

Transitions into and out of Household Joblessness, 2004 to 2014

An Analysis of the Central Statistics Office (CSO)
Quarterly National Household Survey (QNHS)

Dorothy Watson
Bertrand Maître
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Authors

Dorothy Watson

Dorothy Watson is an Associate Research Professor at the Economic and Social Research Institute (ESRI) and Adjunct at the Department of Sociology, Trinity College Dublin. Dorothy is the ESRI Programme Co-ordinator for Research on Social Inclusion.

Bertrand Maître

Bertrand Maître is a Senior Research Officer at the Economic and Social Research Institute (ESRI) and Adjunct at Trinity College Dublin.

Helen Russell

Helen Russell is an Associate Research Professor at the Economic and Social Research Institute (ESRI) and Adjunct Professor at Trinity College Dublin.

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Abstract

Household joblessness, understood as people under the age of 60 living in a household where nobody is in employment, is a major risk factor for poverty and welfare dependency. The rate of household joblessness has been much higher in Ireland than in other European countries since the start of the recession. Household joblessness is distinct from individual unemployment in two ways: it includes other reasons (as well as unemployment) for non-employment such as caring responsibilities, illness or disability and it takes account of whether there are other adults in the household in employment. The focus on household joblessness has increased recently, but much of the emphasis has been on the situation at a point in time with little attention paid to movements into and out of joblessness. This report draws on a large sample from the Quarterly National Household Survey to examine household joblessness transitions in Ireland from 2004 to 2014. The questions addressed include the extent to which joblessness is persistent or transitory; the extent to which jobs are going to jobless households and whether household joblessness or the presence of children makes it less likely that an individual will move into work.

Key words: household joblessness; employment transitions; employment entry; employment exit; jobless households; recession; Ireland; Quarterly National Household Survey; social inclusion

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List of Acronyms

BTWFD	Back to Work Family Dividend
BHPS	British Household Panel Survey
CE	Community Employment scheme
CIS	Child Income Support
CSO	Central Statistics Office
CSR	Country-Specific Recommendation
ECHP	European Community Household Panel
EU-LFS	European Union Labour Force Survey
EU-SILC	European Union Statistics on Income and Living Conditions
FIS	Family Income Supplement
GDP	Gross Domestic Product
ILO	International Labour Organisation
LFS	Labour Force Survey
PSID	Panel Study of Income Dynamics
QNHS	Quarterly National Household Survey
SILC	Survey on Income and Living Conditions
SOEP	Socio-Economic Panel

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Foreword from the Tánaiste and Minister for Social Protection

I welcome the publication of this new report on household joblessness. Household joblessness is a growing policy concern at EU level. It is of relevance to Ireland because of the risk that the economic recovery and the growth in employment may not benefit those households worst affected by the recession. Household joblessness is also central to the implementation of the *National Reform Programme* under the *Europe 2020 Strategy*.

The concept of household joblessness encourages a broader policy focus to include the situation of individuals often seen as outside the labour market, such as people with a disability and people (usually women) with caring responsibilities. It also highlights the presence of children in households without work. Finally, household joblessness brings to the fore the connection with long-term welfare dependency and the probability of being in poverty.

This study provides valuable new insights on the phenomenon of household joblessness. In particular, it focuses on the flows into and out of household joblessness, profiles those who are most at risk of remaining jobless and identifies the labour market factors that facilitate movement into a working household. These are key issues from a policy perspective and so the study makes an important contribution to our evidence base.

With the onset of the recovery and employment growth driven by the Government, there has been a welcome reduction in the rate of household joblessness. In 2014, 14 per cent of adults lived in jobless households, down from a peak of 16 per cent during the recession. The research suggests this downward trend will continue, and can be augmented with the right policies.

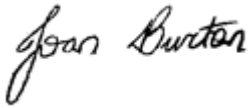
Tackling household joblessness is a priority for Government. The twin strategies to restore jobs and help people back to work - *Action Plan for Jobs* and *Pathways to Work* - are reaping rewards. Ireland's recovery continues to strengthen. We're driving ahead as the fastest growing economy in the EU, and since the peak of the crisis, more than 110,000 additional people have returned to work, with unemployment having fallen by a third.

Policy will continue to improve access to the labour market and to reduce unemployment. As the Irish economy recovers, active labour market policies are key to addressing the employment needs and capacities of jobless households in an inclusive labour market. Under *Pathways to Work 2015* a structured process of engagement with the long-term unemployed has commenced, which will directly impact on jobless households. A new employment services model, *JobPath*, is also being rolled out.

Of particular concern is the presence of children in jobless households and the attendant risk of child poverty. To address this, I instituted the reform of the One Parent Family Payment so as to improve access to the labour market for lone parents, with the associated economic and social benefits of being in the workforce. This is supported by the Back to Work Family Dividend which provides an additional incentive for welfare recipients with children to take-up employment. There are also targeted measures to support people with disabilities and households in rented accommodation.

I am determined that policy continues to prioritise those furthest from the labour market. The lessons from this report will be vital in informing *Pathways to Work* and related policy initiatives, including childcare and in-work supports.

Finally, I would like to thank the research team in the ESRI for their diligent and thoughtful analysis in producing this landmark study: Dorothy Watson, Bertrand Maître and Helen Russell. I also want to acknowledge the contribution of the Social Inclusion Division in the Department which managed the study through to its publication.

A handwritten signature in black ink, reading "Joan Burton". The signature is written in a cursive, flowing style.

Joan Burton TD
Tánaiste and Minister for Social Protection



Réamhrá ón Tánaiste agus ón Aire Coimirce Sóisialaí

Cuirim fáilte roimh fhoilsiú na tuarascála nua seo ar theaghlaigh gan phost. Buairt bheartais atá ag dul i méid ar leibhéal an AE is ea teaghlaigh gan phost. Baineann sé le hÉirinn mar gheall ar an riosca nach rachadh an téarnamh eacnamaíochta agus an borradh atá ag teacht ar fhostaíocht chun sochair na dteaghlach siúd ba mhó a bhí thíos leis an gcúlú eacnamaíochta. Ina theannta sin, baineann teaghlaigh gan phost go lárnach le cur i bhfeidhm an Chláir Náisiúnta um Athchóiriú faoin Straitéis ‘an Eoraip 2020’.

Spreagann coincheap na dteaghlach gan phost díriú beartais níos fairsinge chun an cás a chur san áireamh ina gcaitear le daoine aonair amhail bheith lasmuigh den mhargadh saothair, ar nós daoine atá faoi mhíchumas agus daoine (mná de ghnáth) ar a bhfuil freagrachtaí cúraim. Sa mhullach air sin, leagtar béim sa tuarascáil ar láithreach leanaí i dteaghlaigh gan obair. Ar deireadh, tugann teaghlaigh gan phost an ceangal chun solais atá idir brath fadtéarmach ar leas agus an dóchúlacht go mbíonn daoine thíos leis an mbochtaineacht.

Soláthraítear sa staidéar seo léargais fhiúntacha nua ar fheiniméan teaghlach gan phost. Go háirithe, leagtar béim ar shreafaí isteach agus amach ó theaghlaigh gan phost, próifílí na ndaoine siúd is mó atá i mbaol bheith fágtha gan phost agus sainaithnítear na tosca margadh saothair a éascaíonn gluaiseacht isteach i dteaghlach oibre. Príomh-shaincheistanna iad seo i dtaobh peirspictíocht bheartais

de agus, ar an ábhar sin, cuireann an staidéar méid tábhachtach lenár mbonn fianaise.

Ar thosú an téarnaimh agus bhorradh na fostaíochta, faoi stiúir an Rialtais, ba dheas linn gur tháinig laghdú ar an ráta teaghlach gan phost. In 2014, chónaigh 14 faoin gcéad de dhaoine fásta i dteaghlaigh gan phost, ar laghdú é seo anuas ó bhuaicráta 16 faoin gcéad i rith an chúlaithe eacnamaíochta. Tugtar le tuiscint sa taighde go leanfaidh an treocht anuas seo, agus gur féidir í a mhéadú má bhíonn na beartais chearta againn.

Tugann an Rialtas tús áite do dhul i ngleic le teaghlaigh gan phost. Tá dea-thorthaí á mbaint amach ag na comhstraitéisí chun poist a athshlánú agus cabhrú le daoine filleadh ar an obair – *an Plean Gnímh maidir le Poist agus Bealaí chun Oibre*. Leanann téarnamh na hÉireann ag dul ó neart go neart. Táimid chun tosaigh anois agus tá in Éirinn an geilleagar is tapúla fáis san AE, agus ó bhuaic na géarchéime i leith, tá breis agus 110,000 duine breise tar éis filleadh ar an obair, agus tá laghdú an tríú cuid tagtha ar dhífhostaíocht.

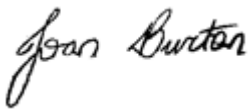
Leanfaidh beartas le feabhas a chur ar rochtain ar an margadh saothair agus leis an dífhostaíocht a laghdú. De réir mar a théann geilleagar na hÉireann i mbun téarnaimh, baineann ríthábhacht le beartais ghníomhacha mhargadh saothair chun dul i ngleic le riachtanais fostaíochta agus cumas teaghlach gan phost i margadh cuimsitheach saothair. Faoi *Bealaí chun Oibre 2015*, cuireadh tús le próiseas struchtúrach rannpháirtíochta le daoine dífhostaithe, a imreoidh tionchar díreach ar theaghlaigh gan phost. Tá samhail nua seirbhísí fostaíochta, JobPath, á tabhairt isteach chomh maith.

Ábhar mór buartha is ea láithreachta leanaí i dteaghlaigh gan phost agus an riosca a bhíonn i gceist mar thoradh ar bhochtaineacht leanaí. Chun dul i ngleic leis seo, chuir mé tús le hathchóiriú na hÍocaíochta Teaghlach Aontuismitheora d'fhonn feabhas a chur ar rochtain ar an margadh saothair i measc tuismitheoirí aonair, agus an sochar gaolmhar eacnamaíoch agus sóisialta a bhaineann le bheith sa lucht saothair. Tacaíonn an Díbhinn Teaghlaigh um Fhilleadh ar Obair leis seo, a sholáthraíonn dreasacht bhreise d'fhaighteoirí leasa a bhfuil leanaí acu chun glacadh

le fostaíocht. Anuas air sin, tá bearta spriocdhíríte ann chun tacú le daoine atá faoi mhíchumas agus le teaghlaigh atá i gcóiríocht ar cíós.

Tá sé de rún daingean agam go leanfaidh beartas le tús áite a thabhairt dóibh siúd is faide amach ón margadh saothair. Bainfidh ríthábhacht leis na ceachtanna a fhoghlaiméofar ón tuarascáil seo chun faisnéis a sholáthar do *Bealaí chun oibre* agus do thionscnaimh ghaolmhara bheartais, cúram leanaí agus tacaíochtaí do dhaoine atá ag oibriú ina measc.

Mar fhocal scoir, ba mhian liom buíochas a ghabháil leis an bhfoireann taighde san ESRI as a n-anailís chríochnúil agus chásmhar fad a bhí an staidéar suntasach seo á chur i dtoll a chéile acu: Dorothy Watson, Bertrand Maître agus Helen Russell. Anuas air sin, ba mhian liom rannchuidiú an Rannáin um Chuimsiú Sóisialta sa Roinn a aithint, a bhainistigh an staidéar a fhad lena fhoilsiú.



Joan Burton TD
Tánaiste agus Aire Coimirce Sóisialaí

Executive Summary

Background

Household joblessness is understood as people under the age of 60 living in a household where nobody is in employment. It is a major risk factor for poverty and welfare dependency (de Graaf-Zijl and Nolan 2011; Russell et al. 2004; Watson et al. 2012, 2013). An interest in household joblessness has grown internationally with the observation that rising employment levels do not necessarily lead to a commensurate reduction in household joblessness (Cantillon, 2011; Gregg et al., 2010; Vandenbroucke and Vleminckx, 2011). In other words, work is not equally spread across households. Changing employment patterns will affect household joblessness differently depending on whether jobs are gained or lost by people in jobless households or by people in households where there is already an adult at work. A concern with household joblessness differs from a focus on non-employment at the individual level, then, because it takes account of the employment situation of any other household members.

A concern with joblessness also differs from an analysis of unemployment, understood as being out of work and actively seeking work. The joblessness concept broadens the focus to include the situation of groups hitherto under-represented in studies of unemployment. This includes groups traditionally seen as outside the labour market such as people with a disability and those (usually women) with caring responsibilities.

Household joblessness, as measured by the ‘very low work intensity’ indicator on the Survey of Income and Living Conditions (SILC) has been adopted as one of three indicators for the European 2020 poverty target. Although the SILC measure may overstate the level of household joblessness in Ireland (Watson et al., 2015b), even using the alternative indicator based on the Labour Force Survey, the level of household joblessness in Ireland has been well above the EU-15 average since the start of the recession. In 2014, for instance, 16 per cent of children and 14 per cent of adults under the age of 60 lived in jobless households in Ireland, compared to the EU-15 average of 11 per cent for both adults and children.

As a result, the level of household joblessness in Ireland has received international attention. Under the economic governance arrangements forming the European Semester, two of Ireland's seven country-specific recommendations (CSRs) in 2014 referred to employment and household joblessness. The recommendations emphasised labour market activation, particularly for the long-term unemployed, and stressed the need to reduce household joblessness (Department of the Taoiseach, 2015).

Research so far has tended to focus on household joblessness as a static phenomenon, with less attention paid to the circumstances in which a household becomes jobless or exits joblessness. The present report represents a first step in examining household joblessness dynamics by drawing on the Quarterly National Household Survey (QNHS) to focus on movement into or out of household joblessness between calendar quarters from 2004 to 2014, covering a period of economic boom, recession and early recovery.

Rather than simply study the stock of jobless households, therefore, we focus in this report on transitions into and out of joblessness and ask what factors make these transitions more likely. We ask a number of research questions, including:

- How much movement into and out of household joblessness was there and how did this change between the boom, recession and recovery? In this report, the boom refers to 2004 to 2007; the recession refers to 2008 to 2012 and recovery refers to 2013 and 2014.
- What role was played by employment entries or exits by household members in contrast to people leaving or joining a household?
- Have individual employment transitions become more consequential in terms of having an impact on household joblessness?
- Does living in a jobless household or a household with children make it more or less likely for an individual to enter employment?

Data and methods

The data for the study come from the Central Statistics Office's Quarterly National Household Survey (QNHS) for the period from Q1 2004 to Q3 2014. This is a large survey designed to gather information on labour market issues. The design is that of a rotating panel, where individuals are followed for up to five quarters with one-fifth of the sample being replaced (and 'rotating out') in each quarter. We take individuals who are available in each pair of quarters as the unit of analysis and treat household characteristics in the earlier quarter in each pair (such as joblessness and household type) as attributes of the individuals. The QNHS has the advantage of a very large sample size, which is important when examining transitions over a relatively short period. In addition, the data is available for up to 2014 which allows us to examine changes in household joblessness as Ireland moves into recovery.

The definition of joblessness is that used in the context of the EU Labour Force Survey (EU-LFS): the share of persons under the age of 60 in households where nobody is in employment (according to the International Labour Organisation definition of employment). It is worth noting that the ILO definition of employment sets a low threshold, since even as little as one hour at work in the reference week would be enough to define a household as 'non-jobless' or 'working'. However, in practice, there are very few working households where the only employment is a very small number of hours by one adult.

Change in joblessness transitions from 2004 to 2014

In 2014, as noted above, 16 per cent of children under 18 and 14 per cent of adults aged 18 to 59 lived in jobless households. If we express the transitions out of joblessness as a percentage of the total population under the age of 60, the joblessness exit rate was 1.1 per cent on average over the 2004 to 2014 period. The entry rate to household joblessness was 1.2 per cent between one quarter and the next with 11.7 per cent remaining in households that were jobless in both consecutive quarters. The rates of transition are low because we are looking at a relatively short period of time when comparing calendar quarters.

Before the recession, the entry and exit rates were similar. As the recession began, the entry rate to household joblessness increased faster than the exit rate. Focusing

on the rate of entry to joblessness among adults, the rate peaked at 1.8 per cent in late 2008. The rate of transitions out of household joblessness also rose (partly because the base of jobless households was increasing in size), but the increase was not as steep. As a result, from 2007 until the end of 2012, the rate of adults entering household joblessness was greater than the rate of exits so that the stock of persons in jobless households increased.

Expressed as a percentage of those living in jobless households, the rate of joblessness exits was just over 10 per cent, quarter-on-quarter between 2004 and 2006; falling to about 7.5 per cent in 2008 and 2009 and rising again to between 8 and 10 per cent from mid-2013. Even during the recession, then, there was significant movement out of household joblessness as one or more adults in the household entered employment.

Relationship between individual employment transitions and joblessness

Not all individual employment transitions will affect whether or not a household is jobless. Whether an individual employment entry results in a household exit from joblessness depends on whether or not there is already someone else in employment in the household. On average across the period from 2004 to 2014, 24 per cent of adult employment entries resulted in a household moving from joblessness to working. In the majority of cases (76 per cent), then, there was already someone at work in the household so the employment entry had no impact on household joblessness. The rate at which individual employment entries resulted in a household exiting joblessness was lower in the boom (at about 20 per cent), rising to about 26 per cent in the recession and averaging 29 per cent in the recovery. All other things being equal, if more working-age adults are living in jobless households we would expect employment entries to be more likely to reduce household joblessness.

In a parallel fashion, an adult leaving employment will not necessarily result in a household becoming jobless: it depends on whether they live with other adults in employment. Just 28 per cent of adult employment exits in the period resulted in a household becoming jobless, ranging from 22 per cent in the boom to 31 per cent in the recession and remaining high at 32 per cent in the recovery. In general, as the

rate of both household joblessness and household dependence on a single-earner has increased, individual employment entries and exits have become more consequential for household joblessness transitions.

Impact of household joblessness and presence of children on individual employment transitions

We examined whether living in a jobless household or a household with children had the effect of reducing the probability that an individual would enter employment when we take account of other characteristics. We found that in all three periods and across different household types, the odds of employment entry for someone in a jobless household were only 0.59 times those of someone living in a working household. For example, the expected rate of employment entry for an unemployed parent in a household with children was about 11 per cent in the boom years if there was another employed adult in the household compared to about 7 per cent if none of the other adults was in employment.

The presence of children in a household was also associated with a reduced probability of entering employment, mainly driven by the pattern for women. For instance, for one of several adults in a jobless household, the adjusted probability (i.e. with other characteristics held constant) of entering employment between one quarter and the next was 8 per cent in the boom years if the household had no children and 7 per cent if the household had children. Although the difference between 7 and 8 per cent may seem small, it is based on change over a relatively short period (from one quarter to the next) and this kind of difference in flows can cumulate over time into a large difference in the stock of household joblessness. This pattern was not statistically significant by the recovery period, however. It was significant in the recession only for lone-parent households: residents of one-adult households with children were less likely to enter employment than their counterparts without children.

Other characteristics were also associated with the likelihood of employment entry. Married men, younger adults, those with higher levels of education, those living in Dublin and those who had worked in the last year were more likely to enter employment. The rate of transition into employment was low for married women,

adults over age 55, those with lower education, Irish nationals, and those living in the Border, Midlands and South-East regions.

We also examined job exits, asking whether sole-earners (the only adult at work in a household) and employed persons in households with children had a higher probability of exiting employment, when other characteristics were taken into account. The other characteristics were the same as those in the case of employment entries except that instead of the length of time since last worked we took account of the length of time in the job. The question of job exits by sole-earners is important since their employment exit would lead to the household becoming jobless. We found that, apart from people living alone, sole-earners were more likely than those in multi-earner households to exit employment when we took account of other characteristics. For instance, the adjusted percentage exiting employment in the recession period was 4.4 per cent for a sole-earner in a multi-adult household with no children compared to an adjusted percentage of 3.5 per cent in a similar household with more than one person in employment.

The presence of children was also associated with an increased probability of employment exit. This was statistically significant for single-adult households and for multi-adult households with several earners but not where the person was the sole-earner in a multi-adult household. The vulnerability of children to living in jobless households then arises both because of a lower probability of employment entry and a higher probability of employment exit among the adults with whom they live.

Limitations and further research

This first examination of joblessness transitions in the Irish context raised many questions that could be explored in further research. These include the extent to which factors such as disability (or caring for a person with a disability) contribute to household joblessness transitions and whether the jobs of those entering employment from jobless households are ‘good jobs’ in terms of the occupational level, hours, earnings and whether the job is temporary or permanent. We also examined change over a very short period, from one quarter to the next. The analysis could be extended to examine whether the job persists beyond the quarter

following the transition. These issues could be examined further using the QNHS data.

Policy implications

The findings have implications for both employment and social inclusion policy:

- The results suggest that household joblessness is likely to continue to fall as employment grows, but at a slower rate than the fall in unemployment, particularly since household joblessness in itself inhibits employment entry and the employment exit rate is higher in households with a sole-earner.
- The household context of non-employed adults must be taken into account in strategies to promote employment. This is because joblessness inhibits entry into employment, even when other characteristics are taken into account. Taking account of the household context includes consideration of the impact of one person's employment entry on the benefits received by other household members; on the need for childcare and on secondary benefits.
- The impact of the structure of welfare entitlement rules on work incentives warrants continuing attention. This may be a factor in accounting for the inhibiting effect of household joblessness on employment entry.
- Household joblessness is higher in households with children and among women. The presence of children reduces the probability of a transition into employment. This points to the need for policies such as the Back to Work Family Dividend that reduce the disincentives associated with the loss of social transfer income on employment entry. It also points to the need to consider the issue of childcare.
- As well as emphasising employment entry, reducing joblessness needs to address the higher rate of job exits among those in households with children and in sole-earner households.
- While traditional employment policy has focused on those defined as unemployed and actively seeking work, tackling joblessness will require a broader focus that also includes those engaged on home duties and people

with a disability. Those engaged in home duties are an important group with similar numbers to the unemployed in jobless households. In our analysis we found that an employment entry by a woman who had been engaged in home duties was almost as likely to move the household out of joblessness as employment entries among those describing themselves as unemployed.

Chapter 1

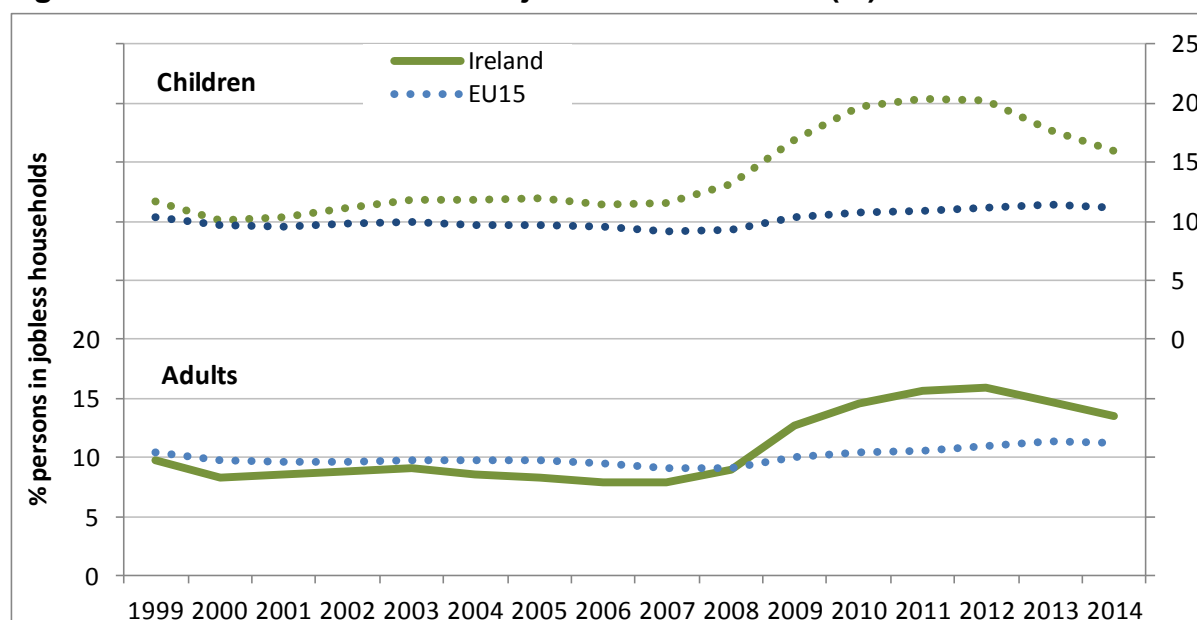
1.1 Introduction

This study focuses on household joblessness – the situation where none of the working-age adults in a household is in employment. The concentration of joblessness within households is of concern from a variety of perspectives. In social terms such a concentration is associated with very high risks of poverty (de Graaf-Zijl and Nolan 2011; Watson et al. 2012; Russell et al. 2004) and other forms of disadvantage, such as poorer outcomes for children and young people (Gray and Baxter, 2011; Ermisch et al., 2004). Household joblessness is also of interest from a policy perspective, as it is associated with a high level of dependence on social welfare transfers (Watson et al., 2013); because it points to the possibility of work disincentives in the tax and welfare system (Callan et al., 2007, 2011, 2012, 2013; Savage et al., 2014) and raises questions about the adequacy of policies to support the combination of work and family responsibilities (McGinnity et al., 2012). Other explanations for the concentration of joblessness within households include shared characteristics (e.g. educational level, household resources), shared local labour market circumstances, and cultural transmission (see O'Reilly et al., 2015, for a review focusing on parent and youth unemployment). Across Europe, the observation that rising employment levels do not necessarily lead to a commensurate reduction in household joblessness has highlighted that tackling individual employment may not be enough to reduce joblessness at the household level (Vandenbroucke and Vleminckx , 2011; Cantillon, 2011).

In the EU context, an indicator of household joblessness based on the EU Statistics of Income and Living Conditions (EU-SILC) is one of the key indicators of social exclusion for the purpose of the EU 2020 headline targets (European Commission, 2010). In addition, an indicator of household joblessness derived from the EU Labour Force Survey (EU-LFS) is one of a set used by the Commission to monitor the labour market. Although the SILC indicator may overstate the level of household joblessness in Ireland (Watson et al., 2015), even using the alternative indicator based on the Labour Force Survey, the level of household joblessness in Ireland has been well above the EU-15 average since the start of the recession.

Figure 1.1 compares household joblessness in Ireland and in the EU-15. The figure shows the percentage of adults aged 18-59 and children under age 18 in jobless households, using the EU-LFS survey (equivalent to the Quarterly National Household Survey for Ireland). After the start of the recession, the Irish rate of joblessness increased very rapidly, although it began to decline between 2012 and 2013. The Irish rate has been considerably higher for children than for adults, although the EU-15 average rates are very similar for both groups. The Irish rate for children was above the EU-15 average, even before the start of the recession, but the rate for adults was below the EU-15 average until 2008.

Figure 1.1: Adults and children in jobless households (%)



Source: Eurostat table [lfsi_jhh_a], EU-LFS data, extracted from <http://epp.eurostat.ec.europa.eu> on 23 Oct 2014.

Ireland is not unique in having a joblessness rate that is different for children than for adults. In most of the EU-15 countries, however, the rate was lower for children than for adults in 2013. Only in Ireland and the UK was the rate for children substantially higher than the rate for adults.¹

Watson et al. (2012) found that part of the high level of household joblessness in Ireland is explained by the high level of non-employment among the working-age

¹ See Eurostat table [lfsi_jhh_a] at http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsi_jhh_a&lang=en (accessed 9 April 2015).

population, especially since the start of the recession. The distribution of work across households of different types also mattered: compared to other countries, non-employed working-age adults in Ireland were less likely to live with an employed adult, were more likely to live with children and had a higher average number of children. Since the joblessness rate is calculated across persons (rather than households), the presence of children in households where the adults are not in employment will increase the joblessness rate.

This Irish pattern has been the subject of international focus as well as a national policy concern. Under the economic governance arrangements of the European Semester, two of Ireland's seven country-specific recommendations (CSRs) in 2014 referred to promoting employment and tackling household joblessness. These recommendations emphasised labour market activation, particularly for the long-term unemployed, and the need to reduce household joblessness (Department of the Taoiseach, 2015).

As the rates of household joblessness are very high in Ireland, particularly since the start of the recession, an analysis of joblessness is timely. Research so far has tended to focus on household joblessness as a static phenomenon, with less attention paid to the circumstances in which a household becomes jobless or exits joblessness. The analysis here represents a first step in the direction of examining household joblessness dynamics by focusing on movement into or out of household joblessness. This report focuses on joblessness transitions in Ireland from 2004 to 2014. This was a time of dramatic economic change, encompassing a period of rapid economic growth, a period of severe economic recession and a period of economic recovery. The analysis in the report uses data from the QNHS.

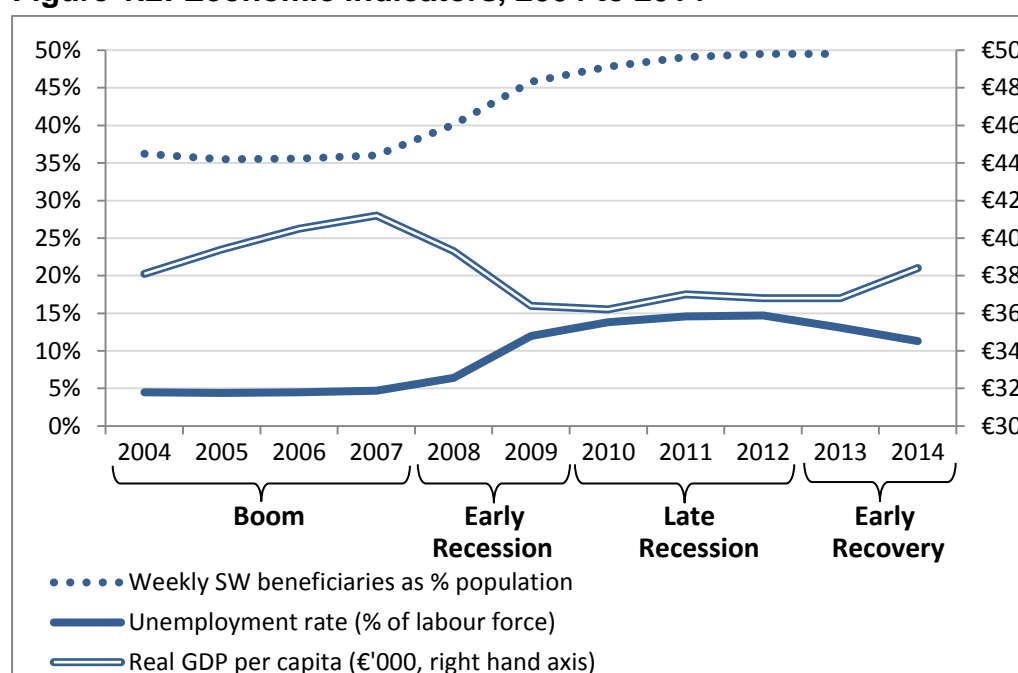
1.2 The economic context, 2004 to 2014

The period from 2004 was chosen for this study in order to capture the household joblessness pattern in the last years of economic growth as well as during the recession and early recovery. Figure 1.2 shows a number of economic indicators in the period from 2004 to 2014. Gross Domestic Product (GDP) is an indicator of the net value of goods produced in the economy. The chart shows real GDP per capita in thousands of Euro at constant (2010) prices. This had increased from €38,000 per

capita in 2004 to €41,000 in 2007 before falling to €39,000 in 2008 and €36,000 in 2009, remaining in the €36,000 to €37,000 range for several years before rising to €38,000 by 2014.

The chart also shows the unemployment rate. The standardised, seasonally adjusted unemployment rate had been at a historically low rate between 2004 and 2007 (between 4.5 and 4.7 per cent), before beginning a steep rise in late 2008. The rate in 2008 was about 6 per cent but it rose to 12 per cent in 2009, reaching a high of 14.7 per cent by 2012 before falling to 11 per cent by 2014. In response to falling employment levels in the recession, the percentage of the population who were beneficiaries of weekly social welfare payments increased sharply. As shown in the chart, this figure was about 36 per cent between 2004 and 2007 but had risen to 49 per cent by 2011 to 2013.

Figure 1.2: Economic indicators, 2004 to 2014



Source: Real GDP per capita from Eurostat (<http://ec.europa.eu/eurostat/> Table tscec_100; Chain linked volumes, 2010, Euro per capita). Department of Social Protection, *Statistical Report on Social Welfare Services 2013* (Table A8 on number of beneficiaries of weekly social welfare payments as a percentage of population). CSO Seasonally Adjusted Annual Average Standardised Unemployment Rates, from www.cso.ie (Table LRA04, downloaded April 9, 2015).

At certain points in the report, we distinguish between distinct periods based on these economic conditions. The boom period (2004 to 2007) was characterised by low unemployment and GDP growth. The early recession in 2008 and 2009 was the

period of the sharpest rise in unemployment and the sharpest fall in GDP, together with rising levels of welfare dependence. The later recession in 2010 to 2012 was characterised by continuing high unemployment and welfare dependence levels, though the rate of increase in unemployment was not as sharp. The early recovery years of 2013 and 2014 were when the unemployment level began to fall and GDP started to increase.

1.3 Household joblessness and individual employment

Joblessness at the household level is correlated with joblessness at the individual level, but the two do not necessarily go together and it is important to understand the relationship between them (Dawkins et al., 2002; Russell et al., 2004; Gregg et al., 2010; Whiteford, 2009). In 2010, for instance, over half of the unemployed adults in Ireland (52 per cent) were not in jobless households because they lived with at least one other adult who was at work (Watson et al., 2012, p. 27). Household joblessness adds value to our understanding of social exclusion because (a) it takes account of adult joblessness in the context of the activity status of other adults in the household and (b) it takes account of non-employed statuses other than unemployment, such as caring, home duties, being a student and being unable to work due to illness and disability. It is particularly relevant from a policy perspective because jobless households are highly dependent on social transfers: in 2011, 85 per cent of their income came from social transfers (Watson and Maître, 2013).

From a poverty and social exclusion perspective, some of the international literature (OECD, 1998, 2004, 2009) has shown strong evidence of the relationship between low income and very low work intensity (the EU definition of joblessness based on SILC)². However, de Graaf-Zijl and Nolan (2011) found that there was not a perfect overlap between household joblessness and income poverty and deprivation. Analysing the 2006 EU-SILC, de Graaf-Zijl and Nolan (2011) found that in most EU countries little more than half the working-age adults in jobless households are either income poor or deprived. In Ireland, Watson et al. (2012) found that the association between ‘very low work intensity’ and income poverty in Ireland declined over time,

² ‘Very low work intensity’ – the definition of joblessness based on SILC – takes account of employment over an entire year (rather than the reference week) and counts a household as being in ‘very low work intensity’ if less than 20 per cent of the possible work time of working-age members was spent in employment (Watson et al., 2015b).

but the link to basic deprivation remained strong. The income poverty rate for those in very low work intensity households was 70 per cent in 2004 but it fell to 34 per cent by 2010. The level of basic deprivation in 'very low work intensity' households remained at 51 per cent in both 2004 and 2010. The strength of the relationship between household joblessness and income poverty depends mainly on the adequacy of social transfer payments (Watson et al., 2012).

In many Western developed countries, joblessness became increasingly concentrated in certain households throughout the 1990s (Gregg and Wadsworth, 1996, 1998). This meant that rising employment levels in the EU in the 2000s only partially benefitted jobless households (Cantillon, 2011; Vandenbroucke and Vleminckx, 2011). The pattern in Ireland in the 1990s was more positive. In the mid-1990s the rate of joblessness in Ireland was towards the middle of the EU range, but the levels of household joblessness declined during the period of strong economic growth in the late 1990s and early 2000s (Russell et al., 2004). At the onset of the economic crisis in 2008, the proportion of workless households in Europe started to rise again, and was expected to increase even further (Gregg et al., 2010).

We can distinguish broadly between cultural and structural or institutional accounts of household joblessness (Nordenmark, 1999). Cultural explanations highlight factors such as poor role models and the transmission of attitudes towards employment and welfare dependency (Mead, 1986; Wilson, 1987). These accounts have been criticised for failing to adequately acknowledge the role of structural inequalities, lack of evidence on distinct attitudes among the unemployed (Gallie, 1994) and exaggerated claims about the pervasiveness and persistence of joblessness in particular groups (MacDonald et al., 2014). Shared characteristics within households in terms of education, household income and nationality play a significant role in accounting for the shared risks of joblessness within families (Ekhaugen, 2009; de Graaf and Ultee 2000). High unemployment in the local labour markets also leads to shared risks (Nordenmark, 1999; Macmillan, 2014).

Other institutional or structural explanations point to disincentives in social welfare system as a possible cause of a concentration of joblessness within households. Savage et al. (2014) investigate the incentives to take-up or remain in employment

by examining replacement rates in Ireland, using SWITCH, the ESRI tax-benefit model which incorporates the effects of current tax and welfare policies. Building on earlier work using SWITCH (Callan et al., 2007, 2011, 2012, 2013), the authors find that Ireland is very similar to the UK in terms of the percentage of those not in employment who face replacement rates (the ratio of out-of-work to in-work income) above 70 per cent. However, a higher proportion of Irish non-workers face very high replacement rates (above 90 per cent – nearly 9 per cent in Ireland compared to 5 per cent in the UK), although this is still a small proportion of non-working adults (Savage et al., 2014, p. 14). If allowance is made for in-work costs and the possible ‘scarring effect’ of a period of unemployment leading to reduced earnings, the estimated proportions facing high replacement rates would be higher.

Savage et al. (2014) identify certain groups of the non-employed who are substantially more likely to face very high replacement rates, including those in jobless households, those receiving rent supplement³ and recipients of jobseeker payments with children (p. 16). Among jobless households, for instance, Savage et al. estimated that nearly 40 per cent face a replacement rate above 70 per cent while almost 25 per cent face a replacement rate above 90 per cent, compared to figures of 16.5 per cent and 9 per cent, respectively, for non-employed adults in households where there is someone in employment (p. 18). The reasons for the very high replacement rates for these groups are linked to the targeted nature of social protection payments, incorporating means-testing and sharp rate of benefit withdrawal on taking-up employment. The reason for the very high replacement rates among jobseekers but not among lone parents is that the means-test for the One Parent Family Payment allows for a higher disregard of earnings before any reduction in benefit. As a result, 34 per cent of non-employed lone parents face a replacement rate over 70 per cent and 6 per cent have a replacement rate above 90 per cent (compared to 40 per cent and 25 per cent, respectively, of the unemployed in jobless households; Savage et al, 2014, p. 19).

Several recent policy initiatives were designed to improve work incentives. The Back to Work Family Dividend (BTWFD) introduced in mid-2015 was designed to improve

³ However, Savage et al. 2015 note that the replacement rates of those receiving rent supplement may not be as high as previously thought.

the work incentives of jobless families with children, by allowing unemployed jobseekers with children, as well as lone parents, to keep the equivalent of any increases for qualified children (€29.80 per qualified child per week in 2015) that were being paid with Jobseeker or One-Parent Family Payments for up to a year in employment. Savage et al. (2015) find that the scheme significantly improves the financial incentive to work for currently unemployed jobseekers with children. In addition, the Rent Supplement scheme is being replaced on a phased basis by a Housing Assistance Payment which allows those in housing need and on low incomes to benefit from assistance in paying rent irrespective of their employment status.

We tend to think of people in jobless households as a static group that is made-up of substantially the same people from one year to the next. We know from research on poverty transitions that there is considerable movement into and out of poverty. Poverty literature finds that the majority of people entering into poverty will exit poverty after a short period of time but that many of them will experience recurrent episodes of poverty – with periods out of poverty in between – and that only a small proportion of individuals will experience poverty that persists over several years (Bane and Ellwood, 1986; Devicienti, 2001; Fouarge and Layte, 2005). In the period from 2005 to 2008 in Ireland, for instance, 34 per cent of the population was below the 60 per cent income poverty threshold in at least one wave but only 5 per cent were below the threshold for all four waves (Maître et al., 2011, p.8). This means that more people are affected by poverty at some point in a given period than are poor at any single point in time. In this report we will ask whether the same is true of those in jobless households: to what extent is there movement into and out of household joblessness and are those in persistently jobless households a substantially more disadvantaged group in terms of education and other characteristics? Transition analyses will also allow us to identify the factors that are associated with a greater chance of exiting household joblessness.

These are important questions from a policy perspective, as is the issue of the type of labour market transition linked to movements into and out of joblessness. The latter point refers to whether the movements are between employment and unemployment or between employment and non-participation in the labour market

because of illness / disability or caring responsibilities. To the extent that illness / disability and caring responsibilities are important, this points to the need to broaden the focus from the traditional emphasis on unemployment (Gregg, 2008; Department of Social Protection, 2010a). In particular, it needs to consider the situation of people outside the labour market. Figures from 2010 indicate that only 31 per cent of people in jobless households lived with a householder whose status was 'unemployed' (Watson et al., 2012, Figure 5.3 p. 81). In the remaining cases, the person lived with a householder whose main status was 'home duties', illness or disability or other 'inactive' statuses. In order to design policy to address the needs of all of those in jobless households, we need to know which groups are most likely to be in households that remain jobless for a longer period and the factors that facilitate movement out of joblessness and those that act as barriers.

1.4 Research questions

We are concerned with household joblessness in this report and in how it has evolved from the last years of the economic boom, into recession and early recovery. Drawing on the literature, and the policy concerns, this report addresses the following key research questions:

1. How much movement into and out of household joblessness was there and how did this change between the boom, recession and recovery? In this report, the boom refers to 2004 to 2007; the recession refers to 2008 to 2012 and recovery refers to 2013 and 2014.
2. How important are each of the following in accounting for household joblessness transitions: transitions between work and unemployment, between work and non-employment (inability to work due to illness / disability, home duties, retirement, education), changes in household structure (people of working-age moving in/out of the household)?
3. Has there been a change in the extent to which movements into employment result in a change in joblessness status? In other words, have individual transitions into employment become more or less 'productive' in drawing households out of joblessness? This will largely depend on whether the individuals moving into work live in jobless or non-jobless households.

4. Does living in a jobless household or a household with children make it less likely that an individual will enter employment?

The methodology of the report involves an analysis of the QNHS data for Ireland. We constructed a database which will allow us to analyse transitions and persistence of household joblessness for the years from 2004 to 2014 by pairing adjacent quarters. By limiting our attention to adjacent quarters, we maximised the number of cases available for analysis.

1.5 Report outline

In the next chapter, we describe the data and methodology used in the analysis, including the unit of analysis, the population on which we focus and the definition and measurement of joblessness.

In Chapter 3, we provide an overview of the extent of joblessness transitions between one quarter and the next and how this changed over time. We also examine the association between socio-demographic characteristics of household members and the extent of joblessness persistence or transitions.

In Chapter 4, we examine the association between joblessness transitions and changes in employment status or changes in household composition. As noted earlier, not all transitions into or out of work at the individual level will lead to a household joblessness transition: it depends on whether the household is a single-earner household.

In Chapter 5, we examine whether household joblessness in itself makes individual transitions into employment less likely. We also examine the extent to which working adults in single-earner households are more likely to exit employment. Both of these patterns might contribute to a rise in joblessness. Given the higher level of household joblessness among households with children in Ireland, we also ask whether the presence of children in a household makes it more likely that a person would leave employment or less likely that they would enter employment.

In the final chapter, we draw together the results to answer the research questions and point to the implications for social and economic policy.

Chapter 2: Data and Methodology

2.1 Introduction

The European Commission uses the measure of household joblessness for several purposes requiring two different data sources, the Survey on Income and Living Conditions (SILC) and the Labour Force Survey (LFS). First, as part of the EU social indicators Europe 2020 poverty and social exclusion target, the Commission has developed with Eurostat an indicator of at risk of poverty or exclusion which identifies the population that is at-risk-of-poverty or severely materially deprived or living in households with very low work intensity (household joblessness). The construction of this composite indicator requires that all three pieces of information are in the same data source and these are only available in the SILC. Second, within the framework of the Open Method of Co-ordination, the European Commission has developed a list of indicators to monitor the economic and social situations across EU Member States.⁴ Among the primary indicators used to monitor the labour market situation is a measure to identify people living in jobless households based on the EU-LFS. In this report we use the latter data source and measure of household joblessness. The much larger sample size and the fact that it allows us to examine transitions on a quarterly basis up to 2014 (at the time of writing) are important advantages for our purpose here. In this chapter we describe the data used for the present analysis, the measurement of household joblessness and the methods of analysis.

2.2 Data

The Quarterly National Household Survey (QNHS) is a nationally representative survey of private households. It was introduced in September 1997 to replace the annual Irish Labour Force Survey. The QNHS collects individual labour market information throughout the year on a quarterly basis (Q1 covering January to March; Q2 covering April to June; Q3 covering July to September; and Q4 covering October to December).⁵ Households are included in the QNHS for five quarters. The QNHS is a rotating panel where every quarter 20 per cent of households are replaced so that there are 20 per cent of households left in the survey in the same quarter the following year. In this report, we focus on the period from 2004 to 2014 in order to

⁴ <http://ec.europa.eu/eurostat/web/employment-and-social-policy/social-protection-and-inclusion/social-inclusion>

⁵ Annual calendar coverage started in January 2009. Prior to this date Q1 covered December to February, Q2 March to May, Q3 June to August, and Q4 September to November.

include the years of economic growth leading into the recession and also the latest available data in order to capture the period of early recovery.

Unlike SILC the QNHS does not contain data on income or material deprivation. However, it contains detailed employment information (including sector, occupation and hours worked) and data on education and household structure and as well as socio-demographic characteristics such as gender, age, level of education, nationality and marital status.

The data, which includes children as well as adults, can be linked at the household level so as to identify jobless households. We combine information from adjacent quarters, in order to understand the extent to which joblessness persists or is transient from one quarter to the next. Analysing the data over the period 2004 to 2014 will allow us to ask to what extent the boom, recession and recovery had an impact on movements into and out of joblessness. This report focuses on people of working-age (18 to 59) in Ireland and the children who depend on them.

The QNHS has a number of advantages for an analysis of household joblessness:

- a) Large sample size. The QNHS includes data on between 28,000 and 50,000 adults in each quarter. As a result, there are over one million working-age adults on whom information is available for at least two quarters in the period from 2004 to 2014 (Appendix Table A2.1)
- b) The QNHS is widely accepted as the definitive dataset for analyses related to employment and non-employment as it is the official data source for national statistics on employment and unemployment.
- c) The availability of QNHS data for 2014 allows a more timely analysis of joblessness than one using the SILC data (Ward and Ozdemir, 2013). The inclusion of 2013 and 2014 are particularly important because they mark the point where household joblessness begins to decline.

2.3 Measuring household joblessness and unit of analysis

In this report we use the LFS definition of ‘population in jobless households’. The measure of jobless households is part of the EU sustainable development indicators

as used by the European Commission to monitor the economic and social situations across EU Member States. The measure of jobless households is calculated using the data from the European Union Labour Force Survey (EU-LFS).⁶ In Ireland, the QNHS is used to provide the EU-LFS data.

Jobless households are households where no member is in employment, i.e. all members are either unemployed or inactive. The International Labour Organisation (ILO) definition of employment is used. The ILO defines employed persons as those aged 15 years and over who worked for at least one hour for payment or profit in the reference week. People temporarily absent from work (illness, holidays, maternity leave etc.) but who have a job to return to, are considered to be in employment.⁷ We present in Table 2.1 the definition of jobless households based on the EU-LFS.

Table 2.1: Definition of household joblessness in the EU-LFS

Population	Persons aged 0 to 59 living in private households
Excluded population	Persons aged 60 and over Households with nobody of working-age Households consisting solely of students aged 18 to 24
Definition of employment	ILO definition (worked 1 or more hours in reference week, or temporarily absent from a job). Work of all persons aged 15 and over is considered for the purpose of determining joblessness of the household (even if they are under age 18 or age 60 or over).
Reference period	Current (Reference week is the week prior to the interview in Ireland)
Jobless households	No member is in employment, i.e. all members are either ILO unemployed or inactive.

It is worth noting that the ILO definition of employment sets a low threshold, since even as little as one hour at work in the reference week would be enough to define a household as ‘non-jobless.’ However, in practice, there are very few working households where the only employment is a very small number of hours by one adult.⁸

⁶ <http://ec.europa.eu/eurostat/web/employment-and-social-policy/social-protection-and-inclusion/overarching-indicators>

⁷ http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/EU_labour_force_survey_-_methodology#Labour_force_status_definition

⁸ See Watson et al. (2015b) for a comparison of the definition of household joblessness based on LFS and SILC.

The indicator of jobless households is calculated separately for adults (aged 18 to 59) and for children (aged 0 to 17). It refers to people living in households where no-one is in employment, as a percentage of all persons of the relevant age group. Students aged 18 to 24 who live in households composed solely of students of the same age class are not counted in either numerator or denominator. In countries where it applies, persons carrying out obligatory military service are not included.

The indicator of jobless households is attributed to all household members with the exception of people aged 60 and over. In this report we are interested in the factors associated with joblessness transitions and more particularly with factors such as changes in individual labour market situations. Therefore the report will focus primarily on people of working-age (18 to 59).⁹

2.4 Analysis methodology

In the poverty literature, the analysis of poverty dynamics is based on the analysis of panel data where the same individuals are present for several consecutive years. The most well-known and longest running longitudinal survey of this type is the Panel Study of Income Dynamics (PSID) in the United States. Several countries in Europe have also developed similar panel surveys such as the British Household Panel Survey (BHPS) in the UK, the Socio-Economic Panel (SOEP) in Germany and at a European level under the authority of Eurostat, the European Community Household Panel (ECHP) and the European Union Statistics on Income and Living Conditions (EU-SILC). All these panel surveys allow the analysis of annual poverty transitions of individuals over various lengths of time. The LFS, on the other hand, is not designed to follow the same individuals over a very long period of time as in income panel surveys. We saw in section 2.2 that in the QNHS the longest period of time someone can stay in the survey is 15 months and that, even before allowing for attrition, only 20 per cent of individuals initially present in any quarter will stay in the survey for this length of time.

⁹ Although the work of persons aged 15 to 17 is 'counted' in deciding whether a household is jobless, according to the LFS definition, most young people aged 15 to 17 are in education. In addition, young people under the age of 18 are counted as 'children' for the purpose of EU-LFS joblessness statistics which are produced separately for children. This is why we treat the population aged 18 to 59 as 'working-age' for the purpose of the present report. Households consisting entirely of students under the age of 25 are excluded since students under 25 are not considered 'working-age' for the purpose of defining household joblessness.

In this report we restrict the analysis to transitions occurring in consecutive pairs of quarters. For example starting with the year 2004, we follow the same individuals present in Q1 2004 and Q2 2004, then those present in Q2 2004 and Q3 2004 and so on until Q2 2014 and Q3 2014. The data for the analysis consists of all these pairs of quarters pooled together running from Q1 2004 to Q3 2014. Focusing the analysis on pairs of quarters in this way yields a very large number of observations which is particularly valuable for monitoring transitions in a rapidly changing labour market.

Appendix Table A2.1 gives an indication of the number of observations available for the analysis between 2004 and late 2014. An observation is a person on whom we have information in two adjacent quarters. The number of observations of working-age adults (that is, aged 18 to 59) in two adjacent quarters averages nearly 26,000 per quarter with a total of over one million over the period from Q1 2004 to Q3 2014. An additional 12,600, on average across pairs of quarters, are children under age 18 living with a working-age adult.

All results are based on weighted data. Sample weights are constructed for the QNHS data by the Central Statistics Office to ensure that the sample is representative of the national population. The weights for the first of each pair of quarters are used in the analysis for this report. Because the same person may be observed more than once and because there is clustering within the household, we control for clustering in the models.¹⁰

In reporting the results of statistical models, we focus on results that are statistically significant at the $p \leq 0.05$ level. In the descriptive tables, we do not specifically comment on statistical significance. Because of the very large sample size, even very small differences will be statistically significant. In our commentary, we focus on the size of the difference rather than its statistical significance. However, we do

¹⁰ In general, clustering and weights will reduce the precision of sample estimates, so their impact on the standard errors needs to be taken into account. This was accomplished using the 'svy' routine in Stata (StataCorp, 2013a and b; Cochran, 1977; Heeringa et al., 2010; Kish, 1965; Levy and Lemeshow, 2008; Skinner et al., 1989; Stuart, 1984; Thompson, 2012; and Williams, 1978).

indicate where an apparent pattern is not statistically significant because it is based on a smaller subset of cases.

In referring to pairs of quarters, we use ‘earlier quarter’ to refer to the first quarter in each pair and ‘later quarter’ to refer to the second quarter. Also, we use the timing of the earlier quarter in each pair to refer to it. For example, Q1 2004 refers to transitions occurring between Q1 and Q2 of 2004. We do this because the characteristics of the person and household, such as household type, presence of children and employment status, are taken from the initial quarter in the pair.

Before proceeding with the analysis, we compared the characteristics of the total sample included in the QNHS to the sample in both adjacent quarters (both the earlier and later quarter, across all the quarters included), to check whether attrition had an impact on the structure of the sample. In general, as shown in Appendix Table A2.2, any impact was very small. In particular, the percentage of jobless households was almost identical between the earlier quarter sample and the sample present in both quarters.

2.5 An overview of the level of household joblessness

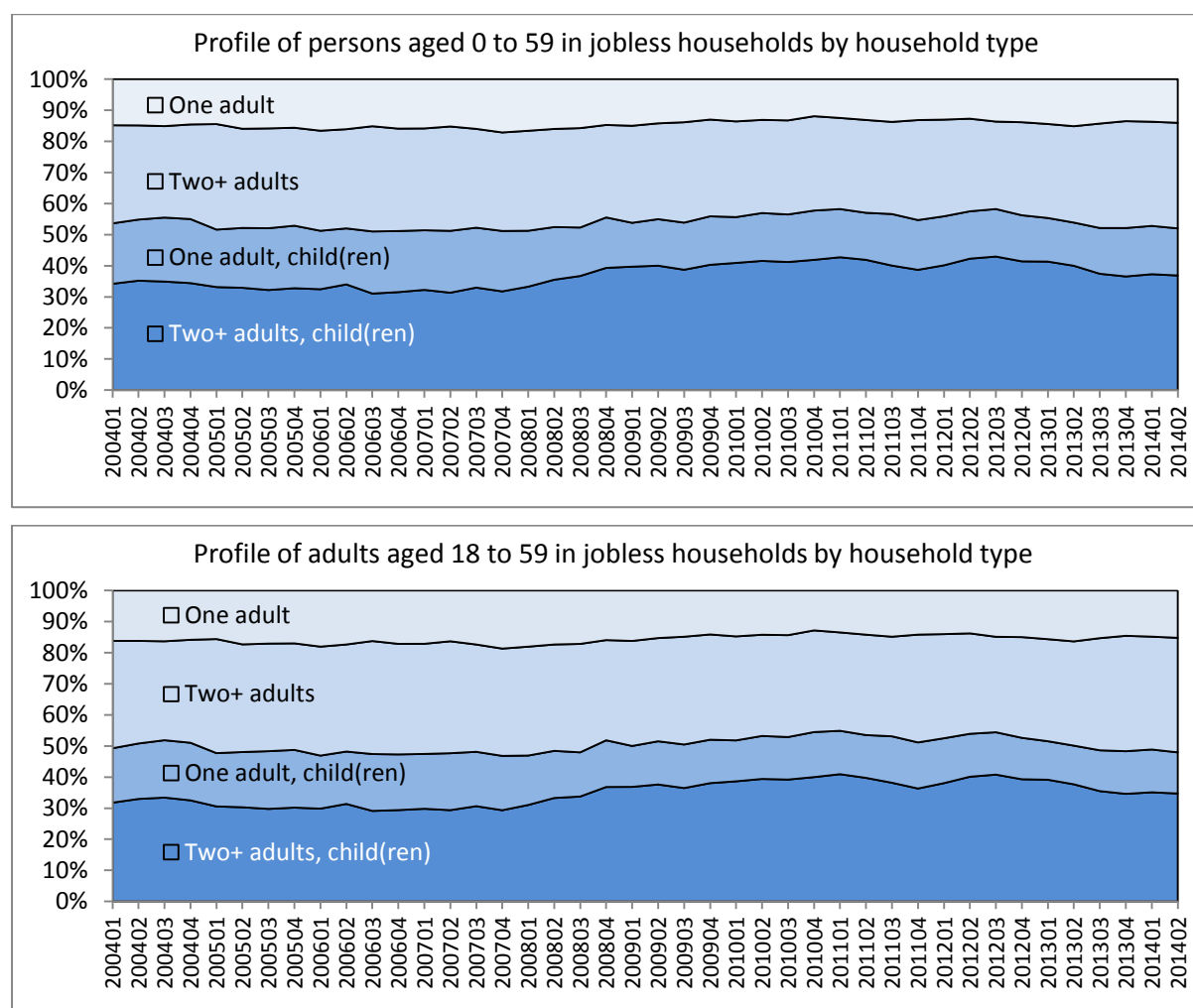
The focus of this report is on household joblessness transitions. However, as well as the figures on the stock of household joblessness as compared to other European countries presented in the previous chapter, it is useful to examine how the stock of jobless households by household type has changed in the period being studied.

Figure 2.1 shows how the profile of persons in jobless households has changed over the period from 2004 to 2014 by household type. The top panel of the table shows the percentage of all persons aged 0 to 59 in jobless households found in each household type while the bottom panel shows the corresponding figures for adults aged 18 to 59 only.

Turning first to the top panel, 42 per cent of people in jobless households lived in a household with several adults and children while about half that figure (21 per cent) lived in households with several adults and no children. Twenty-six per cent lived in lone-parent households while 10 per cent lived in a household consisting of an adult living alone. Since the start of the recession, the proportion of people in jobless

households who were in lone-parent households declined: from about 31 per cent between 2004 and 2007 to about 24 per cent thereafter.¹¹ At the same time, the proportion living in multi-adult households with children rose from about 37 per cent to 46 per cent. This is consistent with other research showing that the effects of the recession spread beyond the groups traditionally regarded as being at high risk of disadvantage (Whelan et al., 2015).

Figure 2.1: Profile of persons in jobless households by household type, 2004 to 2014



Source: QNHS data, 2004 to 2014; population aged 0 to 59 present in two consecutive quarters and in jobless households; analysis by authors.

When we compare the figures for adults in the lower panel of the chart to the figure including children in the top panel, the most obvious difference is that households

¹¹ Lone-parent households are those with one adult over age 18 and at least one child under age 18. A parent whose child is over age 18 would be classified as another household type (e.g. a two-adult household if there are now two adults in the household).

with children account for a smaller proportion of the total. Over the entire period, about 50 per cent of adults in jobless households are in households with children compared to a figure of 69 per cent of all persons in jobless households. Fifteen per cent of adults in jobless households live in a lone-parent household (compared to 21 per cent when children are included) and 35 per cent live in a multi-adult household with children (compared to 42 per cent when children are included). The larger all-adult households account for 34 per cent of jobless adults compared to only 21 per cent of jobless persons when children are included. The relative importance of different household types depends on whether the focus is on adults or children. Nevertheless, the growth of multi-adult households with at least one child as a component of persons in jobless households is evident whether the focus is on all persons or on adults only.

2.6 Summary

We have described the QNHS data which is analysed in this report, noting the benefits in terms of large sample size and timeliness (extending to late 2014) for this purpose. The analysis is based on individuals present in two adjacent quarters of the survey with household characteristics (such as type, size, presence of children and joblessness) treated as attributes of the individual. The population for the study consists of people under the age of 60. The key indicator is household joblessness, as defined in the EU-LFS: no member of the household is currently in employment, according to the ILO definition (worked for at least one hour in the reference week or has a job from which they were temporarily absent). The analysis is based on weighted data, and significance tests take account of weights and clustering within households.

At the end of the chapter we presented a table showing the composition of the population in jobless households by household type. The results showed that the profile of those in jobless households shifted with the recession towards a larger proportion of multi-adult households with children. We also saw that the household-type composition of persons in jobless households differed somewhat depending on whether we focused on all persons under the age of 60 or on adults only. In the latter case, the relative importance of households with children dropped but still accounted for half of the adults in jobless households.

Chapter 3: Extent of Household Joblessness Transitions

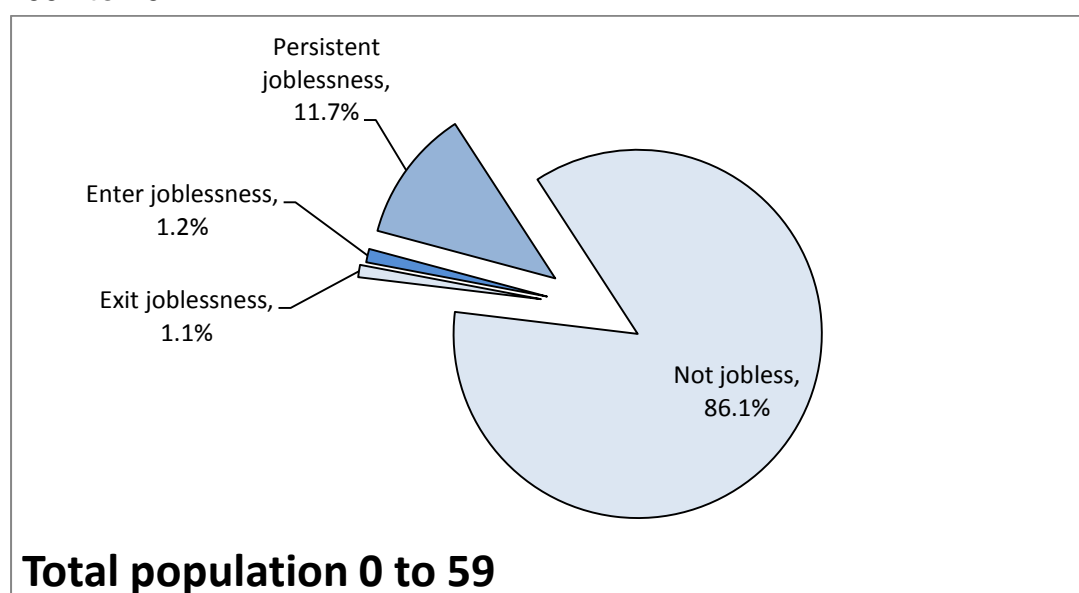
3.1 Introduction

In this chapter we document the extent of transitions into and out of household joblessness between 2004 and 2014, focusing in particular on how this was affected by the recession. The analysis is mainly descriptive in this chapter. As well as the overall level of movement into and out of joblessness, we examine the extent of transitions for adults, children and people living in different types of household. The unit of analysis is the person, with household level variables such as joblessness and household type attributed to each household member.

3.2 Overall household joblessness transition profile

Figure 3.1 shows what happens to household joblessness between adjacent quarters across the period 2004 to 2014. In spite of the recession, 86 per cent of the population aged 0 to 59 were in households where someone was in employment in both quarters. Just over one in ten (11.7 per cent) were in jobless households in both quarters (persistent joblessness). That leaves just 2.3 per cent making a transition between quarters.

Figure 3.1: Average household joblessness transition profile, total population, 2004 to 2014



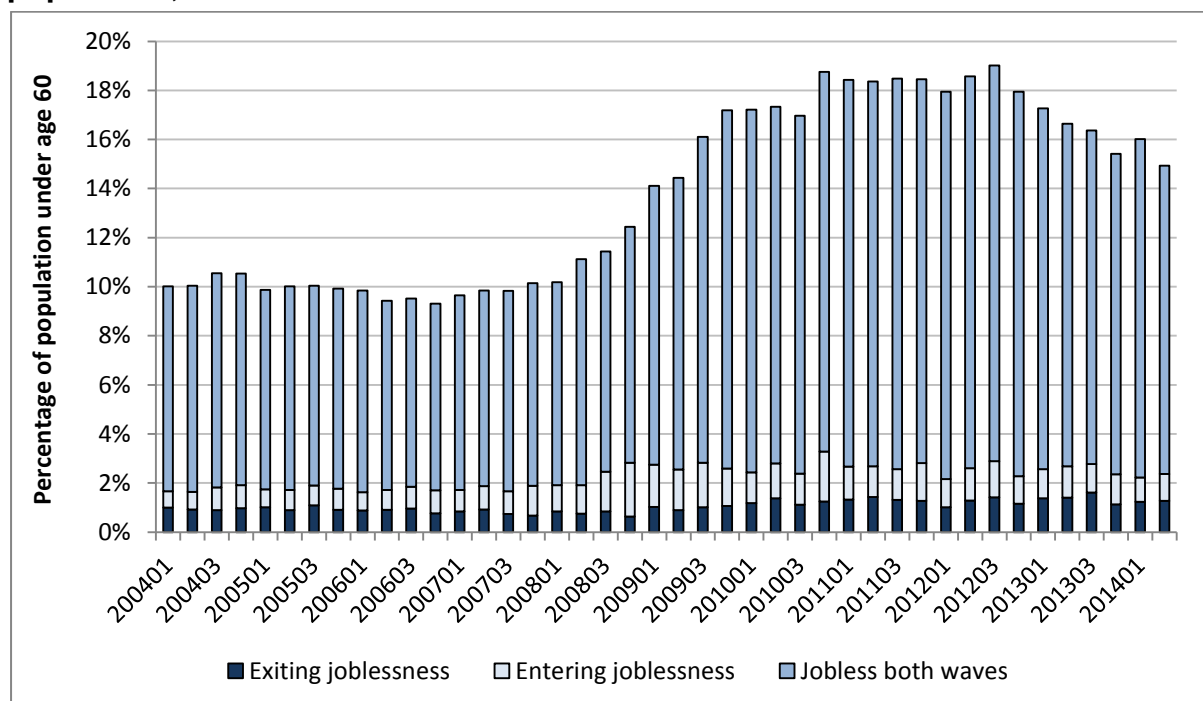
Source: QNHS data, 2004 to 2014; population aged 0 to 59 present in two consecutive quarters; analysis by authors. Because of the very large sample size, the difference between the percentages entering and exiting household joblessness is statistically significant.

The impact of the recession can be seen in that slightly more of the transitions were into joblessness (1.2 per cent of those under the age of 60) than out of joblessness (1.1 per cent) over the entire period. These percentages making a transition are low because we are comparing quarters. If we were to compare over a longer period, such as a year, the cumulative percentage of transitions would be greater. Because the QNHS has a very large sample size, the number of cases available for analysis of transitions is substantial. In terms of the number of cases involved, we have 10,543 adults in households that moved out of joblessness between one quarter and the next and 12,053 adults in households that moved into joblessness between one quarter and the next.

Another way to look at the data is to ask how much of the joblessness persists between quarters and how much is new or transient. Most of the joblessness is persistent between adjacent quarters. Of those in a jobless household in the earlier quarter, 91 per cent remained in a jobless household in the subsequent quarter. Of those in a jobless household in the later quarter, 90 per cent had also been in a jobless household in the earlier quarter.

We present in Figure 3.2 the household joblessness transition profile for each quarter from Q1 2004 to Q2 2014 for the population aged 0 to 59.¹² The overall level of household joblessness is pretty stable in the boom period from 2004 to 2007 at about 10 per cent. It then starts to rise as the economic recession hits Ireland, reaching a high of 19 per cent in Q3 2012 before falling gradually until Q2 2014. The overall increase is due to the fact that more households are becoming jobless than are moving out of joblessness. Persistent joblessness between quarters is more frequent than joblessness transitions, mainly because of the short duration of the period observed: we are comparing across quarters rather than a year or longer. The size of this persistently jobless group is about 8 per cent in the boom. Then it increased slowly to reach twice that in Q3 2012 at 16 per cent before falling gradually to 12 per cent at the end of the period in Q2 2014.

¹² As noted in Chapter 2, we use the timing of the earlier quarter in each pair when referring to transitions between pairs of quarters. Therefore, Q2 2014 refers to transitions between Q2 and Q3 2014.

Figure 3.2: Quarterly household joblessness transition profile, total population, 2004 to 2014

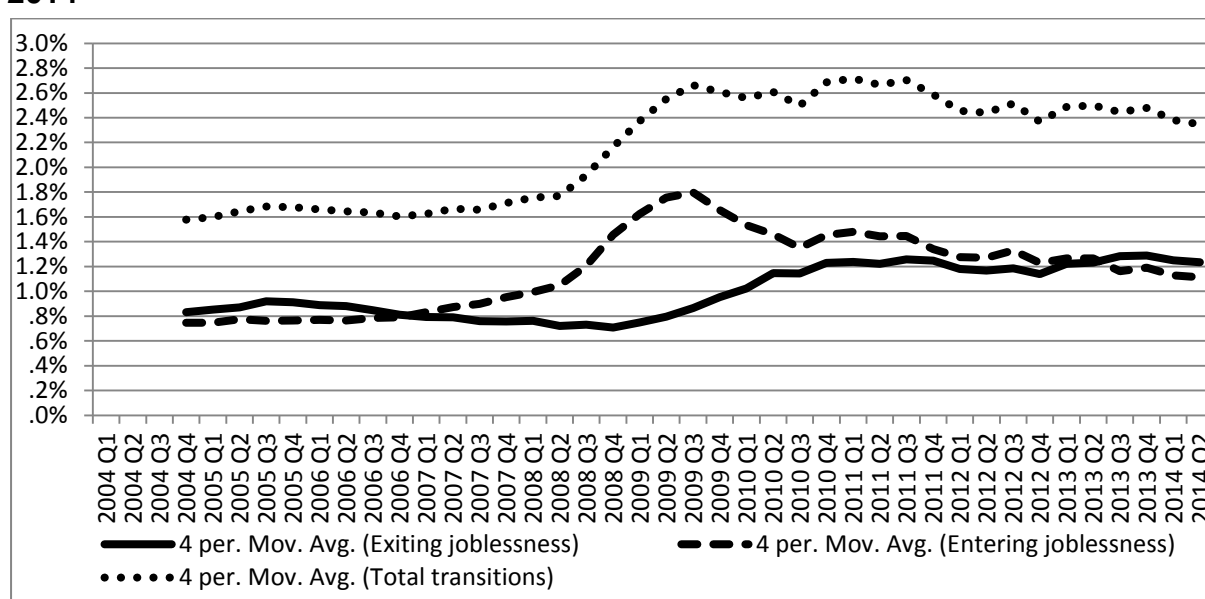
Source: QNHS data, 2004 to 2014, weighted; population under age 60 present in two consecutive quarters; analysis by authors. Differences of 1 percentage point or more are statistically significant.

Figure 3.2 shows that the percentage of people in households making a transition into or out of joblessness is very small, around 2 per cent quarter-on-quarter. In order to have a better understanding of these changes we focus on the adults making transitions in Figure 3.3. To smooth some of the seasonal variation between quarters, we show the moving average over four quarters. The overall level of transitions ranges from 1.6 per cent in early 2004 to a high of about 2.7 per cent (smoothed) in 2010. Prior to the economic crisis there was a stable level of transitions with very little fluctuation. The rate of transitions increased sharply in 2008 with quite sharp fluctuations between one quarter and the next. There was evidence of a tendency to decline in the smoothed figures from 2011, but still with quite a high level of quarter-to-quarter fluctuation.

Turning to the percentage of adults moving into and out of household joblessness, we see that from 2004 to 2006, the percentage of adults in households moving out of joblessness tended to be slightly greater than the percentage in households becoming jobless. From 2007 the rate of adults moving into household joblessness began to increase slowly with a sharper rise in 2008 so that the smoothed figures

reached 1.8 per cent in 2008-2009. The rate of exits from household joblessness also rose, because there were more jobless households. However, this increase did not begin until early 2009 and was not as steep as the rise in joblessness entries. As a result, from 2007 until the end of 2012, the rate of adults entering household joblessness was greater than the exit rate so that the stock of jobless households rose. The smoothed pattern seems to have reversed from 2013, with higher numbers exiting than entering household joblessness. The gap, however, remains small.

Figure 3.3: Household joblessness dynamics, adults aged 18 to 59, 2004 to 2014



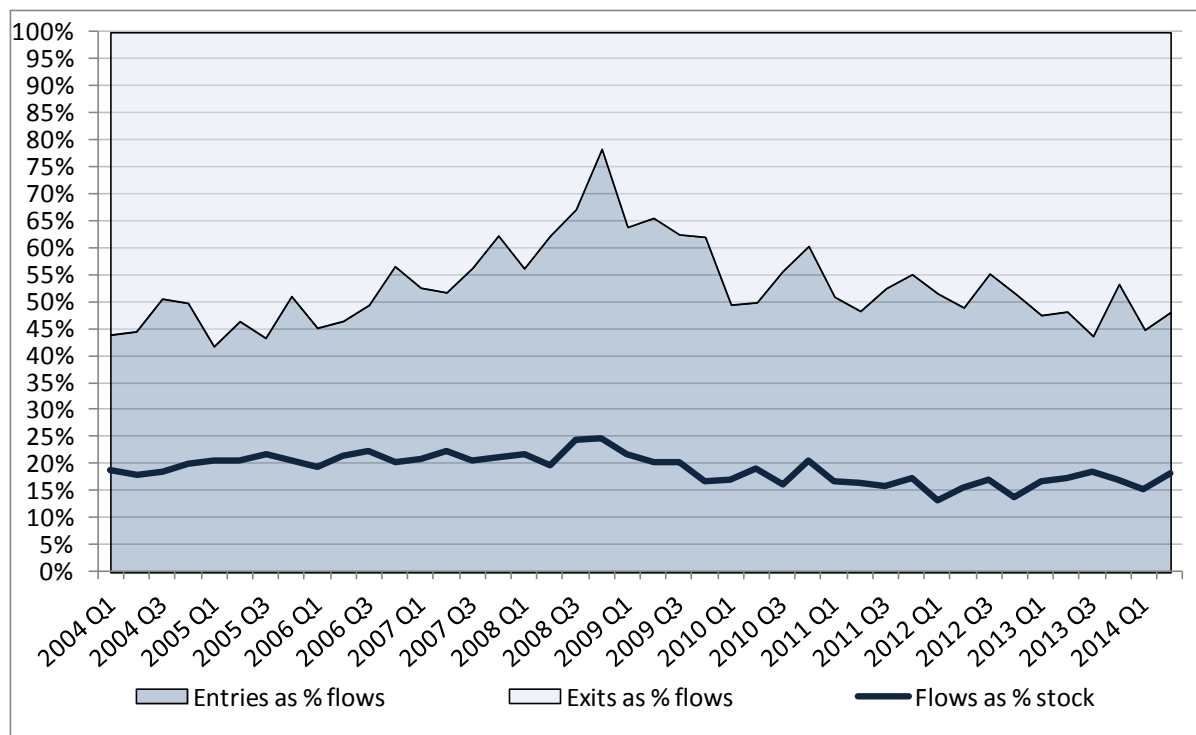
Source: QNHS data, 2004 to 2014, weighted; adults aged 18 to 59 present in two consecutive quarters; analysis by authors. Differences greater than 0.2 per cent between one quarter and the next are statistically significant.

The finding of a higher rate of transitions out of household joblessness as the stock of jobless households increased is consistent with employment flows literature (Burda and Wyplosz, 1994). Because people in jobless households are increasing as a proportion of the population, the rate of exit expressed as a proportion of the total population can be rising, but the rate of exit expressed as a proportion of those in jobless households may be static or falling. This can be seen in Figure 3.4. The line in the figure shows the flows into or out of household joblessness between quarters as a percentage of the stock of jobless households in the initial quarter. Before the recession, the flows were about 20 per cent of the stock. The flows then increased in 2008 to about 25 per cent in the third quarter. Subsequently the flows expressed as

a percentage of the stock dropped below 20 per cent because the stock of jobless households had increased.

Figure 3.4 also shows the contribution of entries and exits to the change in joblessness by showing the entry and exit flows as a percentage of total flows. The contribution to the change made by joblessness entries (the darker area in the chart) was below 50 per cent until 2006, when it began a slow rise. It rose sharply in 2008 to exceed 75 per cent in the third quarter. Between 2008 and 2012, about 57 per cent of the flows were into joblessness. After this, the average dropped below 50 per cent once again, so that slightly more of the flows were out of joblessness.

Figure 3.4: Household joblessness dynamics, adults aged 18 to 59, 2004 to 2014



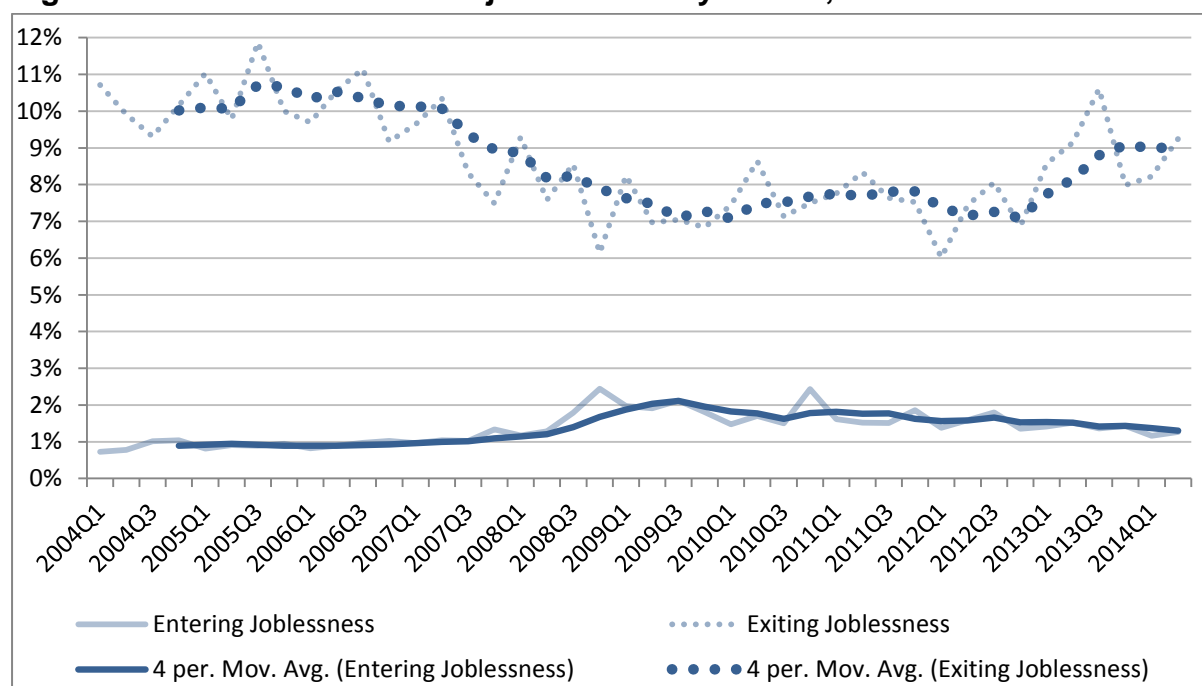
Source: QNHS data, 2004 to 2014, weighted; adults aged 18 to 59 present in two consecutive quarters; analysis by authors. For the flows as a percentage of stock, differences of 2.5 percentage points or greater are statistically significant. For the entries/exits as a percentage of flows, differences greater than 7 percentage points are statistically significant.

We now look at the rate of transitions for working and jobless households separately, expressing the rates as a percentage of the group ‘at risk’ of each type of transition. That is, we show the rate of entries into joblessness as a percentage of those initially in working households and the rate of exits from joblessness as a proportion of those

initially in jobless households. Note that the two groups are of different sizes, with the population in working households being larger, even in the depths of the recession. For ease of interpretation we reproduce the single quarterly results (the pale lines) as well as the smoothed moving average over four quarters (the darker lines) in Figure 3.5. We turn first to the smaller group in absolute terms, that is, those under the age of 60 and living in jobless households. For this group, between 2004 and 2007 while the economy was booming and unemployment was falling, we observe a relatively stable rate of escape from household joblessness at about 10 per cent, quarter-on-quarter. After Q2 2007 and until 2010, the percentage of persons escaping household joblessness falls gradually to about 7 per cent, quarter-on-quarter. The rate remained between 7 and 8 per cent until 2013, reaching 9 per cent by 2014.

Turning now to the larger group of people living in working households, the rate of entry to household joblessness was low, at about 1 per cent, until 2008. The rate rose to about 2 per cent in late 2009 (smoothed figure) and began to slowly fall back, but remained above 1 per cent in mid-2014.

Figure 3.5: Relative household joblessness dynamics, 2004 to 2014



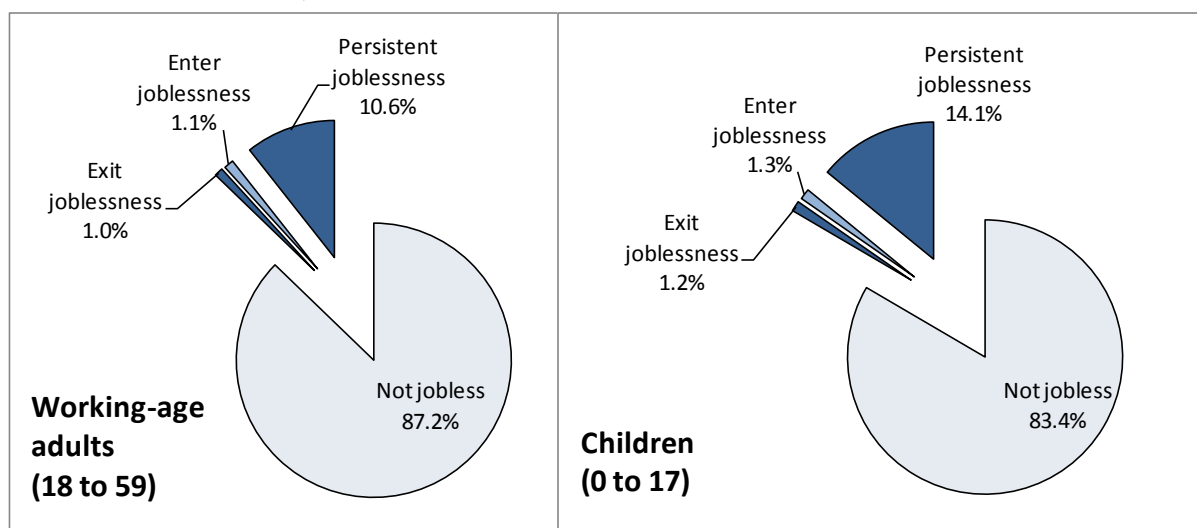
Source: QNHS data, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters; analysis by authors. Base = households that are not jobless in first quarter (for per cent entering joblessness, differences greater than 0.3 per cent are statistically significant); households that are jobless in the first quarter (for per cent exiting joblessness, differences greater than 2 per cent are statistically significant).

The rate of entries to household joblessness remained higher than the boom levels and, as we saw above, the rate of exits had not yet reached the levels of the boom. The rising percentage of people living in jobless households was therefore due to the combination of the falling percentage of people escaping household joblessness and the increasing percentage of people in households becoming jobless between one quarter and the next.

3.3 Adults and children household joblessness transition profile

Similar to the analysis in section 3.2 for the total population aged 0 to 59, we now report the transition profiles for adults and children separately. The profiles might differ between adults and children if there are differences between childless households and those with children or between households with a larger rather than a smaller number of children. Figure 3.6 shows the transition profile for adults and children. Not surprisingly, the transition profile for the working-age adults is almost identical to the one for the total population, but there's a slightly lower risk of living in jobless households either in both quarters or in one quarter.

Figure 3.6: Average household joblessness transition profile, working-age adults and children, 2004 to 2014



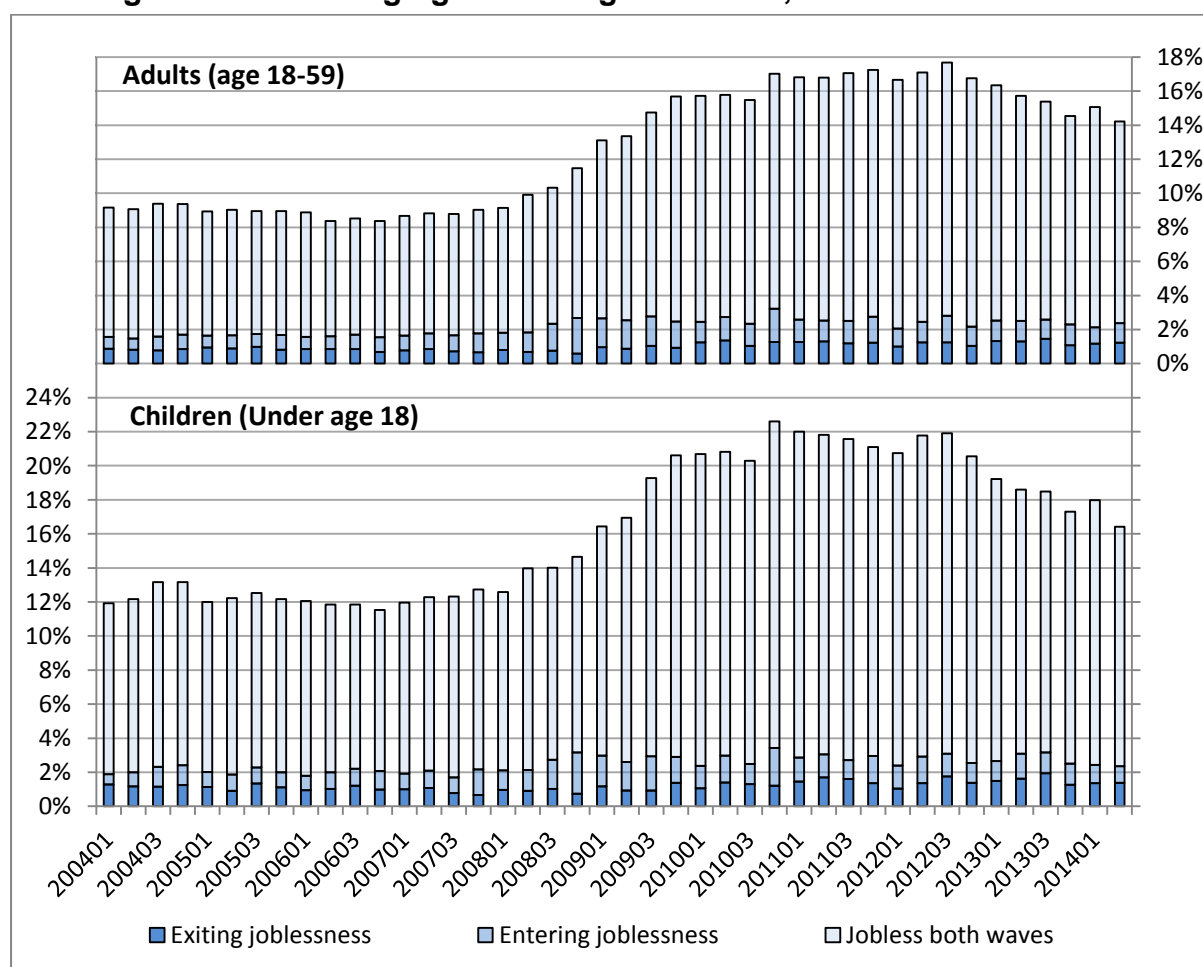
Source: QNHS, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters; analysis by authors. The differences between the percentages entering and exiting household joblessness are statistically significant for both adults and children.

This picture is different for children as they are less likely to live in a working household (83 per cent versus 87 per cent for working-age adults) and more likely to

live in jobless households in both quarters (14 per cent versus 11 per cent for working-age adults). Children are also more likely to be in households that experience a joblessness transition (in and out) across the period.¹³

In Figure 3.7 we show the pattern of household joblessness transitions by quarter for working-age adults and for children. We focus here on the risk of living in a jobless household in either one of each pair of quarters, that is either transient or persistent across two quarters.

Figure 3.7: Quarterly household joblessness transition profile for children under age 18 and working-age adults aged 18 to 59, 2004 to 2014



Source: QNHS data, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters; analysis by authors.

The overall profile follows the same trend for both adults and children, though the percentage is higher for children. The percentage of people living in jobless

¹³ Because of the very large sample size (Appendix Table A2.1), these differences are statistically significant.

households was at its lowest for the period from 2004 to 2007 (about 9 per cent for adults and 12 per cent for children) before rising sharply to 17 per cent in late 2010 and 2011 for the adults and 22 per cent for children. From then, both groups enjoyed a fall to reach, respectively, 13 per cent and 17 per cent by 2014.

Looking now at the percentage of adults and children in households making transitions, we note that both working-age adults and children have similar percentages in households transitioning into and out of joblessness with a slightly greater risk of transitions for children. The main difference between working-age adults and children is that overall the latter face a greater risk of persistent joblessness (that is, in both quarters), at 14 per cent while it is 11 per cent for adults.

3.4 Socio-demographic factors and rate of transitions

Figure 3.8 shows the percentage in each joblessness category by individual and family characteristics. The focus is on working-age adults (aged 18-59) in pairs of consecutive quarters over the entire 2004 to 2014 period. The chart shows the percentage in each group who were in jobless households in both consecutive quarters (persistent joblessness), in the early quarter of each pair only (exiting joblessness) or in the later quarter of each pair only (entering joblessness). The total length of the bars in the figure shows the percentage of adults in each group who were in jobless households in at least one of the adjacent quarters.

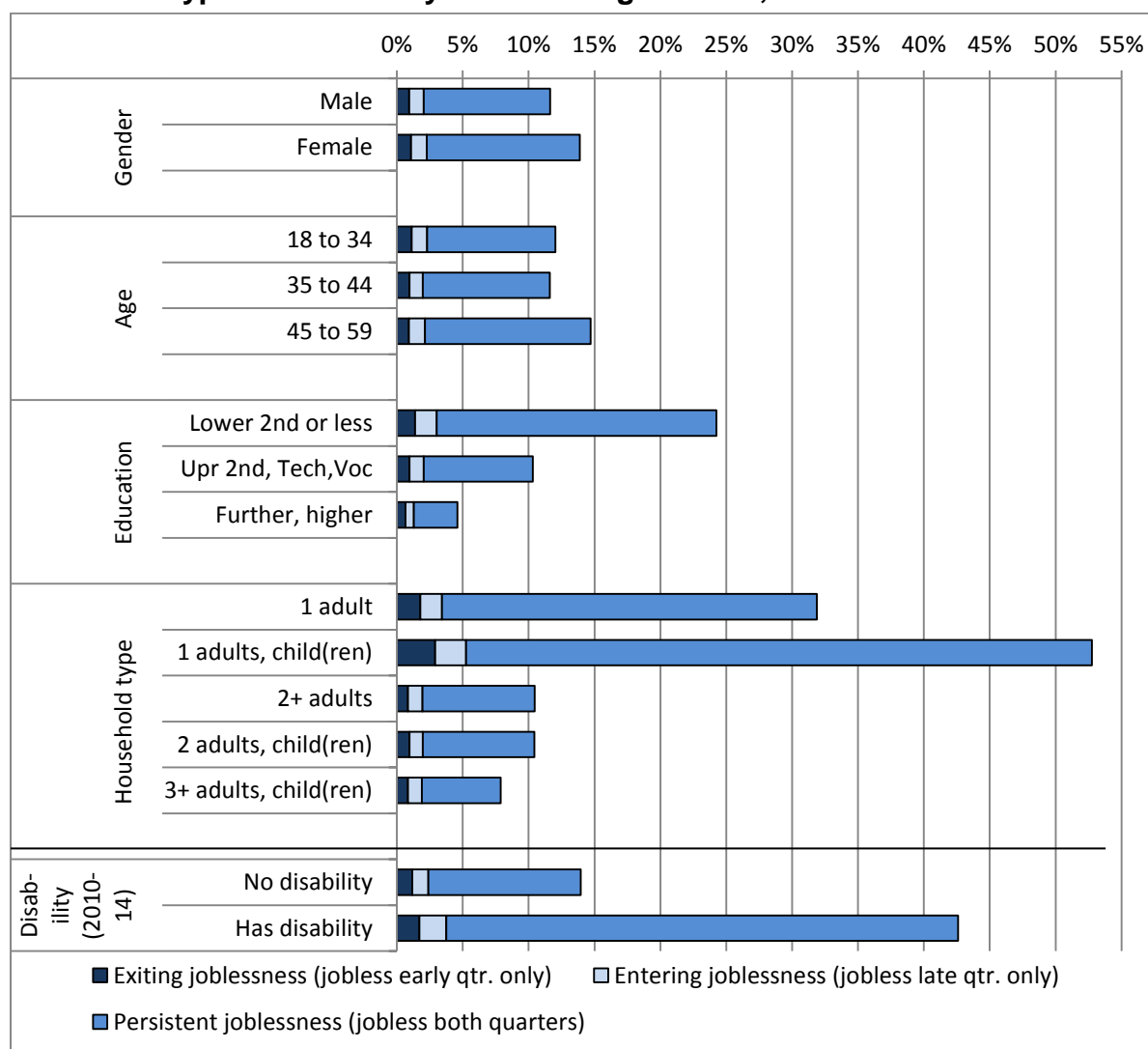
The risk of being jobless in at least one of the adjacent quarters was highest for lone parents (53 per cent); people with a disability (43 per cent); adults living alone (32 per cent) and those with lower second level education or less (24 per cent).¹⁴ The risk of joblessness in one of each pair of quarters was also higher for women (14 per cent compared to 12 per cent for men) and for adults over 45 (13 per cent).

Looking first at the dynamic pattern by gender, there is little difference between males and females in the rate of transition (in and out) of household joblessness (about 1 per cent each) but women have a greater risk of joblessness persisting across both quarters (12 per cent for women and 10 per cent for men).

¹⁴ The figures for disability are only available from 2010 onwards.

There is also little difference in the rate for moving in and out of household joblessness by age group (about 1 per cent). However there is a greater risk of joblessness persisting across both quarters for the older group aged 45 to 59 (13 per cent versus 10 per cent for the two other groups).

Figure 3.8: Joblessness transition rate by gender, age group, education, household type and disability for adults aged 18-59, 2004 to 2014



Source: QNHS data, 2004 to 2014, weighted; adults aged 18 to 59 present in two consecutive quarters; analysis by authors. Note that the figures for adults with a disability pertain to the period 2010 to 2014 as the indicator of disability is not available for earlier years. All of the group differences in the chart are statistically significant except persistent joblessness for the 18 to 34 age group vs. the 34 to 44 age group; exiting joblessness for the 35 to 44 age group vs. the 45 to 45 age group; entering joblessness for 2 adults and children vs. 3+ adults and children.

In terms of education, while there is again little difference in the rate of transition (in and out) across all education levels, there is a large inequality in the rate of

joblessness persisting across both quarters. Indeed the risk goes from a low figure of 3 per cent for those with higher education to a high rate of 21 per cent for those with up to lower second level education.

There is a large disparity across household types. The rate of transition (in and out) at about one per cent is similar for the different multi-adult households but is higher (between 2 and 3 per cent) for one-adult households, especially lone parents. The rate of joblessness persisting across both quarters is also considerably higher for one-adult than for multi-adult households (6 to 9 per cent). The rate is 28 per cent for one-adult households without children and 47 per cent for one-adult households with children.

People with a disability also have very high risk of living in a jobless household. The measure of disability is available only for the period from 2010 to 2014. In this period, the rate of joblessness persisting across both quarters was 39 per cent for people with a disability compared to only 12 per cent for those without a disability.

3.5 Regional joblessness transition patterns

At this point we turn to the household joblessness pattern by region, focusing on the 8 regions at the NUTS 3 level.¹⁵ Figure 3.9 shows the rate of persistent joblessness (i.e. in both quarters, the top panel and the axis on the right hand side) and the rate of transitions into and out of household joblessness (the bottom panel and the labels on the axis on the left hand side). The figures are shown for three periods, so that we can examine the impact of the recession.

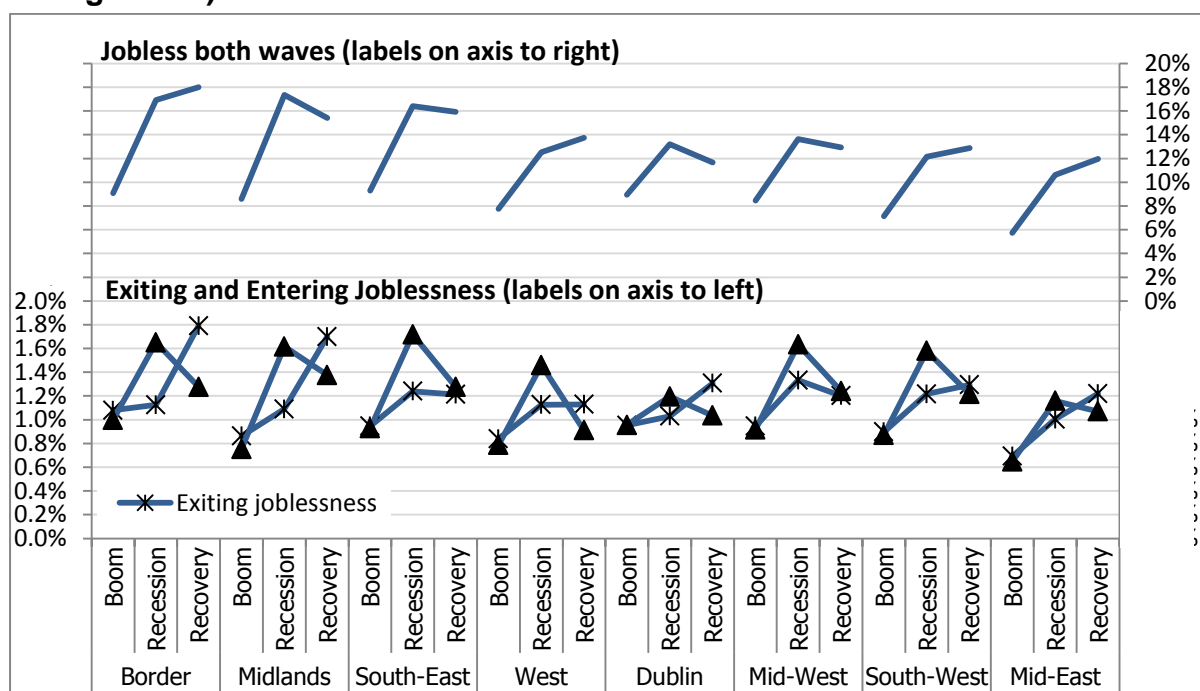
Persistent joblessness is the biggest component of joblessness in any given period, so we can compare the overall level of joblessness across regions by focusing on the top panel. It was highest, particularly during the recession, in the Border, Midlands and South-East regions, with persistent joblessness reaching 16 to 17 per cent during the recession. The levels of persistent joblessness during the recession were 13 to 14 per cent in the West, Dublin, and the Mid-West and were about 11 per cent in the South-West and Mid-East.

¹⁵ NUTS refers to the Nomenclature of Units for Territorial Statistics, an EU standard for referring to sub-divisions of countries. The NUTS 3 level distinguishes eight regions in the Republic of Ireland as shown in Figure 3.9.

In an analysis of employment by region, Morgenroth (2012) noted that the three regions which had the highest unemployment rates during the recession (Border, Midlands and South-East) also had the highest unemployment rates in 1998, suggesting the presence of structural factors.

The increase in persistent joblessness between the boom and recession was also particularly sharp in the Border, Midlands and South-East (increasing by between 7 and 9 percentage points, compared to 4 to 5 percentage points in the other regions).

Figure 3.9: Joblessness transition rate by region and period (all persons under the age of 60)



Source: QNHS data, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters; analysis by authors.

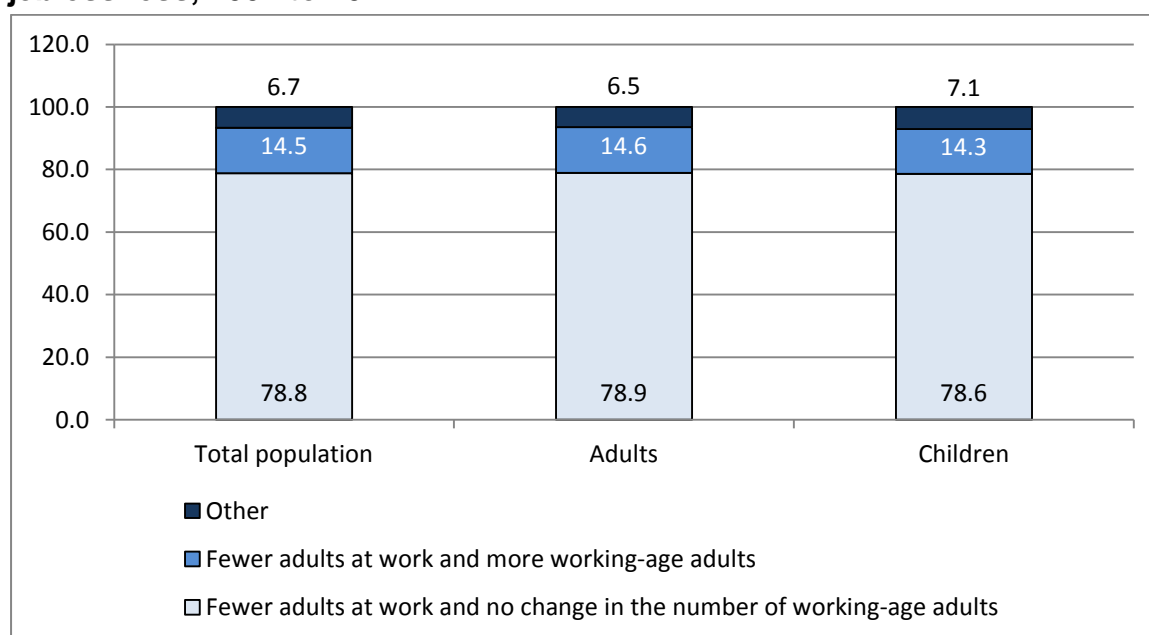
Turning to the joblessness transitions shown in the bottom panel of the table, we see that there are also strong regional differences in the rate of exiting joblessness as we move from the recession to early recovery. The rate of joblessness exits increased by over half a percentage point in the Border and Midlands regions and by about 0.3 percentage points in Dublin, with smaller changes in the other regions.

3.6 Events associated with household joblessness transitions

In this section we examine some of the factors at household level that could contribute to joblessness transitions. The measure of household joblessness is based on whether a working-age adult is in employment. Joblessness transitions may occur when someone present in both quarters moves into or out of employment; where someone with a job moves into or out of a household; or where someone with a job becomes working-age (i.e. turns 18) or non-working-age (i.e. reaches age 60). Whether or not these individual transitions lead to a household joblessness transition depend on whether the person making the transition is the only working-age adult in the household who is/was in employment. A person moving out of employment, for instance, will not affect household joblessness if there are others in the household who are in employment.

We present in Figure 3.10 the percentage of persons moving into household joblessness by type of event. The event types are (a) change in number of adults at work, but no change in total number of adults; (b) change in the number of adults and change in the number of adults at work. ‘Adults’ here refers to working-age adults (18 to 59).

Figure 3.10: Household events where there is a transition into household joblessness, 2004 to 2014

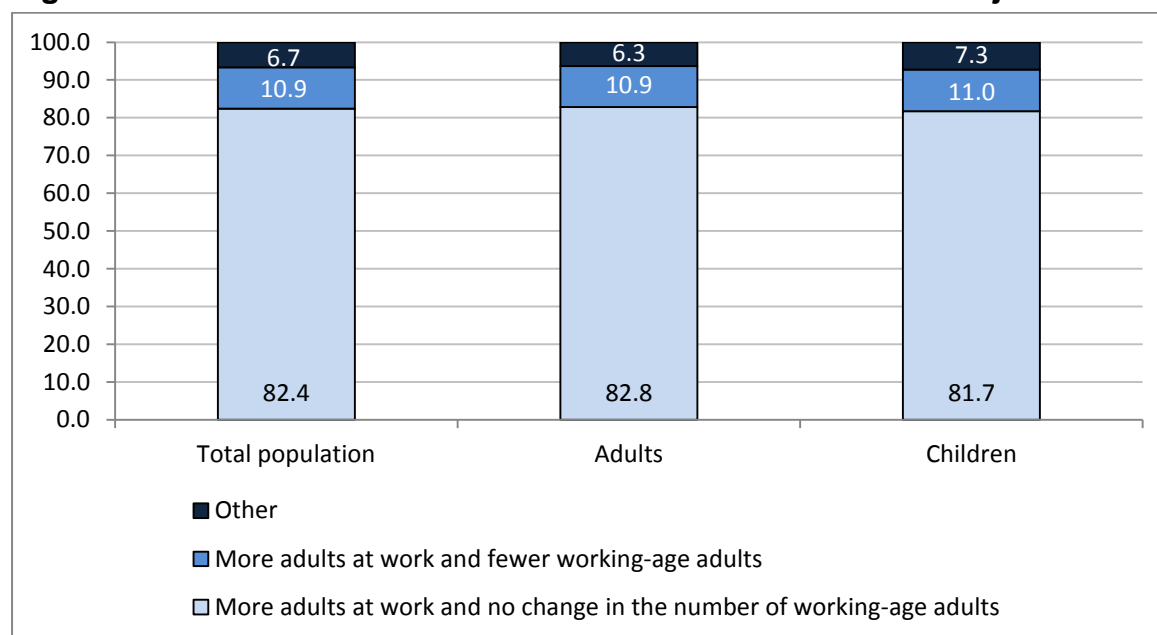


Source: QNHS data, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters where the household makes a transition into joblessness; analysis by authors. The only statistically significant difference between adults and children is for the ‘other’ category.

There are almost no differences between adults and children. The dominant change associated with moving into joblessness is a reduction in the number of adults at work, but no change in the number of adults in the household (79 per cent of transitions). Further analysis revealed that 92 per cent of the transition into joblessness involved the sole adult in employment moving out of employment. In only 22 per cent of these cases, were they single-adult households. This shows the vulnerability to joblessness faced by all single-earner households.

We now move on in Figure 3.11 to the same analysis for the rate of transitions out of household joblessness. Similar to the results from Figure 3.10 there is little difference between adults and children.

Figure 3.11: Household events and transitions out of household joblessness



Source: QNHS data, 2004 to 2014, weighted; persons aged 0 to 59 present in two consecutive quarters where the household makes a transition out of joblessness; analysis by authors. The difference between adults and children in the figures for 'more adults at work and fewer working-age adults' are not statistically significant.

The main driver of transitions out of household joblessness is an increase (from none to at least one person working) in the number of adults at work, with no change in the number of adults. This happens in 82 per cent of the transitions out of household joblessness. For the individuals living in these households in almost 93 per cent of the cases only one working-age person moved into work which was

enough to lift the household out of joblessness. Only 21 per cent of these households had just one adult.

In 11 per cent of the cases the transition out of joblessness was due to the combination of a reduction in the total number of working-age adults but an increase in the number of adults at work.

3.7 Summary

The analysis in this chapter focused on the pattern of transitions into and out of joblessness between adjacent calendar quarters from 2004 to 2014. Because a quarter is a relatively short period, the rate of transition was low, with 86 per cent of people under the age of 60 in working households in both quarters; 11.7 per cent in jobless households in both quarters; 1.2 per cent in households entering joblessness and 1.1 per cent in households exiting joblessness. Nevertheless, the figures do indicate a considerable degree of change. The flows into and out of household joblessness, expressed as a percentage of the adults in jobless households in the quarter, amounted to nearly one-fifth of the stock of adults in jobless households in the quarter.

In the boom period, the rate of transitions out of household joblessness was higher than the rate of transitions into joblessness. The rate of transitions into joblessness increased with the recession, reaching 2.2 per cent in Q4 2008. By 2013, the rate of transitions out of joblessness had once more fallen behind the rate of transitions into joblessness.

Although the rate of transitions out of joblessness as a percentage of the general population is low, it is higher when expressed as a percentage of people in jobless households: at about 10 per cent in the boom period and 7 to 8 per cent in the recession. This indicates that the situation of living in a jobless household has quite a bit of instability. Future research could profitably extend the period to examine what happens to these households after two or more quarters: is the employment stable or is it precarious?

Although all children live with adults, the joblessness rate may differ for children if it is higher in households with a greater number of children. Over the period from 2004 to 2014, children were more likely than adults to live in jobless households. The rate of persistent joblessness is higher for children, at 14 per cent, compared to 11 per cent for adults.

In this chapter we also examined the pattern of joblessness for adults by gender, age group, disability status, household type and level of education. Persistent joblessness was more common for women than men, for older than younger adults, among those with lower levels of education and in one-adult households, particularly where there are children in the household. We were able to examine the significance of disability for the years from 2010 to 2014, when the indicator of disability was available in the data. The rate of persistent joblessness was also higher for adults with a disability.

We focused on the kinds of change that were associated with transitions into joblessness. In 79 per cent of cases, there was a reduction in the number of adults at work. In a parallel fashion, in most cases where a household made a transition out of joblessness, the change involved an individual moving into work (82 per cent). Changes in household composition, such as a reduction or increase in the number of adults in the household, were not as important.

Chapter 4: Contribution of Work and Household Changes

4.1 Introduction

In this chapter we change the focus from household joblessness to individual labour market behaviour. We examine individual transitions into or out of employment and the significance this has for changes in the household situation in terms of joblessness. We focus on the second research question which is concerned with the relative contribution of changes in individual economic status and changes in household structure to joblessness transitions. Economic statuses include employment, unemployment, home duties, retirement, education / training, and illness / disability. When it comes to household structure, we consider issues such as people of working-age moving into or out of a household, increases in the number of children, children reaching adulthood and adults reaching the age of 60. The unit of analysis in this chapter is persons under the age of 60 in households where there is at least one working-age adult.

4.2 Extent of change in economic status between quarters

We begin by asking to what extent there were changes in the economic status of adults between quarters. The focus is on adults aged 18 to 59 and on transitions between work and non-work. The ILO definition of employment is used: the person needs only to have worked one hour in the previous week or have had a job from which they were temporarily absent. Non-employment includes unemployment but also other situations such as being a student, engaged in caring for the home and family, being unable to work due to illness or disability or having retired early. For brevity, when we refer in the following to quarter-on-quarter patterns we will just use the name of the earlier quarter. Thus, for instance, Q1 2004 refers to changes occurring from Q1 to Q2 2004.

Figure 4.1 shows the employment situation of adults aged 18 to 59 in adjacent quarters: the percentage in employment in both quarters, not in employment in either quarter, entering employment or exiting employment. Because a quarter is a relatively short time-frame, there is considerable stability, with 95.5 per cent in the same status, on average, across the period and just 4.5 per cent making a transition between quarters. It is also clear from the chart that the percentage in employment in

both quarters had been rising slightly during the boom (from 70.2 per cent in Q1 2004 to 72.9 in Q3 2007) before falling sharply in Q4 2008 to 67.3 per cent and dropping to 60.9 per cent by Q4 2010. After this the percentage in employment in both quarters began a slow recovery, reaching 66 per cent by Q2 2014.

At the same time, there was an opposing fall, rise and fall again in the percentage of adults who were outside of employment in both quarters. This fell from 26.2 per cent in 2004 to 22.1 per cent in Q3 2007, rising to a peak of 36.1 per cent in Q4 2011 and falling to just under 30 per cent by Q2 2014.

Figure 4.1: Adult employment situation in adjacent quarters, 2004 to 2014



Source: QNHS data, 2004 to 2014, weighted, analysis by authors. Differences between quarters of 1 per cent or more are statistically significant.

Figure 4.2 focuses on the transitions in the same period: the percentage of adults moving into and out of employment between adjacent quarters. The figures are smoothed across four pairs of quarters on a rolling basis so that the pattern is clearer. Early in the period, before Q3 2007, the percentage of people making transitions into employment was somewhat higher than the percentage making transitions out of employment, with average figures of 2.4 per cent and 1.9 per cent respectively. Between 2008 and 2009 the rate of individual employment exits rose sharply, reaching 3.4 per cent in Q2 2009 compared to 2.0 per cent in the same

quarter for employment entries. By early 2012 the rate of transitions into employment had again overtaken the rate of transition out of employment.

A point worth noting is that even in the depths of the recession when the rate of employment exit was at its highest, there were still people moving into employment at a rate of roughly two per cent in each quarter. The rate of employment entry fell during the recession (from about 2.4 per cent to about 2 per cent) but the fall in employment entries was not as sharp as the rise in employment exits (from about 2 per cent to about 3.4 per cent).

Figure 4.2: Adult employment transitions between quarters, 2004 to 2014



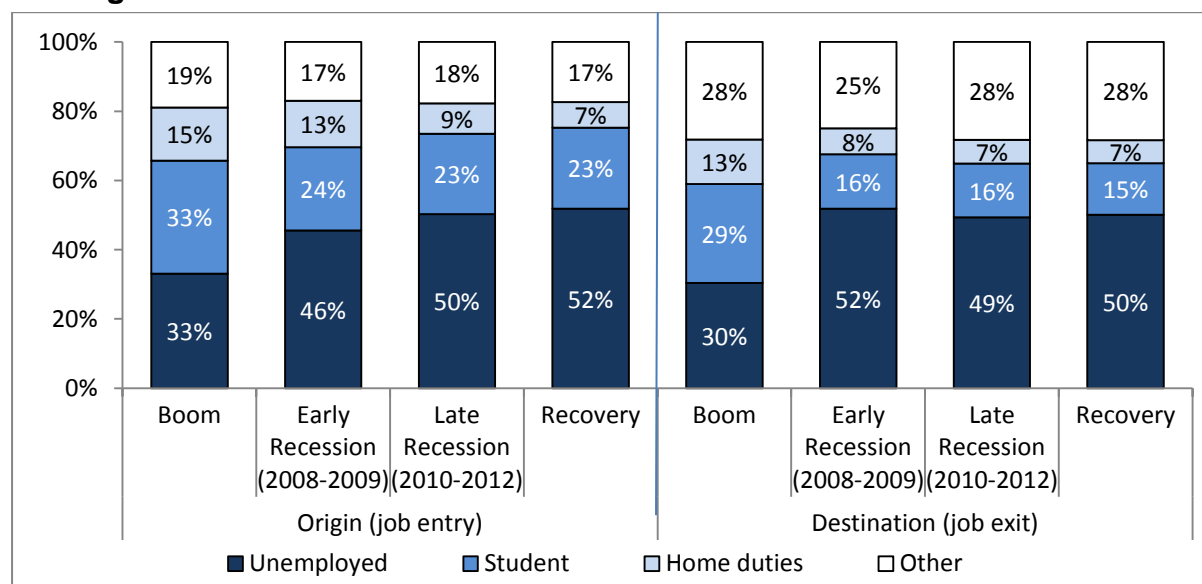
Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Note that figures for employment transitions are smoothed across four quarters. Differences between quarters of 0.4 per cent are statistically significant.

Figure 4.2 also shows the quarter-on-quarter change in the seasonally adjusted unemployment rate as measured by the QNHS. As with the figures for employment transitions, these are smoothed across four pairs of quarters so that the trend is clearer. The change in the unemployment rate does not necessarily correspond directly to transitions into and out of employment. This is because the transitions need not be between employment and 'unemployment' (but between employment and other statuses, such as illness, home duties and so on). Nevertheless, the transitions out of employment closely follow the trend in the unemployment rate.

Changes in individual employment do not necessarily result in household joblessness transitions because there may be other adults in the household who are in employment. We explore this issue further later in this chapter and in the next chapter. Now, however, we examine changes in the nature of the employment transitions and changes in household composition between adjacent quarters.

We begin in Figure 4.3 with the economic status of adults either before or after the employment transition. For those entering employment, the figure shows the originating economic status while for those exiting employment it shows the destination economic status. Unemployment refers to the International Labour Organisation (ILO) definition of unemployment as a person actively seeking and available for work. The other statuses (home duties, student, other) are the principal economic status identified by the adult himself or herself where the adult was or has become inactive according to the ILO definition. The figure separates the transitions into four periods: ‘boom’ refers to 2004 to 2007; early recession refers to 2008 to 2009; late recession refers to 2010 to 2012 and recovery refers to 2013 and 2014.

Figure 4.3: Adult employment transitions between adjacent quarters by economic status in earlier quarter if moving into work or later quarter if moving out of work

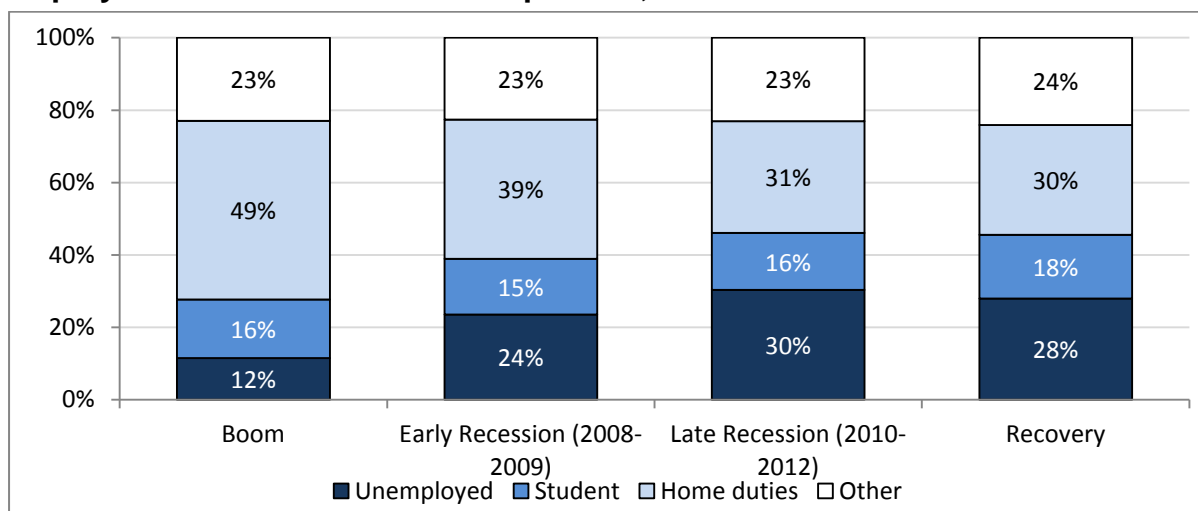


Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base = adults aged 18 to 59 who entered employment or exited employment. For ‘Origin’ all differences between periods greater than 2 per cent are statistically significant. For ‘Destination’ differences greater than 0.5 per cent are statistically significant.

Focusing first on those entering employment, during the boom about one-third had previously described themselves as unemployed compared to 46 per cent in the early recession years and over 50 per cent in the later recession and recovery. A further one-third of those entering employment in the boom had been students in the previous quarter, falling to around 23 or 24 per cent after the recession.

The pattern for those moving out of employment shows a similar increasing significance of unemployment in the recession years. Before the recession, 30 per cent of those leaving employment moved into unemployment but this rose to between 49 and 52 per cent in the recession and early recovery. In the boom years, 29 per cent of those moving out of work became students but this fell to 15 to 16 per cent as the recession increased the significance of unemployment.

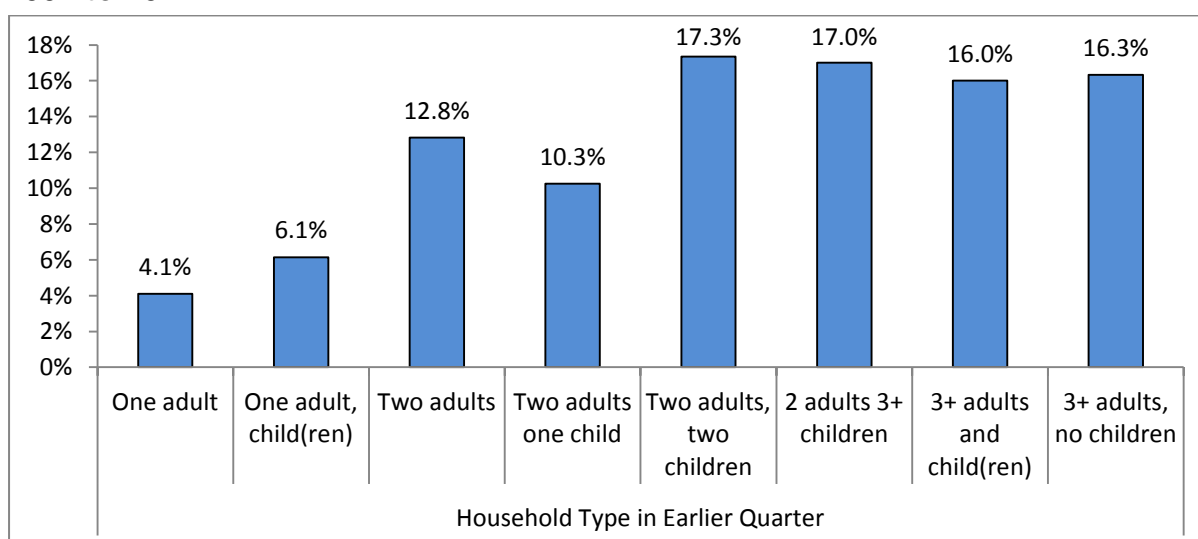
Those moving from employment into home duties or from home duties into employment were a relatively small group, constituting 13 to 15 per cent of the relevant groups in the boom, and one that declined in size with the onset of the recession (to between 7 and 9 per cent). This is in contrast to the much larger size of the 'home duties' group as a component of the population who were outside of employment in both quarters of each pair of consecutive quarters, as shown in Figure 4.4. Adults engaged in home duties constituted nearly half of the population outside of employment in both adjacent quarters in the boom (49 per cent), falling to 39 per cent in the early recession and 30 to 31 per cent in the late recession and recovery. The growing significance of unemployment can also be seen here, with the percentage unemployed in the earlier quarter of each pair doubling between the boom and early recession (from 12 per cent to 24 per cent), before reaching 28 to 30 per cent by the late recession and recovery.

Figure 4.4: Economic status in earlier quarter of working-age adults outside of employment in both consecutive quarters, 2004 to 2014

Source: QNHS longitudinal data, 2004- to 2014, weighted, analysis by authors; adults aged 18 to 59 who were outside of employment in both quarters. All differences between periods greater than 1.5 per cent are statistically significant.

4.3 Extent of change in household structure between quarters

We now turn to changes in household structure. Figure 4.5 shows the percentage of persons in the different household types across the period. Just 4.1 per cent of persons live in a one-adult household and 6.1 per cent live in a household consisting of one adult and one or more children. Two-adult households account for 12.8 per cent of persons.

Figure 4.5: Distribution of persons under the age of 60 by household type, 2004 to 2014

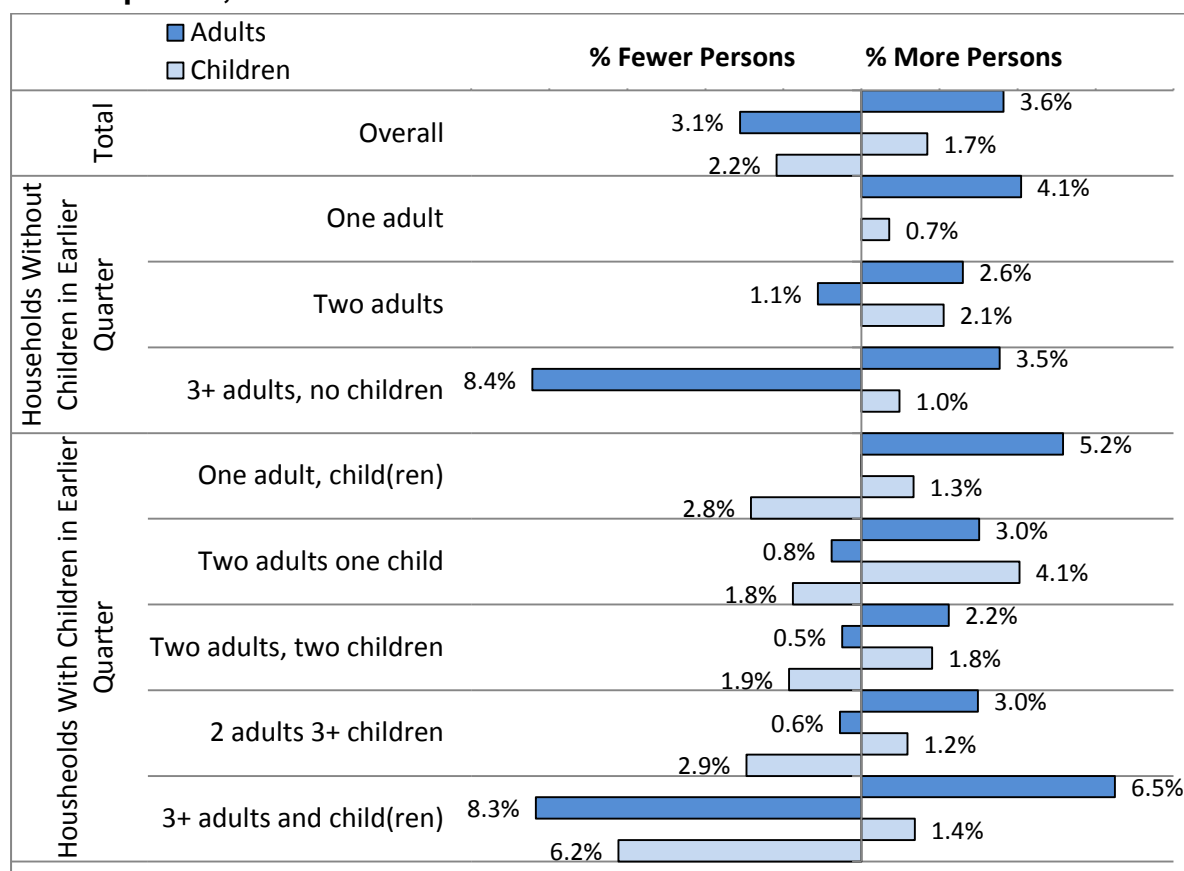
Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 0 to 59 who are present in adjacent quarters.

Those in households consisting of two adults with children account for nearly 45 per cent of persons, with almost equal percentages in households with two children and three or more children (17.3 per cent and 17.0 per cent respectively). People in households consisting of 3 or more adults and a child or children are mainly living in those family households with a grown child or children and account for 16 per cent of persons. The final category, three or more adults with no children, could consist of either families where all of the children have grown up, other relatives (such as brothers or sisters) or unrelated persons. These account for 16.3 per cent of persons.

Figure 4.6 shows the extent to which there was an increase or decrease in the number of adults or children in the household between one quarter and the next. Note that the base for this figure is persons rather than households, in order to give an indication of the number of people affected by the changes. For example, four people are affected if someone moves into a household consisting of two adults and two children compared to one person affected if someone moves into a one-person household. Overall, 3.6 per cent of persons were in households that had an increase in the number of adults while 3.1 per cent had a reduction in the number of adults. Just 1.7 per cent of people were in households that had an increase in the number of children while 2.2 per cent had a reduction in the number of children. In most cases where there is a reduction in the number of children, this comes about when a child turns 18, becoming an adult according to the definition used here so that the reduction in the number of children is accompanied by an increase in the number of adults, as long as the person remains in the household.

Looking across the different types of households, we can see that between 2.2 per cent and 6.5 per cent of people were in households that had an increase in the number of adults, with the smaller figures for those in households consisting of two adults and two children and the larger figure for those in households consisting of three or more adults and children. Those in larger households with three or more adults were also most likely to have experienced a reduction in the number of adults with figures of 8.3 to 8.4 per cent.

Figure 4.6: Percentage of people in households where there was a change in the number of adults or children between quarters by household type in the earlier quarter, 2004 to 2014



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 0 to 59 who are present in adjacent quarters. Differences greater than 0.1 per cent are statistically significant.

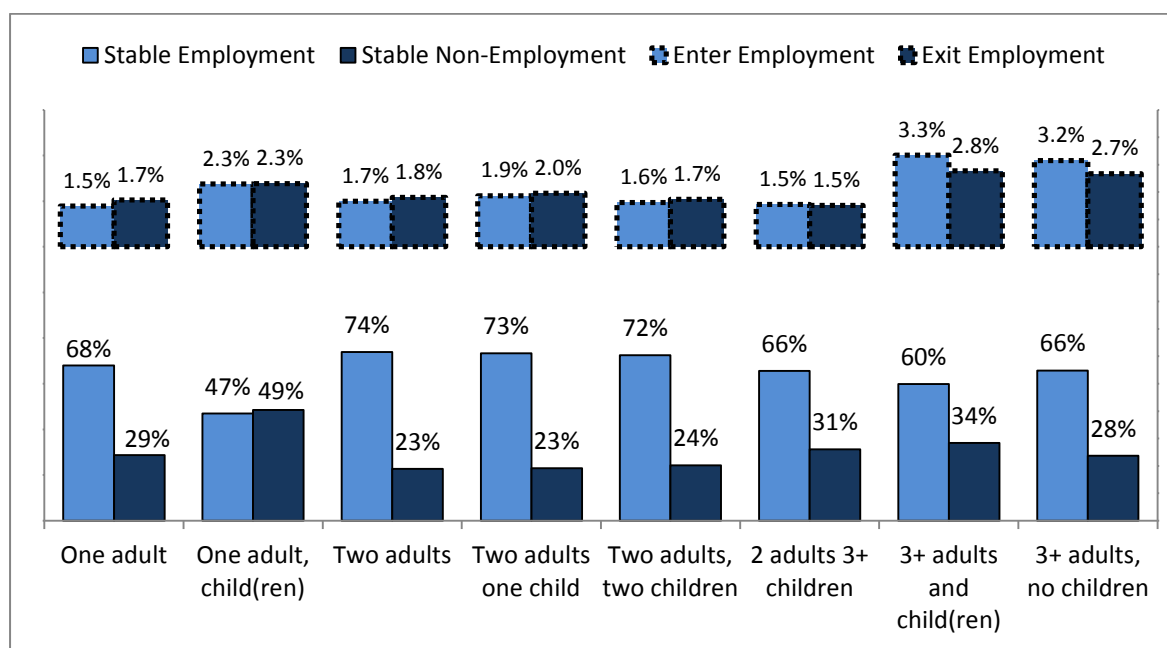
The households most likely to experience an increase in the number of children are two adults and one child (4.1 per cent). The households most likely to experience a reduction in the number of children (usually as children become adults) are those consisting of 3 or more adults and children (6.2 per cent).

In Figure 4.7 we turn to the association between adult work transitions and household type, asking what percentage of adults in each household type experienced a transition into work or out of work in the period.

Stable employment (employment in both consecutive quarters) is most common in two-adult households with no children or with one or two children (72 to 74 per cent) and least common among adults who are lone parents (47 per cent). Where there are three or more children in the household, the employment rate drops to 66 per

cent among adults in two-adult households. The rate of stable employment is also somewhat lower (60 to 66 per cent) in households with three or more adults with or without children. These are the households most likely to include young adults, some of whom will still be in education.

Figure 4.7: Adult work transitions by household type in the earlier quarter, 2004 to 2014



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59 who are present in adjacent quarters.

Employment-related transitions, whether into or out of employment, are most frequent in these households with three or more adults, with rates of 3.2 to 3.3 per cent for transitions into employment and rates of 2.7 to 2.8 per cent for transitions out of employment.

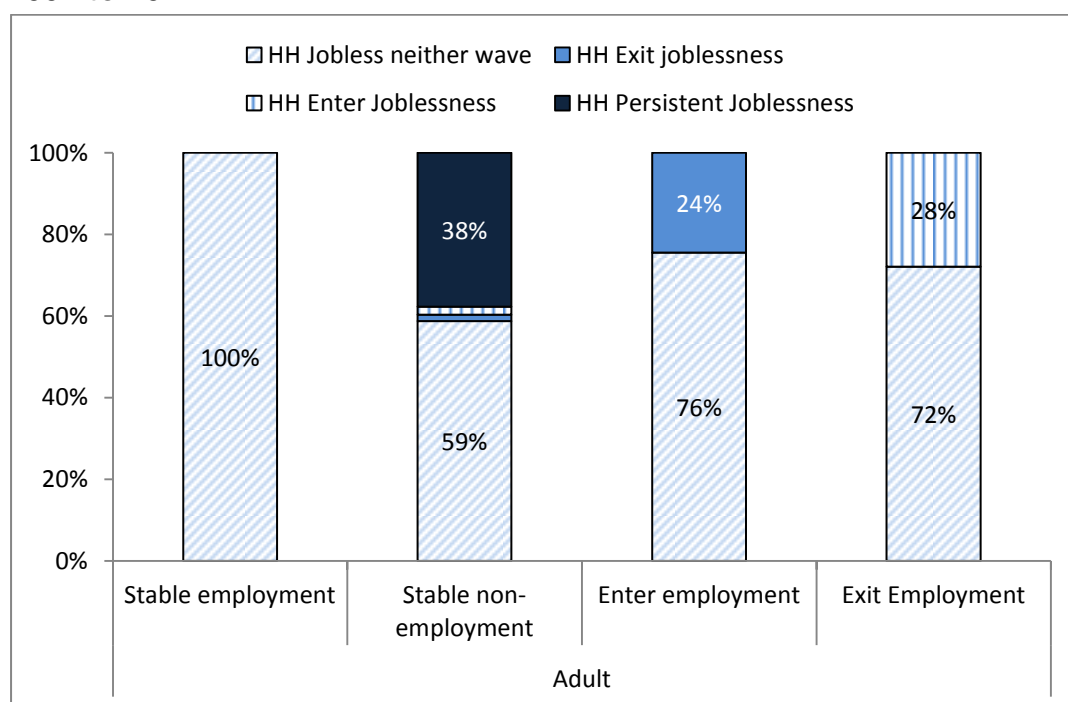
4.4 Relationship between change in economic status and change in household structure and joblessness transitions

As noted at the beginning of this chapter, transitions at the individual level between employment and non-employment need not necessarily lead to household joblessness transitions. If another adult in the household is in employment, then one adult moving out of employment will not lead to the household becoming jobless. On the other hand, if another adult is already at work, a move into employment by one adult will not result in a change in the household joblessness status. In this section

we examine the extent to which individual employment transitions and changes in household composition are associated with changes in household joblessness.

Figure 4.8 shows the household joblessness situation for each adult employment category. The base for the chart is adults aged 18 to 59 who are present in two adjacent quarters. For adults in employment in both quarters (stable employment), the household is jobless in neither quarter. Because of the definition of joblessness in the QNHS, even part-time work by one adult removes a household from the joblessness category. For adults outside of employment in both quarters (stable non-employment), the household is jobless in both quarters in 38 per cent of cases and non-jobless in both quarters in 59 per cent of cases. Among these adults, there is a household joblessness transition in only 3 per cent of cases because of a change in the employment situation of another adult in the household.

Figure 4.8: Household joblessness dynamics by adult employment dynamics, 2004 to 2014



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59 who are present in adjacent quarters.

Where the adult enters employment, in most cases the household was already a working household (76 per cent) and in 24 per cent of cases the move into employment is associated with the household exiting joblessness. In this sense, we

could see 24 per cent of the moves into employment as being ‘productive’ in moving a household out of joblessness. Where an adult exits employment, on the other hand, the household is not jobless in either quarter in 72 per cent of cases but becomes jobless in 28 per cent of cases. On average over the 2004 to 2014 period, then, moves out of employment were more likely to be associated with a negative move into household joblessness (28 per cent) than moves into employment were associated with a positive move out of household joblessness (24 per cent).

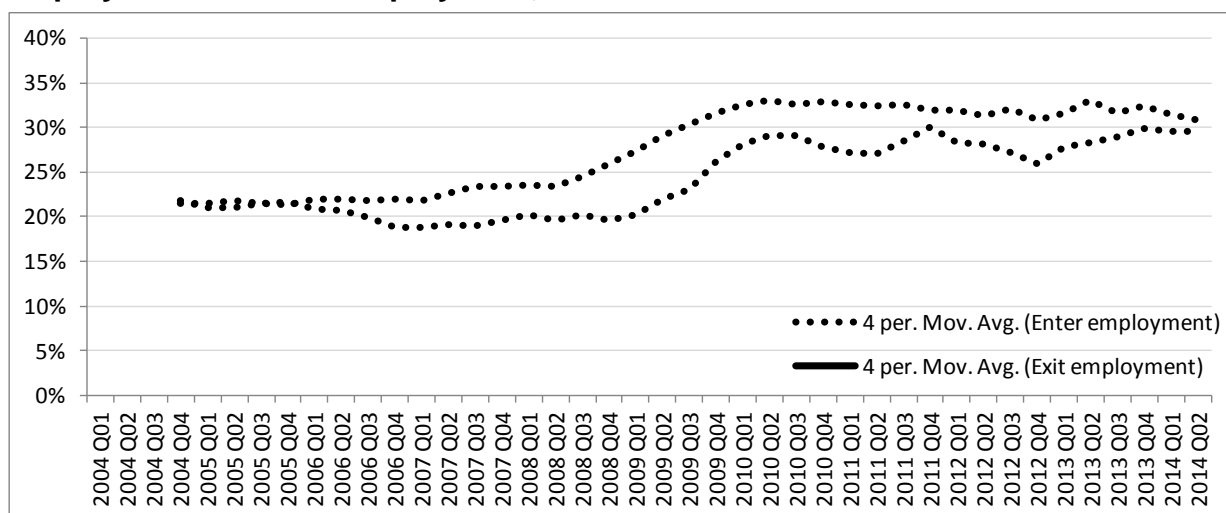
We might ask whether the ‘productiveness’ of individual moves into employment in terms of bringing about shifts in household joblessness changed as a result of the recession. If, for instance, the recession reduced the extent to which households were ‘work rich’, then it may have made households more vulnerable to joblessness if someone moves out of employment. On the other hand, the high level of household joblessness means that moves into employment as Ireland moves into recovery may be more ‘productive’ in terms of being associated with a move out of household joblessness.

Figure 4.9 shows the pattern over time in terms of the percentage of adults moving into employment associated with the household moving out of joblessness and the percentage of adult moves out of employment associated with the household moving into joblessness. The lines in the chart are four-period moving averages, so as to smooth out some of the seasonal fluctuations and make the general pattern clearer. Note that the base for the chart is adults, so we are not at this stage considering the impact on children of households moving into or out of joblessness.

In the early part of the period, in 2004 and 2005, the rate at which individual transitions out of employment moved a household into joblessness was matched by the rate at which transitions into employment moved a household out of joblessness (about 21 per cent). As we saw in Figure 4.2, the rate of adult transitions into employment was higher than the rate of transitions out of employment in this period. All other things being equal (such as the number of other adults and of children in the households), we would expect this to lead to a fall in household joblessness. In Chapter 1, Figure 1.1 showed that between 2004 and 2005 there was a fall in the percentage of adults in jobless households but that the number of children in jobless

households remained flat. This means that ‘all other things’ were not equal in the 2004 to 2005 period; the moves into employment must have been more common in households with no children or with smaller numbers of children.

Figure 4.9: Household joblessness transitions by adult transition into employment or out of employment, 2004 to 2014



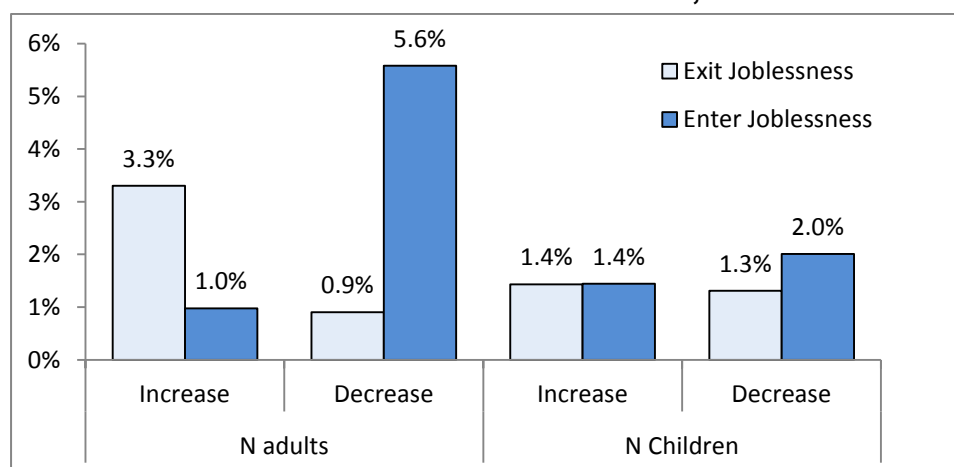
Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59 who are present in adjacent quarters and made a transition into employment or out of employment. Differences between quarters greater than 6 per cent are statistically significant. The average number of sample cases making a transition is 533 per quarter.

From 2006, the rate of joblessness transitions associated with adult transitions into work began to lag behind the rate of transitions associated with adult transitions out of work. This began a negative pattern which persisted until 2014; adult transitions into work were less ‘productive’ in moving households out of joblessness than adult transitions out of employment were ‘destructive’ in moving households into joblessness.

The two rates converged towards the end of the period in 2014. In order for the household joblessness rate to fall, the ‘productivity’ of job entries will be important. This depends on whether the jobs are being taken-up by adults in jobless households. The overall rate of job entries is also important, however. Even if the ‘productivity’ of job entries does not change, an increase in job creation will eventually reduce the level of household joblessness.

Figure 4.10 shows the association between household joblessness transitions and changes in household size. In most cases where there is a change in the number of adults or children, there is no change in the household joblessness situation. Figure 4.10 focuses on cases where there are transitions and shows the rate of transitions into or out of household joblessness when there is a change in the number of adults or of children. As expected, where the number of adults increases, there is likely to be a transition out of joblessness (3.3 per cent versus 1.0 per cent showing a transition into joblessness). Where there is a reduction in the number of adults in the household, there is an even larger response in terms of a rise in household joblessness (5.6 per cent entries into joblessness compared to 0.9 per cent exits). The reason we might expect a smaller response to an increase in the number of adults is because most of these increases are associated with children in the household turning 18. In this age group, most young people are still in education so they will not affect the household joblessness situation.

Figure 4.10: Household joblessness transition rate by increase or decrease in numbers of adults and children in household, 2004 to 2014



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 0 to 59 who are present in adjacent quarters. Differences between percentages entering and exiting joblessness are statistically significant except in the case of households with an increase in the number of children.

Changes in the number of children have a smaller impact on household joblessness. An increase in the number of children is equally likely to result in a household transition into or out of joblessness (both 1.4 per cent). A decrease in the number of children is more likely to be associated with a move into joblessness (2.0 per cent) than out of joblessness (1.3 per cent). The reason for this is unclear since most reductions in the number of children involve the children turning age 18.

4.5 Summary

In this chapter, the focus was on individual employment transitions. We examined the extent of change in adult employment status and household composition and the association between these changes and joblessness transitions. The analysis was based on individuals under the age of 60 who were present in two adjacent quarters of the QNHS. We found that just 4.5 per cent of the adult population moved between employment and non-employment between quarters, on average, over the period from 2004 to Q3 2014. In 2004 and 2005, the average percentage of adults entering employment (2.4 per cent) was somewhat higher than the percentage exiting employment (1.9 per cent). Between 2008 and 2009 the rate of moving out of employment was much higher, reaching 3.6 per cent in Q4 2008 compared to 2.0 per cent in the same quarter for transitions into employment. By mid-2012 the number of transitions into employment had again overtaken the rate of transitions out of employment.

During the recession, most individual transitions were between employment and unemployment (rather than other statuses such as student, home duties and so on). For instance, in the 2008 to 2012 period, 46 per cent of those moving into employment had been unemployed (according to the self-defined principal economic status) in the previous quarter and 57 per cent of those moving out of employment became unemployed in the later quarter, compared to figures of 32 per cent and 36 per cent, respectively, in the years from 2004 to 2007. This 'recession' pattern persisted into the early years of recovery in 2013 to 2014. Employment-related transitions were most common in larger households – those consisting of 3+ adults with or without children – because there were more adults who might exit or enter employment.

We also examined the extent of change in household composition between quarters. In terms of the number of adults, 3.1 per cent of people were in households that experienced a fall in the number of adults while 3.6 per cent were in households that experienced an increase in the number of adults. The corresponding figures for persons in households with a fall or rise in the number of children were 2.2 per cent and 1.7 per cent, respectively. Note that where a child turns 18, there will be a fall in the number of children and a rise in the number of adults without anybody moving in

or out. Larger households (consisting of 3+ adults with or without children) were most likely to experience change in composition.

The consequences of employment transitions for household joblessness were examined. In most cases, where an adult enters or leaves employment there is no change in the household joblessness status. In 76 per cent of cases where a person enters employment, the household was already a working household and in 72 per cent of cases where someone exits employment, the household remains a working household because some other adult is in employment. Similarly, in most cases where an adult is not employed in either quarter, the household remains a working household (59 per cent). Nevertheless, in 24 per cent of cases where an adult enters employment the household makes a transition from jobless to working. In 28 per cent of cases where an adult leaves employment, the household makes a transition from working to jobless.

The rate at which adult transitions into or out of employment resulted in a household joblessness transition changed with the recession. We could think of an adult entry into employment that results in a household exiting joblessness as a ‘constructive’ transition, while an adult exit from employment that results in a household becoming jobless is a ‘destructive’ transition. In the boom, adult transitions into or out of employment were equally likely to result in a household transition (in about 21 per cent of cases). With the onset of the recession, there was an increase in the rate at which adult employment transitions led to household joblessness transitions, but the ‘destructive’ pattern was more common than the ‘constructive’ pattern, at about 32 per cent and 29 per cent, respectively. This gap between the two rates only began to close from late 2013.

In most cases where there is a change in household composition, there is no change in household joblessness. Changes in the number of adults are more likely to lead to a change in household joblessness status. An increase in the number of adults was associated with a household joblessness exit in 3.3 per cent of cases, while a decrease in the number of adults was associated with a household joblessness entry in 5.6 per cent of cases. These effects of household composition change are much smaller than the effects of employment transitions.

In the next chapter we ask what kinds of individuals are entering or exiting employment and whether this differed between the boom, recession and recovery periods.

Chapter 5: Individual Employment Entries and Exits

5.1 Introduction

In this chapter we focus on the extent to which household joblessness or being a single-earner household in themselves might affect the probability of an individual entering or exiting employment. As in the previous chapter, the focus is on adult employment behaviour.

We saw in the previous chapter that not all movements into employment are ‘constructive’ in that they reduce household joblessness. In particular, if increases in employment happen in households where there is already someone at work, they will have little impact in terms of reducing joblessness. Research has suggested that employment growth had a weaker than anticipated impact on reducing household joblessness in many countries (Cantillon, 2011). This issue is very important in Ireland as we come out of recession. An important question is the extent to which employment growth will reduce household joblessness.

The analysis in this chapter is in three parts. The first part documents the characteristics of job entries that are associated with moving households out of joblessness, including the gender and age of the job entrant, and the period in which the job entry occurred. We focus on attributes of the individual working-age adult (age 18 to 59) rather than the household. The second part asks whether, when we take account of the characteristics of the individual, there is an independent effect of living in a jobless household on reducing the probability of transitions into employment. Moreover, does living in a jobless household have a more negative influence on some groups than others? In the third part of the chapter we examine the characteristics of individual employment exits, especially the extent to which employment exits occur among those who are the sole-earner in a household as this will result in the household becoming jobless.

We focus only on transitions between employment and non-employment (both unemployment and activity in the ILO definition). We do not include moves between jobs or changes in the number of hours worked. Employment growth may also result in an increase in general job mobility including moves from part-time to full-time

work, or from temporary to permanent work. However these transitions are outside the scope of the current study.

5.2 Which job entries lift households out of joblessness?

As we saw in the previous chapter an individual getting or losing a job need not involve a transition out of or into household joblessness. This is because someone living with other adults may be protected from joblessness if one or more of the other adults are at work. Table 5.1 illustrates that 24 per cent of individual transitions into employment were associated with a move out of household joblessness. Male employment was somewhat more likely to move the household from joblessness (27 per cent) than female employment (24 per cent). Yet a slightly higher proportion of all transitions into employment over the period were made by women (52 per cent).

Table 5.1: Individual moves into employment between quarters, 2004 to 2014

	Male	Female	All
Household not jobless in earlier quarter	73.3%	77.8%	75.6%
Moved household out of joblessness	26.7%	22.2%	24.4%
Total	100.0%	100.0%	100.0%
% Job entries by gender (row %)	48.4%	51.6%	100.0%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and making transition into employment from unemployment or inactivity.

The extent to which transitions into employment reduced household joblessness changed over the period (Table 5.2). In the boom, just over one-fifth of employment transitions resulted in a fall in joblessness. The rate at which job entries moved households out of joblessness increased as the recession progressed, from 23 per cent in the early recession (2008 and 2009) to nearly 28 per cent in the late recession (2010 to 2012). This is because the number of jobless households increased in the period, so even if job entries were randomly distributed across households we would expect each job entry to be more ‘constructive’ in reducing household joblessness. In addition, those losing jobs as a result of the recession

included people with higher levels of human capital (education and employment experience) than those outside of work during the boom (Watson et al., 2012). The high level of joblessness reduction associated with entries to employment persisted into the early recovery years (29 per cent).

Table 5.2: Association between job entries and household exits from joblessness by period, 2004 to 2014

	Boom (2004 to 2007)	Early recession (2008 to 2009)	Late recession (2010 to 2012)	Recovery (2013 to 2014)
Household not jobless in earlier quarter	79.7%	76.9%	72.3%	70.8%
Moved household out of joblessness	20.3%	23.1%	27.7%	29.2%
Total	100.0%	100.0%	100.0%	100.0%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and making transition into employment from unemployment or inactivity. The difference between the late recession and recovery periods is not statistically significant.

As shown in Table 5.3, it was the youngest age group (18 to 24 years) that accounted for a relatively high proportion of job entries, at 39 per cent. This will include young people who are making the transition from full-time education to work. Yet these were the job entries that were least likely to be associated with an exit from household joblessness (12 per cent). Young job entrants were least likely to come from jobless households.

Table 5.3: Association between job entries and household exits from joblessness by age

	18 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 59 years
Household not jobless in earlier quarter	88.3%	70.8%	64.6%	65.1%	62.9%
Moved household from joblessness	11.7%	29.2%	35.4%	34.9%	37.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
% job entries by age group (row percentage)	39.4%	25.9%	18.3%	12.0%	4.5%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and making transition into employment from unemployment or inactivity. The difference in the rate of exits from joblessness between the 34 to 44 and 45 to 54 age groups is not statistically significant.

The level of household exits from joblessness was highest where the job entrant was in the 55 to 59 age group (37 per cent). This group accounted for less than 5 per cent of job entries.¹⁶

Table 5.4 shows the economic status in the quarter before the transition of the person entering employment. Economic status here is based on whether the person is 'unemployed' according to the ILO definition, or 'inactive'. We use information from the person's self-defined principal economic status to classify those who are 'inactive' into students, people caring for home and family or other statuses. The bottom row of Table 5.4 indicates the proportion of job entries accounted for by each group. Most job entries over the period (43 per cent) went to those who were unemployed, 27 per cent went to those who described themselves as students and a further 12 per cent went to those who were in 'home duties' while 18 per cent were accounted for by people who had been otherwise inactive. This latter group included those who had said they were unable to work because of illness or disability, those who described themselves as retired, people describing themselves as working or unemployed but not meeting the ILO criteria for work or unemployment.¹⁷

Table 5.4: Individual job entries and household joblessness exits by economic status in the quarter prior to the transition, 2004 to 2014

	Unemployed (ILO)	Inactive student	Inactive home duties	Inactive other
Household not jobless in earlier quarter	70.9%	88.2%	77.4%	66.5%
Moved household from joblessness	29.1%	11.8%	22.6%	33.5%
Total	100.0%	100.1%	100.1%	100.0%
% job entries by status of origin (row %)	43.4%	26.9%	11.7%	18.0%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and making transition into employment from unemployment or inactivity (ILO).

¹⁶ Note that this age group spans only 5 years rather than 10 years for most of the other age categories.

¹⁷ Being unemployed according to the ILO definition involves the person having taken active steps to seek work in the previous four weeks and being immediately available for work.

Job entries among those who defined themselves as ill / disabled or retired were most likely to move their household out of joblessness, followed by job entries among the unemployed. However, even among those who entered work from home duties, just under a quarter moved their households out of joblessness. Given the size of the home duties group, they have the potential to play a significant role in exits from household joblessness.

Table 5.5 looks at the difference made by the household type of the individual who enters employment. If there is only one adult in the household, then, by definition, the household is jobless if that adult is not in employment. Therefore, every time the adult moves into employment, the household exits joblessness. The only exceptions are a small number of cases where someone outside the working-age range (under 18) is in employment.

Table 5.5: Individual job entries and household joblessness exits by household type in the quarter prior to the transition, 2004 to 2014

	One adult	Two-adult	3+ adults	One adult, child(ren)	Two-adult, child(ren)	3+ adults, child(ren)
Household not jobless in earlier quarter	0.0%	68.8%	87.6%	1.4%	70.7%	91.2%
Moved household from joblessness	100.0%	31.2%	12.4%	98.6%	29.3%	8.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Job entries by household type (row %)	3.8%	13.4%	32.4%	3.4%	24.0%	22.9%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and making transition into employment from unemployment or inactivity (ILO). The difference in the rate of moving a household out of joblessness between two-adult and two-adult-with-children households is not statistically significant.

As the number of adults in the household increases, it becomes less and less likely that there is nobody in the household at work. Therefore, employment entries by adults living in multi-adult households have less impact on household joblessness. In two-adult households without children, employment entry by an adult will move a jobless household out of joblessness in 31 per cent of cases. This falls to 12 per cent

where there are three or more adults in the household. The pattern is similar where there are children in the household (29 per cent for two-adult households and 9 per cent for households consisting of three or more adults).

5.3 Modelling entry to employment

The next step in our analysis is to construct a model of the characteristics that influence the odds of entry to employment. Our key question is whether household joblessness significantly reduces the chances of gaining employment when we control for the individual's own characteristics. Furthermore, do different types of jobless households (such as those with or without children) have a more negative influence on employment chances than others? We also consider whether the influence of belonging to a jobless household has changed over the period.

The model is a logistic regression model where the base consists of adults aged 18 to 59 who were not in employment in the earlier quarter and the dependent variable is whether or not there was entry into employment by the later quarter. The full set of models is shown in Table 5.6. The variables in the model are marital status by gender, age group, education, nationality, region, length of time since last worked, household joblessness and period (boom, recession or recovery). Marital status is based on stated marital status so that a single person who is cohabiting is classified as 'single'. The model is based on weighted data and takes into account the clustering of individuals within households.¹⁸ We estimated a series of models, including a test of whether household joblessness and the presence of children had a different impact on the probability of employment entry in the boom, recession or recovery periods. Since this latter pattern is complex, and relates to the main research questions underlying the report, we will begin by discussing the other patterns before considering them.

The results are reported as odds ratios in Table 5.6. Odds ratios with a value greater than one indicate that the characteristic increases the chances of entering a job compared to the reference group. Odds ratios of less than one mean that the characteristic reduces the chances of entering employment compared to the

¹⁸ The Stata 'svy' routine is used (StataCorp 2013a&b; Cochran 1977; Heeringa et al. 2010; Kish 1965; Levy and Lemeshow 2008; Skinner et al. 1989; Stuart 1984; Thompson 2012; Williams 1978).

reference group. For instance, compared to married men, the odds of entry into employment are lower for all marital status groups with the lowest odds ratio for married women who have only 0.57 times the odds of employment entry. We also see, for instance, that compared to those who never worked in a job or business (the reference category for 'when last worked') the odds of employment entry are about 2.2 times higher for someone who worked in the previous year. Many of those who never worked are young adults who were students in the first quarter.

Focusing first on individual characteristics, Model 1 shows that the chances of getting a job are highest for married men, the reference group, and the odds are significantly lower for single men and for women in all marital status categories. Married women are the least likely to have entered employment (odds ratio 0.57).

The earlier tables showed that the oldest age group (55 to 59 years) were least likely to have entered employment and the youngest group most likely, and this association persists when other characteristics are controlled. The odds of entry to employment also increased significantly with rising levels of education: those who left school early without a lower second level education have only 0.285 times the odds of getting a job compared to someone with a degree.

Compared to Irish nationals, the odds of employment entry are lower for UK nationals and those from the 'rest of the world', which includes countries in Africa, Asia and South America. The odds of employment entry are slightly higher for Europeans from outside the EU-15 but nationals of the EU-15 countries, and people from North America, Australia and New Zealand do not differ significantly from Irish nationals.

There are also some differences by region. Compared to Dublin, the probability of a transition into employment was lower in the Border, Midlands and South-East regions. These are the same regions identified in Chapter 3 as having a lower rate of transition out of household joblessness. The results here indicate these regional differences are not due to differences in the educational or age profiles of individuals.

Table 5.6 Odds ratios of entry to employment: individual and household characteristics, logistic regression model, 2004 to 2014

		Model 1	Model 2	Model 3
Gender x marital status (Ref: married men)	Single men	0.806***	0.762***	0.762***
	Formerly married men	0.925	0.874	0.876
	Married women	0.570***	0.570***	0.573***
	Single women	0.881***	0.848***	0.849***
	Formerly married women	0.863**	0.858**	0.860**
Age (Ref: 55 to-59)	Age 18 to 24	2.487***	2.683***	2.694***
	Age 25 to 34	1.689***	1.811***	1.819***
	Age 35 to 44	1.618***	1.734***	1.739***
	Age 45 to 54	1.344***	1.392***	1.394***
Education (Ref: degree +)	Less than lower 2 nd level	0.285***	0.288***	0.287***
	Lower 2 nd level	0.430***	0.439***	0.439***
	Upper 2 nd level	0.587***	0.595***	0.595***
	Diploma, PLC	0.667***	0.675***	0.675***
Nationality (Ref: Irish)	UK	0.854**	0.854**	0.853**
	EU-15	0.949	0.940	0.936
	Other Europe	1.102**	1.102**	1.097*
	North America, Oceania	0.819	0.809	0.809
	Rest of World	0.705***	0.703***	0.702***
Region (Ref: Dublin)	Border	0.846***	0.848***	0.847***
	Midlands	0.844***	0.847***	0.846***
	West	0.963	0.964	0.963
	Mid-East	1.008	1.012	1.01
	Mid-West	0.969	0.969	0.969
	South-East	0.869***	0.871***	0.870***
	South-West	1.018	1.017	1.017
Economic status (Ref: inactive)	Unemployed qtr 1	1.917***	1.906***	1.905***
When last worked (Ref: never worked)	4+ years ago	0.506***	0.510***	0.510***
	1 to 4 years ago	1.007	1.013	1.014
	<= 1 year ago	2.186***	2.188***	2.188***
Household joblessness	Household jobless in qtr1	0.593***		
Period (Ref: recession)	Boom	1.765***	1.764***	1.826***
	Recovery	1.217***	1.219***	1.172***
Household type & joblessness in earlier qtr. (Ref: 2+ adults, no child(ren), not jobless)	Live alone		0.656***	0.662***
	One adult, child(ren)		0.514***	0.494***
	2+ adults, jobless		0.584***	0.563***
	2+ adults & child(ren), not jobless		0.911***	0.947
	2+adults & child(ren), jobless		0.545***	0.529***
Period x household type (Ref: recession, 2+ adults, not jobless)	Boom, live alone			0.964
	Boom, 1 adult, child(ren)			1.057
	Boom, 2+ adults, jobless			1.096
	Boom, 2+ adults & child(ren), working			0.900**
	Boom, 2+ adults & child., jobless			0.956
	Recovery, live alone			1.031
	Recovery, one adult, child(ren)			1.098
	Recovery, 2+ adults, jobless			1.065
	Recovery, 2+ adult & child(ren), working			1.006
	Recovery, 2+ adult & child(ren), jobless			1.248*
Constant		0.078***	0.078***	0.077***
Observations		326,125	326,125	326,125

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and not in employment in earlier quarter. Model includes controls for missing data on education and length of time since last worked. *** p<0.001, ** p<0.01, * p<0.05.

Whether the respondent was economically inactive or actively searching and available for work (the ILO definition of unemployment), is controlled in the model, and the latter had about 1.9 times the odds of entering employment. This is significant even when we control for the length of time since the person last worked. In this regard, people who last worked more than four years ago are the most disadvantaged, even compared to those who have never worked (odds ratio 0.51). On the other hand, those who worked in the last twelve months are more likely than those who never worked to have entered employment with odds ratios of about 2.2.

The time period in relation to the recession continues to influence the chances of employment transitions, with job entries being most common in the boom (odds ratio about 1.8 compared to the recession in Model 1) and some evidence of an improvement in the recovery (odds ratio of 1.2).

In Model 1 all jobless households were grouped together. Household joblessness exerted a negative influence on transitions into employment. Holding other factors constant, the odds of someone in a jobless household entering employment was 0.59 times the odds of someone in a working household getting a job.

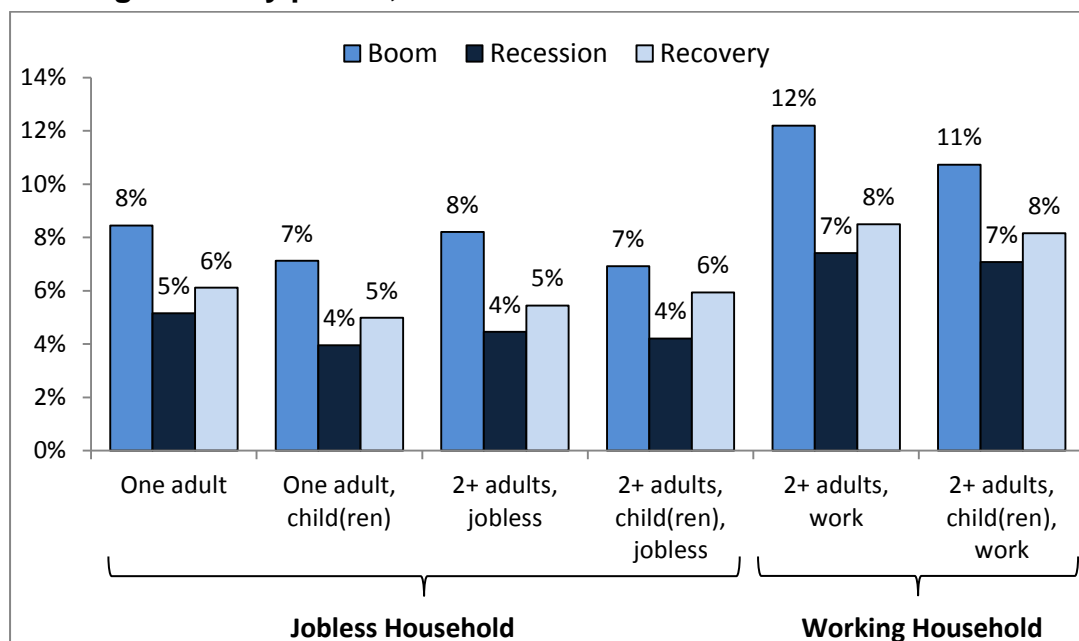
In the second and third models we split the jobless and non-jobless households into different household types and check whether the odds of entry into employment differ by period. Since the main effects and interaction effects must be taken into account in interpreting the findings, the results are presented in Figure 5.1 as adjusted percentages entering employment: that is, the employment entry rate we would expect when other characteristics in the model are held constant.¹⁹ For example, we use Model 3 in Table 5.6 to calculate the percentage of people in different household types and joblessness situations we would expect to have entered employment in the three periods (boom, recession, recovery), if they were similar in terms of gender, marital status, age, education, nationality, region, when last worked and whether they were 'unemployed' or 'inactive' in the earlier quarter.

¹⁹ The method used is to estimate the average effect of each variable, assuming the groups had the overall sample characteristics on all other variables. Essentially this involves computing a predicted probability for each case and then averaging the predicted values (Williams, 2012). This is done in Stata using the 'margins' command to calculate average marginal effects or 'AMEs' (Williams, 2012).

We refer to these as ‘adjusted percentages’ to distinguish them from the observed percentages. The results are presented for period, household type and joblessness status in the earlier quarter. Note that the results refer to adults who were not in employment in the first quarter. They may be in a working household, however, if another adult in the household is in employment. We also conducted a set of significance tests to check whether the differences by period, presence of children and household joblessness were statistically significant and the results of these are shown in Table 5.7.

The most striking pattern in Figure 5.1 is the sharp fall in employment entry rate between the boom and recession with a small rise between the recession and the recovery. For instance, in working households with children and several adults, 11 per cent of non-working adults entered employment between one quarter and the next during the boom. This fell to 7 per cent in the recession and rose slightly to 8 per cent in the recovery period. For all groups, the drop in employment entries between boom and recession was statistically significant. The smaller increase between recession and recovery was statistically significant for all but people living alone (Table 5.7). The largest increase was for multi-adult jobless households with children (odds ratio for recovery vs. recession was 1.46). However, this increase was from a very low rate of transitions into employment during the recession, as can be seen from Figure 5.1, from about 4 per cent to about 6 per cent.

The second clear pattern in the figure is that the rate of employment entries is higher for working households than for jobless households. For instance, the employment entry rate in the boom was 12 per cent in multi-adult working households without children compared to 8 per cent in their jobless household counterparts. The corresponding figures for households with children and several adults were 11 per cent in working households in the boom years and 7 per cent for jobless households. These differences between jobless and working households are statistically significant in all three periods and for households of different types (Table 5.7).

Figure 5.1: Adjusted percentage entering employment by household type and working status by period, 2004 to 2014

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and not in employment in the earlier quarter. Calculated from Model 3 in Table 5.6.

Table 5.7: Comparing pairs of coefficients from model of employment entries to test specific hypotheses (odds ratios)

		Odds ratios	
Recovery vs. recession			
Live alone		1.209	
One adult, child(ren)		1.288*	
2+ adults, no children, jobless		1.249**	
2+adults & child(ren), jobless		1.463***	
2+ adults, not jobless		1.172***	
2+adults & child(ren), not jobless		1.180**	
	Boom	Recession	Recovery
Joblessness vs. working			
2+ adults, no children	0.617***	0.563***	0.599***
2+ adults with children	0.593***	0.559***	0.693***
Households with children vs. without children			
One adult, jobless	0.819**	0.747***	0.796
2+ adults, jobless	0.820**	0.941	1.102
2+ adults, working	0.852***	0.946	0.953
Lone parent vs. 2+ adults and children (both jobless)			
	1.033	0.934	0.822

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and in employment in the earlier quarter. From Model 3 in Table 5.6. *** p<0.001, ** p<0.01, * p<0.05.

The third pattern is the impact of the presence of children. In general, the adjusted rate of employment entry was lower if there were children in the household. For instance, in multi-adult working households, the probability of employment entry in the boom was 12 per cent with no children in the household and 11 per cent with children in the household. The corresponding figures for their jobless counterparts were 8 per cent and 7 per cent. For one-adult households, the figures in the boom were 8 per cent for people living alone compared to 7 per cent for lone parents. These differences were statistically significant in the boom (Table 5.7) but not in the recession or recovery, apart from the case of one-adult households where the presence of children also significantly reduced employment entry in the recession.

We did some additional checks to see whether the presence of children was associated with a reduction in the probability of making a transition into employment for men as well as women (see Appendix Table A5.1). The results indicated that the effect is driven by the pattern for women. If there are children in the household, the odds of employment entry for women is reduced to 0.88. For men, the presence of children does not have a significant impact on the probability of employment entry. For both men and women, being in a jobless household substantially reduces the probability of employment entries.²⁰

We checked whether jobless lone parents were less likely to enter employment than jobless adults with children in multi-adult households (such as a couple with children). The differences were not statistically significant when other characteristics were controlled (Table 5.7). Given the fact that there is only one adult to combine the breadwinning and caring responsibilities in lone-parent households, this is a pattern worth noting. While lone-parent families face the challenge of one adult fulfilling multiple roles, the loss of an additional qualified adult payment for the partner when one member of the couple begins to work is also likely to be a factor in couple households. This has the effect of increasing the replacement rate for jobless couples (Savage et al., 2015).

²⁰ We tested for an interaction between having children and being in a jobless household, but the interaction was not significant for either gender.

The overall joblessness rate is higher for those in lone parent than in couple households (Watson et al., 2012). The results here suggest that the reasons for this are a combination of the characteristics included in the model, such as low levels of education, a general difficulty in making the transition to work associated with being in a jobless household and, in the boom and recession, a difficulty in moving into employment among people in households with children.

5.4 Individual exits from employment and household joblessness

As a complement to the analysis of job entries we now consider employment exits and their consequences for household joblessness. All types of job exits are included, both involuntary (e.g. redundancy / job loss) and voluntary (childcare breaks, retirement).

The bottom row of Table 5.8 shows that exits from employment over the whole period were evenly split between men and women. Just under 28 per cent of these resulted in a household becoming jobless. The association between job exits and household joblessness was stronger in the case of men's employment. This is likely to be because the earner in a single-earner couple is more likely to be the male partner (Watson et al., 2012).

Table 5.8: Household joblessness and individual exits from employment by gender, 2004 to 2014

	Male	Female	All
Does not result in household joblessness	69.5%	74.8%	72.1%
Results in household joblessness	30.5%	24.8%	27.9%
Total	100.0%	100.0%	100.0%
% Individual exits by gender	50.4%	49.6%	100.0%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and exiting employment to unemployment or inactivity.

Job exits among older workers were more likely to result in household joblessness than exits among the youngest age group (Table 5.9). For example just over 40 per

cent of the job exits among those aged 55 to 59 years resulted in household joblessness, compared to 13 per cent among those aged 18 to 24 and 31 per cent among those aged 25 to 34 years. These results reflect the household living arrangements of different age groups as discussed in earlier chapters.

Exits from employment were most common among the youngest age groups: 31 per cent of exits were made by those aged 18 to 24 years and 27 per cent by those age 25 to 34 years. This is likely to reflect the greater level of temporary employment among younger workers, and child-bearing among the younger age groups. The youngest age group were particularly hard hit by unemployment during the recession (e.g. McGinnity et al., 2012).

Table 5.9: Individual exits from employment and household joblessness by age, 2004 to 2014

	18 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 59 years
Does not result in household joblessness	87.0%	69.5%	63.5%	63.6%	59.9%
Results in household joblessness	13.0%	30.5%	36.5%	36.4%	40.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
% Individual exits by age	30.9%	26.5%	19.8%	15.7%	7.2%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and exiting employment to unemployment or inactivity. The difference in the rate of entry to household joblessness between the 35 to 44 and 45 to 54 age groups is not statistically significant.

The effects of the recession on job exits and household entries to joblessness are outlined in Table 5.10. Again, we distinguish between the first two years of the recession and the later recession years (2010 to 2012). During the early recession, 29 per cent of all job exits resulted in household joblessness, rising to 32 per cent in the late recession. This compares to 22 per cent of exits in the boom.

The association between job exits and household joblessness remained strong during the recovery period. In looking at the distribution of employment exits across periods, it must be kept in mind that the periods contain different numbers of years

(e.g. four years in the boom period and only two in the early recession). It makes sense, then, to compare the exits per year. Of all the employment exits that occurred quarter-on-quarter in the period examined, 8.3 per cent per year occurred in the boom years; 12 per cent per year occurred in the early recession; 9.7 per cent per year in the late recession and 9.1 per cent per year with the onset of recovery.

Table 5.10: Association between job exits and household entries to joblessness by period, 2004 to 2014

Job exits	Boom (2004 to 2007)	Early recession (2008 to 2009)	Late recession (2010 to 2012)	Recovery (2013 to 2014)
Does not result in household joblessness	78.0%	71.3%	68.0%	67.9%
Results in household joblessness	22.0%	28.7%	32.0%	32.1%
Total	100.0%	100.0%	100.0%	100.0%
% Individual exits by period (row %)	33.3%	24.1%	29.0%	13.7%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and exiting employment to unemployment or inactivity. The difference in the rate of entry to household joblessness between the late recession and early recovery is not statistically significant.

Table 5.11 shows the association between individual job exits and household joblessness entries by household type. Households where there was only one adult in the earlier quarter become jobless, practically by definition, if the adult exits employment. The only practical exceptions are cases where someone else with a job moves into the household between adjacent quarters. As the number of adults increase, the risk of an individual employment exit resulting in household joblessness reduces. For instance, in households without children the figures are 95 per cent, 35 per cent and 15 per cent, respectively, for households with one, two and three or more adults.

The bottom panel of the table shows the situation for households with children. We again see a reduction in the risk of household joblessness associated with individual employment exits as the number of adults increases. In two-adult households, there is little difference between one-child and two-child families in the association between the risk of household joblessness and individual employment exit (28 to 29

per cent). However, the risk is higher where there are three or more children (34 per cent). This is because as the number of children increases it becomes increasingly likely that only one partner is in employment.

Table 5.11: Association between job exits and household entries to joblessness by household type, 2004 to 2014

Job exits		Households without children			
		One adult	Two adults	3+ adults	
Does not result in household joblessness		5%	65%	85%	
Results in household joblessness		95%	35%	15%	
Total		100%	100%	100%	
% Individual exits by period (row %)		5%	16%	29%	
	Households with children				
	Lone parent	2 adults, 1 child	2 adults, 2 children	2 adults, 3+ children	3+ adults, children
Does not result in household joblessness	4%	71%	72%	66%	88%
Results in household joblessness	96%	29%	28%	34%	12%
Total	100%	100%	100%	100%	100%
% Individual exits by period (row %)	3.7%	9.2%	10.5%	6.8%	20.2%

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and exiting employment to unemployment or inactivity. In terms of the rate of entry to household joblessness, the difference between one adult and lone-parent households is not significant and the difference between two-adult households with one or two children is not statistically significant.

5.5 Modelling exit from employment

We conclude this section with a model of employment exit. The base consists of adults who were in employment in the earlier quarter. The dependent variable is exit from employment between one quarter and the next. By definition, the households will not have been jobless in the earlier quarter, but they may have been vulnerable to becoming jobless if there was only one earner. Therefore we control here for being the sole-earner and examine how this interacted with household type.

As in the earlier section dealing with entries to employment, this section draws out the important but complex findings by household type, presence of children and joblessness using adjusted percentages. We begin by presenting the models,

however and discussing the less complex patterns. In Table 5.12 we present the results for gender by marital status, age group, education, nationality, region and the length of time in the job. Compared to married men, the level of employment exits is higher for single men and formerly married men. Employment exits are also higher for women (whether single, married, or formerly married). The odds ratios of employment exit compared to married men range from 1.5 to 1.6.

The rate of employment exit is higher among younger workers (odds ratio of 1.5 for those aged 18 to 24) and lowest among workers in the 35 to 54 age group (odds ratio about 0.7) compared to the reference category of people aged 55 to 59.

Exits from employment are also higher for people with lower levels of education: the odds ratio is 2.4 for those with less than lower second level education compared to those with a degree or higher.

Table 5.12: Odds ratios of exiting employment: individual and household characteristics, logistic regression model, 2004 to 2014

		Model 1	Model 2
Gender x marital status (Ref: married men)	Single men	1.557***	1.551***
	Formerly married men	1.534***	1.527***
	Married women	1.598***	1.593***
	Single women	1.493***	1.486***
	Formerly married women	1.518***	1.510***
Age (Ref: 55 to 59)	Age 18 to 24	1.457***	1.459***
	Age 25 to 34	0.739***	0.741***
	Age 35 to 44	0.663***	0.665***
	Age 45 to 54	0.690***	0.691***
Education (Ref: degree +)	Less than lower 2 nd level	2.389***	2.392***
	Lower 2 nd level	2.116***	2.115***
	Upper 2 nd level	1.779***	1.777***
	Diploma, PLC	1.362***	1.361***
Nationality (Ref: Irish)	UK	1.125*	1.128*
	EU-15	0.720***	0.720***
	Other Europe	0.919*	0.918*
	US, Canada, Australia and NZ	1.314*	1.312*
	Rest of World	1.180**	1.183**

Table 5.12: (continued)

		Model 1	Model 2
Region (Ref: Dublin)	Border	1.036	1.035
	Midlands	1.105**	1.103**
	West	1.060	1.060
	Mid-East	1.011	1.010
	Mid-West	1.161***	1.160***
	South-East	1.065*	1.065*
	South-West	1.179***	1.179***
How long in job (Ref: 4+ years)	1-4 years	1.961***	1.960***
	<= 1 year	4.558***	4.556***
Household type (Ref: 2+ adults, no children, 2+ earners)	1 adult	1.060	1.072
	1 adult & child(ren)	1.670***	1.588***
	2+ adult, no children, 1 earner	1.359***	1.290***
	2+ adult & child(ren), 1 earner	1.381***	1.393***
	2+adult & child(ren), 2+ earners	1.261***	1.223***
Period (Ref: recession)	Boom	0.582***	0.570***
	Recovery	0.737***	0.689***
Period x household type interaction (Ref: recession, 2+adult, no child(ren), 2+ earners)	Boom, 1 adult		0.905
	Boom , 1 adult & ch.		1.144
	Boom, 2+ adult, 1 earner		1.063
	Boom, 2+ adult & ch, 1 earner		0.871*
	Boom, 2+adult & ch., 2+ earners		1.067
	Recovery, 1 adult		1.137
	Recovery, 1 adult & ch.		1.068
	Recovery, 2+ adult, 1 earner		1.245*
	Recovery, 2+ adult & ch, 1 earner		1.157
	Recovery, 2+adult & ch., 2+ earners		1.059
Constant		0.0106***	0.0107***
Observations		752,316	752,316

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and in employment in the earlier quarter. Controls included for missing information on education and job tenure. *** p<0.001, ** p<0.01, * p<0.05.

There are also some differences by region, with job exit rates higher than Dublin found in the several of the regions: the Midlands, Mid-West, South-East and South-West (odds ratios range from 1.1 to 1.2).

Compared to Irish nationals, the rate of employment exit is higher for UK nationals (odds ratio 1.1), those from North America, Australia and New Zealand (1.3) and those from Asia and Africa (1.2). In contrast, the rate of employment exit is somewhat lower for other Europeans from outside the UK and Ireland, especially from other EU-15 countries (0.7).

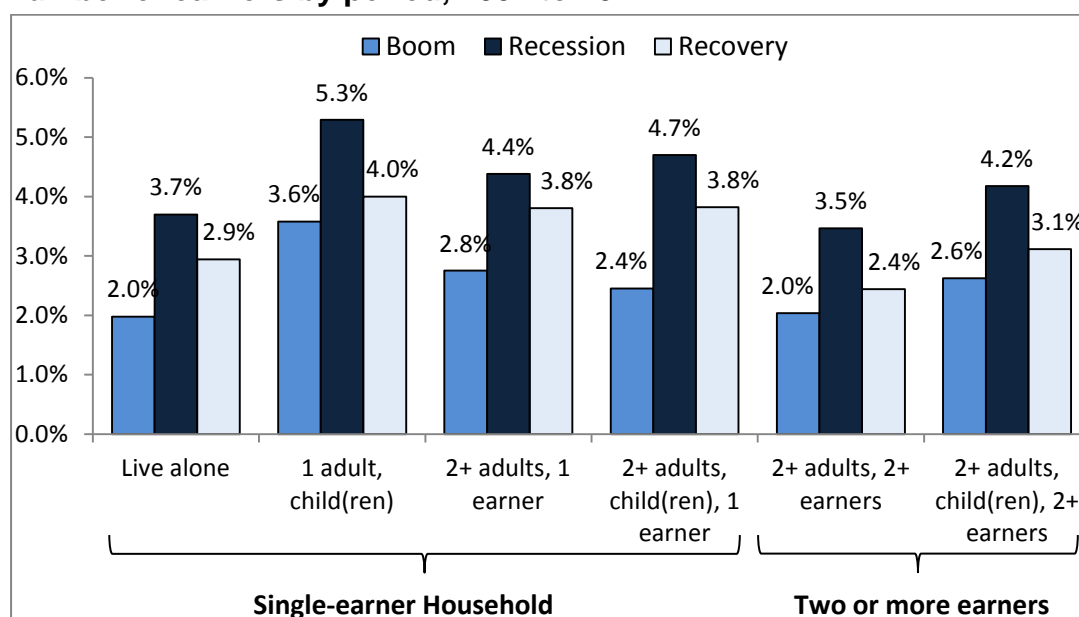
The length of time in the job is also very important. Compared to people who have been in a job for four years or longer, the rate of exit is higher among those in a job between one and four years (odds ratio of almost 2.0) and is higher still among those in the job less than one year (odds ratio 4.5).

In Figure 5.2 we focus on the results for period and household type. As before, since the interactions are complex, we present the results for period and household type as the adjusted percentage exiting employment in the three periods (boom, recession and recovery). The adjusted percentage exiting employment is the percentage we would expect with other characteristics in the model controlled (gender by marital status, age group, level of education, nationality, region and tenure in the job). Figure 5.2 shows the adjusted percentage of adults exiting employment by period (boom, recession or recovery) and household type, distinguishing single-earner and multi-earner households. We conducted significance tests on pairs of coefficients to check whether there were differences based on presence of children, being a single-earner household and being a lone-parent household (Table 5.13).

The clearest pattern in Figure 5.2 is the increase in employment exits with the recession, dropping back again in the recovery period but not quite to the levels of the boom. The increase in employment exits between the boom and recession is large and statistically significant for all groups. The fall in the rate of job exits between the recession and recovery is not as large but is significant for all but one of the groups. The exception is single-earner multi-adult childless households. Even here there is some evidence of a fall, but it is not large enough to reach statistical significance (Table 5.13).

When it comes to the contrast between households with and without children, the rate of employment exits is generally higher where there are children. The differences are statistically significant for one-adult households and multi-adult households with more than one earner (such as a couple where both work) in all three periods. For instance, in one-adult households, the rate of employment exit in the boom was 2 per cent without children and 3.6 per cent with children in the boom years. The corresponding figures for multi-adult households with several earners were 2 per cent and 2.6 per cent, respectively. The pattern is different for multi-adult, single-earner households (such as a couple with one partner working). Here, the presence of children is not statistically significant in the recession and recovery periods and was even in the opposite direction in the boom. This implies that in the boom, with all else held constant, a sole-earner in a couple with children was less likely to exit employment than a sole-earner in a couple without children.

Figure 5.2: Adjusted percentage exiting employment by household type and number of earners by period, 2004 to 2014



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and in employment in the earlier quarter. From Model 2 in Table 5.11. Appendix Table A5.2 shows results of significance tests on pairs of coefficients.

We now turn to the contrast between households with one earner and those with two or more earners (in households with several adults). In general, the rate of employment exit was higher in single-earner than in multi-earner households. For instance, in the recession, the adjusted rate of employment exit was 4.4 per cent for

sole-earners in multi-adult households without children compared to 3.5 per cent for their counterparts in a household with multiple earners. Apart from multi-adult households with children in the boom period, the higher rate of employment exits among those who were the sole-earner than among adults in multi-earner households was statistically significant (Table 5.13).

Table 5.13: Comparing pairs of coefficients from model of employment exits to test specific hypotheses (odds ratios)

Test for difference between recovery and recession		Odds ratios	
Recovery vs. recession			
Live alone		0.783*	
1 adult, child(ren)		0.735*	
2+ adults, 1 earner		0.857	
2+ adults, child(ren), 1 earner		0.797**	
2+ adults, 2+ earners		0.689***	
2+ adults, child(ren), 2+ earners		0.729***	
	Boom	Recession	Recovery
Test for impact of children vs. no children			
One adult households	1.873***	1.481***	1.390*
Multi-adult, one-earner households	0.885*	1.079	1.004
Multi-adult, multi-earner households	1.305***	1.223***	1.295***
Test for impact of being the sole-earner vs. multiple earner in households with 2+ adults			
Multiple adults, no children	1.372***	1.290***	1.606***
Multiple adults with children	0.930	1.139***	1.245**
Lone parent vs. 2+ adults and child(ren), one earner	1.497***	1.140*	1.051

Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and in employment in the earlier quarter. From Model 2 in Table 5.11. *** p<0.001, ** p<0.01, * p<0.05.

We saw earlier that compared to those in jobless multi-adult households with children, lone parents did not differ in terms of their adjusted rate of employment entry. We conducted a parallel test here to check whether employed lone parents were more likely to exit employment than single-earners in multi-adult households with children. We found that lone parents were more likely to exit employment in the boom and, to a lesser extent, in the recession, but the difference had been growing smaller over time and was not statistically significant by the recovery period. In other words, with other characteristics controlled, there is some evidence that lone parents may have been more likely to exit employment during the boom and recession but the difference had virtually disappeared by 2013 to 2014.

The change over time in the job exit pattern for lone parents may be linked, in part, to the reduction in their participation in Community Employment schemes. This scheme is designed to help the long-term unemployed return to work by providing part-time, temporary job placements in the local community. Community Employment (CE) scheme participation is temporary by nature. To the extent that CE schemes form a component of lone-parent employment, its temporary character may contribute to a higher exit rate. Therefore, when participation in CE schemes declines, the exit rate may also decline.

The number of participants on Community Employment schemes was reduced from over 39,000 in 2002 (FÁS, Annual Report 2002) to under 22,000 by 2008, before rising to over 23,000 by 2014.²¹

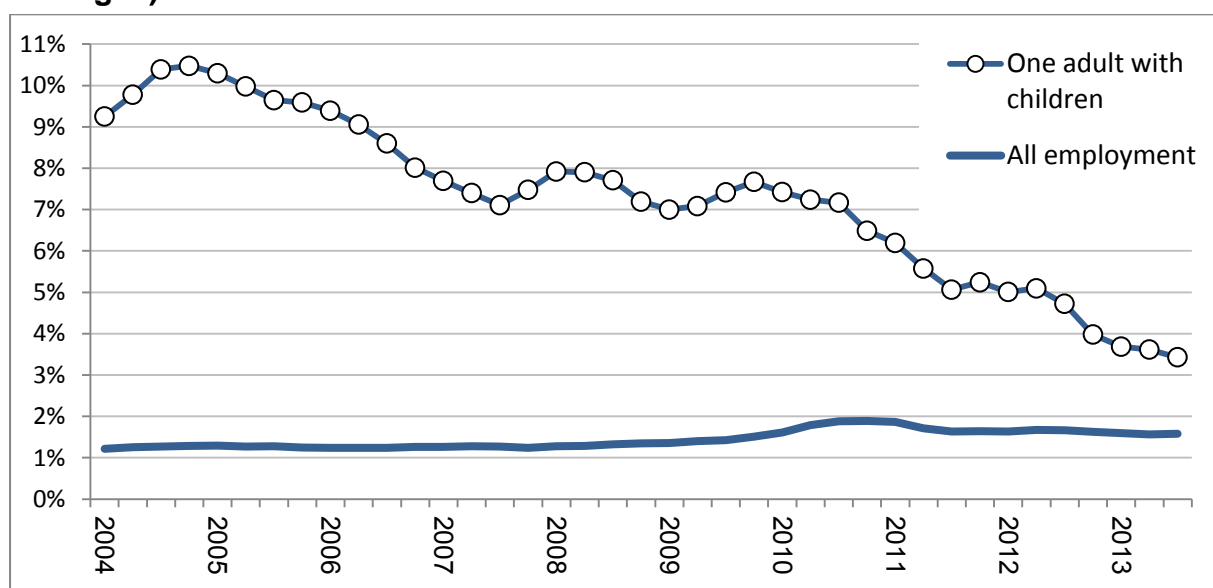
As well as the decline in the total number of participants, there was a change over time in the profile of participants, with a reduction in the representation of lone parents. The financial benefit of CE scheme participation for lone parents and people with disabilities was significantly reduced in Budget 2012. Up to that point these groups could retain their welfare payment while on CE. This has now been discontinued for new entrants. Existing participants can retain One Parent Family Payments or Disability Payments, but are now also paid only the standard CE weekly rate of €208 (i.e. with no additional child dependent payments). While there

²¹ Figures from Department of Social Protection.

are still elements of CE that remain attractive to lone parents such as part-time hours and in many cases, access to childcare, the changes since 2012 are likely to have reduced the financial incentives to participate in CE.

Figure 5.3 shows the change over time in the percentage of employment that is accounted for by CE schemes for all persons in employment and for lone parents. The figures come from the QNHS and are based on the person classifying their employment as being on a Community Employment scheme. CE schemes accounted for just over one per cent of employment of adults aged 18 to 59 from 2004 to 2008, increasing to almost two per cent in 2011. This is partly a function of the fall in other employment during the recession and partly due to the increase in CE places later in the recession.

Figure 5.3: Percentage of total employment that is on Community Employment schemes for all working-age adults and for lone parents 2004 to 2014 (moving averages)



Source: QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, in employment. Percentage of employment that is in CE schemes is shown as a moving average over four quarters.

Community Employment schemes accounted for a substantially higher percentage of the employment of lone parents, but the percentage had been declining over time. In the boom, the proportion of their employment accounted for by CE schemes declined from over 10 per cent in 2005 to 7 per cent by 2007. The rate remained between 7

and 8 per cent between 2008 and 2010, before falling to about 3.5 per cent by late 2013.²²

5.6 Summary

The roller-coaster years in the Irish labour market from boom to bust has meant that there has been a high level of mobility between employment and non-employment. The analysis shows that the job entries and exits of men and older working-age people are more likely to be associated with moves into and out of household joblessness. This is because they are more likely to be or become the sole person in employment in single-earner households.

Entries to employment by individuals who are unemployed, according to the ILO definition, are more likely to result in a household moving out of joblessness than entries to employment by individuals who were 'inactive' in the labour market.

The models show that factors such as age, gender, marital status, education level, activity status (unemployed / inactive) and length of time out of work are strongly linked to the chances of getting a job. Married men, younger adults, those with higher levels of education, those living in Dublin and those who had worked in the last year were more likely to enter employment. Married women, adults over age 55, those with lower education, Irish nationals, and those living in the Border, Midlands and South-East regions were the groups less likely to enter employment. However even when these important individual characteristics are held constant, those residing in jobless households are at a significant disadvantage in terms of finding a job. There may be other characteristics of adults in jobless households which we were not able to take account of here, such as the presence of disability or health problems or characteristics of the local labour market. The issue of potential barriers to employment in the eligibility criteria for social protection may also be a factor and we return to this in the next chapter.

²² This is consistent with the pattern in figures provided by the Department of Social Protection. Although there has been an increase in the total number of participants in CE schemes in recent years, there was a sharp decline since 2011 in the proportion of participants who had been receiving One Parent Family Allowance (from 21 per cent in 2011 to 4 per cent in early 2015).

In the boom years, those in households with children were also less likely to enter employment but the significance of the presence of children appears to have been declining over time. The reduction in employment entries among adults in households with children is mainly driven by the pattern for women. When we control for other characteristics, men in households with children do not differ from men in childless households in the rate of employment entry.

Significant vulnerability to household joblessness persists in the recovery period, as 32 per cent of job losses in 2013 to 2014 resulted in joblessness at the household level. This is counter-balanced by the increase in the proportion of job entries that moved households out of joblessness in the most recent period (29 per cent) and the higher rate of job entries as the economy began to recover. The statistical modelling suggests that the improvements in employment entries between the recession and recovery periods are general across household types.

We also examined employment exits in this chapter. The level of employment exits rose with the recession but has fallen again in the early recovery. The rate of employment exits was higher among adults under age 24 or over age 55; among women and non-married men (compared to married men) and among those with lower levels of education and shorter job tenure. When it comes to household type, we again saw that households with children tended to be at a disadvantage. This pattern was not found for multi-adult households relying on just one earner, but it was statistically significant for one-adult households and for multi-adult households with more than one earner.

In addition, individuals in 'work rich' households, with multiple earners, were less likely to leave employment than individuals in single-earner households. The latter group are at risk of joblessness when the single-earner leaves work.

We compared lone-parent households to couple households with children. The employment entry rate of jobless lone parents did not differ significantly from the rate for jobless couples, with other characteristics controlled. We compared the employment exit rate of lone parents to that of the sole-earner in a couple household with children. The lone-parent rate, with other characteristics controlled, had been

higher in the boom but the gap narrowed over time so that the difference was no longer statistically significant by the recovery period. The declining significance of Community Employment schemes for the employment of lone parents may have been a factor in accounting for some of this change.

Chapter 6: Conclusions and Policy Implications

6.1 Introduction

Ireland has a high rate of household joblessness compared to other European countries, especially for children and particularly since the start of the recession. In 2014, for instance, 16 per cent of children and 14 per cent of adults under the age of 60 lived in jobless households in Ireland, compared to the EU-15 average of 11 per cent for both adults and children. An understanding of the factors that facilitate or hinder transitions out of joblessness is important to the development of policy to address the high level of joblessness in Ireland. Research so far has tended to focus on household joblessness as a static phenomenon, with less attention paid to the flows into and out of joblessness. The present report represents a first step in the direction of examining household joblessness dynamics by focusing on flows into or out of household joblessness between adjacent calendar quarters. The report draws on the QNHS for the period from the beginning of 2004 to the third quarter of 2014 (the latest available longitudinal micro-data at the time of writing) to examine these transitions. We addressed a number of research questions:

- How much movement into and out of household joblessness was there and how did this change between the periods of boom, recession and early recovery?
- What role was played by employment entries or exits by household members in contrast to people leaving or joining a household?
- Have individual employment transitions become more consequential in terms of having an impact on household joblessness?
- Does living in a jobless household or a household with children make it more or less likely that an individual will enter employment?

Joblessness is defined according to the EU-LFS as living in a household where nobody is in employment. The International Labour Organisation (ILO) definition of employment is used: the person worked for at least one hour in the reference week (which is the previous week in Ireland) or was temporarily absent from a job for reasons such as holidays, maternity leave, illness or short-term lay-off. For

convenience, we refer to a household where at least one person is in employment as a 'working household'. The population of interest consists of children and adults under the age of 60.

6.2 Joblessness transitions in boom, recession and recovery

In the discussion of joblessness transitions, the unit of analysis was the person under the age of 60, and we asked what percentage of these individuals were in a household that made a transition from working to jobless, or vice versa. Because a calendar quarter is a relatively short time, the rate of transition quarter-on-quarter was relatively low as a percentage of the total population: just 1.1 per cent of people were in households that exited joblessness; 1.2 per cent were in households entering joblessness and 11.7 per cent were in households that were jobless in both quarters. The largest group of people, 86 per cent, were in working households in both periods.

However, when expressed as a percentage of persons in jobless households, the flows into and out of joblessness are more substantial. On average across the period, nearly one-fifth of those in jobless households either had just become jobless since the previous quarter or would no longer be jobless in the next quarter.

The rate of transitions either into or out of joblessness increased with the recession. The rate of transitions into joblessness peaked in late 2008 to early 2009 at about 1.9 per cent of the total population before declining again. The rate of transitions out of household joblessness continued to rise (partly because the base of jobless households was increasing in size), approaching 1.5 per cent of the population under age 60 in mid-2013. However, when expressed as a percentage of those living in jobless households (rather than a percentage of the total population), the rate of transition out of joblessness was higher, at just over 10 per cent between 2004 and 2006; falling to about 7.5 per cent in 2008 and 2009 and rising to between 8 and 10 per cent from mid-2013.

A household may become jobless if the employed adult (or adults) leave employment or leave the household. In parallel fashion, a household may become a working household if the non-employed adult (or adults) enter employment or an

employed adult joins the household. We examined the relative significance of these events for household joblessness transitions. In general, transitions between employment and non-employment were the most important. For 79 per cent of persons in households becoming jobless, there was a reduction in the number of adults at work but no change in the number of adults in the household. In more than nine out of ten of these cases, the sole employed adult in a single-earner household exited employment.

Transitions out of household joblessness, similarly, were more likely to involve individual employment transitions than a person in employment joining the household. In 82 per cent of household joblessness exits there was an increase in the number of adults in employment, with no change in the total number of working-age adults in the household.

6.3 Individual employment entries and exits and joblessness

The discussion at the end of the previous section began with household joblessness transitions and asked in what percentage of cases there was a change in the number of adults at work in the household. An alternative perspective is to begin with individual employment transitions – either entries to employment or exits from employment – and ask in what percentage of cases will these result in a household joblessness transition. This will depend on the extent to which there are other adults in the household and on their employment status.

Focusing on adult employment transitions, employment exits soared in the recession especially in the period from mid-2008 to the end of 2009, where over 3.0 per cent of the working-age population exited employment quarter-on-quarter. On the other hand, employment entries, which had been higher than employment exits (about 2.3 compared to 1.9 per cent) from 2004 to mid-2007, fell to about 2.0 per cent of the working-age population quarter-on-quarter during the recession before rising to about 2.5 per cent from mid-2012.

The rise in unemployment with the recession also increased the significance of transitions between work and unemployment rather than between work and other economic statuses (such as student or home duties). In the boom years, 30 per cent

of those exiting employment between one quarter and the next became unemployed (according to the ILO definition: they were actively seeking and available for work). This rose to about 50 per cent during the recession and early recovery. In contrast, those leaving employment to take-up studies constituted 29 per cent of leavers in the boom years but this had fallen to 15 to 16 per cent after the start of the recession.

Stable non-employment was more common among one-parent households (49 per cent). Transitions out of employment were most common among households with three or more adults (2.8 per cent) and were also relatively high in one-parent households (2.3 per cent) compared to two adults with three or more children (1.5 per cent).

On average across the period from 2004 to 2014, an adult employment entry was associated with a household moving from joblessness to working in 24 per cent of cases. On the other hand, an adult exiting employment was associated with a household becoming jobless in 28 per cent of cases. The significance of individual employment transitions for the household situation changed with the recession. As employment levels fell, an individual transition was more likely to lead to a household transition. This operated in both directions, with individual employment exit more likely to lead to household joblessness and individual employment entry more likely to lead to a household exiting joblessness. However, the rate at which individual employment exit led to a household becoming jobless was higher (reaching nearly 34 per cent in early 2010) than the rate at which individual employment entry led to a household escaping joblessness (reaching 30 per cent at its highest). This is because employment gain during the recession was more likely in households that already had someone at work.

6.4 Joblessness, children and individual employment transitions

In Chapter 5 we asked whether living in a jobless household had the effect of reducing the probability that an individual would enter employment, when we control for other characteristics such as gender, age, marital and family status, level of education, nationality, time out of work, region and the period (boom, recession or recovery). We found that in all three periods and across different household types, living in a jobless household was associated with a reduced probability that a non-

employed person would make a transition into employment. The overall impact of being in a jobless household to begin with was to reduce the odds of employment entry to about 0.59, or a reduction of about 41 per cent. The reason for the 'jobless household' penalty may lie in some other unobserved characteristics of adults in jobless households which we were not able to take account of here, such as the presence of disability or health problems, or characteristics of the local labour market. Alternatively, the eligibility criteria for social benefits may play a role and we return to this in the policy discussion.

We also examined employment exits. By definition, an individual cannot be in a jobless household if they are at work since even part-time work by one adult is enough to make a household 'non-jobless' according to the definition adopted here. However, if the working adult is the only person in the household in employment, their employment exit will lead to the household becoming jobless. We found that, apart from people living alone, sole-earners were more likely than those in multi-earner households to exit employment when we controlled for other characteristics, such as gender, age, education, job tenure, marital and family status. This means that adults in households that are most vulnerable to becoming jobless (because they have just one earner) are more likely to exit employment. This pattern was generally found for multi-adult households with the exception of those with children in the boom.

The presence of children in a household was also associated with both an increased probability of exiting employment for adults in one-adult households and in multi-earner households and a reduced probability of entering employment during the boom. Further checks on the effects of the presence of children on employment entry showed that the pattern was mainly driven by women and that the presence of children had no significant effect on employment entry by men when other characteristics (such as age, marital status, level of education and job experience) were controlled.

We also examined the situation of lone parents, compared to couples with children. We might expect that lone parents would be at a particular disadvantage because of the absence of another adult with whom to share work of caring and providing. On

the contrary, the employment entry rate of jobless lone parents did not differ significantly from the rate for jobless couples, with other characteristics controlled. We compared the employment exit rate of lone parents to that of the sole-earner in a couple household with children. The lone-parent rate, with other characteristics controlled, had been higher in the boom but the gap narrowed over time so that the difference was no longer statistically significant by the recovery period. The declining significance of Community Employment schemes for the employment of lone parents may have been a factor in accounting for some of this change, as discussed in Chapter 5.

6.5 Policy discussion

The policy concern with household joblessness arises primarily because people in jobless households are at a higher risk of poverty, deprivation and welfare dependence. Poverty and deprivation have negative consequences for children that are stronger when the poverty is persistent (Maître et al., 2011; Watson et al., 2014). A dependence on social transfers involves costs to the economy and, where it persists, can lead to a ‘scarring’ of the earnings capacity of household members. A concern with joblessness, as opposed to unemployment for instance, broadens the focus to include the situation of groups hitherto under-represented when the emphasis is on addressing unemployment. This includes groups traditionally seen as outside the labour market such as people with a disability and those (usually women) with caring responsibilities.

Employment growth in many European countries has had a weaker than anticipated impact on reducing household joblessness (Cantillon, 2011; Vandenbroucke and Vleminckx, 2011). This issue is very important in Ireland as we come out of the recession. As employment increases, can we expect a reduction in household joblessness? The results in this report indicate that the level of household joblessness, as measured in the QNHS, has already begun to decline after 2012. The results in Chapter 4 suggested that the rate at which adult employment entries result in a household joblessness exit has remained at about 30 to 32 per cent since early 2010. Most jobs are being taken-up by adults who are already in working households. Nevertheless, with the current high levels of joblessness, employment growth is likely to continue to reduce joblessness.

There are some limiting factors, however. The pattern before the recession was one where a lower proportion of individual job entries led to exits from household joblessness, at about 22 per cent. This suggests that as the rate of joblessness falls and, especially as the pool of more advantaged jobseekers (in terms of education and skill levels) is absorbed into the workforce, it is likely to become increasingly difficult to further reduce the level of joblessness.

In addition, if household joblessness continues to inhibit individual employment take-up, this could lead to an increased concentration of joblessness among those with lower levels of education, and lone-parent households given that these households are more likely to be jobless.

The findings on lone parents are noteworthy. Essentially, the gap between jobless lone parents and couples with children was smaller than we might have expected in terms of job exits (not significant in the recovery) or was entirely absent (in the case of job entries). Although lone parents did not differ from jobless couples with children in the likelihood of employment entry when other characteristics are controlled, the fact that lone parents are much more likely to be jobless (53 per cent, on average over the period from 2004 to 2014) will continue to inhibit their employment entry.

As noted above, despite the controls in the models for education, family structure, employment experience, nationality and region, there may be other unobserved characteristics shared by adults in jobless households that play a role in accounting for the inhibiting effect of joblessness at the household level on individual employment entry. These may include health or disability or caring for someone with health problems or a disability. Nevertheless, the pattern of findings suggests that the structure of eligibility requirements for social protection payments also play a role. One difference between lone parents and other households with children, for instance, is that the former may have benefitted from the tapered withdrawal of benefits on taking-up employment while this was not available to couples in receipt of Jobseekers payments (Savage et al, 2014). This may account for the absence of a larger distinction between lone parents and jobless couples in the probability of employment entry. This points to the need to consider the impact of social transfer

eligibility requirements, means-testing and withdrawal on both partners in couple households, particularly where there are children.

The findings on the significance of household joblessness and the presence of children in reducing the probability of a transition into work are important and need to be set in the context of other research on issues such as financial incentives to work. As discussed in the first chapter, the present financial incentives to work are lower for households with children. This is because of the additional costs associated with children and the fact that social welfare payments are adjusted for adult and child dependents, but earnings are not. In-work benefits such as the Family Income Supplement (FIS) are designed to address this imbalance. Callan et al. (2013) build the take-up of FIS into their estimates on work disincentives and suggest that if take-up of FIS were higher, then the incidence of high replacement rates would be lower.

One recent policy initiative is designed to address the potential disincentive in the fact that social welfare payments increase where there are children but wages do not. The Back to Work Family Dividend (BTWFD) introduced in mid-2015 aims to improve the work incentives of jobless families with children. The scheme allows unemployed jobseekers with children, as well as lone parents, to keep the equivalent of any increases for qualified children (€29.80 per qualified child per week in 2015) that were being paid with Jobseeker or One-Parent Family Payments for up to a year in employment, reducing to half in the second year in employment. Savage et al. (2015) find that the scheme significantly improves the financial incentive to work for currently unemployed jobseekers with children.

Proposed reforms of child income supports, such as the integrated child benefit option developed by DSP (2010b) or the two-tier Child Income Support (CIS) payments considered by the Advisory Group on Tax and Social Welfare (2012) could alter the financial disincentives facing jobless households with children and these impacts could be evaluated using the SWITCH model.

For those with younger children the costs of providing childcare remain a significant barrier to employment; the data show that the presence of children reduces the probability of employment entry for women. The most recent figures from the OECD

relating to 2012 suggest that for a lone-parent family, where the parent has full-time earnings at 67 per cent of the average wage, childcare costs represent over half (53 per cent) of the family's net income (OECD, 2014, Chart PF3.4.C). While there have been substantial developments in early education in recent years, particularly the introduction of the free pre-school year for children aged 3 to 4 years, the nature of this provision does not support employment for low-earning women. For example, the pre-school entitlement is for 15 free hours per week spread over 38 weeks per year. Using the SWITCH model plus information on the types of childcare used and estimates of costs for those not in employment, Callan et al. (2013) estimate that 12 to 13 per cent of the unemployed with a young child would be better off not in work compared to full-time work. It should be noted that combining full-time employment and caring is likely to be particularly difficult for lone parents due to having sole responsibilities for all family care.

Even apart from the presence of children, the lower financial incentives to work for jobless households arise because of the targeted nature of the social protection system, with a sharp tapering off of benefits once the person begins to earn income from work, particularly for those receiving unemployment-related benefits (Savage et. al, 2014).

Another group facing a significant disincentive to work is people in households receiving rent supplement (Callan et al., 2007, 2012). Since this secondary benefit is not available to people in full-time employment (30 or more hours per week), it can act as a significant barrier to taking-up employment. It is gradually being replaced by a Housing Assistance Payment, the rules of which are less likely to act as a disincentive to work.

To enable people to assess their own financial circumstances, the Department of Social Protection has made available an online 'Benefit of Work Ready Reckoner' for jobseekers, to give an indication of the difference between their potential in-work pay in a full-time job and their present out-of-work payments.

Although findings on the incentive to work tend to confirm that most households would be better off working (Callan et al., 2013), even allowing for in-work costs and

the scarring effect of a period out of the labour market (Savage et al., 2014), there may be a degree of uncertainty associated with the transition, especially for those who have been out of work for a longer period. The uncertainty may be around the likely stability of the job, whether the work itself will be manageable, whether balancing work and family responsibilities will be feasible and the possibility of unforeseen costs associated with work or with arranging childcare.

A number of other policy instruments are also particularly relevant to household joblessness. The *Action Plan for Jobs* strategy²³ is designed to increase the numbers of jobs available while the *Pathways to Work* strategy²⁴ aims to ensure that jobs are available to the unemployed. The delivery of employment support services has been streamlined with the introduction of *Intreo* centres that combine job search assistance with the process of registering for unemployment benefits. There is also a structured process of engagement with the long-term unemployed. In addition, there were over 30,000 places on public employment programmes in 2015 and up to 57,000 education and training places for the long-term unemployed. *JobPath*, a new payment-by-results contract model with third-party providers of services targeted at the long-term unemployed jobseekers, is due to be rolled out in 2015 (Department of the Taoiseach, 2015). One of the features of *JobPath* is the intensive support to jobseekers which is to continue into the initial phase of employment. This model of service and support for the long-term unemployed may be an effective way to address the uncertainty faced in the period of transition back to employment.

In general, the findings in this report highlight the need to consider the household as a unit, including examining the implications of one person's employment entry for the benefit entitlements of other household members (Watson et al. 2012; NESF, 2014).

In tackling household joblessness, it is not enough to focus on those who are unemployed. Adults in other economic statuses, such as those engaged in home duties or with a disability, must also be taken into account. Because of the large size of the group, people engaged in home duties are particularly significant. Previous research showed that of working-age adults in jobless households, almost as many

²³ <https://www.djei.ie/en/Publications/Action-Plan-for-Jobs-2015.html>

²⁴ <http://www.welfare.ie/en/downloads/pathways-to-work-2015.pdf>.

described themselves as engaged in home duties as unemployed (Watson et al. 2012). The results in Chapter 5 indicate that employment entries among those who defined themselves as engaged in home duties are almost as likely to move their household out of joblessness as employment entries among those describing themselves as unemployed.

A related issue concerns the nature of the jobs created in the recovery. Adults in jobless households tend to have lower levels of education and are more likely to have never worked (Watson et al. 2012). This means that employment growth in jobs requiring high levels of skill is unlikely to benefit them directly. A growth in lower-skilled jobs will be needed to increase the employment levels of people with lower qualifications. At the same time, flexible work will be needed to increase the employment levels of people with a disability (Watson et al. 2015a) or those who must balance work and caring responsibilities.

The level of earnings available from work is also a factor. Those who have been out of the labour market for an extended period, or who have never been in employment, may also face additional ‘scarring effects,’ i.e., employers may be less likely to recruit those with an unemployment history (Arulampalam, 2001; Mavromaras et al., 2015). Therefore this group may remain disadvantaged when the economy recovers. Similarly the disabled, lone parents and mothers face higher levels of employer discrimination (Correll et al., 2007; McGinnity et al., 2012; Watson et al., 2013). Therefore additional employment supports may need to be targeted to these most disadvantaged groups in order to tackle the problem of household joblessness. The *JobsPlus* recruitment subsidy to employers is designed specifically to encourage employers to recruit the long-term unemployed.

The Government’s Low Pay Commission in July 2015 recommended that the National Minimum Wage increase by 50c to €9.15 per hour. This increase is likely to be particularly significant to those in jobless households with lower levels of skill and labour market experience. Given their lower earnings capacity, the setting of an earnings floor will have an important bearing on their incentive to take-up employment.

6.6 Limitations and further research

Many questions were raised in this first examination of joblessness transitions in the Irish context. These could usefully be explored further in research drawing on the QNHS or other existing data sources. These include the extent to which factors such as disability contribute to household joblessness transitions and whether the jobs of those entering employment from jobless households are ‘good jobs’ in terms of the occupational level, type of contract, hours and broad earnings level. An indicator of the presence of disability is available on the QNHS dataset for the period from 2010 onwards and data is also available on the reasons for leaving the previous job. Data on the occupation, type of contract, sector and hours for those making a transition into work would provide important insights on the quality of the jobs concerned.

Another set of questions concerns whether the jobs persist beyond the quarter after the transition. Using the QNHS data, we could examine whether those entering employment are still in employment up to a year later.

There were some issues it was not possible to examine using the QNHS data, however, including the links between joblessness, on the one hand, and poverty, deprivation and issues such as indebtedness, on the other. Other data sources, particularly the CSO Survey on Income and Living Conditions (SILC) are more suited for this purpose, although the smaller sample size limits the extent to which joblessness transitions can be examined in depth.

Appendix Tables

Appendix Table A2.1: Number of cases present in two adjacent quarters of QNHS

	N cases (persons, all ages)	In base for analysis of household joblessness (aged 0 to 59)	Of which adults age 18 to 59
2004 Q1 - Q2	68,726	57,229	38,469
2004 Q2 - Q3	63,657	53,145	35,670
2004 Q3 - Q4	56,034	46,495	31,182
2004 Q4 - 2005 Q1	60,121	50,001	33,592
2005 Q1 - Q2	46,757	38,909	26,349
2005 Q2 - Q3	69,771	58,067	39,221
2005 Q3 - Q4	71,101	58,915	39,872
2005 Q4 - 2006 Q1	60,538	49,941	33,963
2006 Q1 - Q2	59,094	48,695	32,999
2006 Q2 - Q3	40,333	33,194	22,480
2006 Q3 - Q4	60,706	49,947	33,960
2006 Q4 - 2007 Q1	63,551	52,385	35,705
2007 Q1 - Q2	54,729	44,804	30,569
2007 Q2 - Q3	53,739	43,949	29,956
2007 Q3 - Q4	37,665	30,580	20,956
2007 Q4 - 2008 Q1	58,922	48,174	32,844
2008 Q1 - Q2	58,496	47,788	32,533
2008 Q2 - Q3	46,613	38,184	26,084
2008 Q3 - Q4	36,330	29,665	20,268
2008 Q4 - 2009 Q1	26,255	21,511	14,568
2009 Q1 - Q2	46,188	38,151	25,790
2009 Q2 - Q3	45,359	37,768	25,444
2009 Q3 - Q4	43,010	35,760	24,088
2009 Q4 - 2010 Q1	42,667	35,618	23,846
2010 Q1 - Q2	43,588	36,130	24,225
2010 Q2 - Q3	39,960	33,001	21,960
2010 Q3 - Q4	38,774	32,060	21,303
2010 Q4 - 2011 Q1	37,936	31,483	20,740

(Table continues overleaf)

Appendix Table A2.1 (continued)

	N cases (persons, all ages)	In base for analysis of household joblessness (aged 0 to 59)	Of which adults age 18 to 59
2011 Q1 - Q2	39,355	32,610	21,515
2011 Q2 - Q3	38,707	31,947	21,169
2011 Q3 - Q4	36,226	29,916	19,593
2011 Q4 - 2012 Q1	36,528	30,131	19,785
2012 Q1 - Q2	39,412	32,582	21,406
2012 Q2 - Q3	41,288	34,031	22,285
2012 Q3 - Q4	40,025	32,888	21,468
2012 Q4 - 2013 Q1	38,611	31,534	20,724
2013 Q1 - Q2	37,612	30,334	19,946
2013 Q2 - Q3	35,591	28,840	19,043
2013 Q3 - Q4	35,120	28,233	18,821
2013 Q4 - 2014 Q1	37,960	30,629	20,480
2014 Q1 - Q2	37,991	30,835	20,510
2014 Q2 - Q3	38,123	30,816	20,517
Total	1,963,169	1,616,875	1,085,898

Source: QNHS Longitudinal Micro-data file, analysis by authors.

Appendix Table A2.2: Check for attrition (comparing the sample present in both consecutive quarters to sample present in earlier quarter, 2004 to 2014)

		A. Earlier quarter	B. Both earlier & later quarters	Difference (B-A)
Gender by age	Males, aged 0 to 14	12.8%	13.3%	0.4%
	Males, aged 15 to 19	3.9%	3.9%	0.0%
	Males, aged 20 to 24	4.2%	3.9%	-0.3%
	Males, aged 25 to 34	9.8%	9.2%	-0.5%
	Males, aged 35 to 44	9.0%	9.1%	0.1%
	Males, aged 45 to 54	7.5%	7.7%	0.2%
	Males, aged 55 to 59	3.2%	3.2%	0.0%
	Males, aged 60 to 64	0.0%	0.0%	0.0%
	Males, aged 65+	0.0%	0.0%	0.0%
	Females, aged 0 to 14	12.3%	12.6%	0.4%
	Females, aged 15 to 19	3.7%	3.7%	0.0%
	Females, aged 20 to 24	4.2%	3.8%	-0.4%
	Females, aged 25 to 34	9.9%	9.6%	-0.3%
	Females, aged 35 to 44	8.9%	9.1%	0.2%
	Females, aged 45 to 54	7.5%	7.7%	0.3%
	Females, aged 55 to 59	3.2%	3.1%	0.0%
	Females, aged 60 to 64	0.0%	0.0%	0.0%
	Females, aged 65+	0.0%	0.0%	0.0%
Gender, age and marital status	Males, single, age 15 to 34	19.7%	18.9%	-0.8%
	Males, single, age 35+	5.3%	5.3%	0.0%
	Males, married, age 15 to 44	12.5%	12.8%	0.4%
	Males, married, age 45+	10.9%	11.3%	0.4%
	Males married, age 65+	0.0%	0.0%	0.0%
	Males, widowed, age 15 to 59	0.3%	0.3%	0.0%
	Males divorced/separated, age 15 to 59	1.5%	1.4%	0.0%
	Females, single, age 15 to 34	18.3%	17.4%	-0.9%
	Females, single, age 35+	4.3%	4.3%	0.0%
	Females, married, age 15 to 44	13.6%	14.1%	0.5%
	Females, married, age 45+	10.4%	10.9%	0.4%
	Females married, age 65+	0.0%	0.0%	0.0%
	Females, widowed, age 15 to 59	0.6%	0.6%	0.0%
	Females, divorced/separated, age 15 to 59	2.6%	2.7%	0.0%

(Table continues overleaf)

Appendix Table A2.2: (continued)

		A. Earlier quarter	B. Both earlier & later quarters	Difference (B-A)
Gender by economic status	Males, at work	34.8%	34.9%	0.1%
	Males, unemployed	5.8%	5.7%	-0.1%
	Males, student	6.5%	6.4%	-0.2%
	Males, ill / disabled	1.8%	1.9%	0.0%
	Males, retired	0.5%	0.5%	0.0%
	Males, other status	0.6%	0.5%	0.0%
	Females, at work	28.4%	28.4%	0.1%
	Females, unemployed	2.5%	2.4%	-0.1%
	Females, student	6.8%	6.6%	-0.2%
	Females, ill / disabled	1.1%	1.1%	0.0%
	Females, retired	0.3%	0.3%	0.0%
	Females, home duties	10.6%	10.9%	0.4%
	Females, other status	0.3%	0.3%	0.0%
Gender by education	Males, Primary	5.8%	6.0%	0.1%
	Males, Lower 2 nd level	10.0%	10.4%	0.4%
	Males, Higher 2 nd level	14.8%	14.6%	-0.3%
	Males, Lower 3 rd level	10.2%	10.3%	0.1%
	Males, Higher 3 rd level	9.2%	8.8%	-0.4%
	Females, Primary	4.8%	4.9%	0.1%
	Females, Lower 2 nd level	8.1%	8.4%	0.3%
	Females, Higher 2 nd level	14.8%	14.7%	-0.2%
	Females, Lower 3 rd level	11.7%	12.0%	0.2%
	Females, Higher 3 rd level	10.5%	10.1%	-0.4%
Region	BMW region	26.5%	26.7%	0.2%
	Dublin region	28.1%	26.5%	-1.7%
	South and East region	45.3%	46.8%	1.4%
Household size	One adult	10.4%	10.2%	-0.2%
	Two adults	56.5%	57.4%	0.9%
	Three adults	18.1%	17.9%	-0.2%
	Four adults	10.3%	10.0%	-0.3%
	Five+ adults	4.6%	4.5%	-0.2%
Joblessness	Jobless household in earlier quarter	12.9%	12.7%	-0.1%

Source: QNHS longitudinal dataset, Q1 2004 to Q3 2014, analysis by authors. Base=persons aged 0 to 59.

Appendix Table A5.1: Odds ratio from alternative simplified model for employment entry for men and women separately

		Men	Women
Marital status (Ref: single)	Married	1.328***	0.726***
	Formerly married	1.158*	1.037
Age (Ref: 55 to 59)	Age 18 to 24	2.765***	2.642***
	Age 25 to 34	2.016***	1.794***
	Age 35 to 44	1.808***	1.802***
	Age 45 to 54	1.333***	1.458***
Adults (Ref: 2)	One adult	1.177**	1.08
	Three or more adults	1.015	1.176***
Children (Ref: none)	Has children	0.985	0.879***
Education (Ref: degree +)	Less than lower 2 nd level education	0.316***	0.263***
	Lower 2 nd level	0.495***	0.400***
	Upper 2 nd level	0.648***	0.563***
	Diploma, PLC	0.743***	0.632***
Nationality (Ref: Irish)	UK	0.954	0.803**
	EU-15	0.894	0.964
	Other Europe	1.210***	1.005
	US, Canada, Australia and NZ	0.765	0.830
	Rest of World	0.757***	0.653***
Region (Ref: Dublin)	Border	0.950	0.755***
	Midlands	0.892*	0.823***
	West	1.010	0.932
	Mid-East	1.124**	0.931
	Mid-West	0.994	0.956
	South-East	0.939	0.819***
	South-West	1.057	0.989
Economic status (Ref: inactive)	Unemployed qtr 1	1.555***	2.323***
When last worked (Ref: never worked)	Last worked 4+ years ago	0.534***	0.516***
	Last Worked 1 to 4 years ago	1.055	1.044
	Last worked <= 1 year ago	2.358***	2.098***
Jobless household	Jobless	0.599***	0.589***
Period (Ref: recession)	Boom	2.073***	1.538***
	Recovery	1.350***	1.092*
Constant		0.0475***	0.0665***
Observations		120,111	206,014

QNHS longitudinal data, 2004 to 2014, weighted, analysis by authors. Base=persons aged 18 to 59, present in adjacent quarters and not in employment in earlier quarter. Model controls for missing information on education and when last worked. *** p<0.001, ** p<0.01, * p<0.05

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Glossary

Adjusted probability: The chance of something happening when all other characteristics are held constant in a model.

At-risk-of-poverty thresholds: income thresholds derived as proportions of median income. These are based on the household income adjusted for household size and composition (referred to as equivalised income). A household at-risk-of-poverty has an adjusted (or equivalised) income below 60% of the median adjusted household income. The at-risk-of-poverty rate takes account of household income from all sources, number of adults and number of children in the household. There are some minor differences in the income concept and the equivalence scale between the Irish and EU measures of at-risk-of-poverty.

At-risk-of-poverty: a term used at EU level to denote whether a household's income falls below the 60% of median income threshold.

At risk of poverty or exclusion: this EU measure combines the number of people who experience at-risk-of-poverty or severe material deprivation or low work intensity. This measure is the basis for the Europe 2020 poverty target. In cases where people experience more than one of these indicators, they are counted only once. The Irish version of this measure is the combination of at-risk-of-poverty and basic deprivation.

At-risk-of-poverty anchored at a moment in time: the proportion of people with an equivalised disposable income below the at-risk-of-poverty threshold calculated in survey year N, adjusted by inflation over subsequent years. It essentially measures the percentage of the population falling below an at-risk-of-poverty threshold of an earlier year, after accounting for the effects of inflation. This indicator is also referred to as an absolute measure of poverty which reflects changes in fixed living circumstances, as distinct from changes in relative living standards.

Basic deprivation: people who are denied – through lack of income – at least **two items or activities on this index / list of 11** are regarded as experiencing relative deprivation. This is enforced deprivation as distinct from the personal choice not to have the items. Eleven basic items are used to construct the deprivation index:

- unable to afford two pairs of strong shoes
- unable to afford a warm waterproof overcoat
- unable to afford new (not second-hand) clothes
- Unable to afford a meal with meat, chicken or fish (vegetarian equivalent) every second day
- unable to afford a roast joint or its equivalent once a week
- without heating at some stage in the last year through lack of money
- unable to afford to keep the home adequately warm
- unable to afford to buy presents for family or friends at least once a year
- unable to afford to replace any worn out furniture
- unable to afford to have family or friends for a drink or meal once a month
- unable to afford a morning, afternoon or evening out in the last fortnight for entertainment.

The indicator **of basic deprivation** was developed by the Economic and Social Research Institute using data from the *Survey on Income and Living Conditions*. See Maître B., Nolan B. and Whelan C. (2006) *Reconfiguring the Measurement of Deprivation and Consistent Poverty in Ireland*, Dublin: ESRI, for further information on the indicator.

Confidence interval: whenever we use data from a probability sample to draw conclusions about the population, there is a degree of uncertainty around our estimates. This is often reported as a confidence interval. This is the range within which we can be 95 per cent confident that the population figures lies. For instance, recent calculations of the persistent at-risk-of-poverty rate show a rate of 9.5 per cent (Confidence Interval ± 1.7 per cent). This means that we can be 95 per cent confident that the 'true' rate in the population lies between 7.8 per cent and 11.2 per cent (i.e. between 9.5-1.7 per cent and 9.5+ 1.7 per cent). In general, for a smaller sample size the confidence interval will be wider.

Consistent poverty: this is a measure of poverty used in the *National Action Plan for Social Inclusion 2007-2016 (NAPinclusion)* that takes account of the household's living standards as well as the household size, composition and total income. A household is consistently poor if the household income is below the at-risk-of-poverty threshold (see above) and the household members are deprived of **at least 2 out of the 11 items** on the basic deprivation list.

Correlation: a correlation between two variables refers to a statistical relationship of dependence between these two variables. This relationship of dependence can be measured by a correlation coefficient and there are many of them. There are many correlation coefficients and the most known is the Pearson correlation coefficient which measures the strength of the linear relationship between two variables.

Cronbach's alpha: a measure of reliability (i.e. internal consistency). It informs us how closely related a set of items are as a group.

Deprivation: see definition for basic deprivation above for measure of deprivation used in the *NAPinclusion*.

Discrimination: generally used to refer to unfair treatment of a person on the basis of his/her membership of a particular group, in terms of, for example, gender, nationality, disability or race.

Economic Stress: Economic stress is measured using four items: difficulty in making ends meet, being in arrears on housing or utility bills, finding housing costs a heavy burden and having to borrow in order to meet everyday living expenses. High economic stress involves experiencing two or more of these difficulties

Economic vulnerability: a measure of the economic situation of a household based on whether it is at-risk-of-poverty, experiences enforced basic deprivation and has difficulty making ends meet.

Employment rate: the employment rate is the proportion of the working-age population that is employed. The International Labour Organisation (ILO) definition of employed persons are those aged 15 years and over who have worked for payment or profit in the reference week (usually the week preceding the survey) or who had a job from which they were temporarily absent for reasons such as holidays, maternity leave or sick leave.

Equivalence scales: a set of relativities between the needs of households of differing size and composition, used to adjust household income to take into account the greater needs of larger households. In Ireland the national scale attributes a weight of one to the first adult (aged 14+) and 0.66 to each subsequent adult and a weight of 0.33 to each child. International comparisons such as the one done by Eurostat uses the modified OECD scale which attributes a weight of one to the first adult (aged 14+) and 0.5 to each subsequent adult and a weight of 0.3 to each child.

Equivalised Income: This refers to household income from all sources adjusted for differences in household size and composition (number of adults and children). It is calculated by dividing total disposable (i.e. after tax) household income by the equivalence scale value. It can be interpreted as income per adult-equivalent.

EU-LFS: *European Union Labour Force Survey* is based on harmonised national surveys carried out across the EU and designed to provide data on labour force status of people aged 15 and over. In Ireland the QNHS produces the labour force data for the EU-LFS. Any data as compiled by Eurostat and any reference to the EU definitions is here referred to as 'EU-LFS'.

EU-SILC: *European Union Statistics on Income and Living Conditions*; this is a voluntary household survey carried out annually in a number of EU Member States allowing comparable statistics on income and living conditions to be compiled. In Ireland, the Central Statistics Office (CSO) have been conducting the survey since 2003. The results are reported in the Survey on Income and Living Conditions (SILC). Any data as compiled by Eurostat and any reference to the questions or questionnaire in the household survey is here referred to as 'EU-SILC'.

EU-15: Member States of the EU prior to the accession of 10 new Member States on 1 May 2004, i.e. Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

EU-25: Member States of the EU after the accession of 10 new Member States on 1 May 2004, i.e. EU 15 plus Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

EU-27: Member States of the EU since 1 January 2007, i.e. EU 25 plus Bulgaria and Romania.

EU-28: Member States of the EU since 1 July 2013, i.e. EU 27 plus Croatia.

European Socio-Economic Classification (ESeC): the ESeC is an occupationally based classification but has rules to provide coverage of the whole adult population. The information required to create ESeC is:

- occupation coded to the minor groups (i.e. 3-digit groups) of EU variant of the International Standard Classification of Occupations 1988 (ISCO88 (COM))
- details of employment status, i.e. whether an employer, self-employed or employee
- number of employees at the workplace
- whether a worker is a supervisor
- economic sector (agriculture or other industries).

Factor analysis: a statistical technique to see whether a number of variables of interest (such as deprivation items) are linearly related to a smaller number of unobservable factors (such as dimension of deprivation).

Household: a household is usually defined for statistical purposes as either a person living alone or a group of people (not necessarily related) living at the same address with common housekeeping arrangements – that is, sharing at least one meal a day or sharing a living room or sitting room.

Household equivalent (or equivalised) income: household income adjusted to take account of differences in household size and composition by means of equivalence scales.

Household joblessness: the share of persons under the age of 60 in households where no working-age adult is in employment (according to the International Labour Organisation – see ‘employment rate’ definition above).

Inactive: the inactive population is the working-age population that is not in the labour force.

In-work poverty: is measured as the risk of income poverty for individuals who were employed for more than half the income reference period. It is calculated at the individual level for adults who are at work either full-time or part-time. The indicator captures being at work and, at the same time, being in a household ‘at-risk-of-poverty’.

Labour force participation: the labour force participation rate is a measure of the proportion of the working-age population that engages actively in the labour market, either by working or looking for work.

LFS: in Ireland, the Central Statistics Office (CSO) is responsible for produces the required data for EU-LFS from the Quarterly National Household Survey (QNHS). They produce reliable quarterly labour force statistics.

Life expectancy: the number of years that a person could expect to live on average, based on the mortality rates of the population in a given year.

LIIS: the Living in Ireland Survey, a household survey carried out by the Economic and Social Research Institute between 1994 and 2001.

Lone parent: a parent who has primary custody of a dependent child and is not living with the other parent.

Material deprivation (EU): this indicator is one of the European Commission's common indicators on social protection and social inclusion. It measures the proportion of the population lacking at least three out of the following nine items:

- arrears on mortgage or rent payments, utility bills, hire purchase instalments or other loan payments
- capacity to afford paying for one week's annual holiday away from home
- capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day
- capacity to face unexpected financial expenses (set amount corresponding to the monthly national at-risk-of-poverty threshold of the previous year)
- household cannot afford a telephone (including mobile phone)
- household cannot afford a colour TV
- household cannot afford a washing machine
- household cannot afford a car
- ability of the household to pay for keeping its home adequately warm.

Mean: the average value (for example, the average income in a sample obtained via household survey).

Median: the value that divides a sample in half (e.g. the income level above and below which half the people in a sample fall).

Odds ratios: measure the association between a characteristic and an outcome. The odds ratio is the ratio of the odds that an outcome will occur given a particular characteristic, compared to the odds of the outcome occurring in the reference group. For instance, an odds ratio of 2.5 for employment entry (the outcome) for adults under age 25 (the characteristic) compared to those aged 55 to 59 (the reference group) means that the odds of entering employment is 2.5 times higher for the younger adults than for the older group, with other characteristics controlled. Odds ratios with a value greater than one indicate that the characteristic increases the chances of the outcome compared to the reference group. An odds ratio less than one means that the characteristic reduces the chances of the outcome compared to the reference group.

Planning region: the eight regions into which Ireland has been divided for certain planning and administrative purposes.

Poverty gap: the shortfall in incomes for those who fall below the at-risk-of-poverty threshold.

Poverty and Social Exclusion: these terms are defined broadly in the *National Action Plan for Social Inclusion 2007-2016 (NAPinclusion)* as follows:

'People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living which is regarded as acceptable by Irish society generally. As a result of inadequate income and resources people may be excluded and marginalised from participating in activities which are considered the norm for other people in society.'

The two concepts are very similar when used in Irish policymaking but poverty is sometimes used in the narrower context to refer to low income (or wealth). On the other hand, social exclusion is almost always used in the broader sense, to refer to the inability to participate in society because of a lack of resources that are normally available to the general population.

QNHS: *Quarterly National Household Survey*; this is large-scale a nationally representative survey of private households. It was introduced in September 1997 to replace the annual Labour Force Survey. It is designed to provide reliable quarterly labour force statistics and is carried out by the Central Statistics Office. Any data or analysis in this paper that is sourced specifically from the CSO is here referred to as 'QNHS'.

Quintile: One-fifth of a sample divided into five equal parts to show how income, for example, is spread throughout the population; each quintile represents where a person's or household's income is located, ranging from the bottom quintile (lowest fifth or 20 per cent) to the top quintile (highest fifth or 20 per cent).

Re-calibration: this is a technique used to adjust sample weights to ensure they are representative of the population.

Risk-of-poverty: a term used at EU level to denote whether a household falls below the 60% of median income threshold.

Severe material deprivation: this EU indicator measures the proportion of the population lacking at least four of the nine items listed in the EU index of material deprivation (see definition above).

SILC: in Ireland, the Central Statistics Office (CSO) is responsible for carrying out the EU-SILC survey. They produce analysis in accordance with Irish national poverty targets, indicators and related issues. These results are reported in the Survey on Income and Living Conditions (SILC). Any data or analysis that is sourced specifically from the CSO is here referred to as 'SILC'.

Social welfare transfers: cash receipts paid from various social welfare schemes received by the individual or household.

Urban/rural location: in EU-SILC each country is divided into eight levels based on population density. These areas are further grouped into urban and rural areas as follows:

- **Urban:** cities, suburbs of cities, mixed urban/rural areas bordering on the suburbs of cities, towns and surrounding areas with populations of 5,000 or over (large urban); mixed urban/rural areas bordering larger towns; and towns and surrounding areas with a population of 1,000 to 5,000 (other urban)
- **Rural:** mixed urban/rural areas, and rural areas.

Validity: the extent to which a measure is identifying the construct we are interested in. Sometimes a distinction is made between:

- **face validity:** (the items appear, on the 'face' of it) to measure the construct we are interested in and
- **construct validity:** the measure is related to other characteristics in the way we would expect. This is sometimes divided into:
- **convergent validity:** the measure is positively associated with things we would expect it to be associated with (e.g. deprivation is associated with low income);
- **discriminant validity:** the measure is distinct from other indicators that may be related but are not the same, e.g. at-risk-of-poverty is distinct from economic stress – they are related, but not identical.

Very low work intensity (VLWI): The EU measure of joblessness at the household level. It consists in the adult members of the household working for less than 20 per cent of the potential working time in the reference year. (See also 'Work intensity, below).

Vulnerable to consistent poverty: This is a group who experience the same level of basic deprivation as the consistently poor (lack two or more of the 11 basic items), but who have a slightly higher household income: their incomes (after adjusting for size and composition) are above the 60% income poverty threshold but below the 70% income poverty threshold.

Work intensity: This is an indicator of the amount of available work time the working-age adults in a household actually spend at work. It is calculated as the proportion of person-months over the reference year that working-age adults (18 to 59) actually spend in employment. An adjustment is made to the calculation for those who work part-time. Work intensity is often presented in five categories:

- Very low work intensity: Less than 20 per cent
- Low work intensity = 20 per cent to less than 45 per cent
- Medium work intensity = 45 per cent to 55 per cent
- High work intensity = over 55 per cent to 85 per cent
- Very high work intensity= over 85 per cent to 100 per cent.

Working poor: the population below the at-risk-of-poverty threshold (typically 60% of median equivalised income) containing some household members who are in paid work.