

# Labour Force and Annual Population Surveys User Conference 2022

## Parallel research paper abstracts

### Session 3a

*Chair: Martina Helme, Office for National Statistics*

#### **13.00 Segregation, segmentation and disability gaps in the labour market during Covid19: mental and physical health compared**

*Andrew Bryce (speaker), Mark Bryan, Jennifer Roberts, and Cristina Sechel, University of Sheffield, and Nigel Rice, University of York*

We analyse gaps in employment outcomes between disabled and non-disabled people during the Covid-19 pandemic in the UK. We focus on disabilities related to mental health conditions, comparing them with physical health disabilities. While employment levels were largely protected by the government Job Retention Scheme, there was a substantial widening of gaps in the proportions of men and women temporarily away from work and working reduced hours. Guided by theories of segregation, segmentation, discrimination and cyclical labour demand, and using data from the Quarterly Labour Force Survey, we use decomposition techniques to disentangle the roles of differential characteristics and coefficients. The major shares of the gaps can be attributed to coefficients, reflecting unexplained differences in the treatment or behaviour of disabled people. However, characteristics linked to segmentation and segregation play a significant role, which increased during the pandemic. The results suggest that Covid-19 exacerbated the segmentation and segregation of mental health disabled workers, driven by their over-representation in part-time jobs and in caring, leisure and other service occupations; and under-representation in managerial and professional occupations..

#### **13.30 Modelling the Differing Impacts of Covid-19 in the UK Labour Market**

*Magdalyn Okolo (speaker), and Chris Martin, University of Bath*

Our paper studies the impact of the Covid-19 pandemic on graduates and non-graduates in the UK. We construct a DSGE model with search frictions that is designed around key features of the UK labour market and simulate the model using an array of shocks, designed to mimic the impact of the Covid-19 pandemic. We show that our relatively simple macroeconomic model can describe the impact of the pandemic on output, employment and wages. Our results show that the impact of the pandemic on employment and wages was more severe for non-graduates than for graduates, and that up to 5 million jobs would have been lost in the first wave of the pandemic in the absence of the Job Retention Scheme.

#### **14.00 Global Competition, UK Labour Market Adjustment and the Brexit Vote**

*Francesca Foliano (speaker), and Rebecca Riley, UCL - Social Research Institute (SRI)*

We explore the adjustment of local labour markets in the UK to the sharp rise in import competition from low-wage countries since the early 2000s. We find that the increase in UK imports from China and Eastern Europe accelerated the long-term trend decline in UK manufacturing jobs and led to a short-term increase in the unemployment rate in exposed areas. But, many workers in these areas found lower paid low-skilled jobs outside manufacturing, mitigating the effects of import competition on joblessness. Local labour markets that were most exposed to import competition shrank in size relative to other areas

as highly educated workers left behind these parts of the UK. We also find that the electorate in exposed areas was more likely to vote to leave the European Union in the 2016 referendum. Rather than the uneven gains from globalisation, it is the reallocation of highly educated workers across different areas of the UK that accounts for much of this link. When we also consider the rise in exports to low-wage countries, the measured effects of globalisation on local labour markets and the referendum result are less pronounced.

## **Session 3b**

*Chair: Nigel de Noronha, UK Data Service*

### **13:00 Do neighbourhood renewal funds improve local labor market outcomes?**

#### **Evidence from England**

*Robert Calvert Jump (speaker), University of Greenwich, and Adam Scavette, Federal Reserve Bank of Philadelphia*

Neighborhood renewal programs are a type of place-based policy that aim to revive underperforming localities. The literature on place-based policies has found mixed results regarding their effects on local labor market outcomes, but there is relatively little literature on policies that aim to improve local labor supply. In this paper we examine the labor market effects of the Neighbourhood Renewal Fund, which targeted 88 of the most deprived areas in England during the early 2000s. This involved almost £3 billion of spending on community safety, education, healthcare and worklessness, with supply-side interventions making up the bulk of the program's spending on worklessness. Using a difference-in-differences approach, we find statistically significant impacts of the Neighbourhood Renewal Fund on local employment and out-of-work benefit claimants. The effect on younger benefit claimants, in particular, is large and persistent.

### **13:30 Multiple low-paid employment: trends and characteristics of workers**

*Tanya Wilson, University of Glasgow and IZA*

Is multiple job holding a route out of poverty? Using data from the UK's Labour force survey covering almost three decades, this paper examines the extent and nature of multiple employment. The analysis reveals that the proportion of workers with at least two jobs has declined since the mid-1990s from 1 in 20 workers but has remained at around 4% of employed individuals since the mid-2000s. Far from being a route out of poverty, a third of individuals with multiple jobs are low paid, using a definition of hourly earnings less than two-thirds of the national median. Multiple low-paid employment (MLPE) is of particular interest due to the practical and logistical issues involved in managing this type of employment, which is more likely to be low-status and precarious. Examining socio-economic characteristics reveals a large gender differential, with MLPE being almost as twice as common amongst women as compared to men. Individuals in non-cohabitating (i.e. single-adult) households are more likely to be in MLPE. The highest prevalence of MLPE is amongst younger workers, and falls dramatically by age 25 - although the rate of MLPE amongst women in particular begins to rise from age 30 onwards. Investigating employment characteristics demonstrates that in general those industries with the highest proportion of workers (Retail, Education, Health), also have the highest proportion of MLPE workers. But it is clearly evident that workers in MLPE are over-represented in Hospitality, Arts and Entertainment, and Services. Occupational analysis reveals that MLPE is more concentrated in caring, services and elementary occupations. These are jobs which are often characterised as being low-skilled.

## Session 4a

Chair: Martina Helme, Office for National Statistics

### 14.45 Armed forces veterans in the UK labour market

David Owen, University of Warwick

In the aftermath of two lengthy conflicts, the experience of armed forces veterans attracted political attention, with the Armed Forces Covenant of 2011 placing a duty on the public sector to support veterans by ensuring they are “treated fairly”. However, there is very little data which can be used to monitor their living conditions, until the 2021/22 Census in Great Britain is published. The Annual Population Survey is the only major UK social survey which contains questions on veterans (only between 2014 and 2019) and is therefore the most recent source of data on this section of the population. This paper uses APS data to explore the labour market experience of veterans of working age, comparing them with non-veterans. The paper will contrast labour market participation rates by type of veteran and period of leaving the forces, and their occupational and industrial employment patterns. The influence of demographic characteristics (including age and gender) and other factors upon the probability of being in high-quality employment or self-employment will be investigated. The paper will review the deficiencies of labour market data for veterans and the potential for these being addressed by Census data.

### 15:15 Immigration Stocks and Flows, APS1 and Electoral Register Data

Richmond Egyei (speaker), King's College London and Economic Statistic Centre of Excellence (ESCoE), Augustin de Coulon, King's College London, Institute of Labor Economics, IZA, Bonn, Centre for Vocational Education Research (LSE), and Economic Statistic Centre of Excellence (ESCoE), and Jonathan Wadsworth Institute of Labor Economics, IZA, Bonn, Royal Holloway, University of London, Economic Statistic Centre of Excellence (ESCoE) and Centre for Economic Performance (LSE)

The UK relies on survey data to produce estimates of its local area immigrant populations at higher frequencies than generated by the decennial Census. All sample surveys come with some level of uncertainty attached to their estimates which can be particularly acute at local area level where sample populations are smaller. We explore whether the local area population counts of immigrants contained in the electoral ‘register’ (ER) could help improve the accuracy and reliability of published local area migration statistics. Our approach focuses on identifying similarities between migration estimates from the Annual Population Survey (APS), the decennial Census and the electoral register (ER). We employ descriptive statistics as well as regression to compare the EU immigrants estimates from the APS, Census, and the ER. Our result from Panel Fixed effect regressions provides evidence for the use of the ER as a useful tool to improve the measurement of migration statistics in the UK. Across a variety of indicators, we find that the ER is most closely aligned to the Census estimates suggesting that the ER may be better at capturing the local area stocks of EU migrants in the country than the APS. ER offers complementary and useful information on regional figures and trends and appears reasonably close to 2011 figures from the decennial census.

## Session 4b

Chair: Nigel de Noronha, UK Data Service

### **14:45 Investigating the wellbeing returns from post-school education in Scotland**

*Gillian Wylie (speaker), Zoe Mackay, Rebecca McCartan, and Alison Cairns, Skills Development Scotland, and Yulia Anopa and James Miller, Scottish Government*

There has been a significant amount of research carried out on the economic returns to post-school education and training, focussing on the wage and employment returns to individuals. In a wider context, over the last decade however, there has been a growing body of research into personal wellbeing, moving beyond economic measures of individual or national performance such as Gross Domestic Product. Poor levels of wellbeing can have an effect on the economy, employers and individuals through reducing productivity, increasing poor health behaviours, increasing the burden on services, increasing absence and making lower quality decisions.

This research has been carried out as part of a wider piece of work to examine the long term economic and non-economic impact of post-school education and training in Scotland on individuals, employers and society. The study involves collaboration between Scotland's Skills Agencies and the Scottish Government. It examines subjective wellbeing using the 4 Office for National Statistics personal wellbeing indicators in the Annual Population Survey (APS) and provides mean wellbeing scores for different learner groups in Scotland, testing for statistical significance. Regression analysis was also completed to further explore the relationship between qualifications and wellbeing, controlling for observable characteristics (ethnicity, age, gender, disability and economic activity).

As part of this work, we have learned that possessing any form of qualification is associated with respondents reporting higher levels of personal wellbeing than those with no qualifications. In addition, different learner groups showed varying wellbeing levels with mean wellbeing scores tending to rise the higher the level of post-school qualification held. We believe these findings suggest that a relationship exists between education and wellbeing in Scotland.

In the next phase of this work, the APS will be used to further explore other non-economic outcomes from education to individuals and society such as health and Fair Work.

### **15:15 Inequality of Opportunity in the United Kingdom: A Supervised Learning Approach**

*Bruno Fagnola, University of Glasgow*

The purpose of this paper is to shed light on the link between inequality of opportunity and inequality of earnings in the United Kingdom. The study combines the conceptual ideas behind John E. Roemer's equality of opportunity approach with the novelty of supervised learning methods, particularly of conditional inference trees. Following the work of Brunori et al. (2018), we replicate their methodology for the United Kingdom using data from the Quarterly Labour Force Survey (QLFS) corresponding to the last quarter of 2019. We train our algorithm to identify the relevant circumstances that explain most of the variance in hourly wage for individuals who are employees or under government schemes. The results vary depending on the type of method that is used to test the independence of distributions but the relevance of certain covariates is maintained throughout. We particularly highlight that our model identifies the variables "Number of GCSE's" and "Occupation of parent" as most important. The out-of-sample accuracy of our estimations is satisfactory if we consider the sample size and the non-comprehensive list of covariates we have in our data.