

Getting back into work after job loss: the role of partner effects

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Non-technical summary

How do couples respond when one spouse loses their job? Much research in the past has focussed on whether the other partner can cushion the blow by getting a job or working more hours, but the size of this effect has been found to be rather small. In this paper we look instead at how quickly the original earner returns to work. Particularly if the other partner has little work experience, the original earner may be the household member who is better placed to get back into work and restore the previous working arrangements. Using data from the UK Labour Force Survey data covering 1992-2013, we find that around half of those couple members who lost their jobs are back in work within 6 months, suggesting that indeed the dominant reaction of couples is to try to get the original earner back into work as soon as possible.

We next look at how the speed of return to work is related to the other partner's employment status and other characteristics. On the one hand, a newly unemployed spouse whose partner does not work (and so is not bringing income to the household) may be more inclined to accept the first job offer that comes along, even though the new job may be of low quality and pay low wages; while a spouse whose partner works may be more willing to search for longer and wait for a better job offer. On the other hand, a working partner may provide contacts and information about job opportunities or be able to assist with interview skills and offer moral support. Thus the return to work may be quicker and the new job of better quality.

We find very little evidence for first 'income' effect, instead having a working partner greatly speeds up the return to work. And for men, a working partner is particularly associated with entry into 'high-quality' jobs: permanent rather than temporary and paid employee jobs rather than self-employment. The effects were also larger during the recent recession: having a working partner helped counteract the effects of recession on the return to work. Meanwhile, there was little impact of either the recession or having a working partner on re-entry into self-employment, or part-time or temporary jobs, suggesting they are fallback options if nothing else is available. Overall it appears that, rather than a non-employed partner being a potential source of insurance for the household in case of job loss, a more effective mechanism is to have an employed partner – not only do their earnings provide a cushion in case of job loss, but they help with re-entry of the unemployed spouse into the labour market.

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Abstract

We investigate the reaction of couples to a job loss during periods of growth and recession in the UK focussing on re-employment of the spouse who lost their job. Re-employment was faster for those with a partner in work, but was not generally affected by other measures of the partner's labour market attachment or resources. For men, the strongest partner effects were for entry into high quality jobs; and having a working partner substantially mitigated the negative impact of the recession on entry into these jobs. For women, an employed partner was associated with a greater likelihood of re-entry into any type of job. Hence, while dual earner families may be able to restore the pre-job loss income level, single earner families are more likely to be trapped in cycles of low-quality jobs and no jobs leading to a decrease in household income over time. The difference in outcomes between single and dual earner couples is likely to increase during recessions.

Keywords: Added-worker effect, recession, employment, household labour supply

JEL codes: J22, J64

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This work was based on data from the Quarterly Labour Force Survey and from the Annual Survey of Hours and Earnings: Office for National Statistics. Social Survey Division and Northern Ireland Statistics and Research Agency. Central Survey Unit, *Quarterly Labour Force Survey, 1992-2013: Secure Access* [computer file]. 5th Edition. Colchester, Essex: UK Data Archive [distributor], July 2014. SN: 6727, <http://dx.doi.org/10.5255/UKDA-SN-6727-6>. Office for National Statistics, *Annual Survey of Hours and Earnings, 1997-2013: Secure Access* [computer file]. 6th Edition. Colchester, Essex: UK Data Archive [distributor], November 2014. SN: 6689, <http://dx.doi.org/10.5255/UKDA-SN-6689-5>. The data are Crown Copyright and reproduced with the permission of the controller of HMSO and Queen's Printer for Scotland. The use of the data in this work does not imply the endorsement of ONS or the Secure Data Service at the UK Data Archive in relation to the interpretation or analysis of the data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

1. Introduction

There is a large literature examining the extent to which households can insure themselves against job loss by increasing the labour supply of other household members. Although theory predicts such an added worker effect (AWE) in a range of circumstances, studies of couples' actual behaviour have produced very mixed results. While some studies conclude there is no AWE (Layard et al 1980, Bingley and Walker 2001, Maloney 1991), others have found labour supply reactions along a variety of margins: increases in search (Lundberg 1985, Mattingley and Smith 2010), job entry (Lundberg 1985, Juhn and Potter 2007, Kohara 2010, Mattingley and Smith 2010) or increases in working hours (Gong 2011, Harkness and Evans 2011). However, even when positive, the typical size of estimated AWEs is rather small, for example Gong (2011) found that the partners of men who lost their jobs were 3 percentage points (pp) more likely to work full-time and 4pp more likely to increase work hours.

In work for the UK over the period 1995-2011, Bryan and Longhi (2013) examined both men and women's reactions to a partner's job loss, considering both single and dual-earner couples. They only found AWEs for single earner and FT-PT couples, and these mainly took the form of increases in job search intensity (especially in the recession) rather than job entry. As in other studies, the size of the AWEs was modest: at most 10pp and usually much less. Bryan and Longhi also found that households reacted either contemporaneously with the job loss or with a (one quarter) lag, but never ahead of time – perhaps suggesting that partner reactions are not the first line of defence against job loss.

The lack of an AWE may suggest that households are unwilling to change their labour supply behaviour. Indeed, economic theory does not necessarily predict strong AWEs if job losses are anticipated as part of the risks associated with a given career trajectory (and as such they do not lower expected lifetime earnings). Then the lifecycle model (with no credit constraints) predicts that couples smooth consumption by dis-saving or borrowing and the partner who loses the job is the one who is expected to restore the previous equilibrium in terms of labour supply by finding an alternative job.

The (financial) pressure to find a new job may also depend on the labour market status of the partner: it is likely that those whose partner does not work may be more inclined to accept the first job offer that comes along, even though the new job may be of low quality and pay low wages, with negative consequences for household income. Those whose partner

works may be more willing to search for longer and wait for a better job offer. This may have important consequences for inequalities since single earner families may be more likely to be trapped in low-quality jobs no jobs cycles leading to a decrease in household income over time, while dual earner families may be more able to restore the pre-job loss income level. Such difference between single and dual earner families may become even more important during a recession, when finding a good job becomes harder.

There is lack of evidence of these effects since most of the literature examining how couples (as opposed to individuals) cope with job loss focus on other household members, and not the employment behaviour of the earner who lost their job. To our knowledge our paper is the first to look at the spouse who lost their job, investigating how quickly they get back into work and what type of job they move into; and we test whether the speed of finding a new job and the type of job depend on the partner's employment status and characteristics. We examine both the recent recession and the preceding period of economic growth.

We move beyond the AWE literature by analysing labour supply of the partner who lost their job as an alternative household strategy for coping with job loss. By comparing single and dual earner couples in periods of growth and recession our research also contributes to the literature on household inequalities and on the impact of the recession.

We find that around half of those couple members who lost their jobs are back in work within 6 months, an 'own worker' effect that is an order of magnitude larger than the typical AWEs estimated by previous studies. The return process is greatly aided by the other partner being in work, although not by other measures of the partner's labour market attachment (hours of work and job tenure) or resources (wage and education). A possible mechanism is that a working partner provides contacts and information about job opportunities (or helps the job seeker exploit existing networks) or assists with interview skills or offers moral support. The effect of a partner's employment also differs (for men) across jobs that may be considered low and high quality, with the strongest effects for entry into high quality jobs. Furthermore while the recession lowered men's chances of getting back into high-quality work, having a working partner substantially mitigated these effects. For women the picture is somewhat different. Having an employed partner is still associated with a greater likelihood of job re-entry but there was no differential effect during the recession, which also had less impact on women's job re-entry.

2. Background

The theoretical background to our study is provided by the extensive literature on job search (focussing almost exclusively on the individual job seeker and ignoring household context) as well as a smaller literature that examines the role of partners in influencing employment outcomes in couples. In job search models individuals compare the value of remaining unemployed (and continuing to search) with the value of taking a job, and they accept a job if the offered wage exceeds an implicitly defined reservation wage (see Rogerson et al 2005 for a survey). In models with risk averse workers, the reservation wage may increase with personal wealth because wealthy individuals can afford to wait for longer for a well-paid job to turn up (Lammers 2014; see also Bloemen and Stancanelli 2001). Similarly, wealthy individuals are also likely to search less intensively than poorer people (Lammers 2014). Both of these mechanisms imply that, all else equal, wealthier individuals will take longer to get back into work.

Although there have been few formal extensions of the job search framework to multi-person households (despite initial suggestions by Burdett and Mortensen 1977), we might expect that a working partner's income functions in the same way as personal wealth in easing the requirement to take a new job quickly (Lentz and Tranaes 2005). In a recent contribution Guler et al. (2012) developed a model of job search by couples who pool income. They note that partner income is unlike wealth because it is inherently risky. Nevertheless, one feature of their model is a possible "breadwinner cycle" in which the partners take it in turns to work, with one partner supporting the other while he or she looks for a job further up the wage ladder. Overall then, the prediction of the job search approach is that those unemployed persons with employed partners (with higher incomes) should take longer to get back into work but that the resulting job may be of higher quality.

Alternative theories based on social capital or broader conceptions of partner resources lead to different predictions. The social capital approach stresses that working partners, especially those with higher education or occupational levels, may know about job vacancies or have access to wider networks than their unemployed spouses (Lin et al 1981, Bernasco et al 1998). They can also potentially provide moral support to the job seeker (Jacob and Kleinert 2014) and transmit soft skills that may help in the job selection process (Verbakel and de Graaf 2009). If partners with better information and social networks tend to be better educated and with more labour market experience, this implies that greater partner

resources (broadly defined) should lead to faster job entry (the opposite of the income effect in the search model) but also to higher quality jobs (similar to the job search model).

Of the two mechanisms, Jacob and Kleinert (2014) hypothesise that the income effect should dominate given that income is transferable between partners (indeed it may be fully pooled), while more intangible labour market resources are not. Verbakel and de Graaf (2009), considering general employment outcomes rather than re-entry from unemployment, argue that a partner's career resources (education and occupational level) should be associated with shorter working hours for the other spouse (via an income effect) but a higher occupational achievement (via a social capital or network effect). The effects could also differ across gender, particularly if men cling to a "breadwinner" identity despite the mass entry of women into the labour force. We might then expect men's job entry to be less sensitive to partner effects (Jacob and Kleinert 2014) or even to show the opposite effect to women's (Marcassa 2014).

Numerous previous studies at the individual (rather than couple) level have found that higher income, in the form of unemployment benefits, is associated with longer unemployment spells and that job entry rises significantly just before benefit entitlement ends (e.g. Meyer 1990). Wealth has also been found to slow down exit from unemployment (Bloemen and Stancanelli 2001, Lentz and Tranaes 2005) although the effects appear small; and wealth raises reservation wages and lowers search effort (Lammers 2014).

Most relevant to our research, at least four previous studies have examined the effect of partner incomes on unemployment duration. Both Lentz and Tranaes (2005), using Danish data, and Marcassa (2014), using French data, find that women enter a job more slowly if their partner has higher income, while men find a job more quickly the higher their partner's income. For the Netherlands Bernasco et al. (1998) find a similar effect for women, but no effect of partner's earnings on men. In contrast Jacob and Kleinert (2014), using German data, find no effect of absolute levels of partner income on the job re-entry of men or women (only their relative earnings before unemployment matter).

Several studies find positive effects of broad partner resources on career outcomes (Bernardi 1999, Brynin and Francesconi 2004), although Verbakel and de Graaf (2009) find that a partner's education and occupational level are negatively associated with working hours but positively associated with occupational level. Jacob and Kleinert (2014) is one of the few studies to focus specifically on job entry from unemployment. They find that a partner's unemployment slows down the job re-entry of both spouses, although they do not specifically interpret this as a resource effect. Otherwise, they find that a woman's education

raises the re-employment probability of her male partner (with an additional effect due to work experience if she has more experience than he does). For women, the evidence is weaker: while the signs of the partner resource effects are positive, they are never significant, and men are not less responsive to partner effects than women (contrary to Jacob and Kleinert's expectations).

We are not aware of any studies that looked at partner effects during recessions. When it is harder to find a job and good quality jobs are more scarce, a partner's income may play a greater role in allowing a job seeker to extend their search until a good job becomes available. On the other hand, those with a working spouse and thus access to better networks may find jobs more quickly and may find better jobs than those who have a non-working spouse. Thus having a working spouse may partly shelter people from the negative impact of a recession.

One feature of the recent recession in the UK has also been the growth of more marginal forms of employment, such as part-time and temporary employment, as well as self-employment (Bell and Blanchflower 2011). These forms of employment can often be considered as lower-quality: self-employment may be a relatively easy way out of unemployment, but it is also a choice that implies more risk of low or no wages (especially during a recession). Part-time employment is likely to be a sub-optimal choice, especially for men, and temporary jobs are necessarily less secure than permanent ones. Both involuntary part-time and temporary work increased significantly during the recession (Bell and Blanchflower 2011), and self-employment continued its upwards trend (ONS 2014). We thus examine whether a partner's employment characteristics affects entry into lower quality jobs as well as the speed of exit from unemployment.

Our focus is on how households react in the short-term to involuntary job losses, thus our sample of interest consists of couples who suffered a job loss and who we then follow over three successive quarters. We do not consider unemployment for other reasons (for example, a move back into the labour market following a spell of family care) or longer-term unemployment, as both may result from different underlying processes. In the next section we describe the data and present unconditional survivor functions to show how fast people get back into work after a job loss. In Section 3 we estimate a set of duration models to estimate the effect of partner characteristics on the speed of return to work and the type of job found. Section 4 discusses the results and concludes.

3. Data and descriptive statistics

We use the quarterly UK Labour Force Survey (LFS) for the period 1992q2 to 2013q4. The LFS is a survey of households which collects a large amount of individual and household characteristics, with a focus on labour market variables such as education, employment status, job search activities, and job characteristics.

The LFS has a rotating panel structure in which individuals are interviewed for up to five successive quarters. This allows us to analyse quarter-on-quarter changes in the working situation of the members of the household; individuals are observed for a maximum of five successive quarters. We include in our analysis married or cohabiting couples in which both adult members are older than 23 and younger than 64. We restrict the sample to people aged 23 and over to exclude individuals who may have a job but may still be completing their education; educational qualifications therefore become a time-invariant characteristic. As we wish to avoid potential complications arising from the labour supply of other household members, we also exclude from the sample those households in which other members – excluding the two partners – work, either in a paid job or as self-employed. Finally, we exclude those households that are workless for the whole observation period, since they cannot be subject to employment loss.

The aim of our analysis is to estimate whether the individual probability of finding a new job and the characteristics of the job found vary with the labour market status of the partner. We are also interested in differences in behaviour of men and women. Hence, our estimation sample focuses on individuals who are observed in a job (either a paid job or self-employment) and who then move into unemployment between two successive quarters; those entering inactivity and those who quit their job voluntarily are excluded from the sample. All analyses of men and women are carried out separately.

Our variables of interest are the probability of finding a new job, the probability that people start self-employment as opposed to be hired in a paid job, the probability that the job found is part-time as opposed to full-time, and temporary as opposed to permanent work.

Figure 1 shows Kaplan-Meier estimates of the survival function of the probability of moving from unemployment back into employment for men and women. Since we only include individuals observed moving from employment into unemployment between two successive quarters, individuals can remain at risk for a maximum of three periods (quarters). Because of the rotating design of the survey, a relatively large number of people are "lost", i.e. exit the survey while they are still at risk (Table 1). This is because someone who moves

into unemployment at wave 2 will still be interviewed for another three waves, while someone who moves into unemployment in wave 4 will only be interviewed once more. This type of right censoring is unlikely to be related to the experience of unemployment itself, and so should not affect our estimates.

Table 1: Survival estimates

Time	Beginning total	Fail	Net lost	Survivor function	Std. Error
Men					
Growth, partner does not have a job					
1	769	309	233	0.598	0.018
2	227	64	101	0.430	0.022
3	62	17	45	0.312	0.029
Growth, partner has a job					
1	1281	693	251	0.459	0.014
2	337	170	98	0.228	0.014
3	69	20	49	0.162	0.016
Recession, partner does not have a job					
1	281	70	109	0.751	0.026
2	102	30	44	0.530	0.038
3	28	-	21	0.397	0.052
Recession, partner has a job					
1	578	234	178	0.595	0.020
2	166	73	61	0.333	0.026
3	32	-	23	0.240	0.032
Women					
Growth, partner does not have a job					
1	125	52	42	0.584	0.044
2	31	-	15	0.452	0.056
3	-	-	-	0.352	0.076
Growth, partner has a job					
1	856	498	173	0.418	0.017
2	185	91	51	0.213	0.018
3	43	18	25	0.124	0.019
Recession, partner does not have a job					
1	48	13	23	0.729	0.064
2	12	-	-	0.608	0.095
3	-	-	-	0.608	0.095
Recession, partner has a job					
1	363	172	101	0.526	0.026
2	90	41	28	0.286	0.031
3	21	-	12	0.164	0.036

- Indicates number of transitions is less than 10 (not reported to avoid statistical disclosure)

Table 1 and Figure 1 show that between a quarter and a half of those who lost their job had got back into work by the next quarter and between a half and three quarters had found work within two quarters of the job loss. The size of these reactions dwarfs the typical AWE estimated in the literature (an increase in the spousal employment probability of a few

percentage points). This is suggestive evidence that dominant reaction of couples to job loss is for the original earners to get a new job rather for the spouse to take on more work.

However, the figures also show clear differences across groups which depend on whether the partner has a job and on whether the job search is performed during a period of growth instead of a period of recession. As expected, the probability of finding a job is higher during periods of growth than during periods of recession, and it is also higher for men and women whose partner has a job. Most strikingly, having a partner with a job has a larger impact than searching for a job during a period of growth: the survival rate is lower for men and women looking for a job in a period of recession, but whose partner has a job, than for men and women looking for a job in a period of growth, but whose partner does not have a job. This suggests that having a partner in work may to some extent shelter people from the consequences of recession by facilitating a quicker return to work if they lose their job. The effect seem particularly strong among women: for those with a partner in work, the difference in the two-quarter survival rate between periods of recession and growth is just 7.3 pp ($=0.286-0.213$; Table 1), while it is 15.6 pp ($=0.608-0.452$) for women whose partner does not work. Taking the growth and recession periods separately and comparing women with and without working partners, the 'partner gaps' in the survival rate are larger still: 23.9 pp ($=0.452-0.213$) during growth and 32.2 pp during recession ($=0.608-0.286$). In Section 4 we see whether these effects hold up when controlling for other household characteristics as well as other forms of partner resource.

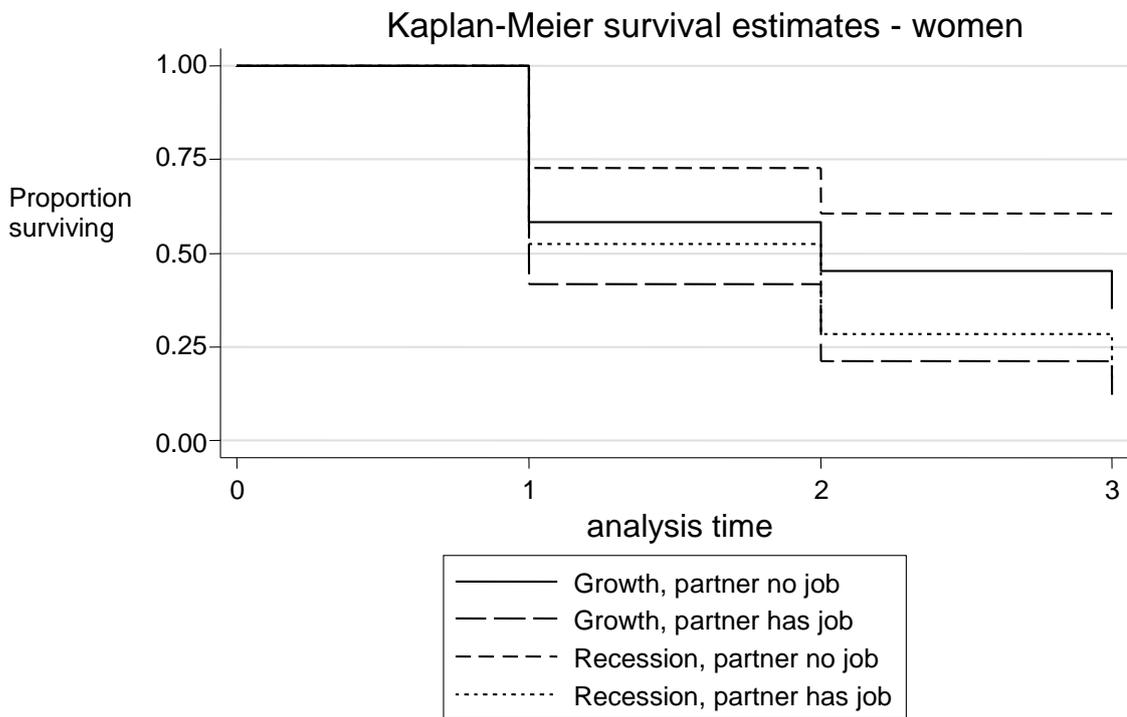
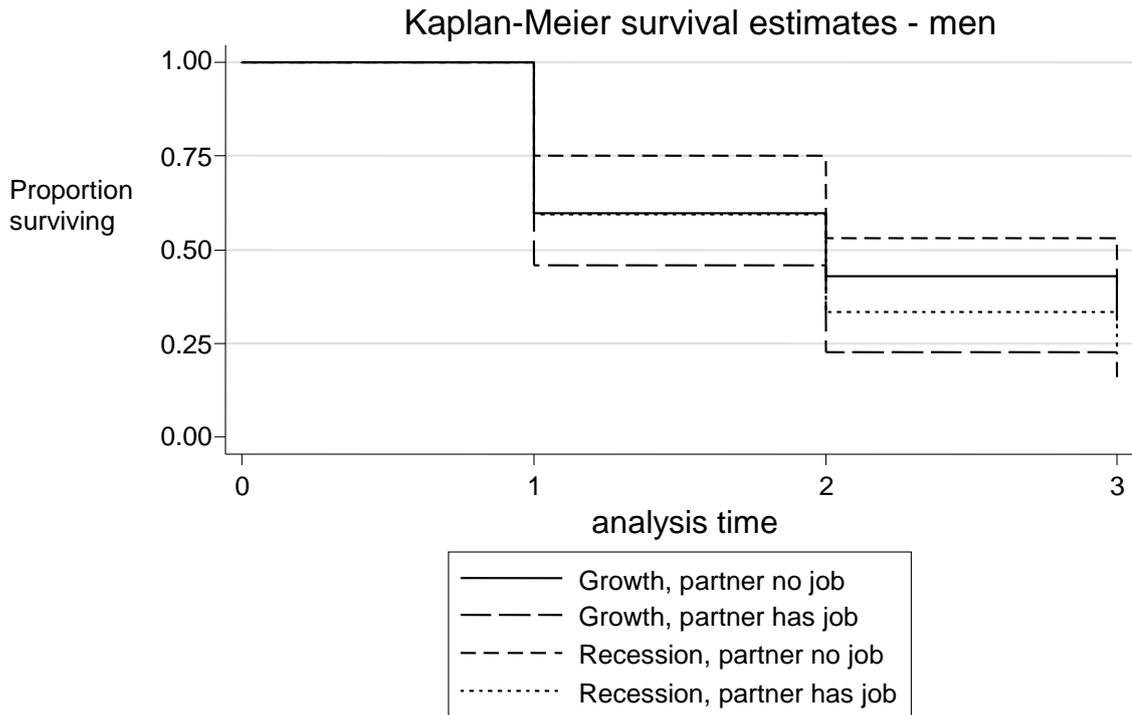


Figure 1: Kaplan-Meier survival estimates

Besides differences in the probability of finding a job, there may also differences in the characteristics of the job found by unemployed people, which may depend on whether the

spouse has a job, and whether the search takes place during a period of growth or recession. For example, temporary jobs may be considered as sub-optimal choices and may be more likely to be accepted by unemployed job seekers whose spouse does not work (i.e. the household has no other sources of income). Unemployed job seekers whose spouse works may afford to be more choosy and wait for an offer on a permanent job.

Here we analyse three job characteristics. The first distinguishes between paid jobs and self-employment. Paid jobs may be considered more secure and less risky than self-employment, while self-employment may be considered more flexible than a paid job. A rise in self-employment during the recent recession has been linked to a lack of other employment options (D'Arcy and Gardiner 2014). The second job characteristics we analyse distinguishes between part-time and full-time jobs. Especially for men, part-time jobs are relatively rare and may lead to situations of underemployment. The third characteristic we analyse is whether the job found is temporary or permanent. Temporary jobs may be considered worse than permanent jobs since they may be more likely to lead to further spells of unemployment (Boheim and Taylor 2000).

Figure 2 shows changes in these job characteristics over the period 1992-2013. During this period the proportion of workers who are self-employed fluctuated between 12-14%, but with a very slight upward trend from 2003 onwards. The proportion of part-time jobs increased from 25% to 30%, while the proportion of temporary jobs peaked at 8% around 1998 before falling to 5% by 2008. The period after the recession is characterised by a clear increase in the unemployment rate since 2008, which was accompanied by a further increase (and then flattening off) in part-time work and a halt to the decline in temporary jobs.

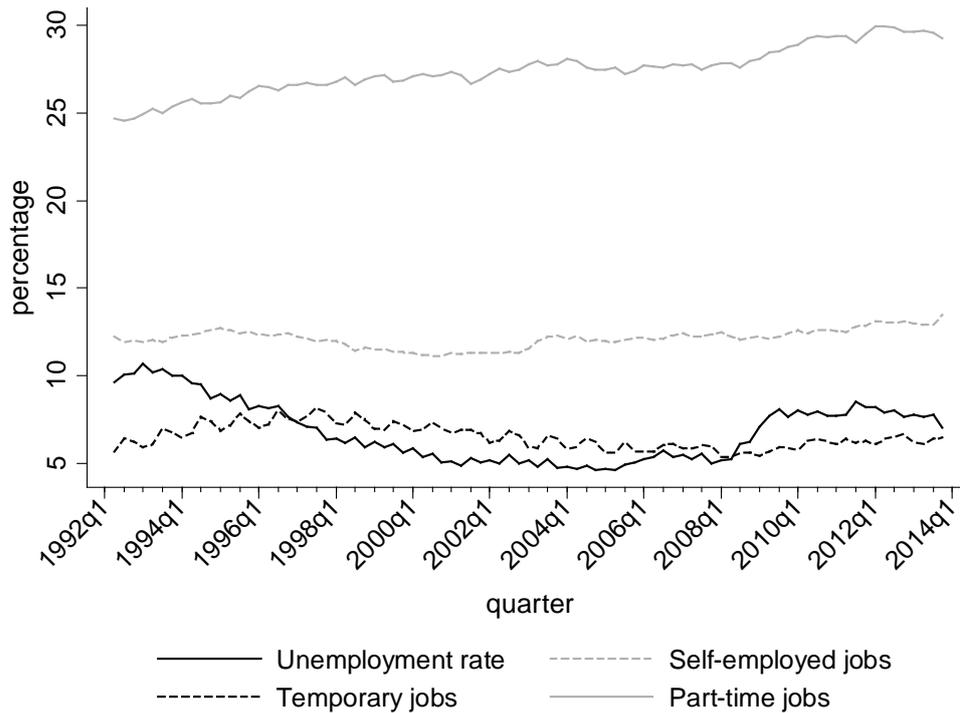


Figure 2: Average job characteristics

4. Modelling strategy

4.1 Probability of finding a job

Our first outcome of interest is whether the unemployed individual finds a job. We treat time as discrete and estimate a complementary log-log model in which the dependent variable is whether the individual is at risk of finding a job. The individual becomes at risk when he or she is observed entering unemployment and remains at risk until a job is found (either a paid job or self-employment) or the individual exits unemployment into inactivity or exits the survey (censored observations).

$$h(j, X) = 1 - \exp[-\exp(\beta' X + \gamma_j)] \quad (1)$$

The hazard of exiting unemployment at time j is a function of a set of explanatory variables X while γ_j represents the duration dependence. Among the explanatory variables we include age and its square, dummies for qualification levels, homeownership, whether there are

dependent children in the household, dummies for region of residence (nine Government Office Regions for England, plus Scotland and Wales).¹

We analyse whether the labour market participation (and potential earnings) of the partner has an impact on the individual’s probability of finding a job by including a dummy for whether the partner has a job (either self-employment or a paid job), dummies for partner’s qualification, age and its square. For those partners with a job we also include further measures of labour market attachment and experience, the average number of paid hours worked per week and job tenure. Because of lack of complete data (the LFS only collects an individual’s earnings at the first and fifth quarterly interview), the main models do not include wages of the partner; these are included in extension reported in Section 6.

To analyse differences between periods of growth and recession we also include a dummy for observations referring to a period of recession (2008-2010) and an interaction between the recession dummy and the dummy for whether the partner has a job. Including additional dummies for years and quarters in the model does not have a relevant impact on our results. The models are estimated separately for men and women because as discussed above the impact of a working partner may depend on their household roles and considerations of gender identity.

4.2 Type of job found

We analyse whether the partner’s employment status has an impact on the characteristics of the job found by the individual i in a competing risks framework using multinomial logit models. We distinguish between three outcomes k : 0 = does not find a job, 1 = finds a ‘low’ quality job, or 2 = finds a ‘high’ quality job via the latent variable O_{ik}^* :

$$O_{ik}^* = Z_i' \delta_k + \gamma_j + \eta_{ik} \quad (2)$$

where η_{ik} are i.i.d. and follow a multivariate logistic distribution. The probability of observing individual outcome k for individual i is the probability that $O_{ik} > O_{iq}$ for each $q \neq k$.

As already mentioned, we analyse the probability that the individual finds a job as self-employed as opposed to a paid job, a part-time as opposed to a full-time job, and whether the job found is temporary as opposed to permanent. The explanatory variables in Z_i are the

¹ The region dummies capture differing labour market conditions across the UK. Ideally we would include finer area controls, however indicators of travel-to-work areas are only available in each quarter from 2005 and local authority districts are only available in each quarter from 2000.

same we used in the complementary log log model (equation 2). The only difference is the inclusion of an additional dummy for whether the previous job was part-time in the models estimating the probability of a woman finding a part-time instead of a full-time job.

5. Results

We discuss the results for men (Table 2) and women (Table 3) in turn. The Tables show the impact of the various individual and household characteristics on the probability of finding a job (first column) and on the characteristics of the job found. Column (2) focuses on the probability of starting a new job as self-employed instead of finding a paid job; column (3) focuses on the probability of finding a part-time instead of a full-time job; while column (4) focuses on the probability of finding a temporary instead of a permanent job. In all models the reference group is those who do not find a job. The tables report coefficients for the probability of finding a job and for the job characteristics.

5.1 Men

For men, column (1) of Table 2 suggests that the hazard ratio of finding a job is higher for comparatively longer searches (where the maximum observed here is four quarters). This positive duration dependence may be because it takes time to mobilise search resources and go through the job application process.² The hazard ratio increases with age (in a non linear way, peaking at 53 years). The hazard is also lower for men with no education and higher for homeowners. If homeownership is a proxy for wealth, this does not suggest that wealth delays the return to work. Other studies have found the opposite although the wealth effect is often small or imprecisely estimated (Lentz and Tranaes 2005, Lammers 2014).

Having a working partner increases the hazard and, although the hazard is lower during a recession the effect of having a working partner does not seem to differ between periods of growth and recession. All other characteristics of the partner seem to have a minimal or no impact on the hazard. These include the spouse's education, number of working hours and job tenure. To the extent that all of these variables are determinants of earnings, this may suggest that non-financial resources or networks are more important than income effects. To test this further we include measures of occupational wages in an extended specification in Section 6.

² Given our analysis only cover 4 quarters, this does not preclude negative duration dependence for longer spells, for example if skills depreciate.

Column (2) of Table 2 focuses on the probability of starting a new job as self-employed or of finding a paid job as opposed to remaining unemployed. A comparatively longer length of search is associated with an increase in the probability of finding employment - of any type - compared to not finding any job (consistent with the single-risk model of exit to employment). Age is strongly related to the probability of finding a paid job. The age profile peaks at 39 years, thus both older and younger individuals find paid employment less quickly than prime-age workers, possibly reflecting a weaker position in the labour market. In contrast, age has no effect on the probability of exit to self-employment. Having a working spouse has a positive impact on the probability of finding a paid job (as opposed to remaining unemployed), but no effect on becoming self-employed. On the other hand, spouses' education, but not her employment situation seems to have a positive impact on the probability of entering self-employment (as opposed to remaining unemployed). The impact here is statistically significant only at the ten percent level.

Apart from own education, the single largest predictor of leaving unemployment to become self-employed is being a homeowner rather than a renter. Homeownership also has a positive effect on the probability of getting a paid job, but it is smaller than for self-employment (although the difference is not statistically significant). The strong effect of home ownership may reflect its potential role in providing collateral to start a business (e.g. Johansson, 2000).

The recession has different impacts across the two job types and according to the presence of a working spouse. The recession has a large negative impact on the probability of finding a paid job but no effect on the probability of entering self-employment. This appears to confirm the suggestion that self-employment may be a route back into work for those who cannot get other paid employment. However, as shown by the interaction of recession and working spouse, the size of the recession effect on paid employment is reduced by about half for those who have a working spouse. Thus a working spouse seems to provide some shelter from the recession.

Column (3) of Table 2 focuses on the probability of finding a part-time or a full-time job as opposed to no job at all. Especially for men, a part-time job is likely to be a sub-optimal choice. Similar to the previous findings for paid employment in general, young and older job seekers are less likely to exit unemployment to a full-time job, but there is no age effect for exits to part-time work. Similarly, having educational qualifications seems to have a positive impact on the probability of finding a full-time job, but does not seem to have any impact on the probability of finding a part-time job. The probability of finding a full-time job

is higher if the spouse works and perhaps slightly decreasing with her job tenure, although this last variable is only statistically significant at the ten percent level. A working spouse also seems to have a positive impact on the probability of finding a part-time job, although there seems to be a negative impact of her working hours and a positive impact of her level of education. However, all three of these coefficients are only significant at the 10% level (perhaps because of a smaller sample size; only 194 men exit to part-time work compared to 1,268 exiting to full-time work). Homeowners seem to be comparatively more likely to find a full-time job, as opposed to a part-time or no job.

As for exits to paid employment in general, the recession had a negative impact on the probability of finding a full-time job, but this negative effect is again roughly halved for those men with a working spouse, consistent with the idea of a sheltering effect from a working partner. There is no effect of the recession on the probability of finding a part-time job, suggesting that it may be a fallback option for those who fail to get full-time employment.

Finally, column (4) of Table 2 focuses on the probability of finding a temporary or a permanent job as opposed to no job at all. Young and older job seekers are less likely to exit unemployment to a permanent job than are prime age job seekers, but unlike the finding for self-employment and part-time jobs, there is a similar age profile in exits to temporary work. Similarly, those with educational qualifications are more likely to exit to either type of job. Those with dependent children are less likely and while homeowners are more likely to find a permanent job. Having a working spouse has a positive impact on the probability of finding both a permanent and a temporary job, although for temporary jobs the level of statistical significance is only 10% (the difference between the two outcomes is not statistically significant). Also in this case none of the other spouse's characteristics seem to play any relevant role. The recession has a negative impact on the probability of finding a permanent, but not on the probability of finding a temporary job, again supporting the idea that it is a low-quality fallback option. In addition we again find that during the recession having a working spouse comparatively increases the probability of finding a 'high quality' permanent job, but has no additional impact on the probability of finding a 'low quality' temporary job.

Table 2: Probability of finding a job and characteristics of the job found -- Men

	(1)	(2)	(3)	(3)	(4)	(4)	
Reference: no job	Finds job	Finds self-employment	Finds paid job	Finds part-time job	Finds full-time job	Finds temporary job	Finds permanent job
Search duration	0.961*** (0.027)	1.378*** (0.079)	1.461*** (0.047)	1.430*** (0.088)	1.447*** (0.047)	1.319*** (0.064)	1.443*** (0.053)
Qualification (Ref: no qualifications)							
NVQ4 or more	0.284** (0.118)	0.982*** (0.348)	0.205 (0.154)	0.179 (0.309)	0.364** (0.155)	0.338 (0.234)	0.176 (0.183)
NVQ3	0.365*** (0.114)	1.038*** (0.344)	0.336** (0.146)	0.066 (0.305)	0.498*** (0.148)	0.455** (0.222)	0.316* (0.174)
NVQ2 or lower	0.381*** (0.113)	0.792** (0.345)	0.409*** (0.143)	0.250 (0.291)	0.482*** (0.146)	0.445** (0.221)	0.411** (0.170)
Other qualification	0.372*** (0.122)	0.874** (0.365)	0.383** (0.156)	0.291 (0.319)	0.479*** (0.158)	0.527** (0.237)	0.319* (0.186)
Age	0.106*** (0.029)	0.069 (0.071)	0.156*** (0.039)	0.127 (0.078)	0.148*** (0.039)	0.181*** (0.060)	0.160*** (0.047)
Age square	-0.001*** (0.000)	-0.001 (0.001)	-0.002*** (0.000)	-0.001 (0.001)	-0.002*** (0.000)	-0.002*** (0.001)	-0.002*** (0.001)
Partner's characteristics							
Has a job	0.402*** (0.117)	0.312 (0.291)	0.552*** (0.155)	0.585* (0.333)	0.483*** (0.152)	0.401* (0.238)	0.631*** (0.181)
Num. paid hours	-0.000 (0.003)	-0.004 (0.008)	-0.002 (0.004)	-0.016* (0.009)	-0.000 (0.004)	0.006 (0.006)	-0.005 (0.005)
Years job tenure	-0.009* (0.005)	-0.014 (0.012)	-0.010 (0.006)	-0.000 (0.013)	-0.012* (0.006)	-0.009 (0.009)	-0.013 (0.008)
NVQ4 or more	0.007 (0.098)	0.450* (0.262)	-0.014 (0.132)	0.465* (0.278)	-0.005 (0.131)	0.099 (0.192)	-0.092 (0.158)
NVQ3	0.084 (0.108)	0.507* (0.281)	0.017 (0.142)	0.371 (0.306)	0.058 (0.140)	0.153 (0.207)	-0.048 (0.171)
NVQ2 or lower	0.027 (0.087)	0.363 (0.238)	-0.025 (0.114)	0.145 (0.248)	0.020 (0.113)	-0.083 (0.169)	-0.014 (0.136)
Other qualification	0.010 (0.108)	0.299 (0.285)	-0.031 (0.142)	0.297 (0.293)	-0.041 (0.142)	-0.154 (0.217)	0.016 (0.168)

Age	-0.039 (0.025)	-0.052 (0.063)	-0.057* (0.034)	-0.149** (0.065)	-0.037 (0.034)	-0.050 (0.051)	-0.066 (0.041)
Age square	0.001* (0.000)	0.001 (0.001)	0.001** (0.000)	0.002** (0.001)	0.001 (0.000)	0.001 (0.001)	0.001* (0.000)
Dependent children	-0.111 (0.069)	0.001 (0.173)	-0.203** (0.092)	-0.168 (0.201)	-0.170* (0.090)	-0.167 (0.137)	-0.215** (0.109)
Homeowners	0.423*** (0.069)	0.745*** (0.180)	0.455*** (0.091)	0.026 (0.191)	0.575*** (0.090)	0.164 (0.134)	0.647*** (0.109)
Recession	-0.420*** (0.114)	-0.135 (0.241)	-0.748*** (0.155)	0.046 (0.260)	-0.770*** (0.153)	-0.366* (0.219)	-1.051*** (0.201)
Recession * partner has job	0.183 (0.133)	0.035 (0.292)	0.375** (0.180)	0.008 (0.325)	0.393** (0.178)	-0.105 (0.261)	0.764*** (0.228)
Intercept	-5.029*** (0.495)	-7.335*** (1.226)	-6.524*** (0.657)	-6.358*** (1.351)	-6.769*** (0.652)	-8.453*** (1.015)	-6.654*** (0.781)

Observations 7,218 7,218 7,216 6,944

Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies

5.2 Women

For women, column (1) of Table 3 suggests that the hazard increases with the duration of search while, in contrast to men, age and education do not seem to have any impact (Table 2). As for men, for women the hazard is higher for homeowners, but is also lower if there are dependent children in the household. Among the characteristics of the spouse, only having a job seems to have an impact on the hazard and, although the hazard is lower during a recession, there seem to be no additional difference between those whose spouse works and those whose spouse does not work.³

Column (2) of Table 3 focuses on the probability of finding a part-time or a full-time job as opposed to no job at all. Similar to the previous outcomes, also in this case a longer length of search seems to translate into a higher probability of finding a job. The most important factor, in this case, is whether the respondent's previous job was part-time, which we control for to avoid the risk that the other coefficients are capturing working hours preferences. This increases the probability of finding a part-time job, and decreases the probability of finding a full-time job. As expected, the presence of dependent children in the household has a negative impact on the probability of finding a full-time job, while homeownership has a positive impact. A working spouse increases the probability of finding both part- and full-time jobs. However, there is no (significant) effect of the recession on finding either type of job, and also no differential impact for those whose spouse works.

Column (3) of Table 3 focuses on the probability of finding a temporary or a permanent job as opposed to no job at all. While women with the highest level of education seem more likely to find a temporary job, education does not seem to have any relevant impact on the probability of finding a permanent job. In contrast to men, those with dependent children are less likely to find a temporary job, while homeowners are more likely to find either a temporary or a permanent job. Having a working spouse has a positive impact on the probability of finding both a permanent and a temporary job, while none of the other spouse's characteristics play a relevant role. Women are less likely to find a temporary job during a recession, but we find no additional impact of having a working spouse.

³ Small sample sizes do not allow us to analyse the probability of entering self-employment for women; the analysis of the probability of women finding a paid job is essentially the same as the analysis in the first column of Table 3 (finding a job).

Table 3: Probability of finding a job and characteristics of the job found -- Women

Reference: no job	(1) Finds job	(3) Finds part-time job full-time job		(4) Finds Temporary job Permanent job	
Search duration	1.026*** (0.040)	1.725*** (0.093)	1.717*** (0.093)	1.658*** (0.094)	1.683*** (0.087)
Qualification (Ref: no qualifications)					
NVQ4 or more	0.142 (0.153)	0.182 (0.252)	0.226 (0.267)	0.773*** (0.272)	-0.321 (0.242)
NVQ3	-0.025 (0.166)	-0.160 (0.279)	0.140 (0.285)	0.425 (0.294)	-0.418 (0.261)
NVQ2 or lower	-0.017 (0.139)	0.111 (0.224)	0.011 (0.249)	0.145 (0.260)	-0.103 (0.211)
Other qualification	-0.096 (0.171)	0.067 (0.273)	-0.109 (0.302)	-0.005 (0.318)	-0.110 (0.255)
Age	-0.034 (0.045)	-0.092 (0.076)	0.019 (0.072)	0.018 (0.080)	-0.068 (0.068)
Age square	0.000 (0.001)	0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)	0.001 (0.001)
Previous job part-time		1.421*** (0.157)	-1.199*** (0.167)		
Partner's characteristics					
Has a job	0.824*** (0.265)	0.981** (0.434)	1.046** (0.442)	0.957** (0.451)	0.857** (0.414)
Num. paid hours	-0.007 (0.005)	-0.001 (0.009)	-0.016* (0.009)	-0.009 (0.009)	-0.005 (0.008)
Years job tenure	0.001 (0.005)	0.004 (0.008)	-0.009 (0.009)	0.006 (0.009)	-0.004 (0.008)
NVQ4 or more	-0.086 (0.181)	-0.127 (0.294)	0.024 (0.304)	0.141 (0.330)	-0.137 (0.272)
NVQ3	0.201 (0.179)	0.073 (0.293)	0.359 (0.304)	0.433 (0.331)	0.136 (0.269)
NVQ2 or lower	0.061 (0.180)	-0.130 (0.295)	0.249 (0.303)	0.041 (0.340)	0.111 (0.266)
Other qualification	-0.094 (0.196)	-0.287 (0.322)	0.099 (0.329)	0.247 (0.355)	-0.338 (0.297)
Age	0.024 (0.043)	0.033 (0.073)	0.026 (0.068)	-0.030 (0.074)	0.080 (0.067)
Age square	-0.000 (0.000)	-0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)
Dependent children	-0.192** (0.091)	0.174 (0.169)	-0.631*** (0.159)	-0.346** (0.160)	-0.169 (0.144)
Homeowners	0.369*** (0.115)	0.428** (0.193)	0.574*** (0.186)	0.587*** (0.209)	0.380** (0.169)
Recession	-0.513* (0.305)	-0.754 (0.530)	-0.594 (0.473)	-1.117** (0.564)	-0.606 (0.457)
Recess.*partner has job	0.303 (0.317)	0.175 (0.555)	0.600 (0.493)	0.746 (0.585)	0.345 (0.479)
Intercept	-3.845*** (0.744)	-6.438*** (1.261)	-5.944*** (1.240)	-6.490*** (1.335)	-5.422*** (1.153)
Observations	3,133	3,131		3,097	

Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies

Overall, the results so far indicate a number of differences between women and men. First, women's transitions out of unemployment and into work are barely affected by their personal resources or human capital as captured by their age or level of education. For men, these variables are strong predictors of their return to work. Second, being a homeowner is associated with a higher probability of women leaving unemployment across all job types. For men, it affects only transitions into 'higher quality' jobs (as well as self-employment, probably via a loan collateral effect). Third, there is strong evidence that the recession delayed men's re-entry into 'higher quality' (but not 'lower quality') jobs, but that having a working spouse substantially mitigated these effects. In contrast, there is much less evidence the recession affected women's transitions out of unemployment.

Similarities across the sexes also emerge. For both men and women, having a working spouse increases the chance of leaving unemployment (although again for men, the estimates are most precise for exits to 'higher quality' jobs). Second, the presence of children delays the return to work – for women to full-time or temporary [check] jobs in particular, and for men into 'higher quality' jobs (paid employment, full-time and permanent jobs). This may be because children restrict residential mobility (Rabe 2011) which may be needed to take up a good job offer.

6. Extensions

One dimension of partner resources not so far tested explicitly is wages. While the partner's education, hours of work and job tenure are all weak proxies for the wage rate the partner may receive in the job, they also capture broader labour market or network resources. To try to disentangle wage (income) effect from broader resource effects, we match in partner wages using two alternative methods. The first method involves imputation from the existing data. The LFS includes data on hourly wages; these, however, are asked only in the first and fifth interview. Hence, it is not possible to include partner's wages directly among the explanatory variables in equations (1) and (2) without reducing the sample size significantly. However, we can increase the sample size by imputing wage data (collected in the first interview) to the second, third and fourth interviews under the assumption that wages do not change significantly in five quarters. In case of job changes in the period considered, wage data collected from the first interview (if available) are imputed to all quarters before the job

change, and wage data collected from the fifth interview are imputed to all quarter after the job change.

Including individual hourly wages of the partner among the explanatory variables does not seem affect the results significantly. Having a partner with a job has a positive and statistically significant impact while partner's wages do not have a statistically significant impact. The only exception is on the probability of finding a full-time job: men whose spouses earn higher wages are comparatively less likely to find a full-time job or a temporary job; this last impact, however, is statistically significant only at the 10 percent level (see the Appendix, Table A1). For women, spouse's wages do not seem to have any impact at all (Table A2).

As an alternative, we use data from the Annual Survey of Hours and Earnings (ASHE) to compute average wages in the occupation of the partner. The large number of observations in ASHE allows us to compute average wages by year for two-digit level occupations (approximately 80 groups) and for period 1997-2013. This allows us to retain a larger sample as we can associate a wage to all workers for whom we have information on the occupation in which they work, with the caveat that the occupational wage gives only an indication of the possible wage rate the worker may receive.

The inclusion of average wages in the occupation of the partner among the explanatory variables does not have an influence on the results except in the case of full-time jobs: men whose partner works in an occupation with comparatively higher average wages are less likely to find a full-time job as opposed to no job (see Table A3 for men and Table A4 for women). The impact is statistically significant only at the 10 percent level, but it is consistent with the result for exit into full-time work using the LFS wage measure. This may therefore constitute weak evidence in favour of the hypothesised negative income effect, but we do not push this result given the lack of precision and that we only find it for one type of exit from unemployment.

By way of comparison, Jacob and Kleinert (2014) also find only weak partner income effects (contrary to their expectations that income would dominate the effects of other partner resources). Lentz and Tranaes (2005) and Marcassa (2014) both find partner income effects (negative, as conventionally expected, for unemployed women and positive for unemployed men), but their studies do not separately control for the partner's employment status, and so the income effect may be confounded with the partner employment effect.

In view of the strong and robust association between having an employed partner and a faster return to work (and to higher quality work for men), we next consider the possible

mechanism behind this effect. As already suggested, employed partners may offer access to contacts or information about available jobs, or provide moral support or soft skills. The data about these possible channels are limited but the LFS does contain information about the search methods used by job seekers. The single most common method is to search via job adverts in newspapers but there is also a measure of using contacts among friends and family. To test for these channels we estimate two additional models: the first includes separate dummy indicators for use of newspapers or networks (friends and family) as the main search method (with the reference category being any other search method); while the second focuses on any use of networks as main or additional search method and includes a dummy indicator for using them (versus not using them) together with an interaction of the network dummy with the dummy for an employed partner.

The estimates of the key coefficients from these extended models are very imprecise and generally do not reach statistical significance, but to the extent we can draw tentative conclusions it appears that using either newspapers or networks as a main method leads to a faster exit from unemployment; and that networks mainly benefit those with an employed partner. Thus it is possible that an employed partner enhances employment chances through the more effective use of networks.

7. Summary and conclusions

Rather than looking at couples' reactions to job loss through the lens of the labour supply of the unaffected partner, in this paper we have focussed on how quickly the original earner returns to work. Particularly if the other partner has weak labour market attachment, the original earner may be the one who is better placed to get back into work and restore household equilibrium. Unconditional survival estimates indicate that around half of those couple members who lost their jobs are back in work within 6 months. This 'own worker' effect is an order of magnitude larger than the typical AWEs estimated by previous studies, suggesting that the dominant reaction of couples is to try to get the original earner back into work as soon as possible.

The return process is greatly aided by the other partner being in work, although not in general by other measures of the partner's labour market attachment (hours of work and job tenure) or resources (wage and education). Theoretically we expect a partner's income to slow down job re-entry (because the unemployed spouse can afford to search for longer) while we expect other labour market resources to help the return to work. In fact we find very

little evidence of a direct effect of a partner's wage on job re-entry (although the one significant estimate is negative). And we find weak or non-existent effects of other labour market resources (though the effect signs are also generally in line with expectations, i.e. positive). Other studies have found partner resource effects on employment outcomes, although in the study closest to ours, Jacob and Kleinert (2014), they are rather weak. Instead of measured resources what seems to count is the fact of the partner being in any sort of work. A possible mechanism is that a working partner provides contacts and information about job opportunities (or helps the job seeker exploit existing networks) or assists with interview skills or offers moral support – however, we were not able to test these channels precisely.

The effect of a partner's employment also differs (for men) across jobs that may be considered low and high quality. Having an employed partner does not increase the chances of leaving unemployment to become self-employed (the dominant couple-level factor is being a homeowner) but is strongly associated with faster return to paid employment. Also, having an employed partner seems to raise the likelihood of finding a permanent rather than a temporary job. Furthermore while the recession lowered men's chances of getting back into high-quality work, having a working partner partially reversed these effects. Thus, particularly during recession, an employed partner seems to improve access to high-quality jobs whilst enabling people to avoid low-quality jobs. For women the picture is somewhat different. Having an employed partner is still associated with a greater likelihood of job re-entry but there was no differential effect during the recession, which also had less impact on women's job re-entry. This may reflect the fact that the recession mainly affected sectors such as construction that disproportionately employed men.

Studies of couples' reactions to job loss are often motivated by the idea that household members can insure each other against employment shocks by increasing their labour supply, but in practice such an AWE has proved surprisingly difficult to find. In this paper, we have turned the focus on to the behaviour of the spouse who lost their job. We have found that not only are they likely to return to work relatively quickly, and so restore the household equilibrium, but this process is greatly aided by having an employed partner. Thus it appears that, rather than a non-employed partner being a potential source of insurance via the AWE, a more effective insurance mechanism is to have an employed partner – not only do their earnings provide a cushion in case of job loss, but they help with re-entry of the unemployed spouse into the labour market. While this is good news for dual earner couples, the flipside is that single earner families may get trapped in a cycle of low-quality jobs and no jobs leading

to a decrease in household income over time. There is also the potential for increasing work polarisation into work-rich and work-poor households.

References

- Bell, David N.F. and Blanchflower, David G. (2011), "Underemployment in the UK in the Great Recession", *National Institute Economic Review*, 215(1):R23-R33.
- Bernardi, Fabrizio (1999), "Does the Husband Matter? Married Women and Employment in Italy", *European Sociological Review*, 15:285–300.
- Bernasco, Wim, de Graaf, Paul M. and Ultee, Wout C. (1998), "Coupled Careers—Effects of Spouse's Resources on Occupational Attainment in the Netherlands", *European Sociological Review*, 14:15–31.
- Bingley, Paul, and Walker, Ian (2001), "Household Unemployment and the Labour Supply of Married Women", *Economica*, 68(270): 157-185.
- Bloemen, Hans G., and Stancanelli, Elena G. F. (2001), "Individual Wealth, Reservation Wages, and Transitions into Employment", *Journal of Labor Economics*, 19:400–439.
- Boheim, Rene and Taylor, Mark P. (2000), "The search for success: do the unemployed find stable employment?", ISER Working Paper 2000-05, Colchester: University of Essex.
- Brynin, M. and Francesconi, M. (2004) "The Material Returns to Partnership: The Effects of Educational Matching on Labour Market Outcomes and Gender Equality", *European Sociological Review* 20(4): 363–77.
- Burdett, K., and Mortensen, D. (1977), "Labor Supply under Uncertainty", in Ehrenberg, R.G. (Ed.), *Research in Labor Economics*, JAI Press, New York, pp.109–158.
- D'Arcy, Conor and Gardiner, Laura (2014), *Just the job – or a working compromise? The changing nature of self-employment in the UK*. London: Resolution Foundation.
- Gong, Xiadong (2011), "The Added Worker Effect for Married Women in Australia", *Economic Record*, 87(278): 414–426
- Guler, B., F. Guvenen, and Violante G. (2012), "Joint-Search Theory: New Opportunities and New Frictions. *Journal of Monetary Economics*", 59(4): 352-369.
- Jacob, Marita and Kleinert, Corinna (2014), "Marriage, gender, and class. The effects of partner resources on unemployment exit in Germany", *Social Forces*, 92 (3): 839–871.
- Johansson, Edvard (2000) "Self-employment and Liquidity Constraints: Evidence from Finland", *Scandinavian Journal of Economics*, 102(1), 123-134.

- Juhn, Chinhui and Potter, Simon (2007), “Is There Still an Added Worker Effect?”, Federal Reserve Bank of New York Staff Report no. 310.
- Kohara, Miki (2010), “The Response of Japanese Wives’ Labour Supply to Husbands’ Job Loss”, *Journal of Population Economics*, 23: 1133–1149.
- Lammers, Marloes (2014), “The effects of savings on reservation wages and search effort”, *Labour Economics*, 27: 83–98.
- Layard, R., Barton, M. and Zabalza, A. (1980), “Married Women’s Participation and Hours,” *Economica*, 47(185): 51-72.
- Lentz, Rasmus and Tranæs, Torben (2005), “Marriage, Wealth, and Unemployment Duration: A Gender Asymmetry Puzzle”, IZA Discussion Paper No. 1607.
- Lin, N., Vaughn, J.C. and Ensel, W.M. (1981), “Social Resources and Occupational Status Attainment”, *Social Forces* 59(4): 1163–81.
- Lundberg, Shelly (1985), “The Added Worker Effect”, *Journal of Labor Economics*, 3(1): 11-37.
- Marcassa, Stefania (2014), “Unemployment Duration of Spouses: Evidence From France” *LABOUR: Review of Labour Economics and Industrial Relations*, 28(4): 399–429.
- Meyer, Bruce D. (1990), “Unemployment Insurance and Unemployment Spells”, *Econometrica*, 58(4): 757–82.
- Maloney, Tim (1991), “Unobserved Variables and the Elusive Added Worker Effect”, *Economica*, 58(230): 173-187.
- Mattingly, Marybeth J. and Smith, Kristin E. (2010), “Changes in Wives’ Employment When Husbands Stop Working: A Recession-Prosperity Comparison”, *Family Relations* 59: 343–357.
- ONS (2014), *Self-employed workers in the UK – 2014*.
- Rabe, Birgitta (2011), “Dual-earner migration. Earnings gains, employment and self-selection”, *Journal of Population Economics*, 24(2):477–497.
- Rogerson, Richard, Shimer, Robert and Wright, Randall (2005), “Search-Theoretic Models of the Labor Market: A Survey”, *Journal of Economic Literature*, 43: 959–988

Verbakel, Ellen and de Graaf, Paul M. (2009), "Partner Effects on Labor Market Participation and Job Level: Opposing Mechanisms." *Work, Employment, and Society*, 23:635–54.

Appendix

Table A1: Probability of finding a job and job quality (partner's wages from LFS) -- Men

Reference: no job	(1) Finds job	(2) Finds temporary job	(2) Finds permanent job	(3) Finds part-time job	(3) Finds full-time job	(4) Finds self- employment	(4) Finds paid job
Search duration	0.930*** (0.028)	1.283*** (0.067)	1.375*** (0.056)	1.405*** (0.092)	1.392*** (0.049)	1.338*** (0.080)	1.407*** (0.050)
Qualification (Ref: no qualifications)							
NVQ4 or more	0.402*** (0.117)	0.574** (0.229)	0.157 (0.181)	0.385 (0.300)	0.527*** (0.153)	1.482*** (0.350)	0.288* (0.152)
NVQ3	0.376*** (0.117)	0.494** (0.227)	0.232 (0.178)	0.199 (0.309)	0.516*** (0.152)	1.301*** (0.354)	0.321** (0.150)
NVQ2 or lower	0.427*** (0.115)	0.443** (0.225)	0.410** (0.173)	0.212 (0.299)	0.552*** (0.149)	1.067*** (0.355)	0.423*** (0.146)
Other qualif.	0.418*** (0.127)	0.542** (0.247)	0.373* (0.193)	0.507 (0.324)	0.511*** (0.166)	1.015*** (0.386)	0.436*** (0.163)
Age	0.081*** (0.024)	0.173*** (0.049)	0.113*** (0.038)	0.017 (0.063)	0.131*** (0.031)	0.042 (0.056)	0.125*** (0.032)
Age square	-0.001*** (0.000)	-0.002*** (0.001)	-0.002*** (0.000)	-0.000 (0.001)	-0.002*** (0.000)	-0.000 (0.001)	-0.002*** (0.000)
Partner's characteristics							
Has a job	0.567*** (0.124)	0.629** (0.254)	0.748*** (0.198)	0.810** (0.349)	0.702*** (0.163)	0.789*** (0.287)	0.705*** (0.168)
Num. paid hours	-0.005 (0.003)	0.001 (0.007)	-0.010* (0.006)	-0.020** (0.010)	-0.005 (0.005)	-0.007 (0.008)	-0.006 (0.005)
Wage (if paid job)	-0.008 (0.005)	-0.020* (0.012)	-0.008 (0.008)	-0.003 (0.013)	-0.013** (0.007)	-0.017 (0.012)	-0.010 (0.007)
Dependent children	-0.161** (0.071)	-0.171 (0.144)	-0.386*** (0.114)	-0.205 (0.206)	-0.229** (0.093)	0.144 (0.171)	-0.314*** (0.096)
Homeowner	0.385*** (0.072)	0.127 (0.141)	0.605*** (0.115)	0.087 (0.198)	0.502*** (0.094)	0.629*** (0.181)	0.410*** (0.096)
Recession	-0.416*** (0.111)	-0.391* (0.214)	-1.001*** (0.197)	0.151 (0.249)	-0.748*** (0.149)	-0.092 (0.234)	-0.718*** (0.151)
Recession * partner has job	0.258* (0.136)	0.087 (0.267)	0.794*** (0.233)	0.059 (0.334)	0.458** (0.181)	-0.011 (0.293)	0.453** (0.184)
Intercept	-5.122*** (0.506)	-9.189*** (1.066)	-6.695*** (0.801)	-6.581*** (1.374)	-6.970*** (0.668)	-7.626*** (1.219)	-6.800*** (0.679)
Observations	6,301	6,034		6,299		6,301	

Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies

Table A2: Probability of finding a job and job quality(partner's wage from LFS) -- Women

Reference: no job	(1) Finds job	(2) Finds temporary job	(2) Finds Permanent job	(3) Finds part-time job	(3) Finds full-time job
Search duration	1.007*** (0.041)	1.697*** (0.099)	1.678*** (0.091)	1.736*** (0.097)	1.756*** (0.098)
Qualification (Ref: no qualifications)					
NVQ4 or more	0.154 (0.151)	0.931*** (0.288)	-0.498** (0.236)	0.191 (0.248)	0.125 (0.262)
NVQ3	-0.040 (0.167)	0.485 (0.321)	-0.500* (0.258)	-0.166 (0.284)	0.031 (0.285)
NVQ2 or lower	-0.006 (0.142)	0.403 (0.284)	-0.220 (0.211)	0.032 (0.235)	-0.026 (0.252)
Other qualification	-0.036 (0.181)	0.279 (0.361)	-0.271 (0.273)	0.117 (0.295)	-0.179 (0.322)
Age	-0.036 (0.036)	-0.032 (0.064)	-0.052 (0.056)	-0.097 (0.060)	0.016 (0.060)
Age square	0.000 (0.000)	0.000 (0.001)	0.000 (0.001)	0.001* (0.001)	-0.001 (0.001)
Previous job was part-time				1.398*** (0.166)	-1.343*** (0.177)
Partner's characteristics					
Has a job	0.708*** (0.256)	0.599 (0.451)	0.751* (0.409)	1.147*** (0.423)	0.538 (0.443)
Num. paid hours	-0.001 (0.005)	-0.002 (0.009)	0.003 (0.008)	0.000 (0.008)	-0.002 (0.009)
Wage (if paid job)	-0.008 (0.005)	0.008 (0.009)	-0.013 (0.009)	-0.010 (0.009)	-0.001 (0.009)
Dependent children	-0.094 (0.093)	-0.338** (0.167)	0.029 (0.150)	0.273 (0.174)	-0.480*** (0.166)
Homeowners	0.354*** (0.117)	0.698*** (0.225)	0.338* (0.174)	0.530*** (0.198)	0.436** (0.193)
Recession	-0.596** (0.292)	-1.166** (0.550)	-0.709 (0.439)	-0.905* (0.521)	-0.664 (0.453)
Recession * partner has job	0.379 (0.307)	0.705 (0.575)	0.407 (0.465)	0.368 (0.545)	0.480 (0.479)
Intercept	-3.145*** (0.698)	-5.930*** (1.266)	-3.982*** (1.092)	-5.654*** (1.207)	-4.837*** (1.166)
Observations	2,759	2,715		2,757	

Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies

Table A3: Probability of finding a job and job quality (partner's wage from ASHE) -- Men

Reference: no job	(2) Finds job	(2) Finds temporary job	Finds permanent job	(3) Finds part-time job	Finds full-time job	(4) Finds self- employment	Finds paid job
Search duration	0.966*** (0.029)	1.312*** (0.069)	1.454*** (0.057)	1.448*** (0.096)	1.447*** (0.050)	1.396*** (0.086)	1.461*** (0.051)
NVQ4 or more	0.290** (0.130)	0.382 (0.257)	0.146 (0.200)	-0.038 (0.329)	0.415** (0.170)	1.036*** (0.387)	0.196 (0.168)
NVQ3	0.354*** (0.126)	0.485** (0.246)	0.301 (0.192)	-0.161 (0.333)	0.522*** (0.164)	1.024*** (0.384)	0.326** (0.161)
NVQ2 or lower	0.381*** (0.123)	0.497** (0.240)	0.397** (0.184)	0.147 (0.304)	0.513*** (0.160)	0.819** (0.381)	0.409*** (0.155)
Other qualification	0.361*** (0.134)	0.495* (0.263)	0.371* (0.203)	0.251 (0.338)	0.492*** (0.175)	0.823** (0.411)	0.395** (0.171)
Age	0.105*** (0.032)	0.204*** (0.064)	0.161*** (0.050)	0.183** (0.087)	0.152*** (0.042)	0.072 (0.079)	0.169*** (0.042)
Age square	-0.001*** (0.000)	-0.002*** (0.001)	-0.002*** (0.001)	-0.002* (0.001)	-0.002*** (0.000)	-0.001 (0.001)	-0.002*** (0.000)
Partner's characteristics							
Has a job	0.400*** (0.138)	0.504* (0.279)	0.607*** (0.214)	0.289 (0.396)	0.552*** (0.180)	0.273 (0.349)	0.582*** (0.182)
Num. paid hours	-0.001 (0.004)	0.004 (0.007)	-0.005 (0.006)	-0.021* (0.011)	0.000 (0.005)	-0.004 (0.009)	-0.002 (0.005)
Wage in occupation	-0.008 (0.009)	-0.020 (0.018)	-0.009 (0.014)	0.035 (0.023)	-0.019* (0.012)	0.002 (0.021)	-0.014 (0.012)
Years job tenure	-0.007 (0.005)	-0.009 (0.010)	-0.009 (0.008)	0.001 (0.013)	-0.010 (0.007)	-0.015 (0.013)	-0.007 (0.007)
NVQ4 or more	-0.039 (0.113)	0.136 (0.221)	-0.112 (0.181)	0.328 (0.320)	0.002 (0.150)	0.329 (0.302)	-0.014 (0.151)
NVQ3	0.034 (0.117)	0.208 (0.222)	-0.111 (0.186)	0.330 (0.330)	0.027 (0.153)	0.352 (0.314)	0.002 (0.154)
NVQ2 or lower	-0.056 (0.095)	-0.155 (0.187)	-0.111 (0.149)	0.054 (0.270)	-0.047 (0.125)	0.331 (0.265)	-0.114 (0.125)
Other qualification	-0.167 (0.124)	-0.219 (0.242)	-0.152 (0.190)	0.087 (0.332)	-0.233 (0.162)	-0.204 (0.348)	-0.167 (0.160)
Age	-0.034 (0.027)	-0.058 (0.055)	-0.061 (0.043)	-0.184*** (0.070)	-0.033 (0.036)	-0.046 (0.070)	-0.060* (0.036)
Age square	0.000 (0.000)	0.001 (0.001)	0.001 (0.001)	0.002** (0.001)	0.000 (0.000)	0.000 (0.001)	0.001* (0.000)
Dependent children	-0.173** (0.074)	-0.270* (0.148)	-0.297** (0.117)	-0.164 (0.221)	-0.248** (0.097)	0.065 (0.192)	-0.296*** (0.099)
Homeowner	0.502*** (0.075)	0.262* (0.146)	0.723*** (0.118)	0.106 (0.210)	0.660*** (0.098)	0.870*** (0.204)	0.534*** (0.099)
Recession	-0.445*** (0.128)	-0.347 (0.249)	-1.105*** (0.220)	0.122 (0.311)	-0.806*** (0.172)	-0.049 (0.291)	-0.781*** (0.173)
Recession *	0.238* (0.128)	0.027 (0.249)	0.835*** (0.220)	0.018 (0.311)	0.485*** (0.172)	0.033 (0.291)	0.468** (0.173)

partner has job	(0.139)	(0.275)	(0.238)	(0.353)	(0.187)	(0.318)	(0.189)
Intercept	-5.052*** (0.550)	-8.852*** (1.132)	-6.755*** (0.867)	-7.021*** (1.536)	-6.889*** (0.726)	-7.663*** (1.398)	-6.734*** (0.731)
Observations	6,194	5,964		6,192			6,194

Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies, and dummies for the various occupational coding (SOC90 and SOC00)

Table A4: Probability of finding a job and job quality(partner's wage from ASHE) --

Women

Reference: no job	(1)	(2)		(3)	
	Finds job	Finds temporary job	Finds permanent job	Finds part-time job	Finds full-time job
Search duration	1.022*** (0.044)	1.650*** (0.103)	1.706*** (0.094)	1.690*** (0.101)	1.775*** (0.101)
Qualification (Ref: no qualifications)					
NVQ4 or more	0.037 (0.176)	0.686** (0.309)	-0.389 (0.271)	0.231 (0.289)	-0.020 (0.299)
NVQ3	-0.093 (0.189)	0.368 (0.334)	-0.414 (0.291)	-0.146 (0.319)	0.026 (0.319)
NVQ2 or lower	-0.085 (0.159)	0.053 (0.295)	-0.135 (0.237)	0.200 (0.260)	-0.196 (0.276)
Other qualification	-0.098 (0.197)	0.062 (0.365)	-0.031 (0.289)	0.155 (0.323)	-0.123 (0.340)
Age	-0.035 (0.050)	-0.044 (0.086)	-0.027 (0.075)	-0.086 (0.084)	0.006 (0.079)
Age square	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.001 (0.001)	-0.000 (0.001)
Previous job was part-time				1.339*** (0.170)	-1.415*** (0.186)
Partner's characteristics					
Has a job	0.607** (0.304)	0.623 (0.525)	0.728 (0.475)	0.892* (0.501)	0.391 (0.511)
Num. paid hours	-0.002 (0.006)	-0.002 (0.010)	0.002 (0.009)	0.001 (0.009)	-0.004 (0.010)
Wage in occupation	0.000 (0.011)	0.001 (0.019)	-0.018 (0.018)	0.009 (0.018)	-0.001 (0.018)
Years job tenure	-0.002 (0.006)	0.003 (0.010)	-0.007 (0.009)	-0.006 (0.009)	-0.006 (0.010)
NVQ4 or more	-0.059 (0.210)	0.332 (0.400)	-0.131 (0.310)	-0.160 (0.339)	0.015 (0.347)
NVQ3	0.240 (0.208)	0.656 (0.400)	0.140 (0.307)	0.039 (0.341)	0.384 (0.345)
NVQ2 or lower	0.059 (0.202)	0.230 (0.399)	-0.010 (0.294)	-0.123 (0.332)	0.136 (0.333)
Other qualification	-0.103 (0.224)	0.392 (0.424)	-0.524 (0.338)	-0.538 (0.379)	0.092 (0.365)
Age	-0.000 (0.047)	-0.028 (0.082)	0.038 (0.073)	-0.016 (0.081)	0.011 (0.074)
Age square	-0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	0.000 (0.001)	-0.000 (0.001)
Dependent children	-0.146 (0.099)	-0.314* (0.175)	-0.066 (0.155)	0.261 (0.185)	-0.477*** (0.173)
Homeowners	0.464*** (0.128)	0.774*** (0.237)	0.514*** (0.187)	0.526** (0.218)	0.718*** (0.206)
Recession	-0.723** (0.325)	-1.137* (0.594)	-0.944* (0.493)	-0.948* (0.569)	-0.971* (0.506)
Recession * partner has job	0.421 (0.328)	0.799 (0.602)	0.515 (0.499)	0.229 (0.571)	0.817 (0.514)

Intercept	-3.010*** (0.837)	-5.530*** (1.507)	-4.841*** (1.301)	-5.182*** (1.430)	-4.970*** (1.405)
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Observations	2,631	2,600	2,629
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Standard errors in parenthesis; * Significant at 10%, ** Significant at 5%, *** Significant at 1%; other explanatory variables: region dummies, and dummies for the various occupational coding (SOC90 and SOC00)