



DEMOGRAPHIC RESEARCH

A peer-reviewed, open-access journal of population sciences

DEMOGRAPHIC RESEARCH

VOLUME 55, ARTICLE 4, PAGES 113–166

PUBLISHED 14 JULY 2026

<https://www.demographic-research.org/Volumes/Vol55/4/>

DOI: 10.4054/DemRes.2026.55.4

Research Article

How do family transitions shape residential mobility among Quebec residents? Evidence on lagged, synchronous, and anticipatory effects by immigration status

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How do family transitions shape residential mobility among Quebec residents? Evidence on lagged, synchronous, and anticipatory effects by immigration status

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Abstract

BACKGROUND

Quebec has experienced sustained immigration alongside profound transformations in family trajectories, reshaping residential needs across the life course. While prior research has mainly focused on synchronous links between family transitions and residential mobility, less attention has been paid to the combined role of anticipatory and lagged dynamics, particularly in relation to immigration status and heterogeneity within immigrant populations.

OBJECTIVE

This study examines how union formation, union dissolution, and childbirth influence residential mobility among Quebec residents, and how these temporal patterns vary between immigrants and non-immigrants, as well as across immigrant profiles defined by duration of residence and age at arrival.

METHODS

We use retrospective data from the 2020 TrajIPaQ survey, reconstructing residential and family histories for 2006–2019. The analytical sample includes 1,392 individuals (15,873 person-years). Residential mobility is modeled using discrete-time logistic regressions with individual fixed effects, incorporating one- to two-year leads and lags of family transitions. Models are estimated for the full sample and stratified by immigration characteristics.

RESULTS

Union formation is strongly associated with moving in the year of the event, with no clear anticipatory or lagged effects. Union dissolution displays contrasting temporal patterns:

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Among non-immigrants, mobility peaks two years after separation, whereas among immigrants – especially recent and adult arrivals – moves occur primarily in the year of rupture. Childbirth is linked to reduced mobility in the year of birth and the following year among non-immigrants, suggesting residential stabilization, while no synchronous effect is observed among immigrants. Evidence of anticipatory mobility before childbirth is limited and mainly visible among more established immigrants.

CONCLUSION AND CONTRIBUTION

Family transitions shape residential mobility through distinct temporal configurations that vary by event type and immigration status. These findings underscore the value of dynamic, context-sensitive approaches to family mobility in immigrant-receiving societies.

1. Introduction

Examining the relationship between residential mobility and family transitions is particularly important in Quebec, where permanent immigration – averaging more than 50,000 admissions annually between 2013 and 2017 (MIFI 2020) – has profoundly shaped society and its transformations. Family transitions (notably marriage, divorce, and childbirth) alter household structures and generate new needs in terms of housing, infrastructure, and social services. Understanding how they influence residential moves makes it possible to better anticipate families' residential trajectories and to more effectively inform public policies aimed at promoting residential stability and family well-being.

This issue takes on particular significance when approached through the lens of immigration status. Faced with specific challenges related to integration, professional recognition, and the formation of social networks (Champion, Cooke, and Shuttleworth 2018; González-Ferrer, Hannemann, and Martin 2016; Hannemann and Kulu 2015), immigrants often exhibit residential patterns that differ from those of the non-immigrant population (Iceland and Scopilliti 2008; Finney 2011; Bolt and Van Kempen 2012; Haan 2012). For instance, they may be more likely to move in order to seize economic opportunities, seek environments conducive to integration, or respond to structural constraints in the housing market (Clark and Drever 2000). Distinguishing residential mobility dynamics by immigration status therefore allows for a more nuanced understanding of the diversity of family and residential trajectories.

Although located in North America and part of the Canadian federation, Quebec exhibits a set of distinctive institutional and structural characteristics that help contextualize the relationships between residential mobility, family dynamics, and

immigration status. First, the province's exclusive authority over economic immigration facilitates the selection of skilled, French-speaking profiles (MIFI 2015), often at family-forming ages, whose heterogeneous integration trajectories – marked by challenges related to housing access and professional recognition (IRIS 2012; Reiser and Breault 2021) – may shape the timing of residential adjustments. Second, the notably high prevalence of the rental sector, accounting for approximately 40% of Quebec households (ISQ 2025a), is among the highest in the country. Combined with rent regulation, this housing market configuration generates “housing traps” (RCLALQ 2024; FAPRU 2023) that may delay mobility despite family transitions, while the specific timing of lease agreements – most commonly expiring on July 1 – structures the temporal window for residential moves. Finally, the family policy infrastructure, characterized by a network of low-fee early childhood education centres (Centres de la petite enfance, CPEs) and a relatively generous parental insurance program (RQAP) (Mathieu and Tremblay 2020), may either anchor families in place to preserve access to services (Comtois-Rousseau 2009) or promote post-transition stabilization, thereby postponing residential adjustments.

The literature on residential mobility in relation to family transitions is extensive. Three theoretical perspectives generally underpin the empirical studies that have examined these relationships. The first, known as the adjustment perspective, posits that family transitions directly trigger residential moves in response to newly emerging needs (Rossi 1955, 1980). This approach has made it possible to demonstrate, in numerous studies, the immediate and sometimes mechanical effects of family transitions on mobility (Clark 2013; Clark and Withers 2009; Couet 2006; Lacroix, Gagnon, and Wanner 2020). However, it does not account for the potentially anticipatory or reciprocal nature of residential mobility with respect to family change. This limitation is addressed by the second perspective, the interdependence perspective, which conceptualizes the relationship between family life and residential mobility as bidirectional. Residential moves may follow family changes or precede them, as part of a broader adjustment process (Geist and McManus 2008; Michelson 1977). This more nuanced approach, further enriched by a limited number of studies examining reciprocal effects, allows for a better understanding of the complexity of residential trajectories (Boyle and al. 2008; Kulu and Steele 2013). Nevertheless, it raises substantial methodological challenges, particularly with respect to causal identification and the modeling of multiple temporalities. The third perspective draws on assimilation theory, rooted in the work of Gordon (1964), through which residential mobility dynamics and family changes can be interpreted in an immigration context (Bolt and Van Kempen 2012). This perspective holds that the residential trajectories of immigrants early in the integration process – often distinct from those of the native-born population – tend to converge toward the latter as socioeconomic and cultural capital accumulates over time within the host society.

Our study integrates these three approaches and seeks to address two main gaps in the literature. First, although several studies have examined temporal windows surrounding family events (Kulu and Steele 2013; Vidal and Lutz 2018) or the bidirectionality between transitions (Boyle et al. 2008), no study has simultaneously analyzed anticipatory, synchronous, and lagged effects of multiple family transitions – here unions, union dissolutions, and births – within a unified framework that allows for their direct comparison. This gap limits our understanding of how different transitions may entail distinct temporal effect patterns and how these temporalities can be interpreted in light of the host-society context. Second, most existing studies on immigrant mobility have focused primarily on synchronous effects, overlooking the possibility that immigrant-specific structural constraints (such as language barriers, credential recognition, and access to social networks) generate particular temporal lags between family events and residential mobility. Moreover, the Quebec context, with its somewhat distinctive institutional configuration within Canada, offers a valuable opportunity to deepen empirical understanding of residential mobility trajectories linked to family transitions, given its large rental sector, generous family policies, and immigration system that favors the selection of skilled, French-speaking immigrants.

In this respect, we seek to address the following two research questions: (1) How do family transitions – unions, union dissolutions, and births – among Quebec residents affect their residential mobility? (2) To what extent do these effects differ by immigration status, age at immigration, and length of residence? To answer these questions, we estimate fixed-effects and random-effects logistic models that include indicators designed to capture the synchronous, lagged, and anticipatory effects of family transitions on residential mobility. We then stratify the analyses by immigration status in order to assess whether immigrant-specific temporal lags emerge. In doing so, our study sheds new light on the intersection of family and residential life-course trajectories. More broadly, it contributes to theoretical debates on the interdependence between life domains by emphasizing that temporal mismatches between events are not merely individual-level phenomena but can also be understood in relation to institutional structures.

2. Quebec context: Immigration, housing, and family dynamics

Quebec constitutes the empirical setting of this study. The objective is not to provide a systematic comparison with other national or provincial contexts, but rather to identify how certain institutional and structural features specific to Quebec are likely to shape the timing of the relationships between family transitions and residential mobility. The following section therefore outlines the contextual mechanisms on which the theoretically informed expectations tested in the empirical analysis are based.

2.1 A distinctive economic immigration system

Under the 1991 Canada–Quebec Accord, Quebec holds exclusive authority over the selection of economic immigrants and their integration (MIFI 1991). Economic immigrants accounted, on average, for three out of five immigrants admitted to the province between 2013 and 2017 (MIFI 2020). This jurisdiction translates into an immigration policy that prioritizes French-speaking or Francophone-oriented profiles, reflecting an institutional framework specific to Quebec (MIFI 2015, 2020).

Over recent decades, immigration flows to Quebec have become increasingly diversified, with a growing share of immigrants originating from North Africa, the Middle East, Sub-Saharan Africa, and Asia (ISQ 2025b; Statistique Canada 2025a). This diversification of origins is accompanied by heterogeneous integration trajectories, with certain immigrant cohorts facing specific challenges related to housing access, the recognition of professional credentials, and discrimination in the labor market (IRIS 2012; Reiser and Breault 2021; MIFI 2015; Labelle, Field, and Icart 2007). These features suggest that residential adjustments associated with family transitions may not occur immediately but may instead unfold through lagged or anticipatory temporal patterns, depending on the pace of economic and residential integration.

Moreover, Quebec’s economic immigration policy primarily targets skilled individuals, generally those at family-forming ages or those already with children (MIFI 2015, 2020; ISQ 2025c). This selectivity has direct implications for residential dynamics, as immigrants often arrive at stages of the life course when multiple family transitions are likely to occur and, in turn, to generate residential adjustment needs in the years following settlement.

2.2 A distinctive housing market

Quebec’s housing market, and that of Montreal in particular, is characterized by a relatively high prevalence of rental housing, which has remained around 40% since the 2006 census (ISQ 2025a). Quebec thus exhibits a comparatively high share of renters within the North American context. This configuration is likely to shape residential mobility behaviors. While renter households generally have greater flexibility to move, they may also be constrained by institutional features specific to Quebec’s rental market.

Indeed, Quebec’s rent regulation system, administered by the Tribunal administratif du logement (TAL), generates ‘housing traps’ that influence residential decision-making. Tenants who have occupied a dwelling for several years often benefit from rents below prevailing market levels, which may discourage moving even when family circumstances change (RCLALQ 2024; FAPRU 2023). This mechanism can delay residential

adjustments associated with family transitions, particularly among households with modest incomes (FAPRU 2023). In addition, Quebec's rental market operates according to a distinctive annual schedule: Most leases expire on July 1, creating a concentrated mobility window that may affect the timing of residential moves relative to family events.

2.3 Generous family policies

Quebec stands out for having one of the most developed family policy frameworks in North America (Mathieu and Tremblay 2021). The network of Centres de la Petite Enfance (CPE), established in 1997, provides low-fee childcare services that constitute a structuring element of family residential trajectories. Access to CPE spaces, often limited and subject to waiting lists, may encourage anticipatory residential planning, as families seek to settle near available childcare services even before a child's birth (Comtois-Rousseau 2009), or remain anchored in a neighborhood in order to retain a place obtained after a long wait.

In addition, the Quebec Parental Insurance Plan (Régime québécois d'assurance parentale, RQAP), in effect since 2006, offers benefits that are more generous and more accessible than those provided under the federal system, potentially fostering a period of post-birth stabilization. This institutional infrastructure may thus help reduce residential mobility concurrent with a child's arrival or encourage delayed residential adjustment, as parents benefit from a period of parental leave that allows them to adapt to their new family situation before considering a move.

3. Background

3.1 Family dynamics and residential mobility

In his seminal work *Why Families Move*, Rossi (1955) was among the first to analyze the effects of family change on residential mobility. He argues that residential relocation is an adaptive or adjustment process that occurs in response to changes within the household or the family. In other words, family dynamics constitute key triggers in both the decision to move and the realization of residential moves (Bonvalet and Brun 2002; Vatz Laaroussi 2009). According to Debrand and Taffin (2005: 126), the study of residential mobility essentially amounts to examining the "evolution of the household-housing couple." Family change and residential transitions are thus inherently interdependent.

Several dimensions of family change relevant to residential mobility include union formation (formal or informal), childbirth or increases in family (or household) size,

separation, divorce, and widowhood. A large body of empirical research has supported Rossi's adjustment perspective. Using Australian data, Clark (2013) shows that being married (status) reduces the probability of moving, whereas entering a union or marrying (a dynamic event) increases it. In the United States, Jang and Snyder (2015) confirm a short-term positive effect of marriage on residential mobility, while in France, Debrand, and Taffin (2006) observe an increased likelihood of moving following couple formation. Similarly, Clark (2013) finds that being a parent (status) is associated with a lower probability of changing residence, whereas the birth of a child (a dynamic event) increases the risk of moving. In this case, residential relocation serves to meet housing needs associated with an impending birth or an anticipated increase in family size. This pattern is also documented by Debrand and Taffin (2006) in France, Rabe and Taylor (2010) in Great Britain, and de Groot et al. (2011) in the Netherlands, all of whom find that maternity or childbirth has a positive effect on residential mobility.

While marriage and parenthood tend to be associated with short-term residential instability and longer-term residential stability, union dissolution generally generates both short- and long-term residential instability (Debrand and Taffin 2006; Feijten and van Ham 2007, 2013; Warner and Sharp 2016). Using data from the Netherlands, Feijten and van Ham (2007, 2013) document a short-term effect of couple dissolution on residential moves. However, the effect may also persist over the longer term, as separation or divorce often leads one or both former partners to experience successive relocations (Feijten and van Ham 2007, 2013; Mikolai and Kulu 2018). In this sense, residential mobility following union dissolution can also be understood within an adjustment framework, similar to that associated with marriage and childbirth.

However, Wagner and Mulder (2015) point out that residential mobility does not necessarily result from adjustments to marital change; instead, it may precede such changes or even contribute to their occurrence. This observation is crucial, as it highlights a key limitation of the adjustment perspective in terms of its explanatory scope. It also resonates with the development of the life-course approach and its application in empirical research aimed at better understanding the relationship between family dynamics and mobility processes (Mulder and Hooimeijer 1999; Wagner and Mulder 2015; Coulter, van Ham, and Findlay 2016).

Several studies indeed show that residential mobility often occurs in anticipation of a birth, during pregnancy, or shortly after childbirth (Vidal and Huinink 2019; Vidal, Huinink, and Feldhaus 2017; Clark 2013; Clark and Withers 2009; Couet 2006; Coulter and Scott 2015; Kulu 2008; Michielin and Mulder 2008). Other studies instead suggest that changing residence has repercussions for family structure (Aybek, Huinink, and Muttarak 2015; Kulu and Washbrook 2014; Vidal and Huinink 2019). Residential relocation may, in particular, facilitate union formation through the geographical convergence of partners or generate strains that increase the risk of separation. Using

Australian data, Boyle et al. (2008), for example, show that a succession of residential moves leads to an increased risk of couple dissolution. The study by Kulu and Steele (2013) further contributes to the accumulation of empirical evidence on the interdependence between family life-course dynamics and residential mobility. Drawing on the Finnish longitudinal fertility register, the authors use a simultaneous equations model to analyze reciprocal effects between birth episodes and residential transitions. They show that the birth of a child substantially increases the likelihood of moving and that this risk also rises with the number of children in the family. Conversely, Kulu and Steele (2013) find that first and third birth rates are elevated following a residential move.

3.2 Family dynamics and residential mobility by immigration status

It is crucial to examine the relationship between family dynamics and residential mobility by explicitly incorporating immigration status. On the one hand, life-course theories emphasize the importance of sociocultural, economic, and institutional contexts in shaping residential decision-making (Elder, Johnson, and Crosnoe 2003). Immigrants face realities that differ from those of native-born populations, including unstable economic conditions, complex integration processes, and potential discrimination in access to housing (Champion, Cooke, and Shuttleworth 2018). These specific circumstances may influence how family changes affect their residential mobility.

On the other hand, models of residential assimilation suggest that immigrants initially experience higher levels of residential mobility than the native-born population, driven by the search for stable housing that meets their family and economic needs. Mobility then tends to decline as immigrants integrate socially and economically or gain access to homeownership (Bolt and Van Kempen 2012; Clark and Huang 2003). Family transitions, such as marriage or childbirth, may either slow this anchoring process or, conversely, encourage relocations to environments better suited to family circumstances (Geist and McManus 2008). From this perspective, duration of residence and age at arrival in the host country are key to understanding how the relationship between family transitions and residential mobility varies by immigration status. Recently arrived immigrants face information, network, and resource constraints that limit their ability to anticipate and plan residential moves in response to family changes. As length of residence increases, these constraints tend to diminish, and immigrants gradually adopt residential strategies which are more similar to those of the native-born population. Age at arrival likewise moderates residential integration. Immigrants who arrived as children or adolescents, having undergone socialization within the receiving society, more closely approximate the residential mobility trajectories of the native-born population compared

to those who immigrated in adulthood. These considerations underscore the need to avoid treating immigrants as a homogeneous group.

Few empirical studies have examined the relationship between family dynamics and residential mobility among immigrants or by immigration status. Renaud et al. (2006) identify the main determinants of residential transitions among newcomers to Canada during the first six months following settlement. While they successfully highlight the importance of immigrant characteristics – such as age, immigration category, visible minority status, educational attainment, household income, and household composition – in explaining the first move after arrival, the study was not designed to link residential transitions to changes occurring within immigrants' family lives. Zhu and Leloup (2007) use data from Renaud's longitudinal survey, the *Enquête sur l'établissement des nouveaux immigrants (ENI)*, in order to analyze the residential trajectories of newcomers in Montreal. They identify several factors influencing the likelihood of moving during the first 10 years after settlement in Quebec, including job changes or job loss. However, this research does not take into account other life-course transitions experienced by immigrants, particularly family changes.

The studies by Li and Zhu (2014) and Lacroix, Gagnon, and Wanner (2020), conducted in the Chinese and Swiss contexts respectively, are among the few that explicitly explore the links between family change and residential mobility by immigration status. The former show that the effect of partnership changes on residential moves differs between the local population and migrants. While this effect is present and positive among the non-immigrant population, no such difference is observed among immigrants. This finding points to a limitation of Rossi's (1955) residential adjustment perspective by demonstrating that family changes do not always act as a trigger for residential mobility.

By combining data from a cross-sectional survey with population and household register data in Switzerland, Lacroix, Gagnon, and Wanner (2020) confirm that residential mobility constitutes a form of adjustment, as it occurs in the same year as major family events such as marriage, divorce, or childbirth. However, their results also reveal substantial variation by immigration status. Births increase the probability of moving among non-immigrants and non-European Union immigrants, while they reduce this probability among immigrants from the European Union. Marriages and divorces raise the likelihood of moving for all three groups, although the effect of marriage is markedly stronger among non-European Union immigrants.

The findings of Lacroix, Gagnon, and Wanner (2020) are informative in that they highlight immigration-status-specific patterns of residential mobility associated with family transitions. Nevertheless, the way in which the relationship between residential transitions and family events is operationalized limits the scope of the conclusions. First, restricting the analysis to transitions occurring in the same year necessarily leads to an

underestimation of the potential effects of family changes on residential mobility by reducing them to purely synchronous events. This choice is largely driven by the short observation period of four years (2011–2014). Yet, although the events examined are recurrent, they occur at relatively low and irregular frequencies, which calls for a longer observation window. Second, this operationalization of the sequencing between events is not well suited to investigating potentially causal relationships, and even less so to identifying anticipatory effects. In an earlier study focusing exclusively on the immigrant population in Switzerland, Lacroix and Zufferey (2019) had initially employed a longitudinal random-effects model with family transition variables lagged by one year (marriages and births) to examine their association with short- and long-distance residential relocation. They concluded that simultaneous processes exist only between marriage and mobility, whereas births have no effect on mobility. The study also identifies a negative lagged effect of marriage, with this event discouraging mobility when it occurs one year earlier. By contrast, no evidence of lagged effects is found in the case of births.

4. Hypotheses

Drawing on the residential adjustment perspective (Rossi 1955, 1980), as well as the life-course approach and the interdependence perspective (Boyle et al. 2008; Kulu and Steele 2013), we formulate the following hypotheses regarding the timing of the relationships between family transitions and residential mobility among Quebec residents, and their variation by immigration status.

H1: Synchronous effects. Consistent with the adjustment perspective, the occurrence of a family transition during year t is expected to be associated with increased odds of moving within the same interval. We anticipate a clear synchronous effect for union formation and union dissolution, as these events often involve an immediate reconfiguration of housing arrangements (Rossi 1955; Clark 2013; Debrand and Taffin 2006; Feijten and van Ham 2007, 2013). For births, the synchronous association is expected to be more contingent. Mobility may be triggered at the time of the event when adjustment occurs immediately, but it may also be limited if most residential preparation takes place prior to the birth or if the arrival of a child temporarily reinforces residential inertia.

H2: Lagged effects. Beyond the year of occurrence, family transitions may also be associated with lagged residential adjustments, reflecting decision delays, institutional constraints, or gradual adaptation processes. We expect lagged effects to be particularly pronounced for union dissolution, insofar as separation may lead to progressive or successive relocations, and residential moves may be delayed by economic or legal

constraints (Feijten and van Ham 2007, 2013; Mikolai and Kulu 2018; Warner and Sharp 2016). For union formation, lagged effects are expected to be more limited if residential reconfiguration occurs primarily at the time of couple formation, which is plausible given the high prevalence of cohabitation in Quebec. For births, a lagged adjustment is plausible, particularly in the year following the event, when space requirements and family organization needs become more salient (Vidal and Huinink 2019; Coulter and Scott 2015; Kulu 2008), although the direction of this effect depends on the timing of residential decision-making (pre- versus post-birth).

H3: Anticipatory effects. From an interdependence perspective across life domains, residential mobility may precede certain family transitions when it is embedded in planning strategies. We expect anticipatory effects to be most visible for births, given the generally predictable nature of the event and the possibility of undertaking residential adjustments during pregnancy (Vidal and Huinink 2019; Vidal, Huinink and Feldhaus 2017; Coulter and Scott 2015). For union formation, an anticipatory effect is possible when the search for a shared dwelling or the geographical convergence of partners precedes union formation, although it may be less systematic if residential adjustment occurs primarily at the time of the event. By contrast, union dissolutions, which are often less planned, are expected to be preceded by relative residential stability rather than heightened mobility.

H4: Moderation by immigration status, length of residence, and age at arrival. The relationships between family transitions and residential mobility are expected to vary by immigration status due to unevenly distributed integration-related constraints and resources (such as information about the housing market, economic stability, network formation, access to housing, and potential discrimination), which shape individuals' capacity to anticipate, plan, and implement residential decisions (Champion, Cooke, and Shuttleworth 2018). In line with models of residential assimilation, differences between immigrants and non-immigrants should be most pronounced among recently arrived immigrants and gradually diminish as length of residence increases and residential trajectories progressively converge toward those of the native-born population. Similarly, immigrants who arrived at younger ages and were more extensively socialized in the host society are expected to display temporal associations closer to those of non-immigrants than immigrants who arrived in adulthood.

More specifically, we formulate three complementary expectations. *H4a:* First, the synchronous effects of union formation and union dissolution are expected to be more pronounced among recently arrived immigrants and/or those who arrived as adults, for whom family transitions are more closely intertwined with settlement-related adjustments and housing access constraints. These effects should converge toward those observed among non-immigrants for long-established immigrants and/or those who arrived at younger ages. *H4b:* Second, recently arrived immigrants and/or adult-arrival

immigrants may exhibit more frequently delayed adjustments (more visible lagged effects and/or weaker anticipatory effects) due to resource constraints and limited capacity for residential planning, whereas more integrated immigrants and non-immigrants are expected to display more stable temporal alignment around family events. *H4c*: Finally, given the relative predictability of childbirth, anticipatory residential adjustments prior to a child's arrival should be more common among individuals with sufficient resources and information to plan ahead. This should translate into more visible anticipatory effects among long-established immigrants and/or those who arrived at younger ages, compared with recently arrived immigrants and/or those who arrived as adults, for whom economic uncertainty and housing access constraints may limit anticipatory capacity.

5. Methodology

5.1 Data

The data used in this study come from a survey conducted as part of the research project *Trajectoires individuelles et dynamiques de participation des femmes et des hommes à la société québécoise* (TrajIPaQ) (Lardoux et al. 2021; Djogbenou, Adjiwanou, and Lardoux 2025). This project stems from the Actions Concertées program of Ministère de l'Immigration, de la Francisation et de l'Intégration (MIFI) of Quebec, in collaboration with the Fonds de recherche du Québec – Société et Culture (FRQSC). Its objective is to understand the individual factors that shape the participation of immigrants and non-immigrants in Quebec society (Djogbenou 2024). In addition to information on participation-related dimensions and sociodemographic characteristics, the survey retrospectively collects data on selected family events, as well as episodes of employment, housing, and education or training over the past 15 years of respondents' lives. The data are therefore particularly well suited to examining the links between transitions observed in residential trajectories and those associated with other life-course events among Quebec residents, with a specific focus on immigration status.

Data collection was carried out between August 7 and December 3, 2020, yielding a sample representative of the Quebec population based on six census metropolitan areas (Montreal, Québec City, Saguenay, Trois-Rivières, Sherbrooke, and Ottawa–Gatineau) (Lardoux et al. 2021; Djogbenou, Adjiwanou, and Lardoux 2025). Using a questionnaire administered online or by telephone, in French or English, by the survey firm Bureau des interviewers professionnels (BIP), the survey reached 1,563 Quebec residents aged 20 to 60. The sample includes 1,113 first-generation immigrants who arrived in Quebec within the past 15 years and 450 individuals born in the province (Canadian-born natives and

second-generation immigrants). This corresponds to response rates of 24.7% and 34.3% among immigrants and non-immigrants, respectively (Djogbenou 2024). To minimize sampling-related distortions that could affect the representativeness of respondents, the survey data were post-stratified using information from the 2016 Canadian Census, notably on sex, age, educational attainment, immigration status, visible minority status, and region of birth.

5.2 Measures

The dependent variable in this study is residential transition, which is operationalized in two different ways:

- Annual residential transition: a binary indicator measuring, for each year, whether the respondent moved or not. This specification of the dependent variable is primarily used in the multivariate analyses.
- Residential transition over the past 15 years or since arrival in Quebec: a binary variable distinguishing sedentary individuals (coded 1) from those who experienced at least one residential move (coded 2).

Residential transitions are examined in relation to three main independent variables and one moderating variable:

- Union formation, measured in two ways depending on the level of analysis: (1) a dichotomous variable coded 1 if a union occurred in year t and 0 otherwise; (2) a dichotomous variable coded 1 if no union occurred and 2 if at least one union was observed over the past 15 years.
- Union dissolution, also measured in two ways depending on the level of analysis: (1) a dichotomous variable coded 1 if a union dissolution occurred in year t and 0 otherwise; (2) a dichotomous variable coded 1 if no union dissolution occurred and 2 if at least one dissolution was observed over the past 15 years.
- Births, measured in two ways depending on the level of analysis: (1) a dichotomous variable coded 1 if a birth occurred in year t and 0 otherwise; (2) a dichotomous variable coded 1 if no birth occurred and 2 if at least one birth was observed over the past 15 years.
- Immigration status, operationalized in three different ways to capture heterogeneity within the immigrant population: (1) a distinction between immigrants and non-immigrants; (2) a distinction between immigrants who arrived less than 10 years ago, immigrants who arrived 10 years ago or more, and individuals born in Canada;

- (3) a distinction between immigrants who arrived at younger ages (under 25), those who arrived as adults (aged 25 or older), and individuals born in Canada.⁴

For the full sample, the models are adjusted for sex (male; female), birth cohort (1960–1970; 1971–1980; 1981–1990; 1991–2000), educational attainment (secondary or less; college; vocational training; university), religious affiliation (no religion; Catholic; Muslim; other religions), and housing tenure (renter/hosted; homeowner). The same set of covariates is used in the models estimated for non-immigrants. For immigrants, the models are additionally adjusted for visible minority status, region of birth, length of residence, age at arrival in Quebec, and French language proficiency at arrival. Housing tenure is time-varying, whereas all other control variables are time-invariant.

5.3 Analytical sample

5.3.1 Construction of the analytical sample

The analytical sample is defined by retrospectively reconstructing residential episodes, union formations, union dissolutions, and births that occurred between 2005 and 2020. To do so, three sets of questions were used for each type of event. The first collected information on the number of dwellings occupied in Quebec for at least 12 consecutive months, the number of unions formed, and the number of live births. The second and third questions recorded, respectively, the start and end dates of each residential and union episode, as well as the ages and/or years of birth of children.

The analytical sample consists of 1,392 individuals (956 immigrants and 436 non-immigrants), for whom residential transitions, union changes, and births are observed from age 18 onward, between 2005 and 2020. A total of 171 respondents (11% of the original sample) were excluded following data cleaning due to missing information on key variables (start dates of housing and union episodes, date of birth, year of arrival in Quebec). These exclusions include 14 immigrants who settled in Quebec after 2018. Given that transitions are observed on an annual basis, this decision reflects the fact that a single year of exposure to the risk of experiencing the events of interest would be

⁴ The threshold of 25 years was selected on both statistical and substantive grounds. Statistically, the distribution of age at arrival in our sample is heavily concentrated between 22 and 35 years, with fewer than 20% of immigrants having arrived before age 25. Lower thresholds commonly used in the literature (12 or 18 years) would yield subgroups too small for reliable fixed-effects estimation. Substantively, age 25 broadly marks the end of emerging adulthood – a period during which residential independence, labor market entry, and early family formation typically consolidate in industrialized societies (Arnett 2000; Statistics Canada 2007) – making it a meaningful boundary between immigrants socialized primarily in Quebec and those who arrived with already-formed residential and family trajectories.

insufficient. For the purposes of the multivariate analyses, the dataset is subsequently transformed into a person-year format, yielding an analytical sample of 15,873 person-years (9,409 immigrant person-years and 6,464 non-immigrant person-years).

We nevertheless retain the period 2006–2019 rather than 2005–2020 for two reasons. First, as the initial year of the reconstructed observation window, 2005 is more vulnerable to retrospective misdating and underreporting of events occurring near the temporal edge of the period. Second, because data collection took place in the second half of 2020, transitions observed for that year are likely to be underestimated, potentially reflecting disruptions associated with COVID-19–related public health restrictions (which may have reduced residential mobility). As will be shown in the results section (see Figure 1), mobility, union, and birth rates in 2005 and 2020, which are generally lower than those observed over the remaining period, clearly illustrate the limitations of including these years in the analyses.

5.3.2 Distributions of the study variables

Table 1 presents the distributions of the study variables for the full sample and by immigration status. More than half of respondents experienced at least one residential transition between 2006 and 2019. Immigrants are overrepresented among those who experienced at least one housing change, by approximately 12 percentage points compared with non-immigrants. Overall, 30.5% and 14.6% experienced at least one union formation and one union dissolution, respectively, and 34.7% experienced at least one birth. Notably, non-immigrants (14.8%) are more likely than immigrants (9.3%) to have experienced at least one union dissolution. No marked differences between the two subgroups are observed for union formation or births.

Regarding sociodemographic characteristics, immigrants account for 9.5% of the analytical sample. About half originate from North Africa or the Middle East (28.5%) and from Europe or North America (23.1%). In addition, seven out of ten immigrants belong to a racialized group, more than half settled in Quebec less than 10 years ago (54.7%), and the large majority arrived in the province as adults (70.2%).

Table 1: Weighted distributions of the analytical sample by study variables⁵

Variables	Immigrant N = 956	Non-immigrant N = 436	Overall N = 1,392
Residential mobility			
No residential move	37.8	49.3	48.3
At least one residential move	62.2	50.7	51.7
Union formation			
No union	70.2	69.5	69.5
At least one union	29.8	30.5	30.5
Union dissolution			
No dissolution	90.7	85.2	85.4
At least one dissolution	9.3	14.8	14.6
Birth			
No birth	62.1	64.9	65.3
At least one birth	37.9	35.1	34.7
Housing tenure			
No change	13.5	60.0	55.7
At least one change	86.5	40.0	44.3
Immigration status			
Immigrant			9.5
Non-immigrant			90.5
Length of residence			
Canadian born	N/a [†]		90.5
Immigrant – less than 10 years	54.7		4.3
Immigrant – 10 years or more	45.3		5.2
Age at arrival			
Canadian born	N/a		90.5
Arrive younger (under 25 years old)	29.8		2.9
Arrive adult (25 years old or more)	70.2		6.6
Visible minority status			
Non-immigrant	N/a		90.5
Racialized immigrant	69.9		3.4
Non-racialized immigrant	30.1		6.1
Region of birth			
Canada	N/a		90.5
Europe/North America	23.1		2.3
Sub-Saharan Africa	12.8		1.1
South/Central America	13.0		1.2
North Africa/the Middle East	28.5		2.6
Asia	11.4		1.0
Caribbean/Other regions	11.2		1.3

⁵ The weighting is specific to the full sample and is applied separately by immigration status.

Table 1: (Continued)

Variables	Immigrant	Non-immigrant	Overall
	N = 956	N = 436	N = 1,392
Sex			
Male	48.8	50.4	51.3
Female	51.2	49.6	48.7
Birth cohort			
1960–1970	9.3	32.6	30.0
1971–1980	32.9	21.2	22.0
1981–1990	39.2	22.2	22.6
1991–2000	18.6	24.1	25.4
Educational attainment			
Secondary or less	17.9	31.7	32.5
College	7.4	18.4	17.4
Vocational training	3.7	6.0	5.9
University	71.0	44.0	44.2
Religious affiliation			
No religion	28.7	37.8	37.4
Catholic	24.6	47.4	45.4
Muslim	25.2	1.6	3.7
Other religion	21.5	13.2	13.5
French language proficiency at arrival			
Yes	36.5		
No	63.5		

Note: * Not applicable.

5.4 Analytical strategy

5.4.1 General analytical approach

We adopt a two-step analytical strategy. First, we use chi-square tests of independence to examine associations between residential transitions, family transitions, and other study variables. These bivariate analyses are conducted both for the full sample and by immigration status. Second, we estimate discrete-time logistic regression models within the broader framework of discrete-time recurrent event models. This specification is particularly well suited to our context in which (1) the dependent variable (residential mobility) is dichotomous and may occur multiple times for the same individual; (2) family transitions (the main independent variables) are also discrete events; and (3) the data are observed annually over the 2006–2019 period.

5.4.2 Model specification

The general equation⁶ of our models, which simultaneously incorporates anticipatory, synchronous, and lagged effects, is specified as follows:

$$\log\left(\frac{p_{it}}{1-p_{it}}\right) = \alpha + \sum_{j=-2}^2 \theta_j V_{i,t-j} + \beta X_{it} + \delta Z_i + \mu_i + \gamma_t + \varepsilon_{it}.$$

In this equation, p_{it} denotes the probability of experiencing a residential transition at time t ; $V_{i,t-j}$ is a vector containing the main independent variables lagged by j periods, where $j < 0$ corresponds to anticipatory effects, $j = 0$ to synchronous effects, and $j > 0$ to lagged effects; X_{it} denotes a vector of time-varying covariates; Z_i denotes a vector of time-invariant covariates; θ_j is a vector of coefficients associated with the main independent variables at each temporal lag j ; β is a vector of coefficients associated with the time-varying covariates; δ is a vector of coefficients associated with the time-invariant covariates; μ_i represents individual-specific effects; γ_t captures period effects; and ε_{it} is the error term.

We estimate a series of four models progressing from synchronous effects only (M1), to synchronous and lagged effects (M2), to synchronous and anticipatory effects (M3), and finally a full model including all temporal effects (M4). For each of the three family transitions considered, M4 includes five temporal indicators ($t+2$, $t+1$, t , $t-1$, $t-2$), identifying the pattern of association within a five-year window around each event and reducing omitted variable bias arising from associations between transitions and from temporal autocorrelation among lead and lag indicators (Wooldridge 2010).

Lagged models require information from 2006 onward and anticipatory models require information up to 2019. Therefore, the analytical windows span from 2008 to 2019 for M2, from 2006 to 2017 for M3, and from 2008 to 2017 for M4. We additionally estimate six stratified models by immigration status – one for non-immigrants, one for all immigrants, and four stratified by length of residence and age at arrival of immigrants – though due to small subgroup sample sizes, only the partial models (M1, M2, and M3) are estimated for these strata.

5.4.3 Choice between fixed and random effects

The main challenge in estimating our models concerns the treatment of individual-specific effects (μ_i), which can be specified as either fixed or random. Fixed-effects

⁶ Based on the random-effects assumption. In a fixed-effects model, the equation is not adjusted for time-invariant covariates.

models are preferred over random-effects specifications as they control for all time-invariant unobserved heterogeneity without imposing distributional assumptions on this heterogeneity (Arellano 2003; Quintana 2021; Millimet and Bellemare 2023). This property is particularly important in our context, where many unobserved factors – such as personality traits or unmeasured sociodemographic characteristics, residential preferences, and family history – may jointly influence both residential mobility and family transitions (Boyle et al. 2008; Clark 2013; Jokela 2021).

Moreover, because our analyses focus on complex temporal profiles that include multiple lead and lag indicators of family transitions, fixed effects isolate within-individual variation by identifying the association between transitions and mobility based on changes experienced by the same individual over time, making estimates robust to selection bias from time-invariant unobserved characteristics (Arellano 2003; Quintana 2021). This approach also mitigates the over-weighting problem inherent in person-year models, insofar as individuals with a high propensity to move (‘frequent movers’) simply contribute more observations rather than biasing the estimates.⁷ We nevertheless rely on Hausman or Mundlak tests to formally support the choice of fixed-effects models for our analyses. The Hausman test assesses whether the individual-specific effects are correlated with the independent variables, but it may fail to converge in nonlinear models. As an alternative, we use the Mundlak test, which consists of including individual-specific time averages of the time-varying explanatory variables in a random-effects model.

5.4.4 Methodological considerations

To avoid reducing the sample size through listwise deletion, we use multiple imputation by chained equations under the missing-at-random assumption (Rubin 1987; van Buuren 2018), combining estimates using Rubin’s rules (Djogbenou 2024; Kulu and Hannemann 2019). In addition, because residential mobility is a recurrent event, we account for temporal dependence by including year fixed effects, allowing the baseline hazard to vary over time in line with macroeconomic and housing conditions, following standard discrete-time event history approaches (Allison 1982).

Furthermore, given the specific nature of the early post-arrival period – marked by unstable housing trajectories and migration-related adjustments (Renaud et al. 2006; Haan 2012) as well as potentially distinct family events (Kulu and González-Ferrer 2014; Lacroix, Mikolai, and Kulu 2024) – we conduct two sensitivity analyses: one excluding

⁷ In our case, this issue reflects the fact that individuals who move frequently contribute a larger number of event observations than those who move rarely, which may generate bias if these frequent movers exhibit characteristics or responses to family transitions that systematically differ from those of less mobile individuals.

the first two years after arrival, and another excluding only family events occurring during this period.

Beyond these methodological choices, our models aim to document temporal associations rather than establish strict causal relationships. Although lagged and anticipatory effects provide insights into residential planning and adaptation, they remain subject to residual endogeneity due to unobserved time-varying factors (employment, income, health). This issue is particularly salient for synchronous effects, which may reflect simultaneity. While alternative approaches such as instrumental variables were considered, their implementation is constrained by strong identification assumptions; lagged specifications therefore serve as a partial mitigation strategy.

Finally, the analyses face several limitations. First, the low prevalence of certain transitions within subgroups of interest – particularly among recent immigrants – poses additional challenges for statistical inference due to the asymptotic limitations of maximum likelihood estimation and sensitivity to influential observations (King and Zeng 2001; Heinze and Schemper 2002). Second, the aggregation of different transition subtypes (marriages and cohabitations, separations and divorces, births without distinction by parity) – necessitated by the limited number of observed events (147 unions associated with a residential move between 2006 and 2019) – may also mask heterogeneity across subtypes. Third, the analyses may also be affected by recall bias inherent in retrospective data and by the assumption of temporal stability in lagged models.

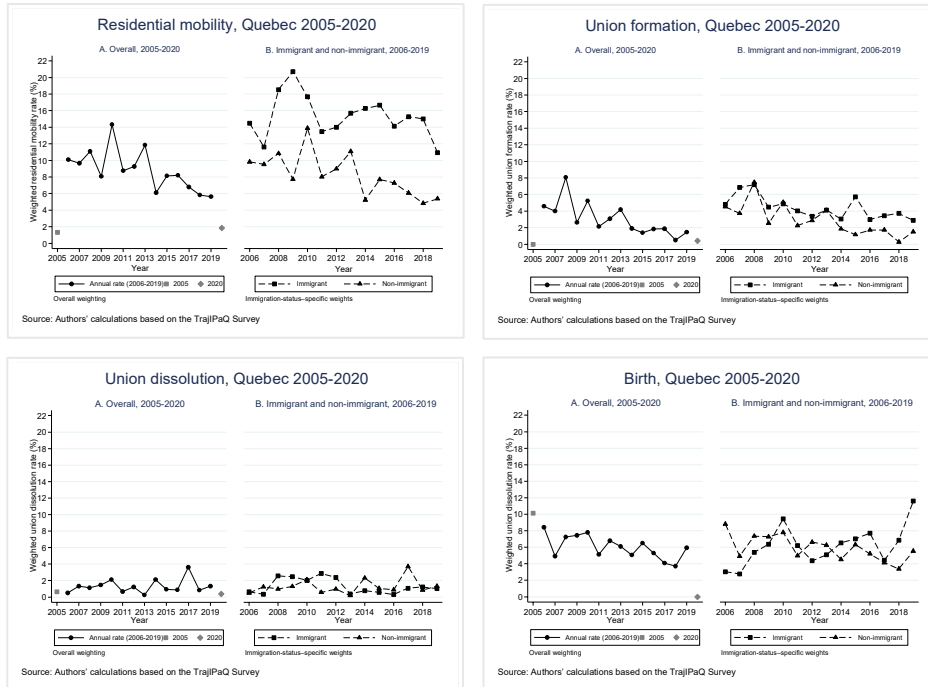
6. Results

6.1 Annual transition rates of the variables of interest

Annual transition rates are calculated as the weighted proportion of individuals who experienced each event during a given year. Figure 1 displays these rates for residential mobility, union formation, union dissolution, and births over the 2005–2020 period, and by immigration status and overall.

Residential mobility declines over the observed period, from approximately 10%–14% in 2006–2009 to 6%–8% in 2015–2019, with notable variability between 2008 and 2014 likely reflecting adjustments associated with the financial crisis and its consequences for the housing and rental markets. The period from 2014 to 2019 is characterized by a stabilization at lower levels. Analyses by immigration status indicate that immigrants consistently exhibit markedly higher mobility rates than non-immigrants (11%–21% versus 5%–14%), corresponding to a gap of roughly 1.5 to 2 times depending on the year.

Figure 1: Annual rates of residential mobility, union formation, union dissolution, and births: overall (2005–2020) and by immigration status (2006–2019)



The union formation rate declines over the observation period, falling from 4%–8% at the beginning of the period to about 1%–2% toward the end. This decline may be explained by several factors: an age effect (as the cohort ages and the propensity to form a union decreases), the gradual stabilization of unions already formed, and possibly postponed partnership formation or a lower propensity to re-partner. By immigration status, immigrants display a more gradual decline in union formation rates, whereas non-immigrants show greater variability in the early part of the period (2007–2013). With the exception of three years (2007, 2015, and 2018), during which rates are slightly higher among immigrants, both groups follow a broadly similar downward trajectory.

In contrast to the other indicators, the union dissolution rate stands out for its remarkable stability, fluctuating around 0%–2% throughout the entire period, with no notable differences between immigrants and non-immigrants. This stability contrasts sharply with the trends observed for residential mobility and union formation.

The rate of new births exhibits relative stability, ranging between 4% and 9% from 2006 to 2019. Immigrants display a pattern distinct from that of non-immigrants. While annual birth rates among immigrants tend to increase overall across the period despite some downward fluctuations (2010–2012 and 2016–2017), the opposite dynamic is observed among non-immigrants, for whom the overall trend is relatively stable to declining.

6.2 Association between family transitions and residential mobility

Table 2 presents the proportions of individuals who experienced at least one residential transition across categories of the main independent variables, along with significance levels from chi-square tests. Overall, having experienced at least one union, one union dissolution, or one birth is associated with a higher likelihood of residential transition across all groups. Among the full sample, 79.1% of individuals who experienced at least one union also experienced at least one residential transition – nearly twice the proportion observed among those without a union – compared with 67.9% and 71.2% for union dissolutions and births, representing increases of approximately 20 and 30 percentage points respectively over their counterparts without these transitions.

Table 2: Weighted percentages of the study population who experienced at least one residential transition, by main independent variable – overall, immigrants, and non-immigrants

Variables	Immigrants (N = 956)	Non-immigrants (N = 436)	Overall (N = 1,392)
Union formation	<i>p < 0.001</i>	<i>p < 0.001</i>	<i>p < 0.001</i>
No union	56.9	38.3	39.7
At least one union	74.7	79.1	79.1
Union dissolution	<i>p < 0.001</i>	<i>p < 0.001</i>	<i>p < 0.001</i>
No dissolution	59.7	47.9	49.0
At least one dissolution	86.3	67.2	67.9
Birth	<i>p < 0.001</i>	<i>p < 0.001</i>	<i>p < 0.001</i>
No birth	60.6	39.8	41.4
At least one birth	64.8	71.1	71.2

Note: Italicized values indicate the *p*-values associated with the chi-square test of independence.

These associations hold when stratifying by immigration status, though with notable differences in magnitude. The association between union dissolution and residential mobility is particularly pronounced among immigrants (86.3% versus 59.7% among those without a dissolution), whereas the association with births is stronger among non-immigrants (71.1% versus 39.8%). For union formation, the pattern is broadly similar

across both groups: Among immigrants, 74.7% of those who experienced at least one union also moved, compared with 56.9% among those without a union (a difference of 18 percentage points); among non-immigrants, the corresponding proportions are 79.1% and 38.3%, respectively, a gap of 41 percentage points.

6.3 Timing of the effects of family transitions on residential mobility

The results presented in Table 3 highlight differentiated temporal dynamics in the effects of family transitions on residential mobility, both in terms of magnitude and temporal sequencing. Hausman and Mundlak tests indicate systematic associations between unobserved individual characteristics and the explanatory variables, thereby justifying the use of individual fixed-effects models. The analyses presented below therefore rely exclusively on these models.

The three transitions exhibit clearly distinct temporal profiles. Union formation is characterized by a strong and concentrated synchronous effect: The odds of moving are more than twice as high in the year of union formation compared with years without a union ($OR = 2.5$; $p < 0.001$: column 1), while associations observed in the years before and after the event remain close to unity across all specifications. This effect attenuates in the full model ($OR = 1.5$; $p < 0.001$: column 4), but the overall pattern suggests that residential reconfiguration associated with partnership formation is tightly concentrated at the moment of the transition, with no meaningful anticipatory or lagged component.

Union dissolution displays the most temporally shifted profile. The synchronous effect is modest and non-significant ($OR = 1.3$; $p = 0.259$: column 1), indicating that separation is not systematically accompanied by an immediate residential move. Instead, the residential consequences of dissolution unfold gradually: The odds of moving rise one year after the event ($OR = 1.5$; $p = 0.076$) and become particularly pronounced two years later ($OR = 3.5$; $p < 0.001$: column 2), a pattern that persists in the full model ($OR = 3.7$; $p < 0.001$: column 4). In the opposite temporal direction, the year preceding a dissolution is characterized by residential stability, with individuals facing an impending separation exhibiting notably lower odds of moving ($OR = 0.366$; $p = 0.002$: column 3; $OR = 0.232$; $p = 0.001$: column 4).

Table 3: Odds ratios measuring the temporal effects of union formation, union dissolution, and births on residential transitions among Quebec residents

Variables	Synchronous (1)	Lagged (2)	Anticipatory (3)	Overall (4)
Union formation (Ref. = No)				
Yes	2.533 0.000 (0.300)	1.820 0.000 (0.277)	2.457 0.000 (0.310)	1.494 0.019 (0.256)
Yes <i>t</i> -1		1.005 0.977 (0.160)		0.869 0.441 (0.158)
Yes <i>t</i> -2		1.155 0.313 (0.165)		0.988 0.940 (0.159)
Yes <i>t</i> +1			0.978 0.897 (0.167)	0.656 0.059 (0.146)
Yes <i>t</i> +2			0.877 0.476 (0.161)	0.771 0.280 (0.186)
Union dissolution (Ref. = No)				
Yes	1.266 0.259 (0.265)	1.346 0.215 (0.323)	1.138 0.574 (0.262)	1.089 0.753 (0.295)
Yes <i>t</i> -1		1.526 0.076 (0.363)		1.456 0.143 (0.373)
Yes <i>t</i> -2		3.480 0.000 (0.765)		3.660 0.000 (0.880)
Yes <i>t</i> +1			0.366 0.002 (0.119)	0.232 0.001 (0.097)
Yes <i>t</i> +2			1.034 0.883 (0.237)	0.770 0.398 (0.238)
Birth (Ref. = No)				
Yes	0.632 0.000 (0.079)	0.521 0.000 (0.072)	0.605 0.001 (0.082)	0.432 0.000 (0.067)
Yes <i>t</i> -1		0.596 0.000 (0.087)		0.500 0.000 (0.081)
Yes <i>t</i> -2		0.949 0.699 (0.129)		0.948 0.713 (0.138)
Yes <i>t</i> +1			1.138 0.277 (0.135)	0.912 0.493 (0.123)
Yes <i>t</i> +2			1.248 0.049 (0.141)	1.079 0.567 (0.144)

Table 3: (Continued)

Variables	Synchronous (1)	Lagged (2)	Anticipatory (3)	Overall (4)
Birth (Ref. = No)				
Person-year	9,251	7,062	7,028	5,117
Individuals sample	921	822	810	696
Period analyzed	2006–2019	2008–2019	2006–2017	2008–2017
Log likelihood	–2,593.78	–1,945.02	–2,155.87	–1,546.72
Wald test	376.48	378.04	282.44	315.18
<i>p-value</i>	0.000	0.000	0.000	0.000
Hausman/Mundlak test	190.10	444.37	707.03	512.49
<i>p-value</i>	0.000	0.000	0.000	0.000
Joint test of temporal effects	83.14	90.33	94.95	112.94
<i>p-value</i>	0.000	0.000	0.000	0.000
AIC	5,221.56	3,932.05	4,353.74	3,143.44
BIC	5,342.82	4,076.16	4,497.75	3,306.95

Notes: Odds ratios are derived from fixed-effects models. Standard errors are reported in parentheses, and *p*-values are shown in italics. All models control for housing tenure and year fixed effects. Overall weighting applied.

Births present yet a third configuration, combining reduced mobility at and following the event with a fragile anticipatory signal upstream. In the year of birth, the odds of moving are 37% lower than in years without a birth (OR = 0.632; $p < 0.001$: column 1), and this stabilization extends into the following year (OR = 0.596; $p < 0.001$: column 2). A marginal increase in mobility is observed two years prior to birth in partial specifications (OR = 1.3; $p = 0.049$: column 3), consistent with residential planning ahead of a child's arrival. However, this anticipatory effect dissipates in the full model, while the synchronous and one-year lagged stabilization effects remain substantial (OR = 0.432 at t ; OR = 0.500 at $t - 1$; $p < 0.001$: column 4), suggesting that births are primarily associated with residential inertia rather than mobility across the temporal window considered.

6.4 Timing of the effects of family transitions on residential mobility: Interaction with immigration status

6.4.1 Synchronous effects

Stratified analyses by immigration status reveal contrasted synchronous effects of family transitions on residential mobility among Quebec residents (Table 4). Comparisons between immigrants and non-immigrants identify substantial differences in both the magnitude and the significance of associations, while the examination of migration profiles highlights heterogeneity within the immigrant population itself. Hausman/Mundlak tests ($p < 0.001$) confirm the appropriateness of fixed-effects

specifications. Only the model estimated for immigrants who arrived at younger ages yields a test with a relatively large p -value ($p = 0.200$), suggesting that random-effects and fixed-effects specifications produce similar estimates for this subgroup.

Table 4: Odds ratios measuring the synchronous effects of union formation, union dissolution, and births on residential transitions by immigration status and migration profile

Variables	Non-immigrant	Immigrant				
		Overall	Length of residence		Age at arrival	
			< 10 years	≥ 10 years	Young	Adult
Union formation (Ref. = No)						
	2.418	1.758	3.062	1.147	2.414	1.508
Yes	0.000	0.000	0.000	0.527	0.002	0.029
	(0.530)	(0.274)	(0.726)	(0.249)	(0.697)	(0.284)
Union dissolution (Ref. = No)						
	1.160	3.927	7.833	3.022	2.325	4.191
Yes	0.705	0.000	0.000	0.003	0.343	0.000
	(0.454)	(1.086)	(3.531)	(1.118)	(2.071)	(1.206)
Birth (Ref. = No)						
	0.591	1.070	1.400	0.849	1.042	1.051
Yes	0.023	0.653	0.150	0.429	0.910	0.655
	(0.137)	(0.162)	(0.328)	(0.849)	(0.382)	0.180
Person-year	3,492	5,759	1,938	3,821	1,499	4260
Individuals sample	276	645	310	335	169	476
Log likelihood	-762.43	-1,615.85	-593.26	-989.08	-427.20	-1,172.71
Wald test	117.80	123.94	132.10	58.86	32.22	123.62
p-value	0.000	0.000	0.000	0.000	0.014	0.000
Hausman / Mundlak test	161.09	43.53	49.00	69.35	5.99	52.26
p-value	0.000	0.000	0.000	0.000	0.200	0.000
Joint test of temporal effects	23.58	37.66	42.01	10.22	11.27	27.29
p-value	0.000	0.000	0.000	0.017	0.010	0.000
AIC	1,558.87	3,265.71	1,210.51	2,012.17	888.39	2,379.42
BIC	1,663.56	3,378.91	1,277.35	2,118.39	978.70	2,487.49

Notes: Odds ratios with standard errors in parentheses and p -values in italics. Fixed-effects logistic models. Period: 2006–2019. Controls: housing tenure and year fixed effects. Weights specific to immigration status.

Among non-immigrants, union formation is associated with a strong increase in residential mobility (OR = 2.4; $p < 0.001$), while births are associated with reduced mobility (OR = 0.59; $p = 0.023$). Union dissolution shows no significant synchronous effect in this group. Among immigrants, the pattern differs notably: Union dissolution is the transition most strongly associated with concurrent residential mobility (OR = 3.9; $p < 0.001$), while union formation shows a more moderate positive association (OR = 1.76; $p < 0.001$) and births show no concomitant effect.

Disaggregation by migration profile reveals further heterogeneity within the immigrant population. For union formation, recent immigrants (less than 10 years since arrival) display the strongest synchronous association ($OR = 3.1$; $p < 0.001$), exceeding even that of non-immigrants, whereas long-established immigrants show a weak and non-significant effect ($OR = 1.1$; $p = 0.527$). A similar gradient is observed by age at arrival: Immigrants who arrived at younger ages display an association comparable in magnitude to that of non-immigrants ($OR = 2.4$; $p = 0.002$), while those who arrived as adults show a more modest effect ($OR = 1.5$; $p = 0.029$). For union dissolution, the synchronous effect remains strong across all immigrant subgroups, though it is particularly pronounced among recent arrivals ($OR = 7.8$; $p < 0.001$) and those who arrived as adults ($OR = 4.2$; $p < 0.001$). The estimate for immigrants who arrived at younger ages ($OR = 2.3$; $p = 0.343$) is less conclusive given the associated uncertainty. For births, the absence of a synchronous effect among immigrants is consistent across all profiles defined by length of residence and age at arrival.

6.4.2 Lagged effects

The results presented in Table 5 examine how family transitions continue to influence residential mobility beyond the year of the event in ways that differ by immigration status and migration profile. Specification diagnostics indicate that within-individual variation constitutes a central source of the information, which supports interpreting the coefficients as comparisons between years with and without a transition experienced by the same individual. It should be noted, however, that for some subgroups, the precision of the estimates remains more limited, calling for a cautious interpretation of the observed effects.

The most striking contrast between immigrants and non-immigrants concerns union dissolution. Among non-immigrants, a dissolution that occurred two years earlier is associated with a substantial increase in the likelihood of moving ($OR = 3.6$; $p = 0.001$), while the one-year lagged association is more moderate – together suggesting a pattern of gradual residential readjustment unfolding over time. Among immigrants, by contrast, lagged effects of union dissolution are generally weak and not robust across subgroups defined by length of residence or age at arrival, consistent with the interpretation that residential adjustments linked to separation occur primarily at the time of the event rather than in a delayed fashion. For births, a complementary but more modest asymmetry emerges: Among non-immigrants, births that occurred one year earlier are associated with marginally lower odds of moving ($OR = 0.605$; $p = 0.060$), indicating a short-term stabilization that gradually fades by the second year, whereas among immigrants no such lagged effect is observed across any migration profile.

Table 5: Odds ratios measuring the lagged effects of union formation, union dissolution, and births on residential transitions by immigration status and migration profile

Variables	Non-immigrant	Immigrant				
		Overall	Length of residence		Age at arrival	
			< 10 years	≥ 10 years	Young	Adult
Union formation (Ref. = No)						
Yes t-1	0.981	1.097	1.137	1.146	1.199	0.998
	0.949	0.663	0.744	0.598	0.629	0.994
	(0.291)	(0.233)	(0.447)	(0.297)	(0.451)	(0.264)
Yes t-2	1.201	1.217	1.063	1.381	1.181	1.186
	0.482	0.306	0.864	0.164	0.662	0.455
	(0.313)	(0.234)	(0.376)	(0.321)	(0.451)	(0.270)
Union dissolution (Ref. = No)						
Yes t-1	1.582	1.367	1.535	1.369	0.312	1.666
	0.291	0.427	0.564	0.516	0.368	0.233
	(0.688)	(0.538)	(1.140)	(0.663)	(0.404)	(0.713)
Yes t-2	3.605	1.074	0.701	1.287	0.240	1.206
	0.001	0.860	0.673	0.585	0.388	0.671
	(1.450)	(0.434)	(0.590)	(0.595)	(0.397)	(0.532)
Birth (Ref. = No)						
Yes t-1	0.605	1.011	0.781	1.124	1.054	0.971
	0.060	0.952	0.483	0.584	0.903	0.884
	(0.161)	(0.183)	(0.276)	(0.239)	(0.456)	(0.197)
Yes t-2	0.930	1.026	1.320	0.932	1.104	1.020
	0.771	0.887	0.406	0.763	0.830	0.922
	(0.232)	(0.190)	(0.441)	(0.217)	(0.509)	(0.209)
Person-year	2,745	4,317	1,264	3,053	1,161	3,156
Individuals sample	250	572	261	311	157	415
Log likelihood	-574.13	-1,152.12	-358.91	-775.77	-302.25	-832.05
Wald test	115.41	158.77	106.92	86.75	33.68	160.73
p-value	0.000	0.000	0.000	0.000	0.039	0.000
Hausman / Mundlak test	169.66	92.33	36.69	70.37	39.75	78.96
p-value	0.000	0.000	0.002	0.000	0.008	0.000
Joint test of temporal effects	27.48	39.75	37.68	13.68	10.85	32.87
p-value	0.001	0.000	0.000	0.134	0.286	0.000
AIC	1,190.26	2,346.24	749.81	1,593.53	646.51	1,706.09
BIC	1,314.53	2,480.02	832.08	1,720.03	752.71	1,833.29

Notes: Odds ratios with standard errors in parentheses and *p*-values in italics. Fixed-effects logistic models. Period: 2008–2019. Controls: housing tenure and year fixed effects. Weights specific to immigration status.

For union formation, lagged effects are generally absent in both groups. Among non-immigrants as among immigrants – whether recently arrived or long-established, whether arrived at younger ages or as adults – the associations observed one and two years after union formation remain close to unity, suggesting that residential adjustments related to

this transition are concentrated primarily at the time of the event. Some subgroup estimates are accompanied by relatively wide confidence intervals, which calls for caution, but the overall pattern is consistent with the absence of delayed reconfiguration following partnership formation.

6.4.3 Anticipatory effects

The results presented in Table 6 examine the extent to which residential mobility precedes certain family transitions by immigration status and migration profile, thereby revealing potential logics of anticipation or preparation ahead of family events. As with the lagged models, anticipatory effects appear generally fragile and sensitive to statistical power constraints, particularly within subgroups defined by length of residence or age at arrival in Quebec. This fragility calls for interpreting the observed associations as indications of potential anticipation rather than as systematic mechanisms.

Table 6: Odds ratios measuring the anticipatory effects of union formation, union dissolution, and births on residential transitions by immigration status and migration profile

Variables	Non-immigrant	Immigrant				
		Overall	Length of residence		Age at arrival	
			< 10 years	≥ 10 years	Young	Adult
Union formation (Ref. = No)						
Yes <i>t</i> +1	1.044	0.988	0.846	1.052	1.405	0.761
	0.889	0.957	0.691	0.851	0.372	0.338
	(0.326)	(0.220)	(0.356)	(0.282)	(0.536)	(0.217)
Yes <i>t</i> +2	0.950	1.462	1.365	1.478	1.183	1.539
	0.879	0.074	0.425	0.133	0.661	0.099
	(0.319)	(0.311)	(0.532)	(0.384)	(0.454)	(0.402)
Union dissolution (Ref. = No)						
Yes <i>t</i> +1	0.364	0.553	0.818	0.583	2.834	0.336
	0.087	0.164	0.801	0.305	0.237	0.033
	(0.215)	(0.236)	(0.652)	(0.307)	(2.499)	(0.172)
Yes <i>t</i> +2	1.037	0.463	1.018	0.281	1.439	0.377
	0.930	0.107	0.981	0.085	0.701	0.093
	(0.431)	(0.221)	(0.790)	(0.207)	(1.362)	(0.219)

Table 6: (Continued)

Variables	Non-immigrant	Immigrant				
		Overall	Length of residence		Age at arrival	
			< 10 years	≥ 10 years	Young	Adult
Birth (Ref. = No)						
	1.239	1.395	1.334	1.399	1.305	1.369
Yes $t+1$	0.320	0.057	0.413	0.106	0.503	0.113
	(0.267)	(0.244)	(0.470)	(0.291)	(0.519)	(0.271)
	1.258	1.014	0.615	1.312	0.857	1.007
Yes $t+2$	0.266	0.937	0.129	0.193	0.705	0.970
	(0.259)	(0.176)	(0.197)	(0.274)	(0.348)	(0.197)
Person-year	2,861	4,167	1,139	3,028	1,065	3,102
Individuals sample	261	549	232	317	143	406
Log likelihood	-640.29	-1,157.53	-336.06	-794.33	-300.51	-839.79
Wald test	88.72	70.28	74.73	49.83	25.39	79.36
p -value	0.000	0.000	0.000	0.000	0.231	0.000
Hausman / Mundlak test	343.77	154.03	58.32	61.58	143.28	72.14
p -value	0.000	0.000	0.000	0.000	0.000	0.000
Joint test of temporal effects	27.74	29.38	27.33	16.11	7.85	25.47
p -value	0.001	0.001	0.001	0.065	0.549	0.003
AIC	1,322.58	2,357.07	704.13	1,630.66	643.01	1,721.59
BIC	1,447.71	2,490.10	784.73	1,756.99	747.40	1,848.42

Notes: Odds ratios with standard errors in parentheses and *p*-values in italics. Fixed-effects logistic models. Period: 2006–2017. Controls: housing tenure and year fixed effects. Weights specific to immigration status.

Births stand out as the transition for which anticipatory patterns are the most consistent, albeit modest. Among immigrants, residential anticipation appears concentrated in the short term, with an odds ratio above unity at $t+1$ (OR = 1.4; $p = 0.057$) and negligible at $t+2$, suggesting that residential adjustments, when they occur, take place primarily in the year preceding birth. Among non-immigrants, odds ratios are likewise above unity at both $t+1$ and $t+2$, though high *p*-values preclude firm conclusions. Disaggregation by migration profile shows that all subgroups display odds ratios above unity at $t+1$, pointing to a broadly consistent – if statistically fragile – pattern of short-term anticipatory mobility ahead of a child's arrival. Two years prior to birth, estimates are more heterogeneous and do not support robust conclusions across profiles.

For union dissolution, both non-immigrants and immigrants display odds ratios below unity in the year preceding the event – respectively OR = 0.36 ($p = 0.087$) and OR = 0.55 ($p = 0.164$) – pointing to a phase of residential stability immediately preceding separation that is broadly consistent across groups, even if imprecisely estimated. Two years before dissolution, coefficients return closer to unity, suggesting that this stabilizing pattern is concentrated in the year just prior to the event rather than extending further back. Disaggregation by migration profile reveals some heterogeneity: Immigrants who arrived as adults show odds ratios below unity at both horizons (OR = 0.34 at $t+1$; OR =

0.38 at $t+2$), reinforcing the pre-dissolution inertia pattern, while estimates for immigrants who arrived at younger ages point in the opposite direction but are accompanied by considerable uncertainty and should not be overinterpreted.

For union formation, anticipatory effects are absent in both groups and across all migration profiles. Odds ratios remain close to unity at both $t+1$ and $t+2$ among non-immigrants and immigrants alike, with no subgroup displaying a coherent or statistically supported pattern of residential adjustment prior to partnership formation. This consistency across profiles reinforces the interpretation that residential reconfiguration associated with union formation occurs at the time of the event rather than in anticipation of it.

7. Discussion

This study aimed to provide new insights into the links between family change and residential transitions among Quebec residents by explicitly addressing the timing of the events of interest, and to revisit these relationships through the lens of immigration status. Drawing on retrospective survey data covering unions, union dissolutions, births, and residential moves between 2006 and 2019, we implemented fixed-effects logistic regression models. The results show that temporal configurations of association vary both by type of family transition and by immigration status, offering several important insights interpretable in light of prior research and the characteristics of the Quebec context.

7.1 When family change triggers mobility – or not

The family events operationalized in our study exert contemporaneous effects on the propensity to move, but in ways that differ across types of transitions. In the immediate term, union formation encourages residential mobility, birth tend to restrain it, and union dissolution shows no concomitant effect.

With respect to union formation, our findings are consistent with studies rooted in the Rossian tradition, which conceptualize residential mobility as an adaptive response to marriage or marital change (Debrand and Taffin 2005, 2006; Clark 2013; Jang, Casterline, and Snyder 2014; Coulter and Scott 2015; Falkingham et al. 2016; Warner and Sharp 2016; Morris 2017). Entering a union frequently entails a reconfiguration of housing arrangements – moving into a shared dwelling, searching for a larger or better-located home – which translates into odds of moving that are more than twice as high in the year of the event. This result also aligns with the interdependence perspective across

life domains developed by Geist and McManus (2008), who emphasize how residential and partnership decisions are synchronously articulated.

In the case of union dissolution, our results highlight the absence of a synchronous effect on the propensity to move. This finding, somewhat surprising, departs from the empirical and theoretical regularity documenting a positive effect of divorce and separation on residential mobility, as reported in several prior studies (Clark 2013; Mulder and Wagner 2012; Feijten and van Ham 2013; Mikolai and Kulu 2018; Kulu et al. 2021; Lacroix, Gagnon, and Wanner 2020). The substantial lagged effect peaking two years after separation instead suggests that union dissolution acts as a trigger for delayed mobility, reflecting a process of gradual adjustment rather than an immediate residential response.

In the case of a birth, our findings diverge from the empirical evidence reported in several studies according to which the arrival of a child generates immediate needs that lead families to adjust their housing situation (Clark and Huang 2003; Couet 2006; Kulu 2008; de Groot et al. 2011; Orvin and Fatmi 2022). In contrast to this literature – largely based on Anglo-Saxon or Northern European contexts – we observe a reduction in residential mobility in the year of birth. Our study is not, however, the first to challenge the residential adjustment hypothesis in relation to parenthood. In the United States, Warner and Sharp (2016) similarly documented a decrease in the probability of moving associated with both short- and long-term measures of parenthood.

This particular configuration can be interpreted according to Quebec's institutional context. On the one hand, generous family policies – most notably the Quebec Parental Insurance Plan (RQAP), which provides relatively long and accessible parental leave – may create a post-birth stabilization period during which families are able to adapt to their new situation without immediate pressure to move. On the other hand, the central role of the Centres de la petite enfance (CPE) in family organization may anchor families spatially, insofar as securing a childcare place after a long waiting period represents a valuable resource that parents may be reluctant to forgo by relocating. In addition, the system of rent regulation often discourages families from leaving dwellings with below-market rents, even when the available space becomes insufficient. Taken together, these institutional mechanisms – quite characteristic of the Quebec context – may help explain why births are associated with residential stabilization rather than increased mobility in the province.

Our results partially confirm Hypothesis H1. As expected, union formation is associated with a substantial positive synchronous effect, thereby supporting the Rossian adjustment perspective for this transition. By contrast, union dissolution does not exhibit the anticipated synchronous effect; residential mobility instead occurs in a lagged manner. As for births, the synchronous effect is indeed contingent, as we had anticipated, but in the direction of residential stabilization rather than increased mobility. Hypothesis

H1 is therefore supported for union formation, rejected for union dissolution, and confirmed in its cautious formulation for births.

7.2 Effects over time: Between lagged and anticipatory moves

Studies rooted in the Russian tradition have generally analyzed the effects of family change on residential mobility as synchronous. Yet the links between family transitions and mobility are not confined to the time interval in which the residential change occurs (Courgeau 1985; Geist and McManus 2008; Wagner and Mulder 2015; Kulu and Steele 2013). More concretely, our research highlights that individuals sometimes anticipate or postpone a move in relation to a forthcoming family event (anticipatory effect) or one experienced in the recent past (lagged effect).

With regard to lagged effects, our analyses show that the association between certain family transitions and residential mobility does not vanish once the event has occurred. Union dissolutions stand out for residential adjustments that unfold over time. The peak effect observed two years after separation indicates that housing reorganization proceeds gradually rather than instantaneously. This finding is consistent with evidence from Feijten and van Ham (2007, 2013) in the Netherlands, who document relocations occurring in the years following separation, as well as with the work of Mikolai and Kulu (2018), which emphasizes that the residential consequences of divorce extend over several years. In the Quebec context, this lagged effect may reflect constraints in the rental housing market (delays in finding affordable housing, the annual lease cycle) as well as the legal processes involved in couple dissolution (division of assets, custody arrangements).

By contrast, for births, the residential stabilization effect persists into the year following the transition. This pattern may reflect the fact that parents of a newborn tend to avoid moving shortly after childbirth, likely preferring to provide a stable environment for the infant and to recover from the upheaval associated with a birth. Thereafter (two years after the birth), we no longer observe an association, suggesting that once the child is slightly older, families may again consider relocating if needed.

The absence of lagged effects for union formation can be interpreted in reference to conjugal practices in Quebec. The province is characterized by a high prevalence of cohabitation, with nearly 36% of Quebec couples living in a common-law union rather than being married (Statistique Canada 2025b). Unlike marriage, which constitutes a discrete event that may be followed by delayed residential adjustments, cohabitation is embedded in a gradual process in which living together effectively defines the union itself. Moving in together and forming a couple are thus largely synchronous, if not inseparable, events. Our measure of union formation, which does not distinguish between

marriage and cohabitation, therefore likely captures a majority of cohabitation entries for which residential adjustment occurs at the very moment the union is recognized. The magnitude of the synchronous effect observed and the absence of a lagged effect are consistent with this interpretation. In a context where cohabitation is socially normalized and frequently precedes – or replaces – marriage (Le Bourdais and Lapierre-Adamcyk 2004), delayed residential adjustments, that are characteristic of marriage-dominated societies, are less likely to be observed.

Considering the foregoing, Hypothesis H2 is only partially supported. As expected, union dissolutions exhibit pronounced lagged effects, peaking two years after the event, which lends support to the notion of gradual post-separation residential adjustment. By contrast, union formation does not generate notable lagged effects, since individuals who experienced this event one or two years earlier are no more likely to move than if the union had not occurred. For births, the observed lagged effect points toward short-term residential stabilization rather than increased mobility, which diverges from the expected direction. Hypothesis H2 is therefore supported for union dissolution, rejected for union formation, and partially supported for birth (presence of a lagged effect, but stabilizing in nature).

With respect to anticipatory effects, an interesting pattern emerges: Residents do not merely react to family changes after the fact; they may also plan and adjust their place of residence in anticipation of a family event. However, this pattern is observed only for union dissolutions and births, as union formation shows no anticipatory effect.

One year prior to a union dissolution, the likelihood of moving is lower than usual. This stabilizing anticipatory effect suggests that couples experiencing conjugal difficulties tend to avoid major disruptions in the period preceding separation. Several non-mutually exclusive mechanisms may account for this pre-dissolution residential inertia. First, a move represents a joint investment – in terms of time, energy, and financial resources – that couples in a fragile relationship may be reluctant to undertake. The prospect, even implicit, of an impending separation is likely to discourage short-term joint projects, including residential relocation. Second, moving entails joint decision-making (choice of neighborhood, dwelling size, cost-sharing) that may crystallize conjugal tensions, leading couples in crisis to prefer maintaining the residential status quo in order to avoid exacerbating conflicts. Finally, in contexts where separation is anticipated but not yet enacted, each partner may adopt a wait-and-see stance, postponing any residential decision until the conjugal situation becomes clearer.

Two years prior to a birth, the likelihood of moving is higher than usual, which is consistent with the idea of residential planning in anticipation of a child's arrival. European studies provide evidence in support of such anticipatory behavior. Research in the Netherlands, Finland, and Great Britain has shown that couples often move to larger dwellings in anticipation of future family size (Kulu and Vikat 2007). Many thus prefer

to ‘secure’ adequate housing before the birth occurs (Mulder 2006; Ström 2010). However, once all temporal effects are incorporated into the full model, the anticipatory effect of a birth disappears. This sensitivity to model specification suggests that, when the full temporal dynamics are taken into account, births are primarily associated with reduced residential mobility at the time of and following the event, whereas the anticipatory effects observed in partial models more likely reflect competing mechanisms or residential trade-offs captured by other temporal dimensions of family transitions.

Overall, Hypothesis H3 receives only mixed support. In the case of a birth, we do observe an indication of anticipation two years prior to the event, in line with our expectations, but these effects prove fragile and disappear in the full model. For union formation, no systematic anticipatory behavior is detected, which is consistent with our hypothesis. By contrast, for union dissolution, we observe a stabilizing anticipatory effect, confirming the expectation of relative residential stability preceding separation. Hypothesis H3 is therefore supported for union dissolution (pre-dissolution stability), partially supported for a birth (fragile two-year anticipation), and confirmed in its cautious formulation for union formation (absence of systematic anticipation).

7.3 Nuanced differences by immigration status

Our study further shows that the temporal configurations of association between family transitions and residential mobility vary according to both the type of transition and immigration status. Moreover, by incorporating two dimensions that differentiate immigrants’ trajectories in the host society – length of residence and age at arrival in Quebec – we are able to explore how these relationships are reconfigured across migration profiles.

7.3.1 A synchronous effect of union independent of immigration status, but moderated by migration profile

Union formation acts as a trigger for residential mobility among both immigrants and non-immigrants, confirming the robustness of the Rossian adjustment perspective for this transition. This finding is consistent with the study by Lacroix, Gagnon, and Wanner (2020), which identified a positive effect of marriage on residential mobility among both immigrant and non-immigrant populations in Switzerland. Among non-immigrants, the substantial synchronous effect combined with the absence of lagged or anticipatory effects suggests that partnership formation is accompanied by a residential reconfiguration concentrated at the time of the event. This pattern is consistent with

conjugal practices in Quebec, where the high prevalence of cohabitation implies that moving in together and forming a couple are largely synchronous events. For individuals who are already locally anchored and possess knowledge of the housing market, residential adjustment can therefore occur smoothly at the time of the partnership decision.

Among immigrants, disaggregation by length of residence reveals informative heterogeneity. Recent immigrants (less than ten years since arrival) exhibit the strongest synchronous effect, even exceeding that observed among non-immigrants. This finding suggests that, for these individuals, union formation represents a pivotal moment of residential reconfiguration, possibly intertwined with settlement dynamics. An immigrant living in shared accommodation or transitional housing may seize the opportunity of a union to access more stable or better-suited housing. By contrast, immigrants who have been established for ten years or more do not display a notable synchronous effect, indicating that their residential anchoring reduces the need to move at the time of union formation. It is also noteworthy that the odds of moving among immigrants who arrived at younger ages in the year of union formation are similar to those of non-immigrants. Having undergone socialization largely comparable to that of Quebec natives, immigrants who arrived young are indeed likely to possess similar knowledge of the housing market and comparable residential opportunities when a family transition such as union formation occurs.

7.3.2 Reversed timing of union dissolution among immigrants and non-immigrants

Union dissolution exhibits the most contrasted temporal configuration between the two groups, revealing fundamentally different adjustment logics.

Among non-immigrants, union dissolution does not lead to immediate mobility (absence of a synchronous effect) but generates a substantial lagged effect peaking two years after the event. This delayed timing can be interpreted at several levels. First, non-immigrants generally have access to local family networks that can provide temporary accommodation, allowing them to postpone the search for new housing. Second, the legal and financial arrangements associated with couple dissolution – division of assets, potential sale of jointly owned property, and custody negotiations – may unfold over several years in a context where homeownership is more common. The Quebec annual lease cycle (renewals on July 1) and rent-regulation mechanisms that encourage households to retain below-market rentals may also contribute to postponing post-dissolution moves. Moreover, the stabilizing anticipatory effect observed among non-immigrants may reflect the tendency of couples experiencing conjugal difficulties to avoid major disruptions in the period preceding separation. A residential move represents

a joint investment that fragile couples may be reluctant to undertake, preferring instead to maintain the residential status quo until their situation becomes clearer.

Among immigrants, we instead observe a strong synchronous effect, particularly pronounced among recent immigrants and those who arrived as adults, combined with an absence of lagged effects. This immediacy in the residential response may reflect the lack of local familial safety nets. Without the possibility of temporarily returning to parents' homes or benefiting from transitional housing arrangements, separated immigrants may be compelled to secure new housing rapidly. This interpretation is consistent with the work of Champion, Cooke, and Shuttleworth (2018), which highlights immigrants' specific vulnerabilities in the face of family disruptions. In addition, immigrants are more frequently renters and less often homeowners than non-immigrants, which reduces constraints related to the division of housing assets and facilitates faster residential adjustments. The attenuation of the synchronous effect among immigrants who arrived at younger ages nonetheless suggests that socialization within the host society provides resources – such as social networks, knowledge of available supports, and access to temporary accommodation with friends – that reduce the likelihood of precipitous moves following a separation.

7.3.3 Births: Stabilization among non-immigrants, neutrality among immigrants

Finally, our study highlights distinct effects of births by immigration status. Among non-immigrants, both the synchronous effect and the one-year lagged effect – each below unity – indicate a phase of residential stabilization around the arrival of a child. This pattern can be interpreted by Quebec's institutional context. Benefiting from their familiarity with the Quebec Parental Insurance Plan (RQAP) and the generous, extended parental leave it provides, non-immigrants are more likely to maintain their residence or to postpone a move despite the occurrence of a birth. Similarly, securing a place in a Centre de la petite enfance (CPE) after a long waiting period represents a valuable resource that non-immigrant parents may prefer to preserve rather than risk losing by relocating.

Among immigrants, births do not exert any synchronous effect on residential mobility. This neutrality contrasts with the findings of by Lacroix, Gagnon, and Wanner (2020) in Switzerland, who document a positive effect of births among immigrants from outside the European Union. Several factors may account for this divergence. On the one hand, barriers to housing access – such as discrimination, requirements for rental references, and lower incomes – may limit immigrant families' ability to adjust their housing at the time of a child's arrival, leading them to make do with their existing dwelling. On the other hand, access to subsidized childcare services, when obtained, may

create spatial anchoring like that observed among non-immigrants. All immigrants, as well as subgroups defined by the length of residence and the age at arrival, nonetheless exhibit indications of anticipation. When resources allow, they may therefore be more likely to adjust their housing in the year preceding birth.

The results of the analyses stratified by immigration status allow us to assess Hypothesis H4. First, in line with our expectations, the synchronous effects of union formation are more pronounced among recent immigrants than among non-immigrants, and are similar between immigrants who arrived at younger ages and non-immigrants. This pattern confirms the role of residential assimilation in the migration process and, by extension, supports Hypothesis H4a. With respect to union dissolution, the very strong synchronous effect observed among recent immigrants and those who arrived as adults, combined with its attenuation among immigrants who arrived young, likewise corroborates this expectation. Second, our anticipation that residential adjustments would more often be temporally shifted among recent immigrants or those who arrived as adults compared with non-immigrants (H4b) is not supported. Instead, we observe that non-immigrants exhibit lagged effects (in the case of union dissolution), whereas immigrants tend to absorb the residential consequences of family transitions (both union formation and dissolution) in a more immediate manner. Third, according to our expectations regarding birth, anticipatory mobility appears more frequent among established immigrants than among those who arrived more recently. This conclusion, however, pertains to the two-year anticipatory effect and is based on fragile estimates. Hypothesis H4c is therefore only partially supported.

7.3.4 Sensitivity analyses

To assess the potential bias inherent in the distinct triggers of mobility occurring during the early settlement period among immigrants, as well as family events surrounding this phase, we conducted two sensitivity analyses (Tables A-2, A-3, and A-4 in the Appendix), which confirm the overall robustness of our results, subject to a few nuances. Excluding the first two years after arrival (Sensitivity 1) and censoring events occurring during this period (Sensitivity 2) amplify the synchronous effects of union formation (with odds ratios increasing from 1.8 to 2.2 and 2.8, respectively) and of union dissolution (with the odds ratio increasing from 3.9 to 4.9 in Sensitivity 2). This variation suggests that unions and union dissolutions occurring shortly after immigrants' arrival generate more modest residential adjustments, possibly due to their specific nature (family reunification, unions instrumental to the migration process) or because baseline mobility – already high during the settlement phase – may mask their additional effect. The

absence of a synchronous effect of births persists across all specifications, confirming the robustness of this result regardless of the period considered.

The sensitivity analyses further lead to the same conclusions as the main model regarding the absence of lagged effects among immigrants (Table A-3). In Sensitivity 1, the results are identical to those of the main model, which is consistent with the fact that the same individuals are analyzed over a reduced time window. In Sensitivity 2, censoring early events does not substantially affect the estimates, as lagged effects remain absent, even though the odds ratios increase slightly in magnitude in some cases. This stability confirms that immigrants' residential adjustments occur primarily synchronously with family transitions rather than in a delayed fashion, regardless of the period surrounding initial settlement.

The results for anticipatory effects reveal greater sensitivity to the chosen specifications (Table A-4). On the one hand, some effects detected in the main model (unions at $t+2$, births at $t+1$) completely disappear in Sensitivity 1. This result can be attributed either to a loss of statistical power due to the exclusion of observations or to a concentration of an anticipatory behavior during the settlement period, when immigrants jointly plan their residential stabilization and family projects. On the other hand, the anticipatory effect of births at $t+2$ appears in Sensitivity 2, indicating that births occurring during the first two years post-arrival – often planned prior to migration and for which residential anticipation took place in the country of origin – were diluting this effect in the main model. This nuance sheds light on the fact that immigrants do engage in anticipatory residential behavior in relation to births, but that this dynamic is likely obscured by the inclusion of births with distinct characteristics.

8. Conclusion: Implications of aggregating family transitions and directions for future research

Aggregating different types of unions, union dissolutions, and births into single variables has important implications for the interpretation of our results, particularly with respect to conjugal unions in the Quebec context. The synchronous effects of unions likely primarily reflect the move-in dynamics associated with cohabiting unions. To the extent that cohabitation in Quebec often constitutes a first relational step prior to a potential marriage or a stable alternative to marriage, the concomitant residential adjustment we document most likely captures rapid and pragmatic relocations (moving in with one partner, searching for an affordable shared dwelling) rather than long-term, planned residential changes.

For union dissolutions, the aggregation of separations and divorces may contribute to the contrasted temporal effects observed between immigrants and non-immigrants.

Among non-immigrants, the pronounced lagged effect observed two years after dissolution may be consistent with a greater representation of divorces, which often involve longer legal and financial processes and may delay residential adjustments. In contrast, the strong synchronous effect observed among immigrants may reflect a higher proportion of separations, which allow for more immediate residential changes. However, as our data do not distinguish between types of union dissolution, this interpretation remains speculative and should be viewed as a potential mechanism rather than a demonstrated explanation.

For births, the lack of distinction by parity limits our ability to interpret the temporal effects observed in the full sample. The anticipatory effect detected two years prior to birth may be specific to first births, as first-time parents are more likely to actively plan residential adjustments in anticipation of a child's arrival (searching for larger housing, moving to a family-oriented neighborhood, proximity to childcare services). By contrast, the negative synchronous effect (residential stabilization at the time of birth) may be more pronounced for higher-order births, as families are already settled in suitable housing and may prioritize continuity for children already present. Potential heterogeneity by parity may also help explain why the effect of births on mobility differs from that documented in some international contexts. If our sample contained a substantial share of higher-order births (which we cannot verify), this could have reinforced the observed residential inertia.

These considerations underscore that, while our results are informative regarding general patterns of association between family transitions and residential mobility, they would benefit from further nuance and refinement through future analyses that disaggregate types of transitions when data permit. More broadly, the analytical framework adopted in this study does not account for several variables known to be associated with residential mobility, which could moderate or mediate the effects of family change on residential transitions. Other variables could contribute to a more robust conceptual and analytical framework than the one employed here, such as attachment to the place of residence or neighborhood (Rabe and Taylor 2010), household size (Kulu 2008; Debrand and Taffin 2005, 2006), income (Lacroix, Gagnon, and Wanner 2020; Renaud et al. 2006), or union type. But also contextual factors capturing ethnic or community concentration may play a role in addition to housing characteristics, housing supply and infrastructure availability, distance from previously occupied dwellings, and social networks (family, friends, close ties) (Renaud et al. 2006). Although some of these variables are available in the TrajIPaQ survey dataset – such as income, household size, and social networks – the fact that they were collected at the time of the survey constrains their use in our longitudinal models.

These limitations are not prohibitive, however, and they open several avenues for future research. That could more fully account for the role of immigration status in the

relationship between family and residential transitions, provided that the data offer longitudinal measurement for each variable of interest. In order to better capture migration-specific mechanisms, analyses by immigration status should further explore the diversity of migration profiles by examining how family changes affect residential dynamics according to immigrants' ethnic origin, socioeconomic status, and social networks in the host society. In this respect, the size of our analytical sample proved to be a constraint, particularly with regard to accounting for immigrants' regions of origin.

There is also strong potential value in integrating contextual dimensions when data permit, for example by examining how interactions between family changes and neighborhood characteristics or housing supply shape the residential mobility trajectories of Quebec residents. Finally, studies adopting more fine-grained longitudinal approaches – combining causal inference methods with retrospective qualitative research (such as life-history interviews) – would undoubtedly provide deeper insight into the motivations and individual strategies that may underlie the links between family choices and mobility decisions. Only such an approach can move beyond the predominantly individual-level framing typically applied to migration, and to residential mobility in particular (Cooke 2008), and instead highlight their multilevel nature (individual, family, and contextual).

9. Acknowledgements

This article uses data from the project on Individual Trajectories and Dynamics of Women's and Men's Participation in Quebec Society (TrajIPaQ) that was generously funded by the Ministère de l'Immigration, de la Francisation et de l'Intégration du Québec (MIFI), in collaboration with the Fonds de recherche du Québec – Société et Culture (FRQSC) as part of the Actions Concertées program, grant number 2018-PM-211579.

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Appendix

Table A-1: Missing counts for the study variables – overall, immigrants and non-immigrants

Variables	Immigrant			Non-immigrant			Overall		
	n	Missing	N	n	Missing	N	n	Missing	N
Residential mobility	956	0	956	436	0	436	1,392	0	1,392
Union formation	956	0	956	436	0	436	1,392	0	1,392
Union dissolution	956	0	956	436	0	436	1,392	0	1,392
Birth	956	0	956	436	0	436	1,392	0	1,392
Housing tenure	948	8	956	434	2	436	1,382	10	1,392
Immigration status							1,392	0	1,392
Sex	956	0	956	436	0	436	1,392	0	1,392
Educational attainment	949	7	956	436	0	436	1,385	7	1,392
Birth cohort	956	0	956	436	0	436	1,392	0	1,392
Housing tenure	903	53	956	423	13	436	1,326	66	1,392
Religious affiliation	927	29	956	434	2	436	1,361	31	1,392
Visible minority status	956	0	956						
Region of birth	956	0	956						
Cours de francisation	928	28	956						
Length of residence	956	0	956						
Age at arrival	956	0	956						

Table A-2: Sensitivity analyses of the synchronous effects of family transitions on residential mobility – immigrants

Variables	Main model	Sensitivity 1	Sensitivity 2
Union formation (Ref. = No)			
	1.758	2.244	2.577
Yes	<i>0.000</i> (0.274)	<i>0.000</i> (0.412)	<i>0.000</i> (0.469)
Union dissolution (Ref. = No)			
	3.927	3.968	4.970
Yes	<i>0.000</i> (1.086)	<i>0.000</i> (1.341)	<i>0.000</i> (1.652)
Birth (Ref. = No)			
	1.070	0.831	1.026
Yes	<i>0.653</i> (0.162)	<i>0.271</i> (0.140)	<i>0.873</i> (0.166)
Person-year	5,759	4,490	5,759
Individuals sample	645	577	645
Log likelihood	-1,615.85	-1,214.17	-1,609.57
Wald test	123.94	156.80	136.50
<i>p-value</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>
Individuals fixed effects	Yes	Yes	Yes
Annual fixed effects	Yes	Yes	Yes

Notes: Odds ratios with standard errors in parentheses and *p*-values in italics.

Standard errors are reported in parentheses, Period: 2006–2019.

Main model: all observations and all events included.

Sensitivity 1: exclusion of observations from the first two years after arrival.

Sensitivity 2: censoring of family events occurring during the first two years after arrival.

Table A-3: Sensitivity analyses of the lagged effects of family transitions – immigrants

Variables	Main model	Sensitivity 1	Sensitivity 2
Union formation (Ref. = No)			
	1.097	1.097	1.237
Yes <i>t</i> -1	<i>0.663</i> (0.233)	<i>0.663</i> (0.233)	<i>0.297</i> (0.253)
	1.217	1.217	1.358
Yes <i>t</i> -2	<i>0.306</i> (0.234)	<i>0.306</i> (0.234)	<i>0.099</i> (0.252)
Union dissolution (Ref. = No)			
	1.367	1.367	1.495
Yes <i>t</i> -1	<i>0.427</i> (0.538)	<i>0.427</i> (0.538)	<i>0.294</i> (0.572)
	1.074	1.074	1.000
Yes <i>t</i> -2	<i>0.860</i> (0.434)	<i>0.860</i> (0.434)	<i>1.000</i> (0.377)
Birth (Ref. = No)			
	1.011	1.011	1.230
Yes <i>t</i> -1	<i>0.952</i> (0.183)	<i>0.952</i> (0.183)	<i>0.221</i> (0.208)
	1.026	1.026	1.149
Yes <i>t</i> -2	<i>0.887</i> (0.190)	<i>0.887</i> (0.190)	<i>0.429</i> (0.201)
Person-year	4,317	4,317	5,412
Individuals sample	572	572	636
Log likelihood	-1,152.12	-1,152.12	-1,504.54
Wald test	158.77	158.77	144.38
<i>p-value</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>
Individuals fixed effects	Yes	Yes	Yes
Annual fixed effects	Yes	Yes	Yes

Notes: Odds ratios with standard errors in parentheses and *p*-values in italics.

Standard errors are reported in parentheses. Period: 2008–2019.

Main model: all observations and all events included.

Sensitivity 1: exclusion of observations from the first two years after arrival.

Sensitivity 2: censoring of family events occurring during the first two years after arrival.

Table A-4: Sensitivity analyses of the anticipatory effects of family transitions – immigrants

Variables	Main model	Sensitivity 1	Sensitivity 2
Union formation (Ref. = No)			
	0.988	1.092	1.627
Yes <i>t</i> +1	<i>0.957</i> (0.220)	<i>0.736</i> (0.286)	<i>0.051</i> (0.406)
	1.462	1.314	1.227
Yes <i>t</i> +2	<i>0.074</i> (0.311)	<i>0.287</i> (0.337)	<i>0.413</i> (0.307)
Union dissolution (Ref. = No)			
	0.553	0.792	0.816
Yes <i>t</i> +1	<i>0.164</i> (0.236)	<i>0.649</i> (0.406)	<i>0.701</i> (0.431)
	0.463	0.687	1.057
Yes <i>t</i> +2	<i>0.107</i> (0.221)	<i>0.492</i> (0.376)	<i>0.910</i> (0.523)
Birth (Ref. = No)			
	1.395	1.220	1.456
Yes <i>t</i> +1	<i>0.057</i> (0.244)	<i>0.340</i> (0.254)	<i>0.049</i> (0.277)
	1.014	1.118	1.516
Yes <i>t</i> +2	<i>0.937</i> (0.176)	<i>0.582</i> (0.226)	<i>0.033</i> (0.296)
Person-year	4,167	3,093	4,167
Individuals sample	549	468	549
Log likelihood	-1,157.53	-827.68	-1,153.38
Wald test	70.28	89.47	78.58
<i>p-value</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>
Individuals fixed effects	Yes	Yes	Yes
Annual fixed effects	Yes	Yes	Yes

Notes: Odds ratios with standard errors in parentheses and *p*-values in italics.

Standard errors are reported in parentheses. Period: 2006–2017.

Main model: all observations and all events included.

Sensitivity 1: exclusion of observations from the first two years after arrival.

Sensitivity 2: censoring of family events occurring during the first two years after arrival.

