

## Internal and international migration

Strand organiser: Dr. Júlia Mikolai (University of St Andrews)

Session organiser, Migration as a life-course trajectory: Dr. Aude Bernard (University of Queensland)

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### 4:45 - 6:15 Monday 11 September: Childhood migration

**Accumulated disadvantage or moving out of disadvantage? The impact of moving on completion of secondary education for children born in disadvantaged neighbourhoods**

**Joeke Kuyvenhoven, Karen Haandrikman, Marjolijn Das, Helga A.G. de Valk - Netherlands Interdisciplinary Demographic Institute, Stockholm University, Statistics Netherlands (CBS), Erasmus University Rotterdam**

Moving during childhood is more common among certain groups of children, making them potentially more prone to mobility-effects. In this study, we aim to understand the consequences of moving during childhood for completion of secondary education by focusing on a group of children that have a higher likelihood to move: children born in disadvantaged neighbourhoods of urban areas. On the one hand, we could expect accumulated disadvantage through migration between disadvantaged neighbourhoods, which might reinforce educational inequalities. On the other hand, mobility might lift children out of disadvantage if it involves a move to a better neighbourhood. Using longitudinal full population register data, all children born in 1995 in a disadvantaged neighbourhood in Amsterdam or Stockholm are selected. Their internal mobility is followed from birth until age 16 and completion of secondary education is analysed at age 21. For each city, Generalized Propensity Score Matching is used to match non-mobile children to children moving once upward, once laterally, frequently upward or laterally predicted by migrant background, parental socioeconomic status, housing situation and household income over the child's life course. Logistic regression models are used to analyse the association between different mobility patterns and completion of secondary education. Previous analyses showed similar mobility-effects on education for both countries, with frequent mobility associated with lower educational attainment and upward neighbourhood mobility with higher attainment. We expect the largest negative effect for children moving frequently in or between disadvantaged neighbourhoods and the largest positive effect for those moving once out of disadvantage.

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**Childhood internal migration in Europe: An overview of developments across cohorts and countries**

**Alon Pertzikovitz, Gusta Wachter, Helga de Valk - Netherlands interdisciplinary demographic institute (NIDI) / KNAW/ University of Groningen**

Internal migration in childhood plays a major role in the life course. Although internal migration has been extensively studied among adults, little is known about patterns in childhood migration, and even less so in a comparative manner. This study explores cross-national changes in childhood migration across cohorts. Moreover, it examines how patterns of childhood migration relate to postponement of childbearing. Drawing on retrospective residential histories from the Survey of Health, Ageing and Retirement in Europe (SHARE), this study follows the completed childhood migration trajectories of individuals born between 1935 and 1994 in 28 European countries. Using this unique data, we cover a wide range of migration contexts, tracing almost 100 years back in history. Cohort analyses reveal a country gradient in childhood migration, with the highest migration rates found in Northern Europe and the lowest in South-Eastern Europe. However, in almost all countries, age-specific rates gradually shifted towards infancy, and completed migration rates overall declined since the 1970s. As shown by decomposition analyses, the universal decrease in childhood migration rates is underpinned mainly by a lower proportion of childhood migrants, implying that over time children across Europe are more likely to spend their entire childhood in one place. These processes are partially attributed to the postponement of childbearing, suggesting that changes in adults' family-life trajectories reshape the migration patterns of children.

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### **Does a household member's death trigger child migration in sub-saharan Africa?**

**Ashira Menashe-Oren<sup>1</sup>, Philippe Bocquier<sup>1,2</sup>, Carren Ginsburg<sup>2</sup> - <sup>1</sup>Université catholique de Louvain, Belgium  
<sup>2</sup>University of Witswatersrand, South Africa**

Death can have psychological, social, and economical consequences on surviving family and household members, including poorer mental health and higher risk of poverty. Death can also be associated with demographic changes within the household – leading to migration or death of other members, and possibly even the dissolution of the household. Focusing on countries in sub-Saharan Africa where the burden of death is still relatively high, we aim to determine the effect of a death on children's mobility, often related to fostering. We pool longitudinal data from 27 Health and Demographic Surveillance Systems (HDSS) across 13 countries, merging the events of mothers and siblings with the child events, as well as composite measures of deaths and out-migrations of other household members (by age and sex), to examine what happens to children following the death of a household member. We use Cox models, controlling for child's sex, household size and site-period effects to examine the risk of out-migration amongst ~451,000 children under age 15. In preliminary analysis we focus only on the out-migration of children following a mother's death. We find that children over age five who have been orphaned have higher out-migration rates than non-orphaned children, though children below age five migrate at similar rates whether their mother is alive or not. Model results suggest that a mother's death triggers significant out-migration of children, in proximity to the time of death, and even six months after the mother's death.

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### **Gender and interpersonal violence as drivers of migration: Insights from a mixed methods approach** **Stephanie Condon - INED**

There has been a long-standing academic interest in gender relations as a driver of migration. Meanwhile, the question of how such drivers lead to different outcomes – migrating or staying – remains difficult to resolve despite increasingly sophisticated survey instruments. Mixed methods have proved to be useful tools for understanding the gender-migration nexus and opening up new questions. The present study focuses on migration between France and its overseas territories, a post-colonial context with high levels of circulation. Using recent quantitative survey data and qualitative materials, this paper investigates the link between gender-based violence and migration, that is how experiences of intimate partner violence (IPV) or family violence during childhood or adolescence motivate long-distance residential moves. The survey data reveal that while some women victims of violence have migrated, others with similar experiences have not. Migration motives are multifaceted, as are reactions to and the consequences of IPV and family violence. In-depth interviews with women suggest how interpersonal violence may be one of several drivers. Furthermore, the timing of migration in response to gender-based violence may occur soon after events or at a later date. In severe cases, fear for one's safety will be one accelerating factor, whilst in most cases, women tend to cope with the situation but when an opportunity for escape such as migration arises, it may be seized. Family circumstances and life-course stage of course intervene as do economic constraints, particularly an issue in these island territories characterised by high levels of social inequalities.

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## **9:00 - 10:30 Tuesday 12 September: Internal migration as a driver of change**

### **A longitudinal area classification of migration in Great Britain – testing the application of group-based multi-trajectory modelling**

**Caroline Kienast- von Einem, Jenna Panter, Alice Reid - University of Cambridge**

Migration can significantly affect the geographical distribution of the population and the demographic composition of areas. Area classifications are a useful tool to simplify inherently complex data on moving flows and their characteristics. Yet, most existing classifications exclude direct migration measures, or focus on cross-sectional data only. In this study, Group-based Multi-Trajectory Modelling (GBMTM) is used to create a longitudinal, migration-specific classification of wards in Great Britain that encompasses six migration indicators and their development between 1981 and 2011. We are investigating two primary research questions: Does

GBMTM lend itself to an area-level application of migration data over time in the UK? What does a longitudinal, multivariate area classification reveal about the migration landscape of Britain? Using UK census data, we reveal six novel migration clusters that highlight the speed of growth in studentifying neighbourhoods, the generalisability of counter-urbanisation to lower spatial scales (or lack thereof), and a North-South divide in terms of movers' tenure. Additionally, it is shown that most cities in Great Britain show the same geographical formation of migration clusters irrespective of size or location. In comparison to an existing general purpose- and a cross-sectional migration classification, the longitudinal perspective of the GBMTM classification highlights trends and changes in migration patterns that are currently not sufficiently reflected. We conclude that this method and the resulting classification offer a novel lens that provides new opportunities to explore the effects of migration on a variety of outcomes and at various scales.

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### **Does internal migration contribute to the intergenerational transmission of socio-economic inequalities?**

**Aude Bernard - University of Queensland, Australia**

As socio-economic inequalities continue to widen in most developed countries, it is essential to improve understanding of the mechanisms that underpin social reproduction, that is the transmission of advantage and disadvantage between generations. This paper proposes that internal migration plays a role in the intergenerational transmission of socio-economic inequalities. Theoretically, the paper formulates a conceptual framework that builds on three separate lines of inquiry: (1) the intergenerational transmission of internal migration behaviour, (2) the role of internal migration in social mobility, and (3) the educational selectivity of internal migration. Empirically, the paper quantifies the links between long-distance internal migration and social reproduction in 15 European countries by using a structural equation model on retrospective life-history data. The results show that children from higher socio-economic backgrounds are more likely to migrate, which in turn increases their chances of migrating in adulthood, which is associated with higher socio-economic status later in life. In addition, advantaged children are more likely to migrate to urban centres with greater educational and employment opportunities, which is an additional benefit. These results illuminate the socio-economic impact of internal migration across generations, while highlighting the importance of conceptualising internal migration as a life-course trajectory that unfolds over time.

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### **Internal to international migration pathway: An alternative to successful migration**

**Manoj Paul and Archana K Roy - International Institute for Population Science**

Historically, internal and international migration are studied as separate processes, ignoring the close relationship between them. Using data from the Middle Ganga Plain survey 2018, this paper explore how internal migration shapes future international migration and how internal-to-international migration pathways can promote safe, orderly, and regular migration. Our study found that around 71 percent emigrants had a prior internal migration experience while 29 percent migrants directly moved abroad. Progression from internal to international helps gaining skills, knowledge, experience, monetary support, and adaptive learning facilitate migrants at abroad and smooth migration process without problems or challenges. On the other hand, migrants who opted directly to migrants abroad face several problems at destination. This finding has important implications to promote safe, orderly and secure international migration.

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### **Is the internal migrant premium for social mobility consistent over time and place? Analysis for England, 1971-2011 using the census longitudinal study**

**Eloi Ribe, Nissa Finney, David McCollum, Hill Kulu - University of St Andrews**

Against the background of dwindling opportunities for upwards social mobility in Europe, this paper examines whether the premium of migration for socio-economic advancement is consistent over time and evident across regions of England. Building on classic 'escalator' theories (Fielding 1992) and recent work examining trajectories of the link between spatial and social mobility over four intercensal decades (Champion et al 2021), the paper makes use of five decades of census data for England available in the Longitudinal Study (1971-2011). The paper augments the literature by examining patterns of downwards mobility and immobility as well as upward social mobility and by focusing on all regions of England. The results confirm a migrant premium for

social mobility from the 1970s to the turn of the 21st century and the dominance of London as an escalator region. However, two novel findings emerge: first, the established association between inter-regional residential migration and upward occupational mobility diminishes in the 2000s when a trend of increase in downward social mobility is observed. Second, the relationship between spatial and social mobility over time differs between regions of England such that, in the 2000s particularly, movers to the North West and North East of England are less likely to experience upward social mobility and more likely to experience downward social mobility compared to movers to other English regions. The paper concludes with reflections on the increasing selectivity of internal migration and its role in shaping inter-regional socio-economic inequalities.

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**Weaker intentions or lower realization? Explaining gender differences in migration behavior**  
**Weiwen Lai - Stockholm University**

Existing studies have examined gender differences in migration behavior, usually characterized by men's higher mobility in many migration settings, from different perspectives, such as wage differentials (economics) and social network (sociology). Heavily drawing on the theory of planned behavior, this study proposes a general sociopsychological model in which migration intentions-behavior link is the central focus to explain gender differences in migration behavior. This model posits that gender differences in migration behavior can arise from two sources, gender differences in migration intentions and in the realization of migration intentions, or from a combination of both. Using the Longitudinal Survey of Rural Urban Migration in China (2008-2009), this study empirically tested this model against the background of labor migration from rural China, a typical context with men showing higher migration rates. Focusing on 1-year labor migration intentions and behavior, this study finds that men have stronger migration intentions than women, net of covariates on human capital and marital/household characteristics. After controlling for migration intentions, men still have a higher migration risk, but the realization of migration intentions does not differ between men and women. The study contends that placing the migration intentions-behavior link as the central focus has a promising potential to advance our understanding of gender differences in migration behavior and of, in a more general sense, differences in migration between different segments of a population.

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**2:45 - 4:15 Tuesday 12 September: The impact of migration trajectories on life outcomes**

**How many moves are too many? Repeat internal migration and subjective well-being in young adulthood**  
**Jing (Gin) Wu, Aude Bernard - University of Queensland**

Despite growing calls to analyse internal migration as a life-course trajectory, most studies use the last recorded migration and are based on a dichotomy between migrants and non-migrants. Leveraging the maturation of longitudinal surveys and methodological advances, this paper establishes the diversity and complexity of individual migration trajectories and their impact on subjective well-being. We apply sequence and cluster analysis to the Household, Income and Labour Dynamics in Australia (HILDA) survey data to establish the migration trajectories of millennials from the ages of 15-18 to 27-30 based on the timing, frequency, and direction of migration between regions. We then use regression analysis to establish the association between internal migration trajectories and economic and social subjective well-being. The results reveal diverse and complex migration trajectories. A full third of young adults are repeat migrants split between return migrants, second onward migrants and serial migrants. The latter includes individuals who repeatedly migrate onward to new regions and circular migrants who move back and forth between origins and destinations. In general, return migrants place greater emphasis on social than economic outcomes. Onward migrants are more socially disadvantaged than return migrants, particularly after the first migration. Finally, successive migrations cumulatively shape life satisfaction: it is not until the second migration that a positive association with economic satisfaction emerges. These results reveal heterogeneity in migration trajectories that are missed when migration is treated as a one-off event while suggesting that internal migrants operated a trade-off between social and economic outcomes.

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### **The labour market incorporation of return migrants**

**Dr. Elizabeth Jacobs - Max Planck Institute for Demographic Research**

This paper examines the relationship between U.S. visa status and job mobility for Indian return migrants working in India after a migration spell in the United States. Using a novel dataset of 7,177 cross-country employment histories created from LinkedIn, I show that employer-sponsored U.S. work visas constrain job mobility in the U.S. labor market, but enhance job movement for migrants after they return to India. Specifically, the paper finds that skilled Indian migrants experience an upsurge in employer changes and internal job changes as return migrants with U.S. work experience, likely responding to suppressed mobility during their tenure on employer-sponsored visas in the United States. These findings illustrate how the cumulative effects of migration experience and visa status are differentially associated with occupational trajectories and labor market outcomes across the life-course. I offer important insights into the dynamics of return migration and demonstrate the use of cross-country digital data sources to address limitations of administrative data for research on emigration.

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### **Intentions of migration: How well do intentions predict re-migration behaviour?**

**Ozge Elif Ozer<sup>1,2</sup>, Adrien Remund<sup>1</sup>, Clara Mulder<sup>1</sup>, Matthijs Kalmijn<sup>1</sup>, <sup>1</sup>Groningen University, <sup>2</sup>NIDI**

This study investigates the predictive power of re-migration intentions for migrants and their descendants in the Netherlands. While previous research has examined the predictive power of intentions, capabilities, and aspirations, including the application of Ajzen's planned theory of behavior for realizing fertility intentions, in international migration research, intentions have been mainly studied as a separate topic from actual behavior due to the complexities of migration and data collection. To examine the extent to which re-migration intentions predict actual re-migration behavior and whether the factors that influence re-migration intentions also affect actual behavior, the authors use data from the Survey of Integration of Migrants (SIM) 2015 by Statistics Netherlands to measure re-migration intentions, and register data of Statistics Netherlands on the migration of individuals with migrant backgrounds in the Netherlands for actual migration. The study focuses on both first and second-generation migrants to examine whether there are differences in the predictive power of migration intentions. Preliminary findings show that re-migration intentions are a predictor of actual behavior, but the predictive power of intentions varies across different categories of migrants. This study contributes to the literature on migration intentions and behavior and can inform policymakers and scholars interested in understanding the decision-making processes and factors influencing migration.

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## **5:30 - 7:00 Tuesday 12 September: Residential mobility and housing of immigrants and their descendants in Europe**

### **First-time homeownership across the generations of immigrants in Sweden**

**Mary Abed Al Ahad<sup>1,2</sup>, Gunnar Andersson<sup>2</sup>, Hill Kulu<sup>1</sup> - <sup>1</sup>University of St Andrews, <sup>2</sup>Stockholm University**

Homeownership is an important indicator of immigrant integration in the host society. Using large administrative longitudinal data from Sweden, we investigate the association between first-time homeownership and several socioeconomic determinants including migrant status. We differentiate between immigrants arriving as adults (1G) and children (1.5G) and between descendants of immigrants with two (2G) and one (2.5G) foreign-born parent(s). We consider immigrants from both high and low-income countries. Our sample includes all individuals born in Sweden and 1.5G who became 18 between 1997 and 2016. We include all immigrants who arrived in Sweden between 1997 and 2016. Cox proportional hazards models are used for analysis. The lowest hazard of first-time homeownership is observed among immigrants from sub-Saharan Africa and Middle East and North Africa, whereas immigrants from Nordic, Western-Europe, North America, and Oceania exhibit higher rate of first-time homeownership than the native Swedes. Our study shows a clear gradient across immigrant generations with the 2.5G showing ownership levels similar to native Swedes.

Surprisingly, the 2G have the lowest rates of homeownership, especially 2G with origins from low-income countries (e.g., sub-Saharan Africa). Overall, our results support the theory of immigrant integration, but also show the importance of wealth and the reason for migration in homeownership levels.

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### **Residential mobility and housing tenure of immigrants in Germany by legal status**

**Chia Liu and Hill Kulu - University of St Andrews**

Housing security is often regarded as a sign of social inclusion, stability, and comfort, yet little is known about how immigrants fare in the housing market by legal entry type. Using the German Socio-Economic Panel (GSOEP), we constructed housing trajectories for individuals aged 16 to 49 between the years 2000 to 2019 by residential mobility and tenure type. We focus on five different groups of individuals: those with no migration background, EU immigrants, ethnic German immigrants, refugees, and other immigrants. Using discrete-time event history models, we examine the propensity of individuals to experience residential mobility controlling for education, number of children, partnership status, and employment status. We find that refugees, mostly comprised of individuals from Syria and Afghanistan, experience far higher residential mobility compared to other groups. Unemployment, separation, and birth of a first child are linked to higher mobility, while having additional children (two or more) and being partnered are linked to lower mobility. Both refugees and ethnic German immigrants are more likely to move to government housing compared to other groups, but ethnic Germans have a higher probability of home ownership than other groups. This work contributes to immigrant housing literature by highlighting how legal pathway into a country can influence stay intention and opportunities, which can translate to longer-term investment such as purchasing a home. Additionally, higher mobility in the context of non-ownership reflects instability and further social exclusion for some groups.

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### **Understanding differences in internal migration behaviour among adult children of immigrants and individuals of native origin**

**Alon Pertzikovitz, Gusta Wachter, Matthijs Kalmijn - Netherlands Interdisciplinary Demographic Institute (NIDI) / KNAW/ University of Groningen**

Internal migration is fundamental for countries and economies, as it facilitates the efficient distribution of people, expertise, and capital to their most required destinations. The ability to move to different geographic locations is also essential for individuals to achieve their goals and fulfill their needs. Limited previous work has found that adult children of international migrants in Western Europe are less mobile than individuals of native origin. It has been speculated that structural differences such as income and preferences for living nearby family may explain lower internal migration rates among children of migrants. This study first examines whether there are group differences in internal migration behavior between adult children of migrant and native descent. Then, it explores potential explanations for group differences in migration propensity, particularly the role of economic opportunities and family and social ties. To fulfill our objectives, we draw on longitudinal register data from the Netherlands, to follow the internal migration trajectories of the entire adult population in an observation window of 15 years (between 2006 and 2021). To better understand group differences in migration behavior, we disaggregate internal migration into short-, longer- and long-distance moves. This way, we can adequately assess the contribution of social ties and economic opportunities to migration variations. The study's results expand the existing knowledge on group differences in internal migration. Moreover, by examining relevant determinants that may drive group dissimilarities in migration behavior, our study sheds light on potential underlying differences in preferences and access (or barriers) to migration.

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### **When distance matters: Residential mobility of immigrants and suburbanization in France**

**Julie Fromentin - University of Strasbourg**

This presentation is based on a PhD dissertation on immigration in non-metropolitan areas. It focuses on the suburban residential mobility of immigrants in the Paris region. 40% of immigrants in France now live in this

region, where the suburbanization of the immigrant population has increased sharply since the 2000s. This work links the literature on the residential incorporation of immigrants - often focused on the centers of large cities - to research on patterns of peripheralization and suburbanization of poverty - often focused on social classes or income levels rather than on the migration trajectory. It aims to answer the following questions: how far away from Paris do immigrants settle in suburbs? Which groups move the farthest, and why? To answer these questions, the analysis draws on individual data from the 2013 and 2018 censuses, accessible through the French SecureLab, and uses different regression models to analyze residential mobility of immigrants by distance (gravity model, linear regression and quantile regression). The results show that suburban residential mobility distance is associated with multiple individual sociodemographic factors, as well as country of birth. In particular, immigrants from sub-Saharan Africa are characterized by longer residential mobility distances, even after controlling for different socio-demographic variables and place of work. These findings call for a discussion of the role of economic integration and residential preferences of different groups, but also that of ethno-racial inequalities and discrimination in access to the housing market in the Paris region.

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## **9:00 - 11:00 Wednesday 13 September: Current and future trends in international migration**

### **Better schools, better parties, better lives: Investigating the drivers of European student mobilities** **Micol Matilde Morellini - University of Oxford**

The international movement of university students has become a topic of growing scholarly attention due to its association with high-skilled migration. However, existing quantitative studies have predominantly focused on either long-term (degree) or short-term (credit) student mobility, failing to comprehensively understand the drivers of both types of mobility within a unified framework. This project addresses this gap by using novel data on student migration in 30 European countries between 2009 and 2019, covering over 7 million students. Drawing from social network analysis (SNA), we assess competing supply- and demand-side theorizations of international student migration. We show that degree mobility is largely influenced by long-standing geopolitical and economic factors, in addition to the individual-level aspirations of students seeking "better lives" abroad. Conversely, trajectories of credit mobility are shaped by inter-institutional collaborations and resemble tourism routes, with students often utilizing their short-term experience abroad for entertainment and cultural exploration. These findings offer a multifaceted and nuanced understanding of the complex drivers of international student movements, highlighting the potential of network methods for evaluating competing migration theories at different levels of analysis. More broadly, this work contributes to the study of international student mobility and high-skilled migration more broadly, by advancing our understanding of the phenomenon and offering a novel approach for future research.

### **Estimating temporary international migration in the UK**

#### **Jo Zumpe, Frazer Burlinson, Melissa Randall and Dominic Webber - Office for National Statistics**

We increasingly see more dynamic movement and mobility of populations that are not covered in our long-term migration estimates. There is a strong demand for a broader range of estimates that encompasses the diversity of migration patterns. Statistics on flows of short-term and temporary migrants are needed to better understand and plan for interim populations at a national and local level. Previous time-series on short-term migrants were discontinued by ONS, following disruption and changes to International Passenger Survey data collection during and after the coronavirus (COVID-19) pandemic. In response, the Centre of International Migration at the Office for National Statistics (ONS) are continuing to develop methods to meet the increasing need for flexibility in defining a migrant. Embracing the opportunities open to us by using administrative data, we are investigating ways to gain insights into international mobility. This presentation is a summary of the work completed so far and includes some indicative estimates of short-term migrants to the UK. We explain how we are using Home Office Border Systems Data and the Department for Work and Pensions' (DWP's) Registration and Population Interaction Database (RAPID) to identify patterns of presence in the UK as a proxy for mobility. We discuss the assumptions that we have made in our work and the challenges we face in producing coherent and timely statistics. Finally, we encourage our listeners and stakeholders to feed back on the relevance and usefulness of our outputs, to help us plan our next stage of research and development.

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### **Evaluating the impact of the end of free movement (Brexit) on inflows of international students into UK universities using difference-in-differences (DID)**

**Ruth Neville, Francisco Rowe, Alexander Singleton – University of Liverpool**

Whilst the numbers of international students attending UK universities has been increasing in recent years, the 2021/22 and 2022/23 academic years saw a decline in applications from EU-domiciled students. It is hypothesised that this decline is a direct result of the end of free movement due to the UK's withdrawal from the European Union and that students are deterred both by the financial costs and social costs of Brexit. Further, we hypothesise that COVID-19 restrictions have limited impact on these declines. This research uses acceptances data provided by the Universities and Colleges Admission Service as well as COVID stringency indicators to uncover the extent of this decline. Using difference-in-differences and hierarchical modelling, it is found that there is a substantial decline in EU students as a result of the end of free movement and that the nature of this decline varies across the continent.

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### **Simulation-based approach to measuring uncertainty in international migration estimates**

**Tony Chan, Dan Clarke, Gauthier Dulout, Mark Edward, Robyn Hunt, Megan James - Office for National Statistics.**

International migration estimates are a regular and high-profile Office for National Statistics (ONS) publication. In the last few years there has been a shift towards using administrative data as the main data source for producing the estimates, with a recognition that the International Passenger Survey (IPS) has been stretched beyond its original purpose. As there is a shift from survey to administration-based estimates for international migration, there is a need to develop methods to measure the uncertainty. In this paper we present a simulation-based approach to quantify some of the main sources of uncertainty for ONS' international migration estimates. We present our results for uncertainty associated with adjustments made to estimates, modelling, and survey-based estimates. We recognise that comprehensive Administrative Based Migration Estimates (ABME) measures of uncertainty will require quantifying doubt in other sources of uncertainty and likely require application of methods beyond our simulation-based method.

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### **The international student population in England and Wales: Census 2021**

**Sophi Noble & Ben Fitch - ONS**

Studying is one of the main reasons people migrate to the UK. International students in higher education (HE) are an important sub-group of the population in England and Wales. They contribute to the income of universities through tuition fees, as well as the economy of communities in which they live. Census 2021 provides the opportunity to explore the characteristics of the international student population of England and Wales. Administrative sources, such as Home Office data and Higher Education Statistics Agency (HESA) data provide regular and comprehensive information on international students. However, census data allow us to explore further characteristics such as country of birth, employment and housing and supplements the insights provided by administrative sources. This presentation will take you through the key findings of our research and collaboration with stakeholders in how we define an international student. It will look in detail at the characteristics of the 373,600 non-UK-born, non-UK passport holders who we identified as being international students in England and Wales at the time of Census 2021. Main findings include information on the most common individual countries of birth for international students, which include India, China, Romania and Nigeria. Additionally, that one in three international students were in employment alongside studying. We will also consider the impact of the pandemic on the validity of the research and comparisons to Census 2011.

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**11:30 - 1:00 Wednesday 13 September: Residential mobility of immigrants, refugees, and asylum seekers**

**Retention and occupational mobility of immigrants in rural areas in Australia**

**Charles Siriban<sup>1</sup>, Neil Argent<sup>2</sup>, Aude Bernard<sup>1</sup>, Tom Wilson<sup>3</sup>, Dagmara Laukova<sup>1</sup>** - <sup>1</sup>University of Queensland, <sup>2</sup>University of New England, <sup>3</sup>University of Melbourne

There have been increasing attempts in demographically advanced countries to influence where immigrants settle to alleviate concerns regarding depopulation and skill shortages in rural areas as well as perceptions of overpopulation in metropolitan areas. However, the effectiveness of such policies remains largely unknown, including in Australia. We leverage a new longitudinal administrative micro dataset that links visa status and place of residence to census data to establish the levels, determinants and consequences of rural retention of immigrants in Australia. First, we use survival analysis to establish the rural retention of migrants from 2010 to 2019. Second, we deploy multi-level survival regression to identify the individual and place-based characteristics underpinning retention, paying particular attention to visa status, including skilled temporary and permanent migrants and student visa holders. Third, we use propensity score matching to establish the occupational mobility and skill mismatch of rural stayers compared with immigrants who moved to urban centres. The results are expected to provide an evidence base for policymakers seeking to improve the rural retention of immigrants in Australia and other demographically advanced countries, while ensuring equitable labour market outcomes.

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**Subsequent internal migration trajectories of asylum seekers and refugees in Belgium**

**Natacha Zimmer - UCLouvain**

Place of residence influences social contacts, professional opportunities or access to public services. This research explores the internal migration trajectories of asylum seekers in Belgium following submission of their asylum application. Based on administrative data from the Belgian National Register, we create a typology of internal migration trajectories using sequence and cluster analysis methods. We follow a cohort of individuals arrived between 2012 and 2016 over a four-year period after arrival. Migration trajectories are based on the type of municipality of residence (rural, agglomeration, suburb) and the region (Brussels, Flanders, Wallonia). Preliminary analyses suggest that a significant proportion of asylum seekers reside in Brussels in the first month after arrival. The share of asylum seekers residing in rural areas decreases significantly over a 48-month period, especially in Wallonia. Furthermore, we observe movement converging towards urban municipalities for almost half of the sample. Using an inventory of existing (or former) asylum reception centres in Belgium, we show that about 40% of the reception centres are located in rural municipalities among those in activity between 2012 and 2020. We hypothesise asylum seekers tend to move away from these reception facilities because rural areas might limit economic integration.

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**Identifying the role of individual characteristics, reception centres and peer-groups in determining post-settlement labour market outcomes among asylum seekers**

**Ane Tømmerås - Stockholm University and Statistics Norway**

The arrival and integration of asylum seekers is continuously debated in most European countries. Despite the massive interest in understanding integration, little quantitative research exists on asylum seekers's first stay, often located in a reception center. The role of these centres and their peer-group effects on subsequent outcomes among the settled refugees are extremely rare, though qualitative studies and policy-related assessments have pointed to their significance during a critical phase in the integration process. To address this gap, this paper seeks to identify and unpack the relative contribution of differing individual, peer group and institutional characteristics on the subsequent labour market outcomes of refugees granted asylum in Norway between 2005-2015. It uses uniquely detailed and hitherto underused full population register data on asylum seekers and reception centres, linked to data on labour market outcomes after receiving residence permits. We take advantage of the fact that asylum seekers are randomly assigned to reception centres, with the peer groups that they comprise also being randomly assigned. We use multilevel random effects modelling to unpick the relative contribution of individual background (e.g. age, sex, education, country background, family

composition, duration of stay), peer-group (e.g. composition, (dis)similarity, size) and reception centre characteristics (e.g. type, geographical location, state or privately run, area-level factors). Given the importance of labour-market outcomes for immigrant integration, we show how these factors determine employment and wages in the first five years after exit from the reception centre and discuss the implications of our findings for the development of better policies.

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**The role of neighbourhood context and residential mobility in determining successful adaptation: a case study of Iranian refugees and the quasi-random Swedish dispersal policy**

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Iranian refugees stand out in the Swedish context, and are often used as an example of successful adaptation. Previous research has also shown that there is considerable heterogeneity in adaptation for this group, and for their children, but the causes of this heterogeneity remain unexplored. This is despite the opportunity that this population group provides for testing mechanisms of adaptation, in particular spatial mechanisms. Here we explore how neighbourhood context and residential mobility shape socio-demographic outcomes. We use whole-population register data to study the effects of quasi-random allocation of refugees across most areas of Sweden. This dispersal policy was most strictly implemented from 1987-1993, which coincides with the peak years of Iranian migration into Sweden. First, we analyse the role of the initial area characteristics on subsequent residential mobility. We then investigate how residential mobility mediates the relationship between initial area characteristics and socio-demographic outcomes. Finally, we show how these relationships not only impact Iranian refugees, but also their Swedish-born children. Almost half of Iranian refugees reside in their allocated municipality five years after arriving in Sweden. Residential mobility is mainly driven by socioeconomic status, and is higher for both the unemployed and for those with higher education and earnings. The rest of the analysis paints a complex picture, which highlights the role of local area characteristics in shaping the adaptation of both refugees and their descendants. We show how patterns vary by age and sex, as well as for different outcomes, including work, health and fertility.

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