#### **Posters**

#### Poster session 6.30 – 8.00pm Monday 5 September

In alphabetical order of first author. \*student poster

Skill-based technical change and fertility in Germany\*
Honorata Bogusz<sup>1</sup>, Anna Matysiak<sup>1</sup>, Michaela Kreyenfeld<sup>2</sup>; <sup>1</sup>University of Warsaw, <sup>2</sup>Hertie School

Technological change has been tremendously transforming the labour markets, inducing fears of job displacement for some and creating new career opportunities for others. And even though past research found labour force participation of women and men to be an important determinant of fertility behaviour, few studies addressed fertility effects of technological change so far. This study aims at filling this gap. We adopt a couple approach and study how respondents and partners' exposure to skill-based technical change and the related changes in the task content of work affect first birth risks in Germany, which has been driving technological change in Europe and which has been a low fertility country for several decades. To this end, we construct measures of analytic and interactive task intensity at the occupation level using data from the Qualifications and Career Survey of the German Federal Institute for Vocational Education and Training. We link this contextual information with employment and fertility histories of couples from the German Socio-Economic Panel (GSOEP). Event history models are used in order to model these processes.

Email: <a href="mailto:h.bogusz@uw.edu.pl">h.bogusz@uw.edu.pl</a>

Housing costs and the number of children in the United Kingdom\*
Brian Buh; Wittgenstein Centre (IIASA, OeAW, University of Vienna)

Popular media in the United Kingdom (UK) is full of stories linking falling birth rates to housing costs, however the scientific literature has surprisingly little on the subject. The cost of housing and mortgage service directly compete with the direct and indirect cost of childbearing and childrearing. Additionally, for many families, having stable and secure housing with adequate space in a good location is an important perquisite to have (another) child. However, homeownership rates in the UK have declined since the early 1990s while housing prices have skyrocketed, leading to a group called "Generation Rent". We aim to examine how housing costs associate with the likelihood to have (another) child in the UK, specifically looking at the change in effect over different time periods and parity. We will use the British Household Panel Survey (1991-2008) and Understanding Society (2009-2021), which includes information on housing costs, household income, and fertility histories. The principal explanatory variable will be the sex- and age-specific ratios of net housing costs over net household income, measured in intervals of years before a birth event. We intend to use a basic frailty discrete-time event history analysis in which all events are modelled together and parity is added as a control and interacted with the explanatory variable. To look at the impact of housing cost on total fertility rate (TFR), we will use the transition probabilities from the event history analysis to create synthetic parity progression ratios to compare TFR before and after consider housing costs.

Email: brian.buh@oeaw.ac.at

Immigration and the utilization of preventive care in Europe: Results from retrospective data Raluca E. Buia<sup>1</sup>, Mesfin G. Genie<sup>2</sup>, Cristina E. Orso<sup>3</sup>, Giacomo Pasini<sup>4</sup>; <sup>1</sup>Department of Economics, Ca' Foscari University of Venice, <sup>2</sup>Health Economics Research Unit, University of Aberdeen, <sup>3</sup>Department of Economics, University of Verona, <sup>4</sup> Ca' Foscari University of Venice, Italy and NETSPAR

We use retrospective information from the SHARELIFE waves of the Survey on Health, Ageing and Retirement in Europe (SHARE) to analyze the utilization patterns of preventive care around the time of migration of a representative sample of migrants in Europe. By using a fixed-effect linear probability model specification we explore the trajectories in the use of six types of medical check-ups (dental check-ups, blood tests, blood-pressure tests, vision tests, plus gynaecological visits and mammograms for women) in the years prior to and

after the migration event. Differently from most of the existing studies in the field, which compare migrants with natives healthcare behaviours, by using data from retrospective interviews we can observe the behaviour of migrants before and after migration, i.e. in their country of origin and in the host country, and compare them. We find heterogeneous behaviours across different types of preventive care. Migrants increase the utilization of dental care significantly as soon as they reach the host country compared to the years immediately before migration, while migrant women increase their use of blood pressure tests, gynaecological visits, and mammogram tests progressively after migration. Other types of care do not exhibit particular patterns in relation to the migration moment. We also observe relevant differences in preventive care use around migration by country of origin. Our results suggest that preventive care use by migrants cannot be given for granted and is intimately linked to the process of integration in the host country.

Email: elenabui@unive.it

### Relationship between socioeconomic position and stunting in Sri Lanka compared to other South Asian countries \*

Damith Chathuranga, William Johnson, Paula Griffiths; School of Sport, Exercise and Health Sciences, Loughborough University

Aim: To establish whether there is a difference in the association between household socioeconomic position (SEP) and stunting in children (under 36 months) between Sri Lanka and other south Asian countries. Methods: The latest available Demographic and Health Survey data of five south Asian countries of children under 36 months was used to study the association of stunting (HAZ< -2SD) with household SEP (maternal education, wealth, sanitary facility, drinking water). Cross country binary logistic regression models were estimated including interaction (country by SEP indicators) effects using the SPSS software package. Data were weighted and adjusted for potentially confounding factors (gender, age, residence and birth order). Results: 134765 children in South Asia (Indian 90%, Sri Lanka 3.1%, Bangladesh 2.99%, Pakistan 1.54%, Maldives 0.95%, Nepal 0.78%) were included in the study. Stunting in other south Asian countries was >29% while it was only 18.8% in Sri Lanka. Less than 4% of mothers in Sri Lanka have less than secondary education, compared to greater than 35% in the other South Asian countries. The association of SEP with odds of stunting was similar in Sri Lanka compared to other South Asian countries, except the effect of mother's education and wealth in Bangladesh where there was greater inequality.

Conclusion: The lower level of child malnutrition in Sri Lanka is likely due to fewer children/mothers belonging to the most deprived groups. Improving SEP in all South Asian countries is important to ensure optimal growth is achieved for all and to reduce the number of children not growing optimally in the region.

Email: d.c.chacrawarthige@lboro.ac.uk

Fertility behaviour and household context: A longitudinal analysis of fertility trends in Scotland Sarah Christison<sup>1</sup>, Bernice Kuang<sup>2</sup>, Joanne Ellison<sup>2</sup>, Hill Kulu<sup>1</sup>, Ann Berrington<sup>2</sup>; <sup>1</sup>University of St. Andrews, <sup>2</sup>University of Southampton

In Scotland, low fertility rates can be seen as one of the country's key demographic challenges in the context of an increasingly ageing population. While Scotland has been experiencing a consistent decline in birth rates, the way in which people live has also evolved. Changes in trends related to union formation, the economy, the housing market and young people's engagement with higher education have all changed the context within which people live, in turn affecting issues such as homeownership and household structure. In recent years, issues regarding housing have become a key focus in discussions around changing fertility trends in the UK, and in particular fertility postponement and decline. To understand how these factors are related to Scottish fertility rates, this research will examine how recent trends in fertility have been influenced by individuals' residential context and area effects. This analysis seeks to explore fluctuations in Scottish fertility in relation to three key residential domains, namely, housing type, tenure, and urban/rural classification. The research will examine how the relationship between fertility and housing has changed over historical time and how these residential and area factors are related to both the likelihood of experiencing a first, second or third birth, as well as the timing of these births. Analysis will be conducted using data from the Scottish Longitudinal Study, a rich source which links census and vital events data. This data spans three decades from 1991 to the most

recent available data in 2013. Event history analysis techniques will be applied to examine the way in which housing and residential factors have may influence upon childbearing outcomes.

Email: sfc3@st-andrews.ac.uk

#### Modelling monthly UK internal migration flows from administrative data Ellie Cook, Esther Irving, Izzy Pearce and Beth Allen; Office for National Statistics

As part of our ambitious programme to transform population and migration statistics, ONS is developing a Dynamic Population Model (DPM) to produce more frequent and timely population estimates. Internal migration is a major component of population change at a sub-national level in England and Wales, thus is a crucial input to the DPM. ONS currently produces annual internal migration estimates as part of the mid-year population estimates. The present research forms part of a wider programme of work that aims to produce these estimates monthly. Here, we present our work on producing preliminary monthly estimates of internal moves between local authorities in England and Wales, and between the constituent countries of the UK from 2016 – 2022 using the Personal Demographic Service (PDS), an NHS administrative dataset. We then cluster local authority internal migration trends between 2016 - 2019 through k-means clustering. For each cluster, we model internal migration flows using Generalised Additive Models, then use the models in conjunction with published internal migration estimates to project monthly estimates back to 2011, where the information available in administrative data is less complete. We outline our methodology, emerging results, and future developments of this work.

# The economic consequences of becoming a single father in Belgium\* Luisa Fadel<sup>1</sup>, Diederik Boertien<sup>2</sup>, Christine Schnor<sup>1</sup>; <sup>1</sup>University of Louvain (UCLouvain), <sup>2</sup>Centre for Demographic Studies (CED)

This study investigates to which extent the transition to single fatherhood is related to income changes in Belgium. Previous research has shown that the economic consequences of union dissolution are less severe for fathers than for mothers. An important reason for this gender difference is the greater likelihood for women to live with children (which represents a barrier to employment) after separation than men. However, it remains unclear how the economic conditions of men change when they take on the childrearing role after union dissolution. Does entrance into single parenthood have the same consequences on the income of fathers and mothers? And did this change over time? Combining information from the Belgian National Register, Census records and the Tax-register over 13 years (2005-2018), we will estimate a series of longitudinal fixed-effects (FE) linear regression models to investigate the impact of the transition into single parenthood (defined as co-residing with children but without a partner) on individual and household income changes before (1 and 3 years), at the time and after (1 and 3 years) union dissolution. Entering single parenthood might be associated with a decline in fathers' individual income. While mothers might increase their involvement in paid employment after union dissolution, men usually already work full-time. Thus, entering single fatherhood may not lead to any change in their individual income, or even to a decline. Altogether our study will provide insights into an understudied group, single fathers, and will help to understand the dynamics underlying gender inequality in income.

Email: <u>luisa.fadel@uclouvain.be</u>

### Do birds of a feather leave the nest together? The role of personality similarity among siblings regarding transition to adulthood\*

#### Yu-Chin Her, Jorik Vergauwen, Dimitri Mortelmans; University of Antwerp

The timing of parental home leaving can be related to adolescents' and emerging adults' further life course decisions and development. Research has shown that Big Five personality traits, among other factors, are linked to the timing of nest leaving. Studies also indicate that siblings are a stronger source of influence on leaving decision. This is especially true for sibling pairs with similar demographic characteristics, in line social contagion and social learning theories. Based on the theory of similarity-attraction effect, individuals who have a similar level of Extraversion and Openness and who are highly agreeable and emotionally stable have a higher level of attraction and a better interpersonal relationship. However, it is not clear whether siblings who

are similar in Big Five traits are similar in their timing of leaving. To investigate this question, we applied a multilevel discrete-time event history analysis (N = 3,717 children) to 28 waves of the longitudinal study "Understanding Society: The U.K. Household Longitudinal Study". The results suggest that the association between leaving of a sibling and oneself was strengthened when the pair had a similar level of Extraversion, particularly when they both were introverted. This implies that although introverted adolescents and emerging adults might take less initiative regarding social relationships and be more hesitant in terms of transition to adulthood, when a similarly introverted sibling makes such a transition, they are more inclined to do so. The findings can bridge the theoretical gap and benefit parents and social programs concerning the transition.

Email: Yu-Chin.Her@uantwerpen.be

## Spatial variation in fertility changes at the county-level in China between 2000 and 2010\* Kuoshi Hu, Hill Kulu, Julia Mikolai; University of St Andrews

The total fertility rate (TFR) has been declining in China for decades. However, fertility change across different areas in China has been different; the TFR has declined in some areas but increased in others. County-level is the lowest administrative level in China; analysis at a lower spatial scale allows us to better understand how the aggregate-level determinants influence fertility change. However, previous studies have not analysed the spatial variation in fertility change at the county-level in China. This research explores how residents' characteristics, local contexts, and in-migrants influence the spatial variation in fertility change at the county-level in China between 2000 and 2010. We also study whether the determinants of fertility change play a different role for fertility change in different age groups. The outcome variables are the percentage change in TFR in different age groups over the decade. The data are from China Geo-Explorer II, census data in 2000 and 2010, and macro-level yearbooks. Preliminary results of OLS models show that the TFR tends to decline between 2000 and 2010 in counties with fewer highly educated females, fewer individuals working in agriculture, fewer in-migrants from other provinces, less developed economy, weaker son preference, and more married individuals in 2000. Except for the influence of son preference, the influence of other variables on fertility change is different in different age groups. We will estimate spatial regression models to investigate the spatial variation in fertility change and its determinants in different age groups across time and space.

Email: kh256@st-andrews.ac.uk

### Co-morbidities associated with mortality from different causes in Scotland Maria Kaye-Bardgett; National Records of Scotland

In an ageing population, more people will be living with multiple medical conditions as they live into old age. As a consequence, many death certificates record multiple conditions which have contributed to the death. Understanding multiple morbidities and how these contribute to deaths can help to understand ongoing mortality trends in Scotland. In recent times there has been a growing demand from users of our data to understand the degree of co-morbidity on death certificates of people who have died with COVID-19, Our analysis to date has focussed on pre-existing conditions of those who died with COVID-19, and how these vary by age and sex. Here we will extend this analysis to explore how comorbidities vary across different causes of death. We look at how this varies by age, sex and geography across Scotland and whether the number of comorbidities has increased over time. We will also present data on how the number and type of comorbidities vary with deprivation.

Email: maria.kaye-bardgett@nrscotland.gov.uk

Environmental impacts and the investments of mining taxation: Comparing the social perceptions of urban and rural residents in Canaã dos Carajás (Pará, Brazil)\*

Thiago Leite Cruz; Universidade Federal do Pará (Federal University of Pará), Brazil

Despite its economic importance in Brazil, the impacts and benefits of mining industry are not equally distributed in the territory. The municipality of Canaã dos Carajás (Pará, Brazil), in the Amazon region, hosts the world's largest iron ore mine and it is the national second largest recipient of mining taxes, but its standards of living are low. This research compares social perceptions of environmental impacts from mining

industry in rural and urban communities of Canaã dos Carajás. Survey questionnaires were applied to 140 urban residents, and 60 rural residents, proportionally to local demographics with a sample margin of error of approximately 10%. In a Likert scale, they anonymously declared whether the mining industry had worsened local environmental conditions and their safety; and whether they trusted local government to hold companies accountable for negative environmental impacts, and to adequately invest taxes from the mining industry. The government's financial reports were analyzed to detail the expenses using such taxes. Responses from urban and rural communities were compared. Dissatisfaction with environmental impacts was mostly noticed among rural residents, who reported lower trust in the local government's management. Whereas the urban population benefits the most, negative impacts concentrate in rural settings. Local governments neither properly address such issue, nor comply with national laws regarding the use of mining taxation. Such findings highlight the disparities between urban and rural residents and the clear environmental injustice in the Brazilian Amazon region. It should guide decision-makers in improving sustainability and social responsibility in the Brazilian mining industry.

Email: <a href="mailto:thiago.james@live.com">thiago.james@live.com</a>

#### Deprivation and mortality in Scotland Ronan Mellin, Daniel Burns; National Records of Scotland

In a number of mortality-related statistics in Scotland, increased levels of deprivation correlates with increased rate of death. The Scottish Index of Multiple Deprivation (SIMD) is a relative measure of deprivation across thousands of small geographical areas, using a variety of domains to assess deprivation (such as income, education, health etc.). National Records of Scotland use the Scottish Index of Multiple Deprivation (SIMD) to assess the impact of deprivation across many of its publications regarding mortality. These data provide an insight into how deprivation impacts a variety of forms of mortality (for example, in avoidable mortality, drug related deaths, alcohol-specific deaths), how the pandemic has affected these health inequalities, and what the historical trends are regarding mortality and levels of deprivation in Scotland. These statistics can help inform government decision-makers when tackling deprivation.

Email: Ronan.Mellin@nrscotland.gov.uk

### Repartnering in modern-day Spain\* Momoko Nishikido; Centre d'Estudis Demogràfics (CED)

Traditional family formation pathways have become more complex in high-income societies with the increasing prevalence of union instability, divorce, non-marital cohabitation, and repartnering. Spain has lagged behind surrounding high-income European countries regarding these changes in family formation processes. Having undergone rapid cultural and political changes in recent decades, divorce was only legalized in the 1980s, and cohabitation was considered a non-marginal pathway to family formation only since the 1990s. Another important aspect of the changing landscape in family formation is repartnering, which has yet to be explored in-depth for the contemporary Spanish context following the period of change. Our descriptive study aims to fill this gap in the literature and contribute to the cross-country understanding of repartnering dynamics. Using the 2018 Spanish Fertility Survey we ask: (1) how prevalent is serial partnering in Spain? And (2) who repartners? Preliminary findings suggest that repartnering is a very marginal phenomenon, slightly increasing over time across all educational strata but particularly among the low educated. The most common pathway among Spanish women has been, and remains to be, remarriage – although, on the decline; this pathway is overrepresented by the low educated. Serial cohabitation, on the other hand, has been on the rise and is overrepresented by the highly educated. We also find the formation of second co-residential unions has been occurring quicker over time, especially among the highly educated.

Email: mnishikido@ced.uab.es

### Fertility transition in sub-Saharan African capital cities: Where do they stand and what has contributed most to the transition?

#### David A. Sánchez-Páez, Bruno Schoumaker; UCLouvain

Fertility transition begins in urban areas and more specifically in capital cities. However, fertility stalls at rates well above replacement level has been observed in several sub-Saharan African (SSA) capitals. Our objective is to determine at what phase of fertility transition the SSA capitals are in and how the proximate determinants of fertility change during the course of the transition. We use 138 DHS from 33 SSA countries. We estimate fertility rates, indexes of proximate determinants, and fertility inhibited by proximate determinants. We analyze changes throughout the transition. Most of the capitals are in an advanced phase of transition. Capitals that have made the most rapid progress in the transition are those with a sharp increase in contraceptive use. Postpartum infecundability accounts for a higher-than-expected proportion of inhibited fertility in capitals in the final phase of the transition. That postpartum infecundability still has a relevant effect in the final phase of transition leaves open the possibility of further fertility stalls or longer-lasting current stalls. Increases in the fertility-inhibiting effect of contraception may not compensate for the decline in the fertility-inhibiting effect of postpartum infecundability if women shorten the duration of postpartum abstinence. This study shows for the first time an analysis of fertility transition in SSA capitals. We show that given the current context fertility will not decline rapidly in the near future in SSA capitals, thus fertility transition will take longer than expected in SSA countries.

Email: <a href="mailto:david.sanchezpaez@uclouvain.be">david.sanchezpaez@uclouvain.be</a>

#### Does birth order trump all? Additive and interaction models of birth order and family background indicators in Sweden\*

#### Marco Santacroce; European University Institute

For more than a century, birth order effects (BOE) have fascinated generations of researchers. Studies have shown that later-born siblings perform worse than earlier-born siblings on intelligence, educational, labour market, delinquency, and mortality outcomes, and that these differences are due to intrafamily social dynamics rather than biological or genetic differences. However, while the importance of birth order in producing inequalities is widely recognized little attention has been given to its moderators. Crucially, researchers have not determined how BOE compare to, or are influenced by, the sibling sex composition, ethnic and migrant background, and the SES of siblings. Despite considerable scholarly interest in racial, gender, and wealth inequalities, academic research has not examined the potentially mutually reinforcing (or weakening) inequalities that these circumstances might have on BOE and its implications for social stratification in potentially redefining traditional expectations of a clear pecking order. This research takes the view that this is a major gap in the literature worthy of investigation. Using Swedish registry data, I estimate the additive and the intersectional effect of various circumstances on educational outcomes. Specifically, I determine (1) whether within-family inequality due to birth order can be large enough to overcome betweenfamily inequalities due to background circumstances (sex, ethnicity, SES) using a within-between estimator (additive model), and (2) whether BOE vary by background circumstances using an interaction model.

Email: marco.santacroce@eui.eu

Measuring the concentration of socioeconomic-related health inequality among adults in Lesotho\* Sally Sonia Simmons<sup>1</sup>, John Elvis Hagan Jr<sup>2,3</sup>, Josephine Ackah<sup>4</sup>, Bright Opoku Ahinkorah<sup>5</sup>, Abdul Aziz Seidu<sup>6,3</sup>; <sup>1</sup>London School of Economics, <sup>2</sup>Bielefeld University, <sup>3</sup>University of Cape Coast, Ghana, <sup>4</sup>London School of Hygiene & Tropical Medicine, <sup>5</sup>University of Technology Sydney, <sup>6</sup>James Cook University

In Lesotho, health inequality among adults has been associated with the spectra of anthropometric profiles and biomarkers. However, in Lesotho, there is sparse empirical evidence on the spatial concentration of socioeconomic-related health inequality among adults. The study addresses this by mapping out the regional concentration of extreme biomarkers and anthropometric indices using data from the 2014 Lesotho Demographic Health Survey and demographics, biomarkers, and anthropometric measures (BMI, arm circumference (AC), blood pressure (BP), and haemoglobin) as variables. The index of concentration at the

extreme was computed to measure the regional polarity of biomarkers and anthropometrics ranked by sociodemographic status. The findings revealed that the concentrations of obesity or high levels of AC, BP, and haemoglobin were highest in Maseru, Mafeteng, Leribe and Berea and lowest prevalence in Quthing, Thaba-Tseka, and Butha-Buthe. In Maseru, the older adults and the rich recorded more cases of extreme concentration of obesity, high BP, AC and haemoglobin, while in Quthing, concentrations of underweight and low levels of BP, AC and haemoglobin were most prevalent among urban residents and the young people. In addition, the prevalence of high systolic BP was greater among females in Mohale's Hoek. To conclude, the study showed how anthropometrics and biomarkers serve as proxies for the right and left spectra of malnutrition, affecting the adult population's health in Lesotho. Practical information on the socioeconomic-related health inequality elucidates the interconnection between biomarkers, anthropometrics and health. This will guide the development of context-specific interventions in Lesotho

Email: <a href="mailto:s.simmons1@lse.ac.uk">s.simmons1@lse.ac.uk</a>

Who will remember COVID-19? Kinship memory after a global pandemic\*

Mallika Snyder¹, Diego Alburez-Gutierrez², Emilio Zagheni², Ashton Verdery³; ¹University of California,
Berkeley, ²Max Planck Institute for Demographic Research,³ Pennsylvania State University

Millions of people have lost a relative to COVID-19, with potential significant negative impacts on their health and well-being (Raker et al., 2020; Fletcher et al., 2013). Many bereaved kin are likely to be alive well into this next century, contributing to what we term "kinship" memory, the share of national populations related to victims of a mortality crisis. As collective memory of a crisis fades, this surviving population of bereaved relatives may contribute to the prolongation of collective grief as well as the preservation of memory of a crisis. Using demographic microsimulation with the SOCSIM platform and input data from the United Nations World Population Prospects 2019 and the Human Mortality Database's Short-term Mortality Fluctuations Dataset, we present estimates of COVID-19-associated population memory for bereaved relatives in over 30 countries with varied experiences of COVID-19 excess mortality. Preliminary findings for Bulgaria, Chile, the United Kingdom, and the United States of America show that while the age structure of COVID-19 excess mortality will lead to a steady decline in kinship memory, up to 1 percent of these country populations in 2100 will still be made up of COVID-19-bereaved grandchildren, who may form a small but significant repository of memory of the crisis. Our results document the importance of the age structure of a mortality crisis in shaping which bereaved relatives will be alive to remember it and highlight an as-yet unstudied aspect of the pandemic's impact on kin networks around the world.

Email: mallikasnyder@berkeley.edu

## Intruder testing: an empirical measure of the quality of Census 2021 disclosure control methods Samantha Trace; Office for National Statistics

The Office for National Statistics has a legal obligation to protect the confidentiality of Census 2021 data. To ensure that the statistical outputs provide as much value as possible, while protecting the confidentiality of individuals, households and organisations, we employ three main statistical disclosure methods. This trailblazing approach consists of: targeted record swapping, to protect individuals and households with unusual characteristics by creating a level of uncertainty on individual counts; cell key perturbation, to protect against disclosure by differencing by adding noise to the data without impacting statistical quality; automated disclosure checks, to protect against sparsity and disclosure risks, by withholding data that do not meet certain thresholds. To evidence the robustness of these measures, we have both mathematical models and an empirical intruder testing exercise. For the latter, a team of friendly intruders is assembled. Each intruder signs an enhanced confidentiality agreement before we advise them of the methods used to protect the data. We give them access to census outputs in a secure area of our data access platform. We allow the friendly intruders to access the internet, so they can use information from other sources to try to inform claims of identification. Any identification claims that the friendly intruders make are checked by a different person. The level of confidence reported in any positive identification, numbers and percentage correctness, will be the key measures of whether the disclosure control protocols have been sufficient to protect respondent data. If any weaknesses are found in our controls, we will then take additional steps to ensure they are addressed.

This intruder testing process is the empirical quality assurance of Census 2021 disclosure control methods, providing further confidence that data we release are non-disclosive.

## A descriptive study of hostales in the southern cone of Lima and an assessment of their potential as sites for sexual health studies and interventions\* Ignacio Franco Vega, University of Bath

Objectives: To describe the characteristics, services, and operation of hostales in Lima. Introduction: The rates of unwanted pregnancies and sexually transmitted infections in Peru are high. Contraceptive use remains stagnant at low levels; new policies are needed. Hostales are businesses where couples rent a room to have sex in. Although ubiquitous in the country, there is no systematised information on them. They could serve as a place to anchor different sexual health interventions. Methods: I conducted twenty semi-structured interviews with hostal staff and sexual health stakeholders. We discussed the hostal, its clientele, the effects of the pandemic, and their opinion about a public policy for distributing contraceptives in them. Additionally, I analysed the contents of the trash left behind after the visit of 629 couples in two hostales. Finally, I photographed and mapped all hostales in 4km<sup>2</sup> of the southern cone of Lima. Results: I created a 123-node structure from the emergent topics in the interviews and physical findings. These were nested on nine macrocategories: Business, Human resources, Infrastructure and services, Clientele, Pandemic, Public perception, Condom distribution policy and Miscellaneous. One hundred twenty-three hostales were mapped in the area. Conclusions: Hostales are relatively homogeneous institutions in their audience, organisation, and operation; however, they are quite heterogeneous in their prices and size. Most are geared towards couples through services aimed at increasing the visit's romantic/sexual experience. The prevalence of sex workers is high. The hostal staff is overworked, stressed, and underpaid. A condom distribution policy is seen as promising.

Email: ifv21@bath.ac.uk

### An Introduction to the Scottish Longitudinal Study (SLS) Lee Williamson & Greg Blackadder

This poster will introduce the Scottish Longitudinal Study (SLS) and the datasets held as part of the standing study, the application process for researchers using it and outline research examples. The Longitudinal Studies Centre – Scotland (LSCS) was established in 2001 and hosts the SLS. This study links together routinely collected administrative data for a 5.3% representative sample of the Scottish population (about 270,000 people). It currently includes a wealth of information from the censuses starting in 1991, vital events registrations (births, deaths and marriages), Scottish education data, and with appropriate permissions can be linked to NHS health data including cancer registry and hospital admission data. The size and scope of the SLS make it an unparalleled resource in Scotland for analysing a range of socio-economic, demographic and health questions. Additionally, the longitudinal nature of the SLS is particularly valuable, allowing an exploration of causality in a way that cross-sectional data collected at a single point in time does not. In this way, the SLS can provide insights into the health and social status of the Scottish population and, crucially, how it changes over time. The 2022 BSPS conference is an excellent opportunity to present what data is available as part of the SLS and will help researchers decide whether the SLS is an appropriate resource for their research in light of the recent 2022 Scottish Census.

#### The impact of maternal age on fiscal sustainability Florian Maximilian Wimmesberger, University of Freiburg

Many European economies, e.g., Germany, face financial strains due to the demographic change in the form of an ageing society. An established method to quantify the fiscal implications of these developments is the method of generational accounting. Most studies based on generational accounting employ a demographic projection that assumes constant relative age-specific fertility rates with varying life-cycle fertility rates. While the life-cycle fertility rates are rather stable for decades, the average age of women at birth increases. Nonetheless, analyses with generational accounting perform fertility scenarios by varying only the life-cycle fertility rates. Therefore, the paper investigates on the impact of a change in age-specific fertility rates for fiscal sustainability. The analysis is twofold: 1) A deterministic cohort-component method is applied to

model the population structure as specific age-specific fertility rates shall be analysed. 2) The quantification of the fiscal sustainability due to this demographic change is based on the established method of generational accounting. Preliminary results indicate that depending on the underlying development of life-cycle fertility rates, the age-specific fertility rates offer the possibility to contribute to a step towards fiscal sustainability ceteris paribus. This implies a rather younger average age of women at birth. However, it depends to a large extent on how quickly the change process takes place so that this channel unfolds its impact on the fiscal situation. Moreover, it emphasises that it would be insufficient to solely focus on life-cycle fertility rates in terms of fiscal analyses and the related regulatory, fiscal, and family policy decisions.

Email: florian.wimmesberger@vwl.uni-freiburg.de

## Language course timing and outcomes among recent newcomers by reason for migration and origin country Jonas Wood & Dries Lens, University of Antwerp

In the context of increasingly diverse inflows of migrants in many Western countries in recent decades, policymakers progressively put forward language acquisition as an essential requirement for integration. However, available literature on host country language acquisition pays little attention to formal language programmes. As theory indicates that formal language acquisition shortly upon arrival lays crucial foundations for later host country language learning and proficiency, this article exploits longitudinal individual-level data drawn from registers covering the complete population of newcomers entering Flanders (Belgium) between 2010 and 2021 to address the question of whether waiting longer to enter a formal language programme affects subsequent patterns of language acquisition amongst newcomers. Using clustered ordered logit regression models in combination with propensity score matching, our preliminary results provide three take-home messages. First, we find that newcomers who enrol into language programmes sooner after arriving in the country, also exhibit higher probabilities of increasing their proficiency and attaining formally recognised language certificates. Second, the association between timing of enrolment and programme outcomes partly reflects selectivity in terms of socio-demographic composition, human capital, and labour market attachment. Third, the association between the timing of formal language programme participation on the one hand and host country language acquisition on the other, varies depending on the migrant subgroup considered. These findings might inspire policy makers to facilitate swift enrolment into formal language programmes, particularly for groups who seemingly suffer from late participation.

Email: jonas.wood@uantwerpen.be

How much influence does social mobility over a ten, twenty and thirty-year period have on health outcomes and social gradients in health measures?

Wei Xun, Merilynn Pratt, Chris White, Peter Goldblatt; Office for National Statistics

Social mobility has been promoted as an important goal for social policy as evidenced by the formation of the Social Mobility Commission under the Life Chances Act 2010. Previous research suggests that social mobility has an indirect effect on narrowing the socioeconomic gradient in health and for those upwardly mobile can result in health improvements. We look to build on this research by investigating social mobility over a thirty-year period based on occupation. We will look at three distinct cohorts of people aged 20 years and above at the 1981, 1991 and 2001 censuses. These cohorts will be determined based on the ONS Longitudinal Study (ONS LS), a representative sample of 1% of the population of England and Wales from 1971. Socioeconomic position in this analysis is based on occupation using the National Statistics Socio-Economic Classification (NS-SEC). For each cohort, we will quantify social trajectories and their associations with three health outcome measures; specifically, not in 'good' general health or activity restricted because of a long-lasting illness in 2011 and mortality risk in the period 2011 to 2018. We will report on how much social mobility has occurred between 1981 and 2011 and how social mobility is operating regarding the size of social gradients in health in 2011 to 2018; specifically, whether it is consistent with or differs from previous research both in direction and magnitude. We will quantify the net effect of class joiners replacing class leavers and whether the net effect is to widen or narrow health gradients.

Email: merilynn.pratt@ons.gov.uk