

ILO International Conference on Jobs and Skills Mismatch

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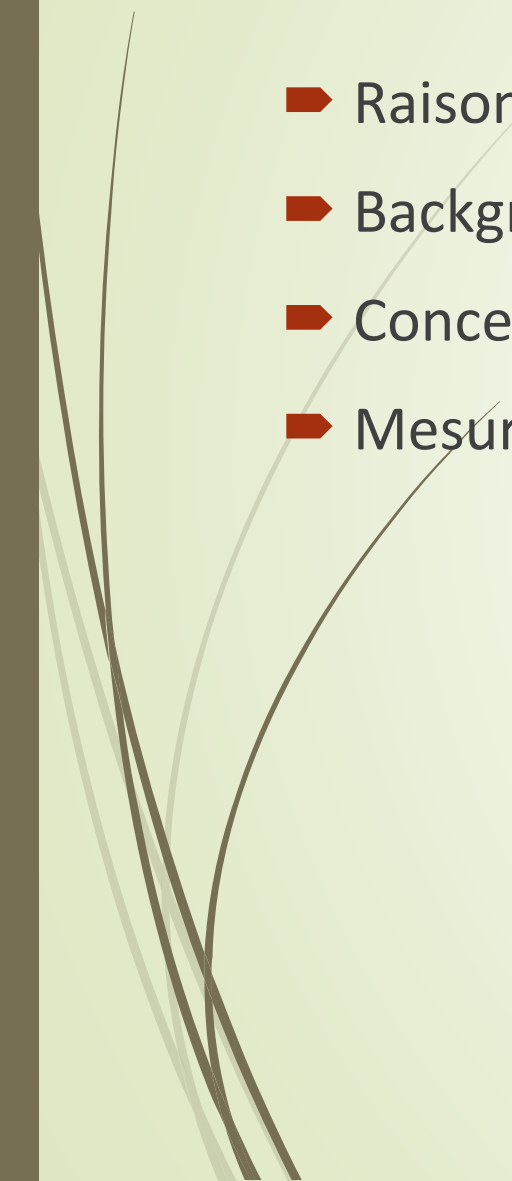
# **Qualification and Skill Mismatch: Concepts and Measurement**




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# Overview

- Raisons for measuring qualification and skill mismatches
  - Background
  - Concepts
  - Measurement
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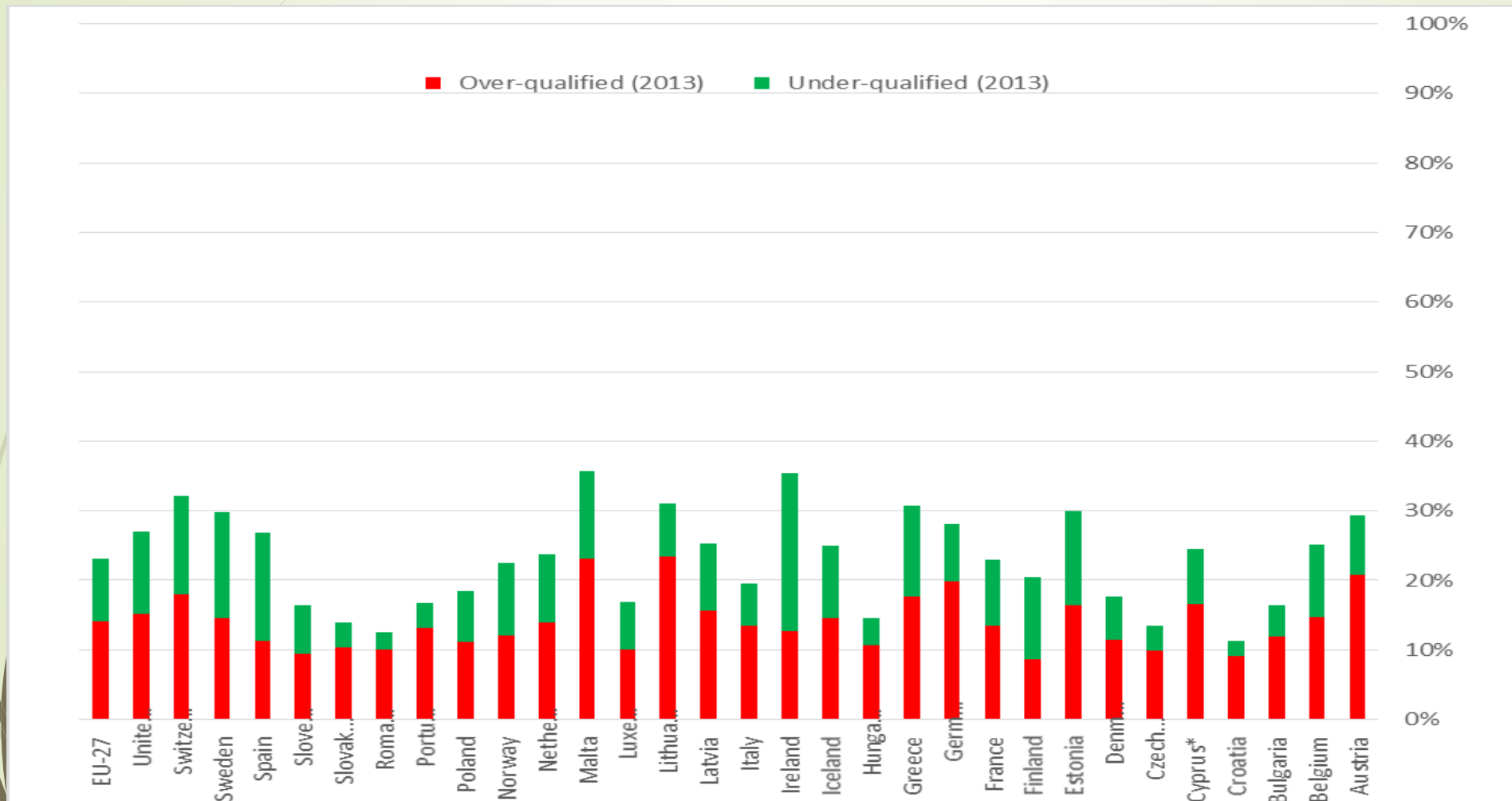


# Reasons for measuring qualification and skill mismatch?

- ▶ Signifies poor utilization of human capital
- ▶ Potential cost:
  - ▶ For workers - lower wages (for overqualified), lower job satisfaction, higher on-the-job search, higher the risk of being out of employment
  - ▶ For employers – lost productivity, lower growth
  - ▶ For society - sunk education costs, higher unemployment benefits, lost income tax revenues
- ▶ Total cost depends on the number of mismatched individuals

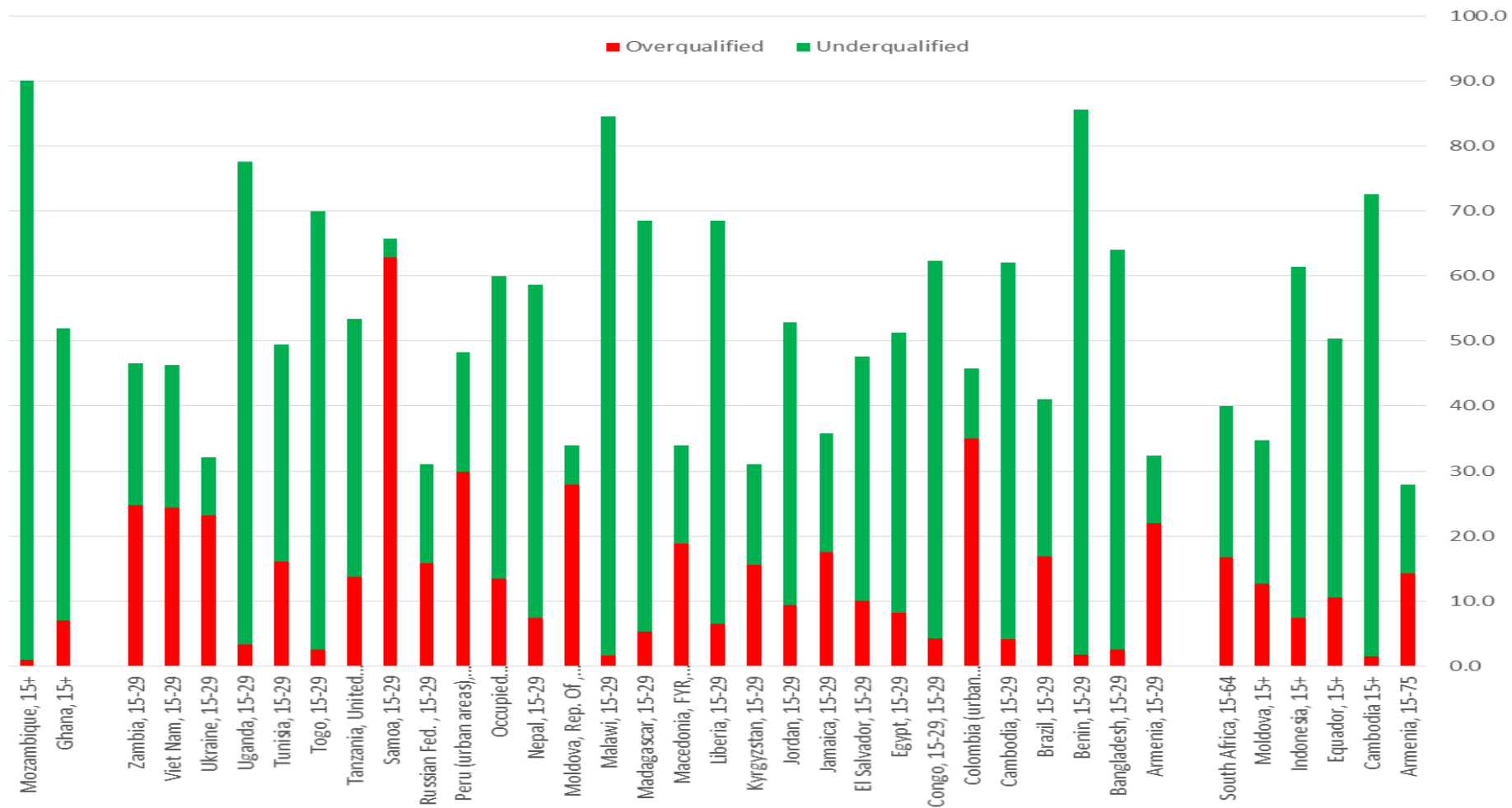
# How much qualification mismatch is there?

Qualification mismatch, selected developed countries, *Percentage of workers mismatched*,



# How much qualification mismatch is there?

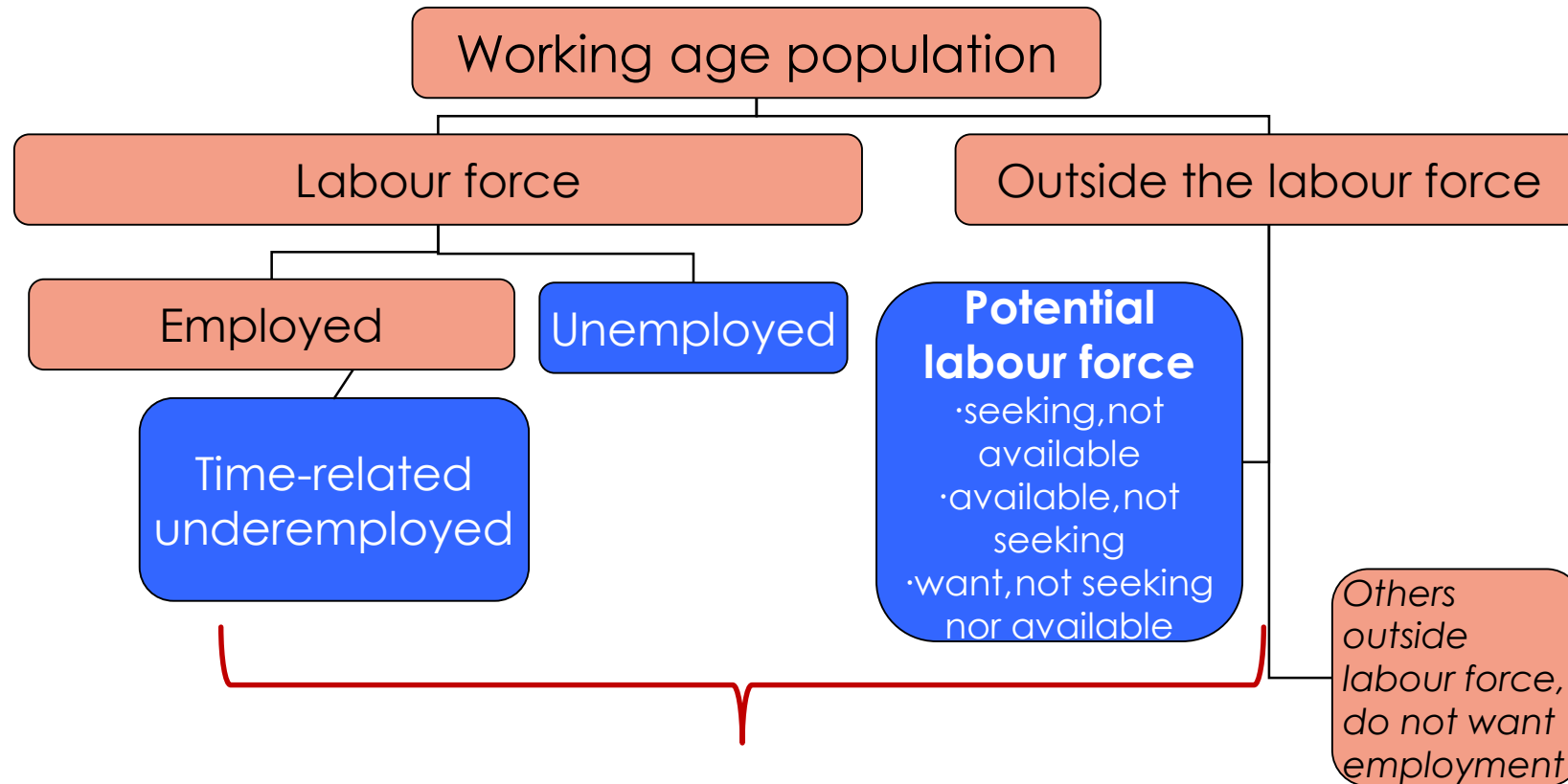
Qualification mismatch, selected developing countries, *Percentage of workers mismatched*,



# Background

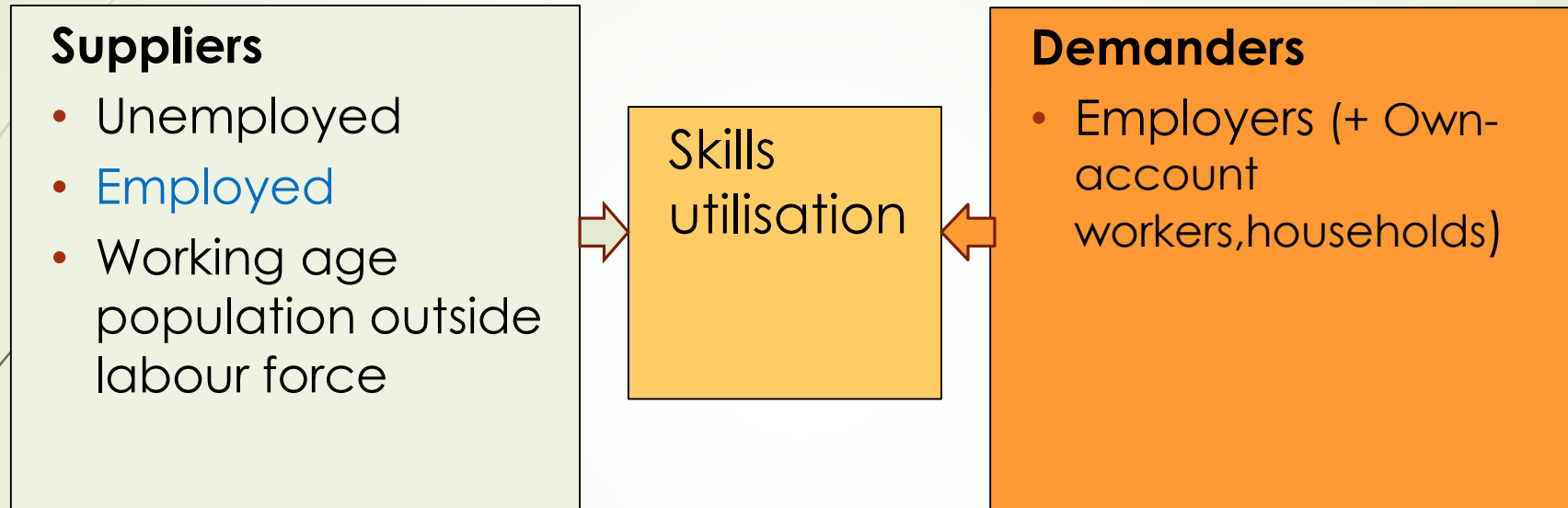
- 16<sup>th</sup> ICLS: discussed inadequate employment situations.
- 18<sup>th</sup> ICLS: A proposal for measurement of various forms of labour underutilization (labour slack, low earnings and skill mismatch)
- 19<sup>th</sup> ICLS resolution focusses on issues of **insufficient** labour absorption
  - ▶ The measurement of labour underutilisation limited to (a) time-related underemployment, (b) unemployment, and (c) potential labour force.
  - ▶ Other dimensions of labour underutilization that refer to **inadequate** labour absorption (e.g. inadequate use and mismatch of qualifications and occupational skills; and inadequate income in current job), are mentioned but not defined.
  - ▶ ILO was requested to continue its methodological work **on the measurement of labour underutilization or inadequate employment related to skills, to employment-related income, and to excessive working time**

# 19<sup>th</sup> ICLS: Labour underutilization



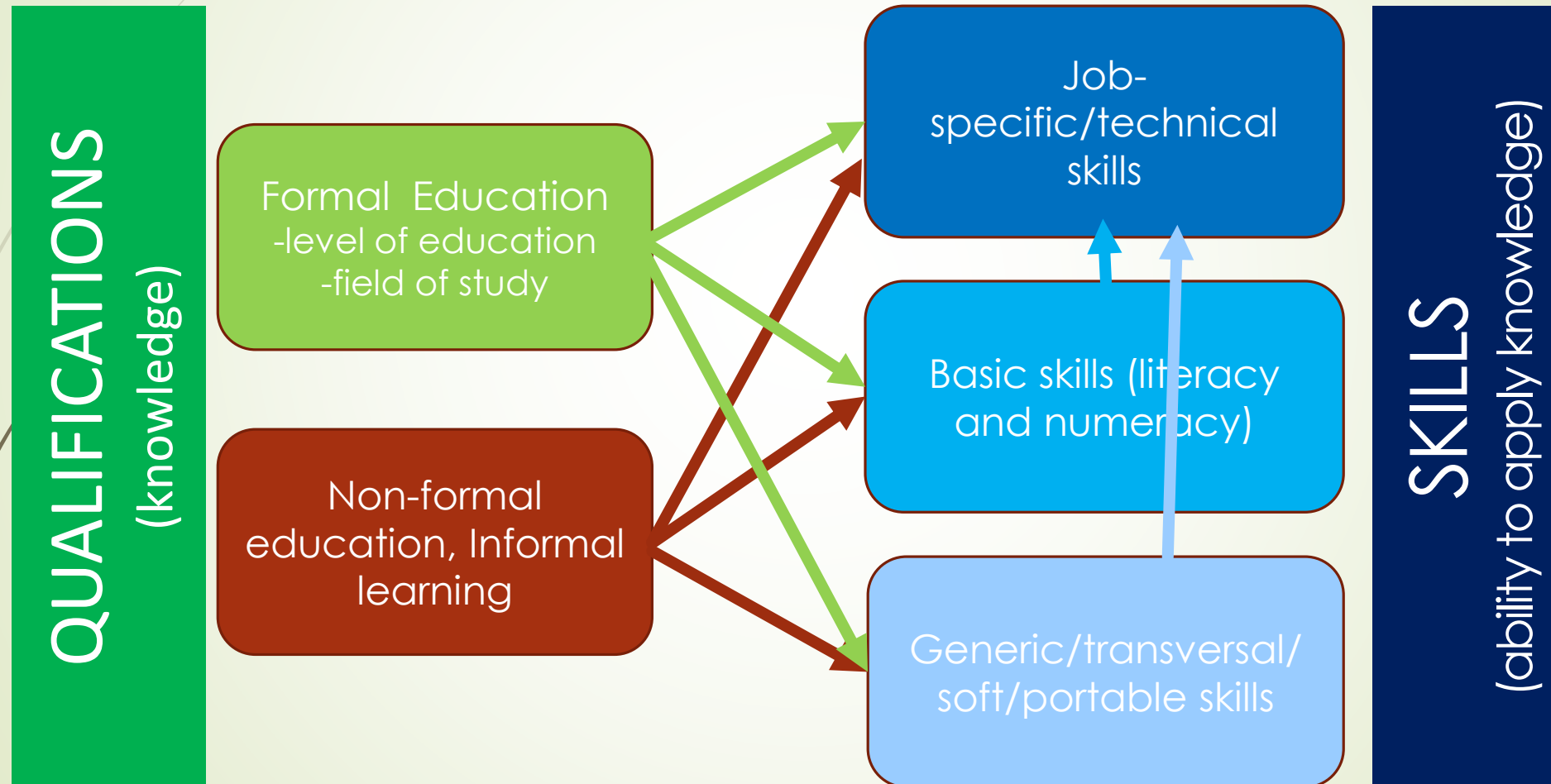
**Labour underutilization**  
(Or unmet need for employment)

# Supply and demand of skills





# ANALYTICAL FRAMEWORK: Qualifications and Skills



# QUALIFICATIONS

## QUALIFICATIONS

Formal Education  
-level of education  
-field of study

Non-formal  
education, Informal  
learning

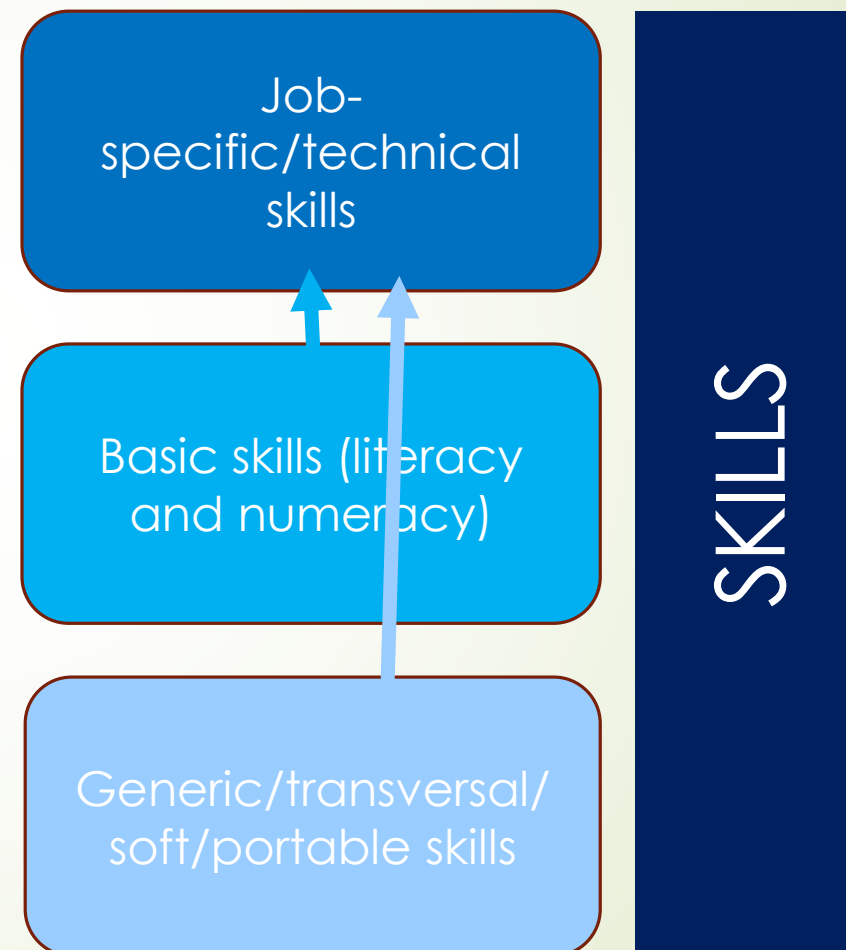
**Formal qualifications:** official confirmation

- i) Successful completion of a full education programme;
- ii) Successful completion of a stage of an education programme (intermediate qualifications); or
- iii) Validation of knowledge, skills and competencies acquired through non-formal education or informal learning.

**Non-formal qualifications:** not officially recognised as equivalent to formal qualifications

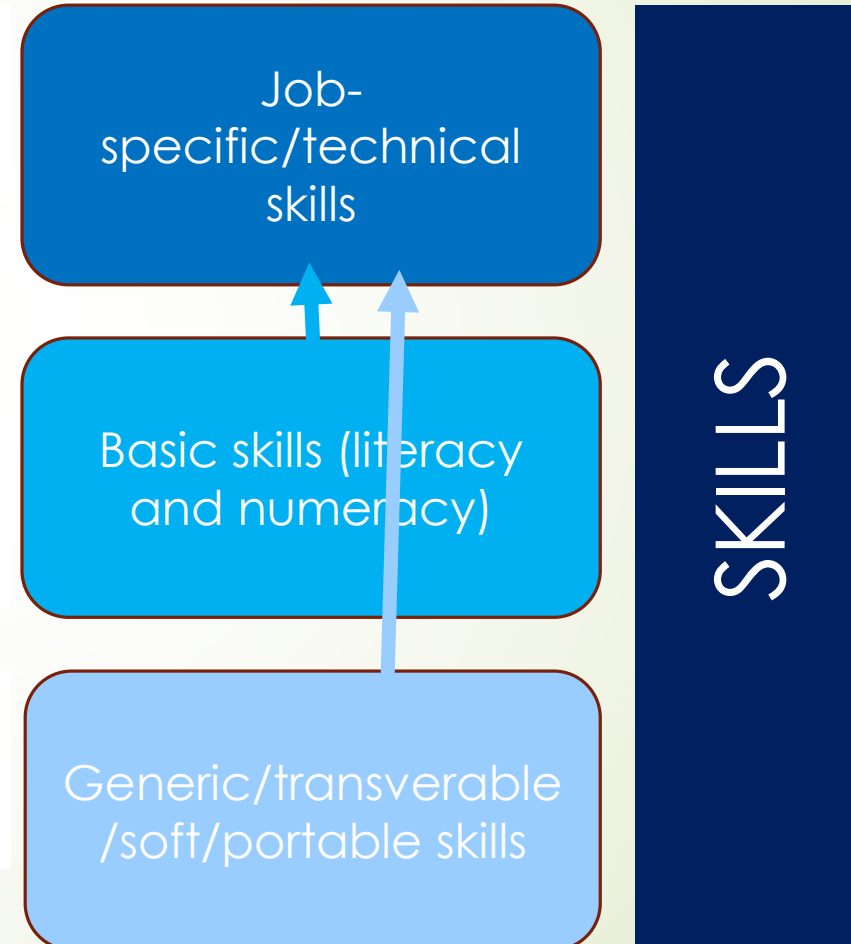
# SKILLS

The innate or learned **ability to apply** the knowledge acquired through experience, study, practice or instruction, and **to perform** tasks and duties required by a given job



# SKILLS: Types

- Relate specifically to certain types of jobs or job fields
  - Easily recognizable
  - Difficult to transfer from job to job
- 
- Prerequisite for further education and training, and for acquiring transferable and technical and vocational skills
- 
- Relevant to a broad range of jobs and occupations
  - Can be easily transferred from one environment to another

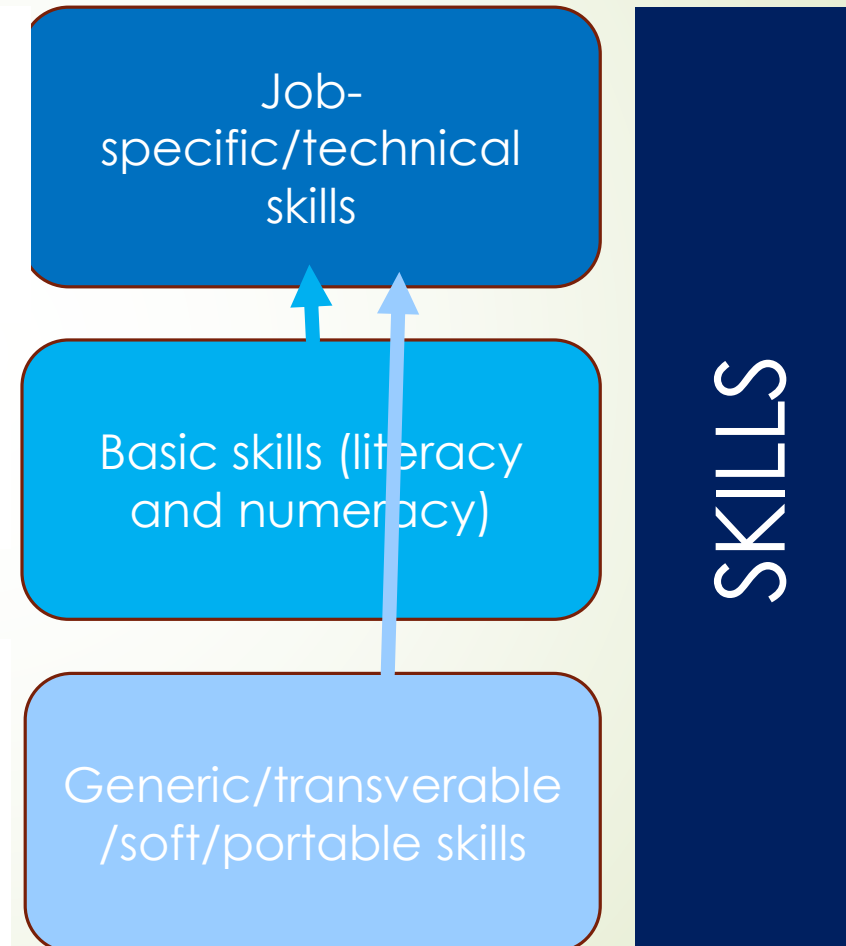


# SKILLS: Types (examples)

- Specialist knowledge needed to perform job duties
- Knowledge of particular products or services produced
- Ability of operating specialized technical tools and machinery
- Knowledge of materials worked on or with

- Writing and reading skills
- Numeracy skills

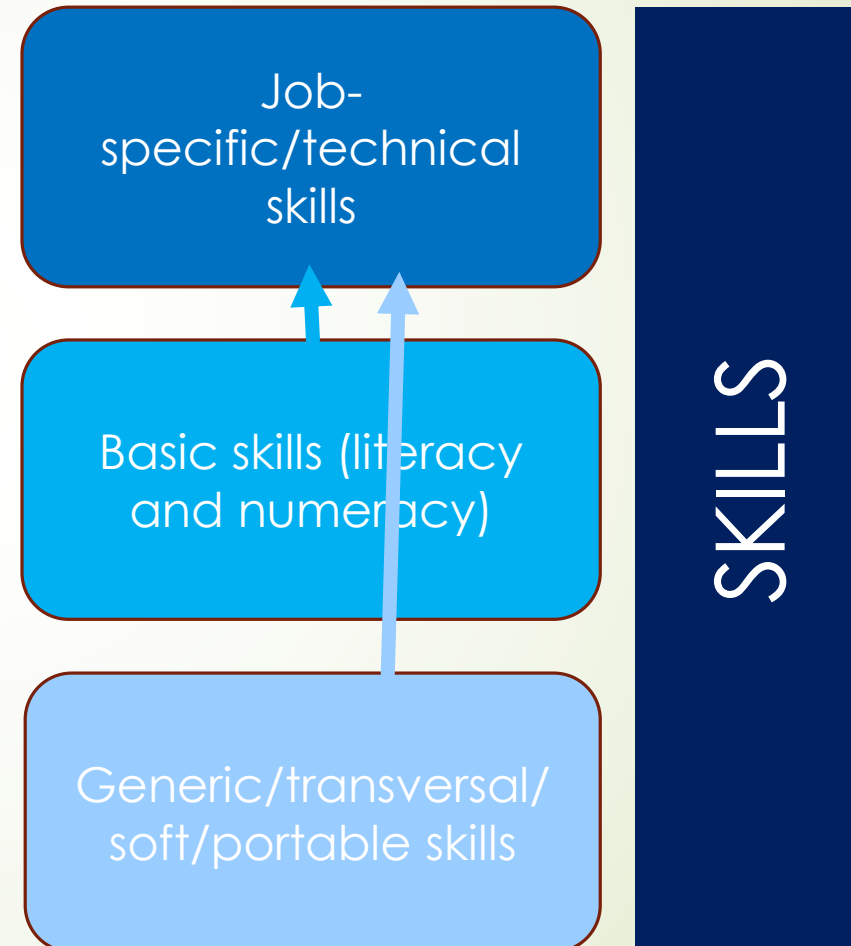
- ICT skills
- Problem-solving skills
- Communication skills
- **Decision making skills**
- Professional/personal skills (e.g. punctuality, honesty, reliability and dependability, **self-organisation, presentation, team-work** ) , Etc.



# SKILLS: Levels

Level of skills required depends on the complexity and range of tasks and duties to be performed on the job

- I. Low level
- II. Moderate level
- III. Advanced level



# Qualification mismatch of persons in employment

## – Concept

Persons in qualification mismatch comprise all persons in employment who occupied jobs whose qualification requirements do not correspond to their **formal qualifications** and/or **years of on-the-job training**

(i) Mismatch by level of education

Level of education higher/lower than required

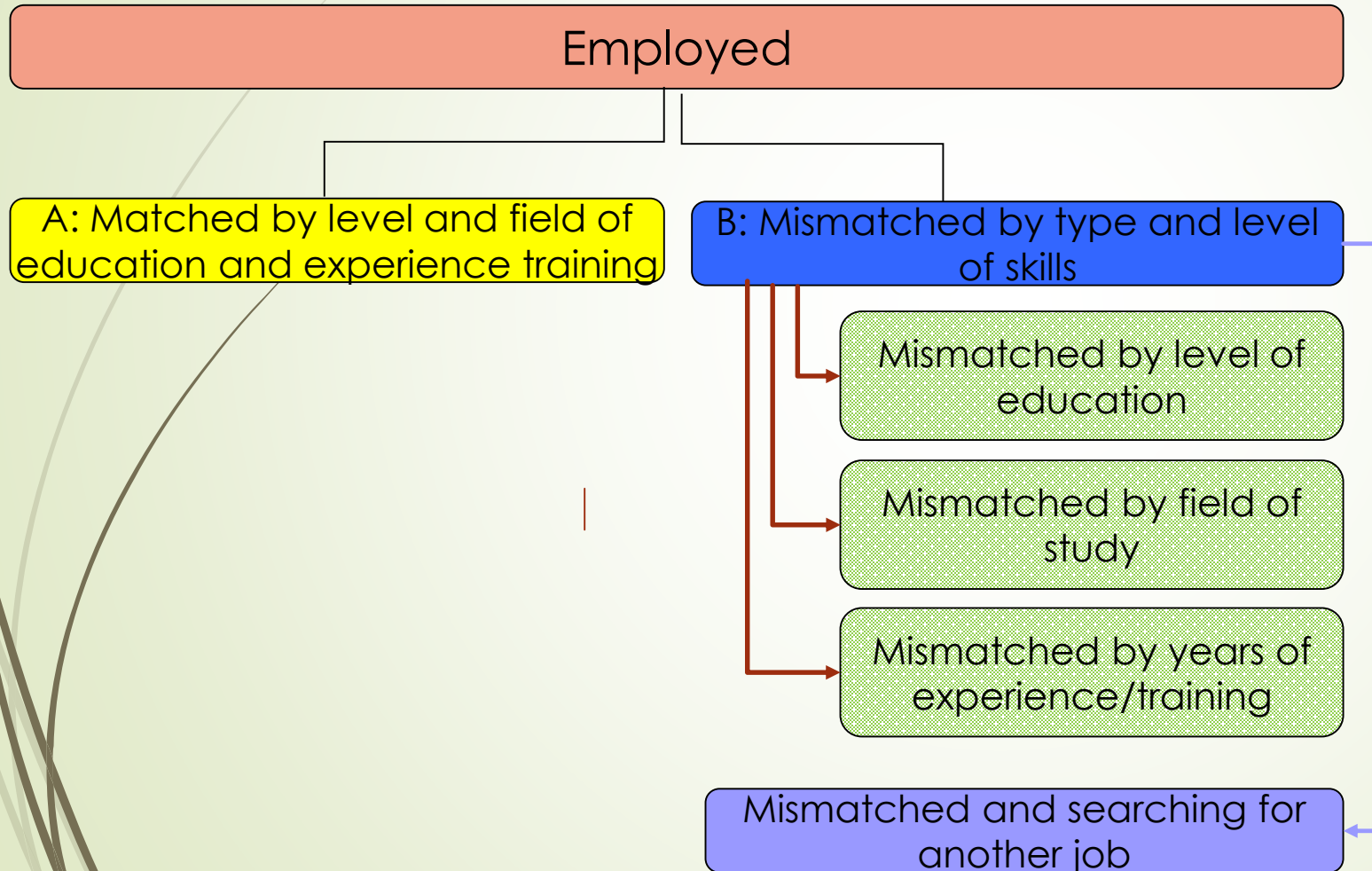
(ii) Mismatch by field of study

Principle field of study different from the field of work

(iii) Mismatch by years of on-the-job training and/or work experience

Years of experience/training higher/lower than required

# Qualification mismatch of persons in employment





## Persons in skill mismatch - Concept

Persons in skill mismatch comprise all persons in employment who occupied jobs whose skills requirements do not correspond to the type and level of occupational skills they possess.

- **Mismatch of job-specific/technical skills**

level of skills possessed higher/lower than required

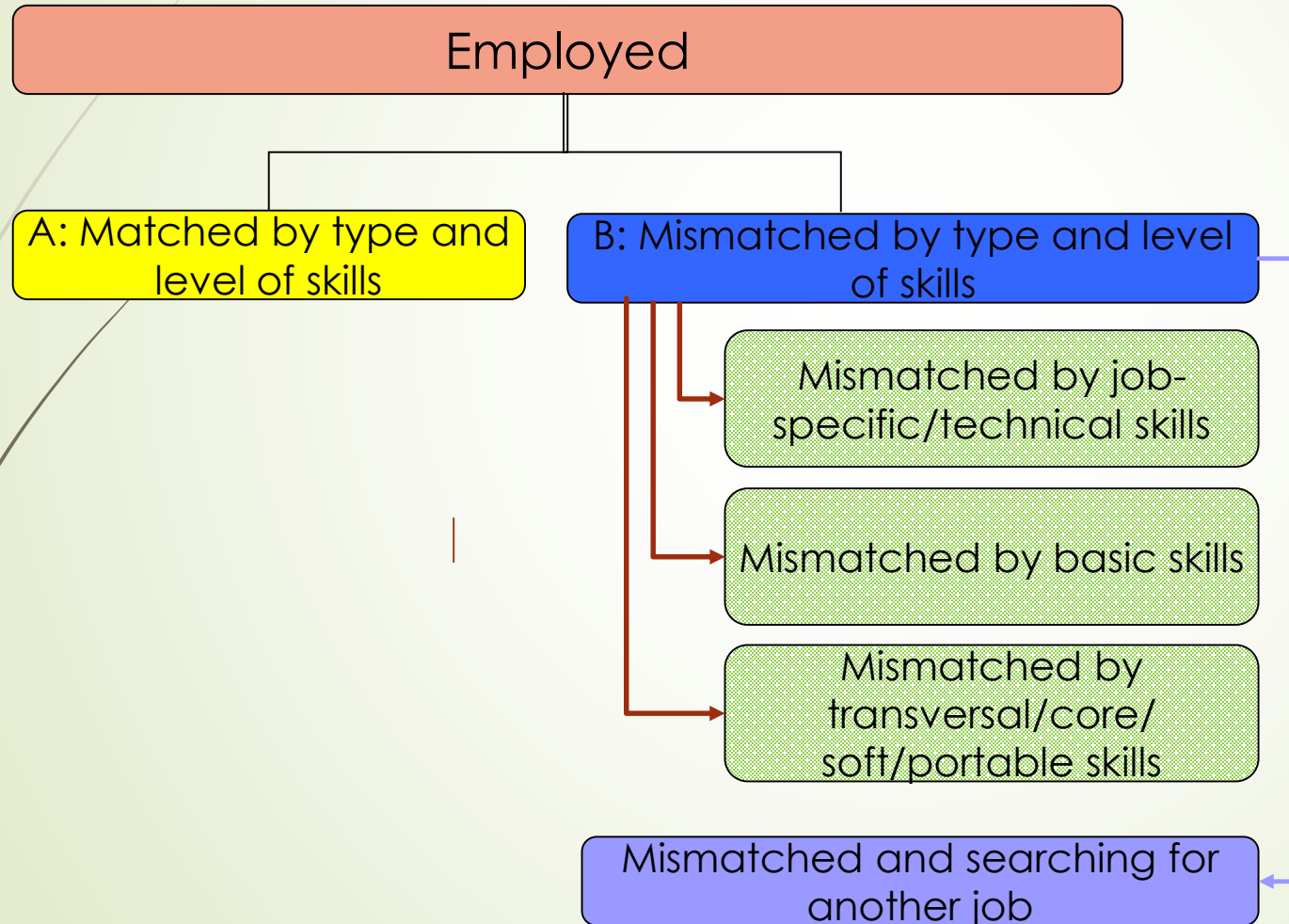
- **Mismatch of basic skills**

level of skills possessed higher/lower than required

- **Mismatch of transversal/core/soft/portable skills**

level of skills possessed higher/lower than required

# Skill mismatch of persons in employment



## Qualification mismatch - Measurement

(i) Mismatch by level of education (based on level of education or No. of years of schooling and occupation)

- **Normative measure**
- **Subjective measure**
- **Relative/statistical measure**

(ii) Mismatch by field of study (based on field of study and occupation)

(iii) Mismatch by years of experience/training (based on No. of years of relevant experience/training)



## Qualification mismatch of persons in employment - Measurement

Additional criteria (variables of interest):

- ▶ **willing to change** their job
- ▶ **carried out activities to seek** “better matched employment”
- ▶ **not satisfied** with their match/job
- ▶ **earning less** than the wage corresponding to their level of education
- ▶ Etc.

# Qualification mismatch: level of education

- Based on existing sources and readily implementable (LFS, level of education, occupation)

- Easy to understand

but

- Qualification is only an approximation of the skills, knowledge and competencies mastered at the time of completion.

- Ignores the skill gains and skill losses over time, on-the-job training, past work experience, informal learning, etc.

- Core LFS variables are not sufficient to measure skill mismatch

## Skill mismatch – Measurement

- by type of skills
- by overall skills

- ▶ **Worker measures (assessment):** person's self-perceived match between his/her skills and the skills required by the job.
  - Mismatched: All persons in employment that report having ***type and level of skills*** that are (i) higher or (ii) lower than those required ***to do the job***
  - Mismatched: All persons in employment that report (i) having the skills to perform more complex tasks or (ii) requiring more training to perform their tasks.

General problem: subjective and prone to social bias, no direct measurement of skill requirements

22

## Skill mismatch – Measurement


- by type of skills
- by overall skills

➤ **Employer measures (assessment):** employer's assessment (perception) of skills possessed, and **used** on the job.

- Mismatched: All persons in employment that are assessed to have ***type and level of skills*** that are (i) higher or (ii) lower than those required ***to do the job***

or

- Mismatched: All persons in employment that are assessed (i) to have the skills to perform more complex tasks or (ii) to require more training to perform their tasks.



## Skill mismatch – Measurement

- by type of skills
- by overall skills

### ► Direct measures (assessment):

Selected types of skills are measured through tests (e.g. reading, writing and numeracy tests).

The levels possessed by employed are then compared with those required by the job they carry out.