

# OutLook

(October 2010)

## Skills and Training

### Overview of New Zealand's Labour Market

Unemployment is often recognised as an important indicator of a country's standard of living. The Government devotes considerable effort to monitoring the labour market. Statistics New Zealand actively conducts a Household Labour Force Survey (HLFS), and produces data on unemployment and on other aspects of the labour market every three months. The Linked Employer-Employee Data (LEED) series provides further insight into the operation of New Zealand's labour market by measuring labour market dynamics at various levels including industry, region, territorial authority, firm size, age and sex.

In New Zealand, working-age population is defined as the usually resident, non-institutionalised, civilian population of New Zealand aged 15 years and over. A person in the working-age population is considered employed if he or she spent some of the previous week working at a paid job. A person is unemployed if he or she is without a paid job, available for work and has been actively seeking work in the past four weeks. A person who fits neither of the above two categories is considered not in the labour force, which means the labour force is the sum of the employed and unemployed.

**A person in the working-age population is considered employed if he or she spent some of the previous week working at a paid job.**

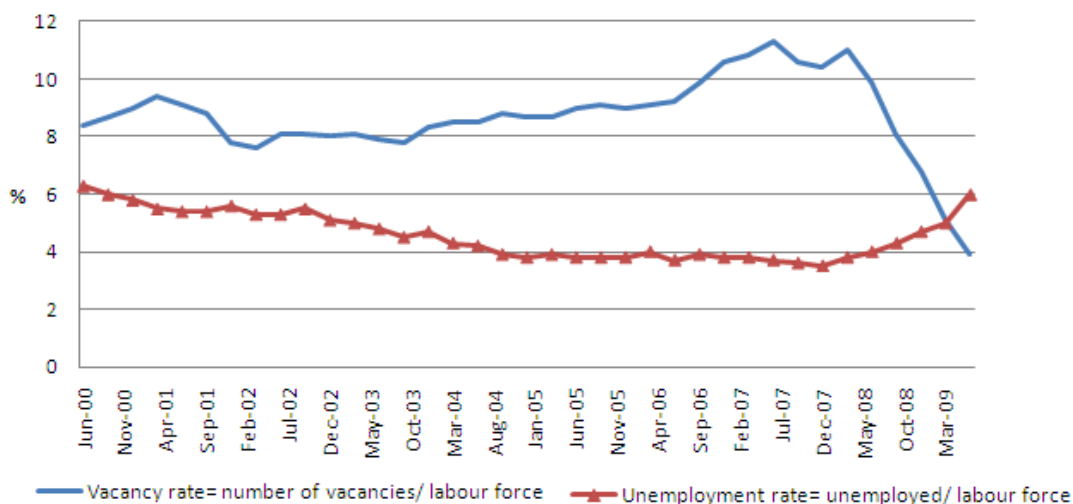
The unemployment rate calculates the percent age of the labour force that is unemployed. In mathematical form:

$$\text{Unemployment rate} = \frac{\text{Number of unemployed}}{\text{Labour force}} \times 100$$

Figure 1 gives an overview of the levels of unemployment in New Zealand for the last ten years. Since 2000 the unemployment rate has been dropping gradually from around 6 percent. Soon after touching record low level of 3.5 percent in December 2007, the US-led subprime mortgage crisis has caused a global financial meltdown, and forced New Zealand into recession in early 2008. Five quarters of contraction were experienced, until the economy is technically out of recession. A person in the working-age population is considered employed if he or she spent some of the previous week working at a paid job (i.e. declining job vacancy rate). In June 2010 the seasonally adjusted unemployment rate has risen to 6.8 percent, however, the labour market outlook has improved somewhat.

## New Zealand Manufacturers and Exporters Association

**Figure 1 Labour market in New Zealand**

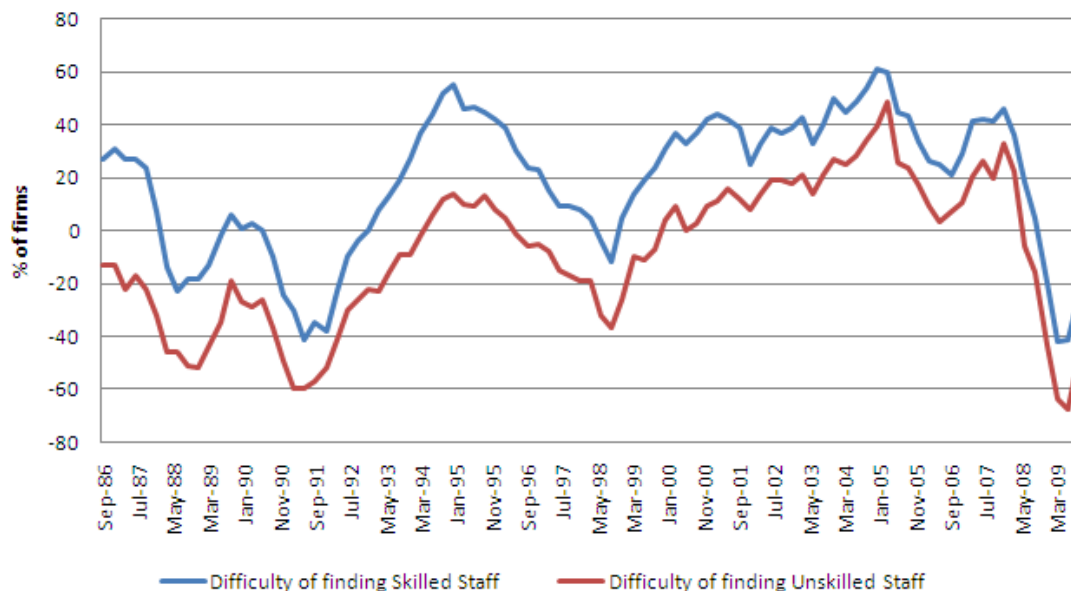


**New Zealand businesses have a long tradition of facing difficulty of finding both skilled and unskilled workers**

Source: ANZ Job Ad Monitor & Statistics New Zealand HLFS

The Quarterly Survey of Business Opinion (QSBO) conducted by The New Zealand Institute of Economic Research (NZIER) suggested that a net 7% of firms reported they had cut staff in the second quarter, fewer than the net 15% recorded in March and far fewer than the net 34% reporting cuts in March quarter of 2009; in addition a net 1% of firms expect to increase staff over the coming quarter (down from 2% in March); further expansion in employment is expected.

**Figure 2 Difficulty of finding skilled and unskilled staff, 1986-2009**



**The gap between the shortage indicators for unskilled and skilled staff fell as a net 33 percent of firms had difficulty finding unskilled labour**

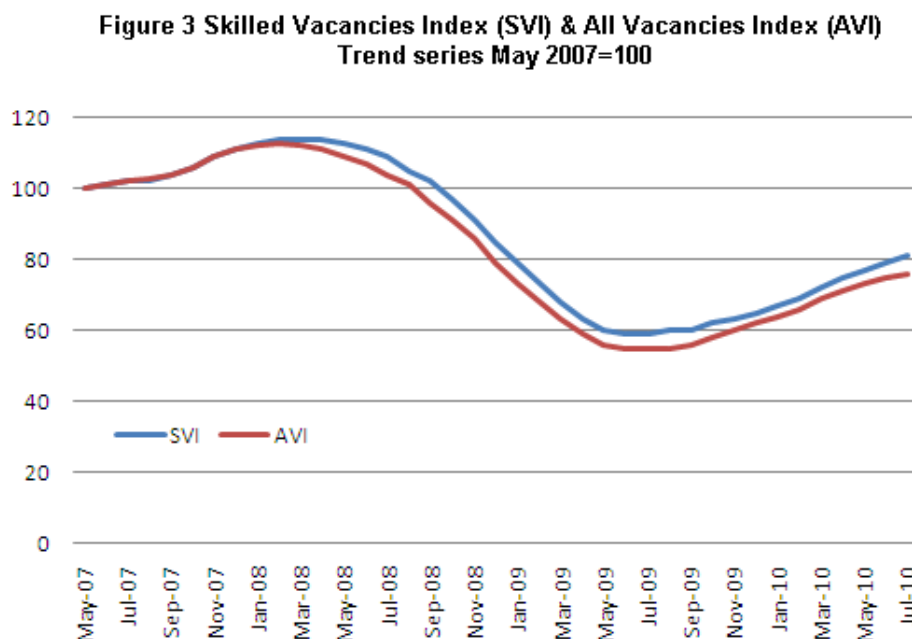
Source: Quarterly Survey of Business Opinion, NZIER

New Zealand businesses have a long tradition of facing difficulty of finding both skilled and unskilled workers<sup>1</sup>, these pressures were particularly acute during the pre-recession period (see Figure 2). In the December 2007 quarter, a net 46 percent of firms reported difficulties finding skilled staff. The gap between the shortage indicators for unskilled and skilled staff fell as a net 33 percent of firms had difficulty finding unskilled labour, up from a net 19 percent in the September 2007 quarter.

<sup>1</sup> Skill shortage indicators are based on discretions of individual firm; no formal definitions of skilled and unskilled staff were adopted.

During the recession skill shortage indicators eased dramatically. In September 2009, a net 25% of firms reported that it was easier to find skilled labour and a net 48% of firms reported it easier to find unskilled labour. But the moment recession is over, businesses started to report that labour is becoming more difficult to find.

The Department of Labour actively monitor changes in job vacancies advertised on the main internet job boards through its Jobs Online measures. It showed that vacancies have increased consistently from July 2009. Since then skilled<sup>2</sup> vacancies have increased by 36.7%, and total vacancies have increased by 39.6%. In the three months to the end of July 2010, the total number of job advertisements increased by 7.6%, whereas advertised skilled jobs increased by 8.2%. The overall trends since May 2007 are shown in Figure 3.



Source: Jobs Online, Department of Labour

**The moment recession is over, businesses started to report that labour is becoming more difficult to find**

Looking at the job vacancies for the occupation groups in detail (see Table 1), the strongest growth in job advertisements over the quarter was for professionals (up 9.2%), closely followed by technicians and trades workers (up 9%). Annual growth was the strongest since the beginning of the series for all three occupations.

**Annual growth was the strongest since the beginning of the series for all three occupations.**

**Table 1 Skilled Vacancies Index (SVI) for highest-skilled groups**

Occupational group	Apr. 10 – Jul. 10	Jul. 09 – Jul. 10
Managers	5.7%	37.2%
Professionals	9.2%	36.3%
Technicians and trades workers	9.0%	52.7%
<b>All skilled occupations</b>	<b>8.2%</b>	<b>36.7%</b>

<sup>2</sup> Skilled occupations are defined as skill levels 1-3 under the Australia New Zealand Standard Classification of Occupations (ANZSCO) 2006. Skill level 3 is equivalent to an NCEA level 4 qualification.

### Skills, Productivity and Growth

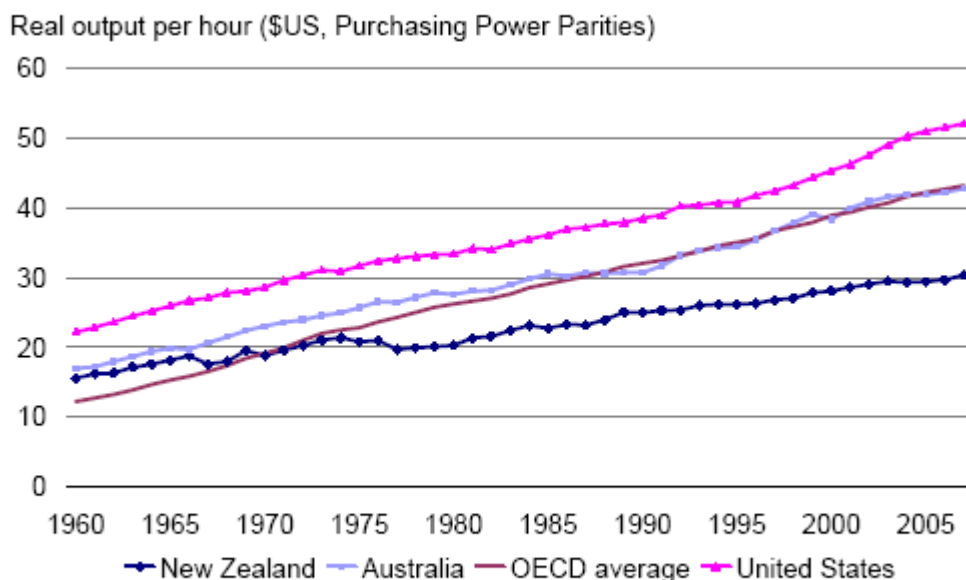
It is well known that high levels of productivity directly contribute to economic growth and higher per capita living standards. As one of five drivers of productivity identified in a recent Treasury publication<sup>3</sup>, skills enhance labour’s contribution to growth, improve the economy’s ability to innovate and adopt new ideas, and increase investment opportunities.

As a result of the discussion of the Skill New Zealand Tripartite Forum, the New Zealand Skills Strategy 2008<sup>4</sup> was proposed, which emphasised the importance of skills and suggests: “New Zealand’s continuing wealth will depend on the skills of its people and how firms and industry support New Zealanders to work to the best of their potential. Skills are key to economic transformation; the skills of workers increasingly determine firm’s ability to build competitiveness.”

Unfortunately, New Zealand’s recent economic growth was largely driven by increases in labour utilisation rather than labour productivity growth. In other words, we are working harder but not smarter. An hour worked in New Zealand produces approximately 30 percent less output than an hour worked in Australia, and around 45 percent less than an hour worked in the USA (see Figure 6).

**It is well known that high levels of productivity directly contribute to economic growth and higher per capita living standards**

**Figure 6 Level of labour productivity (output/hour)**



Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008

**We are working harder but not smarter**

Obviously, working longer hours cannot be the solution for New Zealand to climb back up the OECD ladder. Therefore, productivity growth has become our only option.

### New Zealand’s Tertiary Education System

Tertiary education in New Zealand covers all post-school education from adult and community education, literacy and numeracy skills, and industry training (including Modern Apprenticeships) to certificates and diplomas, bachelor degrees and postgraduate qualifications. Defined by the Education Act 1989, there are five types of Tertiary Education Organisations (TEOs), which are:

- Universities - provide a wide range of research-led degree and postgraduate education, and undertake research in a broad range of fields inter-dependently with teaching and learning.

<sup>3</sup> <http://www.treasury.govt.nz/publications/research-policy/tprp/08-01/tprp08-01.pdf>

<sup>4</sup> <http://www.skillsstrategy.govt.nz/assets/Uploads/NZSkillsStrategy08.pdf>

- Institutes of Technology and Polytechnics (ITPs) - provide skills for employment and productivity, and supports progression to higher levels of learning or work through foundation education.
- Wānangas - provide education in accordance with kaupapa Māori philosophies, principles and approaches. They maintain and develop teaching, learning and research environments based on āhuetanga Māori in accordance with tikanga Māori and having a continuing role in re-engaging the learner into education.
- Private Training Establishments (PTEs)/Other Tertiary Education Providers (OTEPs) - privately owned organisations, provide education to particular communities of students and in some cases provide education that is technically specialised which is not provided by any other tertiary education providers.
- Industry Training Organisations (ITOs) - provide industry leadership on matters relating to skill and training need, design national qualifications and standards for registration on the National Qualifications Framework and arrange for the delivery of industry training.

**Every year Parliament approves more than \$4 billion for tertiary education (including student loans), mostly through the Budget via Vote: Education**

The core roles and expectations for each TEO are specified by the Tertiary Education Strategy. The Crown has an ownership interest in Tertiary Education Institutions (TEIs), which include universities, institutes of technology and polytechnics, and wānanga.

Every year Parliament approves more than \$4 billion for tertiary education (including student loans), mostly through the Budget via Vote: Education. Other than supporting TEOs, providing policy advice and implementation across the sector, the main responsibility of the Tertiary Education Commission is to manage the distribution of Government funding for TEOs through a number of different funding mechanisms. Most funding is distributed through a bulk funding arrangement, involving a small number of separate but closely related funds. These funds are all linked to investment plans and have a three-year baseline that is updated at each Budget. There are two main components to the tertiary funding system. These are the Student Achievement Component and the Tertiary Education Organisation Component.

The Student Achievement Component is the single largest source of revenue for universities, wānanga, and institutes of technology and polytechnics. It is also allocated to many private training establishments and other tertiary education providers. It provides subsidies for teaching and learning in mainstream tertiary qualifications (with most learners also paying tuition fees). Allocations are based on total student enrolments agreed in investment plans, and are calculated using a sophisticated formula with funding rates that vary significantly by the type of qualification and for each part of the tertiary education sector. The Tertiary Education Organisation Component provides funding (mainly for universities, wānanga, and institutes of technology and polytechnics) to support a range of core roles, capability needs and innovation not directly related to student enrolments. There are six elements within this component, of which the largest two are:

**Allocations are based on total student enrolments agreed in investment plans, and are calculated using a sophisticated formula with funding rates that vary significantly**

- The Performance-Based Research Fund which ensures that teaching is underpinned by excellent research and is allocated (mainly to universities) based on research outputs. This was reviewed in 2008; the review found that in general it was performing well.
- The TEI Base Investment which focuses institutions on their core roles and distinctive contributions. Until 2011 it is allocated via a transitional formula that is largely related to student enrolments.

The four other elements include funding for innovative projects and priority outcomes from the Tertiary Education Strategy, supporting major change programmes and the strategic leadership role of industry training organisations.

The Industry Training Fund funds industry training organisations and subsidises the development of national qualifications and the delivery of workplace learning linked to their qualifications. Industry training is subsidised at a lower rate than the Student Achievement Component, reflecting the fact that learning primarily takes place on-job using the resources of the workplace, with only a limited off-job element. It is strongly supported by employers and has made a significant contribution to New Zealand's skills base.

### Vocational/Industry Training for Productivity Growth

There are many different types of training, and mostly people refer to formal training such as university or polytechnic education. The proportion of people with formal qualifications may be considered as a good indicator of the overall skill level of a nation, but it does not represent the whole story, especially when skill shortages are common across all skill levels.

**Industry training is subsidised at a lower rate than the Student Achievement Component**

Since 80 percent of the current New Zealand workforce will still be at work in 2020, it is important to invest in people directly at the workplace.

In New Zealand, under the Industry Training Act 1992<sup>5</sup>, industry training is defined as: “systematic training, provided for people employed in an industry (or two or more industries)

- (a) By or on behalf of employers in the industry (or industries); or
- (b) For the benefit of employers and employees in the industry (or industries), in skills characteristic of, or likely to be valuable to, people engaged in the industry (or industries)”.

There are 40 Industry Training Organisations (ITOs) in New Zealand, which are industry bodies recognised by the Government under the Industry Training Act 1992. They cover many diverse industries in New Zealand, and are owned by industry (both employers and employees). They exist to ensure that the views of people working in their industries are heard in the development of skill standards and qualification. Three of their main roles are to:

**There are 40 Industry Training Organisations (ITOs) in New Zealand**

1. set skill standards and qualifications for industry and vocational education;
2. arrange for the delivery of workplace learning and training for industry;
3. provide industry leadership by identifying skill needs, developing strategic training plans, and promoting learning that meets industry needs.

The organisations do not deliver workplace learning and training themselves. The actual learning takes place in the workplace or at a tertiary education provider, such as an Institute of Technology, Polytechnic or Private Training Establishment (PTE).

Vocational or industry training is about up-skilling the current staff to meet the changing needs of your business. Productivity rises as the training integrates the employee's knowledge to the firm. A literature review<sup>6</sup> done by the NZIER revealed that on average a trainee after industry training is likely to be 5-20% more productive than they would have otherwise been.

<sup>5</sup> <http://www.legislation.govt.nz/act/public/1992/0055/latest/DLM266246.html>

<sup>6</sup> [www.itf.org.nz/user/file/70/Industry%20Training%20&%20Productivity.pdf](http://www.itf.org.nz/user/file/70/Industry%20Training%20&%20Productivity.pdf)

Table 2 shows the overall government funding for different types of organisations and their participation rates for 2008. As you can see 55% of the funding was given to the universities and they are responsible for 27% of the students; industrial training organisations received 8% of total government funding, combined with cash contributions from industries, and they trained 46% of the students.

**Table 2 Government funding (\$ millions GST exclusive) & Participation**

Sub-sector	2008			
	2008	(%)	2008 EFTS	2008 EFTS (%)
Universities	\$1,169	55%	111,498	27%
ITPs	\$496	23%	62,821	15%
ITOs	\$176	8%	194,516	46%
Wānanga	\$135	6%	22,526	5%
PTEs	\$131	6%	25,918	6%
OTEPs	\$21	1%	3,246	1%
Total	\$2,129	100%	420,524	100%

**55% of the funding was given to the universities and they are responsible for 27% of the students**

Source: Ministry of Education & TEC

### Tax incentives for training programmes

Similar to other business investments in intellectual assets, developing higher employee skill levels in is an intangible investment. For most OECD countries including New Zealand, the main tax treatment is to allow full deductibility (i.e. 100%) of training expenses in the year incurred. A clear exception is Ireland where training expenditure is capitalised over a three-year period. Also, Finland and Canada base their tax treatment on the duration of benefits received by the company. For example, if the training produces only short term benefits, then the full deduction is allowed in the current year; whereas training expenses that provide long- term benefits are treated as investment, it may be amortised over the specified period of time.

**A number of countries encourage industry training via credit-based fiscal incentives**

In addition to current deduction of training expenses, a number of countries encourage industry training via credit-based fiscal incentives. Such mechanisms are similar to those used in the case of R&D tax treatment<sup>7</sup>. For example:

- Austria and The Netherlands use volume-based additional allowances from taxable income.
- Other countries use tax credits. Korea has a volume based tax credit, France adopted a purely incremental scheme between 2001-2004<sup>8</sup>, while Japan and Spain use hybrid schemes mixing the volume and incremental tax credits.
- Training expenditures up to certain prescribed limitations can qualify as R&D eligible expenditure in Mexico.

It appears that for tax credit or additional allowance purposes, qualifying training expenses are those incurred for professional training courses, and are performed by an 'arm's length' organisation. These expenses would typically cover course fees, payments for external instructors, training materials, rent for rooms (outside the company) and training equipment required.

<sup>7</sup> MEA Outlook, Research and Development, <http://www.mea.org.nz/document.ashx?id=24>

<sup>8</sup> For more information on training tax incentives in Europe, please refer to [http://www.cedefop.europa.eu/etv/Upload/Information\\_resources/Bookshop/536/5180\\_en.pdf](http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/536/5180_en.pdf)

Most of these incentive measures are subject to various caps defined either as the maximum amount of tax credit claimed (France), maximum amount of qualified training expenditure (The Netherlands) or a percentage of income tax payable (Japan and Spain). Only Austria and Korea have no upper limit on the use of their tax incentives.

Finally, special rates are offered to small companies in these incentive schemes in order to enhance their training capacity. For example:

- France's incremental tax credit was only available to small companies.
- The Japanese tax credit formula is specifically designed to encourage small companies to increase and improve training. While the training tax credit is allowed against corporate income tax payable for both large and small companies, large companies are only eligible for a 25% incremental tax credit, whereas small firms can claim both a volume-based and an incremental credit.
- Until 2004, the Netherlands offered an allowance equal to 20% of the costs of training expenses, in addition to the normal 100% deduction for these costs. The programme was focused on small companies that make relatively small expenditures on training against which, up to a defined expenditure threshold, a 40% training allowance applied. Training expenditures over a threshold, typically made by larger firms, received an additional 20% allowance.

**Special rates are offered to small companies in these incentive schemes in order to enhance their training capacity**

## Conclusion

High levels of productivity are essential for maintaining sustainable growth and skills are one of the main drivers for productivity, especially for a country like New Zealand with a small population. Currently, New Zealand businesses are facing skill shortages across all skill levels but particularly in practical skills.

Appropriate action is needed to promote productivity growth in the workplace, especially in terms of budget allocation. International evidence showed that industry training is effective in improving efficiency and productivity levels, while New Zealand Government allows full deduction of training expenses, there is no credit-based incentives available for businesses.

**High levels of productivity are essential for maintaining sustainable growth and skills are one of the main drivers for productivity**

The policy position of the New Zealand Manufacturers and Exporters Association (NZMEA) is that it is best to create an environment for innovation in elaborately transformed or complex products:

### Encouraging more investment in productive activity:

- A balanced taxation regime across income, profits and realised capital gains.
- Extended deductibility on early stage investment for R&D based firms.

### More R&D based commercial out-turns in complex products:

- Tax credit for R&D.
- Expense all productive equipment and patents.
- Tax credit for people and skills development targeted at new products and process.

A range of policy settings are required to support innovation. Reinstating the R&D tax credit and expanding it to include commercialisation costs around plant, equipment patents and early stage investment deductibility is crucial. Tax credits for skills development are also necessary to form a broader, more coherent support framework, and to encourage innovation at the firm level where it really matters.