Linking Internal and International Migration over the Life-Course: Empirical Evidence and Theoretical Implications

Internal and international migration form part of the same continuum of population movement, but they are typically conceptualised, measured and studied separately. Despite early theoretical attempts at conceptualising internal and international migration jointly, existing evidence remain partial and fragmented, reflecting a diversity of traditions in migration research, with a literature emanating from different disciplinary perspectives and often focused on international migration. To address this gap, this paper takes a step toward integration by examining the relationship between internal and international migration over the life-course of individuals in 21 European countries. It applies competing-risks regression to retrospective migration history collected as part of the Survey of Health, Ageing and Retirement in Europe (SHARE) in 2017 for individuals born between 1948 and 1967. Results will provide theoretically-relevant insights into the processes of complementarity and substitution that link different forms of population movement.

1. Introduction

Despite its economic and social significance, migration remains poorly understood compared with other components of population change. This is in part because internal and international migration form part of the same continuum of population movement (Bell and Ward, 2000) and are interconnected at both the individual and aggregate levels (Skeldon 2006), but are typically conceptualised, measured, and studied separately. Despite early theoretical attempts at conceptualising internal and international migration jointly (Pryor, 1981; Zelinsky, 1971), existing evidence remain partial and fragmented, reflecting a diversity of traditions in migration research, with a literature emanating from different disciplinary perspectives and often focused on international migration. As a result, scholars and policy makers have a limited appreciation of the links and interactions between internal and international migration.

Over the last decade, there has been increasing recognition that population movement needs to be studied as a holistic process occurring across space and time (Skeldon 2006). An important contribution has been the formulation of a schematic model that sets out 10 individual migration pathways that combine internal and international migration in sequenced relationships (King and Skeldon 2010). Together with subsequent studies (Hickely and Yeoh 2016, Hugo 2016, Skeldon 2018), this body of work has laid out the challenges in rethinking and linking different forms of population movement. Despite the seminal status of King and Skeldong (2010)'s paper, there has been very few

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empirical attempts to identify, elaborate and quantify linkages between internal and international migration and recent efforts toward integrating internal and international migration have remained mainly conceptual.

Lack of progress toward integration stems in part from the lack of adequate data. '*A basic problem […] remains the lack of empirical data upon which to test any relationship between internal and international migrations*' (Skeldon 2006, p21). At an aggregate level, linking both forms of population movement to examine processes of complementary and substitution requires sub-national estimates of internal and international migration. While sub-national immigration data are available for some countries, equivalent emigration data often does not exist (Wilson 2017). Even where data are available, immigration and emigration flows are typically not disaggregated by key socio-demographic attributes, which limit their explanatory power. At an individual level, linking internal and international requires lengthy longitudinal microdata that capture migration trajectories over the life-course of individuals. Long-standing nationally-representative longitudinal surveys such as the Panel Study of Income Dynamics in the US, Understanding Society in the UK or the Household, the Income and Labour Dynamics in Australia Survey do not permit such endeavour because international migrants are lost to attrition. Similarly, population registers as those found in Sweden and Japan record the movement of immigrants within national borders, but do not provide their migration history before and after settlement in destination countries. Alternatively, some studies have retrospectively collected partial migration histories, including the Mexican Migration Project (MMP), which collected in the 1980s and 1990s migration pathways to the US and return migration (Carrion-Flores 2018). More recently, the Migration between Africa and Europe (MAFE) project retrospectively collected completed lifetime migration history of African immigrants to selected European countries (Castognone 2011), but empirical studies have focused on return and circular international migration, thus providing limited evidence on the links between internal and international migration.

To address this gap, this paper takes a first step toward integration by examining the link between internal and international migration at an individual-level in 21 European countries. Two theoretical tenets underpin this approach. First is the above-outlined view that internal and international movement form part of the same continuum of population movement and should thus be studied jointly rather than in isolation. At an individual, international migration can be regarded as an extension of internal migration derived from similar motivations of meeting personal needs and aspirations. Second is the view that migration is part of a long-term trajectory that unfolds over the life-course of individuals rather than a series of discrete events and it is therefore best understood when conceptualised and analysed longitudinally.

2. Data and methods

This paper draws on retrospective migration histories from SHARE collected in 2017 as part of its seventh wave in 21 European countries. SHARE is a nationally representative survey of the population age 50 and over in each country. Complete migration histories were collected using life-history grids, which involve showing respondents a schematic form that depicts the years in their live from birth to present along national and international events to help recall (Blane 1996). Respondents were asked to report the start and end dates of residence for dwellings for in which they had lived form more than six months since birth, up to 30 dwellings. For each dwelling, respondents were then asked to report the country, region and area of residence. We define an international migration as a change of country of residence and, to ensure for consistency, we remove four countries that have experienced significant boundary changes since 1947, namely the Czech Republic and Slovakia (previously Czechoslovakia), Slovenia and Croatia (previously part of Yugoslavia), and Cyprus as part of the island has been guarded by Turkish Armed Forces since 1974. Region of residence was collected at a NUTS1 or NUTS2 level for migration within European countries, but was not collected for respondent who resided outside Europe. Thus, we limit the analysis to individuals who were born in Europe, who represent about 90 per cent of the original sample.

Because retrospective data are based on survivors only, results may be biased in migration and mortrtailicyt or correlated. Although the survivor bias is expected to be small, mortality regimes different across countries, and results should strictly be interpreted as being conditional on survival to the date of the survey. Survey respondents were 50 years old and over at the time of the survey, so in order to obtain life-courses of comparable length, the analysis is restricted to mobility histories up to age 50 and to individuals born between 1948 and 1967.

I exploit the life history nature of the data to construct a retrospective panel dataset spanning the life of respondents from age 18 to age 50 by rearranging the data into person-years. While conceptually straightforward, this is three-step process that consists of (1) creating a base person-year dataset containing all individuals interviewed, (2) creating of an event-dataset containing information drawn from the migration history and (3) merging the two datasets based on the unique personal identifier and the starting year of each new residence (Brugiavini et al. 2019). Table 1 reports the distribution of individuals and person-year observations obtained for each country

Table 1 Number of individuals and person-year observations by country (unweighted)

	Person	**Person-years**
Austria	1,343	42,970
Belgium	2,561	81,965
Bulgaria	1,067	34,157
Denmark	1,792	57,341
Estonia	2,327	74,477
Finland	1,135	36,317
France	1,630	52,157
Germany	2,007	64,224
Greece	1,442	46,138
Hungary	783	25,056
Italy	2,162	69,178
Latvia	938	30,010
Lithuania	1,103	35,280
Luxembourg	731	23,386
Malta	691	22,118
Poland	2,829	90,518
Portugal	265	8,467
Romania	1,273	40,723
Spain	1,949	62,381
Sweden	1,119	35,798
Switzerland	1,085	34,704
Total	**30,230**	**967,363**

Competing-risks regression is used to investigate how internal and international migration are interrelated. Separate regression models are run for internal and international migration, with the other type of migration being considered as a competing risk. A wide range of control variables obtained from respondents' educational, employment, marital and fertility histories are employed. Regression coefficients are then compared between the two models to establish the extent to which the drivers of internal and international migration differ.

Internal and international migration act in a complementary relationship if they each perform a distinct role in the life-course of migrants as measured by regression coefficients. Internal and international migration can be also act as alternatives to one another such that migrants may choose one of several different responses to the same stimulus. The challenge is therefore not to assess the processes of complementary and substitution as competing hypotheses but rather to examine the relative strength of each form of migration, identify the links between them across a range of national settings and seek to explain their interaction. This will be achieved by run regression separately for each of the 21 case study countries.