European Training Foundation

ISRAEL

EDUCATION, TRAINING AND EMPLOYMENT DEVELOPMENTS 2019

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KEY POLICY DEVELOPMENTS IN EDUCATION, TRAINING AND EMPLOYMENT

No major policy decisions have been taken in Israel over the past year owing to the two election rounds held in April and September 2019. By November, no leader had yet been able to form a governing coalition.

A key objective of the government concerning vocational studies is to have 48% of students enrolled in technological strands, in order to satisfy the skills needs of the labour market and the Industry 4.0 agenda. As a result of continued government efforts, including the implementation of a dedicated action plan for 2017–2022, student enrolment in technological-vocational studies has reached an impressive 40%.

A second important policy objective is to increase mathematical skill levels in education. Dedicated actions undertaken by the government in recent years have resulted in improved scores in national examinations. However, average skills scores in the Programme for International Student Assessment (PISA) and proficiency scores in the Program for the International Assessment of Adult Competencies (PIAAC) remain lower than those in other developed countries.

The unemployment rate reached its lowest level ever in 2018 at 4%, and the transition from school to work for young people is easy, especially for those who are highly skilled. Improving the skills of low-profile workers and strengthening the inclusion of the Haredi population (especially men) and the Arab population (especially women) are key policy objectives. Dedicated action plans with medium-term objectives are being implemented in these areas. Despite these initiatives, government investment in employment programmes, at 8% of gross domestic product (GDP), remains well below the average for the Organisation for Economic Co-operation and Development (OECD) (16% of GDP).

The establishment of the Israeli National Qualifications Framework is progressing well as a result of support from the EU-funded twinning exercise. The ETF is providing inputs on strategic aspects, such as the definition of common terminology and governance.

Israel's participation in EU-funded programmes is the highest among European Southern Neighbourhood Partner countries. Education and training are among the areas of cooperation and include the participation of Israeli institutions in the Erasmus+ and Horizon 2020 programmes.

To understand policy developments in Israel it should be noted that the country's approach is very much oriented towards the achievement of results. The formulation of policy objectives tends to be less focused on formal strategy papers and more on medium-term action plans at operational level.

ETF support to Israel is rather specific compared to that in other partner countries. Given the country's socioeconomic levels, the ETF focuses on facilitating access to European good practices and networks, in order to support an increase in peer learning and cooperation among Israeli and European institutions. As a consequence, work on the ground is rather limited and access to information on policymaking (often available only in Hebrew) relies mainly on the availability of recent international data sources.

1. KEY DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

Israel is an OECD high-income country with a population of almost 8.8 million. Its society is made up of various different communities and religions. Jews represent 74% of the total population and are divided, on the basis of self-declaration, into Haredi (ultra-Orthodox) and non-Haredi. Arabs represent 21% of the total population, of which Muslims account for 83%, Christians 9% and Druze 8%[1]. Those unclassified by religion, as well as migrant workers, are defined as 'others'[2]. As life expectancy and fertility rates are high and infant mortality rates low, the population is expected to grow. Israel has unusual fertility patterns (6.9 children per woman among Haredi Jews, 3.1 among Arabs and 2.7 among non-Haredi Jews) and the highest average number of children per woman in the OECD (2015), equivalent to 3.1. Interestingly, the increase in fertility rates among non-religious Jews is driving the increase in the overall Jewish fertility rate. Increased education does not lead to lower fertility rates, nor does the increased age at first birth[3].

Israel is an industrialised country with a dichotomous economy. The high-tech sector (combining the industrial sectors in the electronics, pharmaceuticals and aircraft sectors with software and research and development services) is performing very well. The sector highlights the propensity of the Israeli economy towards innovation: Israel ranks 11th out of 126 countries in the 2018 Global Innovation Index[4]. The sector accounts for 8.2% of employment (against the OECD average of 3.7%) and contributes to 25% of income tax revenues[5]. However, its potential for further growth is constrained by the lack of highly skilled professionals.

At the same time the Israeli (primarily non-high-tech) economy is characterised by low productivity, low skill levels and low salaries. Some population groups are particularly low in skills, including Haredi Jews and Ethiopian descendants among the Jews, Arabs and Bedouins. The skills gap with OECD countries is particularly large for the low-skilled group in the population. This issue is recognised by the Israeli government as a priority for action. Low skill levels result in low salaries and a higher risk of poverty. According to an OECD report issued in 2016, Israel ranks as the country with the highest rates of poverty among its members: approximately 21% of Israelis were found to be living below the poverty line, compared with the OECD average of 11%.

In 2018 Israel's economy continued to register remarkable macroeconomic and fiscal performance: GDP growth was sustained at 3.3% in 2018. The economy is dominated by services, which in 2017 contributed 69.4% to GDP and which cover a variety of sectors, including hospitality, food, administration and support. Industry, which is mostly concentrated on manufacturing products with high added value, contributed 19.6% to GDP in 2017. The major industrial sectors include high-tech metal products, electronic and biomedical equipment, agricultural products, processed foods, chemicals and transport equipment. According to the Manufacturers' Association of Israel (MAI), the country is experiencing a labour force shortage, especially for medium- and high-skill profiles

[1] Taub Center, *A Picture of the Nation 2018*: http://taubcenter.org.il/eng-pon-2018/. The Taub Center for Social Policy Studies in Israel is an independent, non-partisan socioeconomic research institute.
[2] 'Others' includes family members of Jewish immigrants who are not registered at the Ministry of Interior as Jews, non-Arab Christians, non-Arab Muslims and residents who do not have an ethnic or religious classification.
[3] Taub Center, *A Picture of the Nation 2019*: http://taubcenter.org.il/wp-content/files_mf/pon201950.pdf
[4] https://www.wipo.int/publications/en/details.jsp?id=4330
[5] Taub Center, *A Picture of the Nation 2019*: http://taubcenter.org.il/wp-content/files_mf/pon201950.pdf

('practical engineers'), which in the short term requires the government to organise recruitment of workers from abroad.

Israel is known worldwide as the 'start-up nation'. According to the Central Bureau of Statistics, in 2016 there were 4 362 active start-up companies in the country. However, the rise in the number of start-ups is slowing down and the country is experiencing a shift towards becoming a 'scale-up nation', with a drop in new establishments but an increase in employment and salaries[6]. Innovation is driven by excellent cooperation between universities and industry, which supplies the economy with high-quality human capital and creates scientific and technological strength. In 2018 Israel was 16th out of 137 countries in the Global Competitiveness Index[7].

According to the Global Human Capital Index 2018[8], Israel ranks 24th out of 157 countries[9]. Standards of living relative to the OECD average have continued to increase as a result of growing real wages and decreasing prices (with the main exceptions of food and house prices) and high rates of participation in the labour market. Addressing social inequalities would promote the sustainability of Israel's competitive economy[10]. Further improving the integration into society of Haredi and Arab Israelis (particularly young people) through, among other things, better education and training would lead to a lower productivity gap with non-Haredi Jews.

2. EDUCATION AND TRAINING

2.1 Trends and challenges

Israel has a highly educated population. In 2018, 56.3% of the active population (aged 15+) had attained a high level of education, 34.3% a medium level and only 9.5% a low level. The enrolment rates in primary and secondary education are high. In 2017 the net enrolment rate in primary education was 97.02% and in secondary education 98.64%[11]. Israel is also among the countries with the highest rate of tertiary education attainment (aged 30–34), reaching 54.1% in 2018. The tertiary education system supports the high-tech industry and global technological leadership, with remarkable shifts in higher education studies towards business, engineering and architecture, as well as an increase in the percentage of students studying advanced mathematics[12]. This has happened as a result of dedicated public policies and stable public expenditure on education.

In 2018 the country's expenditure on education as a percentage of total public expenditure amounted to 16.6%. Despite the unusual growth in the number of students, the rate of growth in expenditure per student in Israel has been higher than in the OECD since 2010. Nevertheless, the expenditure per student remains relatively low compared with the OECD average ($7 987 per student in secondary education in Israel compared with $10 010 in the OECD)[13]. The high spending is driven mostly by

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[6] https://www.calcalistech.com/ctech/articles/0,7340,L-3738693,00.html
[7] https://www.weforum.org/reports/the-global-competitveness-report-2018
[8] https://photius.com/rankings/human_capital_index_country_rankings_2018.html
[9] https://photius.com/rankings/human_capital_index_country_rankings_2018.html. The four key indicators of the index are: 1. Under-5 mortality rates; 2. Expected years of Quality-Adjusted School; 3. Adult survival rates; 4. Rate of stunting for children aged below five years.
[10] Remarks by the Governor of the Bank of Israel at the Eli Hurvitz Conference on Economy and Society: 'One Society – One Economy', June 2017.
[11] http://uis.unesco.org/country/IL
[12] Taub Center, *A Picture of the Nation 2018*: http://taubcenter.org.il/wp-content/files_mf/pon201950.pdf
[13] Taub Center, *A Picture of the Nation 2019*: http://taubcenter.org.il/wp-content/files_mf/pon201950.pdf

primary education: Israel devotes 2.1% of GDP to this level, compared to 1.5% on average across OECD countries[14]. It is interesting to note that compulsory education in Israel starts at the age of three.

Demographic changes over the past 20 years have significantly affected the Israeli school network, which has had to expand dramatically in response. There has also been a change in the composition of the student population. Much of the increase in the number of primary and secondary school students has been in the Arab-speaking and ultra-Orthodox streams. These changes have required the Israeli government to ensure that funding is allocated efficiently across the school network and to expand the teaching workforce[15]. According to the Talis Report 2018[16], a quarter of teachers will need to be replaced over the next decade.

In 2018 the share of vocational education and training (VET) students in upper secondary education was relatively high, at 40.8%, and in 2017 gross enrolment in upper secondary education was 102.6%. Efforts to achieve the main goals of the last two ministries of education – increasing the proportion of students taking high-level mathematics and the proportion attending technological-vocational education – have been successful and the number of students in engineering programmes has risen more than 33% since 2011[17]. From 2015 to 2017 the share of technology students in the education system has been stable at 40%[18]. As declared by the prime minister in February 2018, the country's strategic goal is to have 48% of all high school students in technological-vocational tracks[19].

According to an OECD report[20], between 2006 and 2016 students in Israel experienced a relatively high level of innovation in education, more than the average in OECD systems. In particular, the scaling-up of teacher peer learning practice represents an outstanding innovation both in the system itself and as compared to other systems in the OECD. Otherwise, most of the innovation relates to the expansion of independent knowledge acquisition practices in class, as well as assessment and homework practices.

Adult participation in lifelong learning showed a slight decrease in 2018, with 9.3% of adults having participated in lifelong learning, compared with 9.7% in 2017. Average PIAAC proficiency scores for tertiary-educated adults and for the adult population at large were in the bottom 20% of OECD countries[21]. Skills improvement for the low-skilled adult population is a primary objective of the Israeli government, to ensure the sustainability of continued economic growth.

Despite lingering budget inequalities, the significant gaps in the level of education between the Jewish and Arab education sectors are being reduced. Enrolment rates in Arab primary and secondary schools have risen from 63% in 1990 to 93% in 2015; enrolment was already at 90% in the Hebrew education stream in 1990, and this has since increased to 97%[22]. Among the improvements, there has been a large increase in the percentage of students taking examinations for the Bagrut certificate (which is necessary for enrolment in higher education in Israel) and a substantial increase in Arab

[14] http://gpseducation.oecd.org/Content/EAGCountryNotes/ISR.pdf
[15] http://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Israel.pdf
[16] http://www.oecd.org/education/talis/
[17] ETF, *Israel Torino Process Report*, 2019.
[18] Taub Center, *A Picture of the Nation 2019*: http://taubcenter.org.il/wp-content/files_mf/pon201950.pdf
[19] ETF, *Israel Torino Process Report*, 2019.
[20] https://www.oecd.org/publications/measuring-innovation-in-education-2019-9789264311671-en.htm
[21] OECD Skills Strategy 2019: https://www.oecd.org/skills/oecd-skills-strategy-2019-9789264313835-en.htm
[22] Taub Center, *A Picture of the Nation 2018*: http://taubcenter.org.il/eng-pon-2018/

Israelis enrolling in vocational training (43% in 2015 compared with 36% in the Jewish sector)[23]. In recent years an increasing number of Arab Israelis have gone to university, including women.

In general, the education system is fragmented and not fully inclusive. Despite improvements over the past few years, international assessments of Israeli students' outcomes (including PISA) show significant differences between various groups. Hebrew-speaking students have similar or better scores than the OECD average, while Arabic-speaking students lag behind. Haredi students do not take part in the tests as they do not study the required subjects.

2.2 Education and training policy and institutional setting

Improving the quality of primary education and increasing students' performance in both national examinations (mainly the Bagrut) and international examinations are key goals of the Israeli government. According to the national review carried out in 2019 on the implementation of the Sustainable Development Goals[24], the main areas for future actions in the education sector include improving the relevance of education; undertaking specific initiatives to improve the achievements of the Arab and Ethiopian populations; improving education in mathematics, science and technologies for girls; and reinforcing education for a sustainable environment, gender equality and students' rights.

The Israeli National Qualifications Framework was officially launched in August 2018 with the aim of further improving the relevance, quality and availability of skills for the labour market. State agencies, the four education providers (Ministry of Education (MoE), Ministry of Labour, Social Affairs and Social Services (MoLSA), Council for Higher Education and Israeli Defence Forces (IDF)) and the MAI have committed to developing a framework for a joint definition and recognition of qualifications to help the professional and geographic mobility of the labour force. This ambitious project is supported by the EU through a twinning exercise and ETF expertise sharing.

To increase the attractiveness of VET, in 2017 the MoE, in cooperation with all key stakeholders, developed a new strategic plan to strengthen professional technological education in Israel for the period 2017–2022. The plan supports the relaunch of VET by increasing the number of students, improving the quality of technological education and ensuring that such education is provided through strong cooperation with industry. The first results of the implementation of this plan are very encouraging, as 40% of students in VET attend technological pathways.

A wide range of teaching and learning methodologies are used or are being introduced in VET institutions to make skills more relevant to the labour market. Methodologies include online learning, work-based learning (WBL), community-linked learning and problem-based learning. WBL is an integral part of the curriculum for some programmes, with students placed in companies or factories in which they gain experience of real-life systems and processes. Another initiative that encourages WBL is the establishment of advanced technology centres for practical VET. Extracurricular activities linked to the main course of studies are certified, such as 'SolidWorks' for computer-aided design and 'Lab-View' for mechatronics and robotics. According to the OECD report on apprenticeships, there is room for the expansion and integration of apprenticeship and WBL into upper secondary VET; for making the VET system more coherent and transparent; and for better involving employers through youth apprenticeship and sectoral training levies[25]. Another major step forward in the system-level reforms in

[23] Taub Center, *A Picture of the Nation 2018*: http://taubcenter.org.il/eng-pon-2018/
[24] https://mfa.gov.il/MFA/PressRoom/2019/Documents/Israel%20SDG%20national%20review.pdf
[25] https://www.oecd.org/israel/apprenticeship-and-vocational-education-and-training-in-israel-9789264302051-en.htm

the Israeli education and training system is the promotion of entrepreneurship as a key competence in lifelong learning.

The education system in Israel is governed by the MoE, which determines educational policy and is in charge of funding public expenditure on education from kindergarten to upper secondary education. The state education streams, both Hebrew and Arab, are managed at the ministry level, while the state religious education stream and the ultra-Orthodox independent education stream have their own sub-administration bodies inside the MoE. The ultra-Orthodox independent stream, although funded by the state, is less heavily supervised by state policies than other streams.

VET governance is centralised under the MoE (covering 90% of VET students) and the MoLSA in coordination with the MAI. The MoE covers two separate paths: technological-scientific education and vocational (occupational) education. VET takes place in: i) high schools (for those aged 16–18 at International Standard Classification of Education (ISCED) level 3); ii) schools offering post-secondary studies (aged 18 and above at ISCED 4); and iii) technological colleges. Initial VET (IVET) is also provided in privately managed schools run by technological education networks and supervised by key ministries. The MoE also supervises self-paid continuing vocational training (CVT) for adults.

The MoLSA covers the following VET tracks: i) apprenticeships; ii) pre-VET/IVET provision for specific youth populations in education network schools; iii) frameworks for certified technicians/practical engineers through the National Institute for Training in Technology and Science (NITTS); and iv) CVT, including training for jobseekers and employer-led training for adults. VET under the MoLSA is delivered in: i) vocational schools for young people, where courses include apprenticeships and one- or two-year courses combining study and practical experience; ii) academic colleges (for NITTS-certified courses); and iii) adult training centres and on-the-job training. VET providers have considerable local autonomy regarding curriculum requirements and partnerships/initiatives.

There is no formal system of social partnership, but employers are represented through the frequent involvement of the MAI in VET policy development and reform activities. Employers have a strong voice in decision-making on education and training reforms. Together with think tanks, they work to establish a sophisticated model to facilitate the allocation of workers to vacancies and to create a framework in which business representatives take an active part in training in both schools and workplaces[26]. Employers have called on public institutions to address the challenges of skills mismatch at the technical level by pursuing reforms to boost education and training developments, including promoting the link between skills and prosperity and equity. Trade unions are also part of the policy dialogue and influence the political agenda through official negotiations on matters such as teachers' contractual issues. Histadrut, the General Association of Trade Unions, was among the founders of one of the main education providers, the Amal Network.

Professional and subject committees are the key coordination mechanisms between VET stakeholders. Membership of each committee includes an academic, the MoE subject inspector, representatives of the IDF, the MAI, and the relevant industry professional body, as well as school personnel. There are approximately 19 such committees.

[26] The biggest ever employers' survey on the roadblocks and opportunities in a new economy versus a renewable economy, the future workforce, improving regulation, doing business, and rethinking the Israeli employment and pension system was presented at the Eli Hurvitz Conference in June 2017. The goal of the policy discourse is to improve the government's decision-making processes and the quality of Israel's social and economic policies for the benefit of the entire population.

There are increasing calls from a number of players for the establishment of a national education council[27]. This would ensure greater consistency in an unwieldy education system that is composed of many departments often working simultaneously and at times promoting incompatible goals.

3. LABOUR MARKET AND EMPLOYMENT

3.1 Trends and challenges

Unlike those of many other OECD countries, the Israeli labour market has improved markedly over the past decade. Both activity and employment rates have been steadily increasing and stood, respectively, at 63.9% and 61.4% (87.8% for highly skilled) in 2018. While this partly reflects remarkable progress for older workers as a result of the retirement age increase, more and more Haredi Jews and Arab Israelis (especially women) have also found jobs, though their employment rates remain low. The problem is especially severe for Haredi men and Arab Israeli women; indeed, progress has stalled for both groups[28].

Women's employment rates continue to rise, and Jewish women have nearly reached the same employment rates as Jewish men. Women are moving from high- to low-risk jobs to a greater degree than men, primarily owing to an increase in the share of female workers in academic professional occupations. In addition, the wage gap has been decreasing, and an increase in salaries is estimated at 22.5% for Jewish women and 26.4% for Arab Israeli women[29].

The unemployment rate (for those aged 15+) further decreased to 4.0% in 2018 and has reached the lowest level ever, with no gender differences and practically no long-term unemployment (0.3%). Those with higher education perform better in the labour market. In 2018, 2.8% of unemployed people with high educational attainment were unemployed compared with 4.9% of those with medium educational attainment.

The youth unemployment rate (for those aged 15–24) has also further improved, from 10.5% in 2013 to 7.2% in 2018. In general, young people have a relatively easy transition from education to work. According to the OECD, Israeli youth aged 18–24 have the highest employment rate among OECD countries (above 50%)[30]. The proportion of Israeli youth (aged 15–24) not in employment, education or training (NEETs) was 14.7% in 2018 (compared with 30.4% in 2010). This decrease is the result of dedicated efforts by the government. Israeli NEETs are more likely to be inactive than unemployed.

The labour market in Israel is moving from a traditional economy based on manufacturing and production to one based on information technology and modern services (Industry 4.0). Israel ranks 20th out of 118 countries in the Digital Readiness Index rank[31]. As a result, some occupations are

[27] Israel Democracy Institute, *Adapting Israel's Education System for the Challenges of the 21st Century*, 2019.
[28] https://www.oecd.org/eco/surveys/Israel-2018-OECD-economic-survey-overview.pdf
[29] Employment indicators: Israel Central Bureau of Statistics, 2018.
[30] OECD, 'Education at a glance 2019': https://www.oecd-ilibrary.org/docserver/f8d7880d-en.pdf?expires=1570619316&id=id&accname=oid045101&checksum=B44C5EA3FEAB1F165A296D18DDEE18DE
[31] https://www.cisco.com/c/m/en_au/digital-readiness-index.html

already vulnerable to automation[32], as about 40% of Israel's working hours are in occupations considered to be at high risk of computerisation in the next two decades[33].

Israel is confirmed as the OECD country with the highest share of employed people in high-tech industries, at 8.2%, more than double the median for OECD countries, with a geographic concentration in the centre of Israel. Wages in the high-tech industries are approximately double the average wage in the economy. However, employers in these industries are facing increasing skilled labour shortages, undermining their growth and competitiveness. Companies are reporting difficulties in filling jobs, particularly for practical engineers (Level 5 of the European Qualifications Framework). A special visa for skilled workers exists to enable employers to fill vacancies where there is no local expertise.

The Israeli labour market is characterised by a marked duality. On the one hand, there are productive advanced industries, including high-tech sectors, which attract mostly high-skilled workers with high wages. On the other hand, low-productivity, often non-tradeable, sectors employ many Arab Israelis and Haredi Jews who are trapped in low-quality, low-wage jobs. Moreover, job mobility towards high-productivity sectors is declining, which means that the probability that low-educated individuals will obtain jobs in high-value-added, high-wage industries has decreased over time. Arab Israelis comprise only about 3% of the high-tech workforce, and Haredi Jews are also under-represented. The situation is similar in many other sectors, such as financial and professional services. This reflects a number of difficulties and barriers, including education and transportation issues, but also other obstacles such as language barriers, cultural and social norms, and insufficient inclusiveness of policies and programmes[34].

In the medium to long term, initial technical and vocational education and training, together with higher education in science, technology, engineering and mathematics, can offer a solution to these challenges. In the short term, raising the skill levels of the whole population is key for growth.

3.2 Employment policy and institutional setting

Several challenges need to be addressed to further improve the economic and societal conditions. These challenges include narrowing social gaps, reducing the mismatch between supply and demand of workers in the labour market, reinforcing active labour market policies (ALMPs), strengthening lifelong learning, and adapting existing legislation and labour agreements to changes in the labour market[35].

Israel is prioritising ALMPs in an effort to improve social inclusion. To this end, a network of Employment Orientation Centres has been created in Arab and Haredi communities. However, ALMPs are under-developed and the resources invested are below the OECD average[36]. Government investment in employment programmes is at 8% of GDP, half the OECD average of 16%. The public employment service has a very limited set of tools to promote the reintegration of jobseekers into the labour market.

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[32] Taub Center, *Occupations at Risk: Computerization Trends in the Israeli Labour Market*, 2015: http://taubcenter.org.il/occupations-risk-computerization-trends-israeli-labor-market/
[33] Taub Center, *The Digital World: Computerization Trends in Israel's Labour Market*, 2016.
[34] https://www.oecd.org/eco/surveys/Israel-2018-OECD-economic-survey-overview.pdf
[35] Eli Hurvitz Conference, 19–20 June 2018, 'Two Economies – One Society'.
[36] http://www.oecd.org/eco/surveys/Israel-2018-OECD-economic-survey-overview.pdf

Efforts are being made to narrow the skills mismatch by improving work on skills forecasting. For example, the 'Israel Labour Market and Skills Forecast for 2040' report identifies disappearing and emerging professions. The report proposes several measures, including increasing the overall level of skills of the under-performing groups (e.g. the Arab and Haredi populations), providing stronger skills development opportunities linked to apprenticeships and on-the-job training, and developing a career guidance system to better link the acquisition of skills to the world of work[37].

In 2016 Israel registered the highest poverty rate among OECD countries[38]. Many programmes have been launched to support the poorest sections of society (Haredi Jews, Ethiopian descendants, Arabs and Bedouins). According to the Mossawa Center, 52.6% of Arab citizens are living below the poverty line. On 12 February 2017 the government approved Resolution 2397 on a new five-year plan for socioeconomic development for 2017 to 2021 in the Negev Bedouin localities. This is the second five-year economic development plan, the largest ever developed for the community. If implemented successfully, the plan stands to make a significant impact on society[39].

For the Arab population, the most important programme is the five-year Economic Development Plan for the Arab Sector (2015), which is unprecedented not only in its scale and scope, but also in its call for proportional budgeting by government ministries (an acknowledgement of inequality in the existing allocation mechanisms). One area of particular emphasis is informal education in Arab society. This is a historic measure in terms of the resolution itself, as well as the budgetary level, as ILS 650 million has been allocated for informal education in Arab society. However, efforts need to be stepped up for a more comprehensive active labour market policy for this community.

The Israeli employment service is under the supervision of the MoLSA and the Supreme Service Authority. There are 72 employment offices throughout the country. In addition to administrating unemployment benefits, the employment service operates placement and matching services. It offers vocational assessment, guidance and placement for unemployed individuals and other jobseekers who legally qualify for its services. It also offers training workshops for those in need of coaching or those seeking re-entry into the labour force. The employment service maintains a database and online information system of all clients it has served and of all unfilled job vacancies.

[37] Some of the key findings of this skills foresight report: 1) professions at low risk of computerisation require creativity, social intelligence, persuasion and negotiation; 2) professions such as hairdressers, choreographers, artists and athletes, who have uniqueness and creativity, will remain; 3) professions requiring high social skills, such as social and psychological workers, are also at low risk of computerisation; 4) professions that are required for an ageing population are expected to remain; 5) high-risk professions are mainly those involving repetitive and technical activities that can be performed by existing technology or by technology that will become possible in the near future; 6) workers who currently provide about 39% of working hours in the Israeli economy may be replaced by computers and machines over the next two decades. See http://www.macro.org.il/en/fields/?field=250

[38] 2016 Annual Report on Poverty and Social Gaps of the National Insurance Institute of Israel (Israel's Social Security Administration).

[39] The strategic plan is very comprehensive: http://iataskforce.org/sites/default/files/resource/resource-1500.pdf. For more details, please refer to the detailed document and public feedback: http://iataskforce.org/sites/default/files/event/pdf-343.pdf

TABLE OF ABBREVIATIONS

ALMP	Active labour market policy
CVT	Continuing vocational training
GDP	Gross domestic product
IDF	Israeli Defence Forces
ILS	Shekel (Israeli currency)
ISCED	International Standard Classification of Education
IVET	Initial vocational education and training
MAI	Manufacturers' Association of Israel
MoE	Ministry of Education
MoLSA	Ministry of Labour, Social Affairs and Social Services
NITTS	National Institute for Training in Technology and Science
OECD	Organisation for Economic Co-operation and Development
PIAAC	Program for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
VET	Vocational education and training
WBL	Work-based learning

ISRAEL: STATISTICAL ANNEX

Annex includes annual data from 2013, 2017 and 2018 or the last available year.

	Indicator		2013	2017	2018
1	Total Population (,000) (1)		7,984.5	8,629	8,798
2	Relative size of youth population (age group 15-24, %) (1)		24.7	24.9	25
3	GDP growth rate (%)		4.1	3.4	3.3
4	GDP by sector (%)	Agriculture added value	1.3	1.2	M.D.
		Industry added value	20.6	19.6	M.D.
		Services added value	67.7	69.4	M.D.
5	Public expenditure on education (as % of GDP)		4.8 (2)	4.7 (2014)	M.D.
6	Public expenditure on education (as % of total public expenditure)		15.4 (2)	16.7	16.6
7	Adult literacy (%)		M.D.	M.D.	M.D.
8	Educational attainment of adult population (aged 25-64 or 15+) (%)	Low	10.6	9.1	9.5
		Medium	36.3	34.4	34.3
		High	53.1	56.5	56.3
9	Early leavers from education and training (aged 18-24) (%)	Total	8.1	7.2	7.2
		Male	10.7	9.6	9.4
		Female	5.5	4.6	5.0
10	Gross enrolment rates in upper secondary education (ISCED level 3) (%)		99.6	102.6	M.D.
11	Share of VET students in upper secondary education (ISCED level 3) (%)		40.3	40.5	40.8
12	Tertiary education attainment (aged 30-34) (%)		51.7	54.8	54.1
13	Participation in training/lifelong learning (aged 25-64) (%)	Total	9.5	9.7	9.3
		Male	10.9	11.5	-11.3
		Female	8.1	8.1	7.3
14	Low achievement in reading, mathematics and science – PISA (%)	Reading	26.5 (2009)	23.6 (2012)	26.6 (2015)
		Mathematics	39.5 (2009)	33.5 (2012)	32.1 (2015)
		Science	33.1 (2009)	28.9 (2012)	31.4 (2015)
15	Activity rate (aged 15+) (%)	Total	63.7	64	63.9

	Indicator		2013	2017	2018
		Male	69.4	69	68.2
		Female	58.2	59.3	59.8
16	Inactivity rate (aged 15+) (%) (3)	Total	36.3	36.0	36.1
		Male	30.6	31.0	31.8
		Female	41.8	40.7	40.2
17	Employment rate (aged 15+) (%)	Total	59.7	61.3	61.4
		Male	65.1	66.1	65.5
		Female	54.6	56.7	57.4
18	Employment rate by educational attainment (% aged 15+) (4)	Low	48.1	50.0	50.8
		Medium	71.7	73.1	73.3
		High	85.1	87.0	87.8
19	Employment by sector (%)	Agriculture	1.3	1.0	1.0
		Industry	17.9	17.5	17.2
		Services	80.8	81.5	81.8
20	Incidence of self-employment (%)		12.6	12.4	12.4
21	Incidence of vulnerable employment (%)		8.7	8.6	9.0
22	Unemployment rate (aged 15+) (%)	Total	6.2	4.2	4.0
		Male	6.2	4.1	4.0
		Female	6.2	4.3	4.0
23	Unemployment rate by educational attainment (aged 15+) (%)	Low (5)	10.7	5.4	M.D.
		Medium	7.3	4.9	4.9
		High	4.3	3.2	2.8
24	Long-term unemployment rate (aged 15+) (%)		0.8	0.5	0.3
25	Youth unemployment rate (aged 15-24) (%)	Total	10.5	7.3	7.2
		Male	10.4	6.7	6.9
		Female	10.7	7.8	7.4
26	Proportion of people aged 15–24 not in employment, education or training (NEETs) (%)	Total	15.7	14.9	14.7
		Male	14.6	13.9	14.4
		Female	16.8	15.8	15.0

Last update: 30/09/2019

Sources:

Indicators: 1, 2, 5, 6, 8, 9, 12, 13, 15, 16, 17, 18, 19, 20, 22, 25 (Year 2013), 26 - Israel Central Bureau of Statistics.
Indicators: 3, 4 - World Bank, World Development Indicators
Indicators: 10, 11 - UIS UNESCO
Indicators: 23, 24 - EUROSTAT
Indicator: 21 - ILOSTAT
Indicators: 14, 25 (Year 2017) - OECD

Notes:

(1) Estimations, end of the year.
(2) Break in series due to the inclusion of children 0-3 in the calculation.
(3) ETF calculations on CBS data
(4) Age range 25-64
(5) ISCED 0-1

Legend:

N.A. = Not Applicable
M.D. = Missing Data

ANNEX: INDICATORS' DEFINITIONS

	Description	Definition
1	Total population (000)	The total population is estimated as the number of persons having their usual residence in a country on 1 January of the respective year. When information on the usually resident population is not available, countries may report legal or registered residents.
2	Relative size of youth population (age group 15-24) (%)	This is the ratio of the youth population (aged 15-24) to the working-age population, usually aged 15-64 (74)/15+.
3	GDP growth rate (%)	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2010 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.
4	GDP by sector (%)	The share of value added from Agriculture, Industry and Services. Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3 or 4.
5	Public expenditure on education (as % of GDP)	Public expenditure on education expressed as a percentage of GDP. Generally, the public sector funds education either by directly bearing the current and capital expenses of educational institutions, or by supporting students and their families with scholarships and public loans as well as by transferring public subsidies for educational activities to private firms or non-profit organisations (transfer to private households and enterprises). Both types of transactions together are reported as total public expenditure on education.
6	Public expenditure on education (as % of total public expenditure)	Public expenditure on education expressed as a percentage of total public expenditure. Generally, the public sector funds education either by directly bearing the current and capital expenses of educational institutions, or by supporting students and their families with scholarships and public loans as well as by transferring public subsidies for educational activities to private firms or non-profit organisations (transfer to private households and enterprises). Both types of transactions together are reported as total public expenditure on education.
7	Adult literacy (%)	Adult literacy is the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations.

	Description	Definition
8	Educational attainment of adult population (25-64 or aged 15+) (%)	Educational attainment refers to the highest educational level achieved by individuals expressed as a percentage of all persons in that age group. This is usually measured with respect to the highest educational programme successfully completed which is typically certified by a recognized qualification. Recognized intermediate qualifications are classified at a lower level than the programme itself.
9	Early leavers from education and training (age group 18-24) (%)	Early leaving from education and training is defined as the percentage of the population aged 18–24 with at most lower secondary education who were not in further education or training during the four weeks preceding the survey. Lower secondary education refers to ISCED 1997 levels 0-2 and 3C short (i.e. programmes with duration less than 2 years) for data up to 2013 and to ISCED 2011 levels 0-2 for data from 2014 onwards.
10	Gross enrolment rates in upper secondary education (ISCED level 3) (%)	Number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.
11	Share of VET students in upper secondary education (ISCED level 3) (%)	Total number of students enrolled in vocational programmes at a given level of education (in this case upper secondary education), expressed as a percentage of the total number of students enrolled in all programmes (vocational and general) at that level.
12	Tertiary education attainment (aged 30-34) (%)	Tertiary attainment is calculated as the percentage of the population aged 30–34 who have successfully completed tertiary studies (e.g. university, higher technical institution). Educational attainment refers to ISCED 1997 level 5–6 up to 2013 and ISCED 2011 level 5–8 from 2014 onwards.
13	Participation in training/lifelong learning (age group 25-64) by sex (%)	Lifelong learning refers to persons aged 25–64 who stated that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer the question on participation in education and training. The information collected relates to all education or training, whether or not it is relevant to the respondent's current or possible future job. If a different reference period is used, this should be indicated.
14	Low achievement in reading, maths and science – PISA (%)	Low achievers are the 15-year-olds who are failing level 2 on the PISA scale for reading, mathematics and science.
15	Activity rate (aged 15+) (%)	The activity rate is calculated by dividing the active population by the population of the same age group. The active population (also called 'labour force') is defined as the sum of employed and unemployed persons. The inactive population consists of all persons who are classified as neither employed nor unemployed.
16	Inactivity rate (aged 15+) (%)	The inactivity/out of the labour force rate is calculated by dividing the inactive population by the population of the same age group. The inactive population consists of all persons who are classified as neither employed nor unemployed.
17	Employment rate (aged 15+) (%)	The employment rate is calculated by dividing the number of employed persons by the population of the same age group. Employed persons are all persons who worked at least one hour for pay or profit during the reference period or were

	Description	Definition
		temporarily absent from such work. If a different age group is used, this should be indicated.
18	Employment rate by educational attainment (% aged 15+)	The employment rate is calculated by dividing the number of employed persons by the population of the same age group. Employed persons are all persons who worked at least one hour for pay or profit during the reference period or were temporarily absent from such work. If a different age group is used, this should be indicated. Educational levels refer to the highest educational level successfully completed. Three levels are consider: Low (ISCED level 0-2), Medium (ISCED level 3-4) and High (ISCED 1997 level 5–6, and ISCED 2011 level 5–8)
19	Employment by sector (%)	This indicator provides information on the relative importance of different economic activities with regard to employment. Data is presented by broad branches of economic activity (i.e. Agriculture/Industry/Services) which is based on the International Standard Industrial Classification of All Economic Activities (ISIC). In Europe, the NACE classification is consistent with ISIC.
20	Incidence of self-employment (%)	The incidence of self-employment is expressed by the self-employed (i.e. Employers + Own-account workers + Contributing family workers) as a proportion of the total employed.
21	Incidence of vulnerable employment (%)	The incidence of vulnerable employment is expressed by the Own-account workers and Contributing family workers as a proportion of the total employed.
22	Unemployment rate (aged 15+) (%)	The unemployment rate represents unemployed persons as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed persons comprise those aged 15–64 or 15+ who were without work during the reference week; are currently available for work (were available for paid employment or self-employment before the end of the two weeks following the reference week); are actively seeking work, i.e. had taken specific steps in the four-week period ending with the reference week to seek paid employment or self-employment, or had found a job to start later (within a period of, at most, three months).
23	Unemployment rate by educational attainment (aged 15+) (%)	The unemployment rate represents unemployed persons as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed persons comprise those aged 15–64 or 15+ who were without work during the reference week; are currently available for work (were available for paid employment or self-employment before the end of the two weeks following the reference week); are actively seeking work (had taken specific steps in the four-week period ending with the reference week to seek paid employment or self-employment, or had found a job to start later (within a period of, at most, three months)). Educational levels refer to the highest educational level successfully completed. Three levels are consider: Low (ISCED level 0-2), Medium (ISCED level 3-4) and High (ISCED 1997 level 5–6, and ISCED 2011 level 5–8)
24	Long-term unemployment rate (aged 15+) (%)	The long-term unemployment rate is the share of unemployed persons since 12 months or more in the total active population, expressed as a percentage. The duration of unemployment is defined as the duration of a search for a job or as the period of

	Description	Definition
		time since the last job was held (if this period is shorter than the duration of the search for a job).
25	Youth unemployment rate (aged 15-24) (%)	The youth unemployment ratio is calculated by dividing the number of unemployed persons aged 15–24 by the total population of the same age group.
26	Proportion of people aged 15–24 not in employment, education or training (NEETs) (%)	The indicator provides information on young people aged 15–24 who meet the following two conditions: first, they are not employed (i.e. unemployed or inactive according to the ILO definition); and second, they have not received any education or training in the four weeks preceding the survey. Data is expressed as a percentage of the total population of the same age group and gender, excluding the respondents who have not answered the question on participation in education and training.

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