The PIAAC study in Israel

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What is it?
Through a battery of cognitive tests and exercises conducted at the sampled person's dwelling, PIAAC directly assesses the information-processing skills of adults (16-65-year-olds) in three key domains:

- Literacy
- Numeracy
- Problem solving

These three areas are considered to be foundational skills for functioning in the labour market and in today's information society. The findings of this study help inform educational policies aimed at improving adult education and training, workforce development, and overall societal well-being.

PIAAC in Israel - Who, how and when?
The Central Bureau of Statistics is responsible in Israel for the implementation of the Adult Skills Survey (aka PIAAC), currently in its 2nd cycle in more than thirty OECD countries around the world.
The unit in charge of this project is the Education Statistics Sector (part of the Education and Society Department), working in close collaboration with our partners in RAMA (The National Authority for Evaluation and Assessment in Education), who are the specialists in all the psychometric aspects of the project. This fruitful collaboration started when Israel participated in PIAAC's first cycle in 2014-2015, continuing now for Cycle 2 which has been collecting data over the years 2022-2023. Data collection in Israel lasted more than 10 months, ending on July 19th. By the end
of August we finished the preliminary cleaning of the data, sending it to the international consortium running the project for OECD, for further calculations and final cleaning.

**Some challenges along the road**

During 2020, the COVID pandemic brought the whole project to a halt all around the world. The OECD has to extend the project by one additional year, so instead of publishing first results by the end of 2023, it is planned now for the end of 2024.

We have met several additional challenges:

- **Interviewer attrition**: Most participating countries have had to deal with constant dropout of interviewers. In our case as well, it meant having to change the paradigm, from recruiting interviewers and training them before the beginning of data collection, to an ongoing process of recruiting and training new waves of interviewers to replace those who had left. In total we recruited ten waves of interviewers, holding ten corresponding training events.

- **This was the first time for the Central Bureau of Statistics using an external contractor for field data collection. This meant shifting from a model of directly conducting the survey to supervising the work of others. Many organizational lessons and insights are being drawn from this experience.**

**Expected outcomes and analytical plans**

More than 6,000 complete cases were collected, representing an approximate response rate of 61% (provisory numbers). From initial indications, this seems to be an outstanding performance compared to other participating countries under current conditions.

Beyond this indication, at this stage of the process no results can be published. The cleaned data will become available to us around mid-2024, then starting an intense process that would allow us to publish **first results by December 2024** (when the publication embargo is lifted), together with the rest of participating countries and OECD.

But this tight schedule is not final yet, and furthermore it may not allow us to initially publish all the potential results of this rich data source. Therefore, in Israel we are planning to have a series of follow-up reports during 2025 and beyond, so we can best exploit this unique and rich data source in a timely manner.
In addition, we intend to provide access to the data so researchers can work in parallel to us, with our support and appropriate training, towards the lift of the 2024 embargo.

The overall plans for maximizing the realization of PIAAC's analytical potential are to be drawn together with our National PIAAC Steering Committee, under the coordination of its chair, Prof. Iddo Gal.

**PIAAC and mismatch analysis**

PIAAC's Cycle 1 produced some significant literature and research concerning the topic of Skill / Education / Occupational mismatch. OECD and other international researchers have published several papers analyzing different types of mismatch based on the unique PIAAC data (see a sample thereof under *Bibliography* below).

Among other thematic press releases, in Israel we published (in Hebrew) Cycle 1 PIAAC data on one type of mismatch: Education level attained vs. education level required at work (vertical over/under-qualification). Some of these results, published in late 2016, can be appreciated in Fig. 1 below.

**Figure 1: Mismatch between the employed population's education attainment and the education level required for their job today, by level of education, 25-65-year-olds, 2014-2015**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Higher than required by job</th>
<th>Matches job requirement</th>
<th>Lower than required by job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary</td>
<td>22</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Higher Secondary</td>
<td>41</td>
<td>33</td>
<td>26</td>
</tr>
<tr>
<td>Below Higher Secondary</td>
<td>82</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

A notable finding here was that among employed persons with tertiary education in Israel, 22% worked in jobs that did not require any tertiary qualification.

In spite of this effort, other types of occupational mismatch (e.g. skill vs. occupation, field of education vs. occupation) have never been addressed for Israel using PIAAC data, despite the uniqueness of this data source that provides direct skill measures
(as opposed to subjective assessments by the sampled person in other sources, or proxy measures such as education attainment).

**Wrapping up**

In Israel, only a fraction of PIAAC’s analytical potential has been realized, as is the case for its data on occupation mismatch, despite its huge relevance for labour market policymaking.

In a reality of limited resources, lack of (human) resources and organisational priorities have been part of the reason why the Central Bureau of Statistics has not engaged in more in-depth analysis into this topic.

As the date of Cycle 2 data availability draws near, our hope is for the necessary resources to be duly available, so as to allow for more sophisticated analyses on different types of mismatch based on PIAAC data, thus enriching the existing knowledge and literature on the Israeli labour skills, and devising ways to better inform policymakers and tackle market failure in a fast-changing labour market.

**Bibliography**

