

## Briefing

June 2011

# Older workers and 'job blocking'

## 1. The 'lump of labour fallacy'

There is an ongoing assumption that older workers prevent younger people from entering the labour force and progressing their careers. However, although in some circumstances this may seem intuitive, there is actually no evidence to reinforce this view. The idea that older workers are crowding younger workers out of the labour market is one derivation of the 'lump of labour fallacy', which refutes the idea that there is only a fixed amount of work in the economy to be shared out. This briefing examines the evidence on this topic, demonstrates that the 'job blocking' notion is incorrect and therefore that policy efforts to extend working lives will have no adverse effect at the other end of the age spectrum.

The purpose of this paper is to examine the available evidence to clearly demonstrate this case and subsequently inform policy makers and commentators. We are absolutely not arguing against measures to deal with youth unemployment – this is a very real problem that causes significant economic and social harm, and policy makers are absolutely right to take measures to deal with it. But doing so to the detriment of older workers is not the right way to set about it.

Theories on the lump of labour, which help explain the ideas behind 'job blocking', first emerged in the late 19<sup>th</sup> century, and have been repeated many times since. They are often the first port of call whenever an economic dip occurs. There are plenty of international examples, ranging from the 1920s and the 2000s in the US in a bid to explain high unemployment rates; to the French shortened working week in the 1990s in order to free up jobs for young people; and the scares in the 1950s that automation in factories would lead to mass unemployment. Such fears have, on every occasion, been unfounded. A recent issue of *The Economist* magazine said:

*'Some fret that there will not be enough jobs to go around. This misapprehension, known to economists as the "lump of labour fallacy", was once used to argue that women should stay at home and leave all the jobs for breadwinning males. Now lump-of-labourites say that keeping the old at work would deprive the young of employment. The idea that society can become more prosperous by paying more of its citizens to be idle is clearly nonsensical. On that reasoning, if the retirement age came down to 25 we would all be as rich as Croesus.'*<sup>4</sup>

The view that there is a fixed amount of work in an economy is simply not true. Therefore, on a macroeconomic level, one worker doing a particular job does not displace another worker,

even though this may at first glance appear slightly counter-intuitive. As the international examples referred to later show, this view can be applied to many situations, which includes the younger versus older workers debate. To quote Banks et al of the Institute for Fiscal Studies:

*'The absurdity of this view in the long term is simply seen by considering the fact that the size of a country does not bear any relation to the share of the population unemployed.'*<sup>ii</sup>

In spite of widespread rejection of the 'lump of labour' theory, it still resurfaces in economic and wider policy debates from time to time. In the UK some commentators have again begun referring to it to explain the high rates of youth unemployment. But as this paper demonstrates, they are sorely mistaken.

## 2. Overview of the evidence

Research on the subject strongly indicates that 'job blocking' does not exist. Here we look at some of the main examples from the UK and around the world.

### **UK: The Job Release Scheme**

In 1970s Britain the prevailing view in policy circles was that older workers were directly responsible for high youth unemployment rates. The Job Release Scheme was introduced in 1977, aiming to incentivise women aged 59 and men aged 64 to take early retirement, and therefore – so the logic went – free up jobs for registered unemployed young people. It ran until 1988, with the qualifying criteria being altered on a regular basis.

However, the scheme failed to meet expectations. Analysis by Banks et al at the Institute for Fiscal Studies, shows that not only did youth unemployment fail to recover, but that over the period of the JRS there was no improvement in the unemployment rates of younger workers at all connected to the scheme – if anything, the research argues, the JRS had the opposite effect to that intended.

### **Other UK evidence**

The IFS paper also states that: 'When looking at the entire 1968-2005 period, labour force participation of the old is positively associated with employment of the young. Controlling for the business cycle reduces the magnitude but does not alter this positive association'.

Layard et al argued that the lump of labour fallacy is also a 'lump of output fallacy', in that unless output and productivity remain constant the amount of labour required will necessarily change.<sup>iii</sup> This can also be applied to our case.

The upturn in employment rates among older workers was, according to Disney and Hawkes (2003), mainly attributable to the upturn in the economic cycle.<sup>iv</sup> Even though the UK has been through a recession since then – where youth unemployment has indeed risen faster than that of older workers – employment rates still vary with the economic cycle. However, the economic downturn has been offset in recent years by the drive to extend working lives, although there is no evidence whatsoever that this has had any impact on youth unemployment. Ultimately, the economic cycle is the primary driver of unemployment rates for all age groups, although effects can differ.

The charts below show that the unemployment statistics in both absolute numbers and by rate for the 18-24 and 50+ age groups closely mirror each other. This defies what would be expected if older workers were crowding out the young, and reinforces the belief that the underlying economic conditions are the primary driver of unemployment.

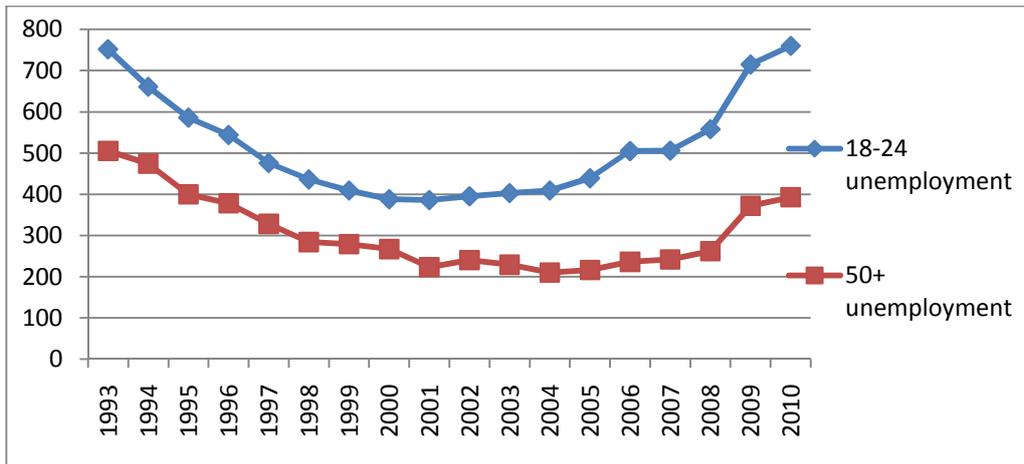


Chart 1: Numbers of unemployed by age group 1993-2010

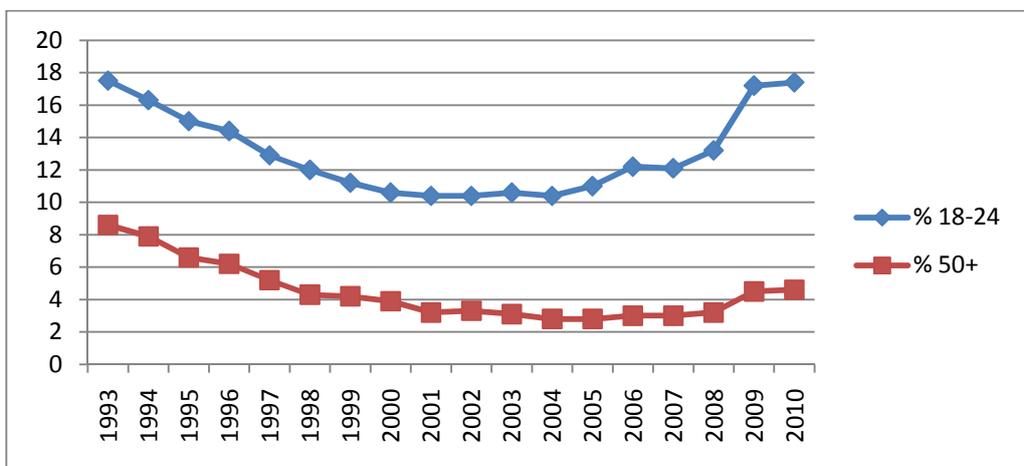


Chart 2: unemployment rates by age group, 1993-2010

### ***International evidence***

The National Bureau of Economic Research (2010)<sup>v</sup> published a very helpful roundup of international evidence on job blocking. Here are some brief examples of the findings of the various studies:

#### ***United States:***

'We develop a measure of the variation over time in the incentives for retirement of the elderly and relate that to the labor supply of both the elderly and younger workers. Overall, our data suggest little substitution across these groups.'

And: 'Our conclusion, therefore, is relatively weak. We find no consistent evidence of an impact of the employment of the elderly on the young or prime-aged in our sample.'<sup>vi</sup>

#### ***Canada:***

'We find little visual evidence that trends in elderly labor force participation have had an impact on the labor markets of the younger. Finally, our regression evidence has shown that—if anything—the employment of the young and prime-aged tends to move in the same direction as the elderly.'<sup>vii</sup>

*France:*

'Evidence of the correlation between youth labor market outcomes and old workers' labor force participation plead more in favor of a positive association between young and old workers in the labor market. An increase in the old workers' participation is indeed correlated with an increase in the employment rate of young workers and a decrease in their unemployment rate.'<sup>viii</sup>

*Germany:*

'Higher employment of older individuals is positively correlated with higher employment of the young... It is a fallacy to believe that there is a fixed lump of labor to be distributed among the young and the old: jobs for the old do not have to be taken away from the young.'<sup>ix</sup>

*Netherlands:*

'We do find, however, that both in ordinary regressions and in IV regressions employment of the elderly has a (marginally significant) positive effect on employment of the young and a negative effect on unemployment of the young. This suggests that attempts to improve the labor market perspectives of the young by encouraging the elderly to leave the labor market are likely to be counterproductive.'<sup>x</sup>

The evidence from across the world reinforces this view – Gruber and Wise provide us with more from Belgium, Sweden, Denmark, Italy, Japan, and Spain – and we find no evidence whatsoever to the contrary. The range of countries tested further proves the claim that the size of a country has no bearing on the relationship between younger and older workers.

### ***Youth unemployment***

Viewing the problem from the opposite end – i.e. youth unemployment – there is also no firm evidence that older workers remaining in employment present a problem. O'Higgins (1997) attributes youth unemployment primarily to a lack of aggregate demand, arguing that youth employment is more sensitive to this than employment of older workers. Blanchflower (1996) finds a weak relationship between youth employment and adult employment rates,<sup>xi</sup> indicating that different age groups are simply not substitutes for one another in the labour market. This could be because of different skill levels, and other factors such as the higher propensity for younger workers to resign their jobs – Blanchflower and Freeman (1996)<sup>xii</sup> found that in the US the average 16-25 year old holds 7-8 different jobs in this period, and although this trend is less prominent in the UK (at around 3 jobs per person), it is still considerably higher than for older workers. In the UK, people aged 50-64 have spent on average 13.7 years in their current employment, compared with those below 50 with an average of 6.3 years.<sup>xiii</sup> Interestingly, Moser (1986) shows the rate of voluntary resignations in the younger age group is less responsive to economic downturns than firms' hiring and firing,<sup>xiv</sup> which partly explains why younger workers' unemployment rates increase much more in a recession than for older age groups.

Jimego and Rodriguez-Palenzuela (2002) argue that youth unemployment rates are attributable to many factors, such as how effective the education system is at making people work-ready, the nature of some labour market institutions (for example unemployment benefits) and the role of the family within society. Workers of different age groups are, in their view, un-substitutable, and they do not indicate any sign that older workers can adversely affect youth employment.<sup>xv</sup> Gregg (2001) builds on this, stating that low attainment at school, behavioural characteristics and a disadvantaged family background all impact too.<sup>xvi</sup> Therefore, we can infer that longer term measures around the 'life chances' agenda are likely to reduce youth unemployment over the longer term, if implemented successfully.

In addition, there is more to youth unemployment than suggested by simply viewing the headline ONS data. Research by the Chartered Institute of Personnel and Development clearly shows that the ONS measures do not give the whole picture. Many young people who

are classed as unemployed are actually in education, and the real rate of 16-24 year olds who are not in employment, education or training is about 13 rather than 20 per cent.<sup>xvii</sup>

Evidence on unemployment outcomes shows that young people are indeed more likely to lose their jobs than older workers, but are also more likely to move into employment.<sup>xviii</sup> This implies a high transitional labour market: that young people are more likely to move into shorter term work placements and then move out again. Notions of a core block of youths not in employment, education or training (NEET) are inaccurate. Among 16-24 year olds there is also a high transition between work/unemployment and learning, often in a cyclical fashion. In many cases people in the younger age group are simply working out what suits them best, and what will hold them in good stead for the future.

There is a wealth of evidence explaining that younger and older workers are imperfect substitutes in terms of both human capital and production. This theme has been examined repeatedly and successfully, for example by Freeman (1979)<sup>xix</sup>, Lahey (2005)<sup>xx</sup>, Kapteyn A, de Vos K, Kalwij A (2009)<sup>xxi</sup>, Kremer and Thomson (1998),<sup>xxii</sup> and Roger and Wasmer (2009)<sup>xxiii</sup> to such a degree that it is now usually used as an assumption in economic modelling.

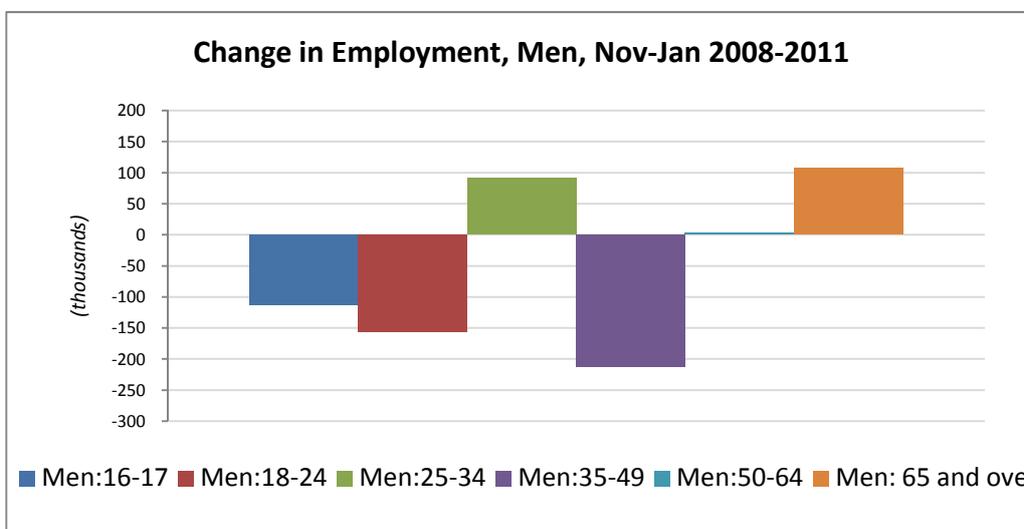
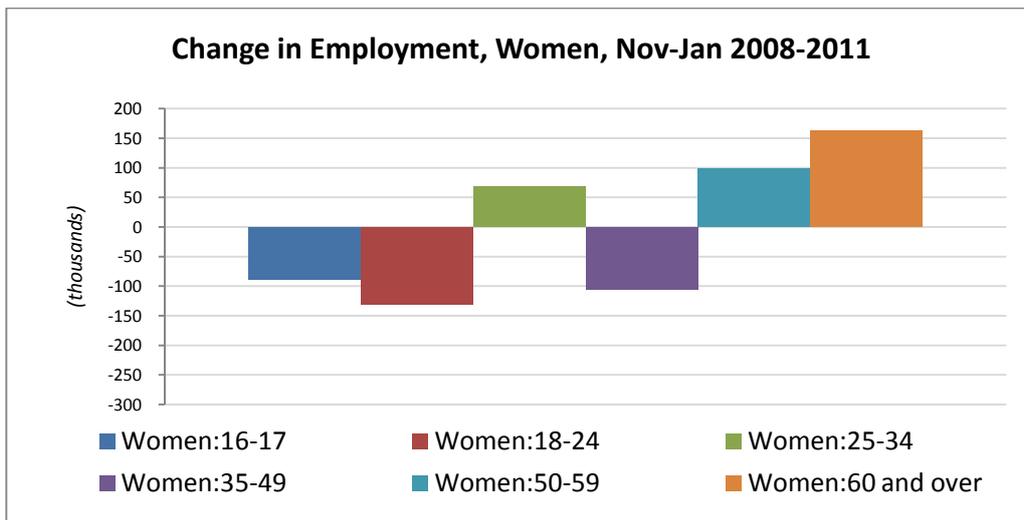
### ***Alternative view***

There is no substantive evidence to support the 'lump of labour' theory, in particular from the 'job blocking' perspective. Aside from the un-evidenced claims within the policy and political debates, the pre-eminent critic is Tom Walker, who doesn't refute the idea of a fallacy completely but only in relation to shorter-working time, i.e. the same as the 35 hour working week policy followed by the French Government from the late 1990s. Walker claims that restricting the working week does not result in less output, and instead allows firms (when incentivised by their government) to hire more labour, therefore creating more jobs.<sup>xxiv</sup> He refers in particular to the assumptions made by economists that workers and hours are perfect substitutes, and that current working arrangements are optimal – he refutes these.<sup>xxv</sup> However, while this makes clear his belief that there are diminishing returns to working longer hours (which may or may not be correct – there is plenty of disagreement here), this bears no relation to the age of the worker.

There is genuinely minimal evidence that supports the lump of labour, especially in the context in which we examine it.

## **3. Unemployment and employment**

As we have seen, the idea that there is a fixed amount of work within an economy is completely untrue. That there is often a correlation between high employment rates for older and younger workers demonstrates clearly that, regardless of the type of work, a strong economy is the key ingredient for anyone to be in employment. In a modern capitalist economy, this underpins the labour market.



The charts above show the overall picture over the last three years, with a rise in the number of older workers. However, such data shows only superficial changes to the labour markets, and neglects both structural changes to the labour market and the characteristics of each age group. The 2008-11 data illustrates no more than older workers have fared better through the recent economic downturn. As with much of the recent commentary on older workers crowding out younger workers, the charts reflect absolute figures, and do not show the proportion of each cohort who are working. Therefore, among older workers the change fails to reflect the increased numbers of 50+ workers who are economically active – and the decrease in younger workers.

Furthermore, if we look at particular quarters younger age groups do better. For example from November 2010 to January 2011, 192,000 additional people aged 25-34 were in employment compared to the same period one year earlier. This compares to 123,000 more people in employment aged over state pension age. This shows a different picture to the three year trend.

The more detailed statistics published by the ONS on 65+ working are also of interest. The chart below shows that 83 per cent of 65+ workers had been in their current employment for five years or more (see Figure 1, below).<sup>xxvi</sup> This clearly indicates that this cohort is not taking new jobs but continuing in their existing employment. It rebuts claims that older workers undergoing an end-of-career transition are taking low skilled 'bridge jobs', which some commentators claim would have gone directly to younger workers. This claim, as we

have shown, in any case is the lump of labour fallacy in action, but even the basis for such a claim is highly disputable!

These statistics also indicate that taking quarterly snapshots of the situation does not tell the whole picture. For example, someone who is 64 and employed in quarter one, may turn 65 and stay in work for the quarter two statistics. He/she is not taking a new job. Such demographic micro-changes are hidden beneath the data. The complex nature of the labour market makes it impossible to draw such conclusions from a set of top-level statistics.

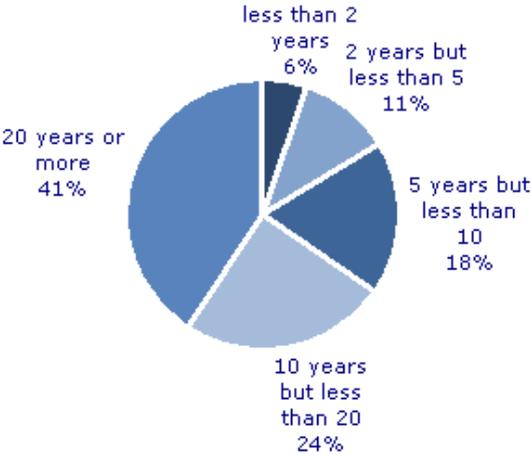


Figure 1 (source: ONS)

## 4. Conclusion

In spite of the overall argument of this briefing, it is important to remember that younger workers do indeed have a difficult time in the labour market. Higher rates of unemployment for this age group persist in spite of continued Government policies over many years, and the issue rightly remains a political priority. The Government has continued to invest in initiatives to help younger people who are 'NEET', in particular through training schemes. The extra money that has gone into apprenticeships over the past five years – a theme continued in the 2011 Budget – will help many young people, but such efforts have not proven to be enough, while other initiatives from central and local government have not had the desired effect.

In addressing this concern, it is vital the Government and the political/policy commentariat remember that there is and never has been any direct competition for jobs between older and younger workers – older workers certainly do not crowd out 16-24 year olds from the labour force – and that high employment rates for one group are correlated with high rates for the other linked by the performance of the national economy.

Christopher Brooks / June 2011

## References:

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- <sup>i</sup> The Economist (9 April 2011), p.13
- <sup>ii</sup> Banks et al (2008) 'Releasing jobs for the young? Early retirement and youth unemployment in the UK'. Institute for Fiscal Studies Working Paper W10/02
- <sup>iii</sup> Layard, R., Nickell, S. and Jackman, R. (1991), *Unemployment. Macroeconomic Performance and the Labor Market*, Oxford University Press
- <sup>iv</sup> Disney R & Hawkes D (2003), Why has employment recently risen among older workers in Britain?
- <sup>v</sup> NBER (2010), Social Security Programs and Retirement around the World. Edited by Gruber J and Wise D, National Bureau of Economic Research. The University of Chicago Press
- <sup>vi</sup> Gruber J and Milligan K (2010), Do elderly workers substitute for younger workers in the United States?, NBER, University of Chicago Press
- <sup>vii</sup> Baker M, Gruber J, Milligan K (2010), The interaction of youth and elderly labor markets in Canada, in Gruber J & Wise D eds. (2010)
- <sup>viii</sup> Ben Salem M et al (2008), Labor force participation by the elderly and employment of the young. The case of France', Paris School of Economics, Working Paper 2008-57
- <sup>ix</sup> Borsch-Supan A (2010), Early retirement and employment of the young in Germany, in Gruber J & Wise D (eds.) (2010)
- <sup>x</sup> Kapteyn A, de Vos K, Kalwij A (2009), Early Retirement and Employment of the Young in the Netherlands, Netspar Discussion Paper No. 03/2009-012
- <sup>xi</sup> Blanchflower, D.G. (1996) Youth Labour Markets in Twenty Three Countries: A Comparison Using Micro Data" CEP Discussion Paper no. 284, LSE
- <sup>xii</sup> Blanchflower & Freeman, R.B. (1996) - "Growing into Work," paper presented at the NBER Conference on *Youth Unemployment and Employment in Advanced Countries*, Winston-Salem, December 12-14.
- <sup>xiii</sup> DWP, Older workers statistical information summary, January 2011
- <sup>xiv</sup> Moser, J.W. (1986). "Demographic and Time Patterns in Layoffs and Quits," *Journal of Human Resources*, Vol. 21, pp. 178-199.
- <sup>xv</sup> Jimeno J & Rodriguez-Palendula D (2002), Youth unemployment in the OECD: demographic shifts, labour market institutions and macroeconomic shocks
- <sup>xvi</sup> Gregg P (2001), The impact of youth unemployment on adult unemployment, *The Economic Journal*, vol.111 no.475
- <sup>xvii</sup> Philpott J (March 2011), Getting the Measure of Youth Unemployment, CIPD
- <sup>xviii</sup> Economic & Labour Market Review (Sept 2010), Explaining exits from unemployment in the UK, 2006-9
- <sup>xix</sup> Freeman R (1979), The effect of demographic factors on age-earning profile, *Journal of Human Resources* vol.14 no.3
- <sup>xx</sup> Lahey J (2005), Age, women and hiring: an experimental study, NBER
- <sup>xxi</sup> Kapteyn A, de Vos K, Kalwij A (2009), Early Retirement and Employment of the Young in the Netherlands, RAND Working Paper WR679
- <sup>xxii</sup> Kremer M & Thomson J (1998) Why isn't convergence instantaneous? Young workers, old workers, and gradual adjustment, *Journal of Economic Growth*
- <sup>xxiii</sup> Roger M & Wasmer M (2009), Heterogeneity matters: labour productivity, Paris School of Economics, Working Paper 2009-51 differentiated by age and skills
- <sup>xxiv</sup> Walker T (2007), Why economists dislike a lump of labour', *Review of Social Economy*, vol.65 no.3
- <sup>xxv</sup> Walker T (2000), The 'lump-of-labor' case against work-sharing: popular fallacy or marginalist throwback?, From : Golden L and Figart D (eds), *Working Time: International trends, theory and policy perspectives*, Routledge
- <sup>xxvi</sup> ONS, <http://www.statistics.gov.uk/cci/nugget.asp?id=2648> March 2011