



## Database of existing research studies based on Cedefop European skills and jobs survey (ESJS)

### **1. McGuinness, S. and Pouliakas, K. (2016), Deconstructing Theories of Overeducation in Europe: A Wage Decomposition Approach, IZA DP No. 9698. <http://ftp.iza.org/dp9698.pdf>**

This paper uses data from the Cedefop European Skills and Jobs (ESJ) survey, a new international dataset of adult workers in 28 EU countries, to decompose the wage penalty of overeducated workers. The ESJ survey allows for integration of a rich, previously unavailable, set of factors in the estimation of the effect of overeducation on earnings. Oaxaca decomposition techniques are employed to uncover the extent to which the overeducation wage penalty can be attributed to either (i) human capital attributes, (ii) job characteristics, (iii) information asymmetries, (iv) compensating job attributes or (v) skill needs of jobs. Differences in human capital and job-skill requirements are important factors in explaining the wage premium. It is found that asymmetry of information accounts for a significant part of the overeducation wage penalty for tertiary education graduates, whereas job characteristics and low skill content of jobs explain most of the wage gap for medium-qualified employees. Little evidence is found in favour of equilibrium theories of skills matching and compensating wage differentials. The paper thus highlights the need for customised policy responses (e.g. career guidance; policies to raise job quality) to tackle overeducation.

JEL Classification: J24, J31, J70, I26

Keywords: overeducation, skills, mismatch, wages, decomposition

### **2. McGuinness, S. and Pouliakas, K. (2016), Skill mismatch transitions in EU labour markets: Matching skills between and within jobs.**

Matching the skills of individuals with dynamically changing skill needs of jobs has become a key policy concern for many EU countries since the wake of the global financial crisis of 2008. Much of this policy attention has been guided by the acknowledgement that skill mismatch can act as a ‘trap’ for skilled individuals. Though it is widely acknowledged that skills mismatch that persists over time imposes real costs on individuals, enterprises and societies, most of the available evidence in the literature has been limited to insights based on available cross-sectional data. This has prevented meaningful conclusions to be drawn about skills mismatch processes, its dynamics and the nature of its relationship with important economic variables. The aim of this paper is to better understand the determinants of skill mismatch transitions in EU countries. To do so a new European data source is exploited, the Cedefop European skills and jobs survey (ESJS). This new EU source adopts a longitudinal perspective to changes and transitions in the skill mismatch status of adult employees. Multivariate discrete choice analysis suggests that there exist marked deviations across EU countries and various socioeconomic groups in the probability of changing skill mismatch status both when changing jobs (between-job transitions) and within employees’ jobs. The results highlight the significant need for EU education and employment policies to adopt a dynamic perspective to tackling skill mismatches, rather than pursuing one-shot perfect matches during the school to work transition.

### **3. McGuinness, S. and Pouliakas, K. (2016), A comparative analysis of overeducation in the Irish labour market, *Economic Insights on Higher Education Policy in Ireland*, Palgrave MacMillan Publishers <http://www.springer.com/la/book/9783319485522#aboutAuthors>**

The limited evidence on overeducation in Ireland to date has been based exclusively on objective measures; nevertheless, the evidence that does exist suggests that overeducation is both high and persistent within an Irish context. This study represents the first serious analysis of overeducation in Ireland. We attempt to assess the phenomenon in terms of its incidence, impacts and determinants within a comparative framework using the Cedefop European Skills and Jobs survey. The overeducation pay penalty, based on the education level required

to get the job, is found to vary from 14 to 27 percentage points depending on the model specification adopted. From the perspective of theory, the results from the decompositions do not strongly support the human capital hypothesis of overeducation, given that they suggest that matched workers should actually earn less than overeducated workers based on their levels of accumulated formal and informal human capital. The largest component of the explained earnings premium enjoyed by matched workers related to them possessing good quality information on the skill requirements, career prospects and benefits of jobs prior to accepting them. Taken as a whole, the results of the study support the view that any policy response to overeducation in Ireland should focus on improving the productive flexibility of both existing and new jobs and improving labour market mechanisms that facilitate more informative methods of job search.

#### **4. Ferreira, M., Künn-Nelen, A. and de Grip, A. (2016), Work-related learning and skills development in Europe: Does initial skills mismatch matter?**

<https://ideas.repec.org/p/unm/umaror/2016009.html>

Although human capital theory considers training and on-the-job learning investments that further improve workers' skills, this has not been directly tested in the empirical literature. In this paper, we analyse the extent to which training and informal learning are related to employees' skills development. We consider the heterogeneity of this relation with regard to employees' initial skills mismatch. Using unique data from the European Skills Survey (2014) conducted by the European Centre for the Development of Vocational Training, we find that employees who participated in training or informal learning show greater improvement of their skills than those who did not. Informal learning appears to be more effective in increasing workers' skills than training participation is; however, both forms of learning are shown to be complementary, which has an additional positive influence on the improvement of workers' skills. Both informal learning and training appear to be most beneficial for skills improvement for those who were initially under-skilled for their job and least beneficial for those who were initially over-skilled. For over-skilled workers, work-related learning seems to be more functional in offsetting skills depreciation rather than fostering skills accumulation.

JEL-Codes: J24, M53

Keywords: training, informal learning, skills development, skills mismatch, human capital.

#### **5. Livanos, I. and Nunez, I. (2016), Rethinking under-skilling: evidence from the first Cedefop European Skills and Jobs Survey**

[http://www.iza.org/conference\\_files/2015\\_Skill\\_Mismatch/livanos\\_i5629.pdf](http://www.iza.org/conference_files/2015_Skill_Mismatch/livanos_i5629.pdf)

This paper investigates the prevalence of and the factors explaining the under-skilling of the European workforce. Three main causes are theoretically discussed; (a) Inefficient signaling, (b) Skills shortages and (c) On-the-job training substitution. To test the posited hypotheses, we use the CEDEFOP ESJ Survey to assess whether workers' skills were lower than required at the point when they started their job. Our results are rather mixed. First, we find that under-skilling is related to some academic fields such as Health & Medicine, and Engineering. Second, the labour market position of workers is clearly linked to under-skilling, being much more likely for the long-term unemployed. Finally, after controlling for endogeneity, we find limited support for the on-the-job training substitution hypothesis.

#### **6. Chłoń-Domińczak, A. Magda, I. and Sienkiewicz, L. (2016), Skills mismatch in the New and Old Member States – are generations affected differently?**

In the paper we analyse the extent of skills mismatch (underskilling and overskilling) in the EU countries, focusing on the differences between the old and the new member states workers. We try to identify the impact of their different socio-economic characteristics, in particular age and educational attainment, on the level of skills mismatch and link these to the patterns of economic development, in particular the economic transition in the Central and Eastern Europe. The results of a multinomial logistic regression confirm that workers in the NMS compared to the EU-15 have a higher risk of underskilling and a lower risk of overskilling in all age groups. Moreover, the differences between the two groups of countries increase with age. Lower secondary education is particularly related to a decreased risk of overskilling in the NMS among prime age and older workers, compared to workers with tertiary educational attainment. Older workers with vocational education in the NMS are less likely to be underskilled compared to their peers with tertiary education. Overall, we can indicate that there is a tendency of gradual convergence of the skills match patterns on the European labour market for subsequent generations and educational levels.

#### **Key words:**

Skills mismatch, generations, labour market

**7. Van der Velden, R., Verhaest, D. (2016), Are skill deficits always bad? Towards a learning perspective on skill mismatches**

[http://www.iza.org/conference\\_files/2015\\_Skill\\_Mismatch/van\\_der\\_velden\\_r22791.pdf](http://www.iza.org/conference_files/2015_Skill_Mismatch/van_der_velden_r22791.pdf)

The explicit assumption in most literature on educational and skill mismatches is that these mismatches are inherently costly. However, the results in the literature on the effects of underqualification or underskilling on wages and job satisfaction only partly support this hypothesis. Rather than assuming that all types of mismatches are inherently costly, we interpret these mixed findings by taking a learning perspective on skill mismatches. Following the theory of Vygotski on the so-called ‘zone of proximal development’, we expect that workers who start their job with a small skill deficit, show more skill growth than workers who start in a matching job or other workers with a skill mismatch. We test this hypothesis using the CEDEFOP European Skill Survey and the results confirm these expectations. Workers learn more from job tasks that are more demanding than if they would work in a job that completely matches their initial skill level and this skill gain is largest for those who start with a small skill deficit. The learning opportunities are worst when workers start in a job for which they have a skill surplus. This is reflected in the type of learning activities that workers take up. Workers with a small skill deficit are more often engaged in ‘spontaneous’ informal learning activities. Finally, workers who started with a small skill deficit are no less satisfied with their job than workers who started in a well-matched job. We conclude that a skill match is good, but a small skill deficit is better. This puts some responsibility on employers to keep job tasks and responsibilities at a challenging level for an employee.

**8. Russo, G. (2016), Job design and skill developments in the workplace**

<http://ftp.iza.org/dp10207.pdf>

We investigate the relationship between job complexity and the skills development of adult workers in Europe using the Cedefop European Skills and Jobs Survey (ESJS). The results suggest that challenging workplaces, workplaces in which jobs are designed to include complex tasks, and which place high demands on workers’ skills, also stimulate workers’ skills development. Increasing the degree of job complexity has positive and robust effects on the degree of skill development, and so does an increase in work experience (tenure). The analysis stresses the importance of on-the-job learning and contextual workplace characteristics for adult workers’ skills development.

JEL Classification: J24

Keywords: job characteristics, job complexity, skills, skills development, learning

**9. McGuinness, S., Pouliakas, K. and Redmond, P. (2016), Skills mismatch: a survey**

The term skill mismatch is very broad and can relate to many forms of labour market friction, including vertical mismatch, skill gaps, skill shortages, field of study (horizontal) mismatch and skill obsolescence. In this paper we provide a clear overview of each concept and discuss the measurement and inter-relatedness of different forms of mismatch. We analyze the current position of the literature and highlight areas which are relatively underdeveloped and may warrant further research. A review of the European Commission’s country specific recommendations reveals that skills mismatch, when referring to underutilised human capital, receives little policy attention. In cases where skills mismatch forms part of policy recommendations, the policy advice is either one-sided or addresses the areas of mismatch for which there is the least available evidence.