

Poverty Dynamics in Rural Britain 1991-2008: Did Labour's Social Policy Reforms Make a Difference?

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Abstract

This paper uses data from the British Household Panel Survey (BHPS) to examine whether poverty dynamics changed in rural and urban Britain between 1991 and 2008, prior to the economic crisis. In addition to descriptive statistics, poverty exit and re-entry hazard models are estimated to assess the effect of household and personal characteristics, place of residence and participation in social policy programmes (benefits) on the time spent in poverty. Particular attention is paid to the election of the 'New Labour' government in 1997 and the impact of its social policy reforms. The analysis reveals that rural poverty is not a rare experience with half the population of rural Britain experiencing poverty at some point over this period. While, the risk of poverty affected a much higher proportion of the rural population than previously thought, both rural and urban poverty fell from 1999 when Labour began to introduce its spending programme and reforms, with rural poverty falling further than urban. Our analysis suggests these policy reforms played an important role in rural dwellers' increasing mobility out of poverty and in decreasing mobility back into poverty during 1999-2007.

Keywords: Rural poverty; poverty dynamics; social exclusion; New Labour; rural Britain; welfare reform.

1. Introduction

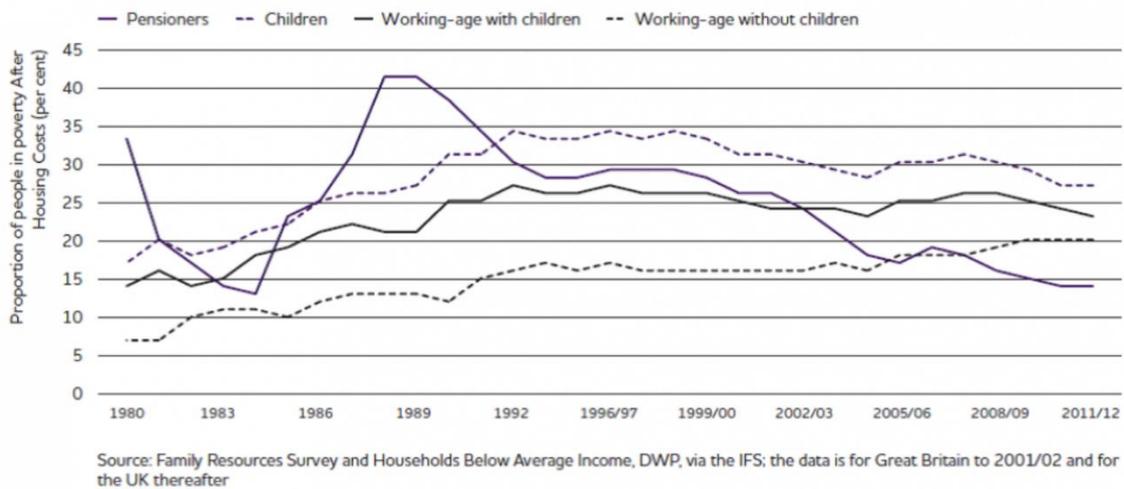
Poverty may be understood as the lack of sufficient income to obtain life's necessities such as food, clothing, shelter, transport and essential services; or in relative terms, following Townsend (1979), poverty is the "inability to share the standard of living of the majority in society." From a statistical standpoint, it has become conventional in Europe to regard people as relatively poor if their household's income is less than 60% of median household income nationwide (Eurostat 1998; Department for Work and Pensions 2001). Regardless of the definition of poverty used, poverty rates vary over time in response to changes in a nation's macro economy, its social policy or/and the socio-demographic composition of its population.

From a more micro perspective, people's chances of being or becoming poor are associated with their individual socio-demographic and economic characteristics including age, sex, educational attainment and labour market situation, as well as their household size and composition (Jenkins and Rigg 2001). Nonetheless, people's poverty chances are also associated with a nation's welfare policy regime. Since social welfare policies change over time, their impact on poverty rates is also time varying. Thus, poverty, inequality and unemployment grew markedly during the 1980s and early 1990s, under Conservative governments, culminating in a major recession during the early 1990s. As Toynbee and Walker (2011: 200) observed, "When Labour came to power, a third of all the poor children in the EU15 countries were born in the UK. The 1980s had seen poverty shoot up; the health of the poor was bad and getting worse; the gap in life-expectancy between rich and poor was growing. These trends played out intensively where deindustrialisation had gone furthest. From the moment Labour ministers came to power, they

eagerly commissioned studies on how to remedy the inequality.” The Labour Government launched a wide-ranging suite of new social welfare policies focused on alleviating poverty.

Dickens and Ellwood (2003) showed that increases in social benefits for families with children and declines in parents’ unemployment contributed to lower child poverty. As shown in Figure 1, the UK’s overall poverty rate declined after 1999 in response to Labour’s welfare policy reforms and the more buoyant economy (Damioli 2010). Even so, the UK Social Mobility Commission concluded that social mobility has stagnated since 2015. Hence, there is evidence that life chances are not evenly spread throughout the UK population and communities, and that vulnerable groups still need assistance (Social Mobility Commission 2019).

Figure 1: UK Poverty Rates by type of individuals. 1980 – 2012



Source: JRF 2013

Spatial Differences in Poverty:

Poverty is not evenly spread throughout a country. Where one lives affects poverty risks and other measures of economic security and well-being. As Lobao et al (2007) have observed in the *Sociology of Spatial Inequality*, historical processes of uneven spatial development result in differential place endowments that contribute to higher or lower poverty rates at the local level. Hence, while the likelihood of being poor is related to a person’s human capital and demographic characteristics, it is also contingent on the social and economic structure of one’s place of residence. Places vary with respect to the share of their economic establishments that provide well-paying jobs and effective mobility ladders, the rigidity of social hierarchies, and the capacity of local institutions to provide education, governance and health care; and the effectiveness of multi-scalar relationships between and within places. All of these place attributes affect a person’s life chances.

In the UK, poor people live in a wide variety of places, both urban and rural, but rural populations overall have been shown to have somewhat lower poverty rates than their urban counterparts (Milbourne 2016). If poverty rates vary between urban and rural places in the UK, one wonders whether New Labour’s reforms also had differential impacts in reducing the likelihood of poverty for persons living in urban vs rural places? This raises an unresolved question that we examine

in this research. One of our primary goals is to determine if New Labour's policy reforms (implemented from 1999) were differentially effective in reducing time spent in poverty in rural vs urban areas. We do this by using panel data from the British Household Panel Survey (BHPS) to examine whether rural-urban residence is associated with the effectiveness of New Labour's policies in reducing the prevalence of poverty, and if so whether this is via exits from poverty and/or through changes in the likelihood of re-entry into poverty.

As Shucksmith (2016:436) has observed, "People live in, and experience poverty, inequality and social exclusion in places both urban and rural...". However, one important unresolved issue is the extent to which a person's life chances are associated with place of residence per se, or if this spatial association results from area differences in personal and household attributes. In other words, are area differences in poverty rates a result of population selectivity, or does local social structure have a role in producing and reproducing poverty. Accordingly, because rural areas are structurally different in several respects from their urban counterparts, as explained below, we focus on whether the New Labour social policy reforms might affect changes in the prevalence and dynamics of poverty differently for persons living in rural vs urban areas.

While previous research has demonstrated that rural areas are relatively less disadvantaged than their urban counterparts in the UK, most of this research simply compares urban vs rural poverty rates at points in time and does not examine poverty dynamics. Chapman et al. (1998) is an exception. This study examined panel data from the British Household Panel Survey (BHPS) to compare rural-urban differences in time spent in low income and low pay work. Consistent with previous research, the authors found that rural persons were less likely to be poor than their urban counterparts, but they went farther and showed that the lower rural poverty rate is attributable to a lower risk of falling back into poverty after a spell out of poverty. In contrast, exit from poverty was equally likely among rural and urban persons.

As indicated above, where one lives affects one's life chances. Even though Britain has an idyllic view of rural areas, research shows that rural poverty is often hidden in beautiful landscapes and diffused from the public's view (Shucksmith and Schafft, 2012). Rural areas are typically seen as being better off in the UK, hence research and policy are rarely directed towards rural poverty. The common perception is that rural poverty is confined to a small number of places or to particular rural subgroups, rather than being spread throughout the countryside (Bulman 2017). For example, DEFRA routinely refers to "hidden pockets of deprivation" in rural England.

Research has shown that the risk of poverty among rural residents in the UK is much higher than generally appreciated, and that an array of rural structures and place attributes factors are potentially associated with relatively high poverty risks across people's life course. These include the fragility of some rural economies, a high prevalence of in-work poverty resulting from a combination of poor access to well-paying employment opportunities or training, low skills of many rural workers, small firms and constrained access to employment opportunities as a result of infrequent, inadequate and more expensive transport (Williams and Doyle. 2016; Shucksmith 2016).

Earlier studies also revealed some significant differences in the dynamics of rural and urban poverty prior to 1997, such as: (1) a lower rural rate of downward low income mobility; (2) a lower overall incidence of persistent rural low income but more widespread and persistent low

pay; and (3) higher rural labour market participation rates for those with persistently low income, with the probability of rural low income escapees being less affected by increases in the number of earners or adults in the household (Phimister et al 2000a). These findings pointed strongly towards structural causes of rural poverty, finding no evidence of 'cultures of poverty' nor benefit dependency. On the contrary, while elderly people and lone parents faced long-term poverty, others faced short spells of poverty during which the support of the welfare state was crucial (Shucksmith & Chapman 1998; Chapman et al 1998; Phimister et al 2000a; Shucksmith 2000; Shucksmith et al 2006).

Given this background, our overall aim is to determine if poverty in rural Britain is different from that in urban Britain. Specifically, we examine whether rural poverty is restricted to a small minority or is more widespread, whether the New Labour Government's reforms starting in 1999 have affected rural poverty dynamics differently compared with their urban counterparts, which if any of the reform programmes most effectively address rural poverty, and if factors associated with exits from and re-entry to poverty are similar in rural and urban areas.

The paper proceeds as follows. The following section provides a summary of the changing context for the analysis, both in terms of Labour's policy reforms and of the broader British economy. In Section 3 the research strategy, along with the data and definitions used, are presented. Section 4 presents our analysis of changes in rural and urban household poverty between 1991-99 and 2000-08. This sets these trends and changes in the context of earlier studies of rural poverty and relates these to Labour's policy reforms. In Section 5, we use hazard modelling to explore the source of rural-urban differences in the poverty dynamics and to answer the questions set out above, including the extent to which the New Labour Government's policy reforms affected rural poverty dynamics differently than urban dynamics. Section 6 concludes and reflects on the work's key policy implications.

2. A Changed Institutional Context: New Labour's Policy Reforms

During the 1990s, UK governments grew interested in the 'welfare to work' approach being deployed by the Clinton government in the US. The UK Conservative government of 1992-97 made numerous reforms to social assistance 'to make it harder to claim' i.e. increasing welfare conditionality. Labour governments from 1997 continued applying these conditions, but more than offset them with more generous measures 'to make work pay', thereby in both respects increasing incentives to work (Brewer and Shepherd 2004; Cappellari and Jenkins 2009).

Thus, in 1996, the Conservative government replaced the previous system of Unemployment Benefit and Income Support with Job Seekers Allowance (JSA). In accordance with their policy of incentivising work, JSA reduced benefit levels and increased conditionality by applying more stringent job search requirements. This, together with the growing economy after 2000, contributed towards a fall in the numbers of JSA claimants by 16.5% across England during 2000-06, and in rural England by 27% (DWP 2007). The reasons for this much higher decline in JSA claimants in rural England are unknown, though Watkin (2010) and Milbourne (2016) suggest it may derive more from these reforms reinforcing stigmatisation of benefit receipt in rural areas than from better job opportunities. Labour's welfare reforms may also have played a role.

When Labour came to power in 1997, they were also heavily influenced by 'welfare to work' ideas. However, they adopted a more radical approach going beyond making it harder to claim social assistance by seeking to make work more rewarding and achievable. One element was a suite of 'New Deal' schemes, notably a New Deal for young people to help them overcome obstacles to finding work, financed by a windfall tax on the recently privatised public utilities. Further New Deals were announced, for the over-50s, for lone parents, for people with disabilities, and for poorer (urban) communities, each with targeted programmes.

Another element of 'making work pay' was the introduction of a statutory *National Minimum Wage* (NMW) in 1999. This programme raised the pay of 1.2 million low paid workers, most of whom were women (Toynbee and Walker 2011, 205; Brewer and Shepherd 2004). As Phimister et al (2000b) showed, low pay is more prevalent and more persistent in rural areas of Britain, and accordingly Gilbert et al (2003) anticipated that the NMW's impacts would be greatest in remote rural areas.

Also in 1999, the *Working Family Tax Credit* (WFTC) was introduced as a work-contingent, means-tested benefit for parents with dependent children. This was extended in 2003 to all those of working age (with or without children) and renamed the Working Tax Credit (WTC). These tax credits not only augmented family incomes but also included an allowance towards childcare costs. These tax credits, together with increases in child benefit rates and child allowances of JSA are widely assessed to have been effective in reducing child poverty – a totemic objective of Labour's policies. A similar mechanism, *Pension Credit*, was introduced to address poverty amongst those over the state pension age, topping up their weekly income to a minimum level set by Government. As with the working age programmes, pension credit has proved effective in addressing poverty in old age, so long as it is actively claimed. Analysis by Bradshaw and Richardson for the Commission for Rural Communities (CRC 2007b) revealed that take-up of pension credit is significantly lower in smaller rural settlements. Eligible residents not claiming the Pension Credit were 35% in urban areas, 43% in villages, and 54% in hamlets and isolated dwellings.

It is notable that these three crucial measures (NMW, WFTC and Pension Credit) were not administered by the Department of Work and Pensions (DWP) but by the tax authorities (HMRC), nor were they defined as social assistance (Cappellari and Jenkins 2009).

Another relevant policy reform should be mentioned. *Incapacity benefit* (supplanted in 2008 by Employment and Support Allowance), is an even more important source of welfare support than JSA in rural areas. In rural England 3.7 people were on incapacity benefit for every person on JSA, compared with a ratio of 2.5 in urban England (CRC 2007a). The number of people receiving incapacity benefit rose dramatically in the 1990s, as older male workers lost jobs in traditional industries and were encouraged to claim incapacity benefit to make unemployment figures appear lower (Beatty and Fothergill 2004). Female claimant rates rose subsequently for reasons that are less clear.

Labour's social policy reforms are generally agreed to have had a marked impact nationally (Brewer et al 2009, Cappellari and Jenkins 2009, JRF 2018). By shifting support from benefits to tax credits and from DWP to HMRC, the policies offered more generous in-work support for low-income families and for pensioners. Accordingly, the proportion of pensioner households in

poverty fell from 29% in 1996/97 to 17% in 2005/06, and the rate of child poverty fell from 34% to 30% (DWP 2007). The overall impact in rural England can also be seen from Government analysis of the Family Resources Survey by council areas.¹ This research shows a dramatic decline in rural pensioner poverty and child poverty from 1996/97 to 2004/05. In the most highly rural districts (R80), child poverty (after housing costs) fell from 26% to 22%, and in less rural districts (R50) from 25% to 20%. The decline in poverty among pensioner households was even greater, in the most rural districts (R80) from 27% to 21%, and in other rural districts (R50) from 26% to 18%. Against the trends of rising child and pensioner poverty pre-1997, these are considerable achievements. However, studies by the CRC indicate that poverty still lingered in rural areas. In 2006, over 0.5m people of working age in rural England were still claiming a key benefit (CRC 2007a), with a higher proportion in sparse rural areas (especially of incapacity benefit). That study also revealed that between 2000-06, there were *reductions* in the number of rural residents claiming JSA and Lone Parent Benefit but *increases* in numbers claiming Incapacity Benefit. Hence, the impact of New Labour's social policy reforms on rural poverty is still somewhat unresolved.

3. Research Strategy, Data, Definitions and Methodology

In this paper we use longitudinal household panel data to examine rural and urban poverty dynamics. This approach has rarely been used to examine rural poverty in the UK, apart from a few studies around the turn of the century (Chapman et al 1998; Phimister et al 2000a, 2000b; Shucksmith 2000; Gilbert et al 2006). Most studies of rural poverty in the UK have instead relied upon case studies or cross-sectional data analysis. While such research yields important information about the prevalence and composition of poverty at points in time, it does not permit one to examine changes in the dynamics of poverty. Longitudinal analysis, in contrast, provides a lens for examining the personal attributes and contextual characteristics associated with spending prolonged periods in poverty as opposed to shorter episodes (see Bane and Ellwood, 1986 for a seminal contribution). Our unit of analysis is the individual. This is necessary because individuals move from one household to another over time. For example, children leave the parental house or partners split. Nonetheless, the analysis uses information on household income and demographics, as well as individual attributes such as age, gender, education, employment and health. By regularly collecting data from the same individuals, longitudinal surveys permit one to examine individuals' variability in income dynamics and the persistence of poverty. Because household records are geo-coded, it is also possible to distinguish and compare rural and urban households and the individuals living in them according to standard definitions such as those employed by Government. In this paper we use longitudinal data to determine whether poverty in rural Britain is different from that in urban Britain, and if this has changed during 1990-2008. Moreover, we enquire whether rural poverty affects a small minority of persistently poor persons, or if a much larger proportion of rural society is at risk.

The paper thus updates our knowledge on the level and the dynamics of poverty in rural areas in comparison with their urban counterparts for the period between 1991 and 2008, prior to the economic crisis. This timeframe is of interest because Britain's 'New Labour' government gained

¹ <http://www.defra.gov.uk/rural/ruralstats/ofa.htm> These rural estimates are not strictly comparable with the DWP figures, since they are relative to the GB median household income, not the English median used by DWP.

power in 1997 and, as indicated above, their social policy reforms contributed to decreases in poverty across the country, especially in relation to child poverty and poverty beyond state pension age (DWP 2007, 2008). Thus, we pay attention to changes in the extent and length of time rural and urban individuals spent in poverty both before and after the Labour government's arrival. Although we do not directly evaluate the effects of specific policy reforms, the 1991-2008 period permits us to identify rural-urban differences in trends across time in poverty exit and re-entry rates, and their temporal association with institutional changes undertaken by Labour, mainly from 1999 onwards. We estimate relative income poverty exit and re-entry hazard models that account for the presence of multiple spells in and out of poverty and time-invariant unobserved individual heterogeneity.

Our analysis is based on the eighteen waves of the British Household Panel Survey that were available from 1991 to 2008. From these data, an unbalanced panel of individuals (including children) was constructed. Original sample respondents (aged 16 and above) are followed and reinterviewed at approximately one-year intervals subsequently. Children in the original sample households are also interviewed after they reach age sixteen. The sample design ensures that the data collected are broadly representative of the population of Britain as it changed through time. Nonetheless biases may be introduced by potential differential non-response in the initial interview wave in 1991 or later extension samples for Scotland (1999), Wales (1999) and subsequently. Differential attrition (sample drop-out) after the first interview is also important. The use of sample weights is the conventional way to mitigate against these potential biases. We have accordingly used the relevant BHPS sample weights where appropriate (for more information on sampling design, attrition and weighting see Taylor et al 2007).

Poverty Measurement: While our unit of analysis is the individual, we follow normal practice in assuming that members of a household share their resources and therefore we assign each respondent the equivalised household's income. More specifically, we rely on the annual net household income variables provided by Levy and Jenkins (2012) as an unofficial supplement to the BHPS data (var = *whhnyrde*). The variables mimic the ones adopted by the Department of Work and Pensions (DWP) in its analysis of UK income distribution such as the Households Below Average Income (HBAI) series. Income includes: earnings from employment, profit and loss from self-employment, investments and savings, all Social Security benefits and tax credits, private and occupational pensions and other miscellaneous sources including educational grants, after the deduction of income tax and national insurance contributions. Values of annual net household income are equivalised using McClements equivalence scales to adjust for the relative cost of living, or assumed standard of living, of households of different sizes and composition. These data are adjusted to prices of a reference month (January 2010). We identify an individual as poor if his equivalent household net income is less than 60 per cent of median equivalent net income as recommended by Eurostat Task Force (1998) and widely used across European countries (Jenkins and Rigg, 2001).²

Definition of Rural: The rural indicators available in the BHPS vary across the Scottish and England and Wales samples, reflecting the different definitions of rural and urban areas used by Government across Great Britain (Northern Ireland is not included in this analysis). For this

² Jenkins and Rigg (2001) provide a brief discussion about the controversies around the use of this relatively standard measure of low-income.

research, we define rural as living in a settlement with fewer than 10,000 inhabitants, because this is the common element of the rural definitions used by DEFRA (2013) and the Scottish Government (2009). This threshold of 10,000 population is used to assign each individual to the “rural” or urban sample. Note that this differs from the 3,000 population threshold used by Chapman et al (1998) and Phimister et al (2000a, 2000b). A respondent is classified as rural in a given year if he/she lives in a rural area that year (i.e. fewer than 10.000 inhabitants).

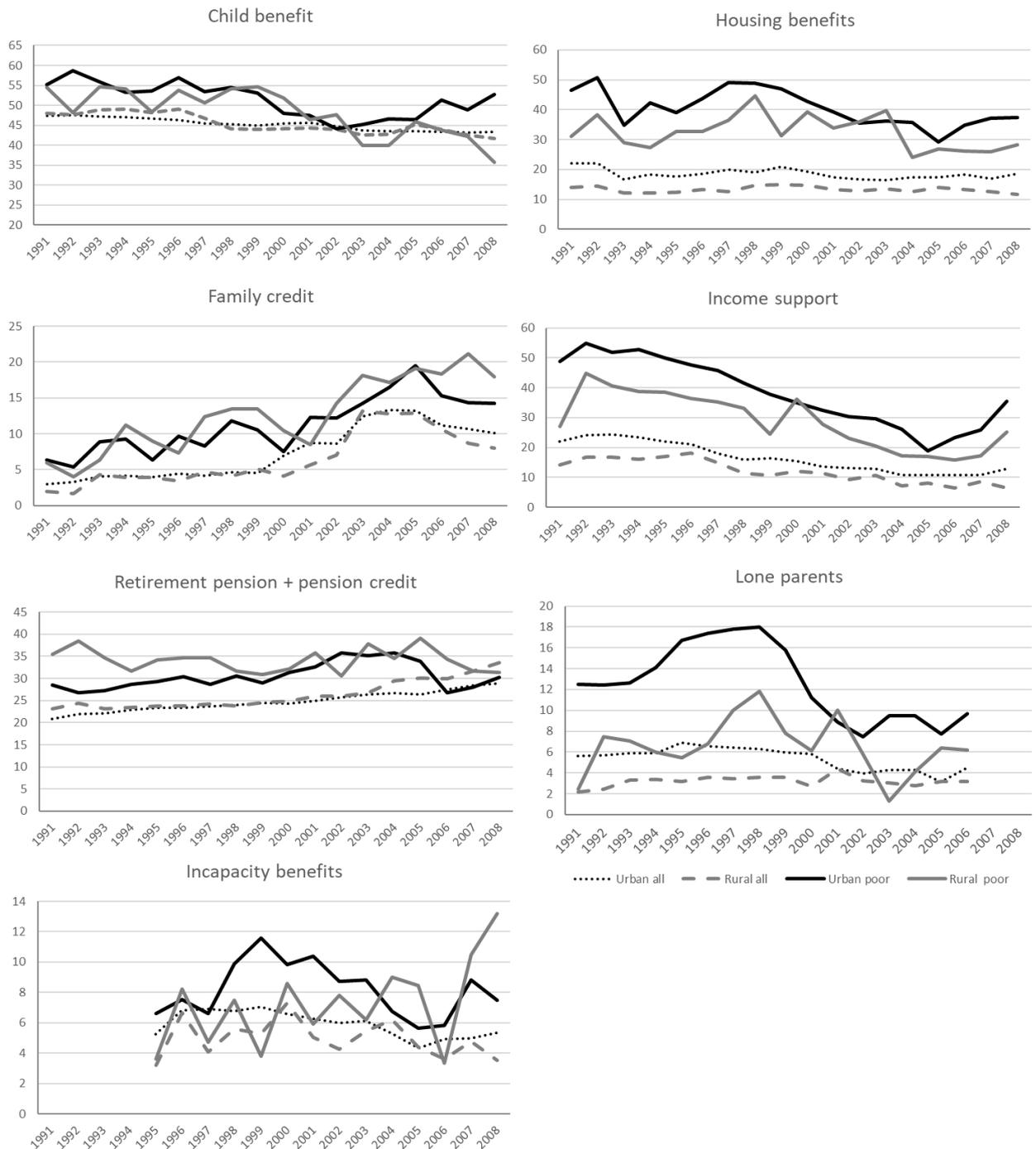
The rural/urban indicator relates to the classification made in 2004 (Rabe 2008), so no change in the rural/urban designation of locations occurs in this study. However, respondents who move their residence from urban to rural areas, or vice versa, are reclassified accordingly as explained above. It is important to highlight that respondents who move home within the rural or urban categories maintain their initial residential classification. Table A.1 reports sample sizes for the overall sample and the rural and urban sub-samples.

Coverage of government social assistance/benefit support:

Each year, the BHPS collects information on whether the individual receives any of the following benefits, allowances or pensions: (1) family credit and WFTC; (2) child benefit; (3) housing benefit (including Council Tax Benefit); (4) income support (IS), unemployment benefit (UB) or job seeker allowance (JSA); (5) child benefit (lone parents); (6) retirement pension or pension credit; and (7) incapacity benefit. We define an individual to be in receipt of any of this type of government assistance if anyone in his or her household is receiving them at the time of the BHPS interview. While this is not a comprehensive list of government support and we have no reliable information on the amount received, it can provide some indication on the relationship between the support received and the likelihood of exiting and/or re-entry into poverty.

Figure 2 shows the proportion of households receiving these social benefits by rural and urban status, both for the whole sample and for the sub-sample of poor households. These are labelled, as shown in the key below, as ‘urban all’, ‘rural all’, ‘urban poor’ and ‘rural poor’. The charts show that the proportion in receipt of income support (job seekers allowance) fell substantially during the period, and especially amongst the urban poor until 2005, partly because of more stringent conditionality and partly because work opportunities improved. The proportion receiving housing benefit and child benefit also declined somewhat. The big fall in the proportion claiming lone parent benefit was more than offset by new measures to support lone parents in work. The big increases shown in these graphs, confirming other analysis reviewed in Section 2, were in the proportions receiving Family Tax Credit and in retirement benefits, where pensions were supplemented by pension credit, though we know that these were less likely to be claimed by eligible households in rural settlements (CRC 2007a,b). We would expect that those whose chances of escaping poverty might improve most as a result of these reforms would include those over 65 and households with dependent children.

Figure 2. Proportion of households receiving benefits by rural and urban status (all sample and poor sub-sample)



Source: Authors' calculations from BHPS.

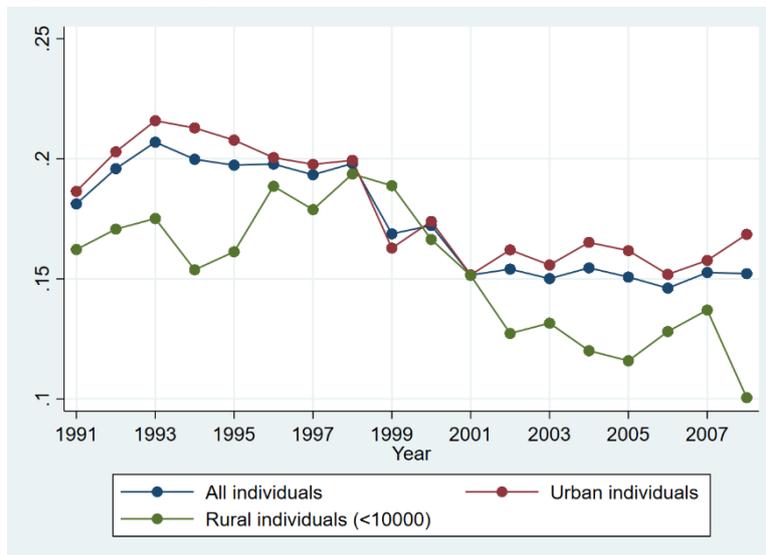
4. The dynamics of low income in rural areas.

The Department of Work and Pensions (DWP, 2007) indicates that poverty rates decreased by about 2 percentage points for the overall population during the middle part of the period under study, going from about 19% in the mid-1990s to about 17% in the mid-2000s, with child poverty and pensioner poverty falling by larger percentages. Similarly, as noted above, in rural England child poverty and especially pensioner poverty had fallen between 1996/97 and 2004/05. By 2016/17, the proportion of poor households in rural England (16%) was still slightly lower than

in urban England (18%) (DWP 2018); with the gap being wider for child poverty (14% rural; 21% urban) than for working-age people (12% vs. 15%) or for pensioners (16% vs. 18%). The results of our analysis of the BHPS, shown in Figure 3, are consistent with these official statistics, although our definition of rural areas is different and the reductions in poverty rates are greater, reflecting the longer period considered.³

Poverty levels have fallen through the period under study both in rural and urban areas. However, the decline is more pronounced among rural dwellers particularly from 1999 onwards. As mentioned earlier, Labour adhered to the Conservatives' spending plans until 1999 (an election promise in 1997) so the big fall in poverty after 1999 coincided with the effective start of Labour reforms. An important question is why poverty fell further in rural than urban areas after 1999? Were some specific policy measures more effective in rural contexts than urban, contrary to expectations? Can we tell from analysis of BHPS data which policy measures and instruments brought rural poverty down so effectively in rural (and urban) households?

Figure 3. Poverty rates in urban and rural Britain, 1991-2008



Source: Authors' analysis of BHPS.

Simply tracking rural poverty rates over time does not indicate the spread of poverty. One of the advantages of analysing longitudinal data such as the BHPS is that this enables us to see who experienced poverty, for how long and how often. Is a small minority of rural households persistently or continuously poor, as implied by the common use in England of the term “pockets of poverty”? Or does the risk of poverty affect a much larger proportion of rural society? Notwithstanding that rural poverty overall was slightly lower than urban, our analysis of BHPS data indicates that 50.2% of households in rural Britain experienced at least one spell of poverty during 1991-2008, compared with 55.2% of urban households (see Table 1). This reveals that rural poverty is not a rare or minority experience but was experienced by half the population of rural Britain at some time during this period, a proportion only slightly lower than that in urban

³ Rural values fluctuate more than urban. Within a 95% confidence interval, results are significantly different for 1992-1995 and 2004-2005.

areas. This unexpected finding of widespread poverty experience has important policy implications which are discussed in Section 6.

Table 1. Number of years spent in poverty

Number of years poor	All			Rural			Urban		
	91-08	91-99	00-08	91-08	91-99	00-08	91-08	91-99	00-08
0	0.459	0.563	0.599	0.498	0.584	0.637	0.448	0.557	0.588
1	0.137	0.126	0.134	0.132	0.124	0.147	0.137	0.127	0.130
2	0.091	0.082	0.091	0.075	0.082	0.066	0.095	0.081	0.098
3	0.068	0.057	0.057	0.071	0.049	0.061	0.068	0.059	0.056
4	0.047	0.044	0.037	0.041	0.040	0.031	0.049	0.045	0.038
5	0.039	0.034	0.022	0.043	0.031	0.011	0.038	0.034	0.026
6	0.030	0.032	0.021	0.022	0.030	0.014	0.031	0.033	0.023
7	0.026	0.026	0.015	0.026	0.027	0.015	0.026	0.026	0.015
8	0.022	0.019	0.010	0.021	0.018	0.005	0.023	0.019	0.012
9	0.020	0.012	0.008	0.019	0.011	0.007	0.020	0.013	0.008

The data in Table 1 support the emerging conclusion that the risk of poverty diminished after Labour came to power, and that in rural areas these risks diminished more than in urban areas. Thus, the proportion of rural households who experienced no spell of poverty from 1991-99 was 58.4% and from 2000-08 was 63.7%, an improvement of 5.3 percentage points. In urban areas the improvement was 3.1 percentage points (from 55.7% to 58.8%). There also appears to be a widening difference between the urban and rural proportions who are poor for two or more years from 1991-98 to 2000-08, even though the incidence is falling in both cases. Importantly, the data in Table 1 show that very persistent poverty (8+ years) declined between these periods in both rural and urban areas; from 2.9% to 1.2% in rural areas, and in urban areas from 3.2% to 2.0%.

Further, Table 2 shows the personal and household characteristics of the general sample in comparison with individuals experiencing at least one period of poverty and those experiencing persistent poverty (poor for at least 4 consecutive years). The first two columns report the proportions within each sample (urban/rural), columns 3 and 4 report the proportions of urban and rural poor who have the given characteristic; and columns 5 and 6 report the proportions of those persistently poor (urban/rural) who have the given characteristic. For example, the proportion of males in the rural sample is 48.7%, the proportion of those in rural areas experiencing at least one period of poverty that were male is 41.6%, and the proportion of those persistently poor in rural areas who are male was 38.6%, showing that males are less likely than females to be poor or persistently poor in rural Britain. The disproportionately high proportion of women among the persistently poor is especially striking. Taking another example, we can see that 39.8% of the rural sample are aged 65 or more, while 55.5% of poor rural residents are aged 65+ and 57.0% of persistently poor rural residents are 65+, so there is a heavy over representation of those aged 65+ among the poor and persistently poor samples compared to the overall rural sample. Other social groups over-represented among the rural poor and persistently poor samples include widows, retired households, lone parents and single-person households (often single elderly).

Table 2. Characteristics of the rural and urban samples 1991-2008

	<i>All sample</i>		<i>Poor (below poverty line)¹</i>		<i>Persistently poor²</i>	
	<i>Urban</i>	<i>Rural</i>	<i>Urban</i>	<i>Rural</i>	<i>Urban</i>	<i>Rural</i>
<i>Person type</i>						
Male	0.473	0.487	0.421	0.416	0.421	0.386
Female	0.526	0.512	0.578	0.583	0.578	0.613
Age 24 or less	0.111	0.0972	0.129	0.0977	0.112	0.0899
Age 25 to 34	0.142	0.115	0.101	0.0776	0.107	0.0804
Age 35 to 44	0.137	0.134	0.0924	0.108	0.0973	0.0933
Age 45 to 54	0.116	0.133	0.0577	0.0740	0.0731	0.0858
Age 55 to 64	0.0997	0.122	0.0731	0.0876	0.0703	0.0804
Age 65 or more	0.395	0.398	0.546	0.555	0.541	0.570
Married or cohabiting	0.474	0.532	0.306	0.357	0.334	0.374
Single	0.173	0.144	0.178	0.140	0.165	0.121
Divorced	0.0647	0.0486	0.0972	0.0847	0.0928	0.0971
Widow	0.0882	0.0793	0.143	0.168	0.144	0.178
Marital status not reported	0.200	0.196	0.275	0.250	0.264	0.230
Self-employed *	0.0628	0.0987	0.0540	0.0947	0.0570	0.0799
Employed	0.480	0.453	0.167	0.166	0.225	0.201
Unemployed	0.0350	0.0288	0.0806	0.0702	0.0738	0.0679
Retired	0.255	0.263	0.380	0.411	0.366	0.431
Not in the labour force	0.168	0.157	0.318	0.259	0.278	0.220
Has A level of higher educational qualification	0.549	0.729	0.354	0.555	0.348	0.509
<i>Household type</i>						
Lone parents	0.116	0.0798	0.246	0.167	0.229	0.147
Single household	0.171	0.141	0.251	0.263	0.220	0.270
Couple with children	0.444	0.494	0.316	0.387	0.353	0.381
Couple without children	0.242	0.274	0.158	0.175	0.172	0.195
Other household type	0.0278	0.0111	0.0286	0.00706	0.0256	0.00700
No children (<16 years old)	0.616	0.621	0.544	0.570	0.549	0.607
1 child (<16 years old)	0.127	0.122	0.112	0.0978	0.110	0.103
2 children (<16 years old)	0.165	0.172	0.159	0.180	0.155	0.135
3 or more children (<16 years old)	0.0770	0.0685	0.150	0.116	0.147	0.119
Head of household has A level of higher educational qualification	0.692	0.729	0.502	0.555	0.487	0.509
Head of household is employed	0.530	0.492	0.207	0.180	0.259	0.212
2 earners household	0.444	0.493	0.130	0.197	0.191	0.235
No earners households	0.288	0.262	0.602	0.539	0.534	0.512
Couple with 1 earner (full-time)	0.071	0.071	0.08	0.08	0.08	0.084
Sample size (N)	171,016	60,185	30,841	9,697	23,037	7,234
* Sample size for labour market status variables	132,208	47,081	21,126	6,913	15,816	5,205

Notes: ¹ Poor are those below the poverty line (<0.6 median income).

²Persistently poor are those who have experienced at least 4 consecutive years below the poverty line.

Quantitatively there are some differences between the rural and urban 'poor' sub-samples, with, for example, single elderly households over-represented to a greater extent in the rural than the urban sample, and vice versa for lone parents with dependent children. However, in most instances, results show that poor and persistently poor persons have similar characteristics

regardless of urban or rural residence. Poverty is more likely among retired persons, single persons regardless of age, unrelated individuals; and for persons living in households with no workers, with one worker and another person not in work, and unemployed. Similarly, persistent poverty is more likely among retired persons, elderly people living alone, lone parents with dependent children; and among people in households with no earners, with one full time earner and another not in work, and two unrelated persons where only one works.

Some rural-urban differences are apparent. For example, couples with one full time earner are more likely to be poor in rural but not in urban areas. This may reflect the greater incidence of 'poverty in work' and persistent low pay in rural Britain, found in many previous studies (McLaughlin 1986; Phimister, et al 2000b). This result could also reflect a lack of formal childcare and eldercare provision in rural Britain, forcing one member of the household to give up paid work to fulfil a caring role (Shucksmith 2000).

We can explore this further by analysing the employment status of those in poverty in rural and in urban areas. Results reveal the high proportion of poor individuals in rural areas who are not in the labour force (including permanently sick or carers, but not those unemployed or retired), even though this is lower (25.9%) than in urban areas (31.8%), and this is also the case for those who are persistently poor (22% rural; 27.8% urban). Another notable group is the self-employed: 9.47% of the rural poor are self-employed, compared to 5.4% in urban areas, and especially concerns self-employed males, 16.6% of whom are poor in rural Britain. This is a narrower disparity than found by Phimister et al (1998) and broadly consistent with the higher proportion of those self-employed in rural Britain overall.

The introduction of policies targeted to low income individuals is generally believed to have played a major role in decreasing the extent and persistence of poverty during the 2000s as compared to the second part of the 1990s, although the increasingly buoyant economy also undoubtedly played a role. Moreover, these policy reforms affected particular population subgroups, such as adults with dependent children or pensioners, differentially. In the next section we investigate more closely the extent to which specific policy instruments contributed to the faster reduction in poverty in rural Britain after 1997 and seek to relate these to the impacts on different social groups in the countryside. The multivariate analysis that follows will allow us to assess whether the changes in time spent in poverty were homogeneous across the population or different for specific groups both in rural and urban areas and will try and distinguish how far these relate to institutional reforms and to macroeconomic trends beyond individuals and households' socio-economic and demographic characteristics.

5. Multivariate Analysis of the dynamics of poverty in rural areas

Temporal trends and the importance of the New Labour Government period.

We use hazard models to describe the processes of poverty exit and re-entry, focusing on spells of poverty and non-poverty. Each individual is recorded in the data as having experienced either a single type of spell or perhaps repeated spells of poverty and/or repeated spells of non-

poverty. Thus, excluding left-censored spells 4,390 rural and 12,854 urban spells in poverty were constructed; and 6,320 rural and 19,928 urban spells out of poverty.

Differences in poverty mobility may arise due to differences in the observed and unobserved characteristics of the individuals and households they live in.⁴ Thus, using the analytical framework developed by Stevens (1999), the probabilities of an individual i ending a poverty spell after d years in poverty, h_{dit}^p , and ending a non-poverty spell after d years out of poverty, h_{dit}^n , are specified as two discrete-time proportional hazard functions:

$$h_{iat}^j = \Lambda(\gamma_d^j + \beta_t^j X_{it-1} + \theta_i^j) \quad j=n,p \quad (1)$$

where $\Lambda(.) = \exp(.) / [1 + \exp(.)]$ is the logistic cumulative distribution function and the subscript t indexes calendar time. The baseline hazard γ_d^j takes a non-parametric piecewise specification, i.e. is specified using a set of duration dummies, which constitute a flexible form to capture duration dependence (i.e. that poverty reinforces itself over time). X_{it-1} represents calendar time effect and other observable individuals and household characteristics (and β_t^j are the associated parameters to be estimated), which vary across people and time and are measured at calendar time $t-1$ in order to reduce potential endogeneity issues raised by simultaneity between changes in outcomes and changes in attributes. θ_i^p and θ_i^n are correlated additive random effects that control for time-invariant unobserved heterogeneity. They are assumed to follow an unspecified bivariate distribution that is approximated by a discrete distribution whose support points and associated probabilities are extra parameters to be estimated by maximum likelihood (Heckman and Singer 1984). The discrete joint distribution of (θ_i^p, θ_i^n) is characterised by four probabilities, one for each pair of support points, which sum to one. However, the estimation of a restricted version with two probabilities ($\pi, 1 - \pi$) is reported here as it fits the data well, leaving the remaining two probabilities constrained to zero.

In *Model 1* calendar time effects are captured by a set of bi-annual transitions intercept shifts. Individual characteristics include age, gender, self-reported health status and place of residence (rural/urban) while household socio-economic characteristics comprise age, education level and labour market status of householder, and information related to the presence of children in the household. In addition, a set of dummy variables is included to account for whether the household is recipient of any of the following Government benefits: (a) family credit and working family tax credit (WFTC); (b) child benefit, (c) housing benefit (including council tax benefits); (d) income support (including unemployment benefit, income support and job seekers allowance; (e) lone parents' child benefit; (f) retirement pension (including pension credit) and; (g) incapacity benefits. These individual and household characteristics are assigned time-invariant coefficients ($\beta_t^j = \beta^j$ for all t). Thus, these covariates included in the hazard functions reflect observed characteristics which are expected to play a role in poverty exits and re-entry and allow for a general description of poverty exit and re-entry hazards' trends. It might be thought that a problem of endogeneity potentially arises here but Jenkins and Rigg (2001) cite Bradbury et al's (2001) observation that "benefit receipt and having a low income are similar states, but they do

⁴ The unobserved effect is at individual level because our unit of analysis is the individual (whose income is that of his/her household). We follow the approach used by Damioli (2010) and Devicienti (2002) in previous research.

differ in important respects and refer to different at-risk populations.” Our data confirm low levels of correlation between poverty and receipt of these benefits and this, together with the model’s use of lagged variables, reassures us on this point.

Additionally, the specification in *Model 2* accounts for calendar time effects by pooling together the years in two sub-periods, namely: 1992-1998 and 1999-2007⁵ (the latter labelled as ‘New Labour government dummy’). This model adopts a more parsimonious specification that makes it a convenient reference model to investigate heterogeneous trends for specific population subgroups due to policy reforms put in place by the New Labour government.

Table 3 reports the results for *Model 1* (columns 1 and 2) and *Model 2* (columns 3 and 4). Overall, the first panel in Table 3 examines the baseline hazards associated with time in state. Results confirm the presence of negative duration dependence in both processes and reveal a genuine scarring effect of poverty. The probability of leaving poverty decreases after 3 years in the state. Negative duration dependence is even stronger in the re-entry hazard, showing that the likelihood of re-entering poverty diminishes with time. This relationship between time in state and poverty dynamics holds for the two models displayed in Table 3. The results also indicate some significant changes over time.⁶

Table 3. Poverty exit and re-entry hazard models, 1992-2007

	Model 1		Model 2	
	Poverty Exit	Poverty Re-entry	Poverty exit	Poverty Re-entry
Baseline hazard				
1 year in the state	0.61***	-1.34***	0.62***	-1.26***
2 years in the state	0.33**	-1.52***	0.33***	-1.43***
3 years in the state	0.32*	-1.90***	0.32**	-1.79***
4 years in the state	0.055	-1.86***	0.082	-1.76***
5 years in the state	0.19	-2.00***	0.23	-1.90***
6 or more years in the state	0.070	-2.29***	0.11	-2.17***
Calendar time effects				
1994/95	0.018	-0.012	-	-
1996/97	-0.056	-0.023	-	-
1998/99	0.33***	-0.20**	-	-
2000/01	0.19***	-0.083	-	-
2002/03	0.17**	-0.11	-	-
2004/05	0.26***	-0.21**	-	-
2006/07	0.65***	0.36***	-	-
New Labour Government (1999-2007)	-	-	0.20***	-0.014
Individuals Characteristics				
Female	-0.042	0.046	-0.043	0.047
Age 24 or less	0.022	0.14*	0.028	0.16*
Age 25 to 34	-0.089	-0.0090	-0.080	-0.0011
Age 45 to 54	-0.0041	-0.097	-0.0068	-0.086
Age 55 to 64	-0.045	0.044	-0.043	0.058
Age 65 or more	-0.12**	0.099	-0.12**	0.11
Household Characteristics				
Householder aged 30 to 39	-0.22***	0.14*	-0.19***	0.13*
Householder aged 40 to 49	-0.22***	0.055	-0.19***	0.050

⁵ We lose 1991 due to dropping off of left-censored spells and 2008 since we are looking at time $t-1$ characteristics in order to reduce potential endogeneity in the analysis. Further, since New Labour measures/reforms were put in place from 1999 we split the sample in these two periods.

⁶ Wald-tests for the hypotheses that bi-annual dummies are equal among each other are in turn rejected at the 1% and 0.1% confidence intervals.

Householder aged 50 to 59	-0.42***	0.23**	-0.39***	0.21**
Householder aged 60 or more	-0.35***	0.20	-0.32***	0.17
Householder has A levels	0.13***	-0.16***	0.14***	-0.16***
Number of dependent children	-0.16***	0.17***	-0.16***	0.18***
Presence of a 5-year-old or younger	-0.088*	0.033	-0.090*	0.045
Householder is female	0.046	0.027	0.045	0.030
Householder unemployed	-0.78***	1.04***	-0.80***	1.05***
Householder retired	-0.25***	0.53***	-0.26***	0.56***
Householder carer on in maternity leave	-0.38***	0.69***	-0.39***	0.72***
Householder full time students	-0.49***	0.72***	-0.49***	0.73***
Householder long term sick	-0.94***	1.45***	-0.95***	1.46***
Householder others	-0.41**	0.050	-0.38**	0.11
Individual reported having health problems	-0.018	0.075*	-0.029	0.085*
Benefits received				
Household recipient of family credit and WFTC	-0.016	0.11*	-0.0034	0.11*
Household recipient of child benefit	-0.011	0.14*	-0.0086	0.14*
Household recipient of housing benefit (incl. Council Tax	0.15***	0.25***	0.16***	0.25***
Household recipient of income support (UB, IS and JSA)	-0.082*	0.23***	-0.10**	0.22***
Household recipient of child benefit (lone parents)	-0.0013	0.067	-0.011	0.064
Household recipient of retirement pension or retirement	-0.070	0.083	-0.070	0.085
Household recipient of incapacity benefit	-0.011	-0.052	0.014	-0.064
Rural resident	-0.042	0.18***	-0.043	0.19***
Random effects distribution support-points				
P type probability (π)	-0.91***	-1.04***	-0.92***	-1.16***
N type probability ($1-\pi$)	0.29***		0.24***	
Number of individuals	0.71***		0.76***	
Log-likelihood	8,568		8,568	
	-22884.256		-22938.796	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; P type probability (π) is the probability associated with the type with low exit and high re-entry propensities. The omitted category is an urban male individual aged 35 to 44 living in 1992/1993, who did not report any health problems and live in a household where the householder was a male, below 30 years of age, with educational attainment below A levels, no dependent children and employed. Additionally, he did not receive the benefits specified.

Thus, as reported for *Model 1* poverty exit rates increased significantly after 1998-99 and remained higher as the Labour party continued in government. Similarly, re-entry hazard rates decreased after 1998/99, though the decrease is only statistically significant in some years and there is a significant change in trend in 2006/2007 making more difficult to precisely estimate the trend. The results from *Model 2* reveal exit rates from poverty were significantly higher after 1999, but for re-entry rates the observed decrease is not statistically significant. Thus, it seems that it is the temporal change in exit rates that drives the reduction of poverty rates and time spent in poverty from around 1999 onwards. The evidence therefore suggests a significant increase in mobility out of poverty in the second part of the study period, coinciding with the Labour government's policy reforms discussed in Section 2.

Turning to the associations of individual and household characteristics with poverty dynamics, the results conform to expectations in so far as observed characteristics generally influence exit and re-entry hazards in the anticipated direction. In both models, household characteristics are strongly associated with the probability of exiting poverty (almost all are significant at the 0.01% level), whereas the probability of re-entry is strongly associated with fewer household types (educational level, dependent children, and economic activity). In terms of age, those over 65 seem significantly less likely to exit and more likely to re-enter poverty than their younger (working age) counterparts. The exit probability increases, and the re-entry probability decreases with the householder being employed. Households with dependent children are

significantly less likely to exit poverty, and more likely to re-enter than households without children.

Looking at the different types of benefit considered, the receipt of housing benefits (independently of whether they receive any other type of benefits) is strongly associated with the probability of exiting poverty, while those receiving income support are less likely to exit poverty. Moreover, results strongly indicate that receiving income support, housing benefit, family tax credit and child benefit are each positively associated with an increase in the likelihood of re-entering poverty. These results may seem counterintuitive since one would think that receiving assistance would enhance chances of exiting poverty and reduce the likelihood of re-entering poverty, but they could be perfectly sensible taking into consideration the long time period considered, requirements to qualify for benefit support and the benefit levels which may be insufficient or inadequate.

Our analysis also provides evidence that rural-urban residence affects poverty dynamics. *Ceteris paribus*, the data in Table 3 show that rural residents are more likely to re-enter poverty after a spell being out of poverty. The data also show that poor rural dwellers are somewhat less likely to exit poverty, though this relationship is not statistically significant.

Lastly, the random effects model fits the data well (random effect distribution support points are statistically significant) and unobserved individual heterogeneity was found to be important. This can be interpreted as meaning that the poor population, conditional on the observed characteristics can be divided in two types of individual circumstances. Individuals that not only are systematically more likely to re-enter poverty if they escape, but are also more likely to remain poor for a longer number of years (they are called 'poverty prone') and those who have unobservable characteristics with high propensity to exit and low propensity to re-enter poverty ('non-poverty prone').⁷ Thus, the probabilities can be interpreted as indicating that about 71% of individuals are estimated to have a high unobserved tendency of exiting and a low tendency to re-enter ($1-\pi$) while the remaining 29% of persons display a higher than average persistence, with lower exit rates and higher re-entry rates (π).⁸

Heterogeneous trends for specific population subgroups: Rural residents and benefit recipients

In this section, we relax the assumption that certain observed characteristics affect time spent in poverty uniformly across the considered period (1992-2007). In particular, we wish to explore whether New Labour's policy reforms (from 1999 onwards) had heterogeneous impacts among different sub-populations, notably on rural dwellers compared to their urban counterparts, or

⁷ Empirical evidence indicates that ignoring unobserved heterogeneity leads to an over-estimation of duration dependence that would be due to time-invariant individual attitudes and therefore spurious rather than genuine. See Cappellari and Jenkins (2002 and 2004) for the extent of genuine state dependence in low income transitions; Stevens (1999) and Devicienti (2002) for evidence of negative duration dependence in poverty and non-poverty spells length.

⁸ In practical terms, this means that if we know that a person belongs to the 'poverty-prone' group with low exit tendency, then we would have to also include the estimated unobserved heterogeneity parameter $\theta^p = -0.91$ when computing his/her hazard rate.

amongst certain types of households more likely to be eligible for benefit support. This analysis permits us to dig deeper into the ‘rural effect’.

To this end, Table 4 reports parameter estimates for a series of models in which observed characteristics are in turn interacted with the dummy variables indicating the sub-periods 1992-1998 and 1999-2007 to allow the different covariates to have time-varying effects.

Thus, regarding place of residence, results in Table 3 showed that after controlling for individual and household characteristics and benefits receipt, living in a rural area increased the probability of re-entering poverty (highly significant at the 0.01% level), and decreased the probability of exiting poverty (non-significant). This is an important finding, since it addresses one of our key research questions, namely whether differences in life chances are associated with place of residence per se or arise from area differences in personal and household attributes. This finding suggests there is a ‘rural effect’ beyond personal and household characteristics, especially with respect to the chances of re-entering poverty. Following on from this, we now explore the extent to which temporal changes in time spent in poverty are associated with place of residence, benefit receipt and household type.

The first row of Table 4 reports the estimates for the overall population found in Models 1 and 2 (Table 3) where a significant increase in mobility out of poverty in the second part of the study period, coinciding with the Labour government’s policy reforms, was found. These results provide a benchmark for assessing the relative performances of distinct population sub-groups.

Panel A of Table 4 now examines the interaction between time and rural-urban residence. These results show a statistically significant increase in exit rates from poverty in the period 1999-2007 for both rural and urban individuals. This is consistent both with the introduction of the Labour government’s policy reforms after 1998 (which we already control to some extent with the introduction of the set of benefit dummies), and with the growth in the economy during this period. Interestingly, while there is greater probability of re-entering into poverty among the rural sub-sample (already observed in Models 1 and 2), some decrease in this probability is noticed during the second period (from 0.28 to 0.17).

Similarly, **Panel B** explores the time-varying effects among benefit recipients. In this model, we define an individual to be a benefit recipient if he/she or any individual in his /her family is receiving any of the seven benefits enumerated in our analysis. Results show a statistically significant increase in the probability of exiting poverty from 1999 onwards, while non significant differences are found for non-benefit recipients.

Table 4. Heterogeneous trends of exit and re-entry hazards for different population subgroups, 1992-2007

	Poverty exit		Poverty Re-entry	
	1992-1998	1999-2007	1992-1998	1999-2007
Overall population	<i>reference</i>	0.20 ^{***}	<i>reference</i>	-0.014
A. Place of Residence				
Rural	-0.080	0.17 ^{***(+)}	0.28 ^{***}	0.17 ^{***}
Urban	<i>reference</i>	0.19 ^{***}	<i>reference</i>	0.019

B. Household benefit recipient				
Benefit recipient	<i>reference</i>	0.24***	<i>reference</i>	-0.042
Not benefit recipient	0.13	0.064	-0.55***	-0.18 ⁽⁺⁾
C. Type of household				
Single Elderly	-0.14	0.33***	0.27**	-0.019
Couple dependent children	0.13	0.31***	0.13	0.20
Lone Parents	-0.021	0.38***	0.63***	0.34**
Other types of households	Reference	0.051		0.10

⁽⁺⁾ reports the significance of the temporal change of covariates, as from Wald tests.

Notes. *** $p < 0.01$, ** $p < 0.05$ * $p < 0.1$.

Panel A includes all regressors from Models 1 and 2 of Table 3, except for the rural dummy (panel A) now interacted with dummies for sub-periods 1992-1998 and 1999-2007 to identify heterogeneous trends across time among rural dwellers.

Panel B includes all regressors from Models 1 and 2 except for the set of benefit dummies. These are replaced for a single dummy equal to one if any type of benefit is received by the household and zero otherwise. This dummy is then interacted with dummies for sub-periods 1992-1998 and 1999-2007.

Panel C includes all regressors from Models 1 and 2 plus the interaction between dummies for sub-periods 1992-1998 and 1999-2007 and different households classified as potential recipients of benefit, namely: "Single elderly", "Couple with dependent children", "lone parents" and "other types of households". It intends to identify heterogeneous trends across time among potential benefit recipients.

In all models, the variables defining each of the observed groups are measured at time $t-1$.

Finally, **Panel C** examines any potential differences across time among those households more likely to qualify for benefit support and as such, more at risk of poverty, namely: single elderly, couples with dependent children and lone parents. Other types of household (the reference category) includes single non-elderly, couples with no children or with non-dependent children and other types of unrelated adults' households. Results show that exit rates experienced a statistically significant increase in the period 1999-2007 for all single elderly, couples with dependent children and lone parents. This evidence is consistent with the increase in exit rates being related to the introduction of policies targeted to elderly people, families with children and lone parents' households (i.e. family tax credit assistance).

The analysis so far has answered many of the questions posed at the start of this paper. We have established that there are differences in the chances of experiencing, entering and escaping poverty between those living in rural and urban areas, and that there is a 'rural effect' beyond individual and household characteristics of those places. We have also established that the likelihood of experiencing poverty diminished after the Labour government implemented social policy reforms from 1999, and that benefit receipt appears to be associated with improved chances of exit from poverty during 1999-08 rather than from preventing re-entry into poverty. Thus, substantial improvements are witnessed for poverty exit among those households more at risk of poverty which are highly likely to be due to changes in policy, namely: retirement pensions and pension credit for the single elderly, and family tax credit for couples with dependent children and lone parents. Furthermore, the fall in the probability of re-entering into poverty among single elderly may be driven by the increase in pension and pension credits.

The research question motivating this analysis asked whether New Labour's policy reforms (implemented from 1999) were differentially effective in reducing time spent in poverty in rural vs urban areas. This could, in principle, emerge from at least two directions: a 'period-place of residence' interaction or a 'benefit' effect. We have already analysed the 'period-place of residence' interaction in Panel A of Table 4 above, noting a significant 'rural effect'. The 'benefit' interaction with place of residence could also explain differences in changes in the risk of

poverty. By running a 3-way interaction, we explore the effect on an individual's risk of experiencing poverty of the interaction of 'benefit receipt', 'period' and 'place of residence' simultaneously. The hypothesis is that the chances of impoverishment for rural residents depends on the combination of whether the rural resident receives any benefits and the period of time considered. Results reported in Table 5 show exit rates experienced a statistically significant increase in the period 1999-2007 for both urban and rural benefit recipients, when both benefits receipt and time period are considered. These results are consistent with the increase in exit rates being related to the set of policy reforms introduced by the New Labour government targeted to families more susceptible to poverty.

Table 5. Heterogeneous trends of exit and re-entry hazards by place of residence interacted with benefits recipient and period.

	Poverty exit		Poverty Re-entry	
	1992-1998	1999-2007	1992-1998	1999-2007
Urban and benefit recipient	reference	0.26***	reference	0.024
Urban and non-benefit recipient	0.22**	0.097	-0.63***	-0.23*(+)
Rural and benefit recipient	-0.067	0.22***(+)	0.29***	0.15**(+)
Rural and non-benefit recipient	0.045	0.17	-0.57*	-0.097

(+) reports the significance of the temporal change of covariates, as from Wald tests.

Note: This Model includes all regressors from Models 1 and 2 of Table 3, except for the rural dummy now interacted with dummies for sub-periods 1992-1998 and 1999-2007 and dummies for whether the individual is a benefit recipient. We hypothesize that the interaction of both 'benefit receipt' and 'period' with 'place of residence' implies that the chances of impoverishment for rural residents depends on the combination of whether the rural resident receives any benefits and the time period at which poverty is measured.

Moreover, the poverty re-entry rate for rural benefit recipients, though positive and significant, is significantly smaller (Wald test) in the period 1999-2007 (0.15**) than in period 1992-1998 (0.29***). This is consistent once again with the expected effects of the implementation of New Labour's policy measures.

Thus, results suggest that the New Labour policy reforms have played an important role in increasing mobility out of poverty for both rural and urban residents but also significantly decreasing mobility back into poverty for rural dwellers receiving benefits.

6. Discussion and Conclusions.

This paper has answered many of the questions initially posed. A striking finding is that half the population of rural Britain experienced poverty at some time during this period. Our analysis of BHPS data reveals that 50.2% of households in rural Britain experienced at least one spell of low income during this 18-year period from 1991-2008, compared with 55.2% of urban households. This explodes the common misconception that poverty in the UK is primarily (or solely) an urban phenomenon, with only 'pockets of poverty' amongst a generally prosperous rural populace and has important implications for social policy and for rural policy, each of which displays a blindness towards the existence of rural poverty. Social policy in Britain is heavily focused on urban areas, with a prevailing assumption that poverty is primarily an urban phenomenon. Earlier studies have established many of the reasons for the invisibility of rural poverty, including its hidden and scattered nature which does not lend itself to statistical mapping; our urban imaginaries of poverty which invoke slums or municipal estates; and the discursive power of the

rural idyll, all of which deny the rural poor the legitimacy of their urban counterparts. The limited provision of welfare support services for low-income groups in rural Britain is well documented, but Milbourne (2016) argues that this arises not only from a failure of social policy but also from a resistance by local political and economic elites to mobilize communities to secure such provision. In turn, English rural policy has privileged farming, environmental and anti-development interests. Our finding that poverty has touched half of the population of rural England at least once during this 18-year period raises questions, then, about the lack of welfare support provision in rural Britain, about the rural-proofing of many aspects of mainstream social policy, and about the inadequacy of the increasingly digital infrastructure through which benefits must be claimed.

While poverty was widespread, the length of poverty spells was shorter in rural Britain, with spell length and persistent poverty both decreasing more quickly after 1999 than in urban areas. There was no evidence to suggest a culture of benefit dependency in rural areas, rather the contrary with lower claimant rates among those eligible to receive benefits. Again, this has policy implications: the policy challenge is less about 'scroungers', as often portrayed by politicians in recent years, but rather about increasing claimant rates among those eligible during short spells of hardship. Stigmatisation of welfare benefits, tightening welfare conditionality and sanctions will reduce the effectiveness of social policy during such short spells of need.

Our analysis also shows a widening difference between the urban and rural proportions of the population who are poor for *more than one year* from 1991-99 to 2000-08, even though the incidence is falling in both cases. Similarly, the share of rural households in very persistent poverty (8+ years) declined more rapidly after Labour's reforms, from 2.9% to 1.2% in rural areas compared with a fall from 3.2% to 2.0% in urban areas. Our analysis shows that these improvements were driven primarily by an increase in the 'exit rate' from rural poverty, rather than by falls in the 're-entry rate' back into poverty.

Moreover, while similar events and household characteristics are associated with the chances of exiting from or re-entering poverty in rural and urban areas, the multivariate analysis presented in this paper offers convincing evidence of a 'rural effect' beyond this. Specifically, the multivariate analysis indicates that living in a rural area reduces the probability of exiting rural poverty (non-significant) and increases the probability of re-entering poverty (highly significant at the 0.1% level), after controlling for personal and household characteristics. The analysis also shows that the probability of exiting rural poverty increased significantly and the probability of re-entering rural poverty fell significantly after 1999.

This raises in turn the question of why rural poverty and persistent poverty in rural areas fell faster than urban poverty after 1999, contrary to what many might have expected and despite this 'rural effect'. The final section of this paper sought to establish to what extent Labour's social policy reforms were responsible for this. Results confirm that benefit receipt is associated with improved chances of exit from poverty during 1999-2007, and that the types of household targeted by Labour's policy reforms (namely single elderly, couples with dependent children, and sole parents) had a significantly greater chance of exit from poverty after 1999 than did other households. More specifically, New Labour's social policy reforms played an important

role in increasing mobility out of poverty among urban and rural dwellers while also significantly decreasing mobility back into poverty for rural dwellers. Thus, pensions, pension credit and working family tax credits appear effective instruments in tackling rural poverty and would be even more effective if claimant rates could be enhanced.

Finally, this analysis could usefully be extended and deepened beyond the scope of this paper. Rural Britain is economically and socially diverse and future analysis could seek to differentiate influences of local labour markets, demographics, remoteness, etc on poverty dynamics across rural Britain by linking other geo-coded datasets with the successor to the BHPS (Understanding Society). Another possible avenue for further research is the relationship between poverty dynamics and geographical mobility/migration across the urban-rural divide: it does appear that movement either way is associated with a reduced risk of poverty but sub-samples are small and limit what analysis is possible. Similarly, one could attempt more detailed analysis of other sub-samples, such as persistently poor individuals, but the numbers in rural areas are small. Perhaps the most obvious and necessary follow-up to this paper, however, is a study of poverty dynamics in rural Britain post-2008 which would not only bring the analysis up to date but could explore the impacts of the economic crisis, austerity policies and the Conservative government's welfare reforms on different social groups in rural and urban Britain.

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APPENDIX

Table A.1. Sample summary statistics

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Rural	2,306	2,463	2,320	2,308	2,241	2,342	2,777	2,787	4,601
Urban	8,139	8,445	8,146	8,066	7,809	8,140	9,534	9,232	12,387
Total	10,445	10,908	10,466	10,374	10,050	10,482	12,311	12,019	16,988

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Rural	4,650	4,519	4,134	3,988	3,870	3,846	3,792	3,675	3,566	60,185
Urban	12,316	12,117	10,330	10,050	9,664	9,589	9,359	9,026	8,667	171,016
Total	16,966	16,636	14,464	14,038	13,534	13,435	13,151	12,701	12,233	231,201