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## **Entering and Leaving Employment in Deprived Neighbourhoods Undergoing Area Regeneration**

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### **Abstract**

Concentrations of worklessness have been persistent in the UK for several decades but have not been tackled effectively by policy. An individualised approach to unemployment has existed, alongside employment policies without a strong geographical component. A reliance on area-based regeneration programmes has shifted from a property-led to a holistic approach, with the potential to address a range of factors associated with employment. To gauge the effectiveness and appropriateness of holistic area regeneration, this paper uses longitudinal survey data to examine movements into and out of employment for people living in deprived areas of Glasgow with concentrated worklessness and subject to area regeneration. There were modest net gains to employment over time in the study areas, and such gains were positively associated with traditional elements of regeneration such as housing improvements and community empowerment. However, other components of regeneration assumed to aid employment, such as social networks and participation in training, were found to have no effect. Other factors that were associated both with entering or leaving employment feature less frequently within regeneration programmes and require more integration into future approaches, particularly increasing physical activity among populations, helping people cope with physical and mental health issues, and improving transport and mobility.

### **Key Words:**

Deprived Areas; Worklessness; Employment; Health; Regeneration.

## **Introduction**

Concentrations of unemployment and worklessness<sup>1</sup> have been evident in the UK for the past thirty years. High rates of unemployment have combined with rising levels of inactivity in cities, industrial areas and mining towns (Green, 1994), along with the movement of unemployed people into long-term sickness and retirement (Beatty et al., 1997). Moreover, concentrations of worklessness have a distinct regional pattern, with all the highest rates in the north and west of the UK (Webster, 2000). For some, the root cause of these regional disparities is geographical unevenness in the process of deindustrialisation, with bigger losses of jobs in mining, manufacturing and transport-related construction in northern and peripheral regions (Webster, 2006). Others seek explanations in the causes of differential city growth rates, due to specific economic structures that make cities more or less competitive, differences in the densities of people and firms, and the effects of planning (or not) for expansion (Martin et al., 2015). Whatever the causes, by the end of the 1990s, the proportion of the working age population not in employment ranged from 19% in the South East to 34% in the North East (Webster, 2000, p.116 and figure 2). To put this in context, the overall non-employment rate across Great Britain was 25 percent in 2005, having fallen by around three percentage points over the previous thirty years (Berthoud, 2009).

A concentration of worklessness in certain districts and neighbourhoods has persisted through the first decade of the present century. In 2018, of the eighteen local authorities in the UK with an out-of-work claimant count double the UK average, eleven were in the North East, North West, Scotland and Northern Ireland, while five were in the six Midlands or Southern regions<sup>2</sup>. Furthermore, four out of ten people on out-of-work benefits in the UK live in the 20% most deprived neighbourhoods (Cabinet Office, 2010). Despite this persistence of geographical concentrations of worklessness, government policies to tackle the problem have predominantly consisted of policies focused on individuals, supplemented by area-based approaches from time to time. The latter have been criticised for being insufficient, with area regeneration programmes going out of favour in England (though continuing in a lesser form), and remaining as a key part of the policy portfolio for deprived areas in Scotland (see below).

However, the evidence for regeneration's impacts upon employment is sparse, with little support for the idea that large, area-based economic development initiatives would produce jobs for local people through a 'trickle down' effect (Taylor, 2008; Hayden and Hurrell, 2009). Yet, knowing what factors influence labour market outcomes for people in deprived areas can inform the design of area-based programmes, and avoid a retreat from spatially targeted initiatives on the grounds that regeneration has little economic impact and that nothing makes a difference to concentrations of worklessness. This paper aims to contribute to the evidence base by using longitudinal data from deprived areas undergoing regeneration in Glasgow in order to identify supply-side factors associated with employment change for individuals over time, of which there is little existing evidence from deprived areas subject to policy interventions. In this way, we aim to identify those factors, and associated elements of regeneration programmes, which could make a difference to employment outcomes in deprived areas.

## **Supply Side Factors Influencing Employment Outcomes**

To inform our analysis, we review the main supply-side factors identified as influential on employment outcomes for individuals. These can be grouped into four domains: personal and

household factors, including health; psychosocial factors; social networks; and labour market activity.

Two sets of personal and household factors affect employment outcomes. First, those relating to the economic attractiveness of a person in the labour market, such as age, ethnicity, education and skill level. Second, those acting as incentives or disincentives to job-seeking, such as having dependent children or loans to pay off on the one hand, and receiving welfare benefits on the other (Meyers and Houssemand, 2010; Stam and Long, 2010). Immobility is also important, for practical (e.g., no suitable transport routes) or financial (e.g., commuting costs are too high) reasons (Gobillon et al., 2007). Lastly, health is identified as a barrier to obtaining or retaining employment for those with a physical disability or mental health condition, due to a mixture of lack of opportunity or encouragement, discrimination, and fear and anxiety on the part of the individual (Goldstone, 2002; Centre for Mental Health, 2013).

As regards psychosocial factors, employment fulfils a number of functions, including aiding feelings of status and belonging and providing a sense of participation in purposeful and regular activity (Jahoda, 1981). Self-efficacy may be associated with the intensity and outcomes of job searching (Eden and Aviram, 1993; Crossley and Stanton, 2005; Moynihan et al., 2003), whilst self-esteem is predictive of job-search success (Ellis and Taylor, 1983), and sense of internal control is predictive of re-employment (Ginexi et al., 2000) and length of unemployment (Kanfer et al., 2001).

'Rich' social networks are good for circulating information and accessing employment opportunities (Wanberg et al., 2000). Unemployed people with close friends who are employed are more likely to exit unemployment and to have better mental health (Hannan, 1999). However, social networks in deprived areas are said to be too homogenous and too localised to act as a bridge into employment opportunities (Pinkster, 2007; Quinn and Seaman, 2008), or to provide social and psychological support (Gallie et al., 1994). In the UK coalfields, local social networks have meant that people have little knowledge or awareness of other places as potential work locations (Gore et al., 2007); moreover, a localised focus results in 'cultural resistance to travel to work' (Dodds, 2011, p.20).

Lastly, obtaining employment depends on whether the unemployed look for work, and with what level of intensity (Green et al., 2011), with local cultural influences playing a part. Whether someone looks for work depends partly upon whether they see unemployment as something to be addressed or something from which to disassociate (Latack et al., 1995). Job-search behaviour may also depend upon how unhappy someone is with being out of work, which, in turn, is to some extent a function of personal and societal norms. UK evidence has shown that the negative psychological effects of unemployment are less severe in deprived areas with higher unemployment rates (Clark and Oswald, 1994; Clark, 2003; Shields and Price, 2001). Further, the life satisfaction gap between the employed and unemployed has been found to be greater in countries with a stronger societal norm to work (Stavrova et al., 2011).

## **Government Approaches to Tackling Worklessness**

### *Individualised Policies*

A recent government report highlighted that 'in too many communities in the UK, worklessness is prevalent' and 'claimant numbers for many out-of-work benefits remain too high' (Cabinet Office, 2010, p.27 and p.33). The problem of concentrations of worklessness has been addressed over the

past two decades with a predominant policy focus on individual benefit claimants. This is done through welfare-to-work programmes, which promote job placements and work experience for the unemployed, organised through contracted-out providers with limited choice for claimants (Larsen and Wright, 2014; Work and Pensions Committee, 2015) and the tightening of conditionality in the benefits system (Dwyer, 2004). These changes especially affect lone parents (required to seek work earlier), sick and disabled people (moved to less generous benefits and subject to capability assessments) and offenders (required to enter work immediately upon release) (Watts et al., 2014).

UK Governments have become increasingly interested in reducing worklessness by seeking to break the link between employment and poor health (Minton and Pickett, 2012), with a harsher welfare system justified by the alleged benefits to health from moving into work. A government review of the evidence reported that worklessness is associated with poor health, whereas work is therapeutic and good for physical and mental health and wellbeing because it provides adequate incomes to secure material wellbeing as well as meeting psychosocial needs around identity, role and status (Waddell and Burton, 2006). One of the conclusions was that 'when their health condition permits, sick and disabled people (particularly those with 'common health problems') should be encouraged and supported to remain in or to (re)-enter work as soon as possible' (p.2).

However, the effects of this individualised approach can be detrimental to many people. Sanctions, for example, have demonstrable negative long-term effects on job quality, earnings and child welfare (Griggs and Evans, 2010). Reforms to benefit entitlements for disabled people, along with the way this group are portrayed by policy, have had negative effects on employer responses to disabled people (Garthwaite, 2010) and upon the standard of living, identity and status, and mental health of disabled people (Inclusion Scotland, 2015). Evidence reviews have shown that welfare-to-work is unlikely to improve the health of lone parents due to the small effects on employment and income, reduced control over job conditions, and conflicts with childcare responsibilities that result in stress, fatigue and depression among parents. However, some lone parents gained in terms of self-worth and confidence (Gibson et al., 2017; Campbell et al., 2016). The House of Commons Select Committee argued for two key improvements in the approach: better understanding of individuals' characteristics and the barriers to work they face, so as to design more effective approaches to tackle them; and, better integration of employment support with other local services such as housing, health, education and skills, and addiction services (Work and Pensions Committee, 2015). These comments are relevant to the analyses to be presented here.

Employment policies barely address the geography of unemployment and poor health. Recent analysis of mortality, serious illnesses and health behaviours has shown a persistent North-South divide on health indicators, with the worst health in the North East, North West and Yorkshire and Humberside regions (Ellis and Fry, 2010), largely reflecting the regional pattern of concentrations of worklessness, and deindustrialisation as 'a fundamental driver of poor health' (Walsh, 2012). Regional economic policy has been labelled ineffective due to persistent regional 'disparities in economic prosperity and performance' and a failure to divert sufficient economic activity and jobs from southern to northern regions, with recent calls for a spatial rebalancing of the UK economy (Martin et al., 2016). In contrast, the government's labour market policies have relied on a 'proactive employment service' on the grounds that the core problem lies on the supply-side not the demand-side of the economy (Webster, 2006, p.114). This is said to ignore the spatial structure of local labour markets and the friction of distance faced by those seeking jobs (Webster, 2006; Houston, 2005). Unless jobs are created within a few miles of concentrations of unemployment, residents in those areas are unlikely to access them (Webster, 1999). When government has sought to add geographic targeting to its employment service, as in the Working Neighbourhoods Pilot in

twelve locations in 2004-6, the effectiveness was said to be constrained by an organisational culture within Jobcentre Plus, which believed that the people requiring help shared a 'cultural expectation of worklessness' and were 'either demotivated or dishonest', reflecting the Government's own view in setting up the programme (Fletcher, 2008, p.575).

### *Area Based Regeneration*

In recent decades, UK public policy has also relied upon area-based regeneration initiatives to reverse the fortunes of disadvantaged neighbourhoods, although there have been debates over whether, and to what extent, these have been able to tackle unemployment and worklessness. Regeneration programmes in the 1980s and early 1990s were characterised as 'property-led', with 'the benefits expected to trickle down ultimately to the unemployed... in the community' (Turok, 1992, p.373). Property-led regeneration includes projects aimed at improving housing and the physical environment in deprived areas such as the Glasgow Eastern Area Renewal (GEAR) project (Turok, 1992); Urban Development Corporations, comprising coalitions between the public and private sectors to redevelop derelict land, as in London Docklands and Cardiff Bay (Imrie and Thomas, 1993); and 'prestige' developments to attract inward investment to under-performing cities such as the Birmingham International Convention Centre and Liverpool's Albert Dock (Loftman and Nevin, 1995). Such property-led regeneration was criticised for lacking mechanisms for redistributing jobs, and for ignoring human resource issues such as education and training (Imrie and Thomas, 1993). It was argued that regeneration programmes should be integrated with wider regional strategies around land-use planning, inward investment, education and transport infrastructure (Carley et al., 2000).

New Labour's New Deal for Communities (NDC) regeneration programme across 39 areas in England, which operated from 1998 to 2008, was therefore designed as, "holistic regeneration" [that] would enhance cross-outcome benefits' (Lawless et al., 2010, p.259), and included worklessness as one of its six outcome domains. The NDC was designed to tackle criticisms of past regeneration programmes as being too focused on physical regeneration, without enough community involvement, and lacking co-ordination between the centre and the local (Ball-Petsimeris, 2004). Nevertheless, New Labour's urban policy has been criticised for the restricted role offered to communities, the failure to tackle structural inequalities, conflicts with neo-liberal employment policies, and an inability to achieved 'joined up policy' due to overbearing control by central government departments with their own targets and priorities (*ibid.*; Imrie and Raco, 2003; Fuller and Geddes, 2008). It is also worth considering whether holistic regeneration is suitable for addressing the supply-side of employment by considering its contribution in the four domains discussed earlier.

Regeneration does not consistently or comprehensively tackle all the personal and household factors affecting employment, although more recent programmes like NDC have included significant expenditures on education (e.g., projects to improve school attainment, activities providing adult qualifications) and health (e.g., healthy lifestyle projects, improved health facilities) (CRESR, 2005). As regards psychosocial factors, it is plausible that regeneration could influence feelings of self-esteem, dignity and respect, self-efficacy and control, with secondary effects upon health and wellbeing, and in turn upon attitudes and behaviours related to employment. This is because psychosocial environments can include the community setting and residential arena (Egan et al., 2007; Kearns et al., 2012), and the two largest items of expenditure within regeneration

programmes tend to be housing, the physical environment, and community development (CRESR, 2005).

Regeneration is relevant to social factors that may influence employment through its attempt to create mixed-income and mixed-tenure communities. These are intended to facilitate the transfer of employment information and job opportunities through social ties between the employed and unemployed, and to boost investment and jobs through the local spending of those in higher-paid employment. However, evidence for employment effects from mixed communities is weak (van Ham and Manley, 2010), with deprived areas unable to attract the spending of employed, mobile individuals (Atkinson and Kintrea, 2004), and social interactions hampered by segregation between tenure groups at a neighbourhood level (Kleinhans, 2004).

Lastly, in terms of labour market activity, regeneration often seeks to connect local unemployed people with job opportunities and to stimulate interest in employment through forming partnerships with local employment services and companies, to whom local people can be referred. Regeneration directly and indirectly provides jobs with training components, the former through public realm and infrastructure projects and the latter through attracting companies to relocate to newly serviced sites within a regeneration area. It is also argued that greater engagement with employers, more business support, and the use of enforceable local employment clauses in development agreements within regeneration areas (Macfarlane, 2000; Campbell, 2000) can result in more available jobs and higher levels of labour market engagement by local people.

Despite the alignment of regeneration's concerns with many of the supply-side factors affecting employment, there is very little evidence of how employment outcomes change for residents living in places undergoing regeneration. For example, after a decade, NDC areas exhibited no significant changes in levels of unemployment or illness-related worklessness (Batty et al., 2010), even though on two indicators of human capital, participation in training and self-reported poor health, NDC residents exhibited positive change over time (Wilson, 2013). Separate analysis over a two-year period showed the NDC had increased the probability of entering employment for those who were in full time education or training, but not for those on out-of-work benefits (Gutierrez Romero, 2009). This is the only indication as to why labour market outcomes may have changed for one-in-seven NDC residents (Wilson, 2003).

Although the UK government since 2010 has withdrawn somewhat from area regeneration schemes in England (Lupton and Fitzgerald, 2015), the latest area-based regeneration programme, Estate Regeneration National Strategy, highlights reducing unemployment as one of its outcomes (DCLG, 2016, p.4). The other three countries of the UK are said to have '[retained] a focus on prioritising spend and services on meeting the needs of deprived areas' (Crisp et al., 2014, p.13), and in Scotland it is recognised that, for deprived communities, 'sustainable employment and reducing welfare dependency' (Scottish Government, 2011, p.39), may require 'additional intervention – or regeneration' (p.9). There is a need therefore to identify the main sets of factors that influence employment in order to consider the role that regeneration might play, on its own or alongside other services.

## **Research Aim**

Our aim is to add to the sparse evidence on whether or not employment changes occur in deprived areas during periods of regeneration. Moreover, we use longitudinal data on individuals from

deprived communities in Glasgow to produce a supply-side analysis of employment change, addressing the questions:

1. a. What factors are associated with entering employment over time?  
b. What is the relative importance of: personal and household factors, including health; psychosocial factors; social networks; and labour market activity?
2. a. What factors are associated with leaving employment over time?  
b. What is the relative importance of the aforementioned factors?

## Methods

### Study setting

Glasgow is a post-industrial city with extensive deprivation: 46% of the city's population live in areas classified as the most deprived quintile of neighbourhoods in Scotland ([www.understandingglasgow.com](http://www.understandingglasgow.com) and Figure 1). Glasgow has 'excess mortality' compared with other UK post-industrial cities (Walsh et al., 2010) and far higher mortality rates for pre-retirement males than the West European average (Whyte, 2016). The city has a relatively low employment rate: in 2014 the employment rate for those of working age was 7 points below the national average, at 65.6%. A quarter of the city's households were workless in 2015, one-and-a-half times the national rate and the highest rate for any Scottish city ([www.understandingglasgow.com](http://www.understandingglasgow.com)). Like poor health, worklessness is spatially concentrated: of the 56 planning neighbourhoods across the city, 16 had an employment rate below 50% at the 2011 census (Freeke, 2015).

Glasgow has an unusually large social-rented housing sector, making up 39% of the housing stock in 2001, compared with 11% across Scotland. In 2006, 15 regeneration areas of predominantly social housing, containing 35,000 people, or 6% of the city's population, were identified for renewal by the city council and its partners. These areas were to receive a mixture of physical redevelopment (in six Transformational or Local Regeneration Areas; see map, Figure 2) and housing improvements (in nine Housing Improvement Areas, Wider Surrounding Areas and Peripheral Estates; Figure 2), alongside a variety of neighbourhood, social and personal-support interventions (GHA, 2006; GCC, 2007). All other areas of social housing in the city were to receive housing improvement works to bring all stock up to the Scottish Housing Quality Standard by 2015 (Communities Scotland, 2007). Since four-fifths of the city (including all of the communities studied here; compare Figures 1 and 2), is officially classified as deprived (Scottish Government, 2012), most poor communities receive targeted or supplementary assistance across a range of policy sectors.

### Data source

We examined longitudinal data drawn from the first three waves of the GoWell Community Health and Wellbeing survey of householders (or partners), carried out in the spring and summer of 2006, 2008 and 2011. These repeat cross-sectional surveys, with a nested a longitudinal cohort, were administered across the aforementioned 15 communities in Glasgow. The questionnaire sought information about personal and residential circumstances, perceptions of community, health and recent physical activity, amongst other items. For Waves 1-3, response rates of 50.3%, 47.5% and 45.4% were obtained, yielding cross-sectional samples of 5956, 4698 and 4044 participants,

respectively. 1144 and 1332 participants were longitudinal cases at Wave 1-Wave 2 and at Wave 2-Wave 3, respectively, of whom, 365 were interviewed at all three waves. Further background to the methodology of GoWell is set out in Egan et al (2010). Ethical approval was granted by the NHS Scotland B MREC committee (no. 05/MRE10/89).

From the complete longitudinal sample of 2111 participants interviewed at Waves 1 and 2 and/or at Waves 2 and 3 (1144+1332-365), we excluded asylum seekers and refugees (13.4% of cases), migrant workers (as many as 9.9%), those in full-time education at T1 (2.7%), and respondents who were of retirement age (60+ years for women; 65+ years for men; 32.2%) by T2. The remaining 1369 cases, of British respondents of working age for whom complete data were available, were divided into two separate datasets comprising those in work (n=380) and those not in work (n=989) at T1 (wave-pairs combined).

## Variables

We examined the following employment-related outcome variables:

Entering employment: not working at T1 or T2 (“still not working”) vs. not working at T1 but working at T2 (“gained work”);

Leaving employment: working at T1 and T2 (“still working”) vs. working at T1 but not working at T2 (“lost work”).

For the two pairs of research questions we examined the associations of five groups of independent variables with the employment outcome variables.

(a) Personal and household factors covered demographics and finances. Demographics included: gender (male; female), age group (16-24; 25-39; 40-54; 55-59/64 years), highest level of education (none/school leaving certificate; higher); household type (adults only; with dependent children). Finances included: having difficulty paying for each of five items of household expenditure (never/not applicable/don't know; occasionally/quite often/very often) and the total number of items the participant had difficulty paying; regular access to a vehicle (no; yes).

(b) Health factors included: having a long-standing illness, disability or infirmity (no; yes); suffering from each of six specific long-term health conditions (no; yes); level of physical activity (low vs. moderate/high), based on responses to the International Physical Activity Questionnaire (IPAQ) (Patterson, 2010); and use of sports facilities, swimming pool or gym in the past week (no; yes).

(c) Psychosocial factors covered empowerment, status and wellbeing. Perceived empowerment with respect to planning and housing was assessed through questions about community proactivity and influence (disagree; agree), and the level of consideration and information received from one's landlord (dissatisfied; satisfied). Status benefits from the home and neighbourhood were assessed through agreement with statements about feeling a sense of progress from each, and about the relative desirability of one's home (disagree; agree). Two items of mental wellbeing were assessed (Tennant et al., 2007): the frequency over the previous seven days that participants had been “feeling good about themselves” and “feeling confident” (never/some of the time; most of the time/always).

(d) Two sets of social factors were examined: frequency of social contact with each of relatives, friends and neighbours (less than once a week; at least once a week); and, number of local amenities

used in the past seven days from social venues, park or play area, post office, small grocer, supermarket, shopping centre, library and community centre (0-2; 3-5; 6-8).

(e) For labour market activity, satisfaction with current employment status was asked of respondents who were in and not in work. Those out of work were asked if they had in the past year (no; yes): participated in paid work; actively sought work, applied for a job, or been interviewed for a job (categories combined due to low numbers) (no; yes); or received any training or education (waves 2 and 3 only) (no; yes).

## Analysis

The dichotomised employment outcome variables were analysed by logistic regression in two stages. First, bivariate regression models were produced for each independent variable in turn, significant differences between groups being concluded for values of  $p < 0.05$ . Second, two sets of parsimonious multivariate models were developed, initially using the baseline status versions of the independent variables and then using change-in-status versions of the same variables. These models were derived by backward elimination of non-significant terms from initial models comprising all variables with values of  $p < 0.100$  in the bivariate analyses (thereby somewhat reducing the possibility of not identifying factors that are significant in combination with others with which they are negatively correlated), and for which data were available for both wave pairs. Terms were retained in the multivariate models if they had a value of  $p < 0.05$ . Final models were confirmed by forward selection. Labour market variables were not included in the multivariate models because they were not asked of all respondents.

Since Wave 2 was conducted in 2008, around the time of the Global Financial Crisis, we checked to see whether the two wave pairs might reflect overall changes in circumstances “before” and “after” that event that were not directly due to the more local drivers of (un)employment we are concerned with here. However, we detected no overall difference in the odds of entering or leaving employment between T1 and T2 for the two wave pairs. Furthermore, interactions between wave pair and other independent variables were never statistically significant (and so are not commented upon further). Given these two findings, we considered it justifiable to combine the two wave pairs in our subsequent analyses.

## Limitations

Our analysis benefits from a substantial longitudinal sample of people living in regeneration areas, thus enabling us to look at changes in employment coincident with experiencing area-based interventions, something that has rarely been done. However, employment change is a relatively rare event in deprived areas and thus the power of the two sub-samples is reduced. We also do not have full employment histories for participants, so we cannot examine the (in)stability of employment changes over survey intervals. Our study areas contain substantial numbers of asylum seekers and refugees, although these declined over time (from 7.8% of all longitudinal cases at Wave 1 to 3.7% at Wave 3), and whilst the latter are permitted to work, there were too few in our sample to permit analysis of regeneration impacts upon them.

## Results

### *Employment status over time*

We analysed data from 1369 longitudinal observations in deprived areas of Glasgow. The composition of the sample shows a pattern of stability in employment terms (Table 1): from T1 to T2 just under two-thirds of participants (64.21%) were "still not working", and around one-fifth (22.28%) continued in employment. Transitions into and out of employment were relatively uncommon: 8.04% and 5.48%, respectively.

Gaining work was more common among women, those with educational qualifications, those without a long-standing illness, and in households with dependent children. The proportion gaining work decreased with age. Losing work was more common among men, those aged 16-24, those with educational qualifications, those without dependent children and those with no long-standing illness.

### *Entering employment*

We examined the odds of entering employment amongst the respondents who were not working at T1.

With regard to personal and household factors (Table 2), the likelihood of gaining work was greater for women than men (OR=1.60, 95%CI: 1.04-2.46), those with higher educational qualifications (OR=1.92, 95%CI: 1.26-2.91) and those living in a household with dependent children (OR=1.74, 95%CI: 1.16-2.61). The odds of gaining employment decreased with age, and was particularly low for those aged 55+ (OR=0.20, 95%CI: 0.07-0.57). None of the measures of financial position were significantly associated with gaining employment, although two variables came close to significance: those who had difficulty paying their rent at T1 (OR=1.49, 95%CI: 0.97-2.30) and those who had difficulty paying one or two items (OR=1.56, 95%CI: 0.97-2.51) exhibited higher odds of gaining employment. Owning or having access to a car at T1 was not associated with the likelihood of gaining employment by T2.

Health was strongly associated with gaining employment (Table 2). Having any long-standing illness was associated with a lower likelihood of entering employment (OR=0.20, 95%CI: 0.10-0.37). The presence of three physical health conditions at T1 was associated with lower odds of gaining work: respiratory condition (OR=0.32, 95%CI: 0.14-0.74), circulatory condition (OR=0.45, 95%CI: 0.22-0.95) and headaches/migraines (OR=0.16, 95%CI: 0.04-0.66). Chronic stress, anxiety or depression at T1 also lowered the odds of gaining employment (OR=0.43, 95%CI: 0.22-0.83). Participants who did moderate or high levels of physical activity at T1 were more likely to have entered employment by T2 than those who did a low level (OR 1.78, 95%CI: 1.04-3.06).

Elements of each of the three psychosocial factors were associated with entering employment (Table 3). A belief in being able to influence decisions affecting the local area was associated with a higher likelihood of entering employment (OR=1.53, 95%CI: 1.02-2.30), but empowerment in relation to housing was not. Those who gained feelings of status or progress from where they lived, i.e., their home made them feel they were doing well in their life at T1, were more likely to gain work (OR=1.60, 95%CI: 1.04-2.46). With regard to wellbeing at T1, those who felt good about themselves (OR=2.37, 95%CI: 1.32-4.23) or felt confident (OR=3.33, 95%CI: 1.78-6.22) were more likely to have gained work by T2.

None of the social factors showed any significant associations with the likelihood of gaining employment (Table 3).

Turning to labour market factors (Table 4), it is evident that gaining employment is positively associated with respondents' satisfaction with their employment situation at T1 (OR=2.07, 95% CI: 1.13-3.90) and T2 (OR=6.78, 95%CI: 4.17-11.01). Among the out-of-work, those who had done paid work or actively sought work prior to T1 had higher odds of subsequently entering employment than those who had not (OR=3.83, 95%CI: 1.68-8.70 and OR=4.03, 95%CI: 2.15-7.57, respectively). However, there was no evidence that undertaking training or education immediately before T1 significantly increased the chances of gaining work by T2.

Only three factors were independently associated with entering employment in the multivariate model using baseline predictor variables (Table 5). Respondents with educational qualifications and those whose home made them feel they were doing well in life were both more likely than others to have gained employment by T2 (OR=1.72, 95%CI: 1.12-2.63 and OR=1.69, 95%CI: 1.09-2.63, respectively). Having a long-standing illness was associated with being five times less likely to have gained employment (OR=0.20, 95%CI: 0.10-0.38).

The model using changes in predictor variables included four terms (Table 6). Gaining or retaining a long-standing illness over time was associated with much lower odds of entering employment (OR=0.22, 95%CI: 0.10-0.50 and OR=0.02, 95%CI: 0.0-0.14, respectively). Retaining and acquiring a difficulty paying the rent or mortgage were associated with much higher odds of gaining employment (OR=6.74, 95%CI: 2.72-16.75 and OR=6.06, 95%CI: 3.06-11.98, respectively). Conversely, people who experienced difficulty paying for food, whether at T1 or T2 or both, were less likely to have entered employment than others (OR=0.25, 95%CI: 0.11-0.54, for acquiring difficulty; OR=0.36, 95%CI: 0.14-0.88, for retaining difficulty; and OR=0.47, 95%CI: 0.25-0.88, for escaping difficulty). Long-term ownership and recent acquisition of a car were associated with greater odds of gaining employment (OR=2.14, 95%CI: 1.14-4.03 and OR=2.70, 95%CI: 1.53-4.74, respectively).

### *Leaving employment*

We now examine the odds of leaving employment over time. With regard to personal and household factors (Table 2), neither gender, educational level nor household type were associated with the likelihood of leaving employment between T1 and T2. Although participants aged 40-54 years were significantly less likely (OR=0.32, 95%CI: 0.14-0.78) to leave employment than those aged 16-24 years, there were otherwise no differences between the age groups. Household expenses were generally not associated with the likelihood of leaving employment, either individually or as the number of items causing difficulty increased. Car ownership at baseline was not associated with differential odds of moving out of employment.

Two health factors were associated with leaving employment (Table 2). Having a circulatory condition at T1 was associated with much higher odds of leaving employment (OR=6.18, 95%CI: 1.90-20.05), as was suffering long-term stress, anxiety or depression (OR=4.02, 95%CI: 1.57-10.29). These health results mirror the equivalent lower odds of gaining employment associated with the corresponding conditions among the group without jobs at T1 (see above). Those who used sporting amenities at T1 were half as likely to leave employment as those who did not (OR=0.51, 95%CI: 0.28-0.91).

Turning to psychosocial factors, empowerment variables showed no association with leaving employment (Table 3). One of the residential psychosocial benefits was associated with leaving employment: those whose home made them feel that they were doing well in life were half as likely

as others to leave employment by T2 (OR=0.52, 95%CI: 0.31-0.89), mirroring the result for gaining employment for this variable. None of the social factors was significantly related to the chances of losing employment for those with jobs at T1 (Table 3).

With respect to labour market factors (Table 4), there was no evidence that the level of satisfaction with employment status at T1 or T2 was associated with the likelihood of losing employment.

Four factors were independently significant in the baseline status multivariate model (Table 5). All other age groups were less likely (OR=0.27-0.39) than 16-24-year-olds to leave employment. Participants with a circulatory condition or long-term stress, anxiety or depression had significantly higher odds of leaving employment (OR=6.31, 95%CI: 1.78-22.31 and OR=3.13, 95%CI: 1.15-8.57, respectively) than those without these conditions. Finally, having a positive opinion about doing well in life through one's home was associated with half the risk of losing employment compared with others (OR=0.53, 95%CI: 0.31-0.92).

Two significant factors were identified in the change-in-status multivariate model of leaving employment (Table 6). Those who had acquired a long-standing illness were four times as likely to exit employment as those who continued without such a condition (OR=4.38, 95%CI: 1.92-10.01). Having a persistent problem of stress, anxiety or depression over time was associated with a much greater likelihood of leaving employment (OR=8.50, 95%CI: 1.50-48.30).

## **Discussion**

We have studied movements in and out of employment among residents of deprived areas undergoing housing-led and area-based regeneration in Glasgow in the first decade of the 20th century. Overall, regeneration in Glasgow has been associated with employment outcomes that are comparable to, or marginally better than, those from previous regeneration programmes in the UK. For example, the Single Regeneration Budget reported a net increase in full time employment of 3% over five years and the NDC a reduction in unemployment of 1% over six years (Rhodes et al., 2005; Batty et al., 2010). In our study, 8.0% of working-age adults in the sample from deprived areas in Glasgow entered employment over time versus 5.5% who left employment, with a net gain to the employment rate among participants of +2.5% during the five year period. This is also a relatively good performance given the context of a reduction in the city's employment rate over the same period of -0.7%, and a decline in the Scottish GDP growth rate for three of the five years of the study (Scottish Government, 2011). However, the employment rate in the study areas at the second time period, at 30.3%, remained very low compared with the city rate of 62.7% in 2011/12 (Scottish Government, 2018). Thus, as well as noting this overall positive outcome, it is worth identifying those aspects of regeneration that may have assisted with employment in order that they can be supported further to enable future programmes to have greater impacts.

A key finding is the positive association between psychosocial benefits, related to the housing-led and community-participation elements of regeneration, and employment gains. The most striking effect in our models came from residents feeling a sense of personal progress from their homes, i.e., their homes made them feel they were doing well in life. Those who thought this at one time point were subsequently more likely than others to have moved into work, and less likely to have moved out of work. Psychosocial benefits from the home, such as feelings of status and control, are associated with mental wellbeing (Kearns et al., 2012). It may be that improvements to an individual's home, as well as area-wide improvements in housing conditions and appearance, boost some people's confidence and optimism in ways that aid or stimulate their search for employment.

Thus, property-led regeneration may not be quite as immaterial to employment as suggested (Turok, 1992).

A second psychosocial factor found to be associated with employment gain was a sense of local empowerment: those who felt they could influence decisions affecting their area were more likely than others subsequently to have entered employment. Community engagement and empowerment are increasingly recognised as ways to make regeneration more effective and to instil feelings of control (Muir and Rhodes, 2008) and enhance feelings of self-worth (Woodall et al., 2010). It may be the case that where residents feel involved and listened to within processes of change, this boosts self-efficacy, which bears a relation to job-search behaviour (Eden and Aviram, 1993; Moynihan et al., 2003).

Physical activity was a third factor found to be associated with employment. This is a domain where regeneration often attempts to have impact through changes to the physical environment, although not usually supported sufficiently with behaviour change programmes. In our study, those with moderate/high levels of physical activity were more likely to have moved into employment later on than those with low levels. Low levels of physical activity are strongly associated with area deprivation (Farrell et al., 2013) and regeneration programmes have recently sought to impact this through an environmental pathway (Clark and Kearns, 2015). The proximity of green space has been found to be related to levels of physical activity (Coombes et al., 2010) and residents' assessments of the quality of parks and open spaces is associated with the frequency of neighbourhood walking (Mason et al., 2011). However, intervention studies provide only low quality, or in some cases mixed, evidence that the upgrading of green spaces such as parks, or the provision of new parks, increases physical activity (Bennie et al., 2017). Physical regeneration alone is probably insufficient to move many people up to moderate levels of activity and enable them to feel fit enough for employment, and personal support and group initiatives such as walking groups are also required as part of regeneration (Ogilvie et al., 2007).

Not all commonly proclaimed elements of regeneration appeared effective in employment terms, with social contacts and the use of local amenities having no associations with employment transitions in our study. It may be that the social networks of people in deprived areas are not diverse enough in type or sufficiently geographically dispersed to overcome localising constraints (Quinn and Seaman, 2008). Further, although 'mixed communities' produced by regeneration are intended to offer benefits, including access to job opportunities and employment information via social networks, the evidence for employment effects of social mixing is weak and mixed (Sautkina et al., 2012). Research on mixed-tenure estates has indicated that this is probably due to several weaknesses in approach: job opportunities provided in and around mixed-tenure locations are insufficient; the level and quality of amenities to support social networks is very low; and the spatial integration of different housing tenures, which generates more cross-tenure interactions, is uncommon (Kearns et al., 2013a, 2013b).

Some of our findings suggest that there are other areas that require more attention if regeneration programmes are to contribute to an uplift in employment in deprived areas. Health, for example, is not systematically addressed by regeneration programmes and does not often feature in their evaluations (Thomson et al., 2006), although this is changing. Yet, the overriding personal factor associated with employment in our study was health status. Long-standing illness status and a number of physical and mental health conditions significantly reduced the likelihood that someone would enter employment, or increased the likelihood that someone in work would move out of employment. Webster (2013) shows that the rate of long-term sickness benefit claims in a post-

industrial city like Glasgow is very high, and argues that enduring unemployment alters the extent of limitation people associate with their health conditions.

Our findings support the notion of a health-based strategy for employment within deprived areas. This would have to consider how to enable those out of work to cope better with their health conditions, but also how to see those conditions as less work-disabling, possibly adopting a behaviour change approach (Prochaska and Velicer, 1997). At the same time, where a regeneration strategy seeks engagement with local employers (existing or newly attracted) this should entail encouraging recruitment of employees with health issues, whilst addressing employer concerns over trust and costs through ongoing support to individuals, particularly those with mental health issues (Biggs et al., 2010).

Personal mobility is another important but often-ignored issue in regeneration, with calls for minimum standards of access and equity criteria to prevent the marginalisation of the poor by transport services (Titheridge et al., 2014). We found that having personal transport was associated with a higher likelihood of getting a job for those out of work. Indeed, accessibility issues and 'forced car ownership' have been identified among low-income groups, resulting from complex mobility needs or inadequate or costly public transport (Lucas, 2006; Curl et al., 2017). However, on the rare occasions when transport is considered as part of regeneration programmes, it is more often in terms of infrastructure investment and economic growth for cities (e.g. Volterra, 2014) than as a means of overcoming social exclusion for individuals (Schwanen et al., 2015).

With regard to labour market activity within regeneration areas, our findings indicate that relevant programmes may not be of sufficient scale or effectiveness, require understanding of adults' expectations and motivations, and may be constrained by the economic context in which they operate. Indeed, our finding that recent participation in training had no effect upon the likelihood of entering employment is not surprising. Other research into labour market programmes in Glasgow has shown a low conversion rate (15%) from training or work experience into employment, and a weak link between economic development and labour market strategies (Clark and Kearns, 2016). However, only one-in-sixteen of those out of work had taken part in such training, so the potential effects upon the wider out-of-work group are unknown. Conversely, actively looking for work appeared to be beneficial for getting a job, although, again, few (14%) of those out of work had sought employment.

A challenge for programmes addressing unemployment is to encourage people to look for jobs at a time when part-time work and self-employment have been growing and the number of full-time jobs has been falling (Fraser of Allander Institute, 2016). It seems that the employability elements of regeneration may not be engaging large numbers of those out of work. On the other hand, our finding that recent paid work increased the likelihood of subsequently gaining employment suggests that the direct provision of job opportunities through regeneration projects with local employment clauses may be effective if they are of a sufficient scale to tackle the extent of worklessness in the treatment areas.

The fact that those who were dissatisfied with being out of work were less likely to find employment over time may reflect the disadvantaged position of deprived areas within the local economy as well as the effects of concentrations of worklessness, with local norms and low expectations possibly preventing dissatisfaction leading to labour market activity. On the other hand, the fact that more of those who gain work were satisfied with their situation at T1 than those who remained out of work (38% vs. 23%, respectively) may suggest that being out of work suits some people at particular times of their lives, but those people are more likely to want to change that situation at a later date. The

role of choice for some people, but not most, is also indicated by the fact that more people who leave employment are satisfied with their situation afterwards than are those who remain out of work over time (40% vs. 25%, respectively).

Finally, we found that new or enduring difficulty paying for food was associated with much lower odds of gaining employment, possibly indicating that poor households are cautious about taking up very low-wage employment, or simply that poverty is an obstacle to gaining employment. Our findings also suggest that gaining employment is not a protector against poverty, in that having difficulty paying the rent was associated with a much higher likelihood of having gained employment over time (Table 6). These findings highlight the employment challenge facing regeneration in a period of austerity, stagnant incomes and growing flexible and insecure employment, all of which are in contrast to the views of low-paid workers who identify a sufficient hourly rate as well as 'predictable pay' as two key characteristics of 'decent work' (Stuart et al., 2016).

## **Conclusion**

This analysis of factors associated with movements into and out of employment among people living in areas subject to housing-led and area-based regeneration has shown that elements of place-based regeneration are not as ineffective as sometimes assumed. Physical regeneration may aid employment in two ways: by providing short-term employment or work experience, which we found to influence future employment; and through psychosocial pathways that support confidence, optimism, and mental wellbeing, which in turn aid employability and the search for employment. Social regeneration that comprises interventions to boost interactions and social capital within communities, although important for many other reasons, was not found to be an effective means of enhancing access to employment, although it may partly contribute to feelings of empowerment which are influential. Economic regeneration, providing temporary paid work and supporting job-search activity, can be beneficial. However, a lack of strategic co-ordination between area-based economic development and the further education sector may explain the lack of impact from participation in training (Clark and Kearns, 2016).

In addition, our findings indicate that place-based regeneration requires combination with people-based programmes for regeneration to impact more extensively on employment, since the strongest associations with movements either into or out of employment were found to be with financial difficulties relating to housing and food, vehicle access, and with suffering long-term physical health problems and poor mental health. In this context, it is worrying that whilst 'decent work' is good for people's health, residents in deprived areas have faced increasing difficulties finding work since the recession, sometimes accessing 'poor work' offering low pay, long hours and job insecurity (Crisp et al., 2009). If, however, the barriers to employment for those with health issues cannot be overcome, then social regeneration may become more important as an alternative means of providing engagement in purposeful activity for workless adults in deprived areas.

## Notes:

1. 'Unemployment' refers to not being in paid employment despite being available for work, and usually refers to individuals. 'Worklessness' refers to households containing adults of working age but no-one in employment. Sometimes, the term has also been used to refer to the combination of households lacking employment and the absence of jobs in the area. For ease, we refer to worklessness in this paper as shorthand for lack of employment among working age households.
2. The claimant count comprises those on Job Seekers Allowance and some of those on Universal Credit who are required to search for work. See: <https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/datasets/claimantcountbyunitaryandlocalauthorityexperimental>

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**Table 1.** Percentage composition of employment status samples by sociodemographic and personal characteristics (n=1369).

Category	Total	Employment status group				p	
		Still not working	Gained work	Still working	Lost work		
<b>Sample</b>							
Wave 1 - Wave 2 (n=646)		68.3	7.6	20.4	3.7		
Wave 2 - Wave 3 (n=723)		60.6	8.4	23.9	7.1		
Total (n=1369)		64.2	8.0	22.3	5.5		
		n=879	n=110	n=305	n=75		
<b>Variable</b>							
Gender	Male	40.5	39.6	29.1	45.9	45.3	0.140
	Female	59.5	60.4	70.9	54.1	54.7	
Age group (year)	16-24	6.6	6.0	10.0	5.6	13.3	<0.001
	25-39	36.6	35.6	48.2	35.4	36.0	
	40-54	43.0	41.9	36.4	49.8	38.7	
	55-64	13.7	16.5	5.5	9.2	12.0	
Education	None/SLC/dk	68.2	76.3	62.7	49.5	57.3	<0.001
	>SLC	31.8	23.7	37.3	50.5	42.7	
Household type	No dependent children	54.2	53.7	40.0	58.7	62.7	0.003
	1+ dependent children	45.8	46.3	60.0	41.3	37.3	
Longstanding illness	No	74.7	63.7	90.0	96.1	93.3	<0.001
	Yes	25.3	36.3	10.0	3.9	6.7	

1. SLC, School Leaving Certificate

**Table 2.** Bivariate associations between changes in employment status and baseline (T1) personal (including health) and household factors.

Variable (reference group)	Category	OR (95% CI)	
		Entering employment	Leaving employment
<b><i>Personal and household</i></b>			
Gender (Male)	Female	<b>1.60 (1.04-2.46)</b>	1.02 (0.62-1.70)
Age group (16-24 years)	25-39	0.82 (0.40-1.66)	0.43 (0.17-1.03)
	40-54	0.52 (0.25-1.08)	<b>0.32 (0.14-0.78)</b>
	55-59/64	<b>0.20 (0.07-0.57)</b>	0.55 (0.18-1.61)
Education (≤SLC)	>SLC	<b>1.92 (1.26-2.91)</b>	0.73 (0.44-1.21)
Household (No dependent children)	1+ dependent child	<b>1.74 (1.16-2.61)</b>	0.85 (0.50-1.42)
Difficulty paying (No):			
Rent	Yes	1.49 (0.97-2.30)	1.57 (0.90-2.75)
Repairs	Yes	0.79 (0.47-1.31)	1.08 (0.52-2.21)
Fuel	Yes	0.94 (0.62-1.43)	1.24 (0.68-2.25)
Food	Yes	0.92 (0.59-1.44)	1.52 (0.78-2.97)
Council tax	Yes	0.81 (0.51-1.30)	1.29 (0.72-2.31)
Number of items with affordability difficulty (0 items)	1-2 items	1.56 (0.97-2.51)	0.54 (0.24-1.21)
	3-5 items	1.10 (0.67-1.78)	1.75 (0.94-3.26)
Access to vehicle (No)	Yes	1.32 (0.78-2.21)	0.76 (0.45-1.26)
<b><i>Health</i></b>			
Longstanding illness (No)	Yes	<b>0.20 (0.10-0.37)</b>	1.74 (0.60-5.11)
Long-term health condition (No):			
Allergy or skin condition	Yes	0.72 (0.17-3.11)	8.33 (0.75-93.10)
Respiratory problem	Yes	<b>0.32 (0.14-0.74)</b>	2.40 (0.68-8.42)
Circulatory problem	Yes	<b>0.45 (0.22-0.95)</b>	<b>6.18 (1.90-20.05)</b>
Digestive problem	Yes	0.46 (0.14-1.48)	1.02 (0.21-4.89)
Headaches or migraines	Yes	<b>0.16 (0.04-0.66)</b>	0.87 (0.24-3.09)
Stress, anxiety or depression	Yes	<b>0.43 (0.22-0.83)</b>	<b>4.02 (1.57-10.29)</b>

Physical activity level (Low)	Moderate/High	<b>1.78 (1.04-3.06)</b>	0.73 (0.39-1.37)
Use of sports facilities (Not used)	Used	1.14 (0.73-1.78)	<b>0.51 (0.28-0.91)</b>

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Statistically significant ( $p < 0.05$ ) estimates in bold.

SLC, School Leaving Certificate.

**Table 3.** Bivariate associations between changes in employment status and baseline (T1) psychosocial and social factors.

Variable (reference group)	Category	OR (95% CI)	
		Entering employment	Leaving employment
<b>Psychosocial</b>			
Empowerment:			
People can improve things locally (Disagree)	Agree	1.28 (0.75-2.18)	0.82 (0.44-1.53)
People can influence local decisions (Disagree)	Agree	<b>1.53 (1.02-2.30)</b>	1.12 (0.67-1.86)
Landlord considers residents' views* (Unsatisfied)	Satisfied	1.33 (0.23-7.63)	0.77 (0.43-1.37)
Landlord keeps me informed* (Unsatisfied)	Satisfied	1.25 (0.21-7.41)	1.26 (0.67-2.37)
Status:			
Home provides sense of progress (Disagree)	Agree	<b>1.60 (1.04-2.46)</b>	<b>0.52 (0.31-0.89)</b>
Home is desirable (Disagree)	Agree	0.90 (0.52-1.54)	0.85 (0.45-1.61)
Neighbourhood provides sense of progress (Disagree)	Agree	1.08 (0.73-1.61)	1.02 (0.62-1.70)
Wellbeing:			
Feeling good about self (<Often)	Often/always	<b>2.37 (1.32-4.23)</b>	0.72 (0.36-1.45)
Feeling confident (<Often)	Often/always	<b>3.33 (1.78-6.22)</b>	0.70 (0.35-1.41)
<b>Social</b>			
Frequency of social contact (<1/wk):			
Relatives	1+/wk	1.02 (0.68-1.54)	0.71 (0.43-1.20)
Friends	1+/wk	1.26 (0.79-2.00)	0.93 (0.53-1.64)
Neighbours	1+/wk	0.84 (0.54-1.30)	1.32 (0.70-2.50)
Amenities used (0-2):			
	3-5	0.85 (0.47-1.53)	1.14 (0.56-2.32)
	6-8	1.00 (0.55-1.81)	0.75 (0.37-1.53)

Statistically significant ( $p < 0.05$ ) estimates in bold.

\* Social renters and private renters only

**Table 4.** Bivariate associations between entering employment and labour market factors.

Variable (reference group)	Category	OR (95% CI)	
		Entering employment	Leaving employment
Employment status satisfaction (unsatisfied)			
T1	Satisfied	<b>2.07 (1.13-3.80)</b>	0.83 (0.44-1.57)
T2	Satisfied	<b>6.78 (4.17-11.01)</b>	0.11 (0.06-0.22)
In year before T1 (No):			
Paid work	Yes	<b>3.83 (1.68-8.70)</b>	-
Job searching	Yes	<b>4.03 (2.15-7.57)</b>	-
Training/education	Yes	1.75 (0.19-16.04)	-

Statistically significant ( $p < 0.05$ ) estimates in bold.

**Table 5.** Multivariate models of changes in employment status by baseline predictor variables.

Variable (reference group)	Category	OR (95% CI)
<b>Entering employment</b>		
Education ( $\leq$ SLC)	>SLC	<b>1.72 (1.12-2.63)</b>
Long-standing illness (No)	Yes	<b>0.20 (0.10-0.38)</b>
Home provides sense of progress (Disagree)	Agree	<b>1.69 (1.09-2.63)</b>
<b>Leaving employment</b>		
Age group, years (16-24)	25-39	<b>0.39 (0.16-0.98)</b>
	40-54	<b>0.27 (0.11-0.67)</b>
	55-59/64	0.37 (0.12-1.17)
Long-term health condition (No):		
Circulatory	Yes	<b>6.31 (1.78-22.31)</b>
Stress, anxiety or depression	Yes	<b>3.13 (1.15-8.57)</b>
Home provides sense of progress (Disagree)	Agree	<b>0.53 (0.31-0.92)</b>

Statistically significant ( $p < 0.05$ ) estimates in bold.

SLC, School Leaving Certificate

**Table 6.** Multivariate models of changes in employment status by change in predictor variables.

Variable (reference group: still not)	Category	OR (95% CI)
<b>Entering employment</b>		
Long-standing illness (LSI)	Now with LSI	<b>0.22 (0.10-0.50)</b>
	Now without LSI	0.60 (0.28-1.29)
	Still with LSI	<b>0.02 (0.00-0.14)</b>
Difficulty paying rent	Now has difficulty	<b>6.06 (3.06-11.98)</b>
	No longer has difficulty	1.66 (0.90-3.06)
	Still has difficulty	<b>6.74 (2.72-16.75)</b>
Difficulty paying for food	Now has difficulty	<b>0.25 (0.11-0.54)</b>
	No longer has difficulty	<b>0.47 (0.25-0.88)</b>
	Still has difficulty	<b>0.36 (0.14-0.88)</b>
Access to car	Now has car	<b>2.70 (1.53-4.74)</b>
	Loss of car	0.14 (0.02-1.08)
	Still with car	<b>2.14 (1.14-4.03)</b>
<b>Leaving employment</b>		
Longstanding illness (LSI)	Now with LSI	<b>4.38 (1.92-10.01)</b>
	Now without LSI	0.00 (n/a)
	Still with LSI	2.61 (0.79-8.62)
Long-term stress, anxiety or depression	Gain of condition	1.50 (0.57-3.98)
	Loss of condition	1.28 (0.30-5.45)
	Still with condition	<b>8.50 (1.50-48.30)</b>

Statistically significant ( $p < 0.05$ ) estimates in bold.

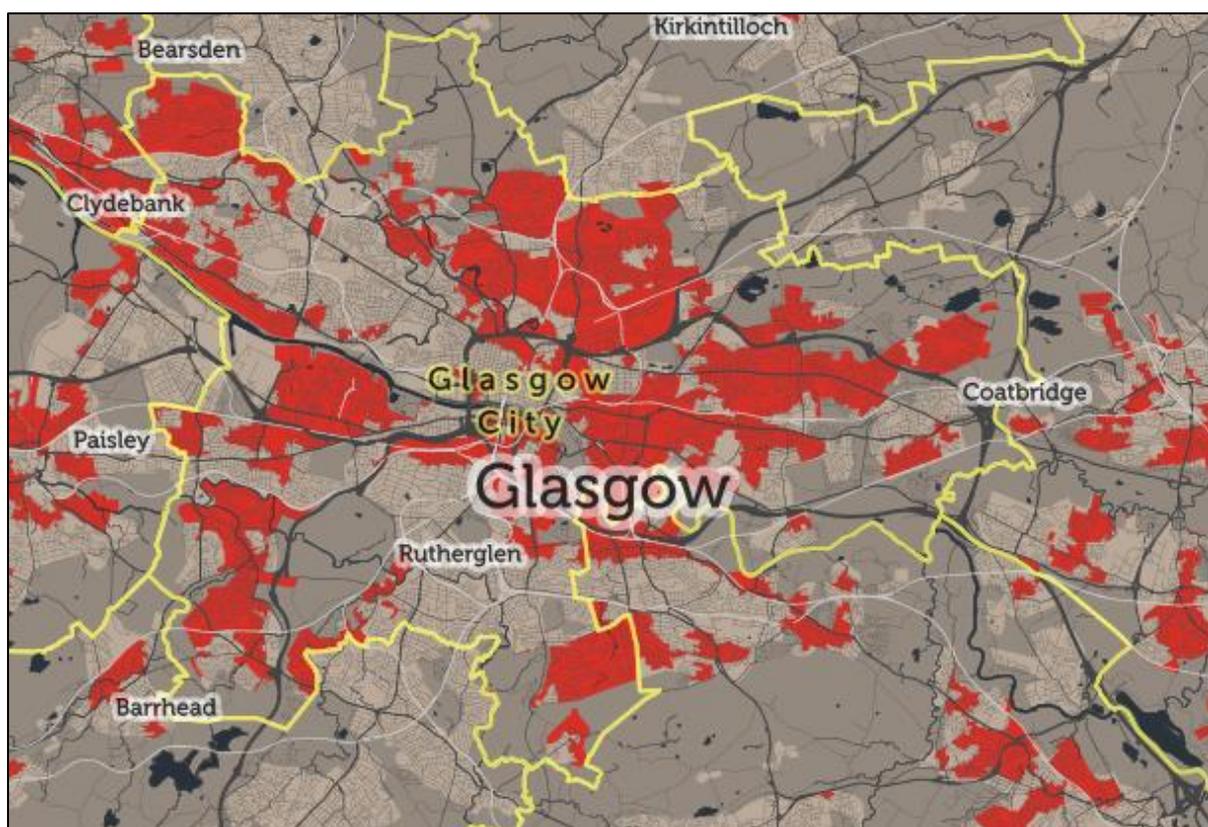


Figure 1. Most deprived quintile of neighbourhoods, Glasgow, 2016, Scottish Index of Multiple Deprivation (SIMD). <https://www.gov.scot/Topics/Statistics/SIMD>  
Contains Scottish Government and Ordnance Survey Data. © Crown copyright and database right 2012-6.

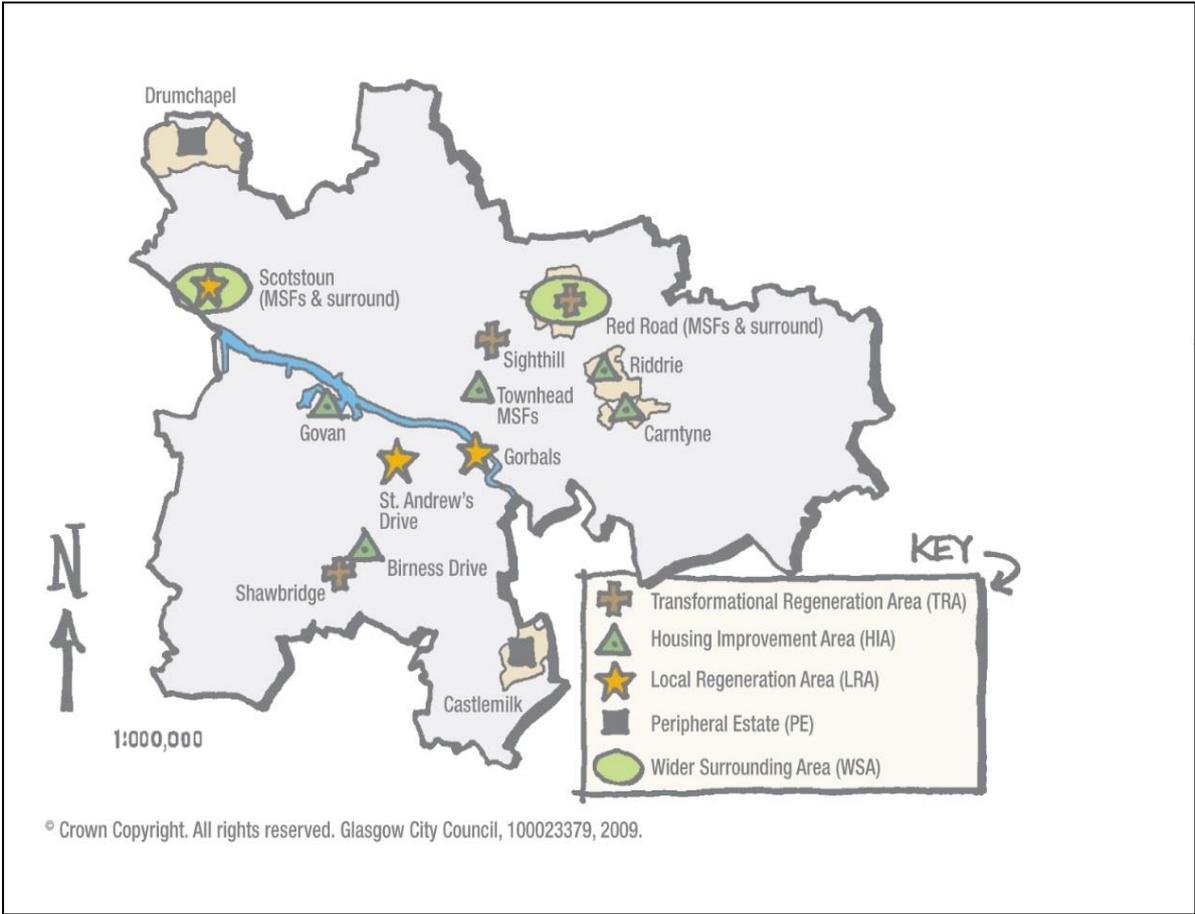


Figure 2. Study area locations across Glasgow.