# Older worker exit transitions from employment in a recessionary era – what changes from a time of economic growth?

PhD Social Statistics Proposal

## Introduction

There is considerable policy interest in encouraging people over 50 to remain active in the workforce (Dini, 2009, p. 11).  Retaining individuals over the age of 50 in the workforce is of economic benefit to both the individual in question and to the wider society, and examination of descriptive statistics from the Department for Work and Pensions (DWP) gives some indication of the labour market behaviour shown by those aged 50 and over for the years from 2008 until 2011 (DWP, 2011, pp. 19 – 21).  For the first two years of this period the United Kingdom economy was in a state of recession which was then followed by an extended period of low economic growth (ONS, 2011, p. 2).  The employment rate for 50 – 64 year olds was 65% as of Quarter Two 2011 and had decreased by 0.7 percentage points between 2008 and 2011.  The equivalent rate for those aged 65 and over was 8.8% after an increase of 1.5 percentage points. The unemployment rate for the 50 – 64 year population saw an increase of 1.8 percentage points to 4.7%; however a decrease of 0.5 percentage points to 31.8% has been reported in their inactivity rate. A phenomenon of note within this inactive category is the decrease in both the percentage of people retired and the percentage claiming an illness-related benefit.  These statistics provide an indication of trends since the economic downturn began and this proposed research will consider the characteristics of the people behind these statistics.

## Review of literature

As discussed by Gregg and Wadsworth (2010, p. 41) during each of the United Kingdom recessions of the 1980s and 1990s older workers suffered a larger increase in unemployment than their younger counterparts.  In that era encouraging early retirement, or retirement on health grounds, was one way in which firms attempted to manage their workforce in difficult economic circumstances.  An interesting contrast, however, is seen when the most recent recession of 2008/09 is considered.  Employers this time have looked to retain experienced staff, and employee flexibility with regards to wages and hours has been instrumental in causing a fall in employment that is less than that seen in prior recessions (Gregg and Wadsworth, 2010, p. 43). Thus the retirement behaviour of older cohorts is not necessarily a good predictor of the patterns that will be followed by subsequent groups due to differing economic and policy conditions of the time (Banks and Casanova, 2003, p. 138).  In addition, it cannot be assumed that exit patterns from employment are the same across populations – both across sub groups of a population, and on a cross-national basis between two countries. Outcomes for older workers may well vary due to

the differing impact that the recession has had on economies worldwide. Boysen-Hogrefe and Groll (2010, p. 38) describe the behaviour of the German labour market during this time as 'exceptional' and 'surprising' because it 'has performed extraordinarily well during the Great Recession by historical and international standards' (p. 48). Labour market statistics show the changes in the employment, unemployment and inactive rates for 50 – 64 year olds in Germany over the years 2008 – 2010. The employment rate increased three percentage points from 63.3% to 66.3% (Eurostat, 2011a); a notable event when compared to the 0.7 percentage point drop seen for the same age group in the United Kingdom discussed above. The decrease in Germany's inactive rate of 2.7 percentage points (Eurostat, 2011b) was five times greater than that of the United Kingdom whereas the 0.4 percentage point increase in the German older worker unemployment rate (Eurostat, 2011c) was four times smaller than the increase seen in the equivalent United Kingdom measure.

Published prior to the economic downturn, Buchholz (2006, p. 75) examined career exits of German men from the age of 55 between 1984 and 2002 and advocated further research be conducted with later cohorts, on the basis that pension reforms were possible because of population ageing. In the aftermath of the 2008/09 recession, Fasang (2010, para. 5.6) signifies the need for further research because 'two structural forces create a very different context for current and future retirees than for the study cohort: the financial crisis and population ageing. The financial crisis jeopardizes state funded, occupational, and private pensions for current retirees and may lead to a massive increase in retirement patterns that are not shaped by such institutional pathways'. Thus current understanding of transition decisions within the two countries of interest, based upon data from prior to the most recent recession, needs to be revised.

**Aims**

The first aim of this research is to determine the impact of factors on the exit pattern from employment for workers aged 50 and older during the recessionary time span of 2008 – 2011 when compared to the prior years of 2002 – 2007, in which comparatively higher economic growth was experienced. A second purpose is to assess how this impact differs between Germany and England at both national level and for sub groups of these nations. This research is fully aligned with the three current strategic priorities of the Economic and Social Research Council which concentrate on research relevant to economic performance, to the understanding the behaviour and decision making of individuals, and to ensuring a fair society (ESRC, 2011, pp. 5 – 7).

**Method**

These research aims will be fulfilled by analysis of two longitudinal data sets, the Survey of Health, Ageing and Retirement in Europe (SHARE) and the English Longitudinal Study of Ageing (ELSA). SHARE and ELSA are harmonized and purposefully designed data sets for the study of older citizens, and for the multidisciplinary study of ageing and economics (Banks and Casanova, 2003, p. 128; Brugiavini, Pasini and Peracchi, 2008, p. 204). These are bi-annual surveys and include measures of individual and household demographics, health, work and pensions, income and assets and education - thus covering all necessary indicators of the factors that impact on an individual's employment decisions (*ELSA User Guide for the Wave 1 Core Dataset*; Das, Vis and Weerman, 2005, p. 14)

ELSA Waves 1, 2 and 3 contain data from individuals interviewed in 2002/03, 2004/05 and 2006/07 respectively; it is these waves that will provide the basis for comparison with the time of the economic downturn as represented by Waves 4 and 5 covering 2008/09 and 2010/11. The eligible German population of SHARE is comprised of 1800 individuals over the first three waves (SHARE, Table 5). The first two of these waves cover the pre-recession time span of 2004 – 2007 with Waves 3 and 4 containing data from the recessionary era of interest.

Multistate employment transitions are most appropriately modelled using the following general form of discrete-time event history model provided by Steele (2011, p. 10):

$$\log\left(\frac{p_{stij}^{(r_s)}}{p_{stij}^{(0)}}\right) = \boldsymbol{\alpha}_s^{(r_s)\mathrm{T}} \mathbf{z}_{stij}^{(r_s)} + \boldsymbol{\beta}_s^{(r_s)\mathrm{T}} \mathbf{x}_{stij}^{(r_s)} + u_{sj}^{(r_s)} \qquad r_s = 1,...,R \; ; s = 1,...,\ell.$$

The outcome of this model is the log odds of the conditional probability that a particular type of transition occurs (denoted by $p_{stij}^{(r_s)}$) versus no transition taking place ($p_{stij}^{(0)}$), in interval *t* of episode, *i*, from state, *s*, for individual, *j*. An episode is defined as a number of consecutive discrete time intervals, measured in months, in which an individual is at risk of exiting their economic state; thus an episode ends with a transition out of the current state. From an initial state of employment the four possible states that an individual can transition into are unemployment, retirement, permanently sick or disabled and inactive. In addition an individual may return back to an employed state at any time. The type of transition that occurs is denoted by $r_s$ and there are $R = 4$ ways in which an episode can end. The age at which an individual exits employment for the first time after the age of 50 can be determined by the duration of the first episode.

The vector $\boldsymbol{\alpha}_s^{(r_s)}$ is a parameter vector, and $\mathbf{z}_{stij}^{(r_s)}$ a vector of time functions. Together these vectors represent a duration effect which varies with the state and type of transition that has taken place. The explanatory variables that may impact on the likelihood of a transition occurring are contained within $\mathbf{x}_{stij}^{(r_s)}$, with the elements of $\boldsymbol{\beta}_s^{(r_s)}$ being parameters that quantify this impact. This structure permits time varying covariates, and the inclusion of interaction terms between $\mathbf{z}_{stij}^{(r_s)}$ and $\mathbf{x}_{stij}^{(r_s)}$ will account for non-proportional covariate effects. The inclusion of $u_{sj}^{(r_s)}$ accounts for unobserved time invariant characteristics that vary by state and transition type.

**Conclusion**

Driven by policy interest in the economics of ageing, this proposed comparison of older worker employment transitions between the two time periods and countries of interest will determine what impact the economic downturn has had on the patterns of transition from employment for older workers in England and Germany. That this research contributes to each of the three current strategic priorities of the Economic and Social Research Council is indicative of the importance and relevance that this topic has for policy and to the research community.

**Word count: 1466**

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