



All hands research seminar day – 5 December 2016

Maitland room, Iris Murdoch Building, University of Stirling

09.05-09.40	Camilla Barnett (Univ. Stirling)	Comparing social stratification measures
09.40-10.15	Alana McGuire (Univ. Stirling)	Measuring Big Data skills using quantitative methods
10.15-10.50	Diarmuid McDonnell (Univ. Stirling)	Promoting charity transparency: Understanding disclosure of serious incidents
10.50-11.15	Coffee/tea*	
11.15-12.00	Kevin Ralston (Univ. Edinburgh)	Are the ideas that there are generations and cultures of worklessness 'properly held beliefs'?
12.00-12.45	Mark Tranmer (Univ. Glasgow)	Using the Social Relations Model (SRM) to investigate occupational similarities amongst married couples in the UK at two time points
12.45-13.30	Break/lunch*	
13.30-14.15	Dave Griffiths (Univ. Stirling)	Combatting or creating democratic deficits: The potential influence of Facebook on UK election outcomes
14.15-15.00	Tom Wallace (Univ. Stirling)	The Scottish Third Sector on Twitter: Inter-charity and charity-infrastructure networks
15.00-15.30	Tea/coffee*	
15.30-16.15	Vernon Gayle (Univ. Edinburgh)	Night flight to Jupyter: Using Jupyter notebooks in the social science workflow
16.15-17.00	Alasdair Rutherford (Univ. Stirling)	The Yule-Simpson Paradox: When cross-tabs attack!
17.00	Close / Drinks*	

Updated: 29 November 2016

*Tea/coffee breaks and lunch are left to own arrangements but we will meet in the departmental common room, 3S15, subject to availability. Drinks/dinner afterwards at time and location tbc.

Abstracts received

Social Surveys and Social Statistics research group, all hands seminar day, 5 December 2016

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Camilla Barnett

Comparing social stratification measures

This presentation will consider the importance of the selection of particular social stratification measures for gender and family attitudes research. Presenting a series of regression results with data from the 2002 Families and Demographic Change module of the International Social Survey Programme.

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Vernon Gayle

Night flight to Jupyter: Using Jupyter notebooks in the social science workflow

I will provide a live demonstration of using Jupyter Notebooks (<http://jupyter.org/>) and discuss their benefits and restrictions as a tool for undertaking analyses of social surveys.

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Dave Griffiths

Combatting or creating democratic deficits: The potential influence of Facebook on UK election outcomes

During the 2010 US presidential election, messages were inserted into people's Facebook feeds to encourage (non-partisan) voting, which was believed to have increased the overall turnout by 0.14% (Bond et al. 2012). This research has largely been viewed positively, and uncritically, by the UK political establishment, whilst the Electoral Commission has worked with Facebook to encourage voter registration and turnout (Electoral Commission 2016). Whilst most strategies at enhancing turnout are structurally restricted to non-partisan dissemination of pro-voting messages, social media companies have the ability to both identify likely political attitudes of its users and also target individuals to receive specific messages. Thus, Facebook has the potential to increase the turnout for some political parties, but not others.

Using data from Wave 6 of Understanding Society to harness political affiliation of social media users geographically, this study explores whether Facebook could have changed the outcomes of constituencies in the 2015 General Election if targeted messages were used. This study explores the potential impact that social media companies could hold upon political parties' outcomes in election, contemplating the consequences which might occur from any democratic deficits identified.

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Diarmuid McDonnell

Promoting charity transparency: Understanding disclosure of serious incidents

Charities are under increasing pressure to be accountable. This is an issue for both regulators concerned about supporting a healthy sector, and charities concerned about maintaining public trust. While there is a gap in our understanding of the distribution of risk across the charitable sector, the quantity and quality of administrative data held by charity regulators has been growing. Using a novel dataset collected by the Scottish charity regulator, we provide the first analysis of the characteristics of charities voluntarily disclosing details of serious incidents that may threaten their assets and reputation. We show that both disclosure and risk vary by organisational characteristics, and argue that understanding these patterns will help those charity regulators moving to a risk-led approach to regulation.

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Alana McGuire

Measuring Big Data skills using quantitative methods

This talk presents some preliminary findings from my PhD. Two Big Data skills proxy variables from the Birth Cohort Study and the Employer Skills Survey are proposed and explained, looking at limitations and strengths of using these. I will also explore how going forward, these proxies can be tested for robustness.

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Kevin Ralston & Vernon Gayle

Are the ideas that there are generations and cultures of worklessness 'properly held beliefs'?

Politicians regularly make statements to the effect that there are two, three or even four generations, within the same family, that have never worked. Politicians are also on record as stating that there is a something for nothing culture. These concepts of generations and cultures of worklessness regularly appear in the traditional print media, internationally and in academia. Where the reasons for holding a belief are adequate and the belief formed from the available evidence is adequate, the belief may be understood as properly held. Where this is not the case the belief is improperly held. This paper uses the British Household Panel Survey to link information on individuals and between generations to assess whether belief in generations and cultures of worklessness are 'properly held'. The level of intergenerational worklessness is quantified and the circumstances of those out of work assessed. The descriptive analysis confirms previous research which finds no evidence for the generations and cultures theses. In the absence of corroborating evidence it is argued that the concepts of generations and cultures of worklessness should be treated as improperly held beliefs and it is time they are done away with.

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Alasdair Rutherford

The Yule-Simpson Paradox: When cross-tabs attack!

Simpson's Paradox describes the situation where the 'pure' association between two variables (X, Y) is reversed for all values of a third variable, Z. This unintuitive result has a straightforward arithmetic explanation, but can still cause confusion amongst analysts when observed. Once the phenomenon is understood, the question remains: is the 'true' association between X and Y observed with or without the conditioning variable Z? I argue that exploring this question demonstrates the importance of being driven by theory in model building, rather than focussing on more mechanical methods of variable selection. This is particularly true where the objective is to learn something about the value of an

association, rather than just to build predictive models. As well as presenting the problem, and suggesting some solutions, I will also present the results of a small 'experiment' where postgraduate students were asked to analyse a dataset containing a Simpson's reversal. How did they get on ... ?

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Mark Tranmer

Using the Social Relations Model (SRM) to investigate occupational similarities amongst married couples in the UK at two time points

The Social Relations Model (SRM) was first proposed in the 1990s to investigate interdependence of ties, such as those measuring emotional warmth, for dyads within families - e.g. emotional warmth from mother to daughter, from son to mother, etc. It was later explained how the SRM can be written in the multilevel model framework for interval tie values. An SRM was more recently applied to count data for food sharing between households in Nicaragua, using a multilevel Poisson model formulation. In this talk, an SRM for count data on occupational similarities amongst married couples is applied to UK data at two time points: 1991 and 2008. Model parameter estimates for the SRM allow occupational similarities and differences amongst married couples to be investigated, as will be explained. The model is later extended to include a covariate, which is based on educational attainment. The conceptual and theoretical background to the SRM will be given. SRM model results will be presented and compared for 1991 and 2008. Details of data preparation and software used to fit the models will also be provided.

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Tom Wallace

The Scottish Third Sector on Twitter: Inter-charity and charity-infrastructure networks

The Scottish third sector is on-line. Like the private sector, charities have come to realise the potential of social media presence. They use sites like Facebook and Twitter to broadcast messages to their publics, drum-up donations, and build online communities of supporters. While this is not well researched, particularly in Scotland, papers do exist, and there are parallels with the private sector which is better covered in the literature. What has not been studied before is how the organisations making up the third sector relate to each other on Twitter. Is the sector interconnected online at all? If it is, does it divide into clusters or is it a cohesive network? Where do infrastructure organisations fit in? How stable are Twitter networks? This paper will answer all of the above by looking at the 300 largest organisations in the Scottish third sector and 81 third sector infrastructure organisations. Tweets from these 381 organisations will be collected for a 6 month period. The analysis will begin with an overview of the 300 on Twitter; descriptive statistics on their Tweets, follows, followers and how many of them are active on Twitter. The analysis will then proceed to calculating centrality measures and producing sociograms to determine how the 300 organisations are linked, what role the infrastructure organisations play, and the overall shape and clustering of the network. Finally, longitudinal and sequence analysis will be employed across the 6 months of data collected to determine how stable the previously found patterns of centrality are.

