



European Foundation for the Improvement of Living and Working Conditions

Skill mismatch in Europe

Evidence from Eurofound's surveys

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and Working Conditions (Eurofound)**



Overview

1. European Working Conditions Survey (EWCS)
2. European Company Survey (ECS)
3. Analysis based on EWCS 2010 → individual mismatch, determinants and impacts of educational/skill mismatch, some HR practices and mismatch
4. Analysis based on ECS 2009 → skill shortages, training
5. Conclusions



1. European Working Conditions Survey

- Objective is assessing and quantifying working conditions of both employees and the self employed across Europe
- 5th round (2010) covering 34 countries: EU27 + NO + ACC3 + IPA3
 - ▶ Between 1000 and 4000 interviews per country (total about 44,000)
- Stratified random sample of households
 - ▶ Registers or random route
 - ▶ Stratifying by region and degree of urbanisation
- Face-to-face approach (except for Sweden and Norway) and interview (CAPI and PAPI)
- Screening for workers
 - ▶ Employees and self-employed (15+) (LFS definition)
 - ▶ Randomly selecting one worker per household using first birthday rule

2. European Company Survey

- Objective is to map practices at establishment level and how they are negotiated at workplace in companies across Europe
- 2nd round (2009) covering 30 countries (EU27+ACC3)
- Unit of enquiry
 - ▶ establishments with more than 10 employees, without agriculture, fishing and private households
- 2 interviews per company (24,600 interviews HR; 6,200 ER):
 - ▶ Management interview → the most senior person at the establishments level responsible for HR management
 - ▶ Employee representative → interview after that of the management, pref. the chair person, secretary or spoke person of the relevant structure representing the interests of the workers
- Telephone interview approach (CATI)

2. European Company Survey

Main topic of the survey changes over time

1st round 2004/2005 → working time, work life balance

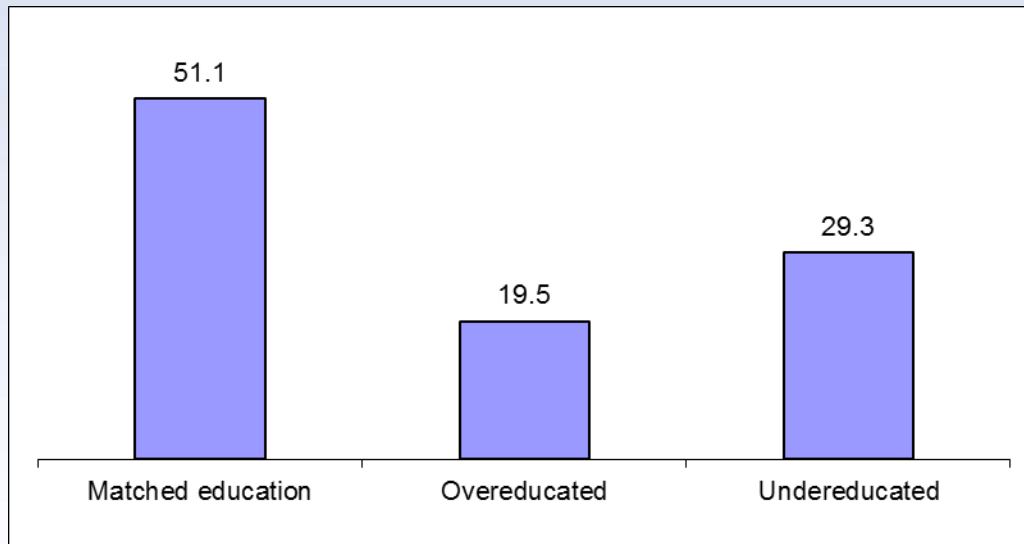
2nd round 2009 → flexibility practices, social dialogue practices

- **Flexibility practices include:** Working time arrangements, HR practices (work organisation, training), Contractual possibilities, variable (performance based) pay & financial participation



3. Evidence from the EWCS 2010

Educational mismatch in EU-27 in 2010: 48.9% of workers are mismatched



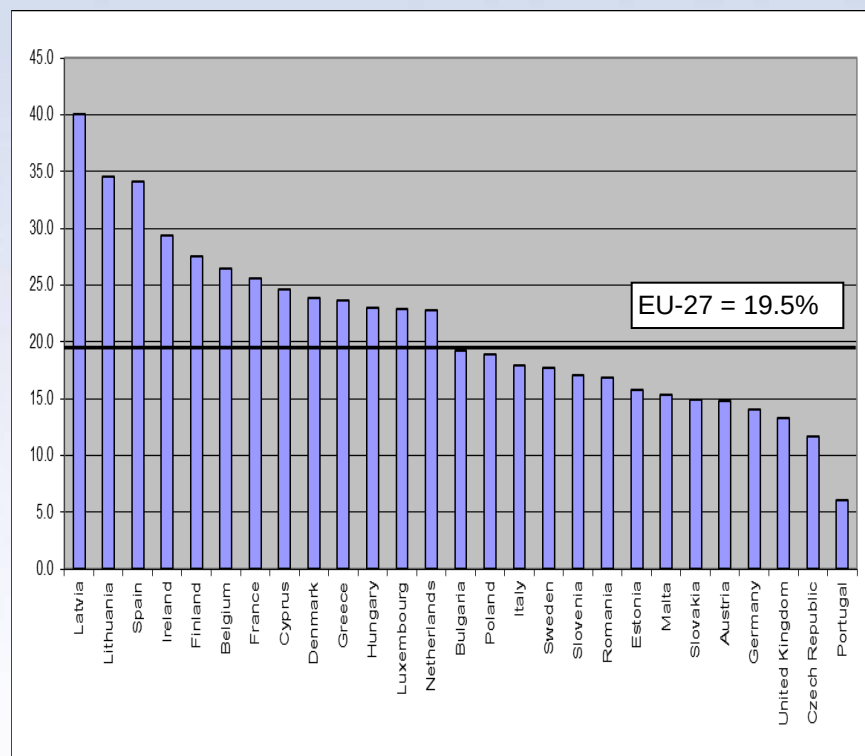
Source: EWCS 2010

2 workers out of 10 are overeducated

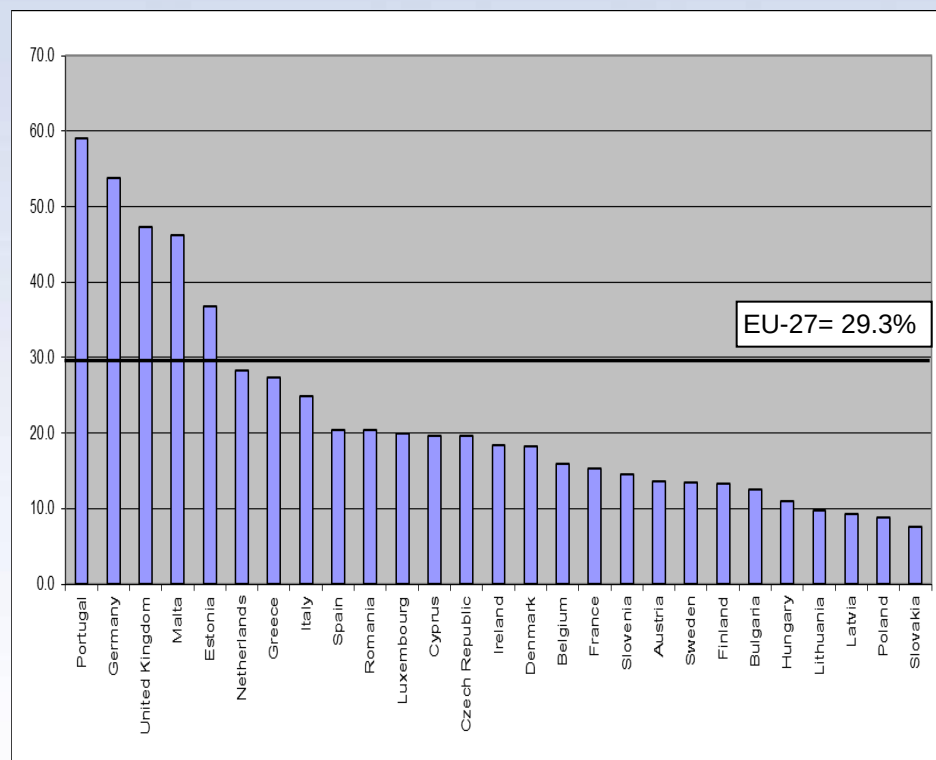
3 workers out of 10 are undereducated

Educational mismatch

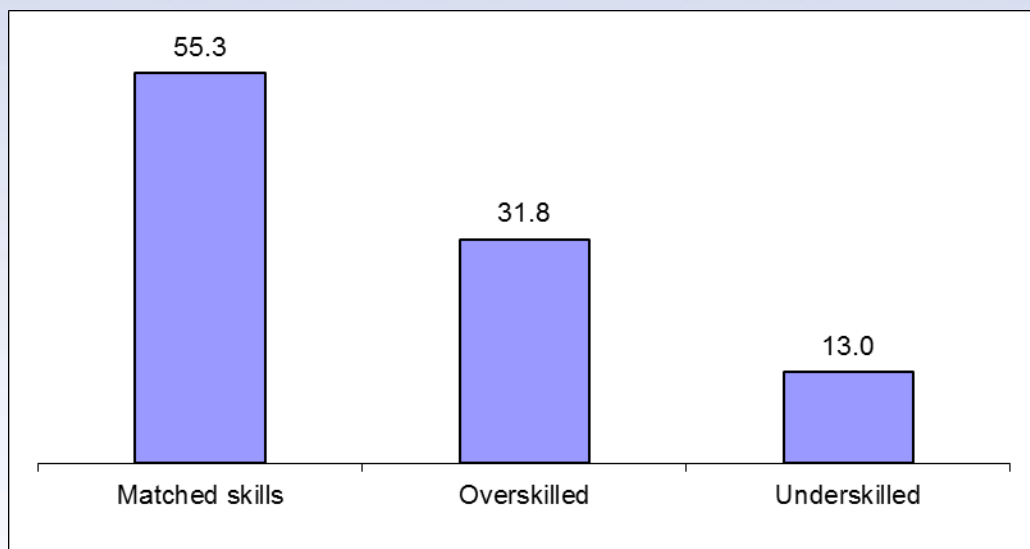
Overeducation in Europe:
half of the MS above the EU-27
average



Undereducation in Europe:
5 MS are above the average



44.8% of workers reports over/underskilling



Source: EWCS 2010

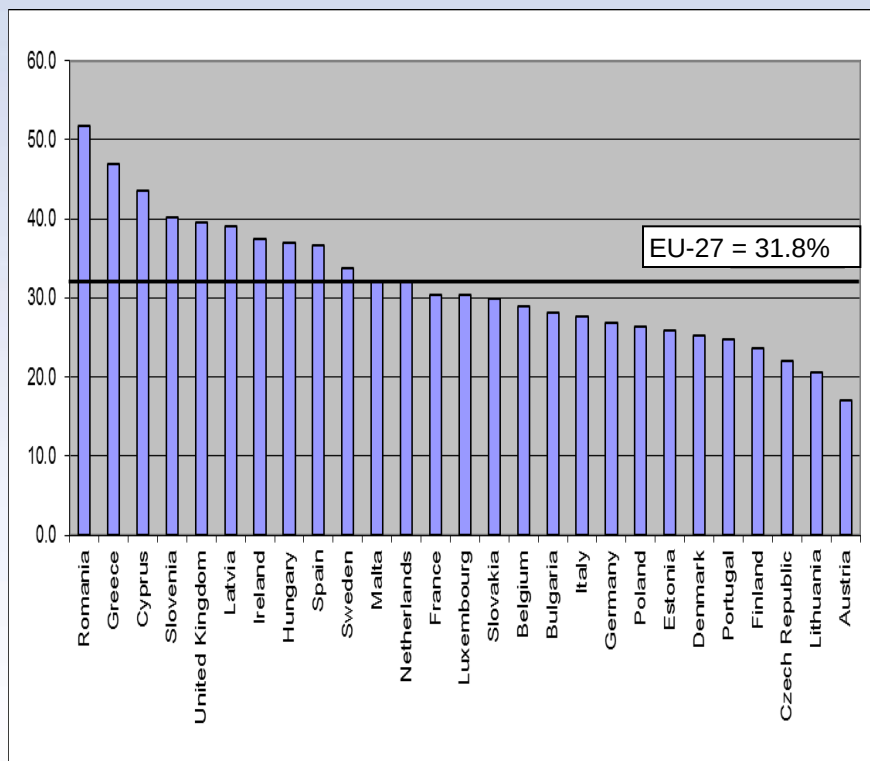
Questions on the perception of adequacy of the skills to current job

Majority refers adequacy of skills

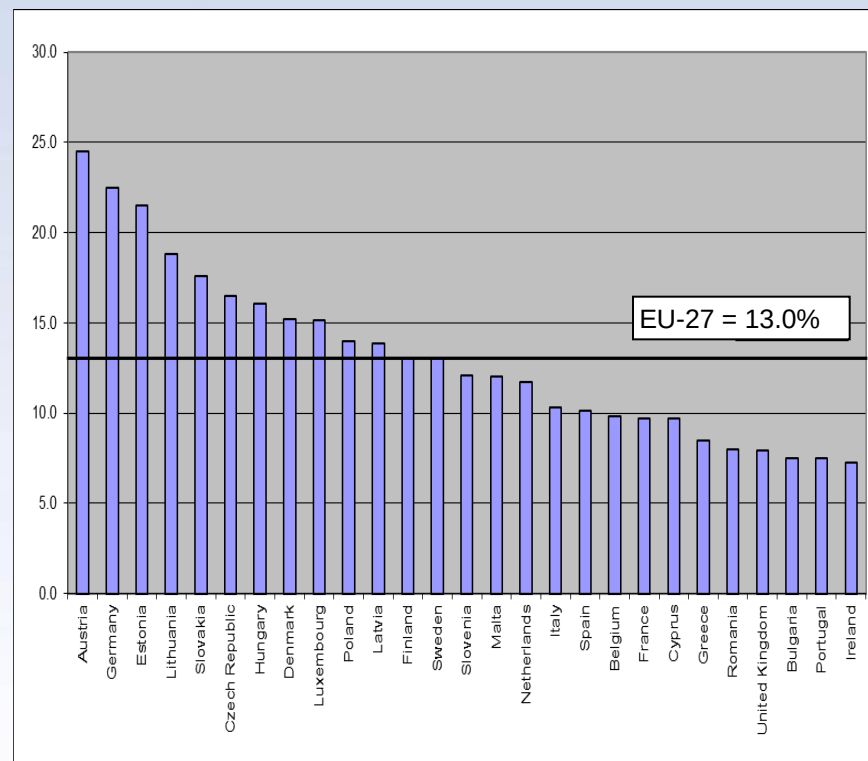
32% reports overskilling

13% reports underskilling

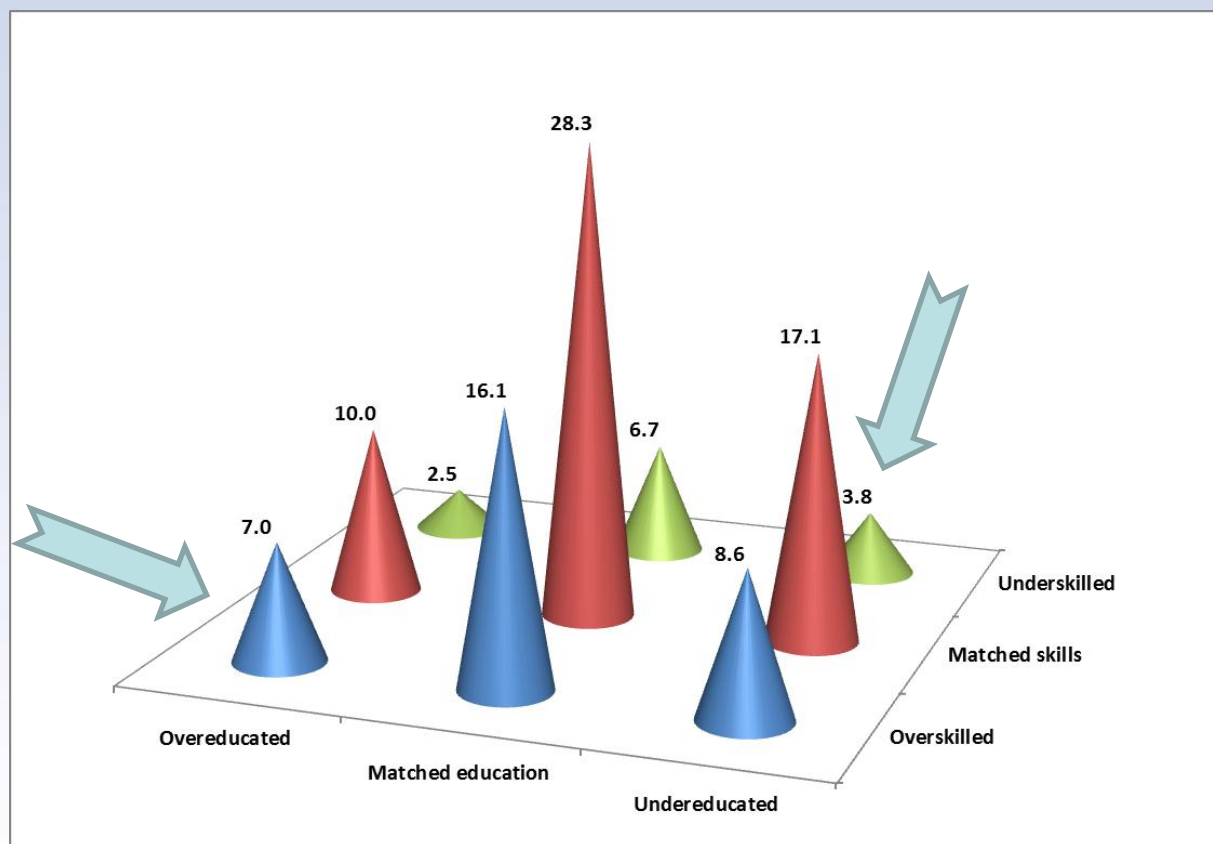
Overskilling: 10 MS are above the EU-27 average



Underskilling: 11 MS are above the EU-27 average



Educational mismatch vs. skill mismatch



28% of workers are matched in terms of both education and skills

Real overeducation regards 7% of workers

4% of workers are both undereducated and underskilled

Source: EWCS 2010

Determinants of mismatch: evidence from logistic regression models

Determinants of educational mismatch, EU 27, 2010

Logistic regression, B and significance

	Overeducated	Undereducated	Overskilled	Underskilled
<i>Sex (Female)</i>				
Male	-0.173***	0.202***	0.042	0.128***
<i>Age</i>	-0.002	-0.019***	-0.002	-0.025***
<i>Level of education (Tertiary education)</i>				
Up to primary	-21.418	23.791	-0.422***	-0.329***
Secondary Education	-1.438***	19.502	-0.295***	-0.381***
<i>Type of employment (Employee – temporary contract)</i>				
Self-employed	-0.941***	1.459***	0.143*	0.038
Employee – permanent contract	-0.221***	0.302***	-0.044	-0.304***
<i>Previous experience (Not employed)</i>				
Employed with permanent contract	-0.063	0.299***	0.063	0.178***
Employed with temporary contract	0.128*	-0.035	-0.026	-0.042
Self-employed	0.066	0.167	0.170**	-0.021
<i>Tenure</i>	-0.011***	0.030***	-0.005**	0.005
<i>Sector of economic activity (Other services)</i>				
Agriculture	0.172	-1.455***	-0.041	-0.533***
Manufacture	-0.336***	0.261***	-0.087	0.306***
Constructions	-0.336***	0.037	-0.115	0.043
Knowledge-intensive services	-0.650***	1.081***	-0.087	0.623***
<i>Firm size (250+)</i>				
1-9	0.235***	0.108	-0.143**	0.018
10-49	0.018	0.220	-0.098	-0.017
50-249	0.043	0.011	-0.089	-0.185*
<i>Private sector (Public sector)</i>	0.420***	0.278***	0.061	-0.109
Constant	0.346***	-22.725***	-0.119	-0.399***
-2 Log likelihood	21464.602	13183.303	33365.225	18722.607
Cox & Snell R Square	0.131	0.533	0.009	0.035
Nagelkerke R Square	0.189	0.728	0.013	0.056
Number of observations	20,699	23,762	25,622	20,077

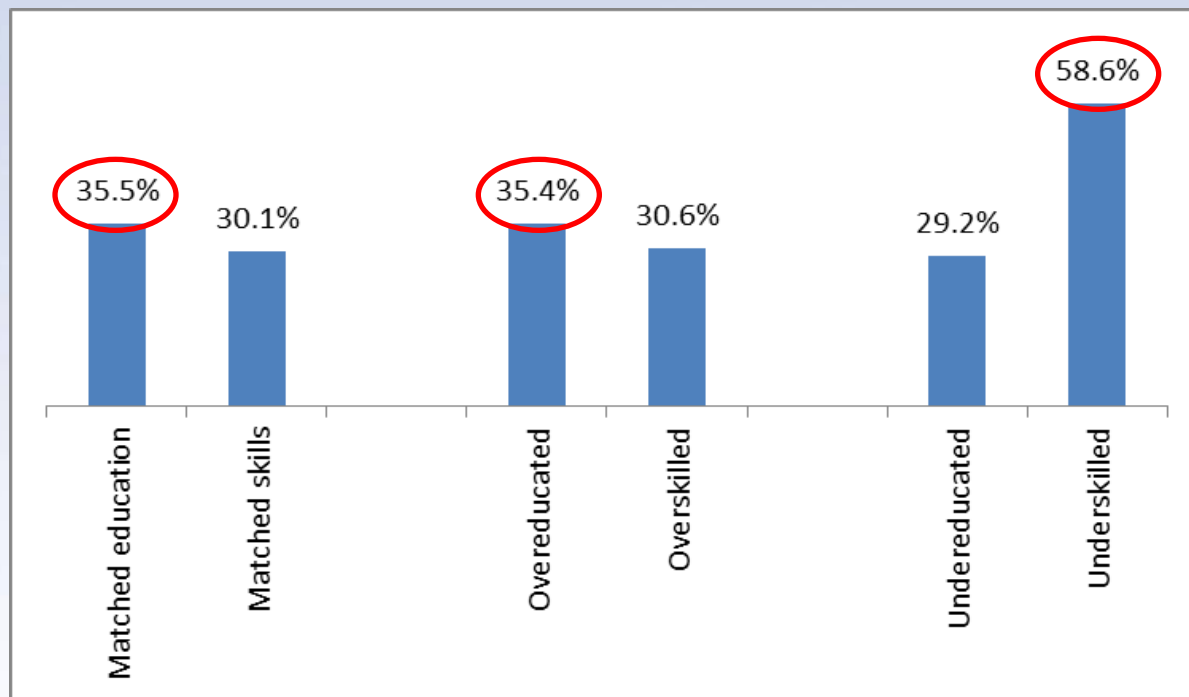
Overeducation: women, tertiary education, temporary workers, shorter tenure, service sector (excluding the knowledge intensive services), previous temporary contract, small firm and private sector workers.

Undereducation: men, younger workers, self-employed, employee on a permanent contract, previous permanent contract, longer tenure, manufacture, knowledge-intensive services or private sector workers.

Overskilling: tertiary education, previously self-employed, shorter tenure

Underskilling: men, tertiary education, temporary workers, previous permanent contract, manufacture or knowledge-advanced services workers.

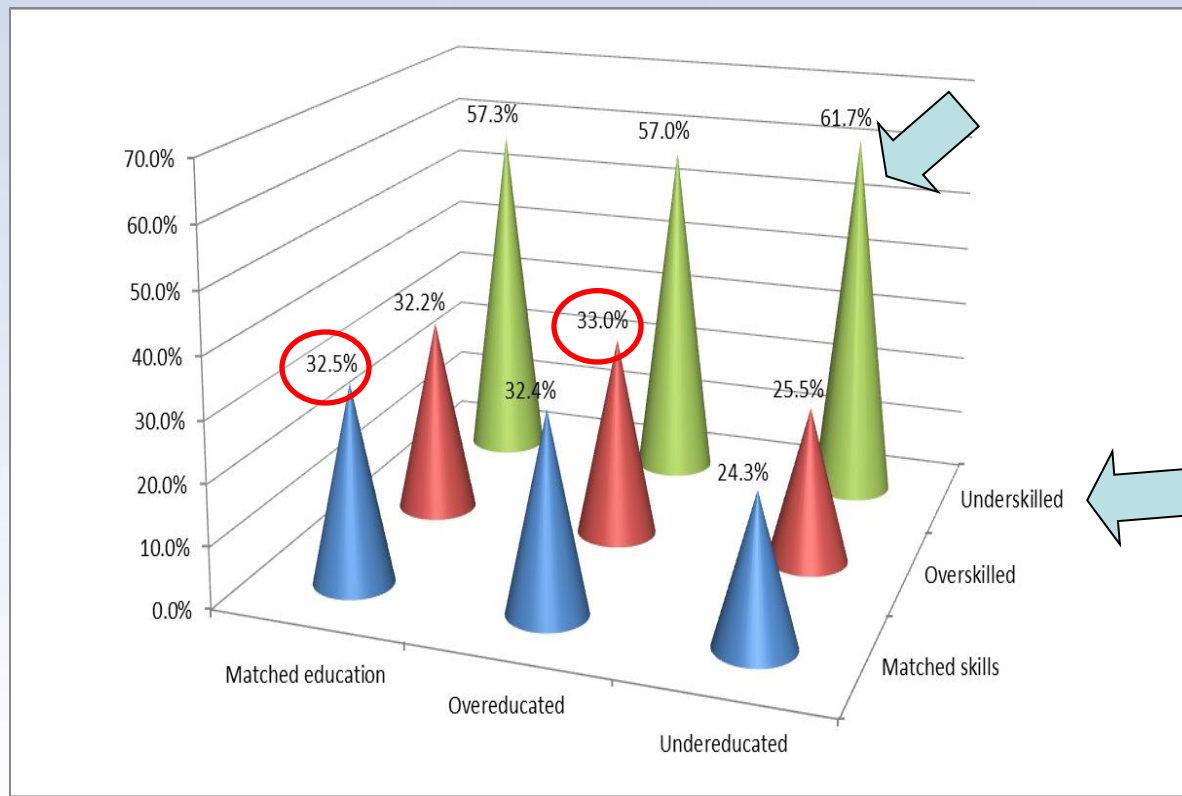
Training: **33.7%** of total workers involved in training provided by the employer or paid by themselves (for self-employed)



Training is provided mainly to underskilled workers (58.6%) and to a lesser extent to matched or overeducated workers (35.5%)

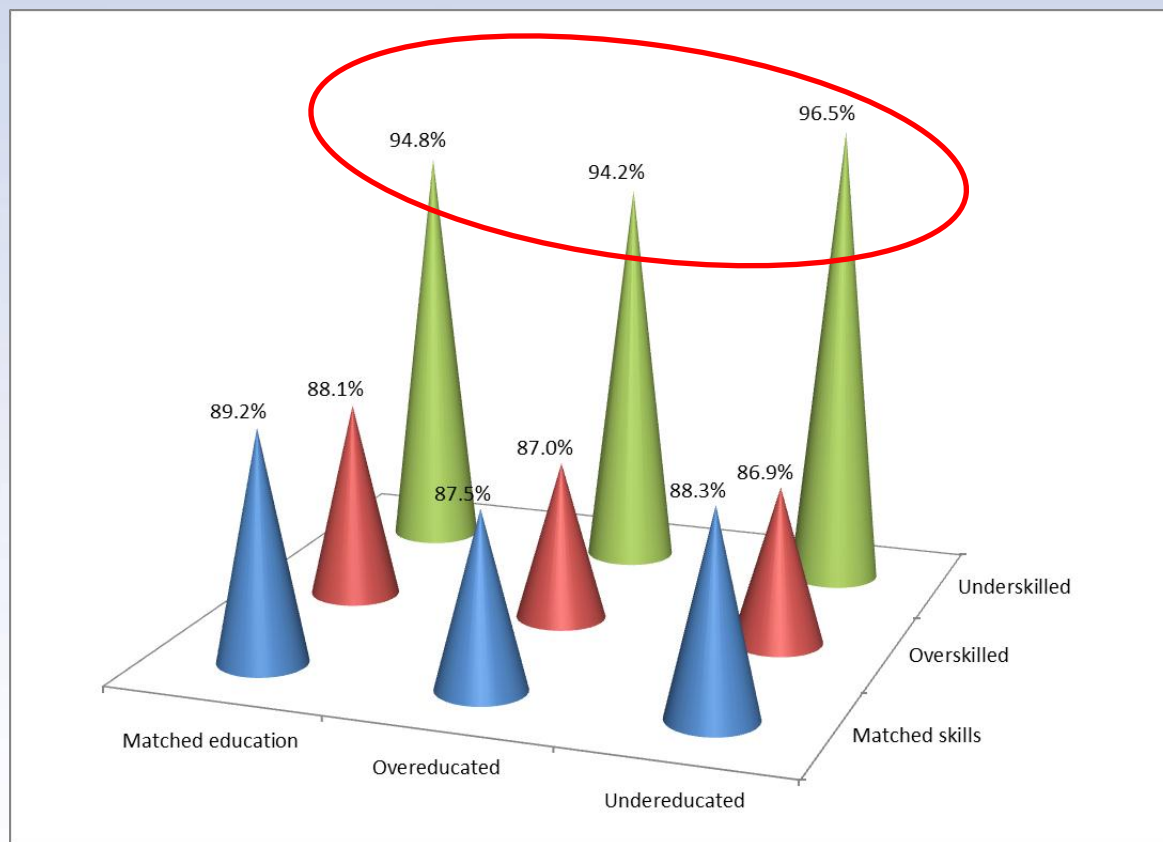
Source: EWCS 2010

Educational mismatch vs. skill mismatch and training



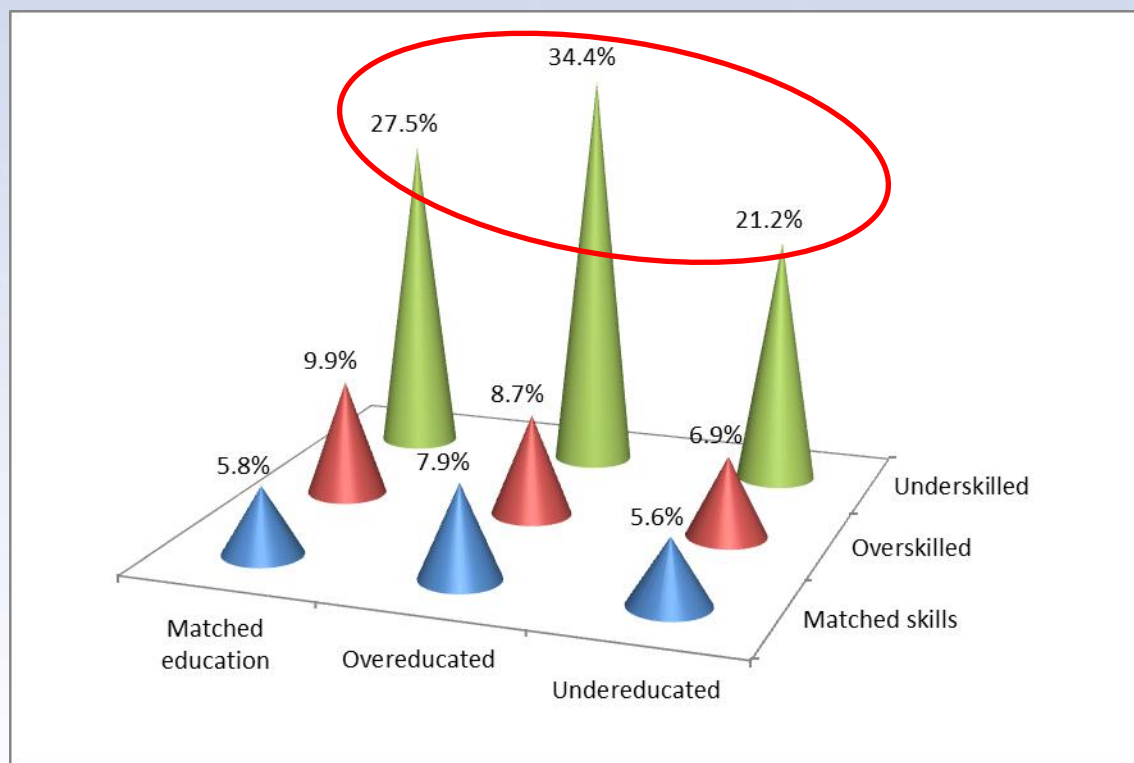
Underskilled
are those
more involved
in training, but
real
overeducated
are more
involved in
training than
matched
workers

“The training has helped me improving the way I work...”: 89.7% of workers involved in training in EU-27



Training considered beneficial by underskilled (especially if undereducated)

Request for training in EU-27: 8.7% of workers



“Did you ask for training to be provided for you?”:

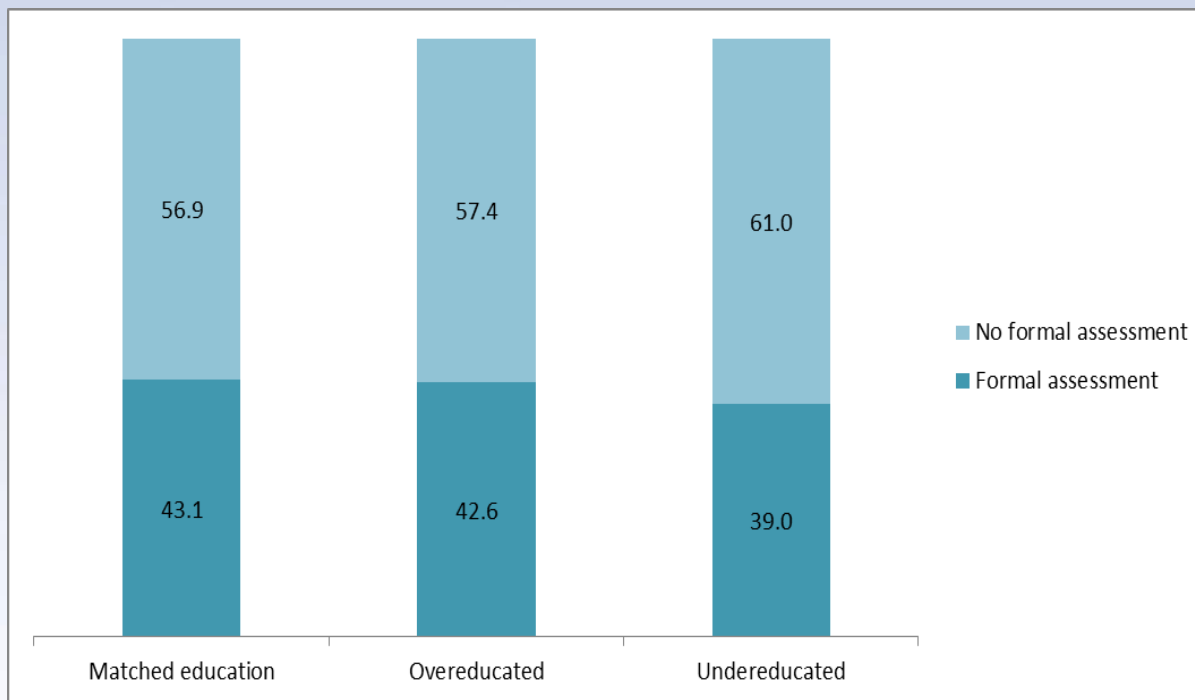
**10.5% overeducated
8.9% matched workers
7.0% undereducated**

**underskilled workers
aware of their
condition; overskilled
requested training
more than matched
workers**

Source: EWCS 2010



Formal assessment of own work performance in EU-27 countries



Appraisal can counteract skill mismatch

Mismatched workers are less involved in assessment of work performance processes than matched workers

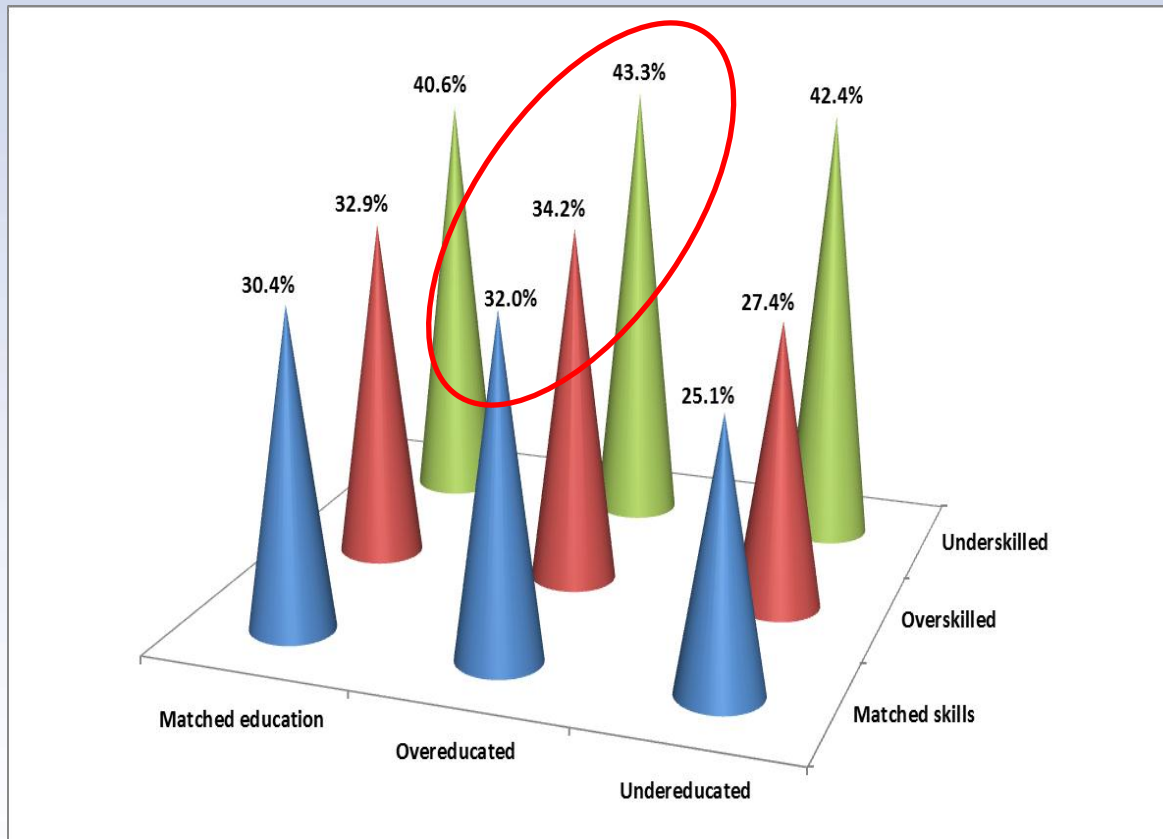
Source: EWCS 2010



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HR practices: career development

“my job offers good prospects for career advancement”



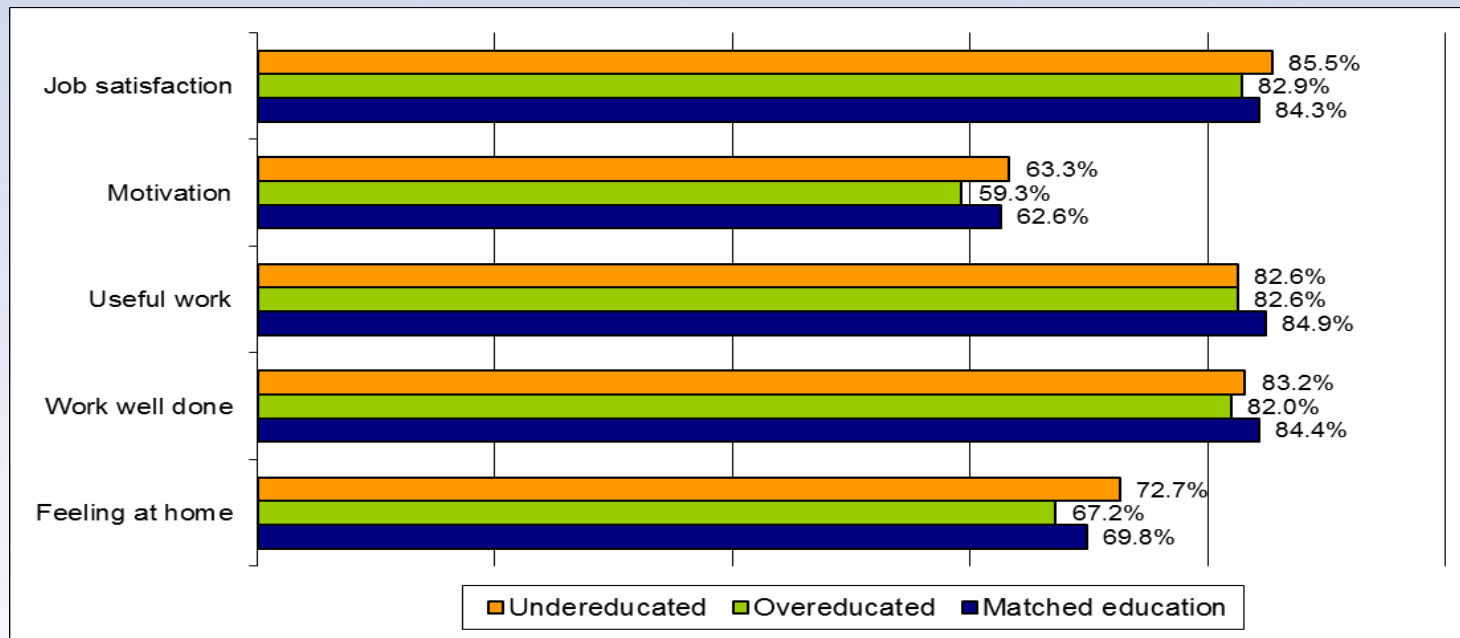
31.6% the EU-27 average

Subjective indicator: overeducated the most optimistic? Or just aware of their situation and hoping for a better job?

Source: EWCS 2010



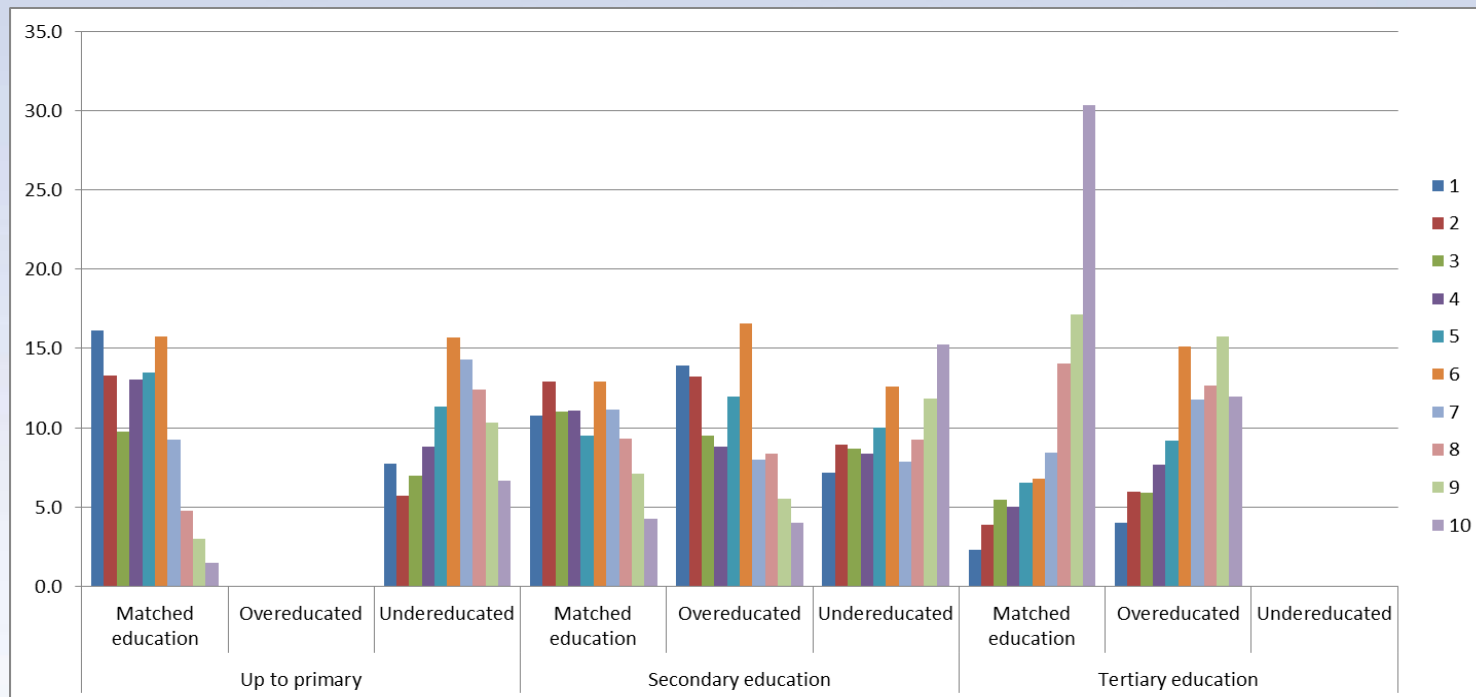
Impacts of educational mismatch: apparent overeducation 82.9% of overeducated



Source: EWCS 2010

Evidence confirm findings from research
Similar results when considering skill mismatch

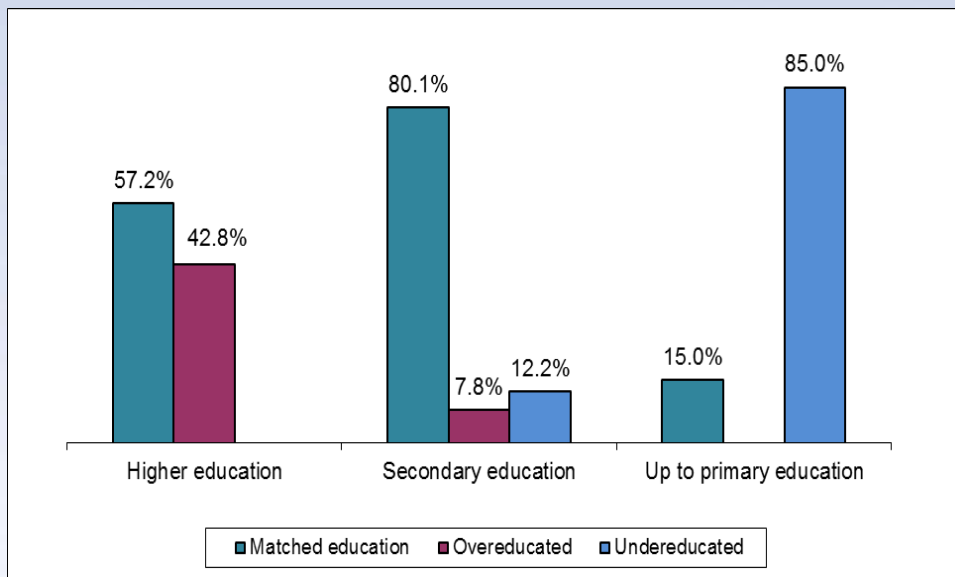
Mismatch and income distribution by deciles in EU-27



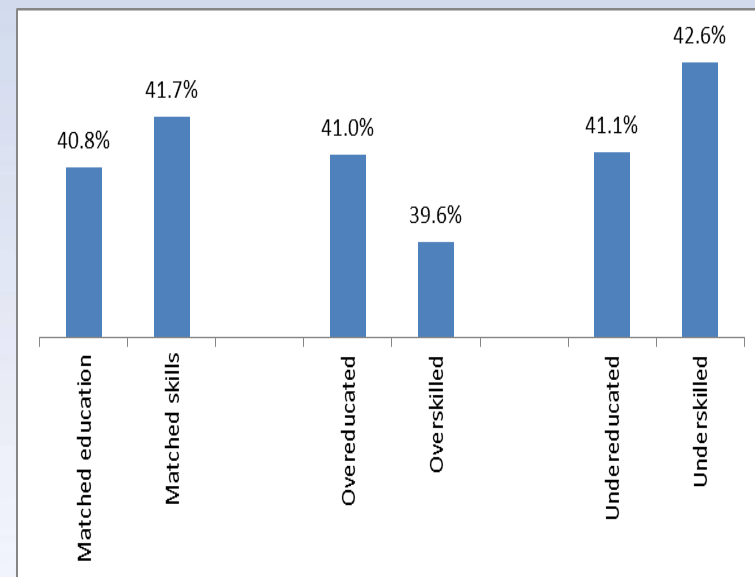
Source: EWCS 2010

Overeducated earn less than matched workers with the same level of education
Undereducated earn more than matched and overeducated workers with the same level of education

Well paid for the work I do...: 41.1% in EU-27

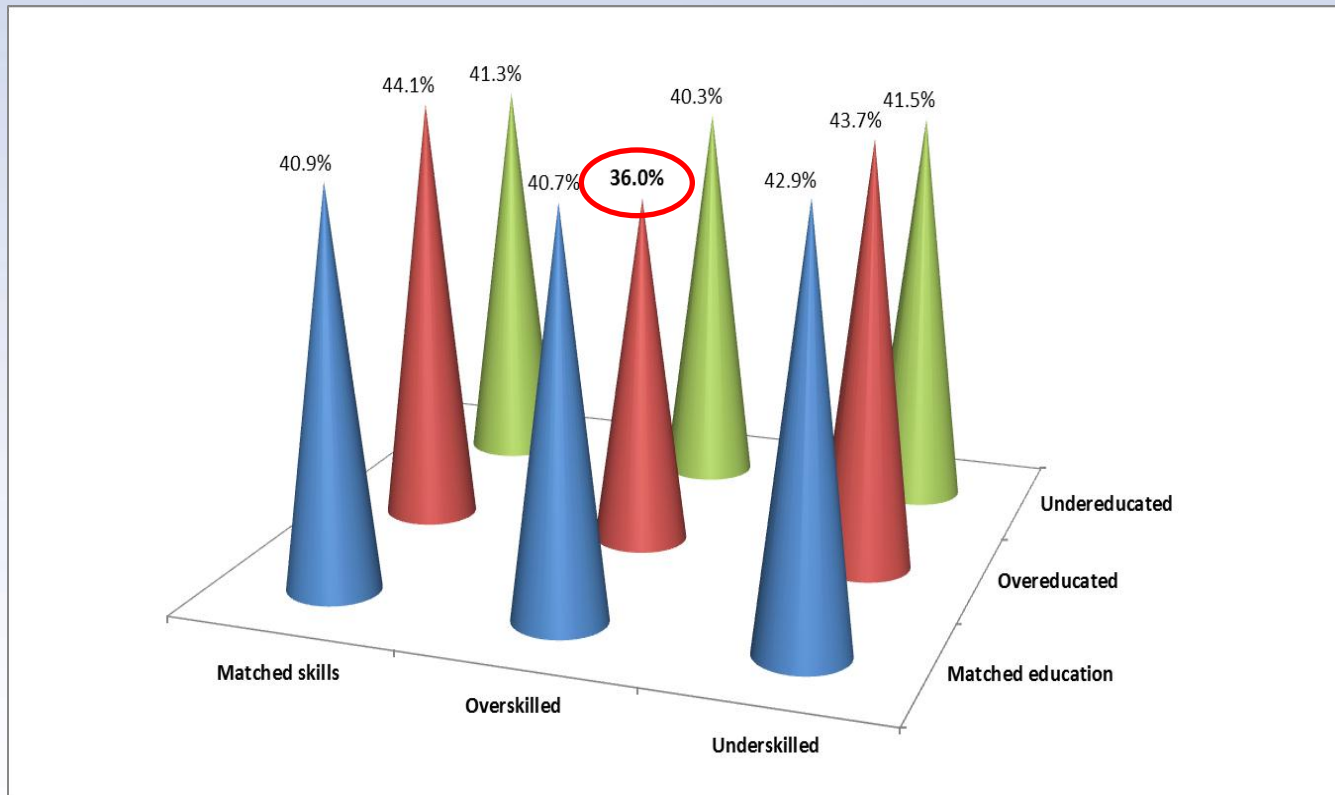


Source: EWCS 2010



Source: EWCS 2010

Real overeducated workers consider themselves being well paid for the work they do less than the average

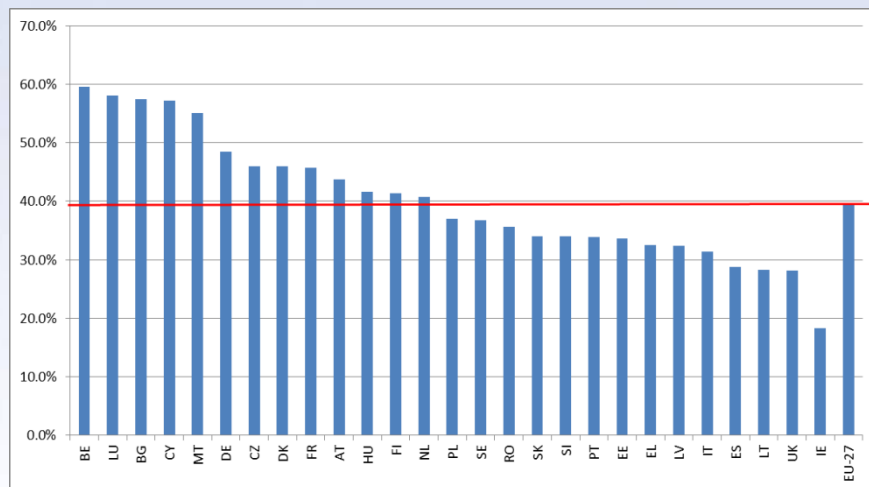


EU-27 average:
41.1%

4. Evidence from the ECS 2009

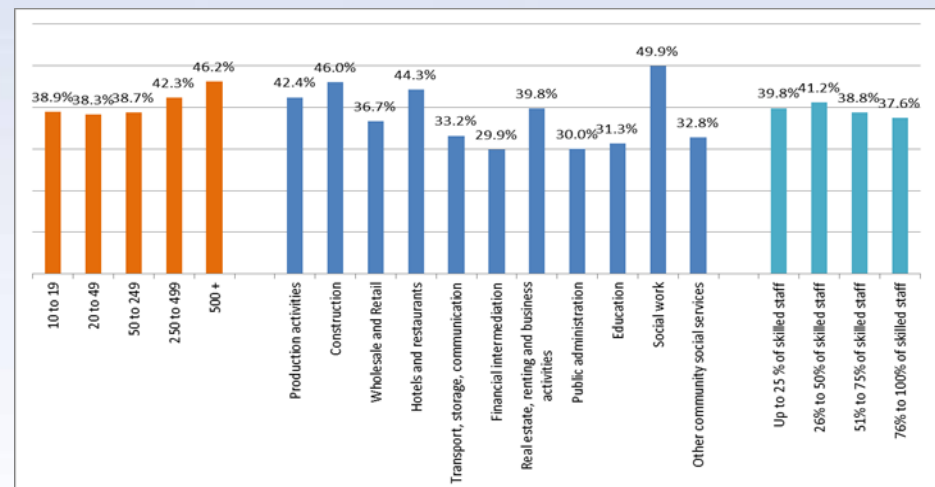
Difficulties in recruiting staff for skilled jobs: 39.6% of companies in EU-27

Distribution of companies by country



Source: ECS 2009

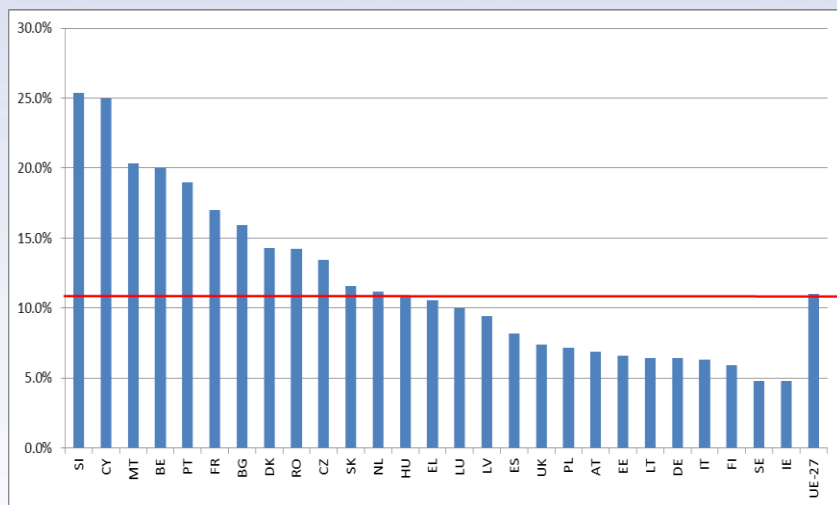
Distribution of companies by size, sector and % of skilled staff



Source: ECS 2009

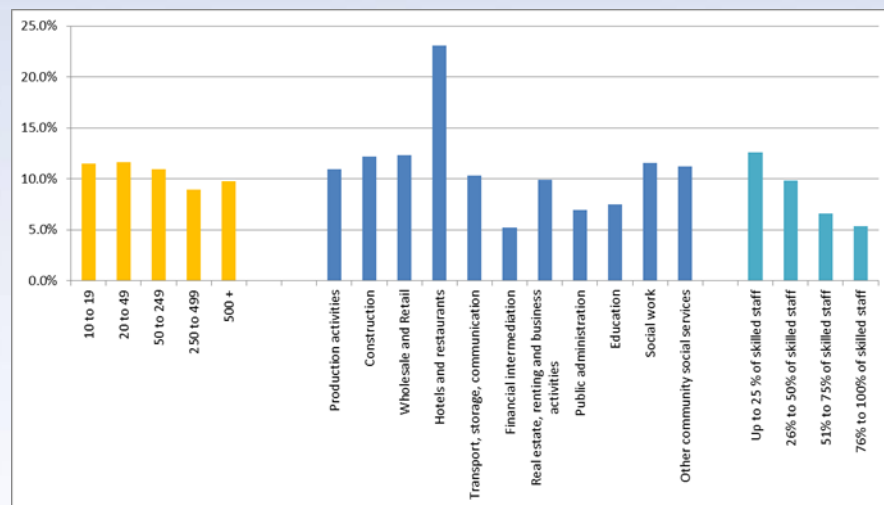
Difficulties in recruiting staff for low or unskilled jobs: 11% EU-27

Distribution of companies by country



Source: ECS 2009

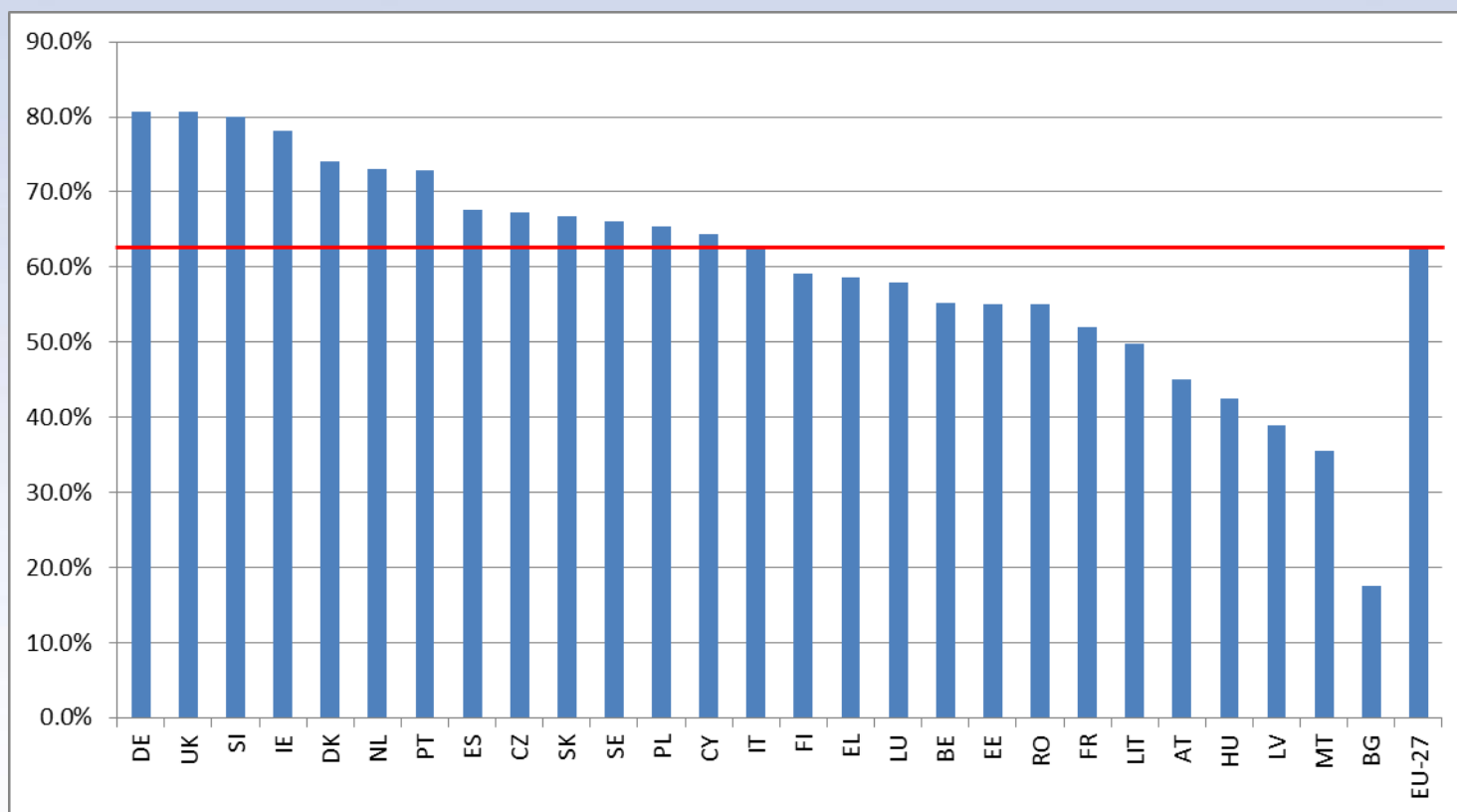
Distribution of companies by size, sector and % of skilled staff



Source: ECS 2009

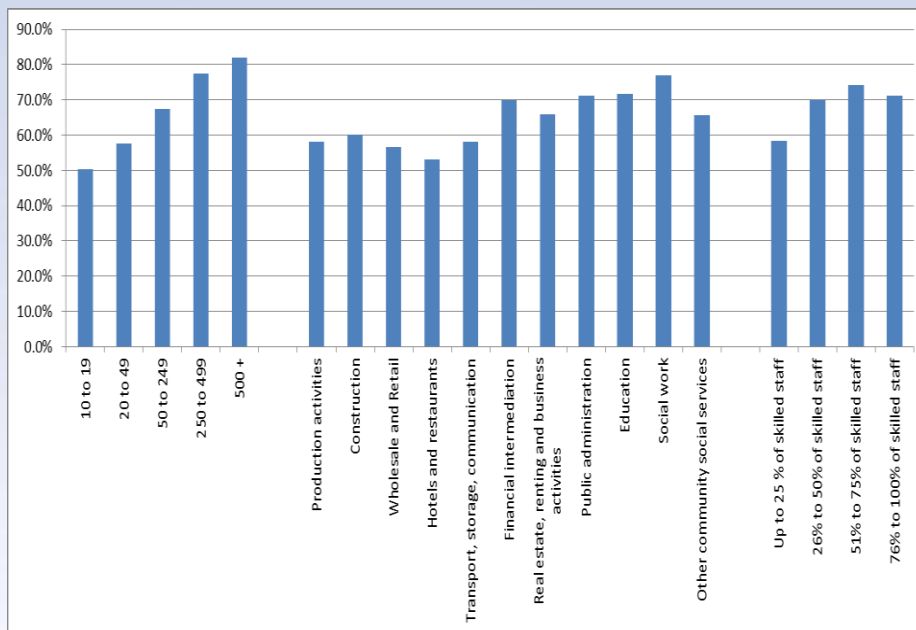


Provision of training: 62.4% of EU-27 companies



Source: ECS 2009

What type of companies does provide for training?



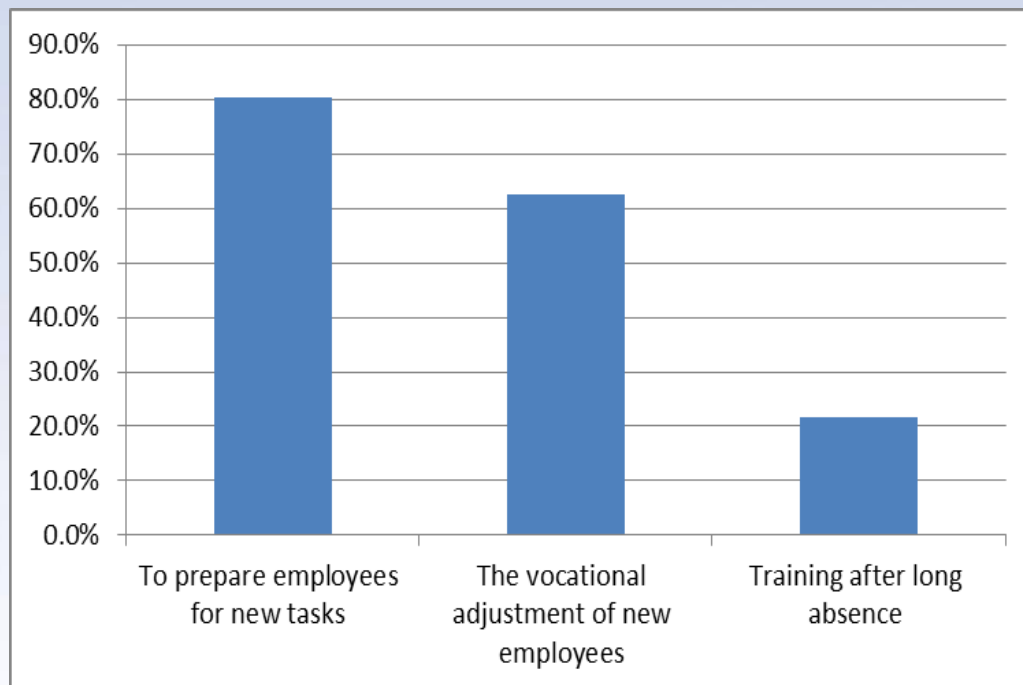
Source: ECS 2009

Training is provided more frequently by larger companies rather than smaller ones

Service sector companies provide for training more than other sectors' companies

Companies employing high % of skilled workers are more likely to provide for training

Reasons for training provided, EU-27

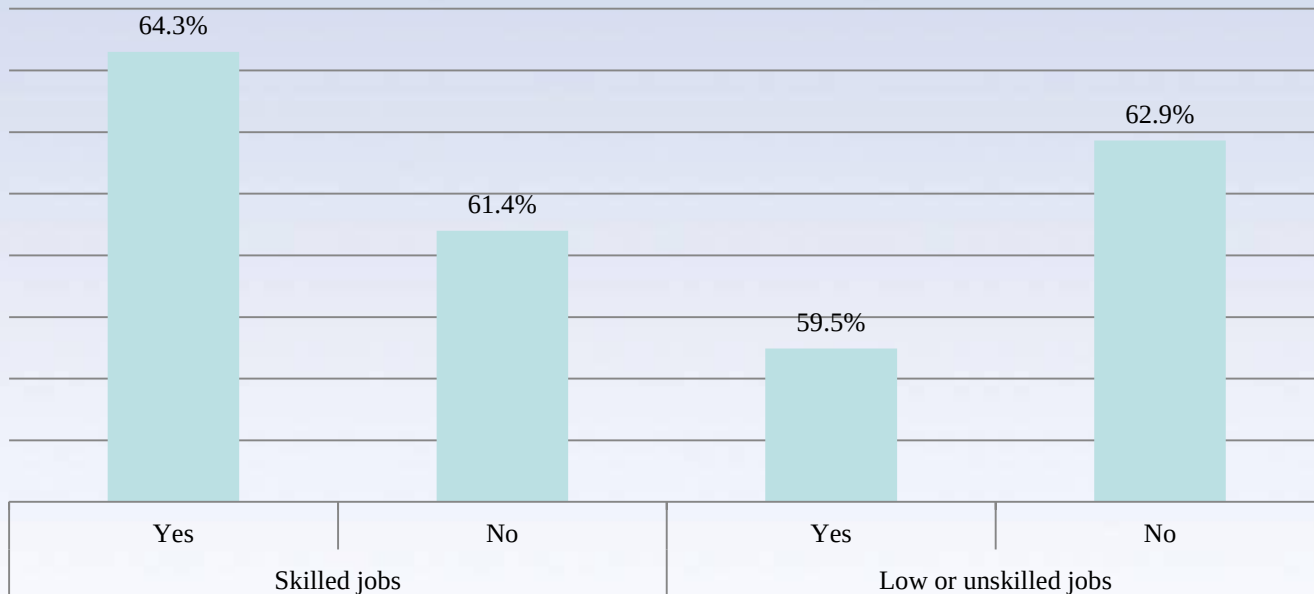


8 companies out of 10 provide for training to prepare employees for new tasks

6 out of 10 provide for training for new employees

Source: ECS 2009

Companies with difficulties in recruiting skilled staff are more likely to provide training



Source: ECS 2009

5. Conclusions

- Evidence from EWCS corroborates literature and other research findings in terms of characteristics, determinants, and impacts at individual level of both educational and skill mismatches
- EWCS allows as well to investigate the relationship between skill mismatch and some HR practices
- Limitations: sample size; skill mismatch only self-reported
- Evidence from the ECS is much more limited and allows to investigate only aspects strictly related to skill mismatch as the existence of skill shortages and training but not skill mismatch

5. Conclusions

ECS – 3rd round (2013)

- Focus on HPWP (High Performance Work Practices)
- Set of questions on skills mismatch, training, recruitment and career development have been included but have to be pre-tested
- Questionnaire is about to its final draft
- Pre-testing in 3 languages
- Translation process is starting in May
- Fieldwork in 2013





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Thanks for your attention!

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