Types of mismatch and relevant data sources @ OECD

Mismatch on the job
Adequacy of employee’s skills and qualifications to the content of his/her job;
Types:
- Qualifications mismatch: over/under
- Skills mismatch: over/under
- Field-of-study mismatch
Data sources: Survey of Adult Skills (PIAAC)
Consequences: for individuals and for firms

Mismatch in the labour market
Adequacy of workforce qualifications and skills to demand in the labour market;
Types:
- Shortages
- Surpluses
Data sources: www.OECDSkillsforJobsdatabase.org
Consequences: for firms and for countries
MISMATCH on the job: WHAT DOES PIAAC TELLS US?
Survey of Adult Skills in brief

245 thousand adults in 39 countries/economies
Sample size from a minimum of approximately 4 500 to a maximum of nearly 27 300.

Took an assessment in literacy, numeracy and problem solving in technology-rich environments

The survey collected background information of adults for about 40 minutes

The survey collects a range of transversal skills such as collaborating with others and organising one’s time, required of individuals in their work.
Over 1/3 workers are mismatched by qualification

The worker has higher (lower) qualifications than those needed to get the job

• On average:
  – 21% over-qualified
  – 13% under-qualified
The worker has a higher (lower) skill level than those of workers who are well-matched

- On average:
  - 10% over-skilled
  - 4% under-skilled
Around 4/10 workers are mismatched by field of study

The worker’s highest qualification is in a field that is not related to the job

- On average:
  - 39% mismatch
  - 40% of them also qualification mismatched
Aggregate MISMATCH: INSIGHTS FROM THE OECDSkillsforJobsdatabase.org
How we measure existing shortages and the changes ahead: the Skills for Jobs database

Objective and comparable information:
- Wage
- Employment
- Unemployment
- Hours worked
- Under-qualification

Skills Shortages and surpluses:
- Critical thinking
- Complex problem solving
- Engineering and technology
- Arts and humanities
- Deductive reasoning
- Finger dexterity
- Knowledge
- Abilities
- Skills
Shortages and surpluses vary across sectors and occupations

**Shortages and surpluses by sector of activity**

**Shortages and surpluses by occupation**
Behind the aggregate figures, we can express imbalances in terms of skills, knowledge and abilities.

**Skills in surplus in most countries**
- Physical strength, peripheral vision, depth perception, stamina
- Manual dexterity, control precision
- Engineering and technology, food processing, building and construction

**Skills in shortage in most countries**
- Inductive and deductive reasoning, fluency of ideas
- Dependability, leadership, initiative, cooperation
- Social perceptiveness
- STEM skills
Why should we worry about skills imbalances?
The cost of inaction is high

For individuals
- Lower wages
- Lower job satisfaction
- Risk of jobs loss and skills obsolescence

For employers
- Lower productivity
- Vacancies remain unfilled for too long
- Delays in technology adoption
- Higher turnover and re-training costs

For countries
- Less competitiveness
- Lower aggregate productivity
- Sunk costs in the skill system
Qualification, literacy and field-of-study mismatch affect wages

Percentage difference in wages between overqualified, overskilled or field-of-study mismatched workers and their well-matched counterparts

- Over-qualified
  (Ref: same qualifications, well-matched job)

- Overskilled in literacy
  (Ref: same skills, well-matched job)

- Field-of-study mismatched
  (Ref: same field of study, well-matched job)
Literacy mismatch and productivity

- Percentage of workers with skill mismatch (LHS)
- Gains to labour productivity from reducing skill mismatch (RHS)
The cost of field-of-study mismatch can amount to more than 1% of GDP.

The graph shows the percentage of GDP lost due to productivity (represented by the blue bars) and education (represented by the grey bars) mismatch for various countries. The countries include England/N. Ireland (UK), Canada, United States, Spain, Germany, Japan, Italy, France, and Australia. The graph indicates that the cost of mismatch is highest in England/N. Ireland (UK) and lowest in Australia.
What do we know about the causes of mismatch?

Labour market dynamics predict over-qualification

- Workers fired or dismissed in the context of business closures are more likely to be over-qualified at re-employment than workers who quit
  - Effect stronger if job separation occurs at times of rising unemployment
- The longer the time spent out of work between two jobs, the higher the risk of over-qualification, suggesting skills obsolescence

What causes field-of-study mismatch?

- Saturation: there are too many graduates from this field and fewer jobs in the corresponding sector
  - Roughly: \( \frac{\text{Number of graduates from the field}}{\text{Number of workers in that sector}} \)
  - Graduates from more saturated fields are more likely to be mismatched (and overqualified)

- Skill transferability: skills from the field are transferrable / valued in other sectors
  - Roughly: \( \frac{\text{Number of skills well-matched in that sector}}{\text{Number of FoS mismatched in that sector}} \)
  - Graduates from fields with more transferability are more likely to be mismatched and well qualified
Promote linkage between education provision and labour market needs
- Skills assessment and anticipation systems linked to the definition of vacancies
- Career guidance for youth and adults can help steer investments in education and training towards skills in need

Promote skill transferability so that FoS mismatch does not bring about over-qualification
- Competency-based occupational frameworks
- Flexible re-skilling programmes
- Strong foundation skills in all education and training pathways

Encourage firms to train and foster learning culture:
- Increase internal flexibility to adapt job tasks to the skills of new hires;
- Promote a better allocation of workers to tasks; and
- Provide incentives for workers to deploy their skills at work more fully
Thank you

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Website: http://www.oecd.org/employment/skills-and-work.htm

Blog: www.oecdskillsforjobsdatabase.org