Poster session

Strand organizers: Katie Heap and Eleanor Moonan-Howard (University of Southampton)

Reviewing population definitions for the 2021 Census

James Robards, Verena Fermor-Dunman

Office for National Statistics

Census population definitions are crucial for three key areas. Firstly, ensuring the collection of accurate information in support of questions being asked. Secondly, providing clarity for field staff to enable implementation of the correct forms and processes. Thirdly, for the post-census estimation and imputation processes. Broadly, two types of questionnaire are used to collect information on the population of England and Wales with addresses attributed to these: 1. Households are defined as 'one person living alone; or a group of people (not necessarily related) living at the same address who share cooking facilities and share a living room or sitting room or dining area); 2. Communal Establishments are establishments providing managed residential accommodation ('managed' in this context means full-time or part-time supervision of the accommodation). In reviewing definitions, a number of factors have been considered, including identification on the ONS Address Register, implementation in the field, possible impacts on outputs, review of field implementation of 2011 definitions, alignment with wider government policy (also UNECE standards, UK harmonization), and stakeholder engagement. Following evaluation and review, this poster will outline key areas of prospective change in population definitions that will be used in the 2019 Rehearsal in England and Wales ahead of the 2021 Census. These areas include sheltered housing, students who live away from home during term-time, 'serviced apartments' (furnished apartments available for short- or long-term stays), the hotel bed spaces definition, armed forces on ships, and where prisoners should be counted.

Email: verena.fermor-dunman@ons.gov.uk

Update on designing and testing a legal marital and civil partnership status question for the 2021 Census

Astrid Dawes, James Robards, Amanda Sharfman, Emma Sharland

Office for National Statistics

As part of the 2021 Census topic consultation report in 2016, the Office for National Statistics made a commitment to review the legal marital and civil partnership status question in light of the Marriages (Same Sex couples) Act (2013). A user need for separate population estimates by marital status for same-sex couples was identified. This poster will outline research and development work informing a question design for the 2019 Rehearsal as well as some of the key considerations in this process. It will also outline development work to accommodate the extension of civil partnerships to opposite-sex couples (a Bill legalizing these achieved Royal Assent in March 2019). The starting point in 2017 was a review and redesign of the 2011 Census question on legal marital and civil partnership status to meet user need. Phase one testing was public acceptability testing to assess overall acceptability (and by socio-demographic group). This testing

indicated that the redesigned question was acceptable and further testing should take place. Additional stakeholder feedback on the question design was received and minor changes to the next iteration were completed. Phase two of the testing was a series of cognitive interviews with an aim to assess understanding of the question. Results from this led to slight rewording of the question stem and separation of the marriage and civil partnership response options. Phase three quantitative testing measured acceptability of the redesigned questions, which led to the 2019 Rehearsal design.

Email: Astrid.dawes@ons.gov.uk

Making sure the Census results are reliable

Emma Hand, Freya Griffiths

Office for National Statistics

The results of the 2021 Census will only be useful if they are accepted as reliable. We're planning a broad programme of quality assurance checks to provide the evidence that we, and users of the data, will need to be confident in the Census data. We split these checks into two main types. The first is checks of the census processes – for example, making sure there are no problems with scanning or coding questionnaires. The second is validation of the estimates – assessing the census estimates for each area and topic against what we expected based on other data sources and evidence. Here, we set out our initial proposals for the types of check we'll carry out as part of this quality assurance. We'd welcome your thoughts on what sort of evidence you'd want to see to be confident in the reliability of the census results; your suggestions on data sources we should use as part of this work; and any particular concerns you might have on possible issues with the census results for your area, or topic of interest.

Email: emma.hand@ons.gov.uk

The improved accessibility of 1961 Census data is an exciting development in official population statistics

Harrison Davies[1], Justin Hayes[2]

[1]Office for National Statistics, [2]University of Salford

This 'statistical archaeology' project aims to convert 1961 Census Small Area Statistics (SAS) data from microfilm images to tabular spreadsheets. The project employs innovative methods including optical character recognition (OCR) and error correcting via crowd sourcing. Developed in partnership with the Office for National Statistics, the UK Data Service and the University of Salford, over 140,000 digital images have been incorporated into this conversion exercise. The final result of tabular spreadsheets will allow researchers to interrogate, manipulate and analyse previously inaccessible data. 1961 was a time when there was a lot of social change happening. This means the data will be of great interest to researchers and policymakers interested in population change over time. The results are planned for release in Autumn 2019 on ONS's new 'Customise my Data' platform.

Email: harrison.davies@ons.gov.uk

Welsh language: A million Welsh speakers by 2050?

Nicola Shelton, Oliver Duke-Williams

University College London

Research Question: What factors are associated with change in Welsh Language speaking between 2001 and 2011? Methods: Analysis of Welsh Census completed in 2011 and Welsh and English Census completed in 2001. Results:

Gaining Welsh language compared with losing it, n=1,713: odds increase with age and with the number of Welsh speakers in the household. Marital status and educational qualifications were not significantly associated. Retaining Welsh language compared with losing it, n=3,533: odds increase with age and with number of Welsh speakers in the household. Odds are lower for married/partnered than never married/partnered. Educational qualifications were not significantly associated. Gaining Welsh language compared with not gaining it, n=18,327: odds increase with age and with number of Welsh speakers in the household. Odds are lower for married/partnered and divorced/separated than never married/partnered and higher for graduates than those with no qualifications. All analysis is adjusted for socio-economic status. The permission of the Office for National Statistics to use the Longitudinal Study is gratefully acknowledged, as is the help provided by staff of the Centre for Longitudinal Study Information and User Support (CeLSIUS). CeLSIUS is supported by the ESRC Census of Population Programme (Award Ref: ES/R00823X/1). The authors alone are responsible for the interpretation of the data. Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland.

Email: o.duke-williams@ucl.ac.uk

An introduction to the Scottish Longitudinal Study (SLS)

Lee Williamson

University of Edinburgh, Scottish Longitudinal Study Development and Support Unit

This poster will introduce the SLS and the datasets, new developments and outline research examples. The Longitudinal Studies Centre – Scotland (LSCS) was established in 2001 and hosts the Scottish Longitudinal Study (SLS), one of the three UK Longitudinal Studies. 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 do 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 SLS is constantly evolving and in the next few years we have plans for a number of important enhancements, including linkages to justice data, the Scottish School Leavers Destination Survey and historical birth cohort linkages. We welcome the opportunity to discuss new project ideas and would encourage interested users to come and find us at our poster or email us at sls@lscs.ac.uk.

Email: d.everington@ed.ac.uk

Debunking the crisis narrative of population decline

Youngcho Lee

University of Cambridge

Industrialized countries around the world – especially, but not limited to those in Europe and East Asia – have been faced with a population decline based on a shortage of births relative to deaths. However, rather than hastily subscribing to the prevalent 'crisis' or 'threat' narrative, a more careful assessment is merited in interpreting figures, making value judgements, and reaching policy conclusions. To do this, I will critically explore whether and to what

extent demographic change among industrialized nations really is a concern. This will be done by examining first the reasons often coined to deem population decline and ageing as a crisis, second whether current fertility levels are dangerously low compared with a socially 'optimal' level, and third whether people are not able to meet their fertility desires. I will argue that while the demographic change is a valid policy concern of differing degrees for different countries, the disproportionately exaggerated representation of population decline as a crisis is neither accurate nor productive.

Email: yl670@cam.ac.uk

My son, my moon: Son preference and demand for a male child in Pakistan

Rashid Javed[1], Mazhar Mughal[2]

Center for the Analysis of Trade and Economic Transition (CATT), University of Pau and Pays de l'Adour France, [2]Pau Business School, France

Son preference is widespread in Pakistan. This study examines the prevalence and strength of the phenomenon and its effect on Pakistani women's fertility transition. We employed data from nationwide Demographic and Health Surveys for the years 1990–91 and 2012–13 and used probit and matching econometric techniques. We generated a number of indicators to chart the change in revealed and stated preference for male children over time. We find strong evidence for both the realized and stated preference for male offspring. Son preference persists in Pakistan and its impact on actual and stated fertility is still strong. Although the country's overall sex ratio has fallen, the sex ratio at birth and sex ratio at last birth have increased, indicating an increased reliance on differential birth stopping. Son preference decreases with couples' level of education. It is more intense among middle-class and rural households. The stated desire for sons has also come down. The likelihood of second birth does not vary with the sex of the firstborn. In contrast, women with one or more sons at higher parities are up to 14% less likely to pursue additional fertility compared with women with no sons. The probability of continuing childbearing also decreases with the number of sons born. Besides, women with one or more sons are 29–34% more likely to desire no more children. These findings help to explain the country's skewed sex ratios and the slow

rate of demographic transition.

Emails: muhammad-rashid.javed@univ-pau.fr, rachidjaved@gmail.com, mazhar.mughal@esc-pau.fr

Sub-national fertility variation across Europe

Nicholas Campisi

University of St Andrews

This study investigates spatial fertility variation in Europe. Using small-scale spatial data from 21 European countries for 2010, I analyse variation in total fertility rates and investigate the role of economic, sociocultural, and spatial characteristics in regional fertility levels. The analysis shows that spatial variation in regional fertility occurs both within and between administrative boundaries. Variation occurs at a local level across Europe and patterns of local fertility are shaped by regional, as well as national, boundaries. The analysis also shows that fertility levels in a region are strongly related to GDP and the divorce rate in the region, and to fertility levels in neighbouring regions. This supports that all three realms of fertility determinants – spatial, economic, and sociocultural – are relevant for understanding modern fertility variation.

Email: nc80@st-andrews.ac.uk

Cohort profiles at baseline in the Macmillan HORIZONS Programme

Lynn Calman[1], Joshua Turner[1], Rebecca Foster[1], Natalia Permyakova[1], Sally Wheelwright[1], Sophia Taylor[1], Amanda Cummings[1], Peter W.F. Smith[2], HORIZONS Programme Management Group[1], Claire Foster[1].

[1]Macmillan Survivorship Research Group, Health Sciences, University of Southampton, [2]Social Statistics and Demography, Social Sciences, University of Southampton

As the world population ages and cancer mortality decreases, more people are living with and beyond cancer and experiencing the long-term consequences of cancer and its treatment. The Macmillan HORIZONS Programme is a prospective, longitudinal cohort study exploring clinical and psychosocial outcomes in three cohorts of cancer patients. The aim of this poster is to describe the baseline characteristics, by cancer type, of the HORIZONS participants. The HORIZONS cohorts consist of patients with breast cancer (diagnosed at <50 years), non-Hodgkin Lymphoma (NHL), or a gynaecological cancer (cervical, endometrial, ovarian, vulval). The aim was to invite all newly diagnosed patients due to have curative intent treatment to participate. The target sample size was 3,000. Sample size calculations were based on the primary outcome measure (Quality of Life in Adult Cancer Survivors). Participants were recruited from 110 hospitals across the UK between September 2016 and March 2019. Participants consented to completing self-report questionnaires and for recruiting hospitals to gather clinical information from participants' medical records. Aggregate data on patients who declined participation were also collected. Over 3,000 patients were recruited. This poster will summarize recruitment into the study for each cohort. HORIZONS cohort profile reporting will follow the STROBE guidance and demographic and clinical characteristics will be presented. Results from the Macmillan HORIZONS Programme will contribute to knowledge of cancer survivors' characteristics, outcomes and experiences, including those with less common cancers. HORIZONS has the potential to transform care for people living with and beyond cancer.

Email: n.v.permyakova@soton.ac.uk

Menstrual taboos and barriers to good menstrual hygiene among adolescents in Nepal: A qualitative study in Dailekh district

Josephine McAllister, Melanie Channon

Department of Social & Policy Sciences, University of Bath

Menstrual taboos persist within many low-income countries across the world, contributing towards a culture of secrecy and shame to which Nepal is not immune. Beliefs regarding menstruation transcend generations and can have direct negative implications for women and girls. Within Nepal, menstruating females are often forced to spend the duration of their menstrual period sleeping in a hut, cow shed, or even outside, a practice known as 'Chhaupadi'. Despite becoming punishable by imprisonment in 2018, there is evidence to suggest that the practice continues and is particularly prevalent within the Dailekh district in the mid-Western hills. In order to understand the barriers girls face as they attempt to manage their menses comfortably, safely, and without shame, a qualitative study was conducted, consisting of eight Focus Group Discussions (FGDs). Separate FGDs were conducted with menstruating girls aged 14–19 and married women aged 25 and above. The study aimed to explore experiences of menarche within the Dailekh district through the following research objectives: first, to document knowledge and practice surrounding Menstrual Hygiene Management (MHM); second, to assess the barriers to good MHM; and third, to understand the negative health, psychosocial and mental health consequences of poor MHM. The study also explored if there exists any local knowledge of Chhaupadi and its ban, with initial findings suggesting that locals are unconcerned with its illegality and continue the practice out of fear of God's actions if they cease to do so. Following transcription and translation, the data will be analysed thematically using NVivo.

Email: josephinemcallister@hotmail.co.uk

Monsoon flooding and early childhood health in India

Anna Dimitrova[1], Jayanta Kumar Bora[2,1]

[1]International Institute for Applied Systems Analysis, Austria, [2]Indian Institute of Dalit Studies,

India is expected to experience an increase in the frequency and intensity of floods in the coming decades, which poses serious risks to human health and well-being in the country. This paper aims to shed light on the possible detrimental effects of flood exposure on childhood undernutrition in India using the Demographic and Health Survey 2015–16, in combination with fine-resolution climate data. Undernutrition is captured through measures of stunting, wasting and being underweight among children aged 0–59 months. The standardized precipitation and evapotranspiration index (SPEI) is used to identify wetter than normal conditions during the monsoon season, which is a strong predictor of flood build-ups. We focus on children's early years of life, starting from in utero up until age five. The results of a multivariate logistic regression show that wetter than normal conditions during the monsoon season exacerbate undernutrition among rural children, while the effects on urban children are limited. Continuous exposure to wetter than normal conditions increases the odds of stunting by 23% for rural children (99% confidence) and has no effect on urban children. Further, climatic conditions in utero and during infancy can have long-lasting implications on the child's later development; rural children exposed to positive SPEI shocks during these early years continue to be at higher risk of stunting up to age five. Short-term effects are also found: rural children exposed to positive SPEI shocks during the latest monsoon months are at higher risk of being underweight (10% at 99% confidence).

Email: anna.dimitrova@iiasa.ac.at

Woman's status and children's nutrition across the developing world: An analysis across different gendered contexts

Marco Faytong-Haro

The Pennsylvania State University

While most of the previous studies focus on the impact of mothers' status, measured by individual resources, on their children's nutritional status, this paper argues that macro-level factors should always be taken into account when trying to understand the dynamics between women's status and child malnutrition. Data from 15 Demographic and Health Surveys from 13 low- and middle-income countries in Africa and South Asia are used to examine whether macro-level gender inequality counteracts the impact of women's bargaining power on child nutrition. The results show that the positive effects on child height of women's increased bargaining power in their household are stronger in countries with higher gender equality. The results suggest that changes in individual bargaining power may not be enough to explain changes in child nutrition, and that independent of individual resources, increases in macro-level gender equality may increase child height significantly.

Email: mxf461@psu.edu

The long-term effect of parental work hours on child development

Chia Liu, Jianghong Li

Max Planck Institute for Demographic Research, Germany

The study of the long-term impact of irregular or non-standard parental work hours on children's psychosocial development is critical in today's 24/7 economy. Past research has shown that both the father's and mother's unsociable work hours have a negative effect on child development, but little work has been done on the long-term developmental trajectory of children using cohort data. We use the longitudinal Millennium Cohort Study to examine the development of strengths and difficulties (SDQ) of children aged 3 to 14 years who have two working parents in England, Scotland, Wales and Northern Ireland, to capture the evolution of children's psychological attributes. The scale measures the degree to which a child experiences emotional symptoms, conduct problems, hyperactivity, and peer problems, and his or her degree of pro-socialness. We use a fixed effect model to measure the longitudinal effect of parental work hours on the SDQ scores of children, controlling for sex, family size (other caretakers in the household), race and family socio-economic status. This works aims to provide evidence for policymakers and stakeholders on the increasing need for conversation over work–life balance in creating a healthy, happy next generation.

Email: liu@demogr.mpg.de

Future cardiovascular disease risk for women with polycystic ovary syndrome or symptoms of polycystic ovary syndrome: A systematic review and meta-analysis

Andre Lo[1]*, Charmaine Chu Wen Lo[2]*, Clare Oliver-Williams[1,3] (*denotes equal contribution) [1]

[1]Homerton College, University of Cambridge; [2]Liverpool Hospital, Australia;

[3]Cardiovascular Epidemiology Unit Department of Public Health and Primary Care,

University of Cambridge

Aim: To quantify the risk of cardiovascular events for women with polycystic ovary syndrome or symptoms of polycystic

ovary syndrome: hyperandrogenism, menstrual irregularity and polycystic ovaries. Design: Systematic review and meta-analysis. Data Sources: PubMed, Scopus, and Web of Science. Eligibility Criteria: Studies examining the risk of a cardiovascular outcome associated with polycystic ovary syndrome or symptoms of polycystic ovary syndrome. Outcomes of interest included overall cardiovascular disease, heart failure and stroke. Two reviewers independently assessed the abstracts and full-text articles. Study characteristics and the relative risk of cardiovascular events associated with polycystic ovary syndrome or its symptoms were extracted from eligible studies. Where appropriate, estimates were pooled with inverse variance weighted random-effects meta-analysis and between-study heterogeneity was assessed. Results: Thirty-one studies evaluated the risk of cardiovascular events associated with polycystic ovary syndrome, menstrual irregularity or hyperandrogenism. Polycystic ovary syndrome diagnosis was associated with increased risk of cerebrovascular disease or stroke (relative risk 1.76, 95% confidence interval 1.04–3.00), but not overall cardiovascular disease (1.24, 0.92–1.68) or coronary heart disease (1.52, 0.84–2.77). Individuals who have menstrual irregularity or oligomenorrhea were at greater risk of coronary heart disease (1.32, 1.17–1.48). Conclusions: Polycystic ovary syndrome is associated with an increased risk of cerebrovascular disease or stroke. Irregular or infrequent menses is associated with greater risk of coronary heart disease. More research is needed to clarify the relationship between polycystic ovary syndrome or its associated symptoms and overall or other cardiovascular diseases.

Email: acql2@cam.ac.uk

Sustainable Development Goals and ageing

Laura Tolland, Sam Willis

Office for National Statistics

Age and ageing are an important part of the Sustainable Development Goals (SDGs). SDGs are a global set of 244 indicators, designed to 'end poverty, protect the planet and ensure that all people enjoy peace and prosperity'. There are some indicators that specifically require data on age. Alongside this, one of the main priorities of SDGs is to ensure that no one is left behind. This means meeting the targets and goals of SDGs for all nations, peoples and segments of society. There is a particular focus on the poorest and those who are the most vulnerable or marginalized in society. Therefore, all data must be broken down by characteristics defined by the United Nations. One of these required characteristics is age. We aim to have data on age for each of the 244 indicators, where appropriate. We already have age data for 47 indicators (19%) and we are looking to collaborate with data providers to continue to be world leaders in acquiring data to report on the SDGs. After all, if you can't measure it, you can't monitor it. The data are already highlighting interesting stories, showing where disparities lie between people of different age groups, for example in health, poverty, crime and inequalities. Our role in data provision at a disaggregated level is critical in highlighting who is being left behind and therefore where new policies and strategies need to be implemented to support these groups of people. The poster will introduce SDGs, highlight some of the relevant data and age disparities related to the SDGs and seek opportunities for collaboration and further data acquisition.

Email: laura.tolland@ons.gov.uk

An exploration of the impact of non-residential social networks on the subjective well-being of older people and how this varies by household social network composition

Eleanor Moonan-Howard, Athina Vlachantoni, Maria Evandrou

University of Southampton

Living alone in later life is an increasingly frequent occurrence, with 29% of all lone households in the UK (7.7 million) being estimated to be occupied by an individual over the age of 75, and this figure saw an increase of 24% over the two decades prior to 2017. The importance of an individual's social network for their subjective well-being has been long documented in academic literature. Yet little research has explored if the association between non-residential social contacts and well- being varies between those who do and do not live alone. With lone household formations on the rise, it is critical to better understand the association between an individual's wider social network and their well-being, for older people in different living arrangements. This research employs logistic regression models on data from the UK Household Longitudinal Survey to cross-sectionally explore the association between four types of non-residential social networks (friends, neighbours, kin, and social organizations) on subjective well-being (Satisfaction-with-Life-Scale). It aims to seek how this association varies for those living alone compared with those in alternative household formations, thus understanding the potential for social isolation of a key marginalized group. Preliminary findings suggest that older people's friendships and neighbourhood contacts play a more critical role in their subjective well-being than their family networks, and that these ties are different in nature and more important for older people living alone than for those in larger household formations.

Email: emh1n16@soton.ac.uk

Pathways into informal care provision

Maja Emilie Fugslang Palmer

University of Southampton

Informal care is pivotal to the care provision system in England. Population ageing contributes to growing demands for social care, in addition to the rising cost of healthcare. The patterns of informal care provision, carers' characteristics and the impact of care provision have been studied to a large extent; nevertheless, little is known about the dynamic pathways into informal care provision, which is a central part of ensuring future care provision.

The research used multivariate longitudinal statistical analysis of the English Longitudinal Study of Ageing (ELSA), waves 4 (2009) to 7 (2015), and aimed to explore the pathways into informal care by individuals aged 50 and over, in order to better understand possible predictors of transitions into the caring role.

The results showed a high short-term turnover of carers entering and leaving the caring role. Analysis of longer-term transitions found almost 40% of the 'repeating carers' had transitioned between caring for different care-recipients. Carers had better self-reported health prior to initiating the role compared with non-carers, which points to evidence of a '*healthy carer effect'.* This evidence adds to our understanding of dynamic caring patterns and the effects of caring. Policymakers are recommended to take a holistic approach to policies supporting carers.

Email: Maja.Palmer@soton.ac.uk

A gender perspective for understanding health disparities between natives and migrants by duration of stay in Italy

Eleonora Trappolini, Cristina Giudici

Sapienza University of Rome, Italy

This study is the first in Italy to examine health disparities between natives and migrants by duration of stay from a gender perspective. It also aims to verify the existence of a migrants' health convergence to natives' health by duration

of stay and whether such a convergence pattern differs by gender. Using the latest Health Survey available for Italy (2013) and performing multivariate logistic regression, we assess the association between duration of stay and three health outcomes, and we estimate interaction effects of duration of stay with gender. Preliminary results show firstly the existence of gender disparities in self-rated health, functional limitations and chronic illnesses between and within Italians and migrants.

Secondly, they show a migrant–native health convergence that differs by gender. This study calls attention to the lack of empirical evidence on the links between gender, migration and health. Furthermore, it contributes to a better understanding of the role of gender both on health and on the immigrant–native health convergence process. A gender perspective is needed to improve or develop health policies for migrants.

Email: eleonora.trappolini@uniroma1.it

Migrant–native differentials in the uptake of childcare arrangements in Belgium – Availability of informal and formal childcare provisions

Naomi Biegel, Karel Neels

University of Antwerp

The rising female labour market participation in recent decades has entailed the challenge for parents of negotiating work and family responsibilities and organizing childcare. Previous research indicates that especially migrant families seem to struggle to organize childcare. While Belgium is among the European countries with the highest availability of formal childcare, female labour market participation and uptake of childcare is substantially lower among the migrant population. In this paper we explore how access to and uptake of formal and informal care is stratified by migration background. We use data from the 2001 Belgian Census, which provides us with information on the uptake of (in)formal childcare. We model uptake of formal, informal and mixed (formal & informal) childcare arrangements by means of multinomial logistic regression and distinguish between first- and second-generation migrants. Additionally, we control for a number of individual- and household-level characteristics, as well as availability of grandparents, by controlling for spatial proximity and characteristics of grandparents. We include contextual information on childcare coverage at the municipality level and the number of subsidized places. Preliminary results indicate that mothers with a migrant background are overall less likely to have any type of childcare arrangement. Differences in socio-economic position, employment opportunities and local availability of formal childcare explain a substantial part of the differential uptake in formal childcare between native Belgian mothers and mothers with a migrant background, although large differences remain. The lower probability of using informal childcare seems to be related to other factors.

Email: Naomi.Biegel@uantwerpen.be

Are asylum seekers from conflict-affected countries to Europe economic migrants?

Tomoya Suzuki

Faculty of Economics, Kansai University, Japan

Asylum seekers increased rapidly in Europe during the 2010s. Syrian, Afghan and Iraqi applicants recently accounted for the top three citizenships of first-time asylum applicants in the European Union. This study investigates the driving forces of asylum seekers by using data on the number of asylum applicants in European countries from these three conflict-affected countries. For this purpose, a gravity model is employed. Gravity models are inspired by Isaac Newton's gravitational law, which states that the force between two objects depends on their distance. The net flow of asylum

seekers from a country to another is assumed to depend on the geodesic, economic and cultural distances between the countries. This study estimates the effects of these distances on the inflows of asylum seekers to Europe within a framework of generalized linear mixed models. The economic distance is measured by the ratio of per capita income in the destination country to that in the source country. The cultural distance is constructed using the Hofstede measures. The sample spans the period 2000–16. The main findings are as follows. The asylum seekers do not significantly respond to the economic distance. This insignificance contrasts with findings in the literature that migrants are pulled away from their home countries by high income levels in more developed countries. Thus, this study denies the view that asylum seekers in Europe should be treated as opportunistic economic migrants. Furthermore, this study finds that asylum seekers attach more importance to cultural and geographical factors than to economic factors.

Email: tomoya@kansai-u.ac.jp

Impact of migrants on UK industries

Becky Mason

Analytical Impact Team, Office for National Statistics

To help inform policy debate, the Office for National Statistics (ONS) has been exploring the impact that migration has on UK industries. Some industries have a higher proportion of migrant workers compared with other industries. In addition, some regions, such as London and the South East, have higher migrant populations so would be more sensitive to changes in the composition of the labour market.

In the past year ONS has produced new insights into the contribution of migrants to the agriculture, construction and education sectors. This is part of the continued transformation of migration and population statistics; we have now gone further by looking at the tourism and health sectors, which are both big employers of non-British nationals.

We will be presenting the recent research carried out at ONS, exploring the impact of migration on the agricultural, construction, tourism, health and education industries. This will include presenting what the available data can tell us about migrants in these industries and highlighting the difficulties in capturing seasonal workers. In addition, we will suggest next steps that could be made to improve data quality in these areas.

Email: rebecca.mason@ons.gsi.gov.uk

The geography and spatial differentiation of baby factory activities in Nigeria

Ugochi Nkwunonwo, Lana Chikhungu

School of Area studies, History, Politics and Literature, University of Portsmouth

Baby factory activity is a term that describes the illegal buying and selling of babies within the context of Nigeria, and has clearly heightened research concerns. As a form of trafficking, baby factories have grave societal impacts within the global context, although they are more distressing for Nigeria due to the perceived and predictable moral and humanistic implications. However, current knowledge has failed to provide a full disclosure of the scale of its spread within the present context. This study aims to discover how baby factory activity is linked to the geographical identities of Nigeria and how culture and beliefs exacerbate its spread. A systematic review of literature on baby factories from 2006 to 2018, as well as other existing data in newspapers and the frontline media, will be undertaken. Using a geospatial analysis tool within the ESRI ArcGIS 10.5.1 environment, the spatial attributes of baby factories in Nigeria will

be mapped into themes underscoring the geography and spatial extent of their prevalence within Nigeria. The outcome of this study will shape policy and contribute knowledge to the current measures of tackling not only baby factory activities, but also human trafficking in Nigeria and beyond.   Email: UP813058@myport.ac.uk

Prevalence and geographical variation of dementia in New Zealand from 2012 to 2015: Utilizing big data within the Integrated Data Infrastructure

Daniel Exeter[1], Sheree Gibb[2], Phil Wood[3,4], John M Starr[4], Tom C Russ[4]

[1]University of Auckland, [2]University of Otago, [3]North Shore Hospital, Alzheimer Dementia Prevention Research Centre, Ministry of Health, New Zealand, [4]Alzheimer Scotland Dementia Research Centre, NHS Lothian

Introduction: Dementia is a worldwide public health concern. Understanding country-specific disease is essential for health policies and services. Currently, New Zealand (NZ) has no dementia epidemiological studies. Utilizing routinely collected healthcare data can help understanding of dementia. NZ has a big data resource called the Integrated Data Infrastructure system (IDI). Our aims were: (1) Investigate prevalence of late-onset dementia using the IDI, 2012–15; (2) Compare this with published estimates; and (3) Compare variation between North and South Islands. Methods: We used a population- based, retrospective cohort design analysing routinely collected health/administrative data within the IDI. NZ individuals aged ≥60 years in 2012–15 were included. Dementia was defined by ICD-10-AM (Australian Modification) dementia codes or by receiving an anti-dementia drug. Dementia sub-types and demographics were obtained and cases of dementia calculated for each year, dementia subtype, and geographical region. Ethical approval was granted by the University of Auckland. Results: The number of dementia cases were 11,724 in 2012 and 12,528 in 2015, 0.27% of NZ's population in 2015. As anticipated, not all with dementia were prescribed drugs, nor did all those prescribed a drug have a dementia diagnosis recorded in hospital records. Around 11% of individuals had more than one dementia diagnosis/subtype.

Dementia numbers were higher in North vs. South Island. Conclusions: This is the first study ascertaining dementia using NZ data. Our results are lower than published NZ estimates. Several possible reasons for this will be discussed. Despite limitations of big data research, our results may more realistically reflect the differences in NZ.

Email: d.exeter@auckland.ac.nz

Determining where people are: An analysis of geocoding

Phil Humby

Office for National Statistics

When people respond to a survey or are recorded on an administrative system, they log address information, but do we record them where they actually are? We wanted to assess the variation that could be generated from a simple change to the geocoding, specifically the version of geography applied to a dataset through the geocoding method. The basis for the application of a version of geography on some administrative datasets at ONS has tended to be the latest one available when the data are received rather than by scientific determination. We wanted evidence to determine the validity of this approach. We took a comprehensive administrative dataset and applied a single method with five versions of geography to gauge the likely impact this might have across the population. We assessed the impact at four levels of geography – local authority, MSOA, LSOA and OA – by looking at the change in total population for a given area. While the levels of geocoding were high throughout, more people were geocoded as time went on, suggesting that later versions better captured housing developments. The results showed there was variation, with some people being allocated to different areas while address information was unchanged. There were some interesting quirks in the

geographic allocation that were corrected over time. The results also showed that there were more reallocations at lower levels of geography. The principle conclusion was that the existing basis for determining the version of geography used in geocoding was sufficient for production of population statistics.

Email: philip.humby@ons.gov.uk

Social media markets for survey research in comparative contexts: Facebook users in Kenya

Katherine Hoffman Pham, Francesco Rampazzo, Leah R. Rosenzweig

University of Southampton

As internet and cell phone use spread, a growing number of citizens in developing countries are getting online and using social media. Can social media platforms provide a cheaper, faster, and more reliable mechanism for reaching populations that are currently expensive to survey in comparative contexts? We examine this question using the case of Facebook users in Kenya. First, we obtain the demographic profiles of Facebook users in Kenya using the Facebook advertising platform, which provides data on users' location and demographic characteristics for marketing purposes, and compare them with the overall population as measured by census data. Second, emulating the sampling strategy used by a well- known nationally representative survey (Afrobarometer), we use Facebook advertisements to recruit online survey respondents. Respondents are asked a series of questions that appear on nationally representative surveys, and are presented with established behavioural survey experiments. Here we present our preliminary results from the pilot survey run during July 2019. The next step is to run the full-scale survey immediately following the 2019 census and the Afrobarometer.

Email: F.Rampazzo@soton.ac.uk

How do we live? Now and in the future?

Saffron Weeks

Office for National Statistics

Responsibility for producing household projections for England transferred from the Ministry of Housing, Communities and Local Government (MHCLG) to the Office for National Statistics (ONS) in January 2017. ONS consulted on a range of methodological changes to the household projections, seeking to increase the accessibility and efficiency of the methods and improve consistency with the subnational population projections (SNPPs). One year on from the first publication of the 2016-based household projections for England, this poster will present the findings of the 2016-based household projections, showing how the number and composition of households could vary between 2016 and 2041. It will also explore what this could mean for how we live in the future.

Email: saffron.weeks@ons.gov.uk

Occupations in the ONS Longitudinal Study

Elizabeth Pereira

Office for National Statistics

The ONS Longitudinal Study (LS) contains linked census and life events data for 1% of the population of England and Wales. Information is linked from five successive censuses (1971 to 2011) and life events data, including birth, death and cancer registrations. The LS contains information on households, economic activity, qualifications and living arrangements at each Census, supporting studies on the life course.

The poster aims to highlight the research potential of the ONS LS to chart the course of demographic change in England and Wales. The number of possible research topics is large, and members of the LS Team will be on hand at the conference to discuss possible uses of the LS. There will be an interactive game on the poster, which will allow individuals the opportunity to try to match different occupations to a number of statistics based on findings from the LS.

Email: Elizabeth.Pereira@ons.gov.uk

Targeting cash transfers on the 'poorest of the poor' in the slums: How well does the Kenya's older persons cash transfer programme perform?

Gloria Langat, Nele van der Wielen, Maria Evandrou, Jane Falkingham

University of Southampton

In resource-poor environments, identifying those most in need of limited available resources is challenging. Kenya's older persons cash transfer programme (OPCTP) targeted at the poorest uses a two-stage targeting process to identify beneficiaries, combining community-based selection with a proxy means test. This study investigates whether the process 'correctly' identifies targeted vulnerable older people in Nairobi's informal settlements and whether receipt of the OPCTP results in an improvement in well-being. Regression results show that individuals with greater need are covered under the OPCTP. Using propensity score matching, the paper evidences that the OPCTP improves subjective well-being among beneficiaries.

Email: n.van-der-wielen@soton.ac.uk