



## News

2016 has been an exciting year for the department so far, evidenced by the international scope of research and events within the department and further afield.

The success of the Division of Social Statistics and Demography was celebrated at the SUSU Academic Awards on the 5th May, as members of the staff and student community took home some well-deserved awards. We would like to extend our congratulations to Professor Sabu Padmadas for “Most Engaging Lecturer”, Dr Jennifer Holland for “Best Academic Support” for the Faculty of Social, Human and Mathematical Sciences and undergraduate student Bradley Tombleson for “Best Academic Representative”.

The second year BSc Population and Geography students recently returned from a successful field work trip to Ghana with their Applied Population Research Methods Course.

Finally, on behalf of the department we would like to congratulate Amos and his wife on the birth of their baby girl, Lyra!

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# Welcome to our new staff

We would like to extend a warm welcome to newly appointed staff within the Division of Social Statistics and Demography, as well as to those who have recently been promoted:

## Heini Väisänen Lecturer, Social Statistics & Demography



Heini's research interests are in social demography—more specifically sexual and reproductive health, access to family planning and the global dynamics of pregnancy intentions. She also uses advanced quantitative methods and longitudinal, multilevel and event-history modelling.

## Dr James Robards Research Fellow, NCRM



James is now working with Professor David Martin on Work Package 4: "The anatomy of disclosure risk in a world of linked population data". Prior to this James was a Research Fellow on the EPSRC Care Life Cycle project.

## Sarah Wo Module Coordinator, STAT1003



Sarah is currently researching within cohort differences in private pension participation. Her research interests are in population ageing and financial provision in later life.

## Kristine Nilsen Senior Research Assistant



Kristine is currently working with Professor Zoë Matthews on the Belmont Forum DELTAS Project. Other interests include health inequalities and outcomes, health care utilisation and social health.

## Angela Luna Hernandez Lecturer, Social Statistics



Angela's main interests are small area estimation, survey sampling and official statistics and her research focuses on the use of SPREE-type estimators for the small area estimation of compositional data.

## Dr Olga Maslovskaya Senior Research Fellow, NCRM



Olga is currently working on the project "Data Collection for Data Quality" (Work Package 1). Prior to this Olga was a Postdoctoral Research Fellow working on the ESRC-funded project "The Use of Paradata (Field Process Data) in Cross-Sectional and Longitudinal Surveys".

## Dr Jamie Moore Research Fellow, ADRC-E



Jamie's work with Dr Gabriele Durrant and Professor Peter Smith currently considers the monitoring and management of survey non-response errors and similar monitoring of errors caused during data linkage.

# PAA Report

**This spring, the Population Association of America Annual Meeting returned to Washington, DC, bringing with it a strong showing of Southampton-led demographic research. Department staff, research fellows and PhD students presented 14 papers and posters on a broad range of topics.**

As usual, the work of Southampton colleagues was the highlight of a number of sessions on Fertility and Family. Ann Berrington considered [how women and men understand their experience of childlessness](#). Doctoral student Bernice Kuang presented a chapter from her thesis, co-authored by Brienna Perelli-Harris and Sabu Padmadas, exploring [the rise of cohabitation in the Philippines](#). Jennifer Holland presented a [poster](#) and a [paper](#) (the latter co-authored with Brienna) on the consequences of union type and union histories for stability, childbearing and mortality in the Nordic countries.

Our colleague and Dean Jane Falkingham showcased work with colleagues in the Department of Gerontology investigating [reciprocal support between adult children and parents](#). At the other end of the life course, Research Fellow Gabriella Mejia-Pailles, Vicky Hosegood and Ann Berrington explored how [children's fluid living arrangements influence caregiving dynamics in South Africa](#).

Research Fellow Marta Styrc and Brienna co-authored papers exploring [the importance of union type for mid-life health and happiness and the context of childbearing for mother's health](#).

Health intervention research was also highlighted in Nyovani Madise's collaborative work on [strategies for promoting breastfeeding in Kenya](#).

Jakub Bijack also organized a session highlighting cutting edge research in [Statistical Demography](#).

All in all, another great year for Southampton demographic research at the PAA. Well done!

To find out more about our members of staff and their interests, head to <http://www.southampton.ac.uk/demography/>



## UN International Day of Families

On the 15th May, the International Day of Families was observed, to increase awareness of the social, economic and demographic challenges faced by families and to ensure that families remain the focus of social well-being. Professor Ann Berrington and Dr Agnese Vitali have co-authored a blog post which was published by [The Conversation](#).

## BSc Population and Geography field-work trip to Ghana

The 2nd year BSc Population and Geography students from the Department of Social Statistics and Demography travelled to the University of Ghana in Accra in March as part of their Applied Population Research Methods field-trip. They worked with the Regional Institute for Population Studies looking at how demographic and geographic research is conducted in a real field context.

### The Potters Village

Students had the chance to visit The Potters Village, a women's and children's NGO, where they were welcomed and informed about the fantastic projects to provide shelter for children and women. The second year Population and Geography students raised a fantastic £311 for the NGO through fundraising events at the University.



### Visit to Ga Mashie

Students had an intense experience as they were guided through the slum of Ga Mashie by staff from GaMaDa – a sub-agency of Accra City Council. They were shown how the organisation is working to pave the alleys and create open spaces for children. Students also learnt about the ways in which each structure and household was numbered to help recognise respondents for future visits.

### Methodological Skills

The following day, the students then analysed real data relating to the Ga Mashi neighbourhood. This experience of quantitative analysis was complemented by a full day carrying out semi-structured interviews with residents in a small coastal community – an interesting experience without translators!

To find out more about the Ghana trip, visit their [blog](#).

## PGR student stories: Nele Van der Wielen in Ghana



**Nele is a PhD student within the Division of Social Statistics and Demography, whose research examines health insurance as a strategy to move towards universal health coverage in Ghana.**

“Last year I had the great opportunity to live in Ghana for 3 months. The aim of this trip was to deepen my understanding of the health situation there to

deepen my understanding of the health situation there. It enabled me to share my research findings with top scholars in the field of health research and benefit from their expertise due to close cooperation.

“Together with the Human Help and Development Group and the Ghanaian National Health Authority, we developed a project aiming to provide older adults in Ghana with a National Health Insurance card giving free access to health care. It responds directly to a key puzzle in my research: Why are older adults who are often most likely to benefit from enrolling in the Ghanaian National Health Insurance scheme not enrolling?”

“As my PhD research is ongoing and I continue to uncover further clues to the reasons behind lack of uptake, I am now in a position to work with partners to identify further innovative ground-led interventions (thanks to my fieldwork trip).”

# Updates from research centres

## Centre for Global Health, Population, Poverty and Policy (GHP3)

**GHP3's current research addresses a wide range of critical global health issues and challenges related to the achievement of the UN Sustainable Development Goals.**

Recent (ongoing and completed) projects include:

- (i) Wellcome Trust funded project on cluster randomised trials to promote exclusive breastfeeding through personalised nutrition counselling to women in the slums of Nairobi;
- (ii) DFID funded programme on Evidence for Action (E4A) for maternal and newborn health in six African countries;
- (iii) DFID/ESRC/NERC funded Ecosystems Services for Poverty Alleviation (ESPA) deltas project;
- (iv) WHO funded project on social determinants of non-communicable diseases in Mauritius;
- (v) ESRC impact acceleration project on the integration of maternity care into Community-based Health Planning and Services (CHPS) in Ghana;
- (vi) British Academy funded programme of quantitative research addressing the patterns, trends and determinants of adolescent childbearing in developing countries; and
- (vii) IDRC/UKAID funded Deltas, Vulnerability & Climate Change: Migration & Adaptation (DECCMA) project assessing the health impact of climate change in the delta populations.

These research projects are aimed at influencing evidence-based policies and interventions for improving the livelihood, health and wellbeing of populations across different ages in middle- and low-income countries.



## Centre for Population Change (CPC)

Dr Agnese Vitali has won a prestigious ESRC Future Research Leaders grant. Dr Vitali's research will investigate the prevalence of [female-breadwinner families](#) (families in which women are the sole or main income provider) in Europe.

Despite the increase of female-breadwinner families in developed countries, little is known about who these couples are, how and why they emerge, and what trends in female breadwinning mean for women, men and children.

The CPC are also pleased to announce that they are undertaking a programme of research in response to the '[UK in a Changing Europe](#)', which will contribute directly to the debate on the UK's changing relationship with the European Union and the role of population changes in this context.

Information on upcoming seminars organised by the CPC can be found [online](#).

## National Centre for Research Methods (NCRM)



The NCRM are pleased to announce that the 7th ESRC Research Methods Festival will take place in July. Main festival themes include international knowledge exchange, cohort and longitudinal methods, analysis of complex data sets, pedagogy of methods and careers and skills development.

[Book](#) your place up until the 13th June.

ESRC wishes to improve the standards of research methods and to stimulate the uptake of high quality training courses in research methods across the UK social science community. The bursaries, for up to £500 each, enable staff in the UK social science community engaged in research, teaching research methods or supervising research. The primary goal of the NCRM is to increase the quality and range of methodological approaches used by UK social scientists. From the 1st October 2015 the NCRM have been accepting applications for NCRM funded courses throughout the year. Courses funded by NCRM are highlighted with a blue circle on the [training database](#).

Please see the [website](#) for information regarding the bursary application procedure.

# Updates from research centres



## Administrative Data Research Centre for England (ADRC-E)

The Administrative Data Research Centre for England is led by the University of Southampton and is part of the Administrative Data Research Network (ADRN). The ADRN helps researchers gain access to de-identified administrative data so they can carry out [social and economic research](#) – research that has the potential to benefit [society](#).

Researchers can apply to the Network with a research idea and request access to datasets. The Network collaborates closely with government departments to make administrative data available to researchers, but we negotiate this with them on a case-by-case basis. Researchers can access the data in our Administrative Data Research Centres in [England](#), [Scotland](#), [Northern Ireland](#) and [Wales](#). Our [catalogue](#) gives you some information about administrative data that have been used for research in the past.

### How can the ADRN support you?

The ADRN is a free service that supports research projects by:

Assisting with the initial scoping of your project and needs; advising on potential data sources, time-scales and next steps; guiding you through the approval process; securing data approval and access; linking datasets; providing accreditation training; providing secure labs for analysts to carry out research; support with finalising analysis and sharing results with a target audience.

Members of the ADRC-E regularly present research findings at global research conferences and will be closer to home at the [7<sup>th</sup> NCRM Research Methods Festival](#) in Bath in July and annual [ADRN Conference](#) in London in June. Registration is now open for both these events.

Discover more about the ADRC-E by visiting our [website](#) where you can view a [short video](#) of what we do, listen to our [training podcasts](#) and read about our latest [news and events](#). You can also follow us on Twitter [@ADRC\\_E](#) or contact [adrce@soton.ac.uk](mailto:adrce@soton.ac.uk).

### Congratulations

Congratulations to Dr. Nikos Tzavidis for securing an ESRC grant for a project developing ‘Innovations in small area estimation methodologies’.

This project will develop novel SAE methodologies that overcome key SAE challenges whilst simultaneously tackling real-world applied policy priorities in the partner organisations (ONS, CONEVAL, WAG and IBGE).

### Meet an alumnus: Dr Rob North



Rob completed a PhD in social statistics in 2015. His PhD focused on developing new methods for correlated categorical data and used both traditional frequentist methods as well as Bayesian techniques. Following completion of the PhD he pursued careers outside of academia and found employment at the Office for National Statistics (ONS) in Titchfield after deciding to not move to London. Rob’s current work at the ONS focuses on new small area estimation methods for estimating income at low level geographies in England and Wales and is of both an interesting and challenging nature. Despite leaving Southampton University, Rob has maintained good connections with the University due to collaboration between the ONS and academic colleagues in social statistics.

## Conferences and festivals

The International Conference on Sequence Analysis and Related Methods	University of Lausanne, Switzerland	8-10 June
The 5th International Conference on Establishment Surveys	Geneva, Switzerland	20-23 June
First Annual Conference of The Political Methodology Group of the Political Studies Association	UCL, London	27 June
PopFest: 24th Annual Postgraduate Population Studies Conference	University of Manchester	4-6 July
7th ESRC Research Methods Festival	University of Bath	5-7 July
Small Area Estimation Conference 2016	Maastricht, The Netherlands	17-19 Aug
International Conference on Principles and Practice of Multi-Agent Systems	Phuket, Thailand	22-26 Aug
European Population Conference 2016	Johannes Gutenberg University, Mainz, Germany	31 Aug-3 Sept
2016 Annual Conference of the British Society for Population Studies	University of Winchester	12-14 Sept
2nd European Society for Historical Demography Conference	Leuven, Belgium	21-24 Sept
European Consortium for Sociological Research 2016 Conference	Oxford, UK	22-24 Sept
The First RC33 Regional Conference on Social Science Methodology	Academia Sinica, Taipei, Taiwan	11-14 Sept <b>2017</b>

## Summer schools

Utrecht Summer School (Social Sciences)	Utrecht, Netherlands	April-August
ICPSR Summer Program in Quantitative Methods of Social Research	Various Locations	May-August
Historical Demography: Reconstructing Life Course Dynamics	Radboud University, Nijmegen, Netherlands	4-15 July
Essex Summer School in Social Science Data Analysis	University of Essex	11 July-19 Aug
European Consortium for Political Research Summer School in Methods & Techniques	Central European University, Budapest, Hungary	28 July-13 Aug
The GESIS 5th Summer School in Survey Methodology	Cologne, Germany	4-26 Aug
The Swiss Social Science Research Methods School	Università della Svizzera Italiana, Lugano, Switzerland	19 Aug-2 Sept
LSE Methods Summer Programme	LSE, London	15-26 Aug

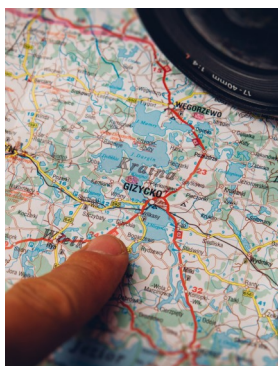
# Selected Publications



## Estimating the density of ethnic minorities and aged people in Berlin: multivariate kernel density estimation applied to sensitive geo-referenced administrative data protected via measurement error.

Groß, M., Rendtel, U., Schmid, T., Schmon, S. and Tzavidis, N.

Modern systems of official statistics require the timely estimation of area-specific densities of subpopulations. Ideally estimates should be based on precise geocoded information, which is not available because of confidentiality constraints. One approach for ensuring confidentiality is by rounding the geoco-ordinates. We propose multivariate non-parametric kernel density estimation that reverses the rounding process by using a measurement error model. The methodology is applied to the Berlin register of residents for deriving density estimates of ethnic minorities and aged people. Estimates are used for identifying areas with a need for new advisory centres for migrants and infrastructure for older people.



## Outlier robust small area estimation under spatial correlation

Schmid, T., Tzavidis, N. Muennich, R. and Chambers, R.

Modern systems of official statistics require the estimation and publication of business statistics for disaggregated domains, for example, industry domains and geographical regions. Outlier robust methods have proven to be useful for small-area estimation. Recently proposed outlier robust model-based small-area methods assume, however, uncorrelated random effects. Spatial dependencies, resulting from similar industry domains or geographic regions, often occur. In this paper, we propose an outlier robust small-area methodology that allows for the presence of spatial correlation in the data. In particular, we present a robust predictive methodology that incorporates the potential spatial impact from other areas (domains) on the small area (domain) of interest. We further propose two parametric bootstrap methods for estimating the mean-squared error.



## Modelling complex survey data with population level information: an empirical likelihood approach

*Biometrika*

Oguz Alper, M., & Berger, Y. G.

Survey data are often collected with unequal probabilities from a stratified population. In many modelling situations, the parameter of interest is a subset of a set of parameters, with the others treated as nuisance parameters. We show that in this situation the empirical likelihood ratio statistic follows a chi-squared distribution asymptotically, under stratified single and multi-stage unequal probability sampling, with negligible sampling fractions. Simulation studies show that the empirical likelihood confidence interval may achieve better coverages and has more balanced tail error rates than standard approaches, which involve variance estimation, linearization or resampling



## The Progression of Sexual Relationships

*Journal of Marriage and Family*

Sassler, S., Michelmore, K., & Holland, J. A.

The authors examine factors associated with the advancement or dissolution of newly formed sexual relationships. Data from the 2006–2010 National Survey of Family Growth (NSFG) was used to examine women and men aged 18–39 ( $n = 2,774$ ) whose most recent sexual relationship began within the 12 months before their interview. Results indicate that newly formed sexual relationships are often transitory. By 12 months, only 23% of respondents remained in non-residential sexual relationships, another 27% were cohabiting with that partner, and half had ended their relationships. Sexual relationships formed before age 25 are significantly more likely to break up than to transition into cohabitation. Indicators of social class disadvantage, such as living with a stepparent, expedited cohabitation, whereas measures of advantage, such as having a college-educated mother, deterred transitions into shared living. Racial differences also emerge: Blacks were less likely than Whites to transition rapidly into shared living.

# PGR student stories: Bernice Kuang in The Philippines



**Bernice is a PhD student within the Department of Social Statistics and Demography, whose research focuses on marriage and fertility in the Philippines.**

“For 6 weeks earlier this year, I lived in the Philippines as a visiting fellow at the University of the Philippines Population Institute (UPPI) and as a technical consultant for the Population Commission (PopCom) of the Philippines – a national level family planning agency part of the department of health.

During my time at UPPI, I networked with in-country researchers to gather feedback on my PhD and acquainted myself with literature and ongoing projects that weren't accessible outside the country. With help from UPPI, I was able to staff up

a research team to collect focus –group data for my PhD and have the scripts transcribed and translated. At PopCom, I spearheaded the creation of advocacy material to galvanize multi-sectoral support for family planning as a development strategy. I also taught several modules at a population and policy training for civil servants of PopCom in Region 8 and was given the opportunity to write a paper about pregnancy and marriage for Region 5.

My time spent abroad was immensely helpful as I learned so much from working with in-country experts, from being in the field, and from simply talking to the people I encountered just being in the country- at work, at the university, in taxicabs, at the gym and at the grocery store. Being in country allowed me to get a much better sense of the people, the culture, and the socio-political context that would have been impossible to learn from my desk in Southampton and that has proven invaluable for my PhD. “

## About Us

### **Social Sciences: Social Statistics & Demography**

Since the Division of Social Statistics was founded in 1975, we have been at the forefront of international research on methodology for the design and analysis of sample surveys. Today, we are a leading international centre for research in social statistics.

Our research covers a broad range of topics including demographic estimation and statistical modelling; the family, life course and ageing; historical demography; HIV/AIDS; reproductive and child health in the developing world; poverty and living standards in both rich and poor countries. We have been recognised by the ESRC as an outlet for the receipt of its research training studentships. We are therefore able to offer financial support to well-qualified UK/EU candidates.

For more information please visit our [website](#)

You can also find us on [Facebook](#)

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