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KEY POLICY DEVELOPMENTS IN EDUCATION, TRAINING AND EMPLOYMENT – ISRAEL 2023

This paper was prepared by Lida Kita, Senior Human Capital Development Expert - Social Inclusion - Country Liaison for Israel, Serbia and Türkiye, ETF in September 2023.

EXECUTIVE SUMMARY

The Israeli economy was performing well before the pandemic. It enjoyed low unemployment and living standards had risen to close to the OECD average. It had achieved a remarkable rise in employment, notably among Haredi and Arab-Israelis, owing to reforms that strengthened work incentives. The government had increased financing for programmes it had introduced to boost the number of students in tech-related studies and to counteract increasing tech shortages. The developing high-tech sector (combining the industrial sectors – electronics, pharmaceuticals, and aviation – with software and research and development services) highlights the Israeli economy's propensity for innovation.

The economy had largely remained resilient and recovered well from the COVID-19 pandemic. However, not all areas of the economy have done so fully. According to the Taub Center for Social Policy Studies' report "A Picture of the Nation, Israel's Society and Economy in Figures" (June 2023), the share of high-tech workers in the labour force is increasing (despite recent downturns in demand by some firms), and wage gaps between those in high tech and those in other industries continues to widen. Part of the inequality stems from a lack of private and public capital in Israel and the resultant low productivity prevalent among non-high-tech workers.

The government's intention to bring in far-reaching judicial reforms has created considerable economic uncertainty. Among other consequences, this uncertainty has manifested itself during the first months of 2023 in a 6 % devaluation of the Israeli shekel. While neither Moody's nor Fitch have changed Israel's credit ranking, both agencies – as well as the OECD and the IMF – have expressed concerns as to the planned legislation as well as the absence of broad consensus about the proposed constitutional reforms. The coming months and years will show the extent to which these concerns are justified.

The government of Israel allocated an elevated level of resources to dealing with the COVID-19 pandemic; however, the crisis and the response to it had a major impact on the national deficit, GDP, the rate of unemployment, disparities in the education system, and other areas. Country-based developments have left many disillusioned, have triggered social tensions and worsened inequality, revealing a more urgent need to foster cooperation, with some calling for comprehensive policies for more inclusive development and a return to productivity growth. The outstanding success of the high-tech sector in Israel – and how central it is in economic growth and export, creating a social stratum of nouveau riches with high salaries – has led to many Israelis, including senior politicians, to believe in a new social vision, the essence of which is to transfer more employees into the high-tech sector.

Again, according to the Taub Centre's "A Picture of the Nation Report"[1], the various sectors of the Israeli economy were affected differently by the crisis and coped with it to varying degrees. The report sheds light on how the crisis opened the door to remote working in the occupations and sectors that allow it. This was particularly true of academic, managerial, and technical occupations and other sectors with a concentration of educated workers with high earning potential. Predominantly "public" sectors, such as healthcare, education, and public administration, did not suffer any major disruptions in activity or employment, while other sectors, such as trade, transport, accommodation, food services and tourism, were hit hard; the latter is still struggling to recover.

The education and training system reacted quickly to the pandemic by increasing public investment and putting in place several new measures and approaches to facilitate hybrid learning. These have included impressive efforts to develop distance learning, train teachers to become more proficient in the use of digital tools, provide emotional support for students, change the governance of the system by granting greater autonomy to individual schools and local authorities, and equip vulnerable groups with the technology needed for online learning.

[1] Taub Centre's Picture of the Nation Report, June 2023, https://www.taubcenter.org.il/PictureoftheNation/2023Eng/PDF.pdf

To address the skills gaps, education reform needs to continue providing market-relevant skills, particularly among population groups with low employment rates, such as the Haredi and Arab communities, while making sure to uphold gender opportunity equality in higher-education and in the workplace. Improving teacher quality at schools in disadvantaged communities is also relevant. Greater adaptability in the different education streams will be needed to help align student qualifications with an increasingly digitised-labour market's needs. Active labour market policies should seek to expand vocational training and encourage employers' involvement in training courses[2].

On 24 May 2023, the Israeli Knesset approved the 2023-2024 national budget. The bill has been strongly criticised for increasing the state's spending in discretionary funds, including grants for the ultra-Orthodox Haredi community as well as for settlement projects in the occupied West Bank. More broadly, this budget demonstrates how the government's agenda is gradually widening the gap between the ultra-conservative and secular fringes of Israeli society. With the state budget approved, major changes are expected in education and employment, consumer prices, transportation, and healthcare.

A group of Israeli senior economists have raised concerns that the 2023-2024 budget will not bring Israel to rank among the world's developed economies. Some fear that the recent developments will march Israel toward economic stagnation. For example, the budget allocates, *inter alia*, resources to yeshivas (religious schools) for substations. Yet without overhauling the ultra-orthodox education system, Israel's GDP will shrink by 5 % in a decade and 10 % by 2050. Many Israeli and European analyses and the country's leading think-tank confirm this[3].

Israel is a Partner Country to the Erasmus+ programme. Israel's exchanges of students and staff with the EU under Erasmus+ is a real success story, and the country ranks third in the world in the number of exchanges. Compared to other third countries, Israel also welcomes a bigger share of European participants on the programme, which shows the keen interest in this cooperation on both sides. Israel also leads in the Southern Mediterranean region. Germany is, by far, the EU Member State with the most exchanges with Israel under Erasmus+. Since 2018, students have been able to take up Erasmus+ traineeships, and a number of EU students have chosen to do so in Israel and vice versa.

In terms of Erasmus+: Capacity Development in Higher Education projects, Israel is involved in over 10 % of the projects in the region. Successful projects from Israel have been able to focus on the needs of the country's universities and colleges where cooperation with European institutions has made a difference, including increased cooperation among the Israeli universities and colleges themselves. The Erasmus+ Office in Israel continues to actively promote the EU Programme, supporting enhanced cooperation between Israel and other countries, with the focus on Vocational Education and Training[4].

[2] International Monetary Fund (IMF), *Israel: Staff Concluding Statement of the 2023 Article IV Mission,* https://www.imf.org/en/News/Articles/2023/05/10/israel-staff-concluding-statement-of-the-2023-article-iv-mission
[3] ISPI (Italian Institute for International Political Studies): https://www.ispionline.it/en/publication/israels-budget-new-funds-for-instability-129998
[4] Israel National Erasmus+ Office, https://www.erasmusplus.org.il/

1. KEY POLITICAL, DEMOGRAPHIC, ECONOMIC AND SOCIAL CHARACTERISTICS[5]

Political developments

Israel has been undergoing a period of uncertainty since the beginning of 2023. Israel's recent progress on structural reforms has been limited due to the prolonged political uncertainty in 2021-2023 and the focus on dealing with the consequences of the COVID-19 crisis. Legislative elections were held on 1 November 2022 to elect the 120 members (MKs) of the 25th Knesset. The extended period of political deadlock that led up to the election was the result of four inconclusive elections (2019, 2020 and 2021).

Recent developments and the ongoing pandemic are threatening to reverse some of Israel's economic achievements, raise poverty and exacerbate productivity disparities between the vibrant high-tech sector and lagging sheltered sectors. The impact of COVID-19 on the Israeli economy also extended to the education and training system at all levels, the labour market and employment. Although the unemployment rate is falling, various reports and experts estimate that it will take a few more years for the labour market to return to the impressive unemployment rate that characterised it prior to the pandemic.

The GDP growth rate in 2022 was lower than 2021 (6.5 % in 2022 compared to 8.6 % in 2021). Gross value added by key sectors (data available, 2021) is as follows: industry 17.2 %, services 72.4 % and agriculture 1.3 %. Private consumption was lower by about NIS 1 000 per capita than it would have been had it grown at its average annual rate of 2.1 % per year. Per capita GDP in the first quarter of 2023 (in 2015 prices) is almost identical to what would have been expected from an annual growth rate in GDP per capita of 1.8 % (the multi-year average) since the last quarter of 2019[6].

Though, according to the data in the June 2023 Taub Center interim report "A Picture of the Nation", the Israeli economy's macroeconomic trend has largely remained resilient and has recovered from the COVID-19 pandemic, not all its components have done so fully. The share of high-tech workers in the labour force is increasing (despite recent downturns in demand by some firms), and wage gaps between those in high tech and those in other industries continue to widen. Part of the inequality stems from a lack of private and public capital in Israel, and the resultant low productivity prevalent among non-high-tech workers. This will be discussed in this section along with a comparison of Israel to other high-income countries in terms of price increases and price levels. The government's intention to bring in far-reaching judicial reforms has created considerable economic uncertainty. Among other consequences, this uncertainty has manifested itself during the first months of 2023 in a 6 % devaluation of the Israeli shekel[7].

While neither Moody's nor Fitch have changed Israel's credit rating, both agencies, as well as the OECD and the IMF, have expressed concerns regarding the planned legislation as well as the absence of broad consensus about the proposed constitutional reforms. The coming months and years will show us the extent to which these concerns are justified.

Productivity per work hour in Israel is substantially lower than in similar countries (with similar population size and economic structure) although it has increased over time from about USD 30 per hour in the 1990s to about USD 50 per hour in 2021. Low labour productivity is due to the quality of human capital and government regulations, as well as to low levels of private capital per employee and public capital per capita, two components that have remained unchanged in the past 40 years.

[5] All the updates in this document are based on the Taub Center interim report "A Picture of the Nation", June 2023, a collection of important economic, labour, welfare, health, education, demographics, and environment data. The booklet was written by Prof. Avi Weiss, President of the Taub Center and a professor of economics at Bar-Ilan University, https://www.taubcenter.org.il/en/pr/pon-2023/

[6] Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

[7] Taub Centre's Picture of the Nation Report, June 2023, https://www.taubcenter.org.il/PictureoftheNation/2023Eng/PDF.pdf

Bringing Israel's level of infrastructure up to the level seen in similar developed countries might contribute to narrowing labour productivity disparities.

The consumer price index began to rise at the beginning of 2021 in parallel with a slowdown due to Covid and then the Russia-Ukraine war in 2022. The rise is a modest one relative to the US and the Euro Area, particularly for food and energy prices. Like many other high-income countries, Israel is also dealing with inflation, though Israel's inflation is also influenced by the weakening of the shekel due to the increased uncertainty created by the internal political situation. The Bank of Israel has raised interest rates to curb inflation, and the market has reacted accordingly. According to the Bank of Israel, inflation is expected to return to the upper bound of its target and fall to 2.9 % within a year.

In the last decade, prices have increased little, although the strength of the Israeli shekel over the past few years resulted in prices being 50 % higher than in Europe and 26 % higher than in the US in 2021. Since Israel is a small economy and not part of a larger economic union, there are a limited number of manufacturers and competition is low. Alongside low worker productivity and regulatory obstacles to trade that restrict import and competition even further, the cost of living in Israel remains high.

Demographics

Israel is a unique country, characterised by an unusual combination of high fertility rates, low mortality rates and positive migration. All these factors lead to a rapid rise in population. The Central Bureau of Statistics (CBS) presents monthly data, the latest available being the November 2022 Monthly Bulletin of Statistics. Quarterly data is presented in some cases when the CBS does not have monthly data. As per Q3 2023 reporting by CBS, Israel's population is 9.6 million, 74 % Jews, 21 % Arabs, 5 % Other. Life Expectancy: 82.0 years (W = 84.9, M = 80.9).

The Taub Centre's "A Picture of the Nation" 2023 study makes some forecasts about Israel's population. The country's population is projected to reach between 12.4 and 12.8 million people in 2040. The proportion of the population that is Jewish/Other is expected to fall to 78 % and then stabilise. There is expected to be a substantial increase in the number of over 70s – from 669 000 in 2017 to about 1.41 million in 2040, with a higher rate of aging in the Arab-Israeli group.

According to the same report, life expectancy is high in Israel and it places Israel in 11th place among the OECD countries. Israel is characterised by a low rate of infant mortality – 2.5 deaths per 1 000 live births (2020), versus an OECD average of 4. However, there are gender and ethnic disparities elsewhere. Women live on average 84.6 years versus men who can expect to live until 80.5. Life expectancy among Arab men is lower at 76.3 years, while Jewish women have the highest life expectancy at 85.1 years. Life expectancy for Arab women is 81.2 and for Jewish men is 81.3. In terms of Healthy Life Expectancy (HALE), Israel ranks even higher and is in sixth place worldwide.

In 2022, immigration to Israel saw 74 500 arrivals, 59 % of them from Russia and 20 % from Ukraine. Immigrants in 2022 were, overall, older than in previous years. It is reasonable to assume that a proportion of them will leave Israel in the short- to medium-term. The main countries from which immigrants came this year were: Russia (30.0 %), France (6.41 %), the United States (13.9 %) and Ukraine (4.21 %). During the first 11 months of 2021 (January to November), 22 700 immigrants arrived in Israel – an increase of 28.8 % compared to the same period in 2020. The arrival of this considerable number of immigrants will have an impact on educational and training planning and on the total workforce (TAUB Center, June 2023).

Key economic developments

In the last decade, prices have increased little, although the strength of the Israeli shekel over the past few years resulted in prices being 50 % higher than in Europe and 26 % higher than in the US in 2021. Since Israel is a small economy and not part of a larger economic union, there are a limited number of manufacturers and competition is low. Alongside low worker productivity and regulatory obstacles to trade that restrict import and competition even further, the cost of living in Israel remains high.

The OECD Economic Outlook, Volume 2022 Issue 1, "Israel Country Profile", states that "GDP was projected to grow by 4.8 % in 2022 and 3.4 % in 2023. The strength of the high-tech sector will continue, with exports and investment growing at a robust, albeit more moderate, pace." According to the same analysis, the "strong labour market recovery will support consumption growth. Inflation should gradually slow but slightly exceed the upper bound of central bank's target range in 2023. Risks are skewed to the downside, related to a prolonged war in Ukraine, new strains of the coronavirus, internal political uncertainty, and an intensification of security incidents."

GDP per capita in the first quarter of 2023 is almost identical to what would have been expected if the economy had grown from the last quarter of 2019 at the average multi-year growth rate. In contrast, private consumption was lower by about NIS 1 000 per capita than it would have been had it grown at its average annual rate of 2.1 % per year.

Productivity per work hour in Israel is substantially lower than in similar countries (with similar population size and economic structure) although it has increased over time from about USD 30 per hour in the 1990s to about USD 50 per hour in 2021. Low labour productivity is due to the quality of human capital and government regulations, as well as to low levels of private capital per employee and public capital per capita, two components that have remained unchanged in the past 40 years. Bringing Israel's level of infrastructure up to the level seen in similar developed countries might contribute to narrowing labour productivity disparities. The Bank of Israel has raised interest rates to curb inflation and the market has reacted accordingly. According to the Bank of Israel, inflation is expected to return to the upper bound of its target and fall to 2.9 % within a year.

Many analyses and reports provide confirmation of Israel's technologically advanced free market economy. The technology sector is growing faster than any other industry in the country. Other key sectors are manufacturing, the diamond industry, agriculture, tourism, transportation, etc. Cut diamonds, high-technology equipment and pharmaceuticals are among the leading exports, whereas major imports include crude oil, grain, raw materials, and military equipment.

Israel is widely recognised as one of the most advanced countries in several technologies, including green technologies, with a considerable number of entrepreneurs who are developing state-of-the-art solutions for the green transition. Indeed, Israel has an estimated 637 climate-tech start-ups and growth companies and the share of Israeli start-ups that are climate-tech companies increased from 3 % in 2011 to 10 % in 2020 (Moise, Klar and Siegmann, 2021).

While in general there is not much discussion within the education and training system in Israel about the meaning of green skills and how to provide them, the climate-tech start-ups consider them to be skills around producing/adapting products, services and processes to climate change and the related environmental requirements and regulations (OECD, 2022). There are many initiatives to support young people in the field of green entrepreneurship. One example of this is the EU's Erasmus + programme.

The government's main priority is its macroeconomic policy, which must remain supportive and flexible to adapt to the evolving health, environment and energy issues. The current government's manifesto prioritises issues that had previously received only limited attention, such as welfare and labour. More specifically, the government's emphasis is on enhancing training and job search support to help laid-off workers transition to new jobs quickly and avoid long-lasting negative economic effects. It has made political and policy commitments to undertake structural reforms and bring additional public investment to build a resilient and strong recovery, improve educational outcomes with a focus on upskilling and reskilling, boost infrastructures and foster product market competition, all seen as key to strengthening the post-pandemic recovery. Reducing the wide gaps in resources between local

authorities, with the aim of promoting equal opportunities for everyone, is another policy area under discussion.

Key social issues

The remarkable success of Israel's high-tech sector, particularly during the Covid-19 pandemic, has brought pay gaps to the centre of public discourse. Besides the differences in standards of living and working conditions, many studies and research papers show that during the Covid-19 pandemic, people with high incomes from their job were less negatively affected than their low-income peers. The benefits of economic growth are not distributed evenly. There are two large minority groups in Israel – Arabs and the Haredim (ultra-Orthodox Jews) – who are much less likely to have jobs and more likely to be poor than the majority Jewish population.

More than one-fifth of families in Israel live below the poverty line. Of these, 55 % are non-Haredi Jews, and the proportion of Haredi and Arab families living below the poverty line is almost double their proportion in the overall population. In a breakdown of families by children's ages, it was found that the situation for families with children under the age of 4 is even more dire. A quarter of these families live below the poverty line and, of them, 80 % are from the Arab or Haredi groups.

Inequality in gross income is among the lowest in the OECD, but in terms of disposable income, Israel's inequality ranks among the highest. This discrepancy is due to the relatively low levels of taxes in Israel. The rise in the minimum wage and in employment rates in Arab and Haredi communities are helping to narrow this gap, which has persisted for over a decade.

Although it has been stable or even dropped slightly over the last two decades, the level of both poverty and inequality in Israel are remarkably high compared to those in other high-income countries. This is particularly true for families with children, and even more so for families with young children, with significant implications for the future success of those children. Spending on social security and health increased greatly during the pandemic, but has since decreased, sometimes even to below pre-pandemic levels, the obvious example being unemployment benefits. One important positive change recently is large increases in the levels of long-term care insurance and income support for the elderly.

In 2022, overall expenditure on unemployment benefits reached around NIS 3.2 billion, versus NIS 4 billion in 2019. At the same time, the amount in long-term care benefits for the elderly rose in 2021 and is now one-tenth of overall NII spending. Income security for low-income seniors also rose and in 2022 (including the universal old-age pension for seniors) reached NIS 3 799 for a single person, and NIS 6 002 for a couple.

There is a serious shortage of social workers in Israel. One tenth of the jobs in local authority welfare offices remain unfilled and, according to estimates, there are some 1 500 unfilled positions. Many leave the profession due to the low pay[8].

From the available figures, young people in Israel are susceptible to considerable food insecurity. As is the case with the general population, the share of Arab and Haredi children and young people experiencing food insecurity is significantly higher than that of non-Haredi Jews. The outstanding success of the high-tech sector in Israel and related policies have not brought benefits for all parts of society.

In December 2022, the Taub Center published a booklet containing data on some of the key inequality issues among the different population groups, from early education onwards. Inequality becomes worse during the latter stages of education and among young people. The booklet "Early Childhood in Israel: Selected Research Findings, 2022" presents data on the major differences between Jews and Arabs in terms of enrolment rates in early childhood education and care frameworks (ECEC) from birth to age 3. It looks at the high rates of child poverty in Israel. These findings are disturbing, especially given the situation after the elections and the announcement of the new government's policy agenda.

[8] All the updates in this country fiche are based on the Taub Center interim report "A Picture of the Nation," June 2023, a collection of important economic, labour, welfare, health, education, demographics, and environment data. The booklet was written by Prof. Avi Weiss, President of the Taub Center and a professor of economics at Bar-Ilan University, https://www.taubcenter.org.il/en/pr/pon-2023/

The new government has decided that responsibility for early childhood education frameworks will be transferred from the Ministry of Education back to the Ministry of Economy and Industry. Taub Center researchers have set out policy options to deal with the complex situation of early childhood education and care in Israel, given as it has a negative impact on lifelong learning for different population groups in Israel.

According to the data and analysis in the same report, about one-quarter of families in Israel with particularly young children live in poverty. This poverty is more evident in the Arab and Haredi groups. The share of households with children of these ages that live below the poverty line is particularly high among Haredim (58 %) and Arabs (55 %) and low among non-Haredi Jews (8 %).

2. EDUCATION AND TRAINING

2.1 Trends and challenges

Education strategy and the legal framework for education

According to the Taub Center analysis, most in Israel agree that education is one of the keys to success in life, and that all parts of the system should be fair in terms of educational opportunities for all children in Israel.

Many believe that narrowing educational inequalities could also contribute to narrowing the economic inequality that is so prevalent. Nevertheless, educational disparities between socioeconomic groups, sectors, and ethnic groups abound. These gaps seem intransigent despite the best efforts of the government and the education system.

In the Taub Centre's analysis report "A Picture of the Nation: Israel's Society and Economy in Figures, 2022", the authors present some of these substantial changes. These are just a few examples: there is stability in the distribution of students over the four education systems; the gap in the resources allocated to education between the Arab and Jewish sectors is narrowing; the percentage of the Arab population receiving higher education has been rising steadily and there is a significant increase in the education level of teachers in Israel. Between 2020 and 2022, there is evidence of an increasing number of students on advanced science and technology courses.

According to the Taub Centre's 2023 report, the education budget has grown in the past twenty years at 1.6 times the rate of the growth in the number of students, and, in 2023, it accounted for 18 % of the national budget.

The number of students per full-time teaching position and per class has declined for most education levels and in most education streams. In the Haredi system, it has risen due to the considerable number of students. The population that benefits the most from budget additions has been Arab students. Budget increases have narrowed the gaps between Hebrew and Arab education.

Only 20 % of teachers who teach language (Hebrew) in State primary schools (10 % in the State-religious system) have appropriate training in the subject versus 60 % in the Arab education system. The rate at which teacher training tallies with what they teach is higher in Arab education middle schools. The reason it is better in the Arab education system is apparently that the share of younger teachers is higher, and they bring a more up-to-date skill set.

In the past twenty years, the average teacher's salary has risen by about 90 %. The improvement has been higher for women than for men. The wages in Arab and Haredi education rose more than in the Hebrew State and State-religious systems. Wages for more senior teachers rose more than for those at the start of their careers, and those without an academic education gained more than their colleagues with an academic degree.

The government departments in charge of education policy are the Ministry of Education and the Council for Higher Education. The departments in charge of employment policies are the Labour Branch of the Ministry of Economy and Industry and the Israeli Employment Service.

A new 2030 plan to further boost education in technology in the context of lifelong learning was developed in early 2021. This plan builds on the implementation of innovative and experimental measures and on lessons learned over recent years. These measures provide opportunities to make relevant changes, such as creating broader acceptance of remote teaching and learning models, accelerating digitalisation, and increasing the visibility of alternative/blended forms of teaching and learning. Through the development, Israeli counterparts must also address the other challenges in the system as discussed above.

There is no specific strategic framework for VET and adult learning. The vocational education system continues to be divided between vocational training and technology education and there is no clear-cut

distinction between them. Neither system is academic and both award non-academic diplomas. In general, technology education focuses on knowledge-intensive areas and produces practical engineers and technicians, while vocational education focuses on more "traditional" economic sectors such as manufacturing, construction, motor vehicle repair, caregiving, and hair and beauty.

With the aim of improving quality and equality in education, training and skills provision, the government has significantly increased its education funding, including funding for day-care centres for working parents, financial aid for tech-related studies and starting salaries for teachers. This increase in funding was announced on 27 October 2022.

According to the Taub Center for Social Policy Studies in Israel (2022), the substantial shift to distance learning during the COVID crisis has instigated a long-lasting revolution in the whole education and training system. This was possible, too, because more than 50 % of households in Israel have access to fibre-optic internet for fast internet speeds, and approximately 17.9 % of households were subscribed to such a service at the end of 2021. According to the Taub Report 2022, the number of households that have access to/have fibre-optic internet subscriptions almost doubled in 2021.

Education expenditure

Total government expenditure on public education in Israel is low, according to the Organisation for Economic Cooperation and Development (OECD), which has published its Education at a Glance report for 2023. This report shows Israel's investment in public education as lower than average for the OECD countries. Referring to data from 2020-2022, it states that total government expenditure on public education in Israel (excluding higher education institutions) was significantly lower than the OECD average in 2020 – USD 8 865 per year compared to USD 10 949. Israel spent 6.4 % of GDP, of which 42 % was dedicated to primary education, 3 % to short-cycle tertiary-education courses and 19 % to bachelor's, master's and doctoral or equivalent courses.

In Israel, 22 % of all funding for schools, colleges and universities is spent on general upper secondary education and 14 % on vocational upper secondary education (11 % and 10 % respectively on average across the OECD, June 2023).

Across all levels from primary to tertiary education, Israel spends USD 10 279 annually per full-time equivalent student (adjusted for purchasing power and including expenditure on research and development), compared to the OECD average of USD 12 647. Expenditure per student is equivalent to 26 % of per capita GDP, which is below the OECD average of 27 %.

The 2021-2022 state budget and economic plan increased the budget for education to NIS 69.7 billion. Israel is considered an exceptionally centralised system when it comes to its educational and training decision-making processes, leaving school head teachers powerless to manoeuvre within the system. In January 2022, the Minister for Education announced a plan to give school head teachers more financial autonomy. According to the plan, each head teacher will receive a budget of between NIS 250 000 and 1 million, based on the school's size and socioeconomic status, so that they have more freedom to pursue their educational goals and more flexibility to respond to their students' specific needs.

On average, annual statutory salaries for upper secondary teachers in general education with the most common qualification and 15 years of experience are USD 53 456 across the OECD. In Israel, the corresponding salary adjusted for purchasing power is USD 39 321, which is equivalent to ILS 167 890[9]. However, many education and training staff members are not content with their salaries, which put the start of the 2022 academic year at risk. A last-minute agreement (reached after overnight talks lasting 11 hours) averted a teachers' strike, and 2.5 million Israeli students and 218 000 education workers began the 2022-2023 school year as scheduled. New teachers will be paid NIS 9 000 (USD 2 675), with a pay rise to NIS 10 000 after three years in the education system. More experienced teachers will have their salary raised to NIS 19 000. Bonuses of NIS 400-1000, depending on the contract they are on, will go to teacher's demonstrating exemplary performance.

[9] "Education GPS," *OECD*, 31/10/2023, 12:44:41 http://gpseducation.oecd.org

One of the most recent developments (partially due to COVID) is that Israel has a recognised shortage of 6 000 teachers, according to figures from the Israeli Education Ministry. Schools in the Tel Aviv area face the biggest staff shortage, needing to recruit 1 847 staff. There is also a shortage of 457 teachers in the Haifa region and 305 teachers in the Jerusalem area. The most significant shortage, according to the Ministry's data, is in elementary schools, where there is a shortage of more than 2 300 teachers. (25 July 2022, Israel Hayom). The Israel Teachers Union has reiterated that the shortfall will not be reduced unless the government raises teachers' wages and improves their working conditions.

Access, participation, and early school leaving

According to the latest OECD overview of the education system in Israel (EAG, 2023), 35 % of 15 to 19-year-olds are enrolled in general upper secondary education and 24 % in vocational upper secondary education. Fourteen percent of 25 to 34-year-olds have a VET qualification as their highest level of attainment: 4 % at upper secondary level and 10 % at short-cycle tertiary level. A further 3 % are enrolled in lower secondary courses and 6 % in tertiary courses. This compares to an OECD average of 37 % enrolled in general upper secondary programmes, 23 % in vocational upper secondary, 12 % in lower secondary and 12 % in tertiary courses.

Unemployment rates for 25 to 34-year-olds with vocational upper secondary attainment are lower than for their peers with general upper secondary or post-secondary non-tertiary attainment: 5.2 % of young adults with vocational upper secondary attainment are unemployed, compared to 5.4 % of those with a general upper secondary qualification. Although an upper secondary qualification is often the minimum attainment level needed to join the labour market, some 25 to 34-year-olds still leave education without such a qualification.

In Israel, 9 % of young adults have not attained an upper secondary qualification. Tertiary degrees provide a significantly higher earnings advantage: 25 to 34-year-old workers with bachelor's degrees earn 94 % more than their peers without upper secondary certificates, while those with master's degrees or PhDs earn 124 % more. In Israel, 51 % of 25 to 64-year-olds have tertiary attainment (university degree), a larger share than those that have upper secondary attainment (high school) (38 %) In Israel, the NEETs (not in education, employment, or training) figure is 17.5 %. The high share of NEETs in Israel is explained by the mandatory military service between the ages of 18 and 21.

According to the OECD's "Education at a Glance 2022: Israel – Country Note", compulsory education in Israel begins at the age of 3 and ends at the age of 17. The enrolment rate among 3 to 5-year-olds is 100 %. The average age of graduation from general and vocational upper secondary schooling is 17 years old. Interestingly, the percentage of graduates from vocational upper secondary courses are 50 % male and 50 % female. Graduates from vocational upper secondary education have direct access to tertiary education[10].

The same OECD Israel Country Note (2022) observes that "international student mobility at tertiary level has risen steadily, reaching about 11 200 students in Israel, and representing 3 % of tertiary students in 2020." The largest share of international tertiary students studying in Israel comes from the United States. Students from a low and lower-middle income background are less likely to study abroad. Students from lower socio-economic backgrounds are more likely to enter upper secondary vocational programmes than general education. Tertiary education has been expanding in the last few decades and, in Israel, 58 % of 25 to 34-year-old women had a tertiary qualification in 2020 compared to 37 % of their male peers, while the average across OECD countries was 52 % of young women and 39 % of young men. Educational attainment and skills in specific sectors affect not only employment opportunities but also wage levels.

Tertiary education has been expanding in the last few decades, and, in 2020, 25 to 34-year-old women were more likely than men to achieve tertiary qualifications in all OECD countries. In Israel, 58 % of 25 to 34-year-old women had a tertiary qualification in 2020 compared to 37 % of their male

[10] Education GPS, OECD, http://gpseducation.oecd.org

peers, while on average across OECD countries the shares were 52 % among young women and 39 % among young men.

In the Israeli education system, women represent 32 % of new entrants on engineering, manufacturing, and construction courses and 30 % in information and communication technologies. In contrast, they represent 84 % of new entrants in the field of education, a sector traditionally dominated by women. Forty three percent of women and 69 % of men who have not finished their upper secondary education are employed. Compared to other education levels, women in Israel without an upper secondary education have the lowest earnings relative to men with a similar education level.

PISA results

Israel is one of the 38 OECD member countries that took part in PISA 2022, the eighth cycle of the OECD research programme that began in 2000. As per the announcement on the OECD website, PISA 2021 was postponed to 2022 and work is ongoing. Mathematics is the focus and creative thinking is the innovative domain in PISA 2022.

The OECD analysis of Israeli students' performance (PISA, 2018) confirms that the issues previously found are being addressed, with several integrated policy measures highlighted. According to the same report, Israel has improved its scores but more needs to be done to improve some of its PISA results. In reading literacy, the main topic of PISA 2018, 15-year-olds in Israel scored an average of 470 points, compared to the OECD-country average of 487 points; Israeli 15-year-olds scored an average of 463 points in mathematics, compared to the average across OECD countries of 489 points. Average performance in science for 15-year-olds was 462 points, compared to the 489-point average across OECD countries.

The report states that "socio-economic status explains the 14 % variance in reading performance in Israel (OECD average: 12 %)". Girls perform better than boys with a statistically significant difference: "The average difference between advantaged and disadvantaged students in reading is 121 points, compared to the average of 89 in OECD countries. However, 8 % of disadvantaged students are academically resilient (OECD average: 11 %)" (OECD, 2021).

Students in the Israeli education system rank low in the OECD PISA exams for 15-year-olds, which bring up significant disparities between children from high and low socio-economic backgrounds, and between ultra-Orthodox Jewish/Arab-Israeli children and others.

Young people not in employment, education, or training (NEETs)

Israel's population is particularly heterogeneous, with various groups differing in both their characteristics and their needs. This makes it difficult and inefficient to attempt to implement uniform changes at a system-wide level. Groups of young people who do not serve in the army (Arabs, Haredim and people with disabilities) have particularly high numbers of NEETs, with the Arab population presenting the highest numbers of all. According to the Israeli Democracy Institute ([11]), the rate of NEET or idleness among young people in Israel aged 15 to 29 is 28 % – one of the highest among OECD countries. Idleness is particularly common among Arab citizens in Israel. Thirty-seven percent of Arabs between 19 and 23 years of age are not in any official framework whatsoever.

The unique obstacles that young Arabs in Israel face come from the fact that they are members of an ethnic and national minority. Their reality is characterised by limited opportunities, discrimination in many spheres, living in peripheral regions, poor access to public transportation between Arab residential communities and employment zones, and a dearth of child-care settings for small children (which would enable more women to go to work). There have been efforts to address the issues, but frequent political changes make it difficult to promote long-term goals. In recent years, the reforms launched by politically affiliated ministers have often been discontinued or are not budgeted for by their successors.

[11] Miaari, S., Hadad Haj-Yahya, N., *NEET Among Young Arabs in Israel,* Israeli Democracy Institute, https://en.idi.org.il/media/9319/neet-among-young-arabs-in-israel.pdf

2.2 Initial VET and adult learning

Strategic and legal framework for initial VET and adult learning

Even though Israel has high educational attainment, this does not always match job descriptions for highly skilled positions. This is evidenced by university graduates in certain disciplines who lack soft skills, such as problem-solving, team-working or an entrepreneurial spirit, and this has negative consequences on access to the labour market, (as illustrated later in this Fiche, in the labour market section). Educational attainment and skills are not achieved evenly across the entire population of Israel, and not all groups benefit proportionally from education and training. (Taub Center, 2022). The problem is particularly acute in the Arab education system, in which over 80 % of students are deemed (from the teachers' perspectives) to achieve poor results. In general, students coming from low socio-economic backgrounds have a higher level of perceived deficiency.

Most companies indicate that a shortage of skilled workers remains an issue. Companies have responded to shortages through internal training for the existing workforce and they highlight the fact that the education system produces graduates with gaps in knowledge. Therefore, they increasingly rely on technical and vocational institutions rather than the general education system (e.g. universities) to provide the skills they need. Employers consider that existing links with universities and the TVET system are limited; there are calls for closer dialogue and cooperation between enterprises, academia and the TVET system to bring in training courses that are a better match for the future needs of the labour market (including in providing practical training).

The OECD 2023, *Israel Country Note*, part of the OECD *Education at a Glance 2023*[12], provides the most updated overview of the key developments in the education system in Israel. It draws on data from Education at a Glance 2023.

According to the analysis of this OECD report, Israeli institutions should invest more for high-quality VET that brings learners into labour markets and opens pathways for these young people's further personal and professional development. In Israel, 14 % of 25 to 34-year-olds have a VET qualification as their highest level of attainment: 4 % at upper secondary level and 10 % at short-cycle tertiary level. The unemployment rates for 25 to 34-year-olds with vocational upper secondary attainment are lower than for their peers with general upper secondary or post-secondary non-tertiary attainment: 5.2 % of young adults with vocational upper secondary attainment are unemployed, compared to 5.4 % of those with general upper secondary qualifications.

Although an upper secondary qualification is often the minimum level needed to join the labour market, some 25 to 34-year-olds still leave education without such a qualification. On average 9 % of young adults in Israel have not attained any upper secondary qualification. This is below the OECD average (14 %). In Israel, 25 to 34-year-old workers with bachelor's degrees earn 94 % more than their peers without upper secondary certificates, while those with master's degrees or PhDs earn 124 % more. In Israel, 51 % of 25 to 64-year-olds have tertiary attainment (university degree), a larger share than those that have upper secondary attainment (high school) (38 %). Seventeen-point-five percent of young Israeli adults aged 18-24 are not in education, employment, or training (NEET). The high share of NEETs in Israel is explained by the mandatory military service between the ages of 18 and 21. (OECD 2023c, "Israel Country Note").

All the above analysis is known by all and discussed at all levels. All sides agree on the need for reforms at a technical level. There are many studies and discussions on the issues. However, progress on structural reforms has been limited due to the prolonged political uncertainty since 2019 and the focus on dealing with the consequences of the COVID-19 crisis from 2020 onwards. The need to improve the skills profile, especially for low-skilled adults, has remained merely an objective of the Israeli government. According to the OECD's Israel Country Note "Going for Growth" (2021), adults' skills remain relatively weak and vary widely, contributing to severe labour market duality. The

([12]) OECD *Education at a Glance 2023: Israeli Country Note*, Education at a Glance 2023: OECD Indicators, https://www.oecd-ilibrary.org/sites/d4b25575-en/index.html?itemId=/content/component/d4b25575-en#:~:text=In%20Israel%2C%2014%25%20of%2025,at%20short%2Dcycle%20tertiary%20level.

pandemic has further aggravated Israel's long-standing challenges of combatting high levels of poverty, especially among the Ultra-Orthodox and Arab Israelis, and the wide productivity disparity between its vibrant high-tech sector and more traditional and sheltered sectors, which employ most of the workforce and account for most of the productivity shortfall *vis-à-vis* the best performing OECD countries. As one measure to ensure high quality, comprehensive and equal education and to promote opportunities for lifelong learning by 2030, Israel has joined the OECD's Future of Education and Skills 2030 programme. It is ongoing work led by the Ministry of Economy and Industry (Labour Branch), which oversees continuous vocational training, including training for jobseekers and employer-led training for adults. This Ministry is also in charge of adult training centres and on-the-job training. VET providers do, however, have considerable local autonomy regarding curriculum requirements and partnerships/initiatives.

VET governance and financing arrangements

To better comprehend the developments in Israeli Vocational Training and Technological Education (TVET), we need to look at the institutional structure of the system. The TVET system in Israel remains fragmented between different ministries/agencies and organisations, with a far-from-clear division of responsibility among them. The system remains the product of a series of agreements that have been patched together over the years, rather than the result of a structured and systematic thought process on the appropriate division of responsibilities and on the optimal organisation to achieve national goals in this area.

Most vocational training courses, which are overseen by the Ministry of Labour, fall under the remit of the Vocational Training branch. It remains a system focussed on providing employment opportunities for the weaker socioeconomic strata of society. To better understand the Israeli education and training eco system please refer to "Israel: Diagram of education system" for information on the keys structures and governance of the system available at OECD [13].

There is no comprehensive agreement between the subsectors of the education and training system on how education and training should be organised. The system continues to be divided between vocational training and technological education and there is no clear-cut distinction between them. Both systems are outside of academia and grant non-academic diplomas. In general, technological education focuses on knowledge-intensive areas and produces practical engineers and technicians, while the vocational tracks focus on more "traditional" economic sectors such as manufacturing, construction, motor vehicle repair, caregiving, and hair and beauty. Despite this general distinction, quite a few vocations are taught by both vocational training centres and technological colleges. Technological education for adults falls under the auspices of the National Institute for Technological Training, which is a division of the Ministry of Labour and Social Affairs, whereas Grades 13 and 14 are under the supervision of the post-secondary technological education branch.

TVET is hampered by its structure and how it plans for vocational jobs. The deficient performance of this part of the system hinders workers' entry into the job market. These failures undermine the delivery of skills needed for the economy and individual skills needed for people's inclusion in the labour market and further study. The shortage of skilled workers in manufacturing derives from several mutually reinforcing factors: structural failures and obstacles in the vocational training courses have led to a situation in which the number and quality of vocational training graduates do not meet the needs of the economy.

Most companies indicate that a shortage of skilled workers remains an issue. They highlight the fact that the education system produces graduates with gaps in knowledge. Therefore, they increasingly rely on technical and vocational institutions rather than the general education system (e.g. universities) to provide the skills they need. Employers consider that existing links with universities and the TVET system are limited; there are calls for closer dialogue and cooperation between enterprises, academia

[13] Source: OECD (2023), "Israel: Diagram of education system", OECD Education GPS, http://gpseducation.oecd.org/Content/MapOfEducationSystem/ISR/ISR_2011_EN.pdf

and the TVET system to bring in training courses that are a better match for the future needs of the labour market (including in providing practical training).

Recruiting people with the skills needed to adapt to technological change is difficult because of (i) a generally high level of demand from the economy for some of the skills the sector needs; and (ii) the low attractiveness of some sectors compared with others that have a similar demand for skills. Many of the sectors' finance and provide training for their workforces (upskilling and reskilling) so that future skills needs will be met.

VET governance is centralised under the Ministry of Education (MoE), which covers 90 % of VET students, and the Ministry of Economy and Industry (Labour Branch). Both ministries work in collaboration with the Manufacturers Association of Israel (MAI). A formal system of social partnership is lacking but employers are represented through the MAI's frequent involvement in VET policy development and reform activities. Employers participate in decision-making on skills as part of education and training reforms. Vocational training in Israel is the remit of the labour-focused bodies operated by the Ministry of Labour, which include the Institute for Training in Technology and Science (MAHAT, a government-run institute).

The national Technical and Vocational Education and Training (TVET) Committee is a mechanism established in 2010 to improve the governance of education and training. It is a platform for exchange involving all stakeholders, such as policy makers, TVET providers and trade unions.

Although there has been an increase in tech-related studies in education and in teachers' salaries, there is a strong belief in the sector that the substantial shift to distance learning during the COVID crisis may trigger a long-lasting revolution in the whole education and training system, and that this will require innovative financing models to sustain delivery.

Government, through local authorities, provides the main funding for TVET under the Ministry of Education. The state's multi-year budgets for technology education are set out in government decisions through budget agreements with the Ministry of Finance. TVET schools under the Ministry of Economy and Industry (Labour Branch) have a separate budget. Budget allocations are made in accordance with the principle of equality, but they are also based on each college's results and performance. In addition, increased budgets are earmarked for training specific groups, such as Bedouin and Haredi populations.

Recently approved reforms in education and training have included significant budget increases. Other new programmes seek to encourage industry involvement in the training of technicians and practical engineers by giving limited budget incentives. These schemes include budget support for non-governmental organisations.

The country's skills challenges could be addressed by these ongoing actions, but more is needed to improve the outcomes. This can be done through high quality vocational education and training (VET) programmes, those that put a strong emphasis on work-based learning, such as apprenticeships, and permit learners on these courses to follow clear pathways to general education and tertiary vocational courses.

Qualifications, validation and recognition

A government resolution adopted in 2015 provided the legal basis to begin developing a national qualifications framework (NQF), although this has not yet been adopted[14]. The EU NQF Twinning Project expired in February 2022. There are ongoing discussions for follow up EU support to develop a national qualifications' framework.

Israel is therefore in the early design stage of development. No national system for validation exists yet, but the aim is to establish one. The ETF continues to provide policy and technical advice to the Israeli authorities, overseeing their work on setting up the Israeli National Qualification Framework. Developments in Israel are included in the fourth edition of the Global Inventory, which covers more

[14] https://www.etf.europa.eu/sites/default/files/document/Israel_0.pdf

than 100 countries worldwide (ETF, 2022). In addition, the ETF continues to work alongside the Technical and Vocational Education and Training (TVET) Committee, Ministry of Education and Ministry of Economy and Industry (Labour Branch) and related institutions, as well as with research institutions and skills-related public and private sector partners.

The next stage is producing level descriptors for the NQF. Israeli institutions are in ongoing discussions for a follow-up EU support programme to continue the work already begun. There is an agreement among the key institutions in Israel that the country should develop standards and curricula and look at developing unit-based qualifications, which would aid the implementation of a system for recognising non-formal and informal learning and lifelong learning skills (validation). A decision on governance is outstanding. The Inter-Ministerial Working Group will need to look at options such as an inter-ministerial council-type body, or a dedicated agency. Legislation will be needed to formally establish the NQF, define its role in the country's education and training system, define its functions and define what a qualification is. Secondary legislation, or regulations, will be required to implement it, covering procedures for deciding on the level of qualifications, quality assurance procedures, stakeholder roles, recognition of prior learning (RPL), etc. The ongoing work by Israeli counterparts aims to have ample scope to use validation – and so gain a return on the "investment" of building such a system – to certify the skills of the many adults engaged in informal learning, e.g., with private providers or in Ministry-run courses, and to recognise the skills of people who have completed their military service. Adopting modular curricula and units of qualifications would make RPL easier.

Quality and quality assurance

The vocational education system in Israel continues to be divided between vocational training and education and there is no clear-cut distinction. Neither system is academic and both award non-academic diplomas. In general, technology education focuses on knowledge-intensive areas and produces practical engineers and technicians, while vocational education focuses on more "traditional" economic sectors such as manufacturing, construction, motor vehicle repair, caregiving, and hair and beauty.

Despite all the recent developments, a notable shortcoming is the absence of a system capable of making useful labour market information available to education and training planners. Israel collects data on the labour market, including data on job vacancies, and it participates in the international labour market surveys undertaken by a number of international organisations of which Israel is a member. However, while some of the available data is used for local or business sector purposes, there is no formal national mechanism for processing labour market data to make it accessible to education and training policymakers for the purposes of planning and supplying appropriate education and training.

The Ministry of Education is responsible for ensuring the maximum efficiency and relevance of all technology and vocational courses and that they meet the needs of the market[15]. For the availability and adequacy of quality assurance arrangements, measures and practices, it is the Ministry's National Authority for Measurement and Evaluation in Education (RAMA) unit that deals with the entire education system. It creates and administers external national student assessments under the supervision of chief inspectors and advisory committees, which include business and union representatives. This highly supervised system ensures high-quality higher education and vocational certificates. Students under the Ministry of Economy and Industry (Labour Branch) are assessed under one of three models: practical, theoretical, or combined practical and theoretical.

The Ministry of Education and the Ministry of Industry and Economy (Labour Branch), in consultation with various bodies, are responsible for setting quality standards for providers' learning environments and learning outcomes. Minimum thresholds are in place for the accreditation of providers.

Ministries are responsible for curricula, examinations and qualifications and they strive to increase the involvement of employers in determining the skills needed in the labour market. Specialists on Ministry of Education committees develop and assure the quality of curricula. A school may determine

[15] https://www.etf.europa.eu/sites/default/files/2021-01/quality_assurance_in_vet_israel.pdf

approximately 30 % of its curriculum. The Ministry of Economy and Industry (Labour Branch) updates its youth and adult curricula every year, based on market demand forecasts.

Employers participate in developing courses and accreditation, which includes writing curricula, vocational training, and accreditation relevant to the labour market. Professional committees with employer representatives have been set up within the Ministry of Education Accreditation Department with the aim of making accreditation labour-market relevant. In 2016, committees were formed for industry, tourism, and vehicles. However, the employers' association and some other sectors are calling for the education and training system to respond/adapt better to the dynamic nature of the world of work and provide people with the necessary skills and abilities. To do this, mechanisms must be created to identify the needs, professions and skills of the future.

Work-based learning arrangements

In Israel, several issues are drawing attention to the provision of vocational training. Skills shortages are emerging in several technical areas. In response, employers are pressing for an expansion of skills training and work-based learning, and the government has launched several initiatives to this end. At the same time, inequity and disadvantage in some population groups are raising the profile of other demands for vocational training as a vehicle for social inclusion. Collectively, these factors are driving policy interest in developing the VET system, a system that is currently both fragmented and of modest scale when compared with the VET systems of other OECD countries.

VET governance is centralised under the Ministry of Economy and Industry (MEI), Labour Branch (covering 90 % of VET students and responsible for vocational training in Israel) and the Ministry of Education (MoE). Both ministries work in collaboration with the Manufacturers Association of Israel. The National Institute of Technological Education and Training (NITET) and the Division of Vocational Training and Human Capital Development are the MEI units responsible for vocational and technology education and training, as well as for apprenticeships, which come under formal education and training.

The Israeli government, namely the Ministry of Economy and Industry (Labour Branch), has begun work to further develop work-based learning. There are some studies and reports on cases of work-based learning in Israel but there are no comprehensive approaches or policies to expand this.

There is a collective agreement that developing vocational education and training (VET) in Israel would be significantly aided through attention to work-based learning, building on a range of current initiatives to develop apprenticeships and work-based learning both for young people and adults. This would involve the expansion of apprenticeship schemes and instigation of systematic shorter work-based learning placements in selected school-based VET courses. Currently, apprenticeships are designed as a path for those dropping out of school and are seen as a low status option. To become an attractive option both to young people and employers, they should be fully integrated into the mainstream upper-secondary system. For adults, diverse work-based learning measures, including apprenticeships, may help to alleviate skills shortages and better integrate disadvantaged social groups into the labour market (OECD, Developing Work Based Learning in Israel, 2018).

In 2021, Israel's Ministry of Economy and Industry (Labour Branch) joined the European Alliance for Apprenticeships network through a national (governmental) "commitment". Like all European Alliance for Apprenticeships (EAfA) members, they wish to keep abreast of developments in EU Member States and other participating countries, learn from their experiences and participate in peer-learning exchanges.

Like all members of EAfA, Israel can use apprenticeship support services, knowledge sharing (pillar 1) and networking activities (pillar 2) but is not eligible for "bench learning" (pillar 3), which is currently limited to EU Member States and not open to EFTA or candidate countries. An Israeli delegation joined the High-level Seminar for the European Alliance for Apprenticeships (EAfA) Partner Countries on 13 and 14 October 2022. EAfA Partner Countries shared their experiences and achievements in developing and delivering apprenticeships. The event took place in Belgrade and brought together

government representatives, EU-level stakeholders, representatives from the European Apprentices Network, and other stakeholders from the European vocational education and training (VET) sector.

Digital education and skills

The main point of service for users, which consolidates all the ICT resources in one place, is the Educational Cloud. It houses the Educational Resources Library, software support, and educational communities. Services include (1) The ICT program (2) Digital Content (3) Secure surfing of the Web (4) Digital eBooks (5) Distance learning (6) Professional development (7) Cooperative learning (8) Learning Management System (LMS) (9) The School Portal (10) School management. The Ministry of Education has previously published a list of the LMSs approved for use in the educational system.

The Pedagogical Secretariat and Tel Aviv University have a joint Online Academic High School programme which is made up of Massive Open Online Courses (MOOCs). The courses are taught as part of classroom instruction in the main subject areas. Teachers first need to be trained in online teaching.

The 2010-2015 guide by the Ministry of Education on using ICT in classrooms, addressed the possibility of an emergency situation, which would be officially recognised and announced by the Ministry of Education. The ministry recognises that there "may be a situation in which the regular educational activity in the educational institutions will be limited for a period of time that can last from several days to several weeks." In a state of emergency, schools operate under state of emergency procedure guidelines. The goals during this time are: responding to the various needs of the education system online if learners are prevented from coming to school; providing a supportive social-educational framework while continuing regular activities for students, regardless of the physical location of the student and the teacher; providing an immediate and relevant response to the distresses and concerns that arise as a result of the emergency; and carrying out structured and guided educational and social activities as a substitute for classroom studies. The Ministry of Education also provides an There is a template to follow, as well as an emergency learning site for distance learning.

At the height of the coronavirus pandemic, the Government of Israel launched a "Learn with Confidence" website. The pandemic also highlighted a large digital gap between the different population groups in Israel[16].

In all levels of education and training, Israel responded to the pandemic with an increased provision of digitalised assessments/exams, digital tools at school, distance learning, hybrid learning, in-service and pre-service digital training for teachers and digital training for students. At the same time, there was an exceptional rise in the share of those enrolling in higher education courses, driven by two factors: labour market incentives to get back into education and a lack of alternatives for young adults due to the closing of the borders and reduced economic activity.

Some government initiatives to be mentioned are the National Digital Israel Initiative (Central Bureau of Statistics), approved on 30 May 2022. It makes it possible to provide education for most of the population. In 2020, 90 % of the population in Israel (aged twenty and above) used the internet. From 2014-2020 there was a sharp rise in the proportion of internet users in the Arab population. This led to a considerable decrease in the gap in internet use rates between the Arab community and the rest of the population. The same increase took place for the Ultra-Orthodox Jews (aged twenty and above) and the trend continues.

Initiatives that harness technology to create a meaningful educational impact are driving the continuously developing world of EdTech (education technology) in Israel too. The Israel Innovation Authority attributes significant importance to impact investments made with the aim of creating measurable social or environmental results alongside a financial result. The Israeli government

[16] UNESCO, Israel Technology Education Profile, 2023, https://education-profiles.org/northern-africa-and-western-asia/israel/~technology

institution, Innovation Authority, is heading up this area, operating several nationwide schemes aimed at dealing with public and social challenges. One such scheme is the joint Innovation Authority-Digital Israel Initiative "GovTech" (Digital Government) scheme, which encourages and assists entrepreneurs and corporations offering innovative technological solutions for public sector challenges in the fields of education and training, health, welfare, economics, law, local government, etc.

The Israel Innovation Authority, an independent, publicly funded agency, provides a variety of practical tools and funding platforms aimed at effectively addressing the dynamic and changing needs of many sectors, including the education sector.

The Israeli innovative education and training ecosystem is very vibrant and over the years the country has developed many innovative tools for teaching and learning, with a focus on digital literacy. A few of the many ongoing developments that should be mentioned include Eureka World. Educational Games | EurekaWorld | Israel is an education technology company that enables joint creation and learning in multi-participant 3D worlds that also combine physical interfaces such as 3D printers, robotics controllers, VR headsets and more. Eureka World and Annoto, two start-ups that have received Innovation Authority impact investments, are excellent examples of technology companies with a significant impact on pupils, teachers and the world of learning. There are many national programmes that take pupils and students on a virtual 3D creative learning experience, while Annoto transforms online video courses into collaborative and active learning experiences. This is how the Innovation Authority is helping to generate change.

CampusIL, the national digital learning venture, allows the whole of Israeli society to enjoy an innovative and personalised learning experience with a vast array of quality content forms served by leading universities, vocational training institutes and other top content providers. As all courses are free, CampusIL bridges socioeconomic gaps in Israel and accelerates economic growth by offering lifelong learning to students, educators, public servants and jobseekers.

Statistics on education and training

The Central Bureau of Statistics (CBS) is the source for data and analysis on the Israeli education and training system, labour market, etc. It shares its data and analysis with the European Commission, the ETF and international organisations including the United Nations, the International Monetary Fund, UNESCO, the World Bank, the World Health Organization, the OECD, etc. The Israeli Central Bureau of Statistics collates and publishes statistics on its population and its social health, economic, commercial, industrial, education and training situation, the labour market, and other areas. This national institution provides key, dependable education statistics on both initial and continuing education. All areas relating to the status of the education management information system (EMIS) and VET Management Information System are presented and analysed, and graduates of education and training are tracked. The CBS's data is available to a variety of target groups and for various uses (Central Bureau of Statistics (www.gov.il)).

The Taub Center for Social Policy Studies (taubcenter.org.il) is an independent, non-partisan, socioeconomic research institute that conducts high-quality, impartial research on socioeconomic conditions in Israel, and develops innovative, equitable and practical macro-public policy options. The Center strives to influence public policy through direct communication with policymakers and by enriching the public debate that accompanies the decision-making process.

The National Economic Council serves as the Prime Minister's economic headquarters, assisting in the economic decision-making process based on professional analysis, current data and methodical long-term thinking.

Another important institution in this area is the Information and Research Centre, established in 2000 to provide the Knesset (Israeli Parliament) with the research and information necessary to fulfil its parliamentary duties.

The Bank of Israel (http://www.boi.org.il) – through its Research Department – undertakes annual analysis and research, including on human capital and the workforce.

There are many other Israel-based think tanks, centres and institutes that provide updates, analysis, monitoring and so on in the areas under discussion in this document.

3. LABOUR MARKET AND EMPLOYMENT

3.1 Trends and challenges

Labour market characteristics

The labour market has already recovered from COVID-19, with participation rates for men returning to their pre-pandemic levels, while those of women are once again rising as they have been for decades. Wages are on the rise, but the increase is not uniform, and wages in the high-tech sector are both higher and growing at a faster pace than in other sectors of the economy. Even within the high-tech industry itself, there are significant wage disparities among different skill levels[17].

Israel has a technologically advanced free market economy. Its technology sector is growing faster than any other industry in the country. Other key sectors are manufacturing, the diamond industry, agriculture, tourism, transportation, etc. Cut diamonds, high-technology equipment and pharmaceuticals are among its leading exports, while major imports include crude oil, grain, raw materials, and military equipment. Israel usually posts sizable trade deficits, which are offset by tourism and other service exports, as well as significant foreign investment inflows.

According to the Taub Center's State of the Nation Report 2022, Israelis have been working more hours and getting more done in those hours over the past two decades. The report's findings state that since 2004, the number of working hours within the high-tech industry has increased by approximately 20 %, with productivity increasing by approximately 170 %. This represents a 125 % increase in productivity per hour compared to the turn of the century, thanks to the increasing role technology plays in the work environment, enabling workers to do more in less time.

The Israeli labour market is part of a dual economy. On one side, many sectors suffer from significantly low labour productivity. Certain groups of the population also have low employment rates, earn low wages and hold low levels of basic skills, including ultra-Orthodox Jews and Arab Israelis (who together make up about 32 % of the country's working-age population, a share that is expected to increase), as well as people living far from urban areas and Israelis of Ethiopian heritage (who make up about 1.5 % of the working-age population). The disparities in terms of labour market access of different population groups, and men and women can be a barrier to greening Israel's economy in an inclusive way. However, the authorities are aware of these disparities and try to address them in the context of the green transition.

On the other side, the high-tech sector is the driving force behind Israel's economy and is characterised by high productivity and high wages. However, the Arab Israeli and ultra-Orthodox Jewish population are not sufficiently represented and lately the sector has been suffering from a shortage of skilled workers.

COVID-19 had an influence on the Israeli labour market, although this influence was short-lived and was not distributed equally. According to the Taub Center's Picture of the Nation Report 2022, men were affected more than women. Workers in some industries have still not recovered while others experienced no downturn, and the effect was different in different regions of the country. In this report, the authors look at the effects on the labour market, including the growing trend of working from home, a change likely to persist in some industries and occupations.

There is a gender disparity in in-demand professions. Despite the increase in absolute numbers of women joining the industry and taking up technological positions, the gender gap in the industry has not narrowed. The share of women employed in the industry decreased in 2021 to 33.4 % (Ministry of Economy and Industry Labor Branch 2022). There is gender inequality regarding employment levels as fewer women are employed (Taub Center 2018). One interviewee elaborates that there is a master plan in place to integrate women, ultra-orthodox, and minority populations into the high-tech industry

[17] https://www.taubcenter.org.il/PictureoftheNation/2023Eng/PDF.pdf

(Interview with a national education policymaker). However, the overall unemployment is low, standing at 5 % in 2021 (Bank of Israel 2021).

By the start of 2022, regular unemployment (unconnected to COVID-related absences) had fallen to below its pre-epidemic level. In contrast, more than 70 000 individuals who had been employed prior to the crisis had still not returned to the labour force and had given up their job search. In 2021 (when restrictions on gatherings were significantly eased compared to 2020) the proportion of persons employed and working remotely was estimated to be 16.2 %. While industries such as accommodation and food services were severely affected and slow to recover, areas such as construction and agriculture were less affected, and some sectors felt almost no effect at all. Should another crisis emerge, identifying vulnerable populations and industries early on will help to focus assistance efforts. This includes determining which workers are most likely to benefit from vocational training.

There is a disparity in the employment and wage levels between various population groups which may further increase in the context of green transition. These discrepancies are also reflected in the acquisition of certain skills. The ultra-orthodox and Arab populations are under-represented in the high-tech industries. There is an awareness that these disparities should be monitored and rectified so that all parts of society benefit from its positive effects.

According to the Minister of Economy and Industry: “The high-tech sector, for example, continued to grow at a rapid pace, the proportion of workers in the sector and technological positions increased, and so did wages in these fields. However, not all parts of Israeli society share in this growth, and the proportion of Arabs and ultra-Orthodox in the sector is still far from their proportion in the population. In the last year, the reform of professional training was launched that will help jobseekers acquire a profession with a rewarding salary. The ministry is leading an extensive activity to integrate populations that are underrepresented in the employment market, as well as promoting policy and regulatory changes in the way employees are employed considering the changes in the labour market.

In terms of geography, the Tel Aviv, Central and Haifa Districts exhibited a high degree of employment recovery, while in the Jerusalem, Northern and Southern Districts, employment has remained far below its pre-crisis level. At the same time, the largest decline in employment rates was among Arab men (a substantial, though more modest, drop was observed among Haredi men as well). Women in all sectors sustained a more moderate blow in employment terms. The combination of ongoing processes and pandemic-driven constraints accelerated structural changes in the labour market, the long-term impact of which is still hard to predict (OECD’s Education at a Glance 2022 – Israel).

At the same time, the Israeli (primarily non-high tech) economy is characterised by low productivity, low skills levels, and low salaries. Some population groups have a particularly low level of skills, including the Haredi Jews and Ethiopian descendants among the Jews, Arabs, and Bedouins. The skills gap with other OECD countries is particularly wide for the low-skilled group in the population.

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Last year, the reform of professional training was launched that will help jobseekers acquire a profession with a rewarding salary. We are leading an extensive activity to integrate populations that are underrepresented in the employment market, as well as promoting policy and regulatory changes in the way employees are employed considering the changes in the labour market” (Ministry of Economy and Industry Labour Branch 2022).

Some master plans on the issues have been drafted with the focus on integrating women, ultra-orthodox, and minority populations into the high-tech industry. However, overall unemployment is low, standing at 5 % in 2021 (Bank of Israel 2021).

The Israeli government recognises this issue as a priority for action, especially in view of the harsh consequences of the pandemic on the low-skilled, who are already impacted by low salaries and a higher risk of poverty. According to the OECD analysis, Israel ranks as the country with the highest rates of poverty among OECD members: approximately 21 % of Israelis were found to be living below the poverty line, compared with the OECD average of 11 %.

Welfare payments have been stable or even dropped slightly over the last two decades. The level of both poverty and inequality in Israel are very high compared to those in other high-income countries. This is particularly true for families with children, and even more so for families with young children, with significant implications for the future success of those children. Social spending on social security and health increased greatly during the pandemic, but has since decreased, sometimes even to below pre-pandemic levels, the obvious example being unemployment benefits. One important positive change recently is large increases in the levels of long-term care insurance and income support for the elderly.

Statistics on the labour market and employment

More recent data from the OECD (OECD unemployment rate of reference: September 2022,) show that the unemployment rate in Israel has increased to 3.7 % (OECD updated data published on 10 October), the unemployment rate for women being 3.5 % and for men 3.9 %. Youth unemployment (15-24) was 8 % in Q3, while the unemployment rate for prime-age and older workers (25+) is 3.2 %[18].

All the data on Israel is provided by the Central Bureau of Statistics (CBS). A well-established institution, it produces and issues public and regular labour market data reports from surveys (the Labour Force Survey) and records (e.g. PES datasets on registered jobseekers and vacancies). It disseminates its analysis and findings to a wider institutional set up in Israel but also to the OECD (as a member country) and to all the other EU and international and regional partners.

According to the Taub Center June 2023[19] analysis, by the beginning of 2022, the employment rate throughout the country had returned to the average rate of employment of 2019. Even in Jerusalem, the South and the North, where there were declines of 10 % or more in rates of employment during the pandemic, employment has recovered fully. However, employment in those regions remains lower than in the Central and Tel Aviv regions, where it is similar to what it was prior to the pandemic. Beyond the graph, the lower levels of employment in some of the regions is partially explained by the identities of the populations in these different areas. For instance, the large proportion of Haredim (low levels of employment for men) and Arabs (low levels of employment for women) in Jerusalem and in its outskirts helps explain their low levels of employment. However, other issues, such as fewer quality employment opportunities in some areas (as in the North and South) also play a part that could be addressed by improving infrastructure in these areas.

To have a more in-depth analysis on the situation, the Israeli Central Bureau of Statistics, with the support of the ETF, agreed to join the European Skills and Jobs survey (ESJS) in 2022-2023. A collaborative project between the ETF and Cedefop, this work aims to measure peoples' perceptions of the recent changes in working environments in the aftermath to the COVID-19 pandemic.

The analysis explores how recent technologies and digitalisation impacted people's lifestyle in terms of work and skills (mis)match. The survey also investigates how human resources management affected workers' adaptation to new disruptions and how their learning practices can be further improved. The practical implications of automation and use of modern technologies to workers' lives and overall employability are key issues laid out in the European Skills Agenda. Focused on a target age group of 25 to 64, special attention has been given to developing reliable methodologies to assess employees' satisfaction through the use of questionnaires and interviews, as well as paying

[18] Unemployment Rates, OECD – Updated: November 2022
[19] A Picture of the Nation 2023, https://www.taubcenter.org.il/PictureoftheNation/2023Eng/PDF.pdf

attention to sampling accuracy to ensure inclusiveness and representativeness. The results were discussed in a wide forum of Israeli institutions and stakeholders who have agreed to use it as sound information to look at current and future skills needs demanded by the Israel labour market. For more information, see the ETF website where all the work will be published[20].

In the case of Israel, the analysis investigates the consequences of digitalisation affecting what workers do and whether and how education and skills development can enable individuals to benefit from, rather than be threatened by, technological change. The target population for this study was defined as all adults (aged 25-64 years) who are in paid employment (i.e. paid employees, excluding the self-employed and family workers). Data was collected between 30 November 2022 and 30 January 2023.

Israel's statistical profile provides basic data gathered through the European Skills and Jobs survey and covers selected information on the job-skill requirements, skills mismatches and the impact of recent technologies on jobs and skills as well as training among adult employees.

The preliminary findings reveal that most of the jobs in Israel require at least basic literacy and numeracy skills. Therefore, most workers are required to read and write basic texts and perform simple numerical calculations. Jobs in Israel also require social skills, such as teamwork, communication or critical thinking skills. The intensity of demand for these skills varies among diverse groups of respondents, pointing to those in skilled occupations or those with higher education qualifications as being more exposed to such tasks in their jobs than others.

Most adult Israeli workers use some form of digital technology/device and many partake in simple digital tasks, such as browsing the Web or using Word, Excel or similar software. However, digital tasks that require advanced knowledge in order to write programs or code using computer language or artificial intelligence is something only one in ten employees report being able to do, slightly exceeding the EU average. The use of computerised machinery is not prominent when compared to the situation in the EU – only a fraction of Israeli employees' report operating robots, 3D printers or CNC machines.

Nevertheless, the context in which Israeli workers perform their jobs is changing. Four in ten employees report that new digital technologies have been introduced to their workplaces, impacting not only the jobs of those with tertiary education, but also the jobs of skilled and manual workers. About one third of employees had to learn how to use a new computer program, software or work computerised machinery. This has led to changes in the tasks conducted by most of the respondents, pointing to new or different tasks being performed. The exposure to technology changes as well as digital upskilling is not uniform across respondents with differing education, occupation, or other demographic characteristics, suggesting that those with higher education qualifications or working in skilled occupation have a higher chance of experiencing technology enabled learning than others.

The majority of employees in Israel are not worried about the impact of digitalisation for their work. Yet, there is an expectation of changes to tasks, pointing to further needs for reskilling and up-skilling to adapt to these changes within a job rather than job displacement. The vast majority of Israeli workers use their skills and knowledge at work but about four in ten workers consider themselves to be overqualified. Such vertical skill mismatches are more pronounced among highly educated and skilled workers, which further accentuates negative labour market outcomes for such groups of workers.

Lastly, despite a high share of Israeli employees engaging in further education and training, there is still learning potential, especially when it comes to digital and social skills. While those with higher education and in skilled occupations seem to have better access to training, this is to a lesser extent true for those with lower levels of education and jobs requiring manual or intermediate skills, who are

[20] https://www.etf.europa.eu/en/news-and-events/news/etf-and-cedefop-partner-european-skills-and-jobs-survey-esjs; https://www.etf.europa.eu/en/news-and-events/events/changing-skills-needs-israel-recent-findings-and-policy-implications

more exposed to digital skills gaps that may have further impacts on their employability and career development[21].

The Israeli Central Bureau of Statistics conducts collates statistics on the State and its population in the fields of health, wellbeing, education, economy, etc., and about physical, geographic, and ecological indices. It cooperates with State offices and other bodies to run statistical campaigns and publish the results. It is an independent institution and professional body that is liable for the results of its work. It uses scientific methods based on international professional standards and is meticulous in maintaining the reliability of the data. The CBS is one of the statistical bureaus that has adopted the strict regulations of the International Monetary Fund for the dissemination of statistical data.

3.2 Employment policy and institutional settings

Strategy and legal framework in employment policy

Israel's Ministry of Labour, Social Affairs and Social Services is the department of the Israeli government responsible for ensuring the welfare of the public. It oversees social services and matters related to employment[22]. This ministry is divided into labour and welfare departments, including a vocational training agency. The Ministry of Economy supervises the Israeli Public Employment Services (IES), which works in tandem with the Israeli National Insurance Institution (BTL). BTL is chiefly involved with benefit recipients, including a division dedicated to employment for people with disabilities. There is a notable separation in addressing the needs of unemployment and income support beneficiaries versus non-beneficiary populations like NEET, which fall under the Ministry of Welfare and Social Services. Youth initiatives are driven by the Institute for Technological Education under the Welfare and Social Affairs Ministry, alongside the Ministry of Education.

1. Israeli Public Employment Services (IES): covers a large number of job seekers with various schemes.
2. Labour Branch of the Ministry of Welfare and Social Affairs:
    a. Local centres for Arab populations, the Ultra-Orthodox, and people with disabilities (separate centres).
    b. VET Agency
    c. The Institute for Technological Education
3. Welfare Branch of the Ministry of Welfare and Social Affairs.

There is another structure, i.e., the Treasury Ministry, which sets up and runs initiatives to fund careers guidance. Other ministries, like the Absorption and Immigration Ministry, the Ministry for Social Equality and Pensions, and even the Prime Minister's Office, contribute too. Moreover, charities are crucial in labour market activities, often working closely with government agencies.

The issue of low-skilled workers (one of the reasons why Israel has a low productivity rate compared with other OECD countries) has become even more critical as a result of the crisis. The effect, in the medium term, of the crisis being that these workers are at risk of being pushed out of the labour force completely. To avoid this, the Israeli employment services have established measures to train the low-skilled, mainly through online courses designed in cooperation with businesses. Several measures have also been put in place to provide financial assistance to the categories most affected by the crisis. It would be interesting to hear more on the measures. It would seem there is a lack of the skills needed for them to get high-productivity and well-paid jobs. The government's impressive technological capacity is not promoted and used fully for all/by all. Efforts need to be stepped up to help low skilled workers to move to higher productivity, high-tech jobs, which are win-win opportunities to tackle the twin challenges of low productivity and widespread poverty. Relatively few Israelis

[21] ETF, European Skills and Jobs Survey- Statistical profile Israel, https://www.etf.europa.eu/en/news-and-events/events/changing-skills-needs-israel-recent-findings-and-policy-implications
[22] https://www.esn-eu.org/members/ministry-labour-social-affairs-and-social-services

interact with the public authorities online. Providing public services digitally could raise public-sector productivity and boost private sector take up of digital technologies.

Israel lacks a “universal” active labour market policy and specifically active labour market programmes (ALMPs) targeting young people. Various financial and non-financial measures were put in place to offset the negative effects of the Covid-19 crisis on employment. However, their impact is not yet clear. There are discussions on the issues that might need to be addressed in the medium term. Some oppose the current policies, taking the view that the country needs to radically reconsider and reinforce its welfare system, as the pre-crisis challenges are now even greater and the proportion of the population living in poverty has increased.

The Public Employment Service (PES) plays an active role in getting welfare recipients into employment. The Israeli Employment Service is a statutory corporation established pursuant to the Employment Service Law of 1959. This law was introduced after the State of Israel joined the International Labour Treaty, compelling member states to establish state employment services, including free placement services for workers and employers alike. The Employment Service is under the supervision of the Ministry of Economy and Industry. The key role of the Israeli PES is to provide services linking jobseekers with employers that are looking to hire workers (Employment Service Law of 1959, Article 2). The PES also provides guidance and counselling for unemployed jobseekers (OECD, 2014), including assistance in writing CVs, preparing for job interviews and advice on job placements and vocational training (PES website). The PES cooperates with other bodies on vocational training and vocational guidance, in particular the Ministry of Economy and Industry.

Most ALMPs are developed and implemented outside the government ministries, with TEVET-One-Stop Employment Centres (Al-Fanar) and private contractors playing a significant role in designing and implementing new ALMPs. According to the OECD, public spending on ALMPs in Israel is particularly low compared to international standards. TEVET currently oversees the running of a NIS 200 million three-way partnership between JDC-Israel, the Israeli government (Ministry of Economy and the Prime Minister’s Office) and the Yad Hanadiv Rothschild Foundation to establish One-Stop Employment Centres in 21 Arab communities throughout the country. The budget for setting up these centres came through several government resolutions since the government sees this as a major tool to enhance employment in Arab society. The programme targets Arab “women and men, ages 18 to 60, who have either been chronically outside the workforce, employed at the lowest levels, or employed beneath their true capacity” with “a strategic emphasis on women’s employment.” The programme establishes a new organisation called Al-Fanar (“lighthouse” in Arabic) to function as an implementing subcontractor, thus ensuring Arab leadership and participation.

The Employment Centre’s programme upgrades and upscales JDC-TEVET’s employment centre model, based on centres already operating in Arab areas such as Tamra, Sakhnin, Hura and Segev Shalom. The centres will provide services in the three following areas: (i) Guidance, support and training for individuals seeking to enter employment; (ii) Outreach and partnerships with employers from the business sector and other employment opportunity venues to work in parallel on the “demand” side and (iii) Community outreach work within Arab society. The One-Stop Centres aim to provide a comprehensive approach, becoming hubs that accompany people throughout their careers, from pre-employment through to higher and professional education and job placement or during periods of unemployment and retraining, if necessary.

Initiatives to boost employment

Israel’s labour market has performed well in recent years and unemployment rates have been low. Israel’s compulsory education, strict restrictions on the employment of teenagers and compulsory military service mean that most Israeli young people are in education, training, employment or military service. The number of young Israeli ‘NEETs’ is therefore low.

The Israeli government has taken several steps towards getting the unemployed into work over the last few years. These have included major restrictions on eligibility for income support and unemployment benefits as well as several active labour market policies. Israel’s ALMPs focus on specific targeted groups known to have low participation rates in the labour market.

Beside leading government players in the labour market and social security sector, there are other sub-departments within the Ministry of Economy and Industry, including Israel's social partners – the Histadrut Federation of Trade Unions, the employers' union Histadrut, the National Insurance Institute (NII) of Israel (responsible for providing unemployment benefits and income support) and the Ministry of Finance (with schemes such as the negative income tax programme). Over the past few decades, Histadrut, Israel's major trade union, has lost control over healthcare and pension plans, but it still sits alongside the government and the Histadrut Hatasianim on the tri-pillar roundtable responsible for drawing up employment and economic policies. Non-governmental organisations (NGOs) representing specific groups of employees play a more significant role than in the past. These include entities such as the Israel Women's Network (representing women employees), the Kav LaOved – Worker's Hotline (representing disadvantaged workers including foreign workers) and Waak-Maan (an employees' union representing Arab workers).

Another policy avenue announced is tax reforms to further strengthen in-work benefits, cut inefficient tax expenditure, reduce distortions created by the business and property tax system and better align taxes with environmental added costs. These reforms will make the recovery more inclusive and sustainable, while generating additional revenue.

Evaluation studies point to success in several programmes, but the active labour market policy still faces some challenges. Although Israel has sharply cut income support and unemployment benefits, passive – as opposed to active – labour market policies are currently being relied upon as the main tool to protect individuals from social exclusion. There is a need for diversified active labour market policies aiming to form a "bridge" and save individuals from social exclusion. COVID-19 also impacted the labour market in Israel, although the impact was short-lived and not distributed equally across the population.

As mentioned above, the Israeli Knesset passed Israel's first budget in over 3 years on 4 November 2021. The approved state budget is a reorientation of Israel's allocation of resources and financial priorities.

Initiatives to increase the capacity of the public employment services

The employment crisis caused by the outbreak of the COVID-19 pandemic in March 2020 emphasised the importance of investing in human capital, in the unemployed, and in future workers (today's children and youth), to increase their employment capabilities in a constantly changing reality and to reinforce the high-tech sector. This is especially true for low-skilled and economically disadvantaged population-groups.

In Israel, the State Controller and Ombudsman lead the auditing of the Workforce in Israel 2030 project (within the EUROSAI SG1 project ([23]). According to a number of assessments in Israel, the COVID-19 crisis accelerated some labour market trends that will continue. While the economic crisis resulting from the COVID-19 pandemic affected workers in all wage brackets, the impact was especially severe for low-waged and low-skilled workers.

There is a growing concern that without relevant training and learning, the low-skilled unemployed will find it difficult to re-enter the labour market. This concern underpins the importance of widening the opportunities for adult learning and for vocational and technological training at this time, both for low-skilled workers and for those who were laid off from sectors that will take time to recover.

([23]) EUROSAI (European Organisation of Supreme Audit Institutions) is one of the seven regional organisations of INTOSAI. It brings together 50 supreme audit institutions (SAIs) of European countries and the European Court of Auditors. The aim of the organisation is to promote professional cooperation among EUROSAI members, to develop a common professional audit terminology, to organise training courses and seminars, to promote the exchange of information as well as to maintain relations with national and international audit institutions. In 2020, EUROSAI celebrated its 30th anniversary and the Supreme Audit Office hosted the XI EUROSAI Online Congress in April 2021, marking the start of its three-year presidency of the organisation (until May 2024). For more information on the SAO's presidency of EUROSAI, visit the following link: https://www.eurosai2021.cz. Report is available at the EUROSAI General Procedures for the ESP 2017-2024.

According to the Israel Report[24], investment in acquiring skills in the various training and learning environments may improve chances for a stable and quality integration into the changing labour market. A large percentage of those jobs estimated to be at a high risk for transformation are in sectors that employ non-academic and low-skilled workers. These workers may become unemployed, as many of the jobs that require only basic skills may disappear. To enable hundreds of thousands to integrate into, and remain part of, the workforce, there is a rising need to adapt the skills and knowledge of those entering the workforce – as well as of those already working – to the needs of the changing labour market.

The need is particularly acute for low-skilled workers. Updating skills is necessary considering the increasing demand for skilled workers, even in non-academic professions, and as Israel holds a high percentage (in international comparison) of adults with low basic skills, particularly among the Jewish ultra-Orthodox and Arab populations, and among other people of low socioeconomic status. Due to market failures, they might find it difficult to upgrade their skills without assistance. Adapting people's skills, which will improve their employability as workers, is achieved through "lifelong learning" – various learning and training activities performed while in employment, including vocational and technological training (for reskilling) and adult learning (for upskilling).

The Ministry of Economy and Industry (Labour Branch) has put a programme in place to reskill and upskill the unemployed and those not in receipt of any income. Unlike in the past, training is now taking place much more within industry, with the involvement of employers, and is much more related to employment needs. Israel is also prioritising active labour market policies to improve social inclusion. To this end, a network of Employment Orientation Centres has been created in the Arab and Haredi communities. However, ALMPs are underdeveloped, and the resources invested are below the OECD average. The Israeli PES has a limited budget and the main group it serves is those seeking unemployment benefits.

Israel's policy in recent years has been to establish public-funded private employment centres for targeted groups of employees, including Arabs and ultra-Orthodox Jews. Due to all the measures undertaken by the government in the last two years, there has been an increase in employment placements (alongside a drop in vocational training due to the lockdowns), and this increase may be expected to continue throughout 2023.

For further information, please contact Lida Kita, Senior Human Capital Development Expert – Social Inclusion – Country Liaison for Israel, Serbia and Turkey, European Training Foundation, email: Lida.Kita@etf.europa.eu.

([24]) Israel Report, 2021-WORKFORCE-2030.pdf (mevaker.gov.il)

Israel: Statistical Annex

This Annex includes annual data from 2010, 2015, 2019, 2020, 2021 and 2022 or the last available year.

	Indicator		2010	2015	2019	2020	2021	2022
1	Total Population (in thousands) (1)		7623.6	8380.1	9054.0	9215.1	9364.7	9550.6
2	Relative size of youth population (age group 15-24 and denominator age 15-64, %) (1) C		24.8	24.5	25.0	25.1	25.2	25.2
3	GDP growth rate (%)		5.7	2.5	4.2	-1.9	8.6	6.5
4	Gross value added by sector (%)	Agriculture	1.8	1.4	1.3	1.3	1.3	M.D.
		Industry	20.7	19.8	18.6	18.1	17.2	M.D.
		Services	66.8	68.5	70.9	71.8	72.4	M.D.
5	Public expenditure on education (as % of GDP)		5.5	5.9	6.1	7.1	M.D.	M.D.
6	Public expenditure on education (as % of total public expenditure)		13.7	15.5	15.7	15.6	M.D.	M.D.
7	Adult Literacy (%) C		M.D.	M.D.	M.D.	M.D.	M.D.	M.D.
8	Educational attainment of total population (aged 15+) (%)	Low(2)	22.4	23.0	21.4	20.6	20.5	20.4
		Medium(3)	34.3	38.7	38.8	39.7	40.4	39.8
		High(4)	43.3	38.2	39.7	39.7	39.1	39.8
9	Early leavers from education and training (aged 18-24) (%)	Total	8.3	7.6	6.1	5.6	5.1	5.3
		Male	10.9	10.2	8.4	7.2	6.8	6.9
		Female	5.6	4.8	3.7	4.0	3.4	3.7
10	Net enrolment rates in secondary education (ISCED level 2-3) (%)		98.5 6	99.0	98.6	98.8	M.D.	M.D.
11	Share of VET students in upper secondary education (ISCED level 3) (%)		38.2	40.7	40.6	40.7	M.D.	M.D.
12	Low achievement in reading, mathematics and science – PISA (%)	Reading	23.6 6	26.6	31.1 5	M.D.	M.D.	M.D.
		Mathematics	33.5 6	32.1	34.1 5	M.D.	M.D.	M.D.
		Science	28.9 6	31.4	33.1 5	M.D.	M.D.	M.D.
13	Activity rate (aged 15+) (%)	Total	57.3	64.1	63.5	61.8	61.8	63.3
		Male	62.2	69.3	67.6	65.5	65.1	66.6
		Female	52.8	59.1	59.6	58.2	58.6	60.1
14	Inactivity rate (aged 15+) (%)	Total	42.7	35.9	36.5	38.2	38.2	36.7

		Male	37.8	30.7	32.4	34.5	34.9	33.4
		Female	47.3	40.9	40.4	41.8	41.4	39.9
15	Employment rate (aged 15+) (%)	Total	53.5	60.7	61.1	59.1	58.7	60.9
		Male	58.0	65.7	65.1	62.6	61.8	64.0
		Female	49.3	55.9	57.2	55.8	55.7	57.9
16	Employment rate by educational attainment (aged 15+) (%)	Low(2)	24.8	26.7	26.6	24.0	23.8	25.8
		Medium(3)	54.6	65.4	64.5	61.4	60.8	63.2
		High(4)	73.7	76.5	76.5	75.1	74.9	76.7
17	Employment by sector (%) 7	Agriculture	1.6	1.0	1.0	0.9	0.8 c	0.8 c
		Industry	20.2	17.7	16.5	15.9	16.5 c	16.1 c
		Services	78.1	81.2	82.5	83.1	82.6 c	83.0 c
18	Incidence of self-employment (%)		12.8	12.6	12.3	12.4	12.4 c	12.8
19	Incidence of vulnerable employment (%)		8.6	8.7	9.1	9.3	9.4	9.1
20	Unemployment rate (aged 15+) (%)	Total	6.6	5.3	3.8	4.3	5.0	3.8
		Male	6.8	5.1	3.7	4.5	5.0	3.9
		Female	6.5	5.4	3.9	4.1	4.9	3.6
21	Unemployment rate by educational attainment (aged 15+) (%) 9	Low(2)	11.6	9.2	5.8	6.5	6.8	6.3
		Medium(3)	8.0	5.9	4.4	5.2	6.0	4.7
		High(4)	4.4	3.8	2.9	3.2	3.8	2.5
22	Unemployment rate (aged 15-24) (%)	Total	13.7	9.3	6.7	7.9	7.8	6.9
		Male	14.5	8.9	6.1	7.6	7.5	7.2
		Female	12.9	9.7	7.2	8.2	8.0	6.6
23	Proportion of people aged 15-24 not in employment, education or training (NEETs) (%)	Total	30.4	15.5	15.5	17.3	M.D.	M.D.
		Male	32.7	14.3	15.4	17.4	M.D.	M.D.
		Female	28.0	16.7	15.6	17.1	M.D.	M.D.
24	Participation in training/lifelong learning (% aged 25-64)8	Total	8.2	10.0	9.2	8.6	8.3	8.1
		Male	8.9	11.6	11.4	10.9	10.4	10.2
		Female	7.5	8.4	7.1	6.5	6.1	6.2
25	Human Development Index		0.894	0.909	0.921	0.917	0.919	M.D.

Last update: 12/09/2023

Sources:
Indicators 1, 2, 3, 4, 5, 6, 7: The World Bank, World Development Indicators database
Indicators 7, 10, 11: UNESCO, Institute for Statistics
Indicators 8, 9 (2015-2022), 13 (2010-2020, 2022), 14 (2010-2020, 2022), 15 (2010-2020, 2022), 16, 17, 18 (2010-2020, 2022), 20 (2010-2020, 2022), 21, 22 (2010-2020, 2022), 23, 24: Israeli Central Bureau of Statistics (CBS) – LFS
Indicator 9 (2010): Economic Research Forum, Egyptian Labour Market Panel Survey
Indicator 12 – OECD PISA 2018 Results (Volume I) Annex B1
Indicators 13 (2021), 14 (2021), 15 (2021), 18 (2021), 20 (2021), 22 (2021): OECDStat
Indicator 19: ILOSTAT
Indicator 25: UND

Notes:
(1) Estimation.
(2) Low: No education, ISCED levels 0-2
(3) Medium: ISCED levels 3-4
(4) High: ISCED levels 5-8
(5) applies to 2018
(6) applies to 2012
(7) Agriculture – Sector A; Industry and Construction: Sectors B-F; Services: Sectors G-S. Total sum excluding Sector T (Households as employers).
(8) Percentage of individuals studying today
(9) As of 2012, data by industry are according to Standard Industrial Classification of All Economic Activities 2011. 2015-2022 ETF calculations.

Legend:
C= ETF calculations
N.A. = Not Applicable
M.D. = Missing Data

Annex: Definitions of Indicators

	Description	Definition
1	Total population (in thousands)	The total population is estimated as the number of people having normally resident 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 (or 15-74 or 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	Gross value added 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. Industry corresponds to the International Standard Industrial Classification (ISIC) tabulation categories C-F (revision 3) or tabulation categories B-F (revision 4) and includes mining and quarrying (including oil production), manufacturing, construction, and public utilities (electricity, gas, and water). Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Also included are imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling.
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 the population aged 15 years and over who can both read and write a short simple statement on his/her everyday life and understand it. Generally, “literacy” also encompasses “numeracy” – the ability to make simple arithmetic calculations.

	Description	Definition
8	Educational attainment of total population (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 in terms of the highest educational programme successfully completed, which is typically certified by a recognised qualification. Recognised intermediate qualifications are classified at a lower level than the programme itself.
9	Early leavers from education and training (aged 18-24) (%) (3)	Early leavers from education and training are 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 lasting under two years) for data up to 2013 and to ISCED 2011 levels 0-2 for data from 2014 onwards.
10	Net enrolment rates in secondary education (ISCED level 2-3) (%)	This indicator covers the enrolments in a in a given level of education of children/youths belonging to the official age group corresponding to the given 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), expressed as a percentage of the total number of students enrolled in all programmes (vocational and general) at that level.
12	Low achievement in reading, maths and science – PISA (%)	Low achievers are the 15-year-olds who are failing to reach level 2 on the PISA scale for reading, mathematics and science.
13	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 people. The inactive population consists of all people who are classified as neither employed nor unemployed.
14	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 people who are classified as neither employed nor unemployed.
15	Employment rate (aged 15+) (%)	The employment rate is calculated by dividing the number of employed people by the population of the same age group. Employed people are all people 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.
16	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 considered: Low (ISCED level 0-2), Medium (ISCED level 3-4) and High (ISCED 1997 level 5-6, and ISCED 2011 level 5-8).
17	Employment by sector (%)	This indicator provides information on the relative importance of different economic activities with regard to employment. Data are presented by broad branches of economic activity (i.e., Agriculture/Industry/Services) based on the International Standard Industrial Classification of All Economic Activities (ISIC). In Europe, the NACE classification is consistent with ISIC.
18	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.
19	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.

	Description	Definition
20	Unemployment rate (aged 15+) (%)	The unemployment rate represents unemployed people as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed people 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).
21	Unemployment rate by educational attainment (aged 15+) (%)	The unemployment rate represents unemployed people as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed people 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 considered: low (ISCED level 0-2), medium (ISCED level 3-4) and high (ISCED 1997 level 5-6, and ISCED 2011 level 5-8).
22	Unemployment rate (aged 15-24) (%)	The unemployment rate represents unemployed people as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed people comprise those aged 15-24 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	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 are 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.
24	Participation in training/lifelong learning (% aged 25-64)	Participants in 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 is 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.
25	Human Development Index	The index is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living.

KEY DONOR PROJECTS IN EDUCATION, TRAINING AND EMPLOYMENT

As reflected on the EU Delegation to Israel website, the European Union (EU) and Israel have a long history of successful scientific and technological cooperation. The Association Agreement signed in Brussels on 20 November 1995, which entered into force in June 2000, provides the legal framework for EU-Israel relations. It establishes the framework for regular dialogue on scientific, technological, cultural, audio-visual, and social matters. Israel is also part of the European Neighbourhood Policy (ENP) and is under the European Neighbourhood Policy Action Plan. There are ten sub-committees, including on research, innovation, information society, education, and culture. This successful cooperation has led to more than 5 000 joint research projects. Israel also has several agreements with the European Commission's Joint Research Centre. The EU and Israel have worked together to continue and further research cooperation, with a focus on mutual priorities such as the twin green and digital transitions, public health and ground-breaking innovations. On 6 December 2021, an official agreement for Israel's accession to the Horizon Europe programme was signed. As a result, local bodies have been able to participate in all parts of the European R&D programmes on equal terms to those in EU Member States[25].

Israel benefits from the European Neighbourhood Instrument (ENI), which provides most of the funding under the European Neighbourhood Policy. For the period 2014-2020, the sum of EUR 2 million per annum in ENI funding was released through twinning projects, one such project being to support the development of the National Qualification System. Israeli non-governmental bodies are eligible for support under a variety of programmes funded under ENI and other EU budgets.

Israel is also part of Erasmus+ the EU's programme to support education, training, young people and sport. The Erasmus+ Office in Israel works closely with EU Commission structures and the EU Delegation to raise awareness of the benefits of Erasmus programmes. The National Erasmus+ Office (NEO) gives huge support, particularly for VET, in expanding youth cooperation and ensuring the NEO covers this part of the programme. It also works to create greater synergy between Erasmus+ and Horizon Europe. Israel has many bilateral agreements with EU Member States for joint projects in different sectors, including education and training for employment and inclusion. There is major interest from stakeholders to get more involved in the different Erasmus programmes.

[25] https://www.eeas.europa.eu/delegations/israel_en?s=200

ABBREVIATIONS

ALMP	Active labour market programmes
BTL	Israeli National Insurance Institution
CBS	Central Bureau of Statistics
EAG	OECD Education at a Glance
EMIS	Educational Information Management System
ENI	European Neighbourhood Instrument
ESJS	European Skills and Jobs survey
ETF	European Training Foundation
EU	European Union
EUROSAI	European Organisation of Supreme Audit Institutions
GDP	Gross domestic product
HALE	Healthy Life Expectancy
ICT	Information Communication Technology
IES	Israeli Public Employment Services
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
JDC	Jerusalem College of Technology
JDC-TEVET	One-Stop Employment Centres (Al-Fanar)
MEI	Ministry of Economy and Industry
MoE	Ministry of Education
MOOCs	Massive Open Online Courses
NEET	Not in Employment, Education or Training
NEO	National Erasmus+ Office
NII	National Insurance Institute
NIS	Israeli new shekel
NITET	National Institute of Technological Education and Training

NQF	National Qualification Framework
OECD	Organization for Economic Cooperation and Development
PES	Public Employment Service
PhDs	Doctor of Philosophy
PISA	Programme for International Student Assessment
RPL	Recognition of Prior Learning
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
USD	US dollars
VET	Vocational Education and Training

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