21 – 22 November 2017

International seminar, Bogota

Skills mismatch and anticipation of skills needs
Methodologies and experiences

Skills and jobs mismatch. ILO findings from global research

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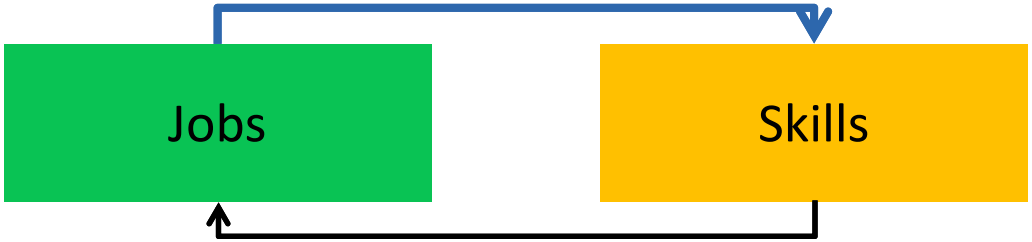
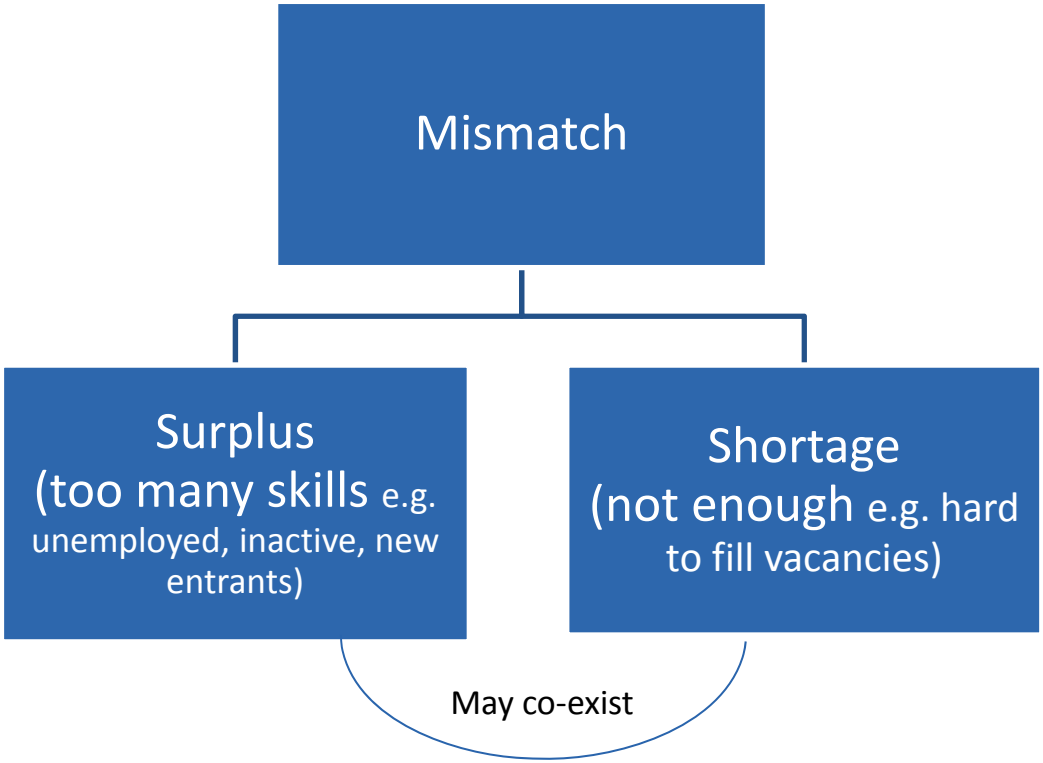
A feedback loop

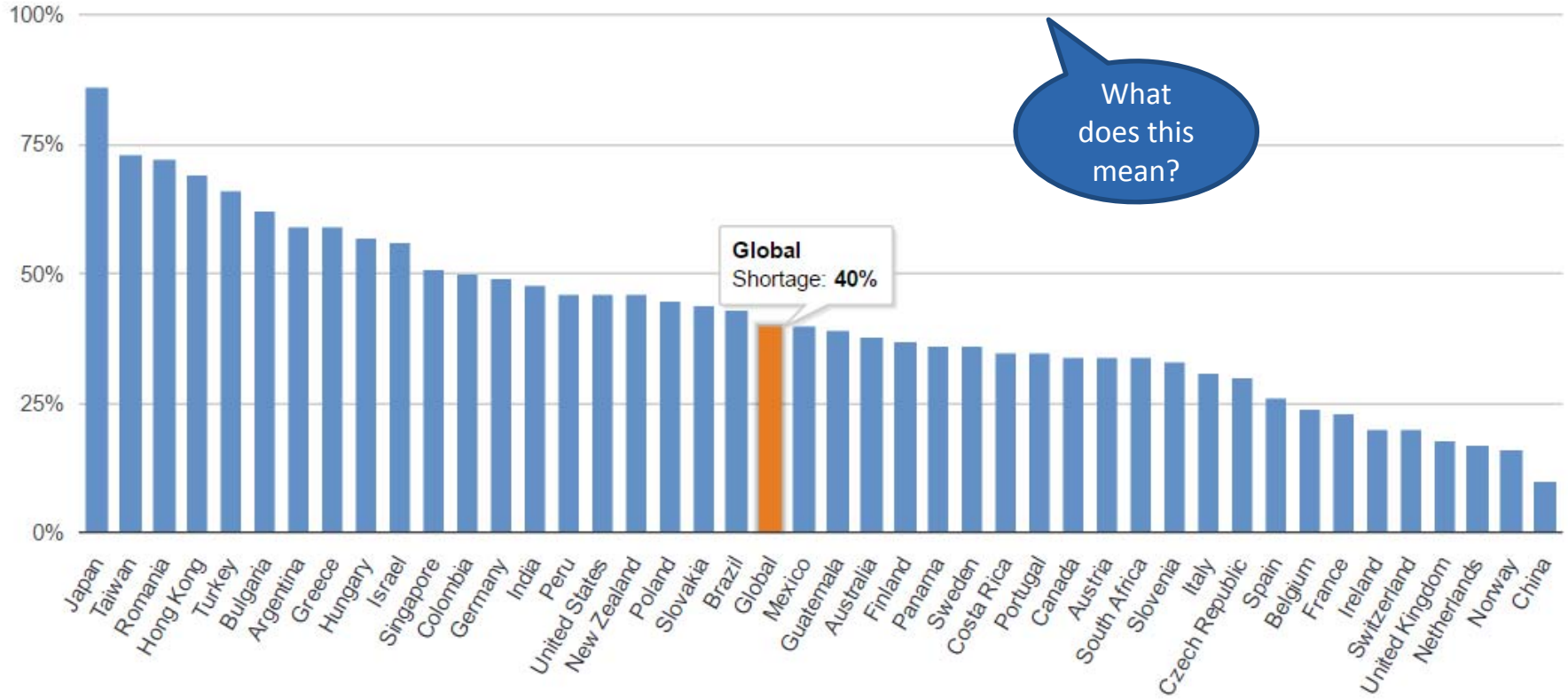


Skill Mismatch

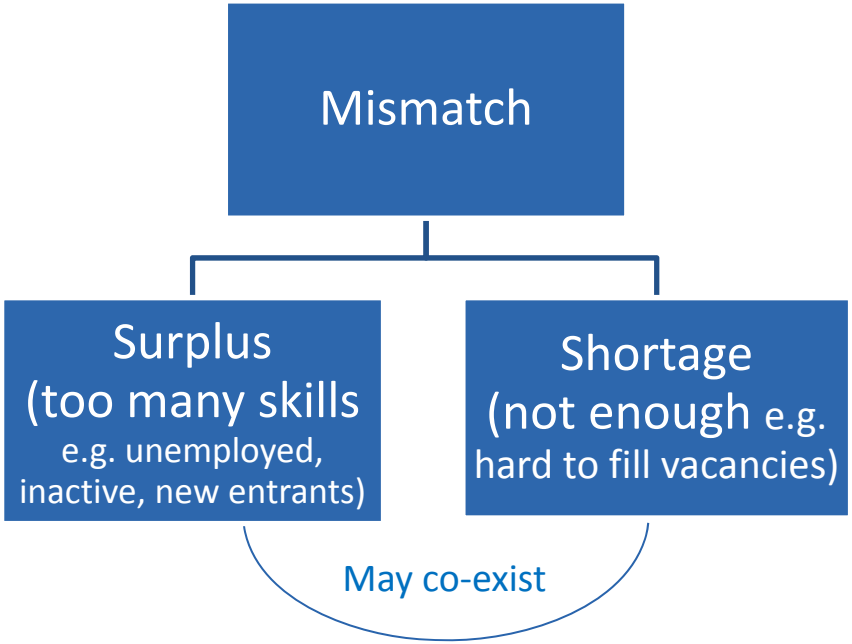


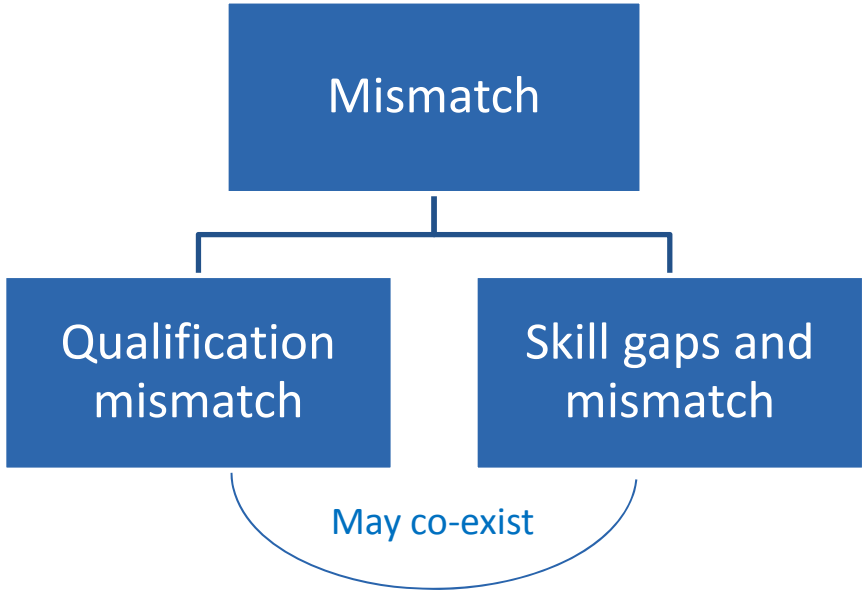
Manpower Group Talent shortage survey of employers 2016-17

% of employers reporting difficulty filling jobs



Skill Mismatch

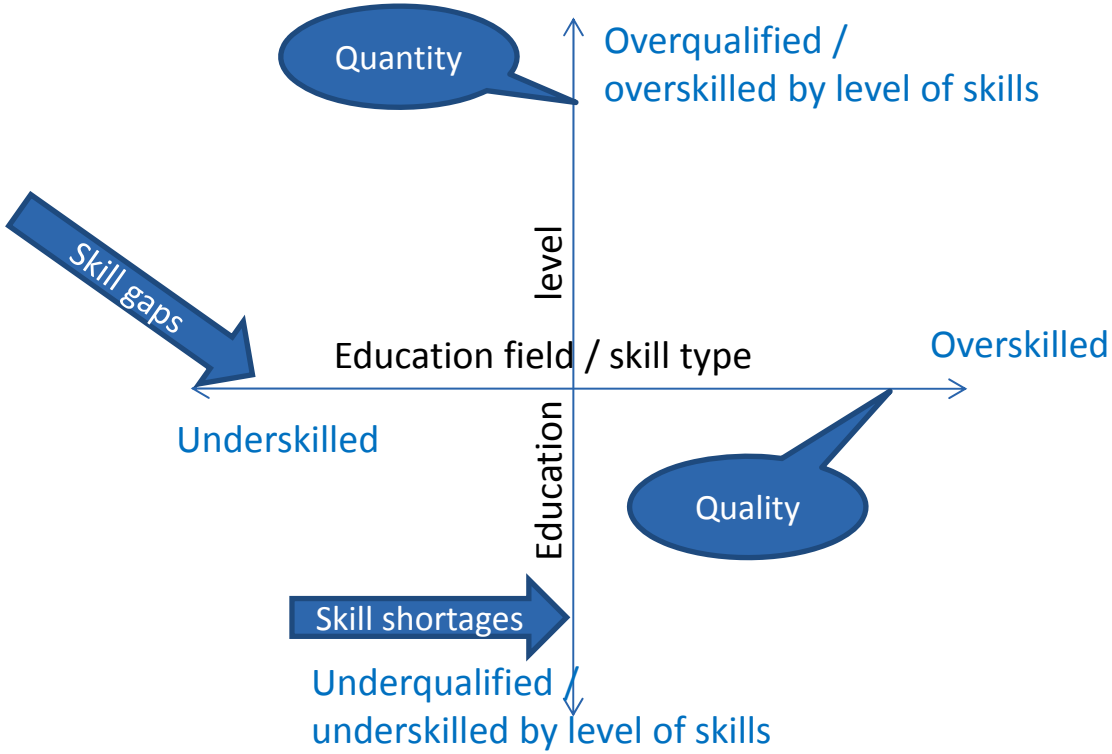




E.g. :

- Overeducated but underskilled
- Undereducated but overskilled
- Over/undereducated and over/underskilled

Horizontal and vertical mismatches



Skill mismatch over time

- **Skills obsolescence**
  - Skills need to be maintained
  - Skills not used become obsolete
  - Especially relevant to technology intensive jobs

- **Career mismatch** – when jobs and skills mismatch does not approximate over time
- **Current and potential** mismatch

Why is skills mismatch a concern for policy?

- Skills mismatch can have very serious implications for firms, individuals and the economy more generally.
- Skills gaps and skills shortages are thought to increase labour costs, lower firm-level productivity and slow economic growth.
- Vertical mismatch are thought to lower the earnings of individuals and result in an economy that is operating well below its potential.
- There is much less debate about the impact of horizontal mismatch but, again, this is shown to have negative implications for earnings, productivity and job satisfaction as well as increasing turnover.

Evidence from the ILO global research on mismatch (literature review)

- **Overeducation**: Average incidence of 25% (estimate from 37 countries) with an average wage penalty of 13.5%
- **Undereducation**: Average incidence of 16% (estimates from 18 countries) with mixed evidence on earnings (zero impact to a small premium)
- **Overskilling**: Average incidence of 21% (based on 21 studies, 9 of which relate to Australia). Average wage penalty of 7.5%.
- **Underskilling**: Average incidence of 25.5% (based on 3 studies covering multiple countries) with no consistent evidence of an impact on earnings.
- **Horizontal mismatch**: Average incidence of 37.3% (based on 27 estimates). No consistent evidence of a wage impact.
- **Skill Shortages /gaps / obsolences**: lack of global evidence

Are skills mismatches just a problem for developed economies?

- Most of evidence relates to high income countries: a lack of available data.
- Some evidence is beginning to emerge.
- The STEP data, LFS data, ILO School to Work Transition survey data
- Three major studies have been commission as part of an ILO sponsored research programme.
- Research done in collaboration with ESRI, Ireland
- Different sources and different measurement ways produce different results

Data availability

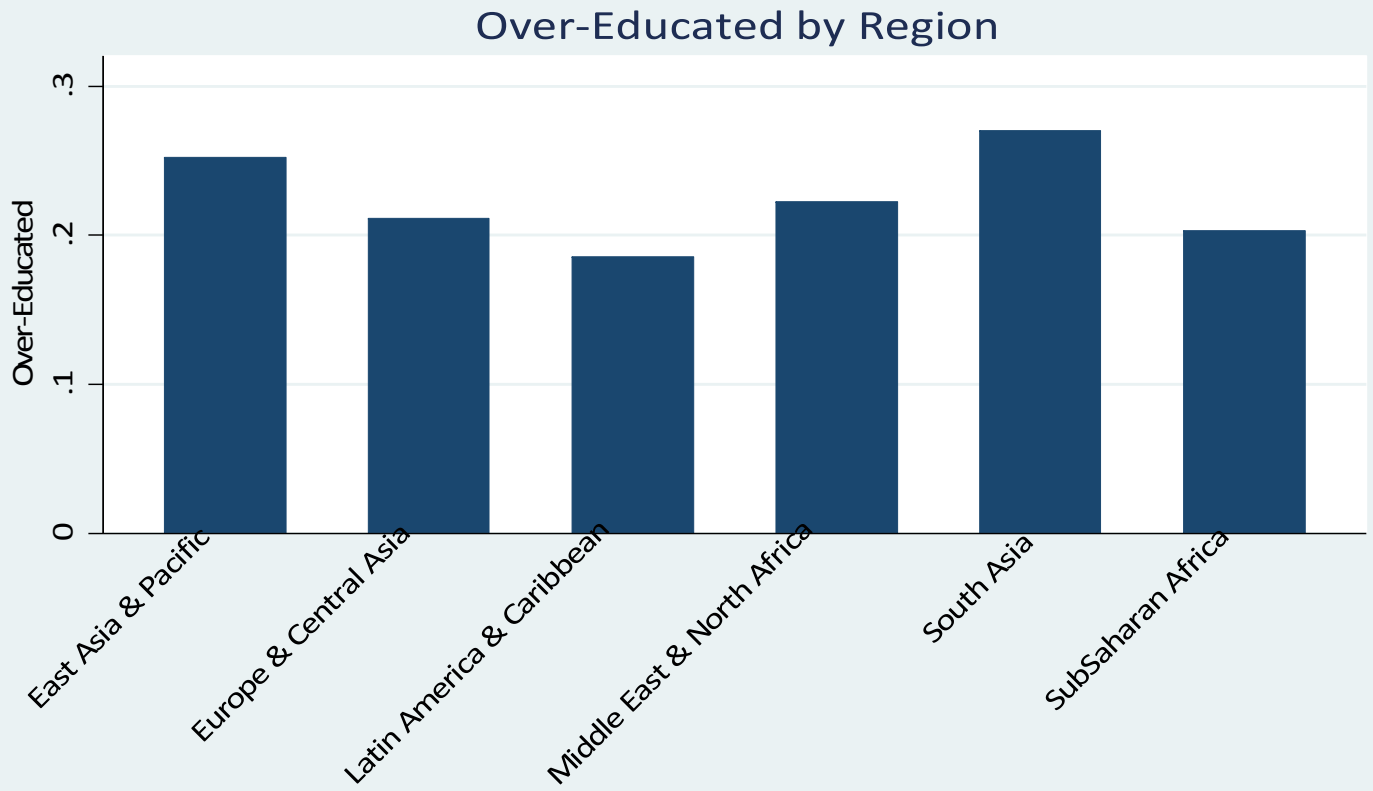
Country	Q / Y	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16
Uruguay	Q		1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
Argentina	Q		0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Mexico	Q		0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
Dominican Republic	biannual		0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0
Peru	Q		0	0	0	0	1	1	1	1	1	0	1	1	1	1	0	0
Honduras	Y/biannual		0	0	0	0	0	1	1	1	1	1	1	0	1	1	0	0
Panama	Y		0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0
Ecuador	Q		0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Chile	Q		0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
Costa Rica	Q		0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1
Bolivia	Y		0	0	0	0	1	0	0	0	1	0	1	1	1	1	0	0
Colombia	Y		0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0
Brazil	Q		0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0
Paraguay	Q		0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
Guatemala	bi-annual		0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0

Skill levels and occupations

Broad Skill Levels	Aggregate Categories of Occupation	ISCO-08	ISCO-88
Skill levels 3 and 4 (high)	Managers, professionals, and technicians	1. Managers	1. Legislators, senior officials and managers
		2. Professionals	2. Professionals
		3. Technicians and associate professionals	3. Technicians and associate professionals
Skill level 2 (medium)	Clerical, service, and sales workers	4. Clerical support workers	4. Clerks
		5. Service and sales workers	5. Service workers and shop and market sales workers
	Skilled agricultural and trades workers	6. Skilled agricultural, forestry and fishery workers	6. Skilled agricultural and fishery workers
		7. Craft and related trades workers	7. Craft and related trades workers
	Plant and machine operators, and assemblers	8. Plant and machine operators, and assemblers	8. Plant and machine operators and assemblers
Skill level 1 (low)	Elementary occupations	9. Elementary occupations	9. Elementary occupations

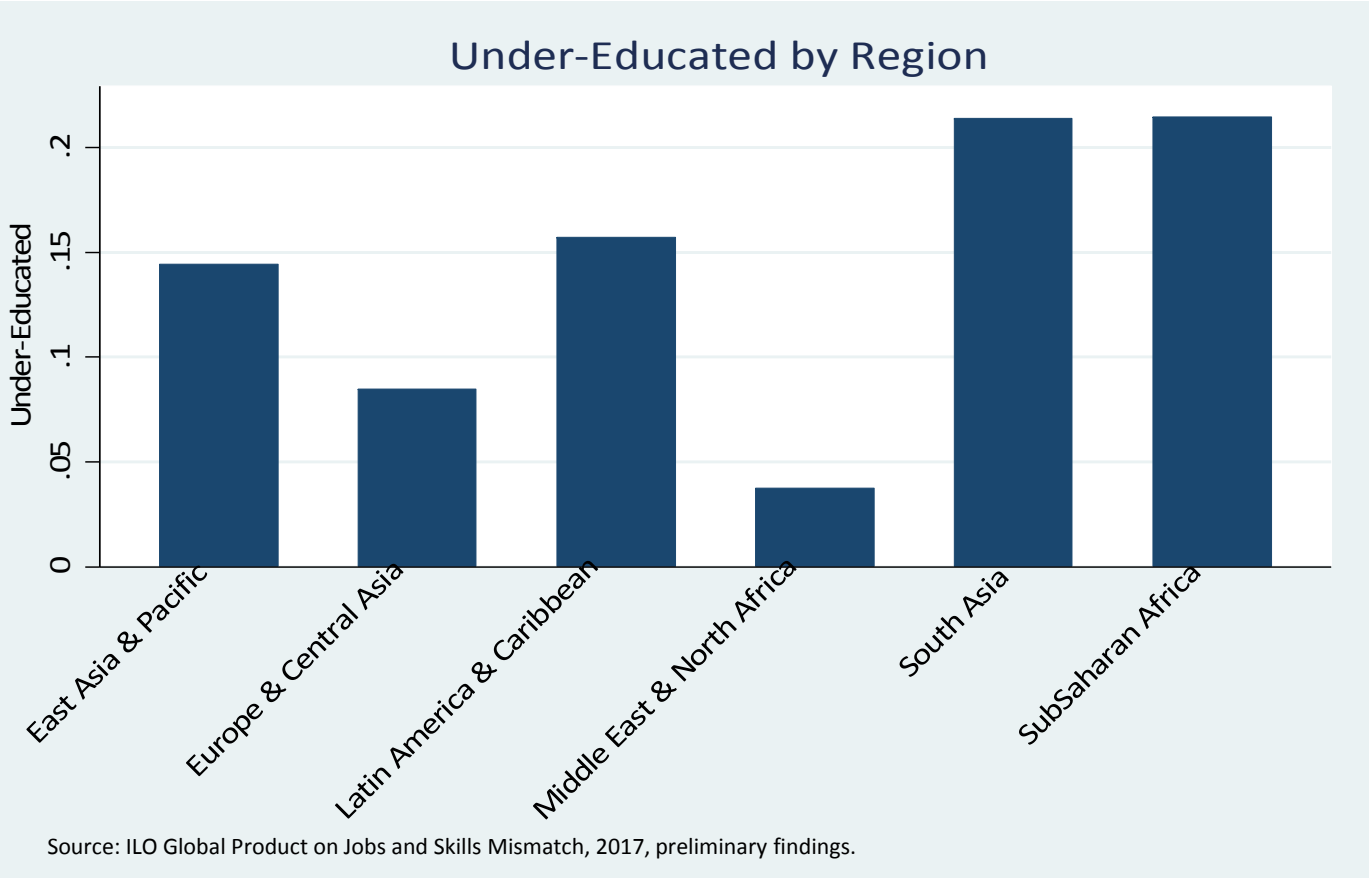
Source: ILO ISCO guidelines

Results by region: overqualified



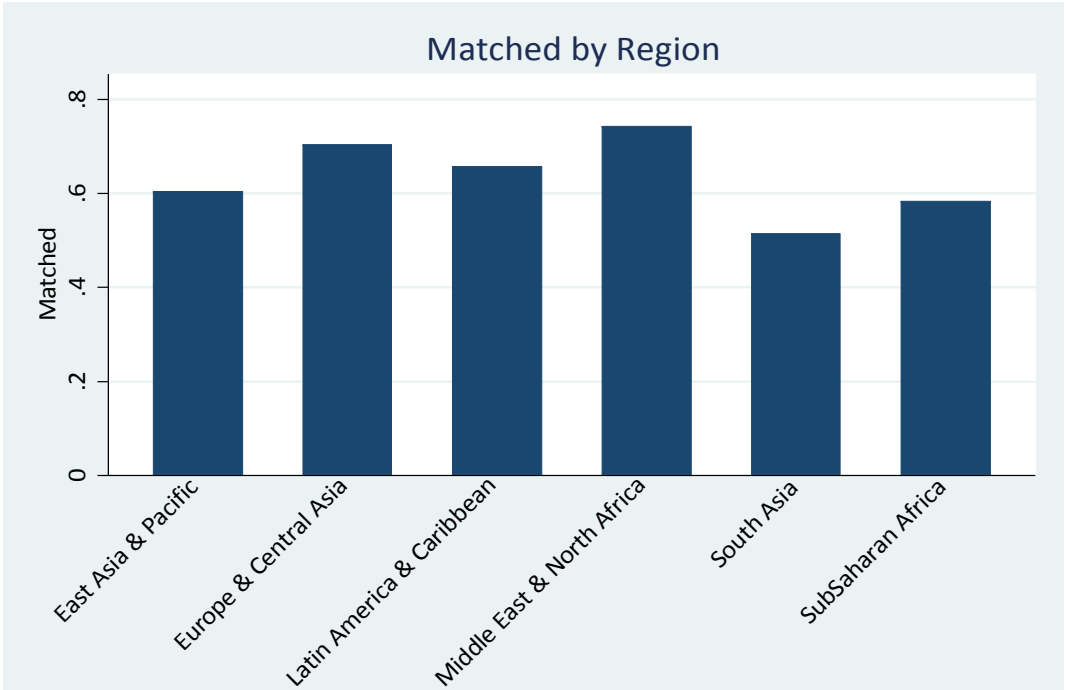
Source: ILO Global Product on Jobs and Skills Mismatch, 2017, preliminary findings.

Results by region: underqualified

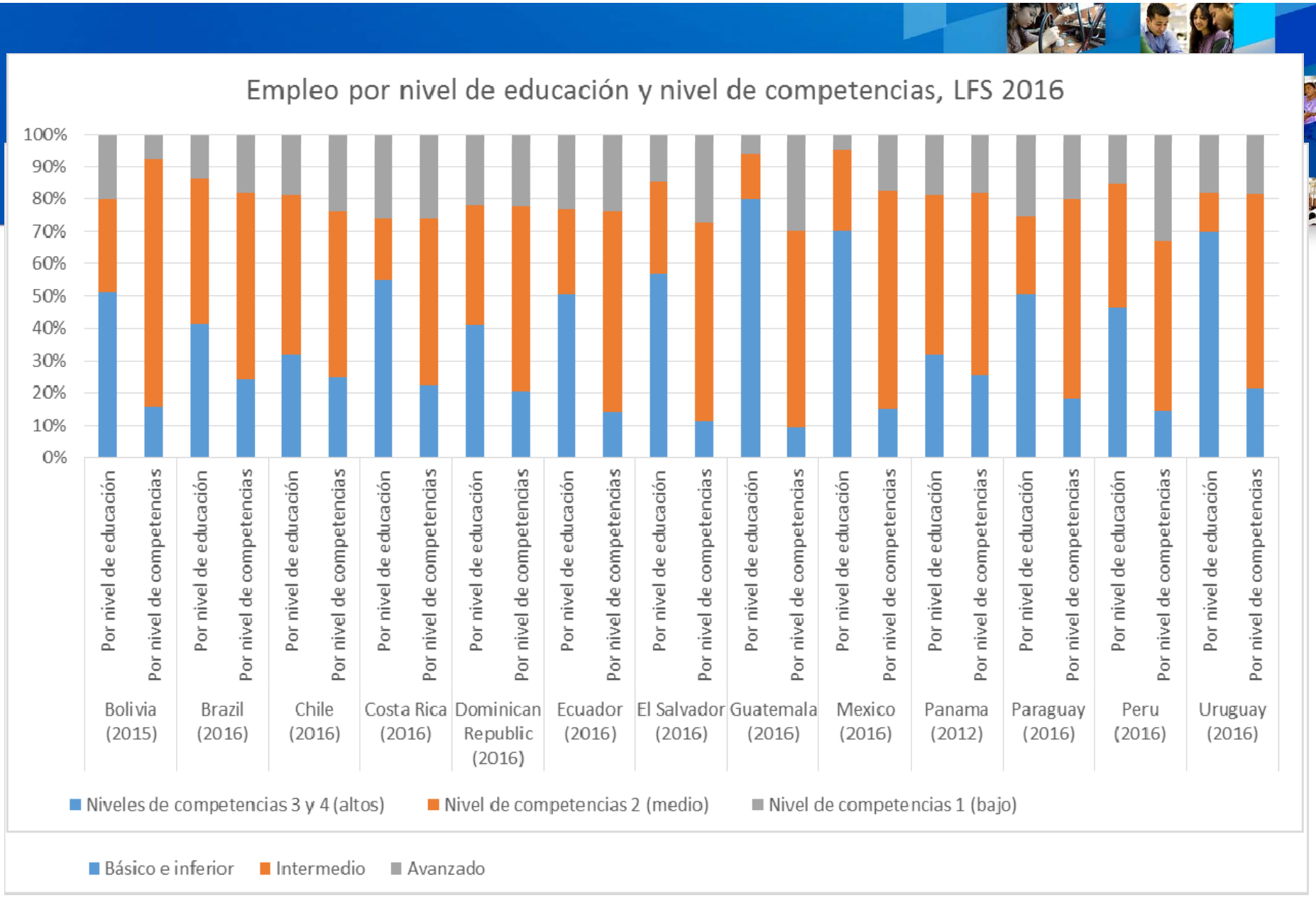


Source: ILO Global Product on Jobs and Skills Mismatch, 2017, preliminary findings.

Results by region: matched



Source: ILO Global Product on Jobs and Skills Mismatch, 2017, preliminary findings.



Fuente: ILOSTAT

What is the state of evidence for low and middle income countries? - I

- The three ILO studies have analysed both the incidence and impacts of education mismatch in approximately 50 low and middle income countries.
- The studies found that both overeducation and undereducation are common features of low and middle income labour markets.
- Undereducation appears to be a much bigger issue in developing labour markets compared to high income countries.
- Overeducation is found to consistently lower earnings in low and middle income countries with penalties generally higher than what is observed in developed economies.

What is the state of evidence for low and middle income countries? - II

- All of the studies point to the relatively high level of informality as a key driver of educational mismatch in low and middle income labour markets.

- Poor job quality and low levels of educational attainment are also identified as a common feature of mismatch in low and middle income countries.

Policies' review:
Where is policy focused?

- There appears to be a misalignment between the focus of the evidence base on skills mismatch and the direction of skills and labour market policy.

- In the vast majority of cases, country specific policy recommendations primarily relate to skill shortages. Even if referring to skill mismatches, the policy response inferred typically relates to either skill shortages or skill gaps.

- E.g. The New Skills Agenda (NSA) for Europe (European Commission, 2016) raises concerns relating to skill shortages and mismatch by highlighting that "40% of European employers have difficulty finding people with the skills they need to grow and innovate".

The Paradox

- The term skills mismatch is very broad, and can refer to a variety of concepts including vertical mismatch, horizontal mismatch, skill gaps, skill shortages and skill obsolescence.

- Whilst an abundance of evidence exists on the costs associated with surplus human capital, as measured by overeducation and overskilling, much less is known on the effects of skill gaps, skill obsolescence and skill shortages.

- The phenomenon of overeducation and the observed negative impact on earnings and job satisfaction is observed consistently in both developed and developing labour markets.

- However, policy appears to focus on precisely the areas for which the least evidence exists, namely skill shortages.

Why the disconnect between policy and evidence?

- Political challenge: questioning long-held assumptions around the benefits of the continued educational expansion
- Challenges of addressing enhanced skills utilisation in enterprises.

- It may be assumed that policies targeted towards one form of mismatch will have a generic impact on all forms of mismatch.
  - To some extent this will be true, for instance, strengthening apprenticeships will help address the issue of skill gaps and may also reduce overskilling by ensuring more workers are equipped with skills demanded by employers. However, the extent of policy spillovers will be limited in many cases (see paper).

- Moreover, it may also be the case that policy makers do not view overeducation or overskilling as being overly problematic
  - viewing it simply as a short-run phenomenon despite some convincing evidence for the contrary.

Policy conclusions from the global research on mismatch

- The situation whereby 1 in 4 employees are operating below their productive capacity should be a major concern for policy.
- Continue to focus policies on skill shortages and skill gaps but a greater balance is needed: remove constraints associated with surpluses in education and skills.
- There is no such general problem as “skills mismatch”: it only serves to confuse the policy debate.
- Policy should focus on eliminating the specific forms of mismatch.

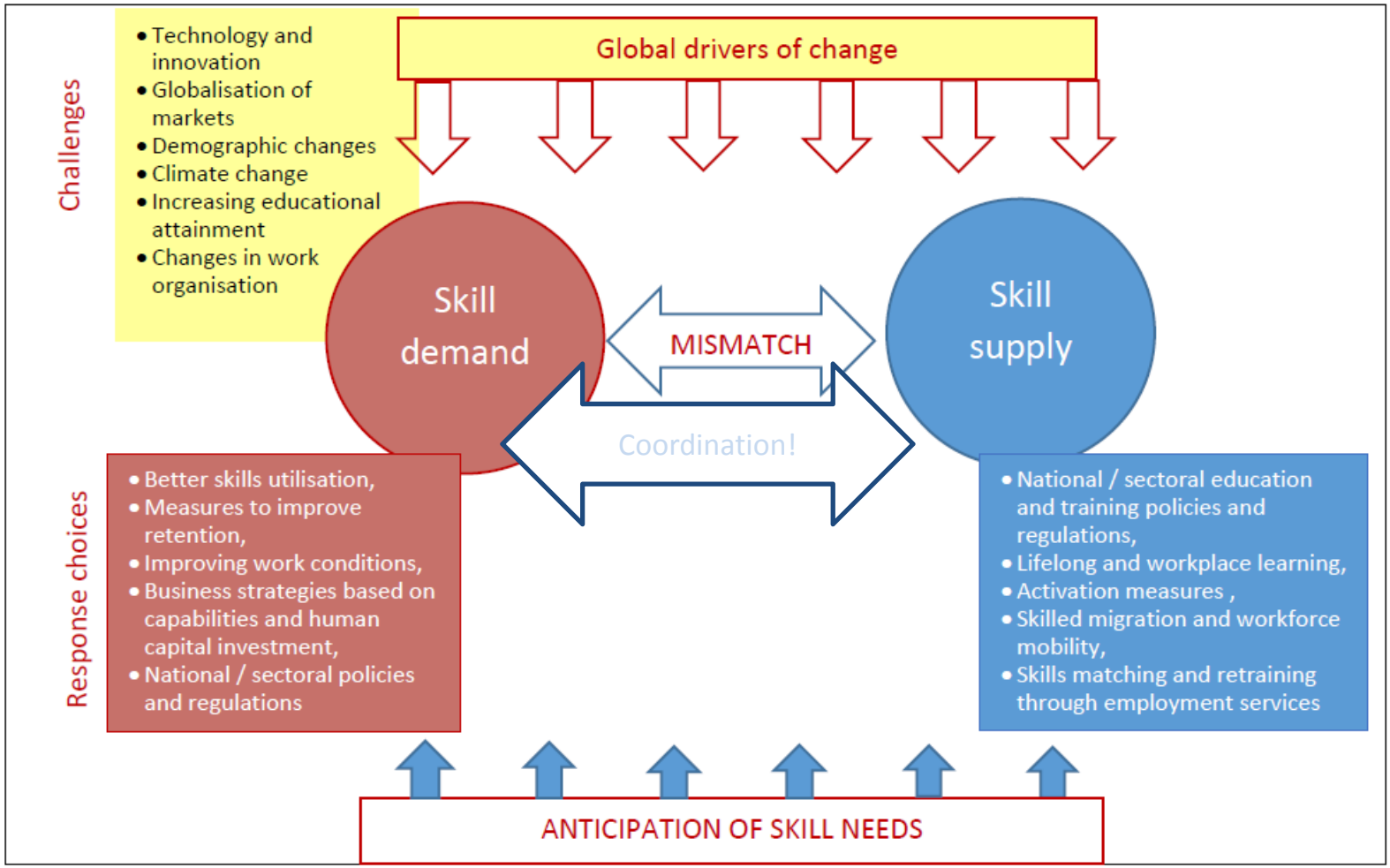
Potential policy levers - I

- Within developed labour markets, research point to a number of potential policies for addressing the problems of vertical mismatch:
  - Improving the match between the composition of educational supply (field of study) with the demands of employers;
  - Increasing the vocational content of all post-compulsory courses irrespective of field of study;
  - Reducing information gaps between employers and workers through improved job matching;
  - Examine ways in which firms can more flexibly harness the skills of their workforce;
  - Improve job quality.

Potential policy levers - II

- For developing economies, while all of the previous polices are relevant, there are some particular areas which are of particular importance in combatting mismatch:

  – Improving rates of formal employment;
  – Improving rates of educational attainment at both basic and intermediate levels;
  – The continued growth of per capita GDP.


Challenges
• Technology and innovation
• Globalisation of markets
• Demographic changes
• Climate change
• Increasing educational attainment
• Changes in work organisation
Global drivers of change
Skill demand
MISMATCH
Skill supply
Coordination!
Response choices
• Better skills utilisation,
• Measures to improve retention,
• Improving work conditions,
• Business strategies based on capabilities and human capital investment,
• National / sectoral policies and regulations
• National / sectoral education and training policies and regulations,
• Lifelong and workplace learning,
• Activation measures ,
• Skilled migration and workforce mobility,
• Skills matching and retraining through employment services
ANTICIPATION OF SKILL NEEDS

Thank you for your attention!