

Mental health and employment transitions: a slippery slope

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Abstract

Mental health status is associated with labour market outcomes. Existing literature illustrates that permanent workers with poor mental health select into temporary employment. However, it is unclear whether people with poor mental health stay in temporary employment or take a further step down the employment ladder. This paper examines the influence of poor mental health across the full set of employment transitions and reveals that women with poor mental health descend into unemployment, whereas men with poor mental health sink into inactivity. Given that one in four people will experience poor mental health at some point in their lives, we argue that more attention needs to be focused on supporting people in work rather than catching them as they slide into ever more precarious employment.

Keywords: Employment transitions; Anxiety; Depression; Psychiatric problems; UK

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1. Introduction

People with a diagnosis of mental illness have been classified as the final marginalised group, against whom it remains socially and morally acceptable to stigmatise and exclude from a range of social spheres (Thornicroft, 2006). This social exclusion is a component of the experience of mental illness and the consequence can be significant, not least in terms of economic disadvantage and poverty (Sartorius and Schulze, 2005). Disabled people, and in particular those experiencing mental illness, are overrepresented among the poorest in society and are amongst the most likely to experience long-term unemployment or inactivity; these observations have remained constant over the preceding 20 years despite significant legislative changes (Beresford, 1996; Sayce, 1998).

An association between mental health and employment transitioning is recognised in the literature but the temporal direction of the effect has been of significant debate. The dominant medical and epidemiological literatures highlight that transitioning out of work and into forms of unemployment or non-employment has a significant impact on both physical and mental health (Thomas *et al.*, 2005). Such proponents have gone on to assert that prior psychological distress does not seem to have a strong influence on selection into non-employment (Thomas *et al.*, 2005). This direction of effect is now rejected by a range of authors; for instance, Kemp and Davidson (2010, p. 209) examine Incapacity Benefit (now Employment Support Allowance) claimant data and highlight that an improvement in people's health was an important factor explaining why some were in work at a follow up interview, while Dawson *et al.* (2015, p.50) find that "permanent employees who will be in temporary employment in the future have poorer mental health than those who never become temporarily employed."

Although recent literature strongly suggests that a deterioration in mental health is associated with a subsequent employment transition from full-time permanent to temporary employment (Dawson *et al.*, 2015), there are no studies that examine the association between mental health conditions and employment transitions across the full range of employment states and so it remains unclear whether people with poor mental health are likely to stay in their new employment state or transit further down the employment ladder. This is a major omission from the literature because we currently do not know whether a deterioration in mental health influences the propensity to transition into a more precarious employment state irrespective of where the individual is in the labour market or whether any effect is specific to, say, people in full time permanent employment. Moreover, we do not know whether this effect varies between the sexes and whether any policy to assist those experiencing poor mental health and to ameliorate potential employment transitions can be gender-blind.

This paper fills these gaps in the literature by investigating the impacts of poor mental health on the probabilities of transitioning away from any existing employment state. We find that men with poor mental health are likely to leave full-time permanent employment and directly or indirectly end up in inactivity. One way for men to remain in employment is to move to temporary employment, as having poor mental health does not seem to induce them to move on to a further employment category. We find that women with poor mental health are likely to leave full-time permanent employment and directly or indirectly end up unemployed. There appears to be no 'safe-haven' in employment for women and labour market transitions associated with a deterioration in their mental health are significantly more fluid.

The next section explores the connections between mental health and employment transitions and highlights the extant deficiencies in the literature. Section 3 details our

methodological approach and data used in our empirical investigation, while it also presents the results of our statistical analysis. Section 4 discusses these results in their wider context, provides policy recommendations and concludes.

2. Links between the experience of mental health and employment status

The connections between employment status, employment transitions and poor mental health are multifaceted. This makes an in-depth understanding of the impacts of deteriorations in mental health on an individual's employment status and experiences, and ensuing effects on the propensity to be in poverty, challenging and complex. Epidemiological research has consistently demonstrated an association between poverty and the prevalence of mental health. Grove *et al.* (2005) contend that this high propensity to be in poverty is because poor mental health is associated with low levels of employment, and the consequences of this are profound because it restricts social lives and retains over 1.5 million people of working age in economic inactivity in the UK alone (Black, 2009).

Patterns of economic inclusion are strikingly different across the labour market for disabled and non-disabled people (Jones *et al.*, 2006). Studies consistently identify a negative impact of disability on labour market outcomes and in particular on levels of employment (Blackaby *et al.*, 1999; Kidd *et al.*, 2000). Although data comparability is problematic, the incidence of disability in the UK is high when compared to the rest of the EU and the UK has amongst the lowest ratio of disabled to non-disabled employment rates of all European countries while the rate of disability in the UK is second highest among the 15 EU countries when expressed as a percentage of the working population (Dupre and Karjalainen, 2003). These suggest that the UK faces a double labour market problem: not only are their rates of disability much higher, but their employment rate of the disabled is, at the same time, lower.

The literature consistently demonstrates that people with poor mental health fare less well in the labour market compared with disabled people in general and the population as a whole. Whereas the employment rate is 80 percent for non-disabled people and 50 percent for disabled people in general, it is as low as 22 percent for people with mental health conditions (ONS, 2000), which is much lower than any other impairment group (with the exception of people with learning disabilities). Similarly, Boardman *et al.* (2003, p.467) highlight that "Eight percent of people with long-term disabilities of working age in Great Britain have a mental health difficulty as their main problem, and in this group 18 percent were in employment in 2000." Grove *et al.* (2005) present estimates that employment rates of people with poor mental health can be as low as 20 percent which fall further to 5 percent in the case of serious mental health disabilities such as schizophrenia.¹ It is no surprise therefore that governments have an interest in the connections between mental health and labour market outcomes.

Recent research considers the type of employment experienced by disabled individuals. Jones *et al.* (2006) and Pacheco *et al.* (2015) identify significantly higher levels of disabled workers in part-time employment and self-employment when compared to their non-disabled counterparts, and argue that this is because of the accommodating nature of non-standard forms of employment. Of course, this does not exclude the possibility of employer discrimination or disadvantage; indeed, Barnes (2000, p.445) argues that because

¹ The proportion of people with mental health conditions dependent on state benefits and not in work is 66% compared with figures of 35% for all disabled people and 4% for non-disabled people (ONS, 2000).

of “the pursuit and maximization of profit, waged labour and competition between individual workers ... effectively disadvantage or disable people with any form of perceived functional limitation/impairment.” It remains unclear, however, whether employer discrimination or disadvantage is the source of, contribute to and/or ameliorates employment transitions, and more research is necessary here to explore good and bad management practices.

The academic literature exploring the impacts of mental health conditions on employment transitions continues to be limited despite the growing recognition of the social impacts of poor mental health. While there is clear evidence of a relationship between an individual’s employment status and their mental health state, the majority of the literature fails to discuss either the impact of a deterioration in mental health on the propensity of an individual to transition away from an employment status or whether there are social practices within the workplace that can abate the probability of that employment change. The disability literature has predominantly theorised a ‘low-pay, no-pay cycle,’ where people with poor mental health transition on a regular basis between non-standard ‘bad’ jobs (Kemp and Davidson, 2010) and no-pay, and yet the empirical basis for these claims and the social implications of these cycles are severely limited, not least for those experiencing poor mental health.

Patterns of employment transitions: low-pay, no-pay cycles or a slippery slope?

There is limited evidence about longer term patterns of employment transitions for people with poor mental health. Kemp and Davidson (2010) advance the idea of a ‘low pay, no pay cycle,’ a cycle that is accentuated by poor health (Kemp and Davidson, 2010). It is known, for instance, that people who have recourse to Employment Support Allowance tend to be disadvantaged in labour markets because they tend to be in non-standard or ‘bad jobs’ (Davidson and Kemp, 2008; Kemp and Davidson, 2010). These are also jobs denoted by poor terms and conditions, such as low pay, little access to occupational sick pay and pensions, and with no recognised career or promotion ladder (Davidson and Kemp, 2008). Arni *et al.* (2009) observe that benefit sanctioning policies, such as those observed in the UK, do encourage people to leave unemployment benefits but also encourage them to enter less well paid and less secure employment, and these were particularly likely to be experienced by those with mental health disabilities. Moreover, the experience of employment can be fluid, with individuals moving in and out of work and on and off of benefits as their employment and personal circumstances evolve (Shildrick *et al.*, 2009; Crisp *et al.*, 2009).

The ‘Low-pay, no-pay cycle’ is one theoretical pattern for those most vulnerable in the labour market and there is evidence that recurrent poverty is linked to this cycle and attributable to various changes at the household level, such as the impacts of further deterioration in health. But since the early 1990s there has been a fundamental change in the conceptualisation of poverty, moving from a static understanding – in which the poor were often contrasted with the non-poor as if they never changed places – to a dynamic one concerned with the duration of spells, the temporal configurations of poverty and the extent of persistence and scarring (Leisering and Walker, 1998; Rigg and Sefton, 2006). Nevertheless, in their review of poverty dynamics, Smith and Middleton (2007) drew attention to the comparative neglect of research on recurrent poverty and the ‘low-pay, no-pay cycle’ in the UK.

Given that poor mental health is the dominant cause of Employment Support Allowance and welfare receipt, the likelihood that someone with poor mental health experiences a ‘low-pay, no-pay cycle’ is, in theory, increased. However, Byrne (2005) argues

that the articulation of the concept of social exclusion within policies (such as welfare to work) has, in practice, tended to create and reinforce, rather than break down, the exclusionary economic processes of post-industrial capitalism: the work obtained by welfare to work participants is usually poor quality, low paid and insecure, and welfare to work participants therefore represent the flexible reserve labour force required by post-Fordist accumulation practices. Reflecting the history of welfare reform, most of the existing analysis focuses on changes to unemployment-related benefits and benefits associated with lone parenthood (e.g. Lødemel and Tricket, 2001; Clasen and Clegg, 2003; Byrne, 2005) rather than on mental health conditions, but the conceptual framework offered by these theorists could help to explain the reform of sickness benefit in the UK, especially the advent of conditionality and the framing of the policy debate around the social inclusion of the sick and disabled. There is only sparse evidence of the existence of 'low-pay, no pay cycles' and about the impacts of welfare reform more generally on employment experiences; investigating these patterns is of significant importance in terms of theory and policy responses and is potentially relevant for individuals experiencing poor mental health.

Explaining the relationship between mental health and employment transitions

There are strongly contrasting explanations for the observed employment experiences of people with mental illnesses. The first area of controversy exists around the direction of the relationship and the issue of causation. The epistemological roots of these explanations lie in an ongoing debate surrounding the medical versus sociological models of mental illness. Nettleton (2006a) highlights that the dominant approach to understanding health has been driven by the medical profession and a medical model based on five key assumptions. The first of these assumptions is a concept of dualism, which is a theoretical claim that ultimately the body and mind are separate entities and as such disease and illness have material cause. The second and third assumptions are based on the belief that the body can be repaired in much the same way as machinery and that we can rely on a 'technological imperative' to do this. The fourth assumption is that biomedical models that rest upon reductionism are appropriate, whereby disease is both individualised and attributed primarily to the body to the detriment of consideration to either psychological or social factors. This assumption was developed further to a fifth assumption that this reductionism can be embedded into a model of health that emphasises 'disease entity,' which is a focus on cause (such as a virus) and effect (disease or illness).

Defining health from this medical perspective leads to distinctions between the key terms used in the field of sickness and disability in relation to work (Waddell and Aylward, 2005). As demonstrated in table 1, the medical model makes clear distinctions between disease, impairment, illness and disability; all of these are ultimately attributed to the body despite recognition that illness is inherently a subjective experience. There is an attempt to incorporate 'medical sociology,' with the inclusion of the concept of 'sickness' being a social status but this is the exception to the rule. This certainly draws upon the work of Parsons (1951) who heavily criticised the concept of a sick role, which is a functionalist sociological perspective where an individual becomes biologically impaired through disease and are deemed to be 'sick' by society. Those who are impaired are subsequently given a 'sanctioned deviance' role, as they are no longer viewed as productive members of society. Despite attempts to incorporate social components into the medical model, these assumptions remain the norm with impairment and disability remaining wholly determined by bodily functioning.

<Table 1>

This individualistic, near-mechanical approach to exclusion characterises the medical approach to mental health: exclusion is an issue of individual deficit. Disability, and specifically mental health, has been used here to mean inability or limitations in performing social roles and activities, such as in relation to work, family or independent living (Nagi, 1976). From such a perspective, any associations with economic exclusion can be explained as causal: mental health impairs performance at the individual level and in social performance (Nagi, 1976). For example, Danziger *et al.* (2000) draw on a large sample of welfare recipients in the post-welfare reform era and examine the prevalence of mental health disorders, substance dependence, physical health or disabilities, and contrasts these data with recipients' human capital problems and employment state. They report that half of their participants have none of these potential barriers to employment and suggest the need to design and implement more assessment, referrals and service provision to address labour supply challenges in the transition from welfare to work. Of course, these recommendations practically ignore demand side issues, and power, exclusion or discrimination concerns.

Dominant explanations in the medical literature therefore focus on mental health as a medically classified condition (Oliver, 2009) and the impacts of clinical factors on an individual's 'employability.' This approach to 'employability' largely developed in the 1960s as a socio-medical model of employability that quantitatively assesses the distance between an individual's medical characteristics and the requirements of the labour market (Gazier, 1999). At the time, this approach was used to identify market failures and became associated with addressing labour market disadvantage. However, the individualism at the heart of this medical model was translated into supply-side labour market issues, essentially laying the blame for unemployment squarely on the shoulders of the individual, and potentially disregarding structural explanations. There are examples of these assumptions continuing to have influence in the neoclassical economic literature concerning mental health.

The primary sociological response focuses on identifying social selection and social causation. Here, mental health is caused by factors associated with socio-economic status, while socio-economic status (in particular economic participation) is perceived to result from poor mental health (Ramon *et al.*, 2012). To some extent, this is in line with the conventional 'individualist and deficit views of health' (Barton, 1993, p. 235), as analyses focus on the individual and predominantly in terms of the impact of poor mental health on an individual's employability. Although some research has begun to incorporate this social model into their analyses of the lives of people experiencing mental distress, this approach remains largely unexplored.

Recent large-scale epidemiological studies do highlight an association between rates of poor mental health and indicators of social disadvantage, including low income, education, unemployment and low social status (Fryers *et al.*, 2003), but this kind of model derives from social psychology and consequently views social factors as 'inputs' which are subsequently mediated by individual factors such as socio-emotional variables, people's experience of difficult life-events, and the availability and adequacy of their support networks. Focusing on social factors as inputs into some causal model neglects to appreciate the circular associations between socio-economic status and mental health.

In terms of empirical research, investigations of the connections between economic exclusion and mental health have a focus on the levels of mental distress and inequality among the population. These are dominated by positivistic quantitative survey techniques, labelled 'medical sociology' (Martin and White, 1988; Martin *et al.*, 1988). Epidemiologists

have dominated the collection of evidence concerning these inequality relationships and of mapping illness and health in large populations (Ramon *et al.*, 2012). Variables analysed here include gender, age, ethnicity, education, employment, income and poor physical health, which are objective, observable and measurable variables. This is centred on the supposition that variables reflect risk factors related to having and maintaining a mental illness (Ramon *et al.*, 2012). Comparatively little attention has been paid to subjective and experiential evidence of labour market exclusion. This dominant view is myopic to the associations between poverty and discrimination associated with mental illness, and focus entirely on the individual experience of ‘illness’ and ‘impairment.’

As a result, explanations and frameworks about the inverse relationship between mental health and social position remain drastically and meaningfully underdeveloped. There is a considerable need to bring this new agenda into discussions of mental health and inequality for a number of key reasons highlighted by Rogers and Pilgrim (2003). First, there is a weakness of the medical and psychiatric knowledge concerning the social positions of people experiencing mental distress, as highlighted by Tew (2005). Grounding the mental health literature only within a framework of medical conditions is problematic on conceptual grounds, as it disguises the impacts of social issues on mental health. While there are convincing arguments that poor mental health is ultimately defined by a sub-optimal social functioning (Rogers and Pilgrim, 2003, p.4), this perspective also fails to acknowledge the experience of oppression, which can be both a cause and an effect of mental distress grounded on societal meanings and political responses to poor mental health (Porter, 2002).

Although there is significant literature on the relationships between unemployment and mental health, both as a cause and impact, gender differences in the transitional effects of mental health have yet to be explored in any depth (Artazcoz *et al.*, 2002), and in many cases women have even been excluded from analyses (see Bartley *et al.*, 1996; Leino-Arjas *et al.*, 1999). The few studies that do focus on gender differences and any impact of poor mental health on employment status highlight the importance of gender, marital status and social class but fail to explore the impact on patterns of employment transition. Although research does suggest that poor mental health impacts on the experience of unemployment and may be tempered by a range of social factors for women when compared to men, and specifically reduce the likelihood of exiting the labour market for women (Artazcoz *et al.*, 2002), this area of research is bereft of research across all possible employment transitions and hence further investigation is vital.

To summarise, the extant literature on the associations between mental health and employment has focused on either the impact of employment status on mental health or the theorised ‘low-pay, no-pay cycle’ of employment transitions, and as a consequence the research investigating the impacts of mental health on employment transitions has been ominously underdeveloped. Moreover, research on whether there are any gender differences focus on whether employment status has an impact on mental health; the impacts of poor mental health on employment transitions and across gender has yet to be given due consideration.

3. Data, variables and modelling approach

This paper contributes to the literature by exploring the impacts of poor mental health on a full set of employment transitions and examines whether these impacts vary by gender. In order to identify empirical evidence of these relationships we draw on the British Household

Panel Survey (BHPS), which is a nationally representative panel survey of approximately 5,500 households containing around 10,000 individuals, sampled in 1991 and followed until 2008/2009. This dataset enables researchers to conduct a longitudinal analysis of experiences in the labour market and, specifically, labour market transitions. The original BHPS sample was designed to be representative of the population of Great Britain (south of the Caledonian Canal). Our sample is constrained to the working age population (16-59 for women, 16-64 for men). After the procedure described below, we end up with a final sample of 9,084 individuals and 75,443 person-year observations consisting of 4,400 men (35,911 observations) and 4,684 women (39,532 observations).

Our mental health condition variable is derived from the following BHPS question: “Do you have any of the health problems or disabilities listed on this card...” Possible answers cover a variety of physical health conditions while one specific answer indicates a mental health issue. Specifically, we create a mental health condition variable by assigning the value of 1 (one) to individuals that indicate having “Anxiety, depression or psychiatric problems” and a value of 0 (zero) to individuals not recording this answer.

Our labour market status variable is categorical and identifies one of the six labour market states an individual could experience at the time of interview in an observed year: 1) temporary (*Temp* in the following tables), 2) part-time permanent (*PT-perm*), 3) full-time permanent (*FT-perm*), 4) self-employed (*Self-emp*), 5) unemployed (*Unemp*) and 6) inactivity (*Inactive*). Future employment status is defined as the following year’s employment status recorded in the BHPS.

Given that the objective of the empirical analysis is to identify employment transitions between consecutive years, it is appropriate to apply a multinomial logit regression of the future labour market status relative to a present employment status. This is a natural modelling choice since our dependent variable refers to different unordered employment status outcomes. In a multinomial logit regression setting we model the (conditional) probability of being observed in each of the six labour market status categories $j=1, \dots, 6$ in the following year ($t + 1$) as:

$$P(status_{it+1} = j | x) = \frac{e^{x'_{it}\beta_j}}{\sum_{k=1}^6 e^{x'_{it}\beta_k}}, \quad j = 1, \dots, 6; i = 1, \dots, N; t = 1, \dots, T_i$$

where i denotes the individual and t the current year, x is a vector of variables measured in the current year and β are the beta coefficients to be estimated. These models require the selection of a base category, j , with its beta coefficients set equal to zero. In this way, each estimated coefficient is interpreted as the change relative to the base category.² We estimate separate models for individuals observed in each of the six labour market states in period t and retain that as the base category for the employment status in period $t+1$.

In addition to a mental health condition variable, vector x includes age, age squared, a white ethnicity variable, the highest attained level of educational qualification, and a series of past labour market status variables that are expected to affect future status through experience and/or path dependency mechanisms. Specifically, we construct six employment status dichotomous variables indicating any past temporary, part-time permanent, full-time permanent, self-employment, unemployment and inactivity in the preceding two years.

² Model estimation is generated through maximum likelihood. Throughout the analysis, standard errors are clustered at the individual level.

Consequently, for an individual to be included in the final sample, they must be observed for at least four consecutive years.³

Descriptive evidence

Table 2 presents the sample means of the variables for British men and women separately. These raw statistics highlight that women are much more likely than men to be either employed part-time or inactive, while men are much more likely to be in full-time permanent employment or self-employed. There is a low prevalence of temporary forms of work in Britain during the period under consideration. Women in our sample are twice as likely to report a poor mental health condition as men, while they are also about two years younger on average. Men are slightly more likely than women to have any qualifications or a university degree. On past employment experiences, women are far more likely than men to have worked in part-time jobs or been inactive, while men are more likely to have been in full-time employment, self-employment or in unemployment. These gender differences are related to differences in patterns of employment transitions to which we now turn.

<Table 2>

Tables 3 and 4 present the raw probabilities of labour market transitions by gender and mental health status. Each cell shows the number of observations in each combination of current and subsequent year's employment status, as well as the row percentage of the total number of observations for each current labour market status. Irrespective of mental health status, women are much more likely than men to remain or transition into part-time permanent or temporary employment. Men are less likely than women to exit from full-time permanent employment and more likely to stay or transition into self-employment. Men are more likely than women to remain either unemployed or inactive.

<Table 3>

<Table 4>

By comparing the diagonal elements of table 3 it becomes clear that the probability of being observed in the same status in the following year is higher for men with good mental health than for men with poor mental health, thereby indicating greater employment stability for men with good mental health. An exception to this pattern, as expected, is the much higher probability of currently inactive men with poor mental health of remaining inactive. For example, when men do transition out of inactivity, men with good mental health have a 33 percent chance of entering full-time permanent employment whereas men with poor mental health have a 23 percent chance of entering full-time permanent employment (a 42% lower probability). Men who are inactive with good mental health are 2.56 times more likely to transition out of inactivity relative to men with poor mental health. When men with good mental health transition out of inactivity they have a 30 percent chance of entering unemployment, but the chance of entering unemployment for men with poor mental health is almost doubled at 57 percent.

³ Since two earlier years of data are needed for the construction of the past experience variables and a future year is needed for the future employment status to be observed, the final model estimations include only individuals with records of their current status between 1993 and 2007.

The pattern of employment transitions is different for women. Women with good mental health and in employment have similar probabilities of remaining in the same employment status as do women with poor mental health (one exception is those currently observed in full-time permanent employment); this suggests that the impact of poor mental health on women's employment transitions is smaller than it is for men. Unemployed or inactive women with poor mental health are far more likely to remain in the same employment status the following year than are women with good mental health. The reasons for these asymmetries may be individualistic and mechanistic, but there are also strong possibilities that the social stigma attached to those with poor mental health is stronger for men than for women; we consider this issue in more depth in the discussion.

Multiple regression analysis

Two groups of six regressions were estimated for each gender. The first group (Model 1) included only the basic demographic variables mentioned above, i.e. age, age squared, ethnicity and education, whereas the second group (Model 2) augmented this model to include a further six variables reflecting past labour market experience. Average marginal effects for the mental health condition variable were calculated and these show the average change in the probability of being observed in a particular future labour market status when the mental health variable changes from zero (good mental health) to one (poor mental health). These results are presented in table 5.⁴

<Table 5>

A first observation is that the marginal effects are similar irrespective of the model specification. Although past employment experience variables are quite important in explaining labour market transitions, increasing substantially the fit of our models (see the Appendix), their inclusion did not substantially affect the coefficients and marginal effects estimates of the impacts of having poor mental health on transitioning between employment states. This lends support to the argument that employment transitions are not substantially affected by past labour market experiences.

Coefficient estimates on the mental health condition variable indicate how much more or less likely is a transition to an alternative employment state in the following year relative to remaining in the same employment state for a person with poor mental health relative to a person with good mental health. Starting from men, the results show that the mental health condition variable is reasonably important for transitions out of full-time permanent employment and out of inactivity. Specifically, men with poor mental health are much less likely to stay into full-time permanent employment and are more likely to move into temporary employment, unemployment or inactivity than are men with good mental health. Inactive men with poor mental health are less likely to exit from this employment status relative to inactive men with good mental health once labour market characteristics are taken into account. The marginal effects show that the probability of staying inactive is about 10

⁴ In Appendix tables A and B, we report the results for the FT-permanent models. A further group of regressions was also estimated, similarly including year dummies as additional controls, yielding qualitatively identical results to the ones presented below. We should note here that the marginal effects from the PT-permanent models for males are not presented in table 5. Due to the limited number of observations, these models exhibited particular convergence problems in the maximum likelihood procedure and we consider their results as unreliable.

percentage points greater for men with poor mental health relative to men with good mental health.

In general we identify more statistically significant differences in labour market transitions for women with good and poor mental health, and it appears that poor mental health has a greater range of effects across more employment states for women than for men once other factors have been taken into account in our regression modelling procedure. In particular, having poor mental health seems to cement men into inactivity and out of full-time permanent employment. Apart from inactivity, women with poor mental health in any labour market status are significantly more likely to become unemployed than are women with good mental health.

While unemployed women with poor mental health were much more likely to stay in unemployment and while non-unemployed women were more likely to move into unemployment (both compared with women with good mental health), the same could not be observed for men where the impact was to keep men with poor mental health in inactivity. Although the reported incidence of men with poor mental health is lower than for women, the end-point of employment transitions for men is inactivity rather than unemployment. This holds for the majority of men that start in a full-time permanent job or in unemployment, while there seems to be no difference between men with good and poor mental health that start from a different status in employment (Temp, PT-perm or Self-employment). These findings concerning the effect of poor mental health on employment transitions are summarised in figure 1 for men and in figure 2 for women (only the significant relative movements are highlighted).

<Figure 1>

<Figure 2>

4. Discussion and conclusion

The vast majority of research into the links between health and employment focus on physical health and the employment state, and relatively little is known about the connections between mental health and employment transitions. Moreover, it is standard in the literature to assume that individual capacity is the cause of a transition between employment states; for instance, good health allows an individual to be more effective in the labour market and maintains an ability and capacity to work (Mushkin, 1962; Grossman, 1972) but a deterioration in health can reduce the capacity of the individual to work and can result in deskilling that reduces their ability to work (Flavel, 2017). However, an individual's capacity to deal with the full effects of a deterioration in mental health are likely to be limited and any subsequent employment transition may be driven in large part by social considerations.

The little that we do know about the connections between mental health and employment transitions emphasise that a deterioration in mental health leads to a transition into precarious employment (Dawson *et al.*, 2015) rather than being in precarious employment leading to a drop in mental health. This paper has filled an important gap in the literature because it is the first to examine the connections between mental health and subsequent transitions across all employment states. It also reveals that there are important asymmetries by gender, with men with poor mental health sinking to inactivity whereas women with poor mental health descending into unemployment.

This research provides strong statistical evidence that mental health influences labour market transitions into potentially low-paid and insecure employment positions or into labour

market inactivity. However, in contrast to cyclical low pay, no-pay cycles advocated in much of extant academic literature as an explanation for the levels of poverty experienced by disabled people, evidence presented here underscores that inactivity (for men) and unemployment (for women) appear to snare those with mental health disabilities. Movements out of these employment states into any other form of employment were statistically less likely in the case of those experiencing poor mental health for both men and women.

The causes of these patterns are the subject of significant controversy, in particular, the concept of 'benefits traps' features heavily in relation to explaining long-term reliance on benefits. However, there is some evidence here that this is problematic; for men starting from temporary employment or self-employment, the impact of mental health on transitions into inactivity when compared to those with no mental health issue was significantly reduced. This suggests that where work is suitably flexible, the impact of mental health can be negated. Flexible working patterns tend to be at the judgement of the organisations' managers or an individual's line manager, and their decisions are often influenced by accepted practices, nuanced judgement and social acceptability. This is a fundamental consideration and it highlights that the nature of work may be significant in the likelihood of transitioning out of the labour market. A good manager will recognise this and attempt to provide a more acceptable and flexible employment arrangement for an individual who has experienced a deterioration in mental health – without that employment arrangement the employee will be more likely to transition in to an alternative employment arrangement and leave the business, thereby reducing the returns to the firm of their investments in the employees skills. This argument shifts the emphasis from a medical explanation for exclusion, where the focus is on the individual, to the structure of the labour market and availability of suitable, flexible employment that can be provided by an employer.

The clear gender differences in the impact of mental health on employment transitions may reflect the tendency for women to gravitate towards more flexible labour market opportunities or organisations that facilitate a more flexible arrangement to fit in with any deterioration in mental health, as suggested in our empirical results, but also to fit in with other arrangements, such as when a women still shoulders the bulk of her household's domestic responsibilities. The evidence suggests that women are more likely to be in roles which offer flexibility when compared to their male counterparts, which may allow them to continue with employment.

More fundamentally, the differences between the employment transition paths of men and women with poor mental health is evidence of differences in terms of the attitudes of employers and work colleagues to men and women who disclose a mental illness, or alternatively the likelihood that those individuals declare and subsequently seek support for their illness. These gender differences require significant further qualitative research, but would corroborate the argument that labour market disadvantage may well be socially and structurally influenced.

Disabilities associated with poor physical health have long been supported by adjustments to offices, improvements in access arrangements and bespoke IT equipment to support such workers and aid their productivity. It is also morally unacceptable to stigmatise and exclude physically impaired co-workers from a range of social spheres (Thornicroft, 2006). Unfortunately, structural issues do not appear to ameliorate the adverse effects of poor mental health in the labour market. The fact that poor mental health is less visible can result in less formal and informal support mechanisms for this marginalised group. Managers usually wish to have a return on their investments into training and education of their workforce, but as at least one in four people will experience poor mental health at some point

in their lives (Mental Health Foundation, 2017), and as our research illustrates that this is strongly associated with an employment transition into a more precarious labour market state, it seems opportune for managers to attempt to avert the possibility of losing their staff and instead to provide more supportive social and structural networks, facilities and workshops to retain, assist and encourage their staff if and when they do experience a deterioration in their mental health. Embedding employees into supportive social and structural networks from the beginning of their employment could also avoid any related stigma related to the need for engagement of these services should they require them at a later date due to a deterioration in mental health.

Finally, and most fundamentally, this research demonstrates the significant impact of mental health (in particular for men) on employment transitions out of the labour market and into unemployment or inactivity. The direction of this relationship is clear; while the dominant medical and epidemiological literature highlights that transitioning out of work and into forms of unemployment or non-employment has a significant impact on both physical and mental health (Thomas *et al.*, 2005), this research clearly demonstrates the negative impacts of poor mental health on employment transitions out of what would be classed as better jobs and into more precarious employment states. While past research has gone so far as to claim that prior psychological distress does not seem to have a strong influence on selection into non-employment (Thomas *et al.*, 2005), this research strongly refutes these claims.

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Table 1: Description of medical terms

Term	Description	Explanation
Disease	Objective, medically diagnosed, pathology.	Clear evidence of pathology. Disease may or may not necessarily lead to impairment, symptoms illness or disability.
Impairment	Significant, demonstrable, deviation or loss of bodily structure or function.	A number of definitions exist but central to the definition is that there is 'objective evidence.'
Symptoms	Bothersome bodily or mental sensations.	The sensations are of concern to the individual. This might relate to normal daily living or represent a presentation of disease.
Illness	A subjective feeling of being unwell.	A personal experience where there is an impact on an individual's feelings of wellbeing.
Disability	Limitation of activities and restriction of participation.	Restriction of activities that relate to both physical and mental diseases or impairments.
Sickness	A social status accorded to the ill person by society.	An interaction between the individual, society and other people that allows an individual to be removed from normal social roles and responsibilities, the individual is able to take up the 'sick role.'
Incapacity	An inability to work associated with sickness or disability.	A reduced functioning and performance in work that is associated with sickness or disability.

Table 2: Sample means by gender

	Men	Women
Mental health condition	0.05	0.10
<i>Current employment status</i>		
Temporary	0.03	0.04
PT, permanent	0.02	0.23
FT, permanent	0.63	0.38
Self-employed	0.13	0.04
Unemployed	0.05	0.03
Inactive	0.14	0.28
<i>Demographics</i>		
Age	40.16	38.31
White	0.96	0.96
<i>Educational qualifications</i>		
Degree	0.16	0.14
Further education	0.32	0.28
A-levels	0.15	0.13
O-levels	0.16	0.22
Other qualifications	0.07	0.09
No qualifications	0.13	0.15
<i>Past employment experience</i>		
Past temporary	0.05	0.07
Past PT-permanent	0.02	0.28
Past FT-permanent	0.68	0.43
Past self-employed	0.15	0.05
Past unemployment	0.08	0.05
Past inactivity	0.17	0.35
Observations	35,911	39,532

Source: Authors' calculations based the BHPS 1991-2008.

Table 3: Labour market transitions by mental health status – Men

No mental health condition (N = 34,254)								
		Future Status						Total
		Temp	PT-Perm	FT-Perm	Self-emp	Unemp	Inactive	
Temp	<i>N</i>	248	38	422	58	96	94	956
	%	25.94	3.97	44.14	6.07	10.04	9.83	100
PT-Perm	<i>N</i>	23	313	185	19	20	52	612
	%	3.76	51.14	30.23	3.1	3.27	8.5	100
FT-Perm	<i>N</i>	294	163	20,591	401	358	365	22,172
	%	1.33	0.74	92.87	1.81	1.61	1.65	100
Self-emp	<i>N</i>	63	22	312	4,132	67	88	4,684
	%	1.35	0.47	6.66	88.22	1.43	1.88	100
Unemp	<i>N</i>	123	50	351	105	768	269	1,666
	%	7.38	3	21.07	6.3	46.1	16.15	100
Inactive	<i>N</i>	148	76	270	81	242	3,347	4,164
	%	3.55	1.83	6.48	1.95	5.81	80.38	100

With a mental health condition (N = 1,657)								
		Future Status						Total
		Temp	PT-Perm	FT-Perm	Self-emp	Unemp	Inactive	
Temp	<i>N</i>	9	2	17	2	4	2	36
	%	25	5.56	47.22	5.56	11.11	5.56	100
PT-Perm	<i>N</i>	1	10	12	0	1	5	29
	%	3.45	34.48	41.38	0	3.45	17.24	100
FT-Perm	<i>N</i>	14	5	500	10	19	30	578
	%	2.42	0.87	86.51	1.73	3.29	5.19	100
Self-emp	<i>N</i>	2	2	9	131	7	7	158
	%	1.27	1.27	5.7	82.91	4.43	4.43	100
Unemp	<i>N</i>	8	4	21	8	47	37	125
	%	6.4	3.2	16.8	6.4	37.6	29.6	100
Inactive	<i>N</i>	4	2	13	5	32	675	731
	%	0.55	0.27	1.78	0.68	4.38	92.34	100

Source: Authors' calculations based the BHPS 1991-2008.

Notes: each cell presents number of observations (*N*) and row percentages (%).

Table 4: Labour market transitions by mental health status – Women

No mental health condition (N = 35,713)								
		Future Status						Total
		Temp	PT-Perm	FT-Perm	Self-emp	Unemp	Inactive	
Temp	<i>N</i>	466	303	359	41	61	179	1,409
	%	33.07	21.5	25.48	2.91	4.33	12.7	100
PT-Perm	<i>N</i>	210	6,537	821	107	112	674	8,461
	%	2.48	77.26	9.7	1.26	1.32	7.97	100
FT-Perm	<i>N</i>	232	650	12,370	114	202	579	14,147
	%	1.64	4.59	87.44	0.81	1.43	4.09	100
Self-emp	<i>N</i>	36	70	78	1,257	26	130	1,597
	%	2.25	4.38	4.88	78.71	1.63	8.14	100
Unemp	<i>N</i>	74	129	181	22	212	303	921
	%	8.03	14.01	19.65	2.39	23.02	32.9	100
Inactive	<i>N</i>	310	893	445	135	274	7,121	9,178
	%	3.38	9.73	4.85	1.47	2.99	77.59	100

With a mental health condition (N = 3,819)								
		Future Status						Total
		Temp	PT-Perm	FT-Perm	Self-emp	Unemp	Inactive	
Temp	<i>N</i>	33	21	17	1	9	13	94
	%	35.11	22.34	18.09	1.06	9.57	13.83	100
PT-Perm	<i>N</i>	14	557	68	8	19	68	734
	%	1.91	75.89	9.26	1.09	2.59	9.26	100
FT-Perm	<i>N</i>	20	61	760	9	26	56	932
	%	2.15	6.55	81.55	0.97	2.79	6.01	100
Self-emp	<i>N</i>	3	9	3	113	8	8	144
	%	2.08	6.25	2.08	78.47	5.56	5.56	100
Unemp	<i>N</i>	8	16	22	5	49	59	159
	%	5.03	10.06	13.84	3.14	30.82	37.11	100
Inactive	<i>N</i>	22	88	31	12	51	1,552	1,756
	%	1.25	5.01	1.77	0.68	2.9	88.38	100

Source: Authors' calculations based the BHPS 1991-2008.

Notes: each cell presents number of observations (*N*) and row percentages (%).

Table 5: Average marginal effects for the mental health condition variable (multinomial logit models)

Men							Women						
Model 1							Model 1						
Base outcome							Base outcome						
	Temp	PT-perm	FT-perm	Self-emp	Unemp	Inactive		Temp	PT-perm	FT-perm	Self-emp	Unemp	Inactive
Temp	-0.033	...	0.014*	-0.002	-0.004	-0.025***	Temp	0.008	-0.005	0.006	0.003	-0.030	-0.016***
PT-perm	-0.023	...	0.002	0.007	0.007	-0.013***	PT-perm	-0.023	-0.018	0.018**	0.020	-0.046*	-0.033***
FT-perm	0.000	...	-0.072***	-0.008	-0.033	-0.040***	FT-perm	-0.047	-0.0004	-0.063***	-0.026*	-0.036	-0.015***
Self-emp	-0.015	...	-0.001	-0.050	-0.010	-0.016***	Self-emp	-0.018	-0.001	0.002	-0.014	0.008	-0.007***
Unemp	0.026	...	0.020**	0.029	-0.089	-0.014	Unemp	0.071**	0.011**	0.015***	0.045**	0.081*	0.006
Inactive	-0.001	...	0.037***	0.021	0.130***	0.108***	Inactive	0.008	0.013	0.022***	-0.028	0.023	0.066***
<i>N</i>	992	641	22,750	4,842	1,791	4,895	<i>N</i>	1,503	9,195	15,079	1,741	1,080	10,934

Men							Women						
Model 2							Model 2						
Base outcome							Base outcome						
	Temp	PT-perm	FT-perm	Self-emp	Unemp	Inactive		Temp	PT-perm	FT-perm	Self-emp	Unemp	Inactive
Temp	-0.012	...	0.013*	-0.001	-0.005	-0.024***	Temp	0.001	-0.005	0.006	-0.000	-0.027	-0.016***
PT-perm	0.014	...	0.001	0.008	0.006	-0.013***	PT-perm	-0.021	-0.014	0.017**	0.019	-0.047*	-0.029***
FT-perm	0.000	...	-0.068***	-0.003	-0.023	-0.033***	FT-perm	-0.058	-0.002	-0.062***	-0.026*	-0.033	-0.014***
Self-emp	-0.015	...	0.001	-0.043	-0.014	-0.014***	Self-emp	-0.017	-0.001	0.001	-0.002	0.005	-0.006*
Unemp	0.037	...	0.018**	0.025	-0.069	-0.015*	Unemp	0.079**	0.010*	0.015***	0.041**	0.080*	0.005
Inactive	-0.025	...	0.035***	0.014	0.105***	0.099***	Inactive	0.016	0.012	0.022***	-0.031**	0.021	0.060***
<i>N</i>	992	641	22,750	4,842	1,791	4,895	<i>N</i>	1,503	9,195	15,079	1,741	1,080	10,934

Source: Authors' calculations based the BHPS 1991-2008.

Notes: Model 1 includes age, age squared, ethnicity and education as controls; Model 2 augments model 1 with the past labour market experience variables. Standard errors (not reported) are calculated via the delta method. ***, ** and * signify statistical significance at the 1%, 5% and 10% levels respectively.

Figure 1: Relative labour market movements of men with a mental health condition

Males

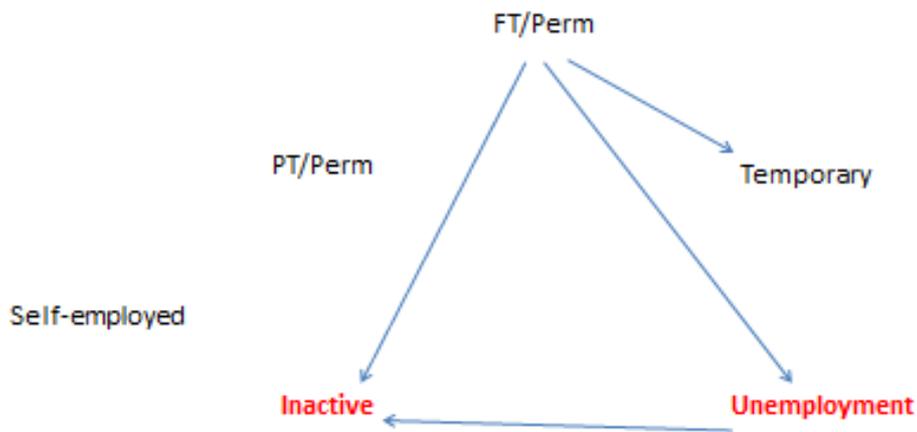
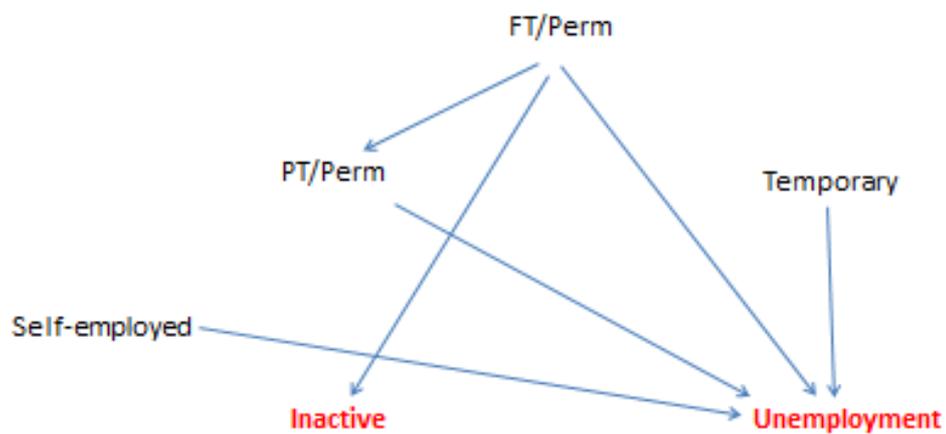


Figure 2: Relative labour market movements of women with a mental health condition

Females



Appendix

Table A: Multinomial logit estimates – Base outcome FT-perm (Men)

	Model 1					Model 2				
	Temp	PT-perm	Self-emp	Unemp	Inactive	Temp	PT-perm	Self-emp	Unemp	Inactive
Mental health	0.833** (2.845)	0.332 (0.738)	0.03720 (0.106)	0.8967*** (3.830)	1.3246*** (6.203)	0.7980** (2.821)	0.2565 (0.569)	0.1254 (0.364)	0.8545*** (3.635)	1.2973*** (6.085)
Age	0.225*** (6.401)	0.3014*** (6.846)	0.0237 (0.736)	1.1969*** (6.827)	0.3568*** (11.695)	0.1366*** (3.528)	0.2458*** (5.228)	-0.0380 (1.130)	0.1240*** (4.053)	0.2637*** (8.349)
Age squared	0.003*** (5.564)	0.0039*** (7.121)	0.0003 (0.674)	0.0022*** (6.108)	0.0049*** (13.414)	0.0015** (3.147)	0.0033*** (5.737)	0.0004 (1.057)	0.0014*** (3.781)	0.0039*** (10.505)
White	-0.276 (0.800)	0.4275 (0.805)	-0.1627 (0.577)	0.7979*** (3.481)	-0.2509 (0.822)	-0.1803 (0.544)	0.5535 (1.089)	-0.1565 (0.608)	-0.6620** (3.004)	-0.2011 (0.672)
Degree	0.193 (0.788)	0.7110* (2.069)	0.0222 (0.097)	1.1853*** (5.073)	-0.1030 (0.522)	0.1314 (0.549)	0.6491* (2.023)	0.0584 (0.270)	1.1692*** (5.209)	-0.2100 (1.072)
Further education	-0.235 (1.029)	-0.3053 (0.951)	0.0390 (0.199)	0.7829*** (4.330)	-0.1456 (0.919)	-0.1691 (0.761)	-0.2519 (0.831)	0.0564 (0.301)	0.6857*** (4.068)	-0.1353 (0.871)
A Levels	0.040 (0.153)	-0.4211 (1.063)	0.0237 (0.103)	0.7956*** (3.569)	0.1921 (1.020)	0.0794 (0.315)	-0.4078 (1.070)	0.0295 (0.134)	0.7204*** (3.419)	0.1522 (0.817)
O Levels	-0.273 (1.035)	-0.0699 (0.194)	0.1158 (0.515)	0.7350*** (3.482)	-0.5313* (2.462)	-0.1906 (0.744)	0.0065 (0.019)	0.0903 (0.422)	-0.6371** (3.191)	-0.4985* (2.336)
Other qualifications	0.002 (0.007)	-0.1027 (0.243)	0.0745 (0.275)	-0.4173 (1.796)	-0.6054* (2.206)	0.0750 (0.276)	-0.1059 (0.264)	-0.0720 (0.275)	-0.3330 (1.491)	-0.5629* (2.115)
Past Temp						1.2223*** (5.661)	0.8594** (2.589)	0.3788 (1.638)	0.7331*** (3.337)	0.1717 (0.622)
Past PT-perm						0.7557* (2.229)	2.6693*** (9.077)	-0.7431 (0.267)	0.7169* (2.373)	0.4210 (1.213)
Past FT-perm						0.1524 (0.562)	0.0142 (0.038)	-0.3477 (1.616)	-0.1645 (0.631)	-0.7070** (2.644)
Past Self-emp						0.6227 (1.909)	0.5631 (1.199)	2.0133*** (11.813)	0.0407 (0.110)	-0.5565 (1.345)
Past Unemp						1.2207*** (5.720)	0.9589** (3.070)	0.4992* (2.256)	1.3729*** (8.328)	-0.0156 (0.053)
Past Inactive						0.8603*** (3.320)	-0.1618 (0.361)	-0.5822 (1.527)	0.5752* (2.169)	1.0692*** (5.001)
Observations			22,750					22,750		
Pseudo R-squared			0.039					0.071		
Log-likelihood			-8,211.205					-7,940.573		

Source: Authors' calculations based the BHPS 1991-2008.

Notes: models include a constant. Cluster-robust z-statistics in parentheses. ***, ** and * signify statistical significance at the 1%, 5% and 10% levels respectively.

Table B: Multinomial logit estimates – Base outcome FT-perm (Women)

	Model 1					Model 2				
	Temp	PT-perm	Self-emp	Unemp	Inactive	Temp	PT-perm	Self-emp	Unemp	Inactive
Mental health	0.3817 (1.635)	0.4096** (2.765)	0.2473 (0.699)	0.8109*** (3.810)	0.5180*** (3.526)	0.3935 (1.699)	0.4134** (2.813)	0.2475 (0.717)	0.8093*** (3.808)	0.5224*** (3.561)
Age	0.1526*** (3.481)	0.0283 (0.949)	0.0262 (0.409)	0.1734*** (3.986)	0.1374*** (4.741)	-0.1080* (2.499)	0.0450 (1.573)	-0.0396 (0.597)	-0.1247** (2.781)	0.1163*** (3.696)
Age squared	0.0018** (2.985)	-0.0004 (0.902)	0.0004 (0.462)	0.0019*** (3.352)	0.0014*** (3.438)	0.0013* (2.172)	-0.0005 (1.308)	0.0006 (0.642)	0.0014* (2.327)	0.0011** (2.677)
White	-0.5422* (2.092)	0.2721 (1.053)	0.2903 (0.593)	-0.5267 (1.622)	-0.1734 (0.731)	-0.4948* (2.025)	0.2651 (1.088)	-0.1770 (0.395)	-0.4423 (1.361)	-0.1451 (0.616)
Degree	0.9110* (2.502)	-0.4374* (2.274)	0.6725 (1.579)	1.1964*** (4.015)	-0.3222 (1.729)	0.8355* (2.366)	-0.2851 (1.590)	0.6361 (1.496)	1.2109*** (4.070)	-0.3411 (1.844)
Further education	0.4830 (1.376)	0.4926** (2.813)	0.1676 (0.396)	0.8360*** (3.422)	-0.2854 (1.667)	0.5172 (1.504)	-0.3559* (2.170)	0.1715 (0.402)	-0.7805** (3.227)	-0.2724 (1.599)
A Levels	0.2124 (0.544)	-0.3479 (1.705)	0.3857 (0.842)	-0.7512* (2.542)	-0.4378* (2.274)	0.2491 (0.649)	-0.2404 (1.269)	0.3712 (0.808)	-0.7005* (2.395)	-0.4179* (2.180)
O Levels	0.2527 (0.683)	-0.3728* (2.102)	0.2365 (0.549)	-0.5155* (2.082)	-0.4526* (2.510)	0.2986 (0.818)	-0.2664 (1.603)	0.2821 (0.653)	-0.4736 (1.928)	-0.4376* (2.444)
Other qualifications	0.5032 (1.236)	-0.3199 (1.437)	0.0753 (0.139)	-0.4913 (1.615)	-.02339 (1.080)	0.5181 (1.299)	-0.2237 (1.083)	0.0875 (0.164)	-0.4410 (1.460)	-0.2146 (0.995)
Past Temp						1.0601*** (4.879)	-0.1723 (0.837)	-0.0626 (0.168)	0.2139 (0.749)	0.2186 (1.264)
Past PT-perm						0.1214 (0.534)	1.3302*** (11.795)	-0.3202 (0.876)	0.0032 (0.012)	-0.0011 (0.007)
Past FT-perm						-0.7289** (2.846)	0.5034*** (3.472)	1.2286*** (3.453)	-0.6675* (2.263)	-0.0300 (0.176)
Past Self-emp						0.6157 (1.297)	0.2483 (0.709)	1.9042*** (5.595)	0.1877 (0.298)	0.2500 (0.630)
Past Unemp						0.4713 (1.615)	0.3788 (1.773)	-1.0041 (1.338)	0.6556* (2.444)	0.3066 (1.399)
Past Inactive						-0.0299 (0.121)	0.4770** (2.887)	-0.6059 (1.272)	0.1992 (0.748)	0.2822 (1.778)
Observations			15,079					15,079		
Pseudo R-squared			0.014					0.041		
Log-likelihood			-8,457.517					-8,223.300		

Source: Authors' calculations based the BHPS 1991-2008.

Notes: Models include a constant. Cluster-robust z-statistics in parentheses. ***, ** and * signify statistical significance at the 1%, 5% and 10% levels respectively.

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