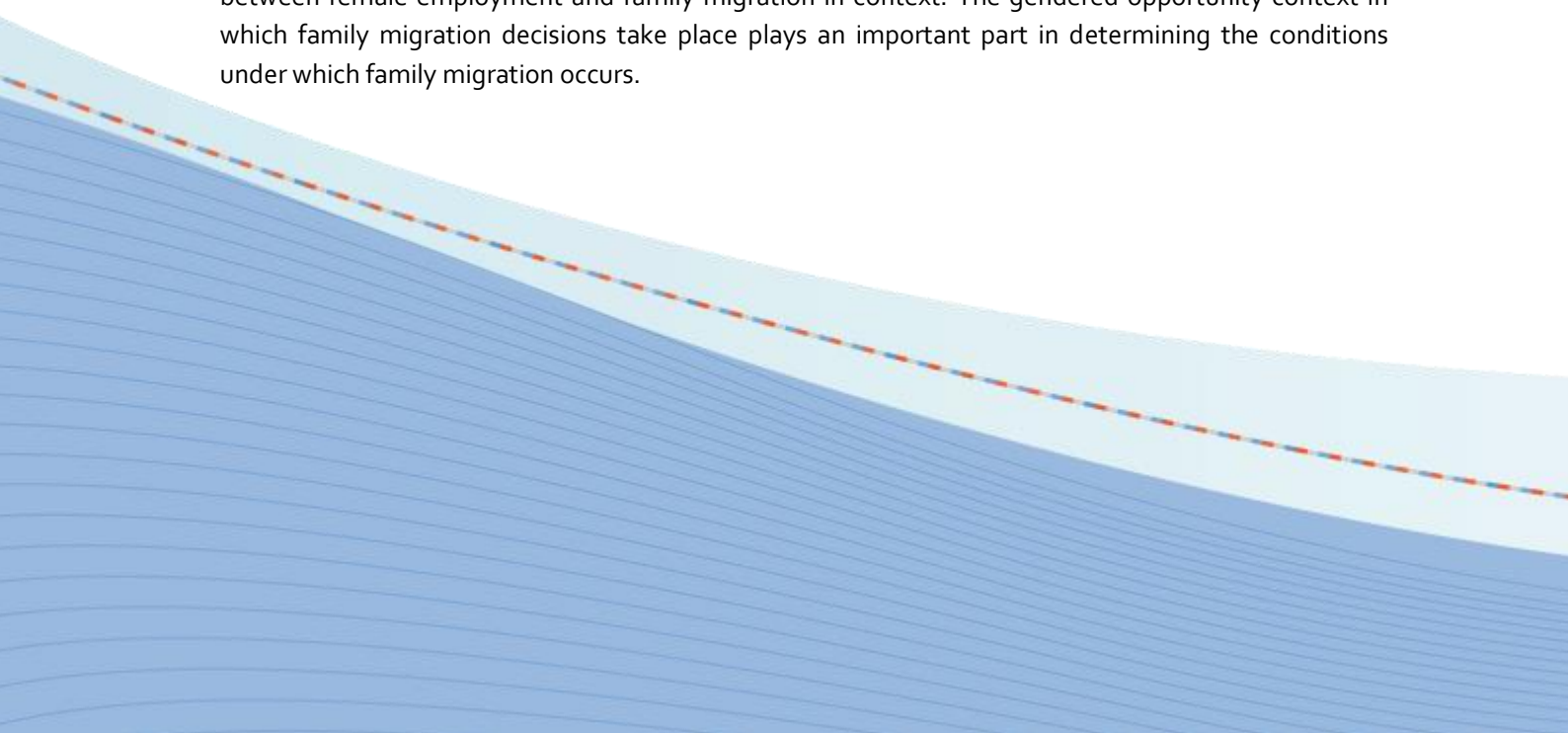
In post-industrialized countries gender plays an important role in couples' decision to undertake long-distance residential relocations, or family migrations. Typically, men initiate family migrations to improve their work careers, while women follow their partners and experience negative impacts on their employment and earnings. Given that men's careers tend to be prioritized in family moves, it is not surprising that more traditional male-breadwinner couples (i.e. couples with a male breadwinner and a female homemaker) migrate more often than less traditional dual-earner couples (i.e. couples in which both the male and female spouse are employed).

We revisit this issue using a cross-national comparative perspective and argue that national levels of support towards female employment and normative expectations about gender roles should influence the relationship between couple type and family migration. In countries in which women's employment is highly supported and gender attitudes are more progressive decisions to migrate should be more gender egalitarian than in countries in which women's employment is not well supported and gender attitudes are more traditional. Hence, all else being equal, we expect that the difference in family migration rates between male-breadwinner and dual-earner couples will be smaller in the former compared to the latter.

To test this, we use harmonised longitudinal data from four large-scale datasets from Australia, Britain, Germany and Sweden covering the 1992-2011 period. This constitutes the first time in the literature in which family migration patterns are analysed consistently for four different countries with distinct institutional and cultural practices.

Consistent with prior research, we find that male-breadwinner couples migrate more often than dual-earner couples in all countries, suggesting that traditional gender structures affecting family migration operate across very different contexts. After adjusting for theory-based factors, we find no difference in the prevalence of family migration across couple types in Sweden, where institutions most actively promote female labour force participation and gender egalitarian practice and attitudes are dominant. We take this as evidence that institutional and cultural contexts that support female employment encourage gender equity in family migration decisions.

Our study contributes to the family migration literature by illustrating how cross-national comparisons are a valuable methodological approach to place prevailing micro-level explanations of the relationship between female employment and family migration in context. The gendered opportunity context in which family migration decisions take place plays an important part in determining the conditions under which family migration occurs.



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Abstract

Migration rates of dual-earner couples are lower than those of male-breadwinner couples. We revisit this issue using a cross-national comparative perspective and argue that national levels of support towards female employment and normative expectations about gender roles moderate the relationships between couple type and family migration. To test this, we use harmonised longitudinal data from four large-scale datasets from Australia, Britain, Germany and Sweden covering the 1992-2011 period. Consistent with prior research, we find that male-breadwinner couples migrate more often than dual-earner couples in all countries, suggesting that traditional gender structures affecting family migration operate across very different contexts. After adjusting for theory-based confounders, we find no difference in the prevalence of family migration across couple types in Sweden, where institutions most actively promote female labour force participation and gender egalitarian practice and attitudes are dominant. We take this as evidence that institutional and cultural contexts that support female employment encourage gender equity in family migration decisions.

Keywords: family migration; gender; cross-national analysis; institutional context; panel data

1. Introduction

In post-industrialized countries gender plays an important role in the determination of couples' long-distance residential relocations within national boundaries, or family migrations. Typically, men initiate family migrations to improve their work careers, while women follow their partners and experience negative impacts on their employment and earnings (Boyle et al. 2001, Cooke 2003, Shauman and Noonan 2007, McKinnish 2008). Given that men's careers tend to be prioritized in family moves, it is not surprising that traditional *male-breadwinner couples* (i.e. couples with a male breadwinner and a female homemaker) are overrepresented amongst migrant couples (Nivalainen 2004, Tenn 2010, Cooke 2011). Much of the existing literature explains this pattern by building on the degree to which women's new work roles resulting from increasing gender equality and portrayed in the dual-earner couple model restrict family migration. When women also pursue careers outside the family home, decisions about whether or not to undertake family migration become more difficult. Hence, policy efforts devoted to support female employment and gender egalitarianism may be partially responsible for steady declines in family migration observed in many post-industrialized countries during the last decades, restricting the potential for within-country population re-distribution (United Nations 2013).

Little has been written about variability in the propensity to migrate of male-breadwinner and dual-earner couples across national contexts, as most studies on family migration restrict themselves to the study of a single country (Cooke et al. 2009). This is limiting, since a prolific strand of international comparative research has unveiled a high degree of heterogeneity across countries in levels of female employment and types of gender inequality at work and at home, as well as diversity in the impacts of these social environments on life course events (Cooke and Baxter 2010). Different institutional approaches to female employment provide women with different capabilities (i.e. attitudes, abilities and resources) to negotiate work careers and family life (Gornick and Meyers 2003, Fahlén 2013). Additionally, the effects of state policies are moderated by broader cultural norms regarding the appropriate family, social and economic roles of women and men (Pfau-Effinger 1998, Budig et al. 2012). Dominant gender ideologies play also an important part in how women's capabilities *vis-a-vis* men's influence their bargaining power when couples make decisions concerning the allocation of work and family tasks within the household. More equitable distributions of domestic and paid work within couples exist in countries in which egalitarian gender ideologies are the norm.

In this paper, we adopt a cross-national comparative approach to examine similarities and differences in family migration across national contexts. We argue that the association between couple type and the decision to undertake family migration is dependent on the national context, which influences women's capabilities to negotiate moves via factors such as institutional support to female

employment and gender egalitarian cultural norms. Specifically, we examine differences in the prevalence of long-distance relocations between male-breadwinner and dual-earner couples in Australia, Britain, Germany and Sweden. To accomplish this, we deploy discrete-time event-history analyses of harmonized, nationally representative, panel datasets covering the 1992-2011 period. We add to prior family migration research by (i) assessing the applicability of existing micro-level theories using harmonized datasets, (ii) further theorising the role of context in family migration decisions, and (iii) empirically examining the association between couple type and family migration in four Western countries with differing institutional and cultural environments.

2. *Theoretical framework*

2.1. *Previous literature*

Dual-earner couples are less likely to migrate than couples comprising a male breadwinner and a female homemaker. This phenomenon was the focus of much scholarly attention in the early family migration literature. Early studies in the US attributed declining levels of inter-state family migration to the large increase in female labor force participation (especially for mothers and married women) that took place after World War II (Long 1974, Da Vanzo 1976). Under the umbrella of human capital theory, cost-benefit models for family migration became popular. These postulate that factors such as education, skills, earnings and career prospects of the leading spouse are associated with family migration, with families deciding to move when there are absolute (net) gains in income for the household as a whole (Mincer 1978). More recent theories have considered spouses as bargaining actors, acknowledging that relocation decisions are more complex. The relative gains of the spouse who contributes more resources to the household, or has more power in the relationship, might trigger relocations even if no net income gains for the household are attained (Lundberg and Pollack 2003).

Although these theorisations are *a priori* neutral to the role of gender (*gender-symmetric perspectives*) researchers were aware of the endemic gendered divisions of household labour in industrialized societies. They assumed traditional couple specialization to be a form of equilibrium that ensured stability and predictability: men were expected to specialize in paid work and thus lead family migrations, while women were expected to specialize in domestic work and follow their partners in family migrations – being often referred to as *tied migrants* or *trailing wives* (Cooke 2001). Therefore, as partnered women gain more labour market resources (e.g. education, work experience, and earnings) and gender specialization within couples weakens, absolute household benefits from family migration decrease and women’s capabilities to influence family migration decisions increase –for example, by enhancing their ability to veto unfavourable relocation proposals. This explains why dual-earner couples are less mobile than other couple types (and increasingly more so).

Gender-symmetric perspectives on family migration have nevertheless been criticised for being unable to explain why men continue to lead family migrations despite women's progressive accumulation of labour market resources. Challenging earlier theoretical perspectives, research found that men's but not women's labour market resources were important determinants of family migration decisions (Duncan and Perruci 1976, Lichter 1983, Boyle et al. 2009). This suggests that mechanisms other than spousal resources are at play, with gender ideology and gendered expectations being proposed as moderators of the association between female employment and family migration (Bielby and Bielby 1992, Lersch 2015). Partnered individuals who hold egalitarian gender ideologies or are in couples with egalitarian gender divisions of labour attribute more importance to the socio-economic resources of the female spouse when making household decisions –including the decision to migrate– than partnered individuals who hold traditional gender ideologies or are in couples with traditional gender divisions of labour. It follows that dual-earner couples' lower migration rates will not only be the product of spousal resources, but also of the differential valuation of such resources in dual-earner couples and male-breadwinner couples. Yet, gender roles change over the life course, often associated with the experience of parenthood leading to decreases in paid work and increases in domestic work among women (Baxter et al. 2008, Boeckmann et al. 2015). In this regard, research shows that the worsening of female work careers after family migration is related to fertility episodes (Cooke 2001, 2003; Cooke et al. 2009; Brandén 2014). Thus, the gendering of family roles that accompanies the birth of children contributes to explaining why male-breadwinner couples move more often.

2.2. Structural perspectives and early cross-national research

To date, empirical support for the different micro-level explanations outlined above is partial and mixed. Some of these differences likely emerge due to divergences in the research designs of existing studies. Additionally, this field of research has also been criticised for failing to pay attention to the broader context of opportunities that channel gender inequality in family migration decisions (Halfacree 1995). An incipient literature has begun to question the role of occupational structures and regional contexts of opportunity in shaping the migration behaviour of family households (Shauman and Noonan 2007, Nisic 2009, Shauman 2010, Brandén and Strom 2011, Perales and Vidal 2013). Analysing Swedish data Brandén (2013) finds that the fact that men's education affects family migration decisions more than women's is due to a higher concentration of women in occupations with low earnings and career potential. Using British data, Perales and Vidal (2013) show that gender asymmetries in the impacts of spousal resources on family migration decisions are channelled by structural inequalities in the labour market (i.e. occupational sex-segregation). In Germany, Nisic (2009) finds that the employment outcomes of women who migrate following their partners depend

on the labour market opportunities in the origin and destination regions. Altogether, these findings suggest that gender-based labour-market inequalities (and spatial variation in these) influence how men's and women's capabilities affect the decision to relocate, as well as the consequences that relocations have on women's work outcomes. Hence, the difference in family migration rates between male-breadwinner and dual-earner couples may vary across regional and national contexts.

Given the relative importance of opportunity contexts in shaping migration decisions, it is surprising that little research has been devoted to examining cross-national variation in family migration patterns and outcomes. The best example of systematic cross-national research in this area comes from a collection of publications by Boyle, Cooke and colleagues, in which census microdata from the early 1990s were used to compare family migration outcomes in Britain and the US (Boyle et al. 1999, 2001, 2003; Cooke et al. 2003, 2009). While their results confirmed the applicability of existing theories of family migration to more than one country, their analyses did not yield noteworthy cross-country differences, arguably, because of the very similar socio-political traditions of their two case studies. More recently, Lersch (2013, 2014) examined the impact of family relocations on the employment outcomes of individuals in dual-earner couples in England and (East and West) Germany, finding that migrant women were more likely to become unemployed and lose wages in England than in Germany. Lersch argued that these differences could be explained by country differences in the selection processes leading to family migration, which are in turn influenced by national policies and cultural norms. Our study differs from these pioneering cross-national studies in that we examine the precursors instead of the consequences of family migration –specifically, the differences in migration rates of male-breadwinner and dual-earner couples, and adds to them by increasing the number of countries under analysis, incorporating a greater degree of context variation with regards to national institutional arrangements.

2.3. A cross-national comparative framework

Despite global progress towards gender equality, post-industrialized societies differ greatly with regard to the opportunities that they offer men and women over their life courses. Studies examining demographic processes such as marriage and childbearing have argued that *institutional factors* such as policies, regulations, and norms influence men's and, particularly, women's capabilities (i.e. attitudes, abilities and resources) to negotiate work and family decisions (Fahlén 2013). For instance, a recent cross-national literature on fertility has established that high female employment and high fertility rates are associated with egalitarian gender ideology and work-family balance policies, as best exemplified by Scandinavian countries (Treas and Widmer 2000, McDonald 2006, Esping-Andersen

2007, Mills 2010).¹ Specifically, women's capabilities to negotiate work and family are affected by the degree to which national policies enhance gender equality in labour market outcomes. The higher the gender equality in labour market outcomes, the lower the perceived opportunity costs associated with motherhood. In addition, policies do not influence individual behaviour in a *cultural void* (Pfau-Effinger 1998, 2004). The normative gender ideology in a country shapes the effect of policies on fertility and maternal employment outcomes. In contexts where gender-traditional attitudes prevail, work-family balance policies do not impact fertility levels as positively as in contexts where gender-egalitarian attitudes are the norm. This is because uncertainty about women's roles leads to dilemmas around women's participation in work and family life (McDonald 2006, Budig et al. 2012, Esping-Andersen et al. 2013, Boeckmann et al. 2015).

We argue that the lessons learnt from fertility research can be applied to studies of family migration decisions, and we expect similar mechanisms to explain tensions between female employment and family migration. We pose that cross-national variation in the family migration rates of dual-earner couples relative to those of male-breadwinner couples might be influenced by the broader institutional and cultural context in which family migration decisions take place. Particularly, women's capabilities to influence intra-household family migration negotiations may be influenced by the intersection of two contextual dimensions: (i) national levels of support towards female employment, and (ii) normative expectations about appropriate gender roles.

Husband-led relocation proposals with the potential to harm women's employment prospects post-migration are more likely to succeed in cultural contexts that undervalue women's work, as well as in policy contexts that offer scant support for female employment. In these contexts there is an evident conflict between women's new work roles and an institutional and cultural environment that favour the reproduction of a male-breadwinner model, and so, women have the least *capabilities* to influence family migration decisions. The prioritization of the work career of the male spouse in family migration decisions will be disputed by those women who have comparable labour market resources. Particularly, women will be less inclined to move in contexts in which couples revert to more traditional divisions of labour after family migration. Thus, *ceteris paribus*, in contexts where there is scant support for female employment and/or where traditional gender attitudes are the norm we expect large (statistically significant) differences in the family migration rates of male-breadwinner and dual-earner couples (*Hypothesis 1*).

¹ The underlying rationale is that employment protection legislation, generous income-support systems and publicly funded services aimed at reconciling work and family life (e.g. affordable early childcare, paid parental leave, flexible work schedules and equal treatment of part-time employees) reduce working women's perceived risks and associated costs of childbearing (Gustafsson et al. 1996, Hobson and Olah 2006). Post-industrialized nations implement these policies to different degrees, and in different ways (Gornick and Meyers 2005).

In contrast, we expect that inequality in family migration decisions will be lower in contexts with both policies that support female employment and gender egalitarian attitudes and practices. This is because policies that alleviate the tensions between work and family will enhance women's capabilities to negotiate family relocations.² For relocations of families with young children, public and affordable childcare as well as non-marginal part-time work and flexible work arrangements will reduce tensions between women's employment and family migrations (Mulder and Wagner 1993; Vidal et al. 2015). Also, men's relocation proposals should be more equitable where dominant attitudes and practices are more gender egalitarian. For instance, relocations might only be seriously considered when both spouses have a firm job offer at destination before the move, or when it is expected that the current work activities of the tied migrant can be transferred to a new location.³ Therefore, *ceteris paribus*, we expect negligible (not statistically significant) differences in the family migration rates of male-breadwinner and dual-earner couples in national contexts that support female employment and where gender egalitarian attitudes prevail (*Hypothesis 2*).

2.4. Study cases

To examine whether and how national context influences the gender equity of family migration decisions we use four countries as study cases: Australia, Britain, Germany and Sweden. These countries vary in a number of relevant contextual factors, including the level and type of female employment, policies that support work-family balance, and dominant gender ideologies (Treas and Widmer 2000, Gornick and Meyers 2005, Thévenon 2011). Hence, they provide sufficient context variation to enable meaningful comparison.

Table 1 shows descriptive statistics for selected contextual factors. Female labour force participation and the share of women in full-time jobs are higher in Sweden than in the other countries. Additionally, in 42% of families with children aged 0-2 in Sweden both parents work full time. This is higher than for the other three countries (11%-23%), where part-time employment and non-employment are more prevalent amongst mothers. The rates of female and mothers' employment are closely related to the institutional support that countries provided to reconcile work and family. In Australia and Britain, state support is limited and targeted towards low-income single-parent families,

² This is consistent with research showing that in these contexts social policies reduce the duration and negative impact on earnings of employment interruptions due to childbirth, i.e. the 'motherhood penalty' (Budig et al. 2012).

³ Altogether, high equality in the intra-household negotiations preceding family migration should come at the expense of lower overall rates of migration among dual-earner couples, because it is more difficult to find job opportunities elsewhere that benefit (or do not harm) the employment situations of both spouses.

consistent with their liberal socio-political tradition (Esping-Andersen 1990). In these countries, residual state intervention in family matters leads to relatively shorter employment breaks amongst mothers, but also to higher job insecurity and worse work outcomes (e.g. earnings and career prospects) for women who work part time relative to women who work full time. As a result, this *laissez faire* approach to work-family balance promotes gender specialization within the family, whereby men specialize in market work and women specialize in non-market work (Gornick and Meyers 1998, 2005). Particularly, Australia features a traditional normative gender ideology, reflected in the popularity of the male-breadwinner family model among families with young children.

Table 1. Country comparisons in relevant contextual factors

	Australia	Britain	Germany	Sweden
<u>Female employment</u>				
Female labour force participation (%)	70	70	67	78
Share of employed women in part-time work (%)	33	35	41	14
Work arrangements of families with children age 0-2 (%)				
Both parents work full-time	11	21	23	42
One parent works full-time, one parent works part-time	33	35	28	28
One parent works full-time	46	33	36	21
<u>Work-family balance policies</u>				
Children age 0-2 in public childcare (%)	5	2	10/34*	33
Parental leave length in weeks (paid weeks)	52 (0)	52 (0)	162 (34.6)	84 (52.8)
<u>Gender ideology</u>				
Agree: “All in all, family life suffers when the woman has a full-time job” (%)	57	33	42/24*	22
Agree: “A man’s job is to earn money; a woman’s job is to look after the home and family” (%)	24	13	17/11*	5

Notes: Female labour force participation rates are for women aged 15 to 64 in 2005 (source: OECD 2009). The share of employed women in part-time work is the rate for employed women in 2005 (source: OECD 2009). Work arrangements of families with children 0-2 are for 2006-2008 (source: Eurostat Labour Force Survey 2008; Australia, ABS Family Characteristics and Transitions Survey, 2006-07). Children 0-2 in public childcare and parental leave length (i.e. employment-protected leave for parents and maternity leave) are for 2007 (source: OECD Family database 2010). Measures on gender ideology come from Budig et al. (2012) (source: 1994 and 2001 waves of the International Social Survey Programme). *Results separated for West and East Germany.

Dominant gender ideologies have played a pivotal role in the implementation of family policies in Germany and Sweden. Gender ideology is highly egalitarian in Sweden, where the welfare system not only combines policies promoting work-family reconciliation (e.g. high rates of public childcare for

children under 3 and paid employment-protected leave) as well as father involvement in childcare (Gornick and Meyers 2005, Thévenon 2011). Although occupational sex-segregation is an endemic feature of the Swedish labour market, job conditions in female-dominated occupations are relatively good, as many women are publicly employed and enjoy many work-related benefits (Gustafsson et al. 1996). Additionally, gender specialization in paid and domestic work is relatively low amongst Swedish couples. Germany, on the other hand, combines a highly generous welfare system with policies supporting the traditional male-breadwinner model. Its policies deter women (particularly mothers) from (re-)entering full-time employment, due to scarce public childcare, a joint taxation system and long periods of unpaid parental leave (Thévenon 2011).⁴

Altogether, our four case-study countries can be broadly grouped into three country models with regards to the degree to which (i) policies support female employment over the life course, and (ii) gender egalitarian attitudes are the norm. Sweden belongs to a model, in which both policy support to female employment and gender egalitarian ideology are high. Under these circumstances, family migration decisions should be more gender egalitarian. Australia and Britain are both part of a second model, in which policy support to lifelong female employment is low, and traditional gender attitudes prevail despite the preponderance of women in paid employment. Under these circumstances, the prioritization of the career of the male spouse in family migrations will be disputed if the female spouse has comparable resources. Finally, Germany belongs to a third model, in which there is cultural and policy support for a male bread-winner model. However, work regulations and the corporatist employment-relation model grant higher job protection and better work conditions to women. Under these circumstances, the career of the male spouse is prioritized in family migration decisions, but employed women might be in a better position to dispute the prioritization of the career of the male spouse in Germany than in Australia and Britain.

3. Method

3.1. Data

We use four self-harmonized, nationally representative, longitudinal datasets: the *Household Income and Labour Dynamics in Australia Survey*, HILDA; the *British Household Panel Survey*, BHPS; the German *Socio-Economic Panel*, SOEP; and a five percent random sample of the register-based *Sweden in Time: Activities and Relations* database, STAR (Table 2).⁵ These datasets allow tracking

⁴ Due to its communist legacy, East Germany displays higher female labour force participation rates and egalitarian gender attitudes than West Germany. Nevertheless, East German women still undertake most domestic work (Hofäcker et al. 2013, Arpino et al. 2015).

⁵ The data harmonization process is described in the electronic supplementary material.

individuals and their partners over prolonged periods of time, and collect extensive and reasonably comparable information on factors relevant to this research, including family migration, family composition, human capital investments, and occupational characteristics.⁶

We combine information from the male and female partners to create dyadic yearly observations of couples (see e.g. Perales and Vidal 2013). We only consider co-resident heterosexual couples and exclude observations in which a partner is younger than 18 years of age or older than 65 years of age, worked in the armed forces, did not answer the survey, or had missing information on model variables.⁷

Table 2. Data sources

Country	Dataset	Data type	Period used	Sample size (rounded)
Australia	HILDA	Annual survey	2001-2011	4,200 couples
Britain	BHPS	Annual survey	1992-2008	3,700 couples
Germany	SOEP	Annual survey	2001-2009	6,300 couples
Sweden	STAR	Register data	1998-2007	51,500 couples

Note: Selected periods reflect data availability on relocations. The sample size refers to the analytical sample, after applying sample exclusions.

Following conventions in the literature, we define migrations as changes in residence between time t and time $t-1$ of over 50 kilometers, and only consider moves in which both partners *move together* – we disregard moves in which partners *move in* to live together, or *move out* to live apart or form separate households (Boyle et al. 2003, Branden 2013, Lersch 2014, Vidal et al. 2015).⁸

We define dual-earner couples as couples in which both partners did salaried work the week prior to the interview –except for Sweden: at least one hour of work in November, when the data are

⁶ Panel attrition rates are similar across HILDA, BHPS and SOEP (Watson and Wooden 2011). We assume no sample attrition in STAR.

⁷ A data harmonization limitation is that unmarried couples without children cannot be tracked in the Swedish population register, and neither is information on the earnings and occupational characteristics of individuals working in small firms in the private sector. We replicated the analyses for the other countries considering these limitations, and found no substantive differences.

⁸ This is based on Euclidian distances between the prior and new places of residence based on Australian, British and German geo-coded addresses and Swedish Small Area Market Statistics (SAMS). Country-specific Kernel distributions reveal that the distance decay rate levels off between 40-60 kilometers across countries, which confirms the validity of the 50-kilometer threshold.

collected. Male-breadwinner couples are defined as couples in which the male partner did salaried work the week prior to the interview (or in November for Sweden), while the female partner did not.⁹ The distribution of couple types by country is shown in Table A1 in the Appendix.

3.2. Statistical model

We analyse the data using event-history methods (Allison 1984). Specifically, we model country-specific discrete-time hazards of family migration, with a particular focus on assessing differences in the hazard rates across dual-earner and male-breadwinner couples. The model fitted can be written as follows:

$$\log \left(\frac{h_{tc}}{1-h_{tc}} \right) = \alpha(t) + \beta' d_{t-1c} + \beta' x_{t-1c} + u_c \quad (1)$$

Where subscripts c and t stand for couple and time, respectively; h_{tc} is the hazard rate of family migration; $\alpha(t)$ is the baseline hazard fitted as a linear function of years elapsed since partnership formation (until family migration or censoring); d_{t-1c} is a time-varying dummy variable denoting that the couple was a dual-earner couple at $t-1$ (ref. male-breadwinner couple at $t-1$); x_{t-1c} is a vector of time-constant and time-varying covariates measured at $t-1$; and u_c is a couple-level random term.

3.3. Analytic strategy

To test our hypotheses, we compare the odds of family migration of dual-earner couples and male-breadwinner couples (reference category) across countries with different institutional settings. We expect that, across all countries, dual-earner couples will relocate less often than male-breadwinner couples, i.e. the odds ratios on the dual-earner couple dummy variable will be lower than one. Yet, this may simply reflect that the theory-relevant predictors of family migration outlined in the previous sections (i.e. spousal labour market resources, family composition and spousal occupational characteristics) are unequally distributed across couple-types. Thus, controlling for these factors, statistically and substantively significant odds-ratios on the dual-earner couple dummy variable will be taken as evidence that national context influences the gender equity of family migration decisions.

We fit successive models adding sets of theory-relevant covariates to explain differences in relocation rates between dual-earner and male-breadwinner couples. Model 1 includes the dummy variable for

⁹ In SOEP, respondents classify themselves into full-time, part-time or casually employed.

dual-earner couples and baseline controls. The latter include other couple types (no-earner couple, female-breadwinner couple), partnership duration in years, age-group, foreign-born, and female part-time employment status (except Sweden), year and region dummies. Model 2 adds to Model 1 variables capturing spousal human capital investments. These include educational attainment, deflated annual income (standardized, with a zero mean and a standard deviation of one), employment duration in years and commuting distance, and are specified for the male and female partners separately. Model 3 adds to Model 1 variables capturing the couple's family composition: the number of children in the household, whether there are pre-school age children in the household, and an indicator of childbirth occurrence since the last wave. Model 4 adds to Model 1 variables capturing partners' occupational characteristics. These are specified for the male and female partners separately and include occupational status, occupational sex-type, public sector employment, self-employment and firm size.¹⁰ Model 5 is a fully specified model that includes all variables in the previous models. We examine whether the difference in migration rates of dual-earner and male-breadwinner families (expressed as an odds ratio) differs within each country by comparing the statistical significance of the dual-earner dummy variable.¹¹

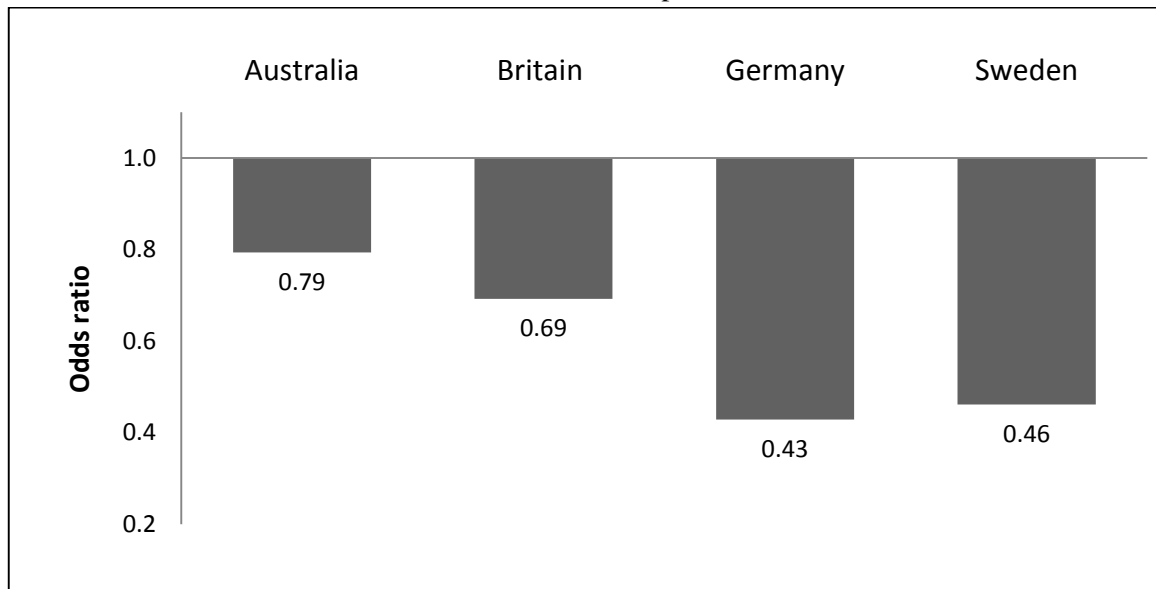
4. Results

We begin by examining the unadjusted family migration rates of dual-earner and male-breadwinner couples in the 2001-2007 period. Consistent with prior studies, we find that the migration rates of dual-earner couples are lower than those of male-breadwinner couples across all countries under examination (see Figure A1 in the Appendix). Figure 1 shows the unadjusted country-specific differences in migration rates of dual-earner and male-breadwinner couples, expressed as odds ratios (OR). This reveals cross-country variation in differences in migration rates between male-breadwinner and dual-earner couples. Such difference is smallest in Britain (OR=0.69; $p<0.01$) and Australia (OR=0.79; $p<0.05$), and highest in Sweden (OR=0.46; $p<0.001$) and Germany (OR=0.43; $p<0.01$).

¹⁰ We divide occupations into three sex-types: male-dominated (0-30% female), gender-integrated (35-65% female), and female-dominated (65%+ female).

¹¹ Direct statistical comparisons in the magnitude of the effect across countries are not possible, as the data come from different samples

Figure 1. Unadjusted difference in family migration rates of dual-earner couples relative to male-breadwinner couples



Note: Odds ratios. 2001 -2007.

We now examine this difference in multivariate event-history models, which adjust for compositional differences within and between households (Table 3). In models adjusting only for baseline controls and accounting for couple-level heterogeneity (Model 1), the estimates show that dual-earner couples migrate less often than male-breadwinner couples, with odds ratios of 0.81 in Australia ($p < 0.05$), 0.66 in Britain ($p < 0.01$), 0.60 in Germany ($p < 0.05$) and 0.55 in Sweden ($p < 0.001$). Compared to the unadjusted odds ratios in Figure 1, the odds ratios in Model 1 are relatively smaller in Sweden and Germany and similar in Australia and Britain. This suggests that dual-earner couples are more evenly distributed across demographic groups and regions in Australia and Britain.

Similar results emerge in models which additionally control for spouses' human capital resources that reflect their capabilities to negotiate family relocations (Model 2). In these, the odds of family migration for dual-earner couples relative to male-breadwinner couples are 0.79 in Australia ($p < 0.05$), 0.61 in Germany ($p < 0.05$), 0.59 in Britain ($p < 0.01$), and 0.55 in Sweden ($p < 0.001$).¹² This suggests that men's and women's capabilities to negotiate family relocations are influenced by factors other than spousal labour market resources.

Again, a similar pattern of results emerges in models which adjust for baseline controls and the couple's family composition (Model 3). In these models, the odds of family migration for dual-earner couples relative to male-breadwinner couples are 0.79 in Australia ($p < 0.05$), 0.63 in Britain ($p < 0.01$),

¹² Interestingly, we find that the education, earnings and work experience of men and women have inconsistent impacts on family migrations across countries, which constitutes evidence against gender-symmetric theories.

0.61 in Germany ($p < 0.05$) and 0.58 in Sweden ($p < 0.001$). This suggests that family composition does not play a substantive role in explaining differences in migration rates across couple types.¹³

The pattern of results is different in models adjusting for baseline controls and partners' occupational characteristics (Model 4). In these models, we find substantial country variation in the magnitude and statistical significance of the estimated odds ratios on the dual-earner couple dummy variable. The difference between dual-earner and male-breadwinner couples narrows in countries with larger gaps in Model 1 (Germany and Sweden), increases in countries with smaller gaps in Model 1 (Australia and Britain), and only remains statistically significant in Britain (OR=0.48, $p < 0.01$). This provides support for structural explanations of family migration based on spousal occupational characteristics (Shauman 2010, Perales and Vidal 2013). Individuals' occupational positions contribute to their capabilities to negotiate family migrations.

The final model, Model 5, is a fully specified model including all the variables in the previous models. Results are similar to those of Model 4, but some of the trends are accentuated. In Australia (OR=0.74, $p > 0.05$) and Britain (OR=0.47, $p < 0.01$) the difference in family migration between dual-earner and male-breadwinner couples is larger than in Model 1 and similar to Model 4 –though only statistically significant in Britain. In Germany (OR=0.72, $p > 0.05$), the difference is smaller than in Model 1, but is not statistically significant. Unexpectedly, the gap in family migration reverses in Sweden (OR=1.10, $p > 0.05$). This indicates that, all else being equal, dual-earner couples migrate more often than male-breadwinner couples, though this difference is not statistically significant. Altogether, these results reflect that family migration decisions are driven by a combination of factors, and that the relative importance of different factors varies across countries.

¹³ We actually find a limited effect of childbirth and young children on family migrations. This is an indication that the observed impact of family on the gendering of household roles occurs mostly after, and not before, family relocations.

Table 3. Discrete hazard rates of family migration of dual-earner couples (reference: male-breadwinner couples)

	Australia OR / St. Err.	Britain OR / St. Err.	Germany OR / St. Err.	Sweden OR / St. Err.
Model 1: Baseline controls	0.81* 0.09	0.66** 0.10	0.60* 0.13	0.58*** 0.07
Model 2: Human capital and baseline controls	0.79* 0.09	0.59** 0.10	0.61* 0.15	0.55*** 0.10
Model 3: Family composition and baseline controls	0.79* 0.10	0.63** 0.10	0.61* 0.16	0.58*** 0.07
Model 4: Occupational characteristics and baseline controls	0.75 0.17	0.48** 0.13	0.62 0.22	0.89 0.13
Model 5: Human capital, family composition, occupational characteristics and baseline controls	0.74 0.17	0.47** 0.13	0.72 0.28	1.1 0.14
n (couples)	4,196	3,745	6,256	51,466
N (observations)	22,729	27,510	25,602	200,450

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Notes: Discrete-time event-history analyses. The estimates in the table are exponentiated log-hazards, and can be interpreted as odds ratios. Standard errors in parentheses. **Baseline controls:** female-breadwinner couple, no-earner couple, partnership duration, age, foreign-born, period, and region. **Human capital variables** (for the male and female partner separately): education, employment duration, income, and commuting distance. **Family status variables:** number of children, pre-school age children, childbirth, and higher-order partnerships. **Occupational characteristics variables** (for the male and female partner separately): managerial/professional occupation, occupational sex-type, public sector employment, self-employment, and firm-size.

4.1. Further analyses

We also undertook further analyses to shed more light on the associations between couple type and family migration. First, we examined whether the country differences in family migration rates between dual-earner and male-breadwinner couples are due to differences in women's work hours (Table A2 in the Appendix). We do not have this information for Sweden, and so we cannot use this variable in the main models in Table 3. We replicated the analyses for Australia, Britain and Germany separating dual-earner couples into two subgroups: (i) dual-earner couples in which the female partner is employed full-time (i.e. work more than 30 hours/week), and (ii) dual-earner couples in which the female partner is employed part-time (i.e. work 30 hours/week or less). The pattern of results remained consistent with that in Model 5 in Table 3.

Second, we tested whether results in Table 3 are due to different combinations in the occupations of spouses across couple types. To do so, we replicated Model 5 in Table 3 separating dual-earner couples into different groups: (i) couples in which both spouses are in managerial/professional

occupations, (ii) couples in which only the male spouse is in a managerial/professional occupation, and (iii) couples in which none of the spouses is in a managerial or professional occupation.¹⁴ Couples in which none of the spouses is in a managerial or professional occupation move less frequently than male-breadwinner couples, with the associated odds ratios being statistically significant for Australia and Britain (see Table A3 in the Appendix). This indicates that conflict between female employment and family relocations prevails when the migration returns to occupation are low. Couples in which only the male spouse is in a managerial or professional occupation move more frequently than male-breadwinner couples, with the associated odds ratios being statistically significant for Britain, Germany and Sweden. Only in Germany and Sweden, couples in which both spouses are in a managerial/professional occupation move more frequently than male-breadwinner couples. This suggests that the ability of individuals to improve their careers –or of households to maximize their pooled income– through migration is linked to the spousal occupational attainment. Interestingly, dual-career couples display the largest migration rates in countries with higher employment protection (Germany and Sweden), *ceteris paribus*. In this population group, equity in household relocation decisions may prevail because of comparable labour market resources across spouses.

5. Discussion

Our analyses yield several key results. An initial important finding is that dual-earner couples are less mobile than male-breadwinner couples across countries with very different institutional environments. This is consistent with a wealth of previous empirical research analysing single countries, and it indicates that family migration is a structural force embedded in the production and reproduction of traditional gender divisions of labour in post-industrialized societies.

We predicted that in national contexts where there is little support for female employment and where traditional gender attitudes are the norm, there should be relatively large differences in the family migration rates of male-breadwinner and dual-earner couples, *ceteris paribus* (*Hypothesis 1*). After controlling for theoretically-relevant factors, such differences should reflect national-level gender inequalities (such as men failing to adapt to women's new work roles or employment interruption penalties). Assessing three country-case studies where women have limited capabilities to influence the outcome of family relocations, we find mixed support for this hypothesis. In Australia and Britain, policy support to female employment is scant, and domestic divisions of labour reflect traditional gender attitudes. In Germany, the cultural and policy contexts –with joint household taxation and long unpaid parental leave–support a traditional male-breadwinner model. After adjusting for theory-based

¹⁴ Couples in which only the female spouse is in a managerial/professional occupation were also included in the model. Odds ratios were above one in all countries, but only statistically significant in Sweden.

factors that potentially account for differences in the rates in family migration between male-breadwinner and dual-earner couples, such differences remained statistically significant in Britain. In Australia and Germany, the magnitude of the odds ratios indicates that the differences persist, but are not statistically significant. We attribute this to a loss in statistical power due to the inclusion of the occupational variables in the models.¹⁵ Additional analyses show that dual-earner couples with spouses in similar occupational groups have lower migration rates than couples with other occupational combinations in Australia and Britain. This suggests higher gender inequity in family relocations in these countries, as found in previous studies (e.g. Boyle et al. 2009, Lersch 2014, Vidal et al. 2015). In contrast, we find mixed evidence for Germany. In Germany, dual-earner couples move less often when the female partner is employed full time, and more often when at least one spouse works in a managerial/professional occupation. This ambivalence reflects contradictions in a social system that combines high employment protection to men and women, with family policies supporting the traditional male-breadwinner model. We could expect lower tensions between family migration and female employment in East Germany, where gender egalitarian attitudes are more widespread, but small sample sizes did not allow testing this. One must also bear in mind that in Germany long-distance partnership arrangements are widespread alternatives to family migration amongst couples in which both spouses pursue work careers (Schneider et al. 2008).

We also predicted that, all else being equal, in national contexts with high support for female employment and in which gender egalitarian attitudes are the norm, differences in the family migration rates of male-breadwinner and dual-earner couples should be small (*Hypothesis 2*). We found evidence in support of this hypothesis, as the odds ratio on the dual-earner couple dummy variable in the fully specified model for Sweden (the most egalitarian country in all respects) was statistically insignificant –and, in fact, denoted higher mobility rates amongst dual-earner than male-breadwinner couples. Internationally, Sweden is one of the countries which most actively promotes female labour force participation and with the most gender-egalitarian practices and attitudes. We interpret this finding as suggesting that gender-egalitarian institutional contexts produce more gender egalitarian family migration. However, this higher degree of equity in family migration decisions comes at the expense of lower overall family migration levels, since it is difficult for couples to move under circumstances that benefit the work careers of both spouses. The reversal in the direction of the odds ratio on the dual-earner couple dummy variable together with the large sample size in the STAR dataset make it unlikely that the lack of statistical significance on the dual-earner couple dummy variable odds ratio in Sweden is due to low statistical power. The results for Sweden were highly dependent on whether or not variables capturing the occupational features of the spouses were

¹⁵ Particularly, the increase in the standard error of the dual-earner couple dummy variable coefficient is associated with the inclusion of the variable capturing firm size in the model. Excluding this variable from the models, the coefficients are all statistically significant at the 5% level. These results are available upon request.

included in the model. This is consistent with the fact that occupational sex-segregation in the Swedish labour market is pervasive, with women concentrated in public-sector employment (which helps them reconcile work and family life), and men concentrated in private-sector jobs within occupations with high earnings potential (Magnusson 2010). In accord with other research (Brandén 2014), our results suggest that in Sweden family migrations are more useful to improve the careers of the male spouse, as moves are concentrated amongst dual-earner couples where only the man is in a managerial/professional occupation. However, couples in which the male and female spouses are both in managerial/professional occupations are also highly mobile, which confirms that women's careers and family migration do not conflict in the Swedish context.

6. *Conclusion*

In this paper we have compared the family migration rates of male-breadwinner and dual-earner couples in Australia, Britain, Germany and Sweden using event-history analyses and harmonized, nationally-representative panel data. Our study contributes to the family migration literature by illustrating how cross-national comparisons are a valuable methodological approach to place prevailing micro-level explanations of the relationship between female employment and family migration in context. As shown in our analyses, the (gendered) opportunity context in which family migration decisions take place plays an important part in determining the conditions under which family migration occurs. While our study does not probe into the specific institutional features that increase or decrease the gap in family migration rates between dual-earner and male-breadwinner couples across countries, our findings and theoretical set-up point to some potential mechanisms that deserve further attention. These include the concentration of men and women in different occupations or economic activities, dominant gender ideologies and the mix of policies that support female employment over the life course.

Nevertheless, our analyses are not without shortcomings. First, as previous research using household panel surveys, the precision of our estimates is sometimes constrained by the relatively small number of family migrations observed in the data. Second, while we have devoted substantial efforts to harmonizing our data sources, inconsistencies in the data across countries remain. Most noticeably, we were not able to identify cohabiting couples without a joint child in the Swedish register-based data. In this regard, our analyses could be improved by using data collected as part of the same project (e.g. a cross-national dataset). However, to our knowledge, no cross-national panel datasets with the necessary properties are available. Third, we run separate models for each country, which restricts our ability to formally compare the magnitude and statistical significance of model coefficients across countries. Finally, further research should consider factors on which we did not have information across all datasets. These include individual-level gender ideology, number of work hours and occupational characteristics (e.g. skill level or potential for earnings growth).

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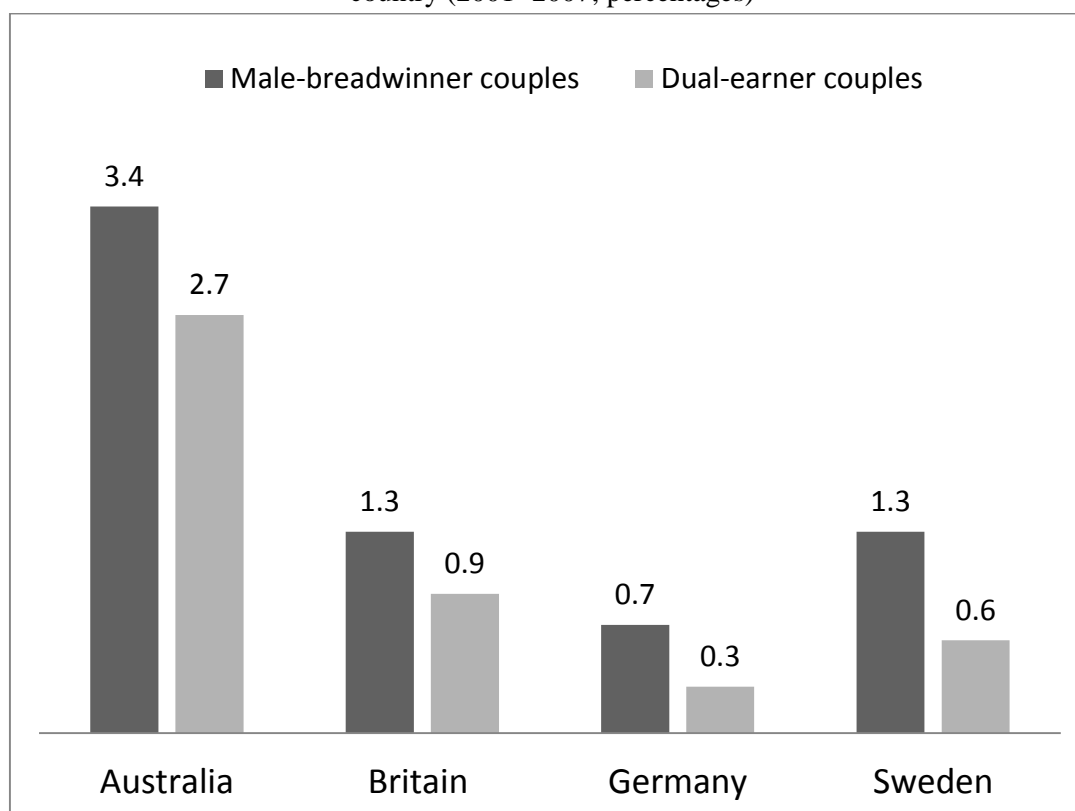
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Appendix

Figure A1. Unadjusted family migration rates of male-breadwinner and dual-earner couples by country (2001 -2007; percentages)



Note: All differences between male-breadwinner and dual-earner couples are statistically significant at the 5% level.

Table A1. Couples' work arrangements by country (2001–2007, percentages)

	Australia	Britain	Germany	Sweden
Dual-earner couple	69.5	67.8	61.5	75.3
Female full-time employed	41.6	39.2	34.2	-
Female part-time employed	27.7	28.6	25.6	-
Male-breadwinner couple	21.6	21.1	26.8	13.5
Female-breadwinner couple	3.7	4.8	6.8	6.2
No-earner couple	5.2	6.3	4.8	5.0

Note: Part-time employment is defined as working 30 hours or less per week. Full-time employment is defined as working more than 30 hours per week. No data on work hours available for Sweden.

Table A2. Discrete hazard rates of family migration, couple types by work hours of the female spouse (Model 5)

	Australia		Britain		Germany	
	OR/(St.Err.)		OR/(St.Err.)		OR/(St.Err.)	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Male-breadwinner couple	ref.	ref.	ref.	ref.	ref.	ref.
Dual-earner couple	0.76 (0.18)	0.79 (0.18)	0.48* (0.14)	0.45** (0.13)	0.55* (0.16)	0.86 (0.25)
N (observations)	22729		27359		25602	
n (couples)	4196		3105		6256	

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Note: Discrete-time event-history analyses. The estimates in the table are exponentiated log-hazards, and can be interpreted as odds ratios. Standard errors in parentheses. **Model controls:** female-career couples, female-breadwinner couple, no-earner couple, partnership duration, age, foreign-born, calendar period, region, number of children, pre-school age children, childbirth, higher-order partnerships; (for the male and female partner separately): education, employment duration, income, occupational sex-type, public sector employment, self-employment, firm-size, and commuting distance.

Table A3. Discrete hazard rates of family migration, couple types by spousal occupations (Model 5)

	Australia	Britain	Germany	Sweden
	OR/(St.Err.)	OR/(St. Err.)	OR/(St. Err.)	OR/(St. Err.)
Male-breadwinner couple	ref.	ref.	ref.	ref.
No spouse in a managerial/professional occupation	0.65* (0.13)	0.45*** (0.11)	0.77 (0.28)	0.96 (0.11)
Both spouses in managerial/professional occupations	0.77 (0.20)	0.93 (0.34)	4.32* (2.53)	1.75*** (0.18)
Only the male spouse in a managerial/professional occupation	1.09 (0.15)	1.62** (0.30)	2.68** (0.81)	1.47*** (0.10)
N (observations)	22,729	27,510	25,602	200,450
n (couples)	4,196	3,105	6,256	51,466

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Note: Discrete-time event-history analyses. The estimates in the table are exponentiated log-hazards, and can be interpreted as odds ratios. Standard errors in parentheses. **Model 5 controls:** female-career couples, female-breadwinner couple, no-earner couple, partnership duration, age, foreign-born, calendar period, region, number of children, pre-school age children, childbirth, higher-order partnerships; (for the male and female partner separately): education, employment duration, income, occupational sex-type, public sector employment, self-employment, firm-size, and commuting distance.