Skill shortages and mismatch are costly

For countries or economies:
- Lower productivity and lower economic output (vacancies unfilled, unused human capital)
- Higher (re)training costs

For individual workers:
- Lower earnings
- Lower job satisfaction
- Higher job-turnover

The ability to assess, anticipate and respond to changing skill needs is a major policy concern:
- World Economic Forum 2014
- G20 Skills Strategy
- Ankara declaration of G20 Labour Ministers:

We commit to increasing our efforts to build skills for work and life and to strengthening the link between education and employment
OECD contribution to GETTING SKILLS RIGHT

Skills assessment and anticipation (SAA)

Assessing existing skill needs and anticipating future ones are key to tackle mismatch

- 2014 OECD survey of country practices revealed that:
  - All countries have some anticipation and assessment exercises but...
    - It is not clear to what extent these inform skill policies
    - Comparative report on good practice by end 2015
  - In-depth country reviews (Sweden)

World Indicators of Skills for Employment (WISE)

HRD Pillar of Seoul G20 Multi-Year Action Plan on Development called for the creation of a “set of internationally comparable skills indicators for LICs”

- OECD in collaboration with other IOs developed initial conceptual framework and proposed set of indicators
- Followed by extensive consultations
- Decision to extend indicators to all countries
- WISE database available online as of TODAY
Objectives of the “Skills Assessment and Anticipation” project

Specific objectives:

1. Identify the involvement of stakeholders in the development of skills anticipation exercises
2. Take stock on the uses different stakeholders give to these exercises
3. Identify mechanisms for effective collaboration across stakeholders in the use of skills anticipation exercises
4. Identify the barriers preventing the use of these exercises in policy development

Four questionnaires sent out:
- Ministry of Labour
- Ministry of Education
- Trade unions
- Employer organisations

Responses received:
- 69 responses from 29 OECD countries
- 26 Ministries of Labour
- 12 Ministries of Education
- 13 Trade unions
- 18 Employer organisations

Similar exercise being carried out by ILO and Cedefop for non-OECD countries
Key findings: What types of assessments? Who is in charge?

Exercises generally led by Ministries, PES or Statistical offices and involve multiple stakeholders in their development.

Many countries carry out more than one exercise at the time to satisfy different policy needs.

Note: Percentages based on responses from 28 countries.
Skills proxies, tools and data

Analysis of employers surveys, vacancy surveys, administrative data or labour market trends are common tools used to assess and anticipate skills needs.

Most countries triangulate several sources of information to compensate for shortcomings associated to each specific tool/data source.

But few countries integrate both quantitative and qualitative methods (e.g. Australia, Flanders - Belgium, Italy and Korea).

Note: Percentages based on responses from 28 countries.
Source: Questionnaire on Anticipating and Responding to Changing Skill Needs: Ministry of Labour and Ministry of Education Questionnaires
Results are used in employment, education and migration policy

**Employment policy**
- Update occupational standards
- Revise, design, allocate training programmes
- Develop apprenticeship programmes

**Education policy**
- Update qualifications frameworks and curricula
- Provide information to students about labour market prospects
- Decide course provision and funding

**Other policy uses**
- Inform migration policy
- Inform transition to a green and digital economy

**Social partners**
- Advise members on skills to promote
- Influence labour and education policy
Barriers to the use of skills information for policy making

1. Exercises may not be aligned to potential policy use
   - Results are not sufficiently disaggregated
   - Output is too technical
   - Skills proxies do not map to useful variables in policy-making

2. Key stakeholders may not be sufficiently engaged
   - Results are not sufficiently shared
   - Difficulty to reach consensus in identifying skill needs and priorities

Effectively engaging stakeholders in the development of skills anticipation exercises, can help overcome these challenges…

…but that’s no easy task!
Good practice in engaging stakeholders across OECD countries

Some countries establish mechanisms to enhance discussion and seek engagement of stakeholders on skill development challenges

- **Formal mechanisms**
  - Legal norms governing collaboration across ministries or with other stakeholders (e.g. Italy, the United States)
  - Inclusion of stakeholders in advisory groups to Ministries (e.g. Denmark)
  - Centre skills policy discussions in an external institution that reports to different ministries (e.g. Australia, Ireland, the United Kingdom)

- **Informal mechanisms**
  - Set up workgroups with specific objectives and realistic timeframes (e.g. the Netherlands, the United States)

But also crucial to:
- Ensure high-level political engagement
- Involve sector and social partner organisations
The way forward: Skills Anticipation and Assessment Country Reviews

What we offer

Country reviews: systematic and in-depth analysis of the country SAA system’s strengths and weaknesses

Policy notes: shorter diagnostic/policy notes focusing on specific aspects of the skills assessment system or providing an overview of international best practice

Seminars and workshops: bringing together international experts to discuss common barriers and best practices on specific skills issues - ideal to facilitate peer-learning and build stakeholder engagement

What we are doing

- Review of Sweden (end 2015) + workshop with key stakeholders and experts (Stockholm, 10 November)
- Workshop on setting up Skill Needs Indicators (April 2016)
LIVE TODAY

WISE database

on OECD.stat
The WISE database

- Provides a statistical snapshot of skills development in 214 countries
- Allows users to examine challenges and performance of each country from a comparative perspective
- Includes 64 indicators with options for further disaggregation (e.g. by gender, but not all indicators available for all countries)
- Located on OECD.Stat, the OECD’s online statistical platform
- Users can modify the default data selection, select variables for each dimension, build user-defined tables, customise and save layouts, dynamically graph selected indicators and export data for further analysis
The WISE framework

Contextual factors

Skill acquisition

Matching

Skill requirements

Outcomes
Criteria for choice of indicators

- **Relevant**: Provides sought-after information
- **Timely**: Captures current or future situation in each country
- **Feasible**: Available for many countries
- **Comparable**: Internationally comparable
The why and how of comparability

Provides a benchmark for national policy objectives

Household surveys are the main data source

Use of international definitions and data
### World Indicators of Skills for Employment

**Data source(s) used:**

Data were extracted from databases and repositories of international organizations including the ILO, OECD, UNESCO, World Bank, Eurostat and other sources of international data on skills. Some indicators were constructed using primary data sources such as labour force surveys and other household surveys.

**Other Aspects:**

Consult [http://www.oecd.org](http://www.oecd.org) for more detailed information on World Indicators of Skills for Employment.

**Quality comments:**

The data presented are taken from a variety of international sources in order to maximize international comparability. However, because national statistical practices and definitions may vary, there is no complete international comparability. Caution should therefore be exercised in interpreting differences across countries.

**Recommended uses and limitations:**

The main purpose of the database is to provide policymakers and practitioners with benchmark figures for skills and related policies.
# Country tables

**OECD.Stat**

**World Indicators of Skills for Employment**: Country tables

![Table Image]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unit</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
<td>current USD</td>
<td>6 181 355.6</td>
<td>7 215 585.6</td>
<td>8 342 215</td>
<td>9 484 116.8</td>
<td>10 236 700</td>
<td>11 224 097</td>
<td>11 365 372</td>
<td>12 360 458</td>
<td>12 880 100</td>
<td>17 586 745</td>
<td>18 794 419</td>
<td></td>
</tr>
<tr>
<td><strong>GNI per capita</strong></td>
<td>PPP (current international $)</td>
<td>2 430</td>
<td>2 650</td>
<td>2 950</td>
<td>3 278</td>
<td>3 650</td>
<td>4 810</td>
<td>4 590</td>
<td>4 480</td>
<td>4 840</td>
<td>5 000</td>
<td>5 350</td>
<td></td>
</tr>
</tbody>
</table>

- **Total employment in agriculture sector**: %
- **Total employment in mining and construction sector**: %
- **Total employment in industry sector**: %
- **Total employment in service sector**: %

| **Trade openness** | % of GDP | 11.91 | 13.48 | 12.65 | 15.83 | 12.69 | 13.57 | 14.02 | 14.8 |
| **Human Development Index** | index | 0.53 | 0.55 | 0.55 | 0.58 | 0.58 | 0.58 | 0.58 | 0.59 |
| **Percentage of population that is female**: % of total | 48.18 | 48.2 | 48.21 | 48.22 | 48.23 | 48.24 | 48.25 | 48.26 | 48.27 | 48.28 | 48.29 |
| **Relative size of youth population**: | % of total | 31.18 | 30.98 | 30.75 | 30.51 | 30.25 | 29.97 | 29.66 | 29.33 | 29.01 | 28.66 | 28.3 |
| **Share of population living in urban areas**: % | 78.6 | 78.92 | 79.2 | 79.24 | 79.29 | 79.31 | 79.35 | 79.38 | 79.42 | 79.46 | 79.5 | 79.53 |
| **Early childhood health**: % of children under 5 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 | 40.3 |
| **Access to internet**: per 100 people | 1.69 | 1.98 | 2.39 | 2.81 | 3.95 | 4.38 | 5.12 | 7.5 | 10.07 | 12.58 | 15.1 |
| **Access to mobile phones**: per 100 people | 3.06 | 4.7 | 6 | 14.52 | 16.29 | 18.53 | 44.53 | 62.39 | 73.2 | 69.92 | 70.78 |
| **Public expenditure on education**: % of GDP | 3.55 | 3.29 | 3.13 | 3.09 | 3.21 | 3.32 | 3.43 | 3.35 | 3.35 | 3.35 | 3.35 | 3.35 |

| **Pupil-teacher ratio**: | | | | | | | | | | | | | |
| **Pupil-teacher ratio in primary education**: | 41.33 | | | | | | | | | | | |
| **Pupil-teacher ratio in lower secondary education**: | 37.2 | | | | | | | | | | | |
| **Pupil-teacher ratio in upper secondary education**: | 28.06 | | | | | | | | | | | |

- **Employment in the informal sector**: %
- **Ease of doing business index**: (1=most business-friendly regulations)
  - Youth literacy rate: % of total
  - Adult literacy rate: %
  - Gross primary school enrolment rate: %
  - Net primary school enrolment rate: %
  - Gross secondary school enrolment rate: %
  - Lower secondary school completion rate: %
  - Share of vocational programmes in upper secondary education: %
  - Tertiary level enrolment rate: %

Data extracted on 30 Jan 2015 16:33 UTC (GMT) from OECD.Stat

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Select variables and customise layout

The World Indicators of Skills for Employment database includes various indicators such as GDP per capita, Employment shares by sector, Trade openness, Human Development Index, Percentage of population that has completed primary education, Relative size of youth population, Share of population in rural areas, Early childhood health, Access to internet, Access to mobile phones, Public expenditure on education, Pupil-teacher ratio, and Sex ratio. The page allows users to select specific variables and customize the layout. The data is presented in tables and charts, with options to expand, collapse, and select data. The data is updated with information from the most recent year.
Consult metadata at all levels
Graph selected indicators

World Indicators of Skills for Employment

Gross secondary education enrolment rate, Men
Gross secondary education enrolment rate, Women

Tajikistan

Gross secondary education enrolment rate, Men (2006) 9
Export selected data or the whole dataset
Analyse data

Proficiency in literacy and development (2012)

$y = 51.938\ln(x) - 54.537$

$R^2 = 0.4378$
Future work

- Improving data availability
  - Two key data sources:
    - Household surveys (labor force surveys, health surveys, etc.)
    - Employer surveys but issues of availability and comparability
  - Key questions on skills should be systematically included
  - In the long-term, need for dedicated surveys of adult skills (STEP, PIAAC, LAMP, etc.)

- Complementary country-specific data
  - National, regional and sectoral data on skill requirements, gaps and shortages

- And qualitative information on institutions and policies
  - E.g. governance and financing arrangements
SKILLS FOR DEVELOPMENT

Strengthening capacity and the knowledge base

A joint ILO-OECD call for funding to:

- Develop further and maintain the WISE database
- Support statistical and analytical capacity-building by countries to provide and use these indicators
  - Including developing complementary national, local and sectoral indicators
- Develop and maintain the Global KSP
- Support capacity-building by countries to develop and implement national and local skill strategies and to improve their skills and labour market information systems

Further information:
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Girma Agune (agune@ilo.org), Officer-in-Charge of the Skills and Employability Branch, Employment Policy Department, ILO.
Thank you!

OECD work on skills: skills.oecd.org
OECD work on youth: www.oecd.org/employment/youth

Contact: mark.keese@oecd.org