

Labour market intermediaries

Dobbins, Anthony; Plows, Alexandra

Journal of Education and Work

DOI:

10.1080/13639080.2016.1255315

Published: 01/01/2017

Peer reviewed version

Cyswllt i'r cyhoeddiad / Link to publication

Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA): Dobbins, A., & Plows, A. (2017). Labour market intermediaries: a corrective to the human capital paradigm (mis)matching skills and jobs? *Journal of Education and Work, 30*(6), 571-584. https://doi.org/10.1080/13639080.2016.1255315

Hawliau Cyffredinol / General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private
 - You may not further distribute the material or use it for any profit-making activity or commercial gain
 You may freely distribute the URL identifying the publication in the public portal?

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Labour Market Intermediaries: a corrective to the human capital paradigm (mis)matching skills and jobs?

Abstract

The orthodox supply-side human capital theory (HCT) paradigm is inadequate for understanding and adjusting to labour market volatility in regional economies in the UK like Wales. This article explores the role of regional Labour Market Intermediaries (LMIs) in matching supply (skills) and demand (job opportunities) in regional labour markets. Some LMIs emerge because the HCT paradigm is failing. One Welsh LMI, Shaping the Future (StF), is explored empirically using qualitative methods. StF mainly adopted HCT tenets, but with some emergent demand-side focus. Despite helping workers adjust to labour market shocks, LMIs are not equipped to fix the structural demand-side problem of finite quality job opportunities in deindustrialized regions that accentuate skill use. A broader 'skill eco-system' policy model is required, emphasizing the foundational economy.

Keywords:

Human capital, job quality, labour market intermediaries, retraining, supply and demand

Introduction

Competitive pressures related to globalization, financialization, and neo-liberalism have generated substantial restructuring of work organizations and regional economies across the UK and elsewhere (MacKinnon et al., 2011; Thompson, 2013). Deindustrialization has fuelled unemployment and precariousness, especially in regions that had big concentrations of traditional industry. Closure of large traditional employments, especially in periphery 'closed system' communities, creates a vacuum and a debilitating 'multiplier effect' down the jobs supply-chain that can severely undermine community resilience (Dobbins et al., 2014; Kitchen and Marsden, 2011; MacKay and Davies, 2012; MacKinnon et al., 2011) As MacKay and Davies (2012:869) note, large-scale unemployment connects to 'a collapse in the underlying industrial structure' and leaves an empty space in regional economies that people struggle to fill. Economic restructuring is creating 'unsustainable employment portfolios' (Buchanan et al., 2013) in localities like Wales (Blyton and Jenkins, 2012; Dobbins et al., 2014; Gardiner et al., 2009; MacKay, 1992; MacKay and Davies, 2012).

Heightened instability in regional labour markets has focused greater attention on the role of third party *Labour Market Intermediaries* (LMIs) in labour market adjustment and (re)development (Autor, 2008; Benner, 2003; Benner et al., 2007; Goldstein et al., 2012). LMIs are defined by Autor (2008:1) as 'entities or institutions that interpose themselves between workers and firms to facilitate, inform, or regulate how workers are matched to firms, how work is accomplished, and how conflicts are resolved'.

The contribution of this article is to critique human capital theory orthodoxy in the UK and advance understanding of LMIs; focusing empirically on one particular LMI, *Shaping the Future*, run by *Menter Môn*, as a case example in North West Wales. The article addresses the research question:

what role do LMIs play in responding to the challenges of matching supply (skills) and demand (jobs) in regional labour markets? Recourse is made to existing literature to inform this question. The next section critiques orthodox human capital responses to regional labour market adjustment, suggesting that such approaches are inadequate for understanding and correcting market failures. Indeed, they are part of the problem exacerbating labour market gaps, hence the requirement for interventions like LMIs and alternative perspectives on labour market adjustment. Section three outlines LMIs in more detail. The mainly qualitative research methods used to collect data on StF are outlined in section four. Findings are described in section five: first, summarizing statistical data analysis on the North West Wales labour market for contextual background, and second, presenting empirical analysis of a specific LMI, StF. The discussion and conclusion summarizes the main contributions in the article, and presents some policy implications.

Problems with Human Capital Theory orthodoxy

In recent decades, policy responses influenced by human capital theory (HCT) orthodoxy have played a dominant role in preparing workers to face new regional labour market realities in liberal market economies (LMEs) like the UK and USA. Increasing the supply of employee skills and qualifications has been core government policy in the UK (and by the devolved Welsh Assembly Government) aimed at facilitating individual employability and resilience in a flexible deregulated labour market (Leitch, 2006; Skills That Work For Wales, 2008). Policy-maker fixation with skills supply in LMEs is shaped by neo-liberal interpretations of HCT, namely that supplies of human capital are comparable to other commodities, whereby investments in workers' learning capacities (education and training) yield productive outputs for individuals, organizations and economies (Becker, 1976, 1993; Berntson et al., 2006; Florida, 2005; Mincer, 1995). Individual decisions about supply of skills are based on a neo-classical utility maximizing model within what are assumed to be perfectly competitive labour markets. At organizational level, investment in skills is seen as a

rational win-win for employers and workers: individuals undertake training and employers invest in training and create new jobs, due to rational estimates of future gains. Employer demand for skilled workers is said to derive from expected productivity increases, while workers predict job opportunities and/or increased wages from training (Becker, 1976, 1993). These supply-side push forces are also assumed to be functional at macro-economic level: raising skills supply of itself is seen to be vital for boosting demand from employers for higher skill capacities. The invisible hand of market forces is seen as the most efficient coordinator of this utility maximization: with linear causal links between skills, productivity, access to jobs and economic growth. It assumes, as Becker (1976: 5) observes, 'the existence of markets that coordinate the actions of different participants – individuals, firms, even nations – so that their behavior becomes mutually consistent'.

For HCT proponents, supply-side educational investment opens a path to employability, social mobility and economic competitiveness (Florida, 2005). Such has been the hegemonic influence of HCT that the state's labour market role in liberal economies has become largely restricted to creating supply-side opportunities via access to education and training, placing the onus of responsibility on individuals to enhance their employability during their working lives.

The common HCT policy response to labour market adjustment is 'stopgap' education and training programmes – but it is not guaranteed that such investment will generate matching with good job opportunities. Accordingly, HCT perspectives have been criticized by many scholars, and alternative analysis of labour market functioning is required (Arnholtz and Hansen, 2013; Bowles and Gintis, 1975; Bryson, 2015; Buchanan et al., 2010; Goldstein et al., 2012; Keep et al., 2010; Livingstone, 1997). The essence of alternative analysis is that skill supply alone may not trigger job opportunities, and active labour market interventions may be required to match workers to jobs and stimulate employer demand for particular skills. Keep and colleagues (Keep et al., 2010; Keep and Mayhew,

2010: 567; Mayhew and Keep, 2014) critique the naivety and contradictions of HCT approaches, observing that the belief that simply increasing supply of qualified skilled people will prompt employers to upgrade their production strategies is optimistic: 'If this belief proves unjustified, then the additional skills will not be used'.

A prediction of HCT perspectives might be that, when offered a more skilled labour pool, utility maximizing firms rationally respond to market signals by adjusting competitive strategies in the value-added direction, thus raising demand for quality jobs relative to basic low-wage ones. But the biggest problem and contradiction with HCT is failure to account for rising mismatch between increasing individual investment in education and training (supply-side capacity) and diminishing commensurate good quality jobs (demand-side opportunities); culminating in growth of an overskilled and underemployed reserve army of labour, especially in neglected/vulnerable regions (Felstead and Green, 2013; Livingstone, 1997). This market failure has left a job (quality) vacuum in particular regional labour markets like Wales.

Labour Market Intermediaries (LMIs)

Labour market gaps created by deindustrialization and exacerbated by the broken neo-liberal HCT paradigm have shaped the emergence of various labour market intermediary institutions (LMIs) to pick up the pieces of labour market turbulence; some LMIs arguably exist precisely because HCT orthodoxy is not working. LMIs have attracted interest because it is assumed they can help coordinate and mediate social relations (primarily in matching workers and employers: individuals with particular skillsets seek work (supply), employers want to fill jobs (demand), and the matching process brings the two together). As the matching process occupies the intermediary position between labour capacity and job opportunity it 'permeates them both' (Bartley et al., 2001:149). LMIs are a departure from standard orthodox human capital responses 'to train people and hope for

the best' (Prince and Rubin, 2006:4). Goldstein et al., (2012:108) note that while standard training policy often reinforces simplistic human capital theory by assuming poor labour market outcomes are mainly due to individual employability deficits, LMIs can potentially anticipate a wider range of informational, institutional and socio-economic barriers to regional labour market adjustment.

Matching does not simply happen through the invisible hand of the market sending signals to labour market participants to seek each other out (still the dominant human capital theory view). In reality, matching may depend on effectiveness of various regional LMI institutions at the interface between supply and demand. Therefore, it is important to examine the role played by LMI institutions in coordinating supply (capacity) and opportunity (demand) in regional labour markets.

Benner (2003:622) suggests that increasingly unpredictable regional labour markets, frequent job churn, decline of internal labour markets promoting long-term careers, weakening ties between employers and workers, contribute to greater reliance by both employers and workers on various third party LMIs to facilitate matching. Similar to Autor's (2008) definition in the introduction, Benner et al., (2007:10) define LMIs as 'organizations – public, private, nonprofit, or membership-based – that help broker the employment relationship through some combination of job matching, training, and career support services'. Benner et al., (2007:13) remark that LMIs arise from 'the imperfect information and information asymmetry that are ubiquitous' in uncertain labour markets. In the absence of LMIs, and with limited labour market intelligence, it can be hard for employers to recruit workers, and workers may also find it problematic to signal labour market availability to employers. Many LMIs have emerged largely organically at regional level, often independently of state policy, and reflecting the absence of appropriate local labour market institutions to assist workers and employers to adjust to change (Prince and Rubin, 2006).

As illustrated in Table 1, Benner et al., (2007) identify diverse types of LMI in the United States, in both private and public sector domains. Private sector LMIs include temporary agencies and webbased job search sites of variable quality. LMIs have also increased in the public sector, among non-profit organizations, trade unions, and educational establishments. There may be cross-cutting partnerships across organizations, and public sector institutions may sub-contract services to private firms. Furthermore, while the main service of LMIs is invariably job matching, it may extend to other services like education and training, HR advice, labour market intelligence.

TABLE 1 HERE

Benner et al., (2007:16-18) suggest, therefore, that market imperfections and economic unpredictability underlie the emergence of LMIs that can better match employers and workers, provide training and aid adaptability to economic restructuring. LMIs are seen as more successful if they 'serve multiple interests', because even if an institution is geared towards primarily serving worker concerns it must also often be cognisant of and resolve problems confronting employers, and vice versa.

Regardless of context, Prince and Rubin (2006: 5) suggest that LMIs usually conduct some or all of the following functions: i) providing or brokering labour market services that include—and may go beyond—job matching to encompass services like occupational training and career coaching; ii) organizing funding streams so that services for individuals and employers span a continuous pipeline; iii) aggregating employer demand so that employers in a particular sector, industry, or occupational cluster can collectively define and secure the services they need to secure, retain, and advance a skilled workforce; iv) performing ongoing research on labour markets and employer needs in order to inform service delivery; v) advocating public policies that support worker advancement.

In terms of how LMIs may affect regional labour market outcomes, Benner (2003:622-628) suggests that they perform three roles for both workers and employers. First, they can decrease transaction costs, and enhance ability of employers and workers to adjust to unpredictable labour markets, more efficiently than direct free market transactions. By providing labour market intelligence and quicker access to employers and workers, often grounded in knowledge of particular industry clusters and local communities, LMIs can help 'shorten the job search' for all parties – thereby reducing transactions costs (Benner, 2003:627). Second, emphasizing social embeddedness of non-market social relations and networks (Granovetter, 2005; Sharone, 2014; Strangleman, 2001), Benner (2003:627) suggests that LMIs can potentially enhance social networks available to both workers and employers for job matching: 'These networks become critical in shaping employers' economic fortunes and workers' career paths. It is possible that, following redundancy, individual social networks may contract as people (especially the disadvantaged) lose capacity to socialise and discover work opportunities, and instead withdraw. Thirdly, by filtering labour market transitions LMIs can help employers and workers better absorb risk. Regional labour markets have become more risky for all parties, especially lower skill workers. Under contemporary neo-liberal capitalism, government and employers have been transferring the burden of risk to workers with weaker labour market power, alongside a prevailing (human capital) policy discourse stipulating labour market normative behaviours of individual responsibility and employability (Solow, 2008). For workers, LMIs may help to ameliorate risk by reducing periods of unemployment. This is important as significant time spent outside labour markets can create perceived employability deficits. But many employers also confront enhanced risks in turbulent economic and financial systems. LMIs may help filter and reduce the risk of making costly hiring decisions. Indeed some employers may shift risk on to LMIs by 'outsourcing' parts of their internal HRM role.

Underpinning all three roles is that LMIs can provide access to labour market intelligence and synthesize complex information (Autor, 2008; Benner, 2003). Acting alone as atomized actors in decentralized markets, labour market knowledge of workers and employers is incomplete, and they may not locate each other without third party assistance. LMIs are 'in the 'business' of labour market adjustment, and are thus frequently more sensitive to changing competitive dynamics in industry clusters than many firms themselves' (Benner, 2003:629). Indeed, by transmitting labour market intelligence, some LMIs can even contribute to shaping demand by accelerating adjustment, quickly signalling both high growth activities of rising demand and depreciating demand (Benner, 2003).

Research Methodology

This section describes and contextualizes the unit of analysis, a specific Welsh regional Labour Market Intermediary, *Shaping the Future* (StF). StF is one of the initiatives which the authors have mapped by exploring anticipatory stakeholder responses to redundancy in the Welsh nuclear power industry as part of a British Academy/Leverhulme Trust funded study. The qualitative methods are then outlined; primarily ethnographic participant observation and stakeholder interviews.

Context of Shaping the Future (StF)

The Energy Act 2004 directed the Nuclear Decommissioning Authority (NDA) to decommission Magnox Ltd's nuclear power stations in North Wales: Wylfa A on Anglesey and Trawsfynydd in Gwynedd. The two plants are at different stages of decommissioning, but phased closure will necessitate redundancy of remaining employees in remote areas of North West Wales. The Trawsfynydd site is in the final decommissioning stage with most workers already made redundant. The Wylfa A site stopped generating electricity on 31st December 2015. A first cohort of approximately 90 workers at Wylfa A was made redundant in May 2016.

Some pre-emptive measures which anticipated and aimed to mitigate the impact of these redundancies have been implemented. The Wylfa (and Trawsfynydd) workforces benefitted from a structured strategy aimed at bolstering their skills and training; the *Shaping the Future* (StF) programme. This European Social Fund (ESF) programme provided resources to the workforces at both plants, including career coaching and up to £15,000 per worker, to undertake qualifications and retraining designed to improve their employment opportunities in the region post redundancy. The programme was match funded by the Nuclear Decommissioning Authority (NDA), the Welsh Government, and Gwynedd and Anglesey county councils. StF ran from 2012 to Spring 2015, the original projected date by which most of the workforce at both sites had been forecast to have been made redundant (in reality, the timescale for final redundancies 'stretched' at both sites by at least 18-24 months).

StF can be understood as an LMI and the following narrative account therefore makes an important contribution to the literature by filling an empirical 'black hole' regarding the impact of regional LMIs. StF is one of several different types of regional institutions and agencies including local councils, trade unions, and other LMIs like the North Wales Economic Ambition Board (NWEAB), aiming to mitigate impacts of the redundancies and labour market risks/gaps in North Wales.

Researching Shaping the Future

Between summer 2012 and the end of the StF programme in June 2015 the authors were fortunate to be able to undertake ethnographic 'embedded participant observation' (Lewis and Russell, 2011) on StF as part of research on anticipatory stakeholder responses to the Wylfa redundancies. In-depth semi-structured interviews with a small sample (n=11)of key stakeholders were also conducted, incorporating StF staff, Unite union shop stewards and regional officials, local political figures, Anglesey Council economic department senior staff, and other policy and public sector figures. This

was accompanied by extensive secondary documentary data collection, including socio-economic statistics and regional labour market intelligence and policy reports. This methodological triangulation conducted longitudinally over an extended period strengthens validity of the results (Bryman, 2012).

Ethnography is an effective method for capturing 'rich description' and its efficacy for researching labour market dynamics is well documented (Burawoy, 2013). Participant observation is a particularly 'embedded' (Lewis and Russell, 2011) form of ethnography, whereby the researcher is actively involved at the research site(s). Here, the 'hands on' nature of embedded ethnography can also be understood as 'action research' (Reason and Bradbury, 2007), because of the researcher's focus on addressing and having an impact on a 'real life' situation through co-constructed knowledge generation at the research sites. Through connections with StF staff, one of the authors was tasked by StF to deliver labour market intelligence briefings and other resources to assist individuals undertaking the StF programme to make informed learning choices to 'skill up for the region's future'. The authors thus benefited from an 'insider's view' of programme delivery and day-to-day operations of StF as a regional LMI. StF staff and other stakeholders were aware that participant observation was occurring.

Results

Results are outlined first by presenting secondary statistical data analysis on the North West Wales labour market to provide contextual background, and second, presenting findings relating to whether StF's role as an LMI addressed regional labour market challenges of matching supply and demand.

Socio-economic context

The socio-economic situation of the North West Wales region (specifically, the counties of Anglesey and Gwynedd) is quite challenging. The region is experiencing continued deindustrialisation as Trawsfynydd and Wylfa nuclear power stations prepare for closure, and another large industrial employer, Anglesey Aluminium, closed in 2009, with over 500 redundancies. These losses are even more acute in a region with very few medium to large employers, with the vast majority being micro businesses employing 20 people or fewer.

... We don't have many large, well-paid employers on the island outside of the public sector... Wylfa remains one of the few[large employers] ... in that middle part [between micro businesses and large employers] there's a very big gap....

("Iestyn", Anglesey Council)

The region has a high percentage of jobs in the agriculture, tourism, production, and wholesale, retail, transport, hotels and food sectors. Problematically, jobs in these sectors are often low paid, casualized, and seasonal; although quality tourism is a strategic economic target for the council. In September 2015, the percentage of people unemployed was 6.2% in Anglesey and 7.0% in Gwynedd, which compares relatively well with an all Wales average of 6.5% (InfoBase Cymru). However, official unemployment data does not show the whole picture and masks the fact that many people may be in work but underemployed or in low wage precarious jobs.

.. it's a high risk environment, people are just concerned about keeping their heads above water....working very hard to survive...The biggest problem is people who are underemployed... they're in employment, but they're not using their skills ...

("Iestyn")

Indeed, closer scrutiny of labour market statistics reveals underlying structural problems around low pay, precariousness, and poor quality employment. Average gross weekly earnings in 2015 were £481.20 on Anglesey and £433.90 in Gwynedd, compared to a Wales average of £484.40 (Infobase Cymru); and £528 in the UK as a whole (Office for National Statistics, 2014). By comparison, the Magnox nuclear workforce earns an average of £853 per week (Wavehill, 2013: 8). Secondly, self-employment levels are high: 13.5% in Anglesey and 14.8% in Gwynedd in September 2015, compared to an all Wales average of 9.5% (InfoBase Cymru). High self-employment levels may often reflect individual responses to local labour market gaps, and indicate lack of good quality jobs. There is also increased recourse to the shadow informal economy.

Despite the rather gloomy socio-economic context and the ongoing fallout of regional deindustrialisation, there are a number of new initiatives in North West Wales which could potentially create future jobs and utilize skills. Of note is employment potential in the energy sector across the region, including nuclear, solar, wind (particularly offshore), and biomass, addressed through the Anglesey 'Energy Island' programme (2014):

The Anglesey Energy Island™ Programme is a collective effort between several stakeholders within the public and private sector working in partnership to put Anglesey at the forefront of energy research and development, production and servicing, bringing with it potentially huge economic rewards.

Of particular importance are potential job opportunities arising from the new-build nuclear plant 'Wylfa Newydd' (to replace Wylfa A) on Anglesey following Hitachi's acquisition of the Horizon site in 2012. However, timelines for the first stages of construction of Wylfa Newydd have stretched considerably, contributing to a labour market gap:

We had originally anticipated a closer match between the closure [of Wylfa A] and the new nuclear build ... but there is likely to be a gap, maybe as long as ten years...

("Iestyn")

Other proposed Energy Island projects have also suffered setbacks, such as the scrapping of Celtic Array's planned 'Rhiannon' wind-farm, and other initiatives still to see any 'spades in the ground', such as a high-spec biomass plant. This indicates that Energy Island and regional public sector policy makers have limited control over commercial decisions made by private capital investors, and the region's future remains uncertain.

Shaping the Future as a regional LMI

In this section we discuss StF's role as a regional LMI, drawing on stakeholder interviews and embedded participant observation to provide rich ethnographic insights to answer the research question: what role do LMIs play in responding to the challenges of matching supply (skills) and demand (jobs) in regional labour markets?

Emergence of Shaping the Future

StF was specifically devised to address the challenge of forthcoming redundancies at two Magnox nuclear plants in the region. A 'watching brief' had been kept by regional stakeholders for over a decade before, with a strategic emphasis on foresight; identifying challenges on the horizon. In 2006 Anglesey Council commissioned an influential report (the Tribal report) on the Anglesey Aluminium (AA) and Wylfa closures. Iestyn's role and that of other key stakeholders was to anticipate problems:

Trying to quantify the impacts... and ensure ... that our response was adequate...the council's strategy from day one has been replacing like for like [replacing Wylfa A with new build nuclear].

("Iestyn")

StF represented an attempt to construct a coordinated, anticipatory response to shocks impacting the local labour market, considering regional needs and preventing regional skill drain. This 'bigger picture' focus on sustainability of the region's socio-economic future signals StF as a key regional LMI seeking to mitigate the impact of redundancies, including those affecting the wider supply chain. StF can be understood as a 'hybrid' LMI because it is a public sector (publicly funded) LMI which has sub-contracted out various programme deliverables. StF provided a number of targeted resources which together comprised a 'transition pathway' for individual workers signing up to the programme; enabling workers to make 'learning requests' of up to £15,000 to prepare them for reemployment.

StF's effectiveness in matching supply and demand

StF mainly adopted standard human capital supply-side approaches, especially during its initial activities. Its core remit was to retrain and re-skill the nuclear workforce, and it set ambitious job creation targets as an expected outcome from this re-training programme, as this extract from the original application shows:

Shaping the Future['s]objectives are to create 275 jobs with an average value of £25,000 per annum, providing direct mitigation of job loss from the cessation of activity at Wylfa and Trawsfynydd ...

(StF WEFO/ESF business plan, March 2009, p3).

In retrospect, and even factoring in the impact of the global financial crisis and recession after 2008, which further depressed an already flagging regional labour market, this jobs target appears unrealistically ambitious and somewhat naïve in its assumption that simply supplying skills would, by itself, attract/create high quality job opportunities in the locality. However, StF was simply

following standard HCT policy orthodoxy, and, indeed, was funded under a specific European Social Fund priority to focus on skills development to create employment opportunity (Priority 3 Theme 2). Further, to support its funding application under this ESF theme, StF identified various Welsh Government policies also emphasising the need for up-skilling to create job opportunities, including; *One Wales – A Progressive Agenda for the Government of Wales; Wales: A Better Country; Wales for Innovation*; the WG *Skills and Employment Action Plan* (SEAP 2005), and *Wales: A Vibrant Economy*. Thus, while StF's original application can be criticised for not having an ironclad rationale justifying its ambitious job creation target, the 'build it and they will come' thrust of StF's remit follows a 'standard issue' supply-side HCT expectancy approach to leverage EU funding. It is hardly surprising that StF assumed this orthodoxy would work, given the hegemonic discourse of skill supply push efficacy at national and EU policy levels.

StF also anticipated forthcoming good quality job opportunities in North Wales, particularly via its connections with Anglesey's aforementioned Energy Island strategy. It was assumed that such jobs would become available if the workforce undertook specific re-training routes enabling them to be the best 'future fit' for these potential jobs. This is discussed in more detail below. Significantly however, StF assumed that *the fact that the workforce had undertaken training would be enough to attract employers to the area:* that re-training would *of itself* create job opportunities. StF's core strategy therefore, outside its role providing retraining capabilities, was based around a campaign to advertise this regional supply-side capacity to prospective employers and investors.

StF succeeded in its core aim of re-training significant numbers of the Wylfa and Trawsfynydd workforces. This was no mean feat given the challenge of engaging insular workforces, not used to labour market realities outside the 'institutionalized' nuclear industry. StF also battled with significantly extending closure timescales of nearly two years, a major disincentive for workers to

accept the opportunities StF offered. StF operated a 'stick and carrot' approach, flagging up the reality of redundancy and incentivizing funded training. Through a very hands-on process involving dedicated staff, eventually both workforces were incentivised to uptake training opportunities and one-to-one coaching. By spring 2014, 1,312 employees had enrolled on StF, above the programme target of 1,200, and this number continued to rise before the programme ended in mid-2015. StF met its target of 480 individual qualifications, many linked to sectors identified by the Welsh Government and other stakeholders as 'target industries' likely to provide regional opportunities; particularly energy.

StF aimed to build workforce capacity not simply through upgrading skills but also ensuring '...a workforce that has resilience understanding their own career transition ... a workforce with greater competencies to manage career change' (StF original ESF/WEFO application, 2009). An annual workforce survey found that in 2011 only 18% of the workforce saw themselves as responsible for their own career, but this had risen to 79% in 2013 after two years of StF (Wavehill, 2014). This corresponds with human capital orthodoxy's emphasis on individual's assuming responsibility for their employability.

These are important examples of supply-side capacity building for a workforce in an industry which had been insulated, indeed isolated, from the precarity of 'real world' market dynamics. To reiterate, wages at Wylfa and Trawsfynydd equate to roughly twice the regional monthly average, and a generally held view was that of an institutionalised workforce with little readiness to adapt to change; workers apparently commonly describe this insularity as 'Wylfa-isation'.

The 'wake-up call' which StF aimed to initiate, together with re-skilling, may enable individuals to be more prepared as they enter the labour market. But the big question is, did/will this extra capacity help individuals find decent new job opportunities and actually use their skills?

As it confronted realities on the ground, StF also began to undertake some basic 'matching' of supply and demand. Perhaps the most successful aspect was that StF aimed to ensure that individuals undertook skills and training programmes that constituted the best 'fit' not only for their own individual aptitudes, but also for potential future regional job opportunities. StF commissioned a series of user-friendly labour market intelligence briefings (overviews of different sectors of the region's labour market). This was initially seen by StF staff as necessary primarily to help the workforce apply for StF training funds and identify best fit courses. As outlined earlier, key initiatives focused on attracting investment in (renewable) energy ('Energy Island'), including wind, biomass and the new nuclear plant 'Wylfa Newydd'; and a Welsh Government policy focus on sectors like energy, tourism and IT, through the Snowdonia and Anglesey Enterprise Zones, provided a narrative of future regional growth in these sectors. Therefore, by providing labour market intelligence StF began to pay more attention to matching supply and demand, by signposting regional labour market job prospects and highlighting sectors and occupations worth focusing retraining efforts on.

This emergent two-way approach of identifying regional jobs trends and providing tailored career coaching shows that StF performed a key supply and demand 'matching' function. The learning from this was subsequently passed between relevant local stakeholders who were encountering supply/demand matching problems. It influenced a nascent proto 'StF2' 'matchmaking' workforce database, proposed post StF windup in June 2015, currently being spearheaded by regional policy stakeholders.

There were limits, however, to what StF could practically and realistically achieve in demand-side activity, particularly because its core supply-side retraining remit and targets were 'locked in' under ESF rules. Moreover, the overall mind-set of key senior staff remained broadly fixed on supply-side solutions, in genuine anticipation that this would bring jobs in and of itself. The strapline of the project's legacy report '"Skilling up for the Future": Putting human capital at the heart of development' (Menter Mon, 2015), highlights StF's supply-side orientation; understandably perhaps, given this was its core remit. Internally however, this belief in supply-side approaches was appreciably shaken as time went on, especially in the light of significantly stretching timescales and setbacks for energy and other demand-side projections. For example, StF staff reported that some workers pulled out of wind energy courses halfway through, after the announcement that a major wind farm project (Rhiannon) had been shelved:

We had a few people who asked for courses in how to maintain turbines. So they were starting to move towards off-shore type courses...but now it has been ditched a lot of people have cancelled those courses and they have opted for something else.

("Gethin")

These demand side gaps and setbacks in the labour market are not something that StF could have predicted or influenced, (nor for that matter could key stakeholders such as Anglesey Council directly tasked with regional development and investment strategies). Redundant workers will have to 'mind the gap' in local labour markets, and StF staff and stakeholders are highly aware of the possible consequences:

There's nothing much available for people now, so having that increase [post redundancy at Wylfa] will have a major impact...there's nothing, is there, at the moment...It's going to be a difficult decade after Wylfa closes its doors...

("Gethin")

....the [loss of] disposable income, the downstream impacts can't be underestimatedthe community impacts run far, far deeper....

("Iestyn")

Energy is there, but it's not there yet... There's a lot of talk about things coming in or being replaced, but there's nothing happening now...

("Dafydd" and "John", UNITE reps/Wylfa workers)

Discussion and conclusion

This article has advanced contributions critiquing the human capital paradigm and enhancing understanding of Labour Market Intermediaries (LMIs). Empirical analysis has been presented on a specific LMI, Shaping the Future (StF), the existence of which reflects a practical need to fill a regional labour market vacuum left by the failure of neo-liberal HCT orthodoxy. Supply-side policy responses based on market-led human capital theory assumptions (Becker, 1976, 1993) are inadequate for either understanding or dealing with the complex problems afflicting regional labour markets like North West Wales – in this case, nuclear power workforces facing redundancy and an uncertain future. It is not sufficient to simply retrain and reskill individuals on the supply side and hope for the best, while assuming that job opportunities on the demand side are most efficiently coordinated if guided by an invisible market hand. Yet this simplistic and naive supply-side theory of

labour economics still dominates policy in the UK and its regions (Leitch, 2006; Skills That Work For Wales, 2008).

Problematically, and as Mayhew and Keep (2014) note, there is an acute contradiction in UK government policy between, on one hand, espousing human capital oriented policies encouraging continuous expansion of qualifications deemed necessary to feed a 'knowledge economy', and, on the other, policies more like to encourage employer demand for low cost and low skill labour in low quality jobs in flexible deregulated labour markets. Tensions between these two contradictory postures are generating a combination of over-skilling and underemployment for many people, illustrated by recent labour market data (Felstead and Green, 2013; OECD, 2013).

This over-skilling and underemployment conundrum is the situation facing those like the nuclear workforce in our research who availed of supply-side re-training programmes through StF, but, on the demand side, commensurate quality job opportunities had not yet materialised in sufficient quantities for workers to use their additional skill capacity. Nuclear workers, like other people experiencing economic restructuring across UK regions, have swallowed the prescription advised by proponents of human capital approaches and assumed individual responsibility for raising their employability. But when an already skilled workforce re-skills in regions like North West Wales where there are structural demand problems, the gap between their cumulative skill levels and the available pool of quality employment widens – increasing the stock of an over-skilled underemployed regional reserve army of labour (Dobbins et al., 2014).

Existing research suggests that LMIs can help mediate and coordinate complex matching problems facing employees seeking work who possess particular skills (supply) and employers wanting to fill jobs that use those skills (demand) in unpredictable regional labour markets better than atomistic

actors engaged in autonomous free market transactions (Bartley et al., 2001; Benner, 2003; Benner et al., 2007; Goldstein et al., 2012). The StF remit was retraining nuclear plant workers, although after direct experience of labour market practicalities it began to focus more on coordinating supply (capability) with demand-side issues (employment opportunities). But there are limits to what an LMI like StF can realistically do to match supply and demand in a peripheral regional labour market like North West Wales. The emergence of StF reflected the limitations of existing labour market institutions to assist workers and employers to adjust to uncertainty. StF was evidently in the business of helping nuclear workers adjust to a disorganized labour markets and trying to anticipate and mitigate the implications of redundancy. Yet StF did not, and was not equipped to, play a more expansive role in regional (re)development and job creation on the demand-side.

Policy implications - a new 'skill eco-system' model

Our research on LMIs contributes to existing evidence that a structural demand side vacuum of lack of good quality jobs in depressed regions is still not being fundamentally addressed by policy makers in Wales/the UK. Labour market policy is still grounded in a simplistic skill supply stockpiling model, despite increasing realisation that skills are often not being used, resulting in a huge waste of expenditure and human talent (Keep and Mayhew, 2014; Mayhew and Keep, 2014; UKCES, 2010). It is imperative to urge and guide policy makers in Wales and other UK regions to move beyond the narrowness of this wasteful model.

A new coordinated state policy model is required connecting national, regional, sector, local and organizational levels, which targets skills where they are most needed, creates demand for skills by creating greater quantities of quality jobs, and ensures that skills are better utilized in organizations through workplace innovation, employment relations, and work redesign strategies. This is about coherently integrating education and training policy (human capability) with interventions attending

to demand-side structural economic issues through radical reform of industrial policy, labour markets and their regulation, job quality, workplace innovation, work organization and employment relations (see Brewer et al., 2012; Bryson, 2015; Hutton, 2015; Keep and Mayhew, 2014; Mayhew and Keep, 2014). This suite of holistic policy interventions has been labelled a 'skill eco-system' (Finegold, 1999), which emphasizes broader institutional context and interdependency of multi-level policy interventions needed to rectify 'structurally rooted causes of economic and social problems' (Keep and Mayhew, 2010: 570). According to Buchanan and Jakubauskas (2010: 45), a skill eco-system is comprised of: business and economic context (i.e., product and capital markets); institutional and policy frameworks (e.g. labour market and employment relations); modes of engaging labour (e.g., 'casual' employment); structure of jobs, including job design and work organization; level and type of skill formation (e.g., apprenticeships).

But there is also the question of how and to what extent this new skill eco-system model can be practically and realistically implemented in different contextual settings and what existing examples or ideas offer insights. It is not possible to exhaustively outline all practical policy interventions in a short article, but we can refer readers to selected existing examples in Wales and other countries (see Alasoini, 2009; Bowman et al., 2014; Brill et al., 2015; Bryson, 2010, 2015; Buchanan et al., 2010; Mayhew and Keep, 2014). For instance, Buchanan et al., (2010) review various initiatives undertaken in different countries to improve skills utilisation.

Wales and other UK countries have historically neglected the importance of improving skill utilization at the workplace through workplace innovation, job design, workforce productivity, and good employment relations (Mayhew and Keep, 2014). Scandinavian countries have long been pioneers of work humanization and industrial democracy, and the Norwegian workplace development strategy and the Finnish Workplace Development Programme are lauded by Alasoini

(2009) as best practice programmes with widespread implementation and effectiveness. Under devolved governance powers in Wales and Scotland, workforce development initiatives have emerged that engage with skill demand and usage. The Welsh Workforce Development Programme focuses on adult workforce skill enhancement as part of a wider business improvement and economic development agenda involving a network of 100 Human Resource Development (HRD) advisors. But the WDP is small-scale compared to orthodox skill supply funding (Keep, 2008). Interesting policy initiatives are emerging in Scotland (Warhurst and Findlay, 2012). The intent in the Scottish Skills Strategy outlined in Skills for Scotland (2010) is to stimulate demand for skill, and improve skill usage in workplaces. More recently, the Scottish Government- sponsored Fair Work Convention published a Fair Work Framework (2016) articulating a practical blueprint for Fair Work which promotes social dialogue between employers, employees and trade unions, public bodies and the Scottish Government.

But, although workforce development and innovation programmes can play a vital role in improving skill utilization, they may be short lived, best practice diffusion is often limited, and, more significantly, there are broader structural factors beyond the workplace that stymie demand for and use of education and training (Buchanan et al., 2010). This points to a need to radically reform what is termed 'industrial policy' in Wales and other UK regions. There has been increased policy debate on formulating an industrial strategy that rebalances the UK economy towards manufacturing, especially in hi-tech exporting sectors (Mazzucato, 2013), but this is still largely rhetorical (e.g. The 'Northern Powerhouse') rather than reality. While undoubtedly important, such a narrow focus on picking winners in technology intensive hi-tech manufacturing is unlikely to create substantial quantities of employment (Bowman et al., 2014; Crouch et al., 1999; Mayhew and Keep, 2014).

Moreover, UK regions like Wales are overly reliant on inward investment from mobile ungrounded

foreign multinationals (often basic assembly plants), lured by massive public subsidies and tax breaks from the 'corporate welfare state' (Farnsworth, 2015).

Researchers from CRESC offer a credible radical alternative vision for informing future industrial policy in Wales/UK (Bowman et al., 2014; Brill et al., 2015). Their core argument is that industrial policy needs to cover a wider range of less glamorous/more traditional indigenous labour intensive sectors and their supply chains grounded in what they term the 'foundational economy'. Bowman et al., (2014:119) define the 'foundational economy' as the zone that produces good and services in substantially sheltered sectors possessing three inter-linked features: first, they are required for everyday life; second, they are consumed by all citizens regardless of wealth; third, they are distributed according to population through (regional, local) branches and networks. Foundational sectors grounded in localities include: privatized energy and telecommunications utilities; transport; private sector activities like retail banking, supermarket food retailing and food processing; and stateprovided activities like health, education, welfare and social care, characterized by increased tendering and outsourcing. All are directly or indirectly under the ambit of the state. The 'foundational economy' offers potential to create larger quantities of decent employment and skill utilization for the mass of the population. Bowman et al., (2014) estimate that one third of the UK workforce is currently employed in the foundational economy, and even more in Wales (37.8%). CRESC call for a new experiment in social licensing (social contract) whereby the right of employers to trade in foundational activities would depend on procurement and compliance with social responsibilities like providing decent quality jobs paying living wages and with appropriate training and skill utilization. This would require active state intervention as the role of government is or should be to ensure that the rights of businesses are balanced against responsibilities to the society they are grounded in (Brill et al., 2015). In a Welsh context, Brill et al., (2015) propose further policy devolution and decentralization to move away from a 'one size fits all approach' and enable pluralist

experimentation in the foundational economy at regional, sector and local levels. This could be facilitated through collaborative 'partnerships' between the state, leading employers, trade unions, and other foundational economy stakeholders – for instance, through sector specific partnerships. CRESC also urges the Welsh Government to address the problem of the 'missing Mittelstand' in Wales: most Welsh employment is in micro and larger firms and the corollary is a missing Mittelstand of SMEs with only 25% of employment in the size range 10-250. They attribute this to the problem of ownership churning, before proposing policies to discourage early exit by ownermanagers. Policy focus on the missing Welsh Mittelstand could help create additional SME skill demand and jobs.

To conclude, LMIs like StF are valuable but are only likely to work if combined and integrated with demand-side measures to grow good jobs that training and re-skilling interventions can then be directed towards. The failed thirty year supply-side experiment with a neo-liberal human capital paradigm needs to end. But there are considerable barriers to new interventionist labour market policies that seek to swim against the tide of self-regulating market orthodoxy, exacerbated by deep seated structural problems in the Welsh/UK economy, the complexity of policy interventions required to fix this, and lack of imagination and will in conventional policy circles. Comparative qualitative research examining institutions like regional LMIs in their broader structural context would be useful for building on issues raised here, and informing new labour market policy ideas.

References

Alasoini, T. 2009. Strategies to promote workplace innovation: A comparative analysis of nine national and regional approaches. *Economic and Industrial Democracy*, 30 (4): 614–642.

Arnholtz J., and Hansen, N.W. 2013. Labour market specific institutions and the working conditions of labour migrants: The case of Polish migrant labour in the Danish labour market. *Economic and Industrial Democracy*, 34(3): 401-422

Autor, D. 2008. The Economics of Labor Market Intermediation: An Analytical Framework. Institute for the Study of Labor. *IZA Discussion Paper*, No. 3705.

Bartley A., Dupuis A., and de Bruin, A. 2000. Regional Labour Market Dynamics and Economic Participation: The Mediation Role of Education and Training Institutions. *Labour, Employment and Work in New Zealand*. http://ojs.victoria.ac.nz/LEW/article/viewFile/1046/854

Becker, G. 1976. The Economic Approach to Human Behavior. Chicago: University of Chicago Press.

Becker, G. 1993. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: University of Chicago Press.

Benner, C. 2003. Labour Flexibility and Regional Development: The Role of Labour Market Intermediaries. *Regional Studies*, 37(6-7):621-633.

Benner, C., Leete, L., and Pastor, M. 2007. *Staircases or Treadmills? Labor Market Intermediaries and Economic Opportunity in a Changing Economy*. New York: Russell Sage Foundation.

Berntson, E., Sverke, M., and Marklund S 2006. Predicting Perceived Employability: Human Capital or Labour Market Opportunities? *Economic and Industrial Democracy*, 27(2): 223-244.

Blyton, P. and Jenkins, J. 2012. Life after Burberry: shifting experiences of work and non-work life following redundancy. *Work, Employment and Society* 26(1): 26–41.

Bowles, S, and Gintis, H. 1975. The problem with human capital theory: a Marxian critique. *The American Economic Review*, 65(2): 74–82.

Brewer, M., Dickerson, A., Gambin, L., Green, A., Joyce, R., & Wilson, R. 2012. *Poverty and inequality in 2020: Impact of changes in the employment structure*. York: Joseph Rowntree Foundation.

Bryson, J. (ed) 2010. Beyond Skill. Basingstoke: Palgrave Macmillan.

Bryson, J. 2015. Putting skill in its place. *Journal of Education and Work*, 28(5): 551-570.

Burawoy, M. 2013. Ethnographic fallacies: reflections on labour studies in the era of market fundamentalism. *Work, Employment and Society*, 27(3): 526-536.

Buchanan, J. and Jakubauskas, M. 2010. Political Economy of Work and Skill in Australia. In *Beyond Skill*, J. Bryson (ed). Basingstoke: Palgrave Macmillan.

Buchanan, J., Scott, L., Yu, S., Schutz, H. and Jakubauskas, M. 2010, Skills Demand and Utilisation: An International Review of Approaches to Measurement and Policy Development, *OECD Local Economic and Employment Development (LEED) Working Papers*, 2010/04, OECD Publishing. http://dx.doi.org/10.1787/5km8zddfr2jk-en

Buchanan, J., Dymski, G., Froud, J., Sukhdev, J., Leaver, A. and Williams, K. 2013. Unsustainable employment portfolios. *Work Employment and Society*, 27(3): 396-413.

Crouch, C., Finegold, D. and Sako, M. 1999. *Are skills the answer?* Oxford: Oxford University Press.

Dobbins, T., Plows, A. and Lloyd-Williams, H. 2014. 'Make do and mend' after redundancy at Anglesey Aluminium: critiquing human capital approaches. *Work Employment and Society*, 28(4): 515-532.

Energy Island 2014. https://www.anglesey.gov.uk/business/energy-island/

Fair Work Framework (2016). Fair Work Convention. APS Group: Scotland.

Farnsworth, K. 2015. The British Corporate Welfare State. *SPERI paper* 24, Sheffield Political Economy Institute.

Felstead, A., and Green, F. 2013. Underutilization, over-qualification and skills mismatch: patterns and trends. *Skills in Focus*. Glasgow: Skills Development Scotland.

Finegold, D. 1999. Creating self-sustaining, high-skill ecosystems. *Oxford Review of Economic Policy* 15(1): 60–81.

Florida, R. 2005. The Flight of the Creative Class. New York, NY: Harper Business.

Gardiner, J., Stuart, M., MacKenzie, R., Forde, C., Greenwood, I., and Perrett, R. 2009. Redundancy as a critical life event: moving on from the Welsh steel industry through career change. *Work, Employment and Society* 23(4): 727–45.

Goldstein, H., Lowe, N., and Donegan, M. 2012. Transitioning to the New Economy: Individual, Regional and Intermediation Influences on Workforce Retraining Outcomes. *Regional Studies*, 46(1): 105-118.

Granovetter, M. 2005. The Impact of Social Structure on Economic Outcomes. *Journal of Economic Perspectives* 19: 33–50.

Hutton, W. 2015. How Good We Can Be. London: Little, Brown.

Keep, E. 2008. A Comparison of the Welsh Workforce Development Programme and England's Train to Gain. *SKOPE Research Paper* No 79. June 2008.

Keep, E., and Mayhew, K. 2010. Moving beyond skills as a social and economic panacea. *Work, Employment and Society*, 24(3): 565-577.

Keep, E., and Mayhew, K. 2014. Inequality - 'wicked problems', labour market outcomes and the search for silver bullets. *Oxford Review of Education*, 40(6) 764-781.

Kitchen, L., & Marsden, T. 2011. Exploring Rural Labour Market Relationships: the Persistence of the Low-skills Economy in Rural Areas of Wales. In P. Milbourne (ed) *Rural Wales in the Twenty-First Century: Society, Economy and Environment*. Cardiff: University of Wales Press.

Leitch, S. 2006. *Prosperity For All in the Global Economy – World Class Skills*. London: HM Treasury.

Lewis, S.J. and Russell, A.J. 2011. Being embedded: A way forward for ethnographic research. *Ethnography*, 12: 398-416.

Livingstone, D.W. 1997. The limits of human capital theory: expanding knowledge, informal learning and underemployment. *Policy Options* 18(6): 9–13.

MacKay, R. 1992. Labour market adjustment in Wales, in Verhaar, C.H. A & Jansma, L.G. (eds) *On the mysteries of unemployment: Causes, consequences and policies*. Dordrecht: Kluwer Academic Publishers, 32-48.

MacKay, R., and Davies, R. 2012. Collective Learning, Effective Demand, Loss of Work and Loss of Direction: The Growing Regional Divide within the UK. *Regional Studies*, 46(7): 859-871.

MacKinnon, D., Cumbers, A., Featherstone, D., Ince, A., and Strauss, K. 2011. *Globalisation, labour markets and communities in contemporary Britain*. Joseph Rowntree Foundation.

Mayhew, K., and Keep, E. 2014. Industrial strategy and the future of skills policy – the high road to sustainable growth. *Research Insight*, February. CIPD.

Mazzucato, M. 2013. *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Antham Press.

Menter Mon (2015) "Skilling up for the Future": Putting human capital at the heart of development" http://www.mentermon.com/epublications/skillingup/

Mincer, J. 1995. *Economic Development, Growth of Human Capital and the Dynamics of the Wage Structure*. Columbia University Discussion Paper, Series No. 744.

Organisation for Economic Cooperation and Development. 2013. *OECD skills outlook 2013 - first results from the survey of adult skills*. Paris: OECD. http://dx.doi.org/10.1787/9789264204256-en

Prince, H., and Rubin, J. 2006. *Building New Labor Market Institutions: State Policies that Support Workforce Intermediaries. Investing in Workforce Intermediaries, Jobs for the Future.*

Reason, P., and Bradbury, H. 2007. Handbook of Action Research. London: Sage.

Sharone, O. 2014. Social Capital Activation and Job Searching: Embedding the Use of Weak Ties in the American Institutional Context. *Work and Occupations*, 41(4): 409-439.

Skills for Scotland. 2010. Edinburgh: Scottish Government.

Skills that Work for Wales. 2008. A Skills and Employment Strategy and Action Plan. Cardiff: Welsh Assembly Government.

Solow, R. 2008. Trapped in the New 'You're on Your Own' World. *The New York Review of Books*, 55(18), November. http://www.nybooks.com/articles/archives/2008/nov/20/trapped-in-the-new-youre-on-your-own-world/

Strangleman, T. 2001. Networks, Place and Identities in Post-Industrial Mining Communities. *International Journal of Urban and Regional Research* 25(2): 253–67.

Thompson, P. 2013. Financialization and the workplace: extending and applying the disconnected capitalism thesis. *Work, Employment and Society*, 27(3): 472-488.

UK Commission For Employment and Skills 2010. *Ambition 2020: the 2010 report*. Wath-upon-Dearne: UKCES.

Wales Employment and Skills Board (WESB). 2011. Skills for Jobs: Priorities. http://wales.gov.uk/docs/dcells/publications/110711skillsforjobsen.pdf

Warhurst, C., and Findlay, P. 2012. More Effective Skills Utilisation: Shifting the Terrain of Skills Policy in Scotland. *SKOPE Research Paper* No. 107. Cardiff: Cardiff University.

Wavehill. 2013. Evaluation & Monitoring of Shaping the Future: Project Interim Report November.

Wavehill. 2014. Menter Môn Baseline Survey, April.

Table 1: A typology of Labour Market Intermediaries (LMIs)

Organization type	Examples
For-profit sector	Temporary agencies, headhunters, for-profit training providers
Non-profit or community-based	Non-profit employment training and placement services,
	including for disadvantaged workers
Membership-based	Union-based initiatives and membership-based
	professional associations
Education-based	Community colleges
Public sector	One-stop career centres, private industry councils (PICs),
	and welfare-to-work agencies

Source: Benner et al., (2007:12)