European Centre for the Development of Vocational Training

Centre for Research in Employment, Skills & Society

Skills Mismatch and Firm Dynamics:

Integrating skills with the world of work

Expert workshop

27 April 2012, London, UK

General information

Workshop venue	**One Great George Street** Westminster, London SW1P 3AA, UK Tel. +044 (0)20 7665 2323 Email: info@onegreatgeorgestreet.com
Organisers	European Centre for the Development of Vocational Training (CEDEFOP), Thessaloniki, Greece Centre for Research in Employment, Skills & Society (CRESS), Kingston Business School, Kingston University, London, UK
No of participants	50
Participants' profile	High-level experts on skills mismatch and firm policies, national government and EU representatives, business professionals and human resource managers
Working language	English

Workshop rationale and objectives

The aim of the workshop was to obtain a clearer insight into the relationship between work-based training, work organisation/human resource policies (e.g. recruitment, training, wage policies and performance appraisals, career development, job design) and skill mismatch within enterprises. The objective was to strengthen our understanding of the important issues that need to be addressed with respect to the incidence and impact of mismatch in different types of skills for firm performance, and of the underlying motives and incentives of enterprises driving their recruitment, training and career development strategies for tackling skill mismatch.

The workshop was intended to inform the European Commission's policy goal of anticipating and matching the skills of the European workforce with the current and future skill needs of enterprises (e.g. *Agenda for New Skills and Jobs*).

This paper summarises the key messages of the event and highlights some issues that were raised in the discussions. All background material for this workshop (agenda, presentations, background paper, questions to be addressed) is available on the website http://www.cedefop.europa.eu/EN/events/19151.aspx

Key messages from the event

.....The negative impact of skill mismatch on individual employees has been extensively investigated in the literature. Overeducated/overskilled employees are typically found to be suffering from a wage penalty, job dissatisfaction and even though they tend to exhibit higher rates of job mobility, for a significant portion of them the state of mismatch is persistent. The consequences of skill mismatch tend to vary depending on whether it is genuine or the manifestation of some compensating difference or reflection of unobserved heterogeneity in talents and skills. Individuals who are both overeducated and overskilled, in particular, tend to suffer from genuine mismatch.

....Overeducation tends to exhibit more state persistence than overskilling. The persistence of skill mismatch differs by education level, with university graduates more likely to escape than lower-qualified individuals. In addition, people who suffer from genuine mismatch (i.e. they are both overeducated and dissatisfied with their job) tend to get out of their predicament the quickest. Nevertheless, almost a third of those who are genuinely mismatched continue to be in a state of mismatch after three consecutive years.

....Some firms are found to be more likely to employ mismatched workers than others. In particular, skill mismatch is found to be a large firm occurrence, and it is less persistent (gets resolved faster) in smaller firms. Significant differences in the propensity of mismatch are found across different sectors. There is a divide between manufacturing and services, with overeducation concentrated in specialist services and accompanied by job dissatisfaction. Within sectors there are clear differences in residual mismatch, which highlights the potentially important role of match quality, HR practices and of management for explaining these differences in skill mismatch. Firm optimising behaviour can be in part responsible for the presence of mismatch in the job market.

....For employers skill mismatch entails significant costs – firms employing overeducated workers are found to be paying a wage premium to them (relative to other colleagues in the same workplace), and their higher turnover behaviour can entail a significant cost to firms in terms of lost firm-specific capital. So why are firms willing to hire mismatched workers? Is it a problem because of asymmetric information and an inefficient search process in the labour market? Is it an internal management problem, with most firms relying on the competencies of the human resource (HR) department to "get it right"? Research has been addressing these issues in a piecemeal way, primarily because of absence of empirical data that allows for investigation of the behaviour of employers, employees and their matches simultaneously.

....Good management practices (lean operations, performance and target management and talent management optimising the quality of the workforce) are key determinants of productivity differences between and within countries. Between countries, what appears to be striking is that about 15% of firms from India are better managed relative to their US counterparts. Within countries, heterogeneity in management practices is observed, and there is evidence of low performing companies being driven out of the market. Family-owned firms and government-owned firms are the ones that are worst managed.

....The firms that improved the most in terms of productivity during the period 2006 to 2009/11 were those that upgraded their skill level the most. Better management is associated with higher

skill levels of both managers and non-managers. A key driver of low management is low skill levels. In turn, the skill level of a firm can influence the impact of management practices on productivity, and it is a perceived driver of competitive threat. Finding managers with the right skill levels appears to be a major constraint for firms internationally. Improving management skills via the right type of MBA training can lead to a higher average management score.

....Skill gaps, the phenomenon whereby the skill competencies of existing employees are insufficient to meet the requirements of employers, are the key determinant of training investments by firms and workers. However, the area is heavily under-researched when compared to extensive literatures on other forms of skills mismatch, such as overeducation, overskilling, undereducation and skill shortages.

.....Since employees and employers may perceive skill requirements and existing competencies in different ways, a genuine skills gap can be considered to exist when the skill deficiency is recognised by both the employee and the employer. Employers may be failing to recognise productivity related deficiencies among staff because of poor management or insufficient HRM structures. Both employers and employees may be putting too much faith on the formal education system, or overestimating their competencies. For instance, managers are found to be very poor at assessing how their own company is performing (Brazilians and Greek managers score the highest!).

....Employers are less likely to report skill-gaps relative to employees. Less than 50 per cent of firms also recognise gaps when reported by employees. The most significant skill gaps for both parties relate to gaps in the areas of communications, IT, technology and management. Consensus is more likely to be observed with regards to IT and management deficiencies within firms with a highly educated workforce.

....Formal HRM structures such as annual performance reviews, provision of job description and formal mechanisms for consultation in the implementation of new processes\technologies are extremely important channels of communicating skill problems between employers and staff.

.....Based on a UK study of the CIPD on the impact of career management on organisational capability, about 80% of managers have stated that the main objective of career management within their firm is for the purpose of retaining key staff and talent. About 65% wish to match talent to future requirements, and little above 50% do so in order to upskill the workforce.

.....Only 25% of young people expect to remain in their current job more than a year with pay, career opportunity and job satisfaction the most common reasons for moving. Young people, in particular, are more willing to develop skills than they are always given credit for. People might be prepared to sacrifice an element of career progression for career sustainability. 30% of 18-24 year olds and 20% of 35-30 years olds try to move to a job using new skills. But managers do not always fully understand the career expectations of workers, particularly the young, which can lead to frustration and low retention.

.....Recruitment and task design on behalf of employers is still heavily task-based and focussed, and neglects to fully account for talent management and employability. With new attitudes and a new landscape creating new and diverse career paths, good career management that emphasises employability rather than just employment is more likely than ever to drive engagement while bad career management breeds dissatisfaction. The danger of employers forcing people into narrow career paths should be avoided.

....According to data from the UK National Employer Skills Survey (NESS):

- 2003-2009: about 3-6% of establishments report skill-shortage vacancies (= hard-to-fill vacancies which are attributable to lack of skills, qualifications and/or work experience)
- 2003-2009: 15-20% of establishments report internal skill gaps (defined as having one or more employees who are not fully proficient in their jobs)
- 2009: Almost 70% of establishments report skill updating needs (defined as at least some of their staff needing to acquire new skills or knowledge over the next 12 months)

....The product strategy of firms (an index measure of product quality, innovation leadership and non-dependence on low prices for competitive success) is strongly positively related to skill levels and to skill shortage vacancies and skill updating needs. However, it is negatively and statistically significantly related to the presence of internal skill gaps. These relationships are robust even after accounting for the potential interdependency between product market strategy and skill levels.

...Skill-shortage vacancies and skills updating needs do not seem to operate as constraints on product strategy. Rather they appear to be indicators of relatively high standards being set for skills and of a more dynamic approach to skills resourcing. Fast-growing firms are more likely than slower-growing firms to be pursuing 'high-end' skill- and innovation-intensive product strategies. Fast-growing firms achieve rapid growth in spite of being more likely (as heavy recruiters) to experience skill shortage vacancies. No solid evidence is found of firm growth being restricted by internal skill gaps (though internal skill gaps do restrict product strategy choices to some extent)

....According to evidence from the 5th wave of the European Working Conditions survey (2010), 48.9% of workers in Europe are mismatched (defined using the normative method, which compares the level of education of workers with their occupation). 2 European workers out of 10 are overeducated, and 3 workers out of 10 are undereducated. There is significant country variation (ranging from 40% in Latvia to 6% in Portugal). In terms of mismatch in skills, 32% are overskilled (have skills to cope with more demanding requirements than in their current job) and 13% are underskilled (need more training to cope with the requirements of their job). 7% of workers are both overeducated and overskilled.

.....According to evidence from Eurofound's European Company survey (2009) about 40% of companies in the EU-27 face difficulties recruiting staff for skilled jobs. Larger sized firms and those in the sectors of social work, construction and hotels and restaurants are mostly affected. Only 11% find it difficult recruiting staff for low or unskilled jobs. About 62% of EU-27 companies provide training. This is more frequent among larger-sized companies and among those in the service sector. Training may be used by companies as a tool for overcoming recruitment difficulties.

....The evidence regarding the impact of over- and under-education on firm productivity is mixed, indirect and subject to various potential biases. Evidence presented from a matched employer-employee dataset from Belgium indicates that the net effect of overeducation on productivity (i.e. the beneficial impact of surplus education on worker effort minus the negative impact of overeducation on job satisfaction) is positive. Older workers are found to compensate for their lack of formal schooling (their 'under-education') by additional work experience and/or training. Under-educated workers who are not able to catch up through training and work experience tend to exercise less demanding jobs as they get older.

…..Despite rising wage differentials in favour of those with higher education qualifications, and the expectation that supply forces should tend to endogenously adjust to changing market signals, there is evidence that in the US students have not responded to the increase in the college wage premium. Potential explanations include the fact that the US does not provide high quality education to less

advantaged students (e.g. of lower income or of different ethnic groups) and that the cost increases in terms of tertiary education participation are so high that credit constraints are binding. Students also expect compensation for the risk of human capital investment, and the evidence of higher wage differentials within the group of higher educated individuals indicates that not all graduates stand to gain in terms of high levels of compensation in the current job market.

Open questions for future research

1. Can the job search model be extended to explain when seekers accept jobs with qualitative mismatches?
2. What is the recruitment strategy for firms facing workers with qualitative mismatches? How do firms set employment criteria?
3. What is the basis for wage differences observed in the mismatch literature?
4. How are self-assessed skills, competences and education related? Do skills and training substitute for formal education?
5. How are institutional features of the labor market related to levels of qualitative mismatches?
6. Do qualitative mismatches change over the business cycle?
7. Do firms change employment criteria and job requirements over the business cycle?
8. How do qualitative mismatches affect job-to-job transitions?
9. How do mismatches affect the rate of change of wages?
10. Can a search and matching model with explicit qualitative mismatches explain changes in the matching rate and shifts in the Beveridge Curve?
11. Why did numbers of high school and college graduates in the U.S. not increase more in response to increasing educational premiums?
12. How does a long run qualitative mismatch affect the requirements for a particular job?
13. How do short run, business cycle, and long run qualitative mismatches combine to determine mismatches observed at the individual worker-job level?
14. Do potential long run qualitative mismatches impose a limit on growth and returns to educational reforms?