

Details: One 3- or 4- year PhD Studentship



PhD Funding on “Strategic Explanations of the Gender Pay Gap With Multilevel Modelling: A Scottish Comparison with the UK” – Supervised by Wendy Olsen and Kingsley Purdam, Social Statistics, School of Social Sciences, University of Manchester; in conjunction with the Close the Gap Project, Glasgow (Under auspices of the Scottish Trades Union Congress)

“Close the Gap” have agreed to work together with the University of Manchester doing data analysis on the pay gap. We will have either a 1+3 (MSc + PhD) or +3 (PhD) student. The funding is from the ESRC via the Northwest Doctoral Training Centre scheme (www.nwdtc.ac.uk).

Close The Gap is a partnership initiative working in Scotland on women’s participation in the labour market. Partners include Scottish Government, Scottish Enterprise, Highlands and Islands Enterprise, Skills Development Scotland, Equality and Human Rights Commission, and Scottish Trades Union Congress. The breadth of the partnership recognises that the gender pay gap is an economic issue as well as an equality issue, and that narrowing the pay gap would return aggregate gains to the UK economy.

Close the Gap has been operating since 2001 and works with employers, employees and policymakers to encourage and enable action to address women’s inequality at work.

See <http://www.closesthegap.org.uk/>

Methods of decomposing a pay gap have been changing since 1982 (Oaxaca and Ransom, 1994, 1999; Watson, 2010; Olsen and Walby, 2004). Issues of regulation such as unionisation, the impact of pay-gap reporting on the pay gap, and the role of the minimum wage are areas in which the literature is not settled (Manning and Swaffield, 2008; Anxo, et al., 2012). This PhD has a Scottish focus as well as an All-UK focus.

Research questions: We are looking at why the gender pay gap persists. In Scotland and in the UK as a whole, what factors influencing the gender pay gap have changed? How can multilevel models be used in this area? The PhD has a methodological focus.

Research Design: The PhD will combine statistical modelling and case study research

1. Descriptive analysis and multi-level modelling, both in the Masters year which involves a dissertation, and in the PhD itself. Decomposition using standard Oaxaca methods notes the algebraic fact that the pay gap (in log wage terms) equals a weighted sum of terms.

$$\text{Gender pay gap} = \bar{w}_m - \bar{w}_f = (\bar{X}_m - \bar{X}_f) \beta_m + (\beta_m - \beta_f) \bar{X}_f \quad (\text{Eq. 1})$$

Here w is the logged wage, and \bar{w}_f is the average predicted logged wage among women. The use of occupation dummy variables, as in Bradley et al. (2015: 389), suggests that a multilevel model may offer better fit and a correct attribution of cause to a set of social phenomena at the occupational level. Cross-level interaction effects may exist (Jacobson, Robinson, and Bluthenthal, 2007).

This project advertisement is found at:

www.ruralvisits.org/qca/Advertisement1CaseStudentshipGPG.pdf and an exercise that we want applicants to complete is found at www.ruralvisits.org/qca/ExerciseforApplicants.pdf

The student will gauge the usefulness of alternative measures of occupational segregation. A typical measure is the percentage of workers who are male in each worker's industry. Major 1- or 2-digit level groupings of 'occupation' and 'industry' are used. The results of the multilevel wage regression will then be decomposed. You produce a briefing paper for the Close the Gap stakeholder during early Year 2.

2. Longitudinal and path modelling: a further paper using panel data analysis methods will be prepared.

3. Case Study Data: During Year 2 a 5-month qualitative case-study investigation will take place. The student will interview managers in 3 firms in Scotland, 3 firms in the NW of England. The sponsor, Close the Gap, will guide the student in choosing employers. In addition using contacts quite separate from these firms, 3 workers in each region will also be interviewed. Each worker interview consists of a short demographic and work-history survey instrument combined with 40 minutes of semi-structured discussion

Microdata Sources: The BHPS and Understanding Society data are annual, panel data with large samples.

Rationale for Mixed Methods: The student will gain further insights through combining statistical analysis and case study research.

Time Plan: Year 1: Literature review, data cleaning and exploratory analysis (4 months), Statistical modelling (3 months), visits to Glasgow Close the Gap 2 days per month, and writing/interpreting the remaining time. Ethical clearance. Training 12 full days.

Year 2: Fieldwork (5 months), data cleaning and analysing the panel data (4 months), regression analysis and presentation of mixed-methods results. Training 12 full days. Visits to Glasgow Close the Gap 2 days per month. The rest is writing time.

Year 3: Further statistical modelling (4 months), training 9 full days, article and thesis writing, conference paper presentation. Visits to Glasgow Close the Gap 2 days per month.

Expenses are paid for the trips to Glasgow. Residence in the Greater Manchester area is required.

References Cited: Available from wendy.olsen@manchester.ac.uk

Date of Application: There is a tight window for submitting your application. We are not accepting applications till Jan. 25, 2016. Then the window will close on date to be announced, probably 5 Feb., 2016. The decision will be intimated to the chosen candidate around the end of February. Other candidates may be held as reserves.

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