

Rediscovering Braverman? Political Economy, Skill, and Skill Shortages

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1. Introduction

Perth was a very suitable location for the Skills Summit, given the hysteria over skill shortages in particular and shortage of labour in general about which the WA resources sector was complaining loudly. By the time we came to edit this edition of the Australian Bulletin of Labour, redundancies and retrenchments within the sector were almost a daily occurrence. Furthermore, projections of labour shortages in Western Australia by 2020 had fallen from 210,000 to 180,000 and this was before news that some major projects such as BHP Billiton's \$20 billion outer harbour project at Port Hedland had been postponed (Macdonald 2012). The Oakajee port and rail project has also been mothballed and unemployment is rising in Western Australia for the first time in many years.

The debate over skill and skill shortages is full of complexity and contradiction. For example, just what is meant by skill and skill shortages is, at the very least, open to debate (Shah and Burke 2005). Furthermore, at the same time as Grugulis and Lloyd (2010, p. 92) point to a shift away from attempts to locate skill within a broader analysis of capitalist development and towards a narrower explanation of particular trends and concepts, theories are emerging about the changing nature of the economy—the knowledge economy, for example—which have major implications for the nature of skill and skill formation. Skill shortages are used to justify importing skilled labour from outside the state and country, echoing more generally a disproportionate focus on supply side issues in the debate (Hall 2011), at the same time as skill itself, once seen as *a* driver of prosperity, is placed alongside productivity as *the* driver of prosperity (Keep and Mayhew 2010).

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Internationally, this is reflected in policy documents which are ‘couched in terms that ring with evangelical zeal’ about the competitive and social importance of the supply of skills (Hayward and James 2004, p. 1).

This Special Edition looks at the matter of skills in Australia, with a special focus on rural and remote regions which—with the emergence of a two-speed or patchwork economy—have become conspicuous as centres of production. The empirical and institutional focus of these articles provides important insights into how issues of skill formation, retention, and shortages are playing out in different sectors (public and private) and in different locations. In this introduction to the Special Edition we would like to pick up on some of the themes identified in the articles and reflect on how skills, skill development, and skills shortages are conceptualised. We also seek to contextualise the aforementioned focus on supply side issues within a broader political economy of skills marked first by the impact of financialisation on different levels of management and, second, by the impact of a second wave of globalisation associated with a shift from national to international links between and across skill ecosystems.

2. Skills in Australia: The Conventional Wisdom

In July 2012, the Australian Workforce and Productivity Agency produced a discussion paper on Australia’s skills and workforce development needs (APWA 2012). The report in many ways presents what is now the conventional wisdom regarding the role and form of skills in the 21st century economy. The report is driven by a very current concern with low productivity growth in Australia and focusses on the link between productivity, skill, and innovation. The report quotes approvingly an OECD study which points to future jobs demanding higher-level skills as low-skilled jobs are lost. The report concludes:

The trends that are influencing Australia’s need for more skills—at all levels but especially for higher skills—include technological change, the changing nature of work, globalisation, the skills needed to respond to climate change and broader issues of sustainability (AWPA 2012, p. 23).

Middle-level jobs, it is claimed, have been contracting in favour of high-wage, analytical non-routine jobs, on the one hand, and manual low-wage jobs on the other. The result is increasingly what is known as the hour-glass economy (Nolan and Slater 2010). A major concern is that employers, adopting what has been referred to as a ‘buy rather than make’ model (Hall 2011), are not training new recruits to anything like the same extent as they used to do, particularly at entry-level positions (APWA 2012, p. 24). This phenomenon is being exacerbated by organisational restructuring driven by globalisation and increased competition.

Welcoming the Asian century, the report argues that Australia's strategy should be 'skill, skill, skill' (APWA 2012, p. 27). Four possible future scenarios are outlined, but in all of them the demand for higher-level skills, particularly Professional, Scientific, and Technical Services increases through to 2025. There are 10 key messages from the report:

1. Australians will have a better skilled future;
2. Industry continues to demand higher-level qualifications;
3. Employment opportunities are available across the economy;
4. Employment growth is expected to be strongest in the service sector;
5. Higher-skilled occupations are expected to have the strongest growth;
6. Domestic qualifications supply is relatively stable;
7. Migration tops up domestic qualifications supply;
8. Projected growth in demand for qualifications is more than double the projected growth;
9. Increased investment in tertiary education is needed;
10. Lower level Vocational Education and Training (VET) qualifications will continue to play a significant role in terms of employment pathways and management capacity.

3. Problems of Definition

Given this emphasis on higher-level skills, the Australian Institute of Management's in-house publication warned that 'over the next decade, Australian managers will struggle to find the talent to fill key positions' (Gettler 2012, p.10). However, Richardson (2007, p. 11) argues that while seemingly straightforward, the idea of a skill shortage is a surprisingly slippery concept. She goes on to quote a recent definition (Richardson, 2007, p. 11) expressed in terms of supply and demand, along the lines of

a market disequilibrium between supply and demand in which the quantity of workers demanded exceeds the supply available and willing to work at a particular wage and working conditions at a particular place and point in time.

While seemingly all encompassing, the limitations of such a narrow economic definition are reflected in the suggestion by Grugulis and Lloyd (2010, p. 92) that there is general agreement that there are three dimensions of skill — skill of the worker, skill required of the job, and the social construction of

skill. The latter dimension, initially identified in the feminist critique of the patriarchal nature of skill, skill definition, and organisation (Cockburn 1983) points to wider and deeper issues with which a supply/demand approach simply cannot cope.

In a review of regional skill shortages, Cameron (2011) draws on literature that makes a distinction between skill shortages, skill gap, and recruitment difficulties:

A skill shortage is defined as above. Over time, the market might adjust in a number of ways, including price and (or) quantity adjustment, and the imbalance clears.

A skill gap refers to a situation where employers are hiring workers whom they consider under-skilled, or that their existing workforce is under-skilled relative to some desired level.

Recruitment difficulties refer to the situation when employers cannot fill vacancies in spite of an adequate supply of workers. The reasons for this may be varied. They could include such things as relatively low remuneration being offered, poor working conditions or image of the industry, unsatisfactory working hours, commuting difficulties, ineffective recruitment effort by the firm, or skill needs that are very specific to the firm.

Richardson (2007, p. 17) developed a classification which identified two types of skill shortage alongside a skills mismatch and a quality gap:

Level 1 shortage—there are few people with the essential skills who are not already using them and there is a long training time to develop skills.

Level 2 shortage—there are few people with the essential technical skills who are not already using them, but there is a short training time to develop the skills.

Skills mismatch—there are sufficient people with the essential technical skills who are not already using them, but they are not willing to apply for the vacancies under current conditions.

Quality gap—there are sufficient people with the essential technical skills who are not already using them and who are willing to apply for the vacancies, but they lack some qualities that employers consider important.

It has been argued (see Oliver and Turton 1982) that employers will use the term ‘skill shortage’ to cover the fact that they cannot recruit a person who fits their subjective and sometimes prejudiced view of what the ‘right’

person should look like. Unfortunately, Oliver and Turton labelled this the 'Good Bloke Syndrome'. This is further complicated by the recognition that skill shortages have both important sectoral differences (Oliver 2011) and local (sub-national) differences and dynamics (Cameron 2011). This points to taking issues of territoriality and spatiality more seriously than has hitherto been demonstrated in the skills debate (see McGrath-Champ, Herod and Rainnie 2010). We will return to this issue in our discussion of Global Production Networks (GPN).

The question of gender and skill further points to the inadequacy of narrow definitional supply-side-dominated approaches. Grugulis and Lloyd (2012, pp. 99-103) point to the increase in the lexicon of skills and a growing focus on social and soft skills, usually associated with sectors and jobs dominated by women. They point out that this shift has led to charges of legitimising discrimination, individualising responsibility, conflating disparate and dissimilar practices, and generally confusing the whole skills debate. It has been argued that a focus on soft skills counteracts tendencies to not recognise, or to dismiss as 'natural' skills when these are exercised by women. But as Grugulis and Lloyd point out, the problem is not generally a lack of recognition of women's skills, but it is more in the very low valuation placed upon them. More generally, there is a problem that expanding the meaning of skill obscures the fact that the major area of job growth is in occupations that are low-paid, routine, repetitive, and require little training. Grugulis and Lloyd note the Harry Braverman (1974) pointed out in *Labor and Monopoly Capital* that with the development of capitalism, the very concept of skill becomes degraded.

Problems of definition aside, there is even less agreement about the trajectory of development of skill and skill formation.

4. Where is Skill Going?

Carre *et al.* (2012, p. 3) identify seven possible scenarios regarding the dynamics of job quality, including *good jobs are getting better* or, more generally, *jobs are getting better*. However, as Nolan and Slater (2010) argue, a dominant theme has been the supposed emergence of the hour-glass economy, with both high and low-skill jobs growing in number at the expense of the missing middle. Carre *et al.* describe this as the *polarisation of job quality* scenario. As Nolan and Slater suggest, this is often associated with analysis suggesting the emergence of a knowledge economy/information age/weightless economy. Furthermore, as Thompson and Smith (2010, p. 15) point out, 'new economies' are conceived either as not centred on work relations, or as having largely benign consequences for people at work.

This is also often linked to debates around the emergence of High Performance Work Systems (HPWS) and the associated notion of ‘upskilling’ (for a detailed critique of the high-performance paradigm see Hughes (2008)). The evidence for upskilling is at best debateable (Martin and Healy 2009). Although an increasing number of jobs in economies such as the United Kingdom and Australia require degree level qualifications at the point of entry, it is questionable what proportion of these jobs actually necessitates a degree to perform them competently. On the other hand, although a growing proportion of young people are entering higher education, an equally rapidly expanding proportion end up in occupations that do not require higher education qualifications. This is the supply side fallacy: the idea that by expanding the number of people with qualifications employers will then respond by ‘upskilling’ jobs.

Further confusing or confounding the more rose-tinted views of the future of skills and work, Hall (2011) points out that employers in Australia would rather buy than make skilled workers, preferring recruitment over developing their workers’ skills. Hall (2011, p. 80) goes on to list five demand side issues that militate against skills growth:

1. increased work intensification. A concentration on utilisation rather than development of labour;
2. development of the principles of lean production applied to the workforce;
3. skills underutilisation (see above);
4. managerial (in)competency;
5. job design and work organisation.

Hall (2011, p. 83) concludes that:

Work intensification and the use of lean workforce profiles are two of the most important structural features of labour utilisation in Australian workplaces contributing to training under provision [sic]. Together these factors reduce the capacity of workplaces to undertake meaningful workplace based training and development and reduce the incentives for employers to invest in training for their significant numbers of contingent workers. Additionally, the use of contingent workers reinforces a ‘buy rather than make’ orientation to human capital more generally. Managerial competence, especially the relative weakness of Australian managers in advanced people management practices, is likely associated with a lack of commitment to the design of jobs with optimal autonomy and complexity.

UK evidence suggests that while some jobs might be becoming more complex, the degree of worker discretion within these same jobs is being curtailed. So the link between skill and discretion cannot be assumed. Here we return to Harry Braverman and deskilling as a major tendentious presence within the development of the capitalist labour process. This is not to deny that as some groups or occupations are deskilled, new forms of skilled work do not appear elsewhere but this does not deny the strength of the tendency. It simply underlines the dynamic nature of the capitalist labour process (Grugulis, Warhurst and Keep 2004, p. 3)

Paul Thompson (2011, p.362) suggested that these general trends, under the banner of financialisation, have been associated with downsizing and 'de-layering' as firms cut costs to improve financial performance. Dominant growth strategies therefore militate against continuity and employment stability. The result is the emergence of disconnected capitalism. Disconnected here is taken to mean first a disconnection between employer objectives in work and employment spheres. In the former they are still pressing for full utilisation of labour power; in the second they are shifting the burden of risk from capital to labour. Second, there is a disconnection of managerial agents. Local and functional managers are told to exact high performance from labour but they lack the capacity to sustain the enabling conditions. Corporate management, tied to financialised practices and distanced from local consequences control the key levers. The outcome is that it is possible to explain performance without reference to commitment or HPWS-like systems. Indeed HR comes to have a rapidly diminished legitimacy, as its role has shifted from steward of the social contract to handmaiden of the corporate elite.

More generally, Hall (2011, p. 85-9) argues that the skill debate in Australia has taken place at a time when labour market policy has been dominated by decentralisation and flexibility, which have all but swamped initiatives such as the National Training Reform. Therefore, although Skills Australia was set up in 2008 and adopted a skills ecosystem approach (Lewis 2008) the 2011/12 Federal Budget still focussed almost entirely on the supply side of skill.

Underlying all this, and culminating in the global financial crisis, was the greater financialisation of the economy and society. Here we take financialisation to mean the greater autonomy of the financial sector, the proliferation of financial institutions and instruments, and the integration of a broad range of economic actors in financial markets (Callinicos 2010). In a recent report for the ACTU, Rafferty and Yu (2010) pointed out that, in this more brutal, market-oriented world, governments and corporations

have increasingly loaded the responsibility for bearing financial risk onto employees and households. Increasingly, households are bearing the costs and risks associated with, inter alia, pensions, accommodation, health, education, transport, and care. According to Rafferty and Yu, even the IMF has described households as the shock absorber of last resort, and risk is being transferred by both the state and corporations to households. In the worlds of employment and skill this goes some way to accounting for the rise of the concept of employability, whereby it is now the individual's own responsibility to stay ready for work, rather than being that of corporations and (or) the state. As Keep and Mayhew point out (2010, p. 569), if people are in low-paid dead-end jobs, it is now seen by successive governments to result from an individual's lack of skills. This is not due to the structure of labour markets, weak trade unions, or the lack of collective bargaining; rather, it is the individual's own fault.

Financialisation and emerging professions

Turning to the evidence of labour market change in the United Kingdom, Nolan and Slater (2010, p. 12) point to two trends (echoing the Australian experience); first, a rising share of professional occupations; and second, the continuing importance of manual occupations. It is important to note that a decline in manufacturing does not necessarily lead to a decline in manual occupations. In the 1990s, growth in semi-skilled manual work in the United Kingdom was dominated by care assistants, nursery nurses, and hairdressers (reinforcing our earlier argument about gender and definitions of skill). A rising proportion of professional occupations might support the upskilling knowledge economy argument. However, in the 1990s, major growth in professions was dominated by accountants, management consultants, and actuaries reflecting the increasing importance of the financial services sector. Indeed, the process of what has come to be called financialisation has an important role to play, as we have already seen. Furthermore, one-third of the net increase in higher professionals in the 1990s was due to rising numbers of medical and dental practitioners following large investments in state-funded health provision. Nolan and Slater (2010, p. 17) conclude that:

The data do not reveal a simple unidirectional shift towards high-skill, high status weightless work; nor are they consistent with crude technology driven accounts of employment change.

Nolan and Slater demand an approach more grounded in political economy, exploring the material effects of the interplay between state, capital, and labour relations. The authors argue that most of the futurology-based approaches to skill and skill formation are politically disabling. The narratives

commonly conjure a future in which the role of social agency has been excised to allow technology and global markets to serve as the prime movers of history (Nolan and Slater 2010, p. 21).

5. Back to Political Economy?

In a recent series of publications, Phil Brown, David Ashton, and Hugh Lauder (2010) and Brown, Lauder and Ashton (2010) have seized the initiative in applying a political economy-based approach to the study of skills and skill development on a global scale.

The basis of the UK/US focussed argument is that conventional wisdom in labour market policy terms is based on the assumption that countries like the United Kingdom and the United States can no longer compete in global markets based on low value added production. This is due to the rise of low labour cost centres in emerging economies. Instead, policy should focus on developing higher-value markets based on high-skilled, high value added production that would continue to deliver rising standards of living (echoes of HPWS). However, Brown, Ashton and Lauder (2010, p. 8) argue that there is a growing realisation that emerging economies are also moving into high value added activities and they are doing so on the basis of wage levels well below those prevalent in the United Kingdom and the United States (or indeed Australia). It is argued that this phenomenon is based on a number of trends that are reshaping the global economy:

- an increasingly competitive environment;
- the globalisation of high skills, for example China has more people in higher education than does the United States;
- the rapid economic development in Brazil, Russia, India and China (BRIC) which have pre and post-industrial models sitting alongside each other, increasing transnational corporation (TNC) sourcing possibilities (uneven development);
- competition is now based on quality and cost;
- the 21st century will be the century of digital Taylorism, whereby knowledge work is translated into working knowledge through extraction, codification, and digitisation into software products;
- the development of global value chains is bringing an alignment of processes and international benchmarking of quality standards;

- Western TNCs will be confronted by Indian and Chinese companies based on a high-quality, low-cost model.

What this amounts to is a second wave of globalisation wherein almost all aspects of production, design, and research can be located across the globe. This leaves TNCs gaining greater control over their skill strategies, but consequently becoming less dependent on national systems of skill formation. According to Brown, Ashton and Lauder (2010, p. 13) this represents a shift from national to international skill webs. This presents TNCs with three challenges:

- the question of ‘where to think’;
- the extent to which knowledge work can be standardised;
- the globalisation of talent management.

The role of digital Taylorism is central. Mechanical Taylorism allowed companies to capture the knowledge of craft workers and reconfigure it into assembly lines dominated by unskilled workers. Digital Taylorism enables innovation to be translated into routines, thus moving from knowledge work to working knowledge. This undermines (deskills à la Braverman?) the work currently undertaken by managers and professionals (Shaw 1987).

The combination of lower-cost graduate labour in developing countries, together with the impact of digital Taylorism will generate increasing income disparities within the middle class. The connections between learning and earning—underpinning so much of supply side skills strategies in Australia and the United Kingdom—will be broken.

Brown, Ashton and Lauder (2010, p. 27-28) conclude rather depressingly that for policy makers there is now a need to be more active in engaging with TNCs in their localities and identifying their needs and requirements. The problem becomes how to support companies and workers within those parts of global value chains (GVCs) located in the nation or locality. This would seem to lead in the direction of an increasingly desperate round of competition between places or localities competing with each other to attract or retain relatively mobile capital based on ever cheaper labour. This would seem to have a lot of similarities to the disabling approach based on supposedly unstoppable forces of globalisation aided by technological developments, so bitterly denounced by Nolan and Slater (2010). However, there is another political economy based approach that holds out somewhat more hope and that is the skill ecosystem approach associated with John Buchanan and the Workplace Research Centre at Sydney University.

Skills ecosystems

The Buchanan (2006) and Buchanan, Watson and Briggs (2004) development of the concept of a skills ecosystem is based on the work of Mournier (2001) who outlined three ‘logics’ of skills:

- technical—related to the exercise of labour power, and determined by equipment and productive methods;
- behavioural—related to the subordination aspects of employment relationships and reflecting the personal qualities of the worker to deal with interpersonal relationships in dependent and subordinated labour;
- cognitive—related to the level and kind of general education and training undertaken by a population to help it understand and act in the world (Buchanan, Watson and Briggs 2004, p. 188).

The combination of these three logics is always time and place specific because they are embedded in labour relationships and broader social structures. Mournier then advances the notion of a skill regime (resembling the idea of a local labour control regime (Jonas 1996)) which emphasises the interface between skill and work, and education and social structures.

Buchanan, Watson and Briggs (2004, p. 188) go on to suggest that this configuration can more usefully be analysed as a skills ecosystem. This includes clusters of high, intermediate, or low-level competencies in a particular industry or locality. These are then shaped by interlocking networks of firms, markets, and institutions. According to Buchanan (2006, p. 14), the key aspects to a skill ecosystem are the:

- business setting, for example the type of product market, competitive strategies pursued, business organisations and networks, and the financial system;
- institutional and policy frameworks both VET and non-VET;
- predominant modes of engaging labour, for example labour hire;
- structures of jobs including job design and work organisation;
- level and type of skill formation, for example, apprenticeships, on-the-job training;
- technology adopted.

While the majority of these factors are associated primarily with the demand side of the labour market, factors on the supply side—such as the nature

and extent of female participation and of the proportion of students in the workforce—reshape the options available to both employers and workers.

Skill ecosystems are therefore dynamic and do not settle at any equilibrium point, but continue to evolve and adapt in response to internal and external stimuli which include patterns of political mobilisation.

We believe that this very fruitful approach can be further developed by combining it with recent work on GPNs. This will combine analysis of current patterns of organisational restructuring (and their implications for skill) with a political economy approach that is more satisfactory than that of Brown *et al.* (see Brown, Ashton and Lauder 2010; Brown, Lauder and Ashton 2010). Such an approach will combine the dynamics of TNC-dominated networks with locally or regionally based organisations (individually or in clusters) with governance structures at various levels.

Global production networks

Elsewhere Rainnie, Herod and McGrath-Champ (2011) have argued for a GPN theory-based approach to analysing work and employment within the contemporary global economy. This perspective provides valuable insights into the spatial dimensions of industrial relations and the political economy of work in general (McGrath-Champ, Herod and Rainnie 2010) and provides a useful framework for contextualising the political economy of skills in particular. From this perspective, place needs to be viewed as actively and continuously remade locations where local and non-local systems of rules, norms, customs, legal structures, and regulatory mechanisms intersect to shape and institutionalise the behaviour of workers and employers (Coe *et al.* 2004). From such a perspective, the trajectory of a place's development is conceptualised as a dynamic outcome of the complex interaction between its territorialised internal social relations and how it is linked with other places through global production networks, all within the context of ever-changing regional governance structures. Within such a view, GPNs are seen to act as global pipelines between locally based firms or clusters of firms (that is, 'the local buzz') within regions and selected partners outside the region (Coe and Hess 2011).

It is important to recognise that TNCs are central agents of urban and regional development. TNCs interweave GPNs with urban and city networks through what Yeung (2009) calls their 'strategic coupling' with the local business firms and institutions in the communities in which they are located. Although much analysis has focussed upon the actions of TNCs as the creators of commodity chains, MacKinnon (2012) suggests that regional institutions—which vary considerably across space in their constitution, due to the particularities of

local histories—are central in all of this, because they distinctively shape how strategic coupling occurs through their moulding of regional assets to fit the needs of GPNs, a moulding which is geared towards the creation, enhancement, and capture of value. Institutions here might include the local skills ecosystem and its constituent elements. Here, we have echoes of the deeply pessimistic approach of Brown *et al.* (see Brown, Ashton and Lauder 2010; Brown, Lauder and Ashton 2010). However, despite the centrality of both TNCs and regional institutions, power asymmetries between them can often result in the latter's 'corporate capture' over time, which affects the degrees of freedom they have with regard to their activities (that is, it affects their levels of agency). In other words, the skill ecosystem could be captured.

The contemporary debate over skill and skill shortages in Australia, as elsewhere in advanced capitalist economies, portrays the creation of highly developed skills sets as *the* basis for the competitive advantage for nations, regions, companies, and individuals. Yet we would argue that policy and public discussion of these issues is driven by a rhetoric which, with a narrow focus on the supply of skills, fails to consider some critical underlying assumptions about skill shortages and the construction of skills. It is clear that the dominant supply side based strategies, and the individualised human capital models on which they are based, de-contextualise the manner in which 'skills' are formed, retained and, indeed, defined. When critically examining the extent and multifaceted nature of skill shortages in Australia, we need as our frame of reference an understanding of the wider skills ecosystem, shaped by the shifting demands of (global) production networks, coupled with an explicit recognition of how social structures such as gender, ethnicity, and class interact with skills and labour market opportunities.

6. Articles in the Special Edition

The capture of skill ecosystems by TNCs (for example Origin/Conoco Phillips, Royal Dutch Shell, Chevron, and Rio Tinto) is an implicit issue in the first article by Susanne Bahn and Roslyn Cameron. They examine how the resources boom in Australia has heightened a need for specialised skilled labour in the country's resource-rich regions. The new research agenda on skills they propose relies more on human capital theory than the approach we have outlined; nonetheless, Bahn and Cameron adopt the GPN framework to look at how specialised skilled migrant workers have been sourced in regional Queensland and Western Australia. Bahn and Cameron's overall contention is that the difficulty in sourcing local skilled labour at this time is challenging long-held beliefs and constructs related to the nature of work in Australia.

The importance of challenging presumptions regarding skills is central to the next article by Cecil Pearson and Sandra Daff. This article also foregrounds the issue of a shortage of relevant educated and skilled personnel for the development of the mining industry, but it shifts focus to look at how this skill shortage has, in part, been dealt with through work-integrated learning programs designed to increase the employment rate of Indigenous people in a remote mining operation in northern Australia. Pearson and Daff note that these supply side programs have strong public and private sector support; however, through a longitudinal review of barriers to the success of this program, they challenge the mining industry and the government to disclose how Indigenous training schemes are ameliorating the skills gap in the Australian mining industry.

Within the wider context of ‘buy rather than make’ employer strategies, the Labour Harmonisation (LH) initiative, examined in Christine Storer and Julia Connell’s article is designed to retain skilled labour within rural agricultural industries in Western Australia. A major disincentive for skilled labour to remain in these industries is the relative income or wage structure and the opportunities from other industries such as mining. An LH initiative proposes cross-industry strategies with the state’s dominant mining industry to provide a sustainable skilled labour supply to rural agricultural industries during busy seasons and year-round income for agricultural workers. While such an initiative has many advantages, Storer and Connell identify a central problem with this supply side strategy: where and how do agricultural workers receive the training and education required to undertake work in the mining sector?

The effect of the second wave of the resources boom on skill shortages, and on a dearth of engineering skills in particular extends beyond Queensland and Western Australia. The article by Roslyn Cameron, Deborah Joyce, Michelle Wallace, and Peter Kell examines issues associated with an ageing workforce and skill shortages in engineering and technical areas in the Australian rail industry in Sydney and Victoria. Picking up on the focus on global labour mobility considered in this issue’s first article, Cameron and her colleagues’ research found a large, highly educated and experienced pool of migrant engineers seeking work in the profession who could be targeted by the rail industry. However, the use of skilled migration programs was confronted with problems of a perceived *quality gap*: employers viewed skilled migrants as largely unsuitable due to a ‘lack of local experience or knowledge’. This outcome—associated with the social construction of skill—highlights concurrent processes of heightened skill demand *and* atrophy undermining any simple notion of market disequilibrium between skills supply and demand.

The subject of mobility is picked up in the final article by Geraldine Kennett which examines training programs in the Victorian Public Service (VPS) as a site of skill formation. Kennett analyses the way in which different training and development models have divergent effects on employee retention within different VPS departments, and hence the ability of this organisation to retain and attract a suitably skilled workforce. When alternative employment prospects were perceived to exist, individualised training schemes that were mismatched with limited opportunities for upskilled jobs led to an increased rate of employee turnover. As opposed to individualised programs, the team development of skills was found to have a far more effective outcome in terms of retention.

Overall, these articles provide a valuable understanding of how the so called *War for Talent* is unfolding in Australia. While highlighting problems with the supply of skills viewed as essential to Australia's competitive position, we argue that they pose questions that can only be fully considered within a broader analysis of capitalist development.

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