The Possibilities of Quantitative Secondary Data Analysis in Education

Centre for Research on Education and Social Justice (CRESJ)

Summer Seminar

Tuesday 17 June, 12.30-4.30pm

Guest Speakers

**Professor Emma Smith, University of Leicester**

*Is there a shortage of scientists? Using secondary data to examine inequalities in Science Technology Engineering and Mathematics (STEM) education and careers*

*and*

**Tina Rampino, Institute for Social and Economic Research, University of Essex**

*The role of parental education and income on children’s aspirations for higher education: a causal estimation*

This interactive seminar hosted by Dr Gillian Hampden-Thompson (CRESJ, University of York) will focus on the possibilities of quantitative secondary data analysis in addressing and informing educational issues. Our two guest speakers will illustrate the uses and potential of this approach by highlighting their own research and experiences.

Lunch and other refreshments including a wine and soft drinks reception will be provided.

**Location:** Training Suite (YH/001b) in the Research Centre for Social Sciences (ReCSS), University of York

<http://www.york.ac.uk/social-science/directions/>

**Booking:** RSVP to Helen Parker at education-research-administrator@york.ac.uk  by Thursday June 5th. Places are limited so please book as soon as possible please.

**Guest Speakers and Presentation Overviews**

*Is there a shortage of scientists? Using secondary data to examine inequalities in Science Technology Engineering and Mathematics (STEM) education and careers*

Professor Emma Smith, University of Leicester

This seminar presentation will draw together several strands of research that have used secondary data to explore long term trends in the training, recruitment and retention of highly skilled STEM workers. In addition to considering the empirical findings to emerge from this work, it will also look at the challenges and opportunities that arise from working with existing large scale datasets of this nature. It will draw together data on participation in post-compulsory STEM education (UCAS), the early career destinations of STEM graduates (HESA), as well as data from two British cohort studies (NCDS 1958 and BCS 1970) to examine long-term career trajectories. This will provide an overview of recent evidence on the supply of STEM workers and give some context to the ongoing debate about the purported crisis in STEM education and training.

Emma Smith is a Professor of Education and Social Justice in the School of Education at the University of Leicester. She is interested in equity issues in the field of education and in the role that educational policy can play in reducing inequalities and closing achievement gaps, in both the national and international context. Professor Smith is an expert in the field of secondary data analysis and has written a book on the topic entitled *Using secondary data in Educational and Social Research*.

*The role of parental education and income on children’s aspirations for higher education: a causal estimation*

Tina Rampino, University of Essex

This second seminar presentation will draw on data from the new United Kingdom Household Longitudinal Study (UKHLS). Known more commonly as *Understanding Society*, this study captures social and economic data from 40,000 households in the United Kingdom. In addition, to social and economic data, it collects health information from approximately 20,000 participants. Currently, three waves of data are available as well as five waves of the innovation panel. The data is scheduled to be linked to other data sources, which include the National Pupil Database. This presentation will provide participants with an insight into the scope and possibilities of the data by highlighting a piece of research that used data from the youth panel component of *Understanding Society* to estimate the casual effect of paternal education, maternal education and household income on the probability of 10 to 15 year olds to report aspirations for higher education. The research applied an instrumental variable strategy and the presentation will also highlight this approach and issues surrounding the identification strategy.

Tina Rampino is a PhD student in economics at ISER (Institute for Social and Economic Research, University of Essex). The focus of her research has been primarily on education and young people. She has experience with data from both developed and developing countries. Her research on education focuses on aspiration gaps related to gender and socioeconomic background.

The seminar is aimed at educational researchers who either use quantitative secondary data analysis techniques or those who would like to know more about the possibilities of such approaches. The seminar will provide the opportunity to meet other researchers who share similar interests and to share knowledge. There will be an opportunity to learn how researchers use various large-scale national and international datasets.

**For more information or questions:** Please contact Gillian Hampden-Thompson at g.hampden-thompson@york.ac.uk

 