

Factbook Education System: Jordan

CES Chair of Education Systems

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List of Abbreviations

ATC	Amman Training Centre
BAU	Al Balqa' Applied University
CLC	Community Learning Centre
CSB	Civil Service Bureau
DOS	Department of Statistics
ECED	Early Childhood Education and Development
ETF	European Training Foundation
ERfKE	Education Reform for the Knowledge Economy
EU	European Union
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GFJTU	General Federation of Jordanian Trade Unions
GII	Global Innovation Index
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPI	Gender Parity Index
GSC	General Secondary Certificate
HEAC	Higher Education Accreditation Commission
HEI	Higher Education Institution
IAF	Islamic Action Front
ICT	Information and Communication Technology
ILO	International Labour Organization
ISCED	International Standard Classification of Education
JAF	Jordanian Armed Forces
JCC	Chamber of Commerce
JCI	Chamber of Industry
JEI	Jordanian Education Initiative
KG	Kindergarten

KOF	Swiss Economic Institute
MAGNET	Regional Office for Arab States Migration and Governance Network
MOE	Ministry of Education
MOHESR	Ministry of Higher Education and Scientific Research
MOL	Ministry of Labour
MSCOE	Model Skill Centres of Excellence
NCHRD	National Centre for Human Resources Development
NER	Net Enrolment Rate
NET	National Employment and Training Company
NSHRD	National Strategy for Human Resource Development
OECD	Organisation for Economic Co-operation and Development
PET	Professional Education and Training
PPP	Public-private Partnership
SSC	Sector Skills Councils
SDC	Skills Development Corporation
TVSDC	Technical and Vocational Skills Development Commission
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
VET	Vocational Education and Training
VPET	Vocational Professional Education and Training
VPETA	Vocational and Professional Education and Training Act
VTC	Vocational Training Centre
WEF	World Economic Forum
WSTC	Wadi Seer Training Centre
YLMI	Youth Labour Market Index

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Foreword

The increasing competitiveness of the world economy as well as the high youth unemployment rates after the worldwide economic crises in 2008/9 have put pressure on countries to upgrade the skills of their workforces. Consequently, vocational education and training (VET) has received growing attention in recent years, especially amongst policy-makers. For example, the European Commission defined common objectives and an action plan for the development of VET systems in European countries in the Bruges Communiqué on Enhanced European Cooperation in Vocational Education and Training for 2011-2020 (European Commission, 2010). In addition, a growing number of US states and other industrialized, transition, and developing countries (for example Hong Kong, Singapore, Chile, Costa Rica, Benin and Nepal) are interested in either implementing VET systems or making their VET system more labour-market oriented.

The appealing outcome of the VET system is that it improves the transition of young people into the labour market by simultaneously providing work experience, remuneration and formal education degrees at the secondary education level. If the VET system is optimally designed, VET providers are in constant dialogue with the demand-side of the labour market, i.e. the companies. This close relationship guarantees that the learned skills are in demand on the labour market. Besides practical skills, VET systems also foster soft-skills such as emotional intelligence, reliability, accuracy, precision, and responsibility, which are important attributes for success in the labour market. Depending on the design and permeability of the education system, VET may also provide access to tertiary level education (according to the ISCED classification): either general education at the tertiary A level or professional education and training (PET) at the tertiary B level. PET provides occupation-specific qualifications that prepare students for highly technical and managerial positions. VET and PET systems are often referred to together as “vocational and professional education training (VPET)” systems.

Few countries have elaborate and efficient VPET systems. Among these is the Swiss VPET system, which is an example of an education system that successfully matches market supply and demand. The Swiss VPET system efficiently introduces adolescents to the labour market, as shown by Switzerland’s 2007-2017 average youth unemployment rate of 8.1 percent compared to 14.8 percent for the OECD average (OECD, 2017).

Though not many countries have VPET systems that are comparable to Switzerland’s in terms of quality, efficiency and permeability, many have education pathways that involve some kind of practical or school-based vocational education. The purpose of the CES Education System Factbook Series¹ is to provide information about the education systems of countries across the world, with a special focus on vocational and professional education and training.

In the CES Factbook Education Systems: Jordan, we describe Jordan’s vocational system and discuss the characteristics that are crucial to the functioning of the system. Essential components comprise the regulatory framework and the governance of the VPET system, the involved actors, and their competencies and duties. The Factbook also provides information regarding the financing of the system and describes the process of curriculum development and the involved actors.

The Factbook is structured as follows: First, we provide an overview of Jordan’s economy, labour market, and political system. The second part is dedicated to the description of the formal education system.

¹ From 2013 to 2019, the Factbooks were produced within the framework of the Education Systems research division at the KOF Swiss Economic Institute. From 2020 they will be produced by the Chair of Education Systems (CES) group.

The third section explains Jordan's vocational education system. The last section offers a perspective on Jordan's recent education reforms and challenges to be faced in the future.

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The Education System Factbooks have to be regarded as work in progress. The authors do not claim completeness of the information which has been collected carefully and in all conscience. Any suggestions for improvement are highly welcome!

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1 Jordan's Economy and Political System

Table 1. Key Statistics and Information on Jordan

Category	Outcome
Population	10,437,000
Area	88,794 km ²
Location	Middle East
Capital City	Amman
Government	Constitutional, Hereditary monarchy with bicameral legislature
Official Language	Arabic
National Currency	Jordanian Dinar (JD)

Source: own table based on (Abu Jaber et al., 2020).

One of the main purposes of an education system is to provide the future workforce with the skills needed in the labour market. The particularities of a country's economy and labour market are important factors determining the current and future demand for skills. Therefore, these are briefly described in the first part of this Factbook. In addition, this part provides an overview of Jordan's political system with an emphasis on the description of the education politics.

1.1 Jordan's Economy

Jordan is a constitutional monarchy in the Southwest of Asia located on the East Bank of the Jordan River. It is bordered by Iraq, Israel, Saudi Arabia, Syria and the West Bank (Abu Jaber et al., 2020). Despite the difficult geo-strategic location, Jordan's political circumstances have remained relatively stable in comparison with its neighbours. Nevertheless, it has rising internal challenges due to the influx of numerous refugees and other non-citizens. As a result, Jordan has one of the largest concentrations of foreigners in the world, with nearly a third of the population (Kumaraswamy, 2019, p. 2).

In the last decade, Jordan has initiated strong efforts in pursuing economic, political, and social reforms. However, following the outbreak of the Syrian civil war in 2011, many of these reforms came to a halt (Swiss International Cooperation in Jordan, 2019). The conflict between Assad's forces and the rebel opposition had spillover effects on Jordan. In general, the country served as a gateway to providing the resistance with resources. As a result, transit goods such as weapons, money, and fighters contributed to further instability within the Jordanian borders. At the same time, Jordan's infrastructure and resources supply struggled with the vast amount of migrants and refugees entering due to the Syrian conflict (Young et al., 2014).

From an economic point of view, Jordan can be described as a semi-rentier state, because of its limited supply of natural resources. The country's main exported goods are potash and phosphate. Additionally, it ranks as the fourth poorest country worldwide in terms of water supplies. As a result, the Jordanian economy is heavily dependent on trade, remittances, foreign direct investments (FDI) and financial assistance, which make up a significant share of Jordan's domestic budget (European Union, 2017). For instance, in 2011 Jordan received financial support of US\$5 billion from Kuwait, Qatar, Saudi Arabia and the United Arab Emirates (Kumaraswamy, 2019, p. 13). Furthermore, in 2019 the European Commission decided to grant Jordan US\$770 million to foster development in the country due to the consequences of the Syrian crisis (European Commission, 2019).

Jordan is an upper middle-income country with a gross domestic product (GDP) per capita of US\$4,330 in 2019, which is 47% lower than the average GDP per capita of US\$8,105 in the Middle East and North Africa in the same year. Despite the fact that Jordan's GDP per capita is below the regional average, one must bear in mind that the calculated figure also includes countries with extraordinarily high GDP per capita like Qatar, Kuwait or the United Arab Emirates. For a more accurate comparison of GDP per capita of Jordan, it is more appropriate to compare it to its neighbouring country Iraq, which has a slightly higher GDP per capita of US\$5,955 in 2019 (World Bank, 2020a).

From a long-term perspective, the development of the Jordanian economy shows a tendency to fluctuate. In 1990, Jordan had a GDP per capita of US\$1,667 with a negative GDP per capita growth rate of -3.74%. In 1992, the growth rate surged considerably to 12.19%. After this unprecedented peak, it has been declining rapidly and stabilised around one to three percent for eight years until 2003. In 2004 the GDP per capita growth rate stagnated at 5.72% and declined until 2010 with a growth rate of -2.88%. Since 2010 the GDP per capita growth rate of Jordan has increased moderately to 0.53% in 2019 (World Bank, 2020a).

Table 2 illustrates the share of value added and employment by sector as a percentage of the total in 2018/19 for Jordan and the EU-28 countries. It is evident that the tertiary sector in Jordan contributes slightly less to total value added than in the EU-28 countries, while both the primary and secondary sectors contribute a larger share to total value added than in comparison with the EU countries. The share of employment in public administration, defence, education, health and other service sectors is by far the largest, accounting for a high percentage of employment in the tertiary sector. Nevertheless, Jordan's share of employment in the primary and secondary sectors is rather small compared to the corresponding figures for value added. One reason for this is the high percentage of non-citizens and refugees working under informal work arrangements in primary and secondary sector occupations, such as agriculture and construction (Kumaraswamy, 2019, p. 12).

Table 2: Value Added and Employment by Sector, 2018-2019

Sector ²	Jordan: Value added (%)	EU-28: Value added (%)	Jordan: Employment (%)	EU-28: Employment (%)
Primary sector	5.9	1.6	3.8	4.1
Agriculture, hunting and forestry, fishing	5.9	1.6	3.8	4.1
Secondary sector	29.1	24.4	17.7	21.7
Manufacturing, mining and quarrying and other industrial activities	26	18.8	10.1	15.2
of which: Manufacturing	20	15.5	8.7	13.6
Construction	3.1	5.7	7.6	6.5
Tertiary sector	65	72.8	78.6	74.2
Wholesale and retail trade, repairs; hotels and restaurants; transport; information and communication	19.3	24.4	19.7	27.9
Financial intermediation; real estate, renting & business activities	n/a	27.5	13.2	16.7
Public administration, defence, education, health, and other service activities	n/a	22	45.7	29.6

Source: own table based on UNSD (2020), (Department of Statistics (DoS), 2020a) for Jordan; and (Eurostat, 2020a), (Eurostat, 2020b) for EU-28.

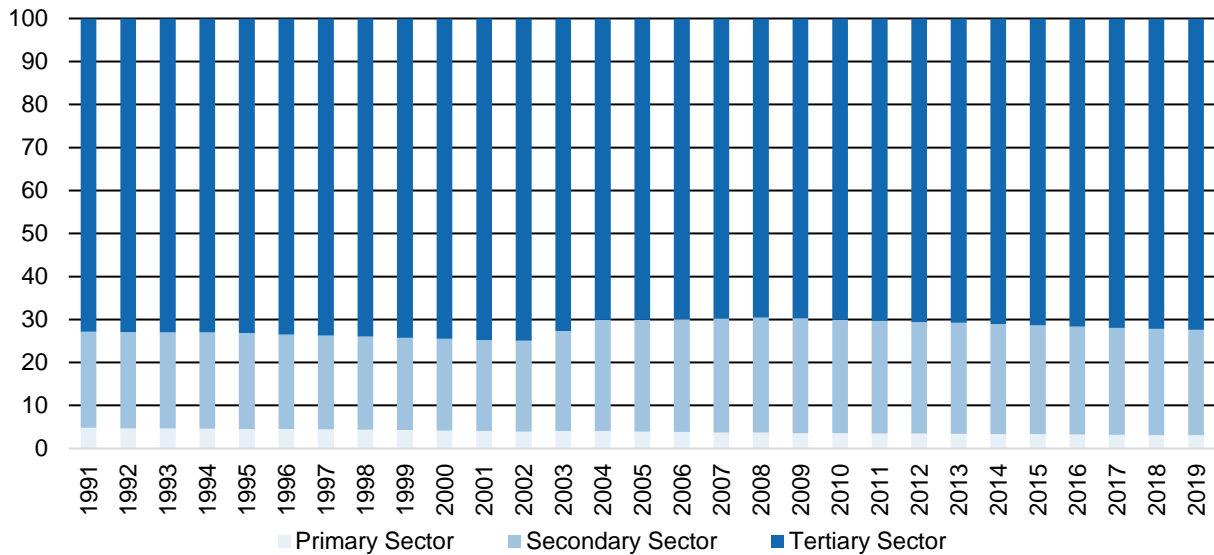
Figure 1 shows the evolution of employment by sector in Jordan for the period 1991-2019. It should be noted that the data for these calculations stem from the World Bank, while the data in Table 2 is provided by the Department of Statistics (DoS) in Jordan. The reason for this difference in sources is that the data from the DoS only extend back to the year 2007, whereas the World Data provides data from 1991. The relative distribution of employment between the three sectors remained relatively stable over the last 30 years. In contrast to most countries, Jordan has not seen a significant decline in the primary sector. Moreover, because the majority of Jordan's cultivated land consists of desert, it has always been difficult to develop flourishing agriculture due to water shortages. On the other hand, this may again indicate informal work arrangements in the primary and secondary sector (Swiss International Cooperation in Jordan, 2019).

In the WEF's Global Competitiveness Index 4.0, Jordan ranks 70th out of 141 countries with an overall score of 61 out of 100 in 2019. In comparison with its neighbouring countries, Jordan is ranked behind Israel (20th), and Saudi Arabia (36th), while Iraq and Syria are not included in the ranking. Jordan performed particularly well in the category *financial system*, where it was ranked 33rd (WEF, 2019, p. 310). However, the country's major challenges are in the area of macroeconomic stability, because of its high levels of public debt and inflation (WEF, 2019, p. 312).

In the Global Innovation Index, Jordan is ranked 81st of 131 countries with a total score of 27.9 out of 100 in 2019 (Dutta et al. 2020, p. 17). In the regional comparison, it ranks 10th out of 19 economies examined in Northern Africa and Western Asia. Jordan's ranking improved from 86 to from 2019 to 2020, mainly due to improved access to credits by the implementation of a new law on protected payments and higher transparency in credit information (Dutta et al. 2020, p. 32). Moreover, it has initiated a government-owned fund to boost start-up financing (Dutta et al. 2020, p. 127).

² Due to rounding differences, the sum of all sector falls below 100 percent.

Figure 1: Employment by Sector (as % of Total Employment), 1991-2020



Source: own figure based on World Bank (2020a).

1.2 The Labour Market

In the first part of this section, we will describe the general situation of Jordan's labour market. In the second part, we will refer to the youth labour market in particular.

1.2.1 Overview of the Jordanian Labour Market

One of the greatest challenges in the Jordanian labour market is the growing, young population, which can be divided into three potential employee groups: Jordanians, migrants, and Syrian refugees. According to a study from the International Labour Organization (ILO), (Razzaz, 2017, pp. 7-12), Jordanians are willing to work in any industry, provided that decent working conditions prevail. However, the study also revealed that migrants and Syrian refugees often work under harsh conditions, including long periods of unpaid overtime. For this reason, it is even more burdensome for Jordanians to be competitive in the labour market. Not only the demographic challenges, but also the volatile political environment in neighbouring countries make long-term labour market forecasting difficult. (Regional Office for Arab States Migration and Governance Network (MAGNET), 2015, p. 4).

According to local think tanks, these circumstances highlight the need for the economy to develop more employment opportunities with decent working conditions in order to reduce the current unemployment rates in Jordan, as can be seen in the following table (Jordan Strategy Forum, 2018, p. 4). Table 3 provides an outline of the Jordanian labour force participation and unemployment rate by age in 2019. It illustrates that Jordan's youth, between the ages of 15 to 24, suffers from a higher unemployment rate (35%) compared to the overall population (14.6%). Moreover, it can be observed that the OECD average unemployment rate in the same age cohort is three times lower (11.7%). The lower percentage in the labour force participation rate in Jordan, compared to the OECD average, may be attributable to the younger population. According to a discussion paper from the MAGNET (2015, p. 4), residents aged between 0-14 accounted for 35% of the population in 2015.

Table 3: LFP and Unemployment Rate by Age 2019

Age Group	Labour force participation rate (%)		Unemployment rate (%)	
	Jordan	OECD average	Jordan	OECD average
Total (15-64 years)	41.5	72.8	14.6	5.6
Youth (15-24 years)	25.7	48.1	35	11.7
Adults (25-64 years)	n/a	78.4	n/a	4.7

Source: own table based on OECD (2020), and World Bank (2020b).

As of 2018, Jordan has a monthly minimum wage of JD220, equivalent to approximately US\$310 (Jordan Strategy Forum, 2018). The ratio of the minimum wage relative to the average wage of a full-time worker is 40.4%, close to the mean of OECD countries. The government is planning to increase the minimum wage to JD260 effective January 2021 (Jordan Strategy Forum, 2020, p. 2). However, a large fraction of the foreign labour force is not affected by wage policy. In other words, the minimum wage of Jordanians is rising steadily, whereas the minimum wage of non-Jordanians stagnates. This implies that the cost of hiring a Jordanian is more expensive, resulting in an increasing number of non-citizens being employed (Razzaz, 2017, pp. 33-36). Consequently, the unemployment rate of Jordanians is rising, as can be seen in the following Table 3.

Nonetheless, non-Jordanians do have the right to unionise, due to an amendment in the labour law. The law obliges employers to protect employees from occupational hazards and diseases at the workplace and to educate workers about risks and protection techniques. Domestic and agricultural workers are exceptions to these legal obligations. Domestic workers are subject to a specific domestic law, whereas there is no regulation for agriculture workers so far. Furthermore, there are specific policies for women who are prohibited from working in certain industries or at certain times. (Razzaz, 2017, pp. 33-35).

Table 4: LFP and Unemployment Rate by Educational Attainment, 2019

Education Level	Labour force participation		Unemployment rate	
	Jordan ³	OECD ⁴ Average	Jordan	OECD Average
Less than upper secondary education	29.1	59.0	17.4	9.3
Upper secondary level education	25.4	76.6	13.1	5.4
Tertiary education	61.5	85.6	24.5	3.8

Source: own table based on OECD (2020); own calculation based on (Department of Statistics (DoS), 2020a).

Table 4 lists the labour force participation and unemployment rates for Jordan and the OECD by educational level. In general, Jordan has a significantly lower labour force participation rate compared to the OECD average. This implies that the proportion of Jordan's working-age population is significantly larger than the number of people who are formally employed or in search of employment. In this context,

³ Jordan: persons aged 15+

⁴ OECD: persons aged 25-64

it should be noted that the working age used to compute the figures is different for Jordan (15 years and older) and the OECD (25-64 years), meaning out-of-work youth and retirees could skew the Jordanian figures. In terms of unemployment, Jordan has higher rates at all stages of education when compared to OECD countries. This is especially notable in the tertiary education sector with an unemployment rate of 24.5%, whereas the OECD average is 3.8%.

1.2.2 The Youth Labour Market

The KOF Swiss Economic Institute developed the KOF Youth Labour Market Index (KOF YLMI) to comp

are the youth labour market situation across countries (Renold et al., 2014). The foundation for this index is the critique that a single indicator, such as the widely used youth unemployment rate, does not suffice to describe the youth labour market situation adequately nor provide enough information for a comprehensive cross-country analysis. To increase the amount of information considered and to foster a multi-dimensional view, the KOF YLMI consider twelve indicators that are grouped into four dimensions (see the information box to the right).

The first dimension is the **Activity State**. It contains three indicators, and captures to what extent the youth are active. Youth refers to all individuals aged 15-24. The indicators Unemployment Rate, Relaxed Unemployment Rate, and NEET Rate, The **Working Conditions** dimension consists of five indicators that capture the quality of employment. Those are the Temporary Worker Rate, the Involuntary Part-time Worker Rate, the Atypical Working Hours Rate, the In-work At-risk-of-Poverty Rate and the Vulnerable Employment Rate. **Education**, the third dimension, aims to capture the quantity and quality of education and training via two indicators: the Formal Education and Training Rate and Skills Mismatch Rate. Finally, the **Transition Smoothness** dimension describes the dynamics of the transition process between school and work. The indicators Relative Unemployment Ratio and Long-Term Unemployment Rate compose this dimension.

Before aggregating the indicators into a single index, each indicator value is rescaled into an indicator score that takes values between 1 and 7, where higher scores suggest more desirable outcomes. The data for the indicators are collected from different international institutions and cover up to 178 countries from 1991 onward. Unfortunately, data are not available for all countries in every year, so that one of the major limitations of the KOF YLMI is data availability. When data is lacking, a dimension can occasionally be based on a single indicator or must be omitted entirely when not a single indicator for that

Dimensions and the corresponding indicators of the KOF YLMI
Activity State <ul style="list-style-type: none"> - Unemployment Rate - Relaxed Unemployment Rate⁵ - Neither in Employment nor in Education or Training rate (NEET rate)
Working Conditions <ul style="list-style-type: none"> - Temporary Worker Rate - Involuntary Part-time Worker Rate - Atypical Working Hours Rate - In Work at Risk of Poverty Rate⁶ - Vulnerable Employment Rate⁷
Education <ul style="list-style-type: none"> - Formal Education and Training Rate - Skills Mismatch Rate
Transition Smoothness <ul style="list-style-type: none"> - Relative Unemployment Ratio⁸ - Long-term Unemployment Rate⁹
Source: Renold et al. (2014).

⁵ Is calculated as the number of unemployed and discouraged workers as a share of the entire labour force. Discouraged workers have given up the search for work (not actively seeking), although they have no job and are currently available for work (also: "involuntary inactive").

⁶ Those who cannot make a decent living out their earnings. It is calculated as the number of youth at work but earning less than 60% of the median national income as a percentage of the total working population.

⁷ Share of the employed population working on their own account or those working in their family business and thus contributing to the entire family income. Both are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.

⁸ Is defined as the youth unemployment rate (15-24 years) divided by the adult unemployment rate (25+). If the youth cohort is affected in the same way than the adult group with respect to unemployment, then the relative unemployment ratio will be equal to one. If the youth are relatively more affected, then the ratio will be larger than one.

⁹ Those unemployed for more than one year (52 weeks) as a share of the total number of unemployed (according to the ILO definition).

category has data available. A lack of indicators can make comparisons across countries or groups of countries problematic and sometimes even impossible.

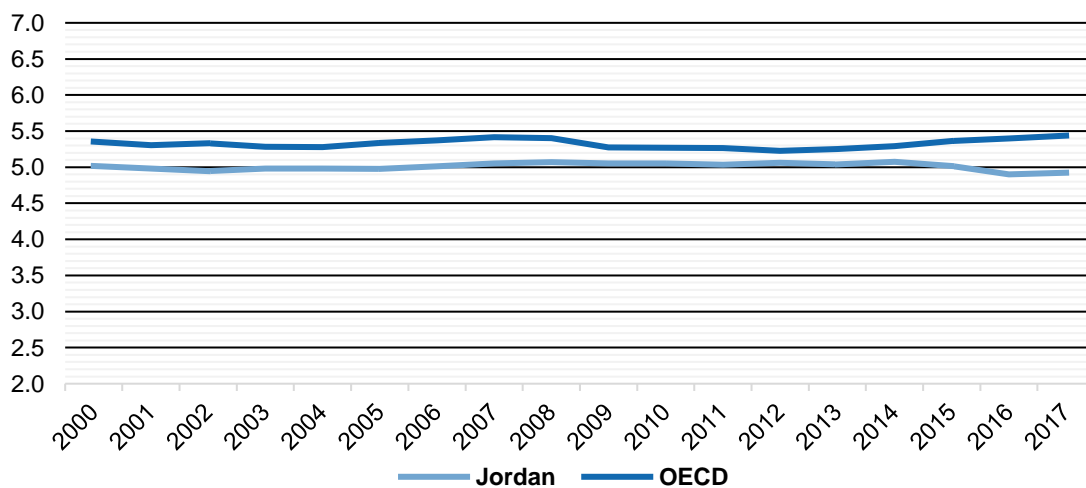
1.2.3 The KOF Youth Labour Market Index (KOF YLMI) for Jordan

Jordan's YLMI suffers from a lack of data on several indicators. For the year 2019, only three out of twelve indicators are available. Therefore, a comparison between the labour market of Jordan and OECD countries should be treated with caution. Nevertheless, some conclusions can still be drawn. The available indicators for the KOF YLMI are as following:

- unemployment rate
- relative unemployment rate
- vulnerable employment rate.

Figure 2 shows the evolution of the aggregated KOF YLMI average for Jordan and the OECD over time (2000–2017). However, when comparing the two indices computed based on the three indicators above, it can be observed that in aggregate, the Jordanian youth labour market lags approximately 0.5 points (out of the total 7 points possible for the KOF YLMI) behind the average situation in the OECD countries. It can be seen that the two converge slightly between 2009 and 2014, while from 2014 on both graphs diverge again, with the Jordan average slightly decreasing. In sum, the figure indicates that the aggregate situation of adolescents participating in the labour market in both comparison groups has scarcely improved over the last two decades.

Figure 2: YLMI - Index for Jordan and the OECD Average, 2000-2017



Source: KOF Swiss Economic Institute (2020).

1.3 Jordan's Political System

Understanding the basics of a country's political system and getting to know the political goals with respect to its education system are crucial points for the understanding of the education system in a broader sense. In the first part, we explain Jordan's political system in general. The politics and goals regarding the education system will be referred to in the second part.

1.3.1 Overview of the Jordanian Political System

Jordan is a constitutional, hereditary monarchy with a parliamentary system of government. Despite earlier developments in political liberalisation, the legacy of the status quo in Jordan has remained largely intact over the past three decades (Malantowicz, 2019, p. 323). Therefore the king, Abdullah II, holds ultimate authority over the executive, legislative and judicial branches of government. For this

reason, he designates all 65 members of the upper house of the parliament, whereas the 115 representatives of the lower house are elected for four-year terms. Although the lower house of parliament is elected by the people, opposition groups have little chance, since most seats are usually distributed between tribesmen and businessmen who are considered loyal to the monarchy. In addition, the king is empowered to appoint the prime minister, cabinet, and a number of other positions such as the crown prince or a regent (Freedom House, 2019).

The distribution of the political forces in Jordan can be separated into three main camps. First, there are the loyalists, consisting of tribal leaders, businessmen, and neoliberals, who have a strong connection to the monarchy. Second, the Islamic Action Front (IAF) and other small parties, who represent the Muslim Brotherhood. Third, the leftist and Pan-Arab camp with pro democratic parties, as well as socialist parties, which is the weakest camp, due to the lack of financial resources (European Union Election Observation Missions, 2013, pp. 8-9).

According to a study from Transparency International (2019, p. 11), 86% of Jordanians think that corruption is a major problem in the government. In particular, the use of personal connections, known as “wasta”, fosters an environment for corruption in Jordan. For this reason, several anti-corruption laws have been implemented in the last two years (Transparency International, 2019, p. 11). However, anti-corruption initiatives are often subverted by a lack of independent authorities and restrictions on investigative journalism and civil society activism (Freedom House, 2019). In order to foster such initiatives, there has to be a wider awareness of “wasta”, in order to ensure access to basic services is such as healthcare is not determined by personal connections (Transparency International, 2019, p. 11).

1.3.2 Politics and Goals of the Education System

Jordan has a national Ministry of Education (MOE) for basic schooling, overseen by several directors who are responsible for different regions in the country (MOE, 2020). The philosophy of education in Jordan stems primarily from the traditions in Arab-Islamic civilization as well as the Jordanian constitution. Article 20 Chapter 2 of the Jordanian constitution states: “*Basic education shall be compulsory for Jordanians and free of charge in Government schools*” (Constituteproject, 2019). The nationwide establishment of a consistent quality in primary and secondary education remains a major challenge in Jordan, as many schools are located in impoverished urban and rural areas. One of the projects to enhance basic education is the Jordanian Education Initiative (JEI) of 2003, which aims to accelerate educational reform through innovation and the introduction of information and communication technology (ICT) in the school environment. (UNESCO, 2008).

In the last two decades, the development of higher education has grown due to increasing numbers of institutions and enrolled students. This has led to the creation of new regulations for universities, making them more independent, especially in terms of administration and finance (European Union, 2017, pp. 1-3). The Ministry of Higher Education and Scientific Research (2020) emphasises that notwithstanding Jordan’s limited resources, higher education is one of the country’s highest priorities, as educational developments may be decisive in compensating for the scarcity of natural resources and bridging the gap between labour market and skilled labour force.

According to the Mid-term assessment of Education for All: the national report of Jordan the educational mission is: “To create and administer an educational system based on ‘excellence’, energized by its human resources, dedicated to high standards, social values, and a healthy spirit of competition, which contributes to the nation’s wealth in a global ‘Knowledge Economy’” (Jordan National Commission for Education, Culture and Science, 2008).

2. Formal System of Education

Jordan has several government institutions for the administration and management of all levels of the education system. First, there is the MOE for the general objectives of education in Jordan. The ministry's mandate is to establish and manage public and adult education institutions, supervise private schools, and other additional services such as health care or counselling. The law behind Jordan's education system in pre-primary, basic and secondary education is mainly stated in Act No. 3 of 1994, which outlines the goals and policies of education. Moreover, it establishes a framework for regulating schoolbooks, teaching curricula, exams and the operation of private and foreign educational institutions. Over the course of time, several amendments have been added to this act (UNICEF, 2014, p. 11). Second, there is the Vocational Training Corporation (VTC), which is responsible for formal apprenticeship programs. Thirdly, there is the Ministry of Higher Education and Scientific Research (MOHESR), which is responsible for all matters relating to higher education. The main objectives in the field of higher education are the supervision of all national universities and community colleges, the approval of study subjects and all programs and the distribution of state funds to public universities (UNESCO, 2011, pp. 3-4).

Jordan's education system consists of three main stages:

- Pre-school education (mostly private and not compulsory),
- Basic education (free of charge and compulsory),
- Secondary education (free of charge but not compulsory) (UNESCO, 2008, p. 25).

Formal pre-school begins with children aged at least three years and eight months old, who are permitted to enter kindergarten. The majority of kindergartens are usually private and therefore not managed by governmental organisations. In Jordan, pre-school education is not mandatory, however, the basic education cycle is compulsory for all children who have reached the age of six. Basic education lasts for ten years and two stages: primary education and lower secondary education. The first phase lasts from first to sixth grade, the latter from seventh to tenth grade. Between eighth and tenth grade, pupils school grades are used to provide a classification for access to comprehensive or applied secondary education (UNESCO, 2011, pp. 5-6).

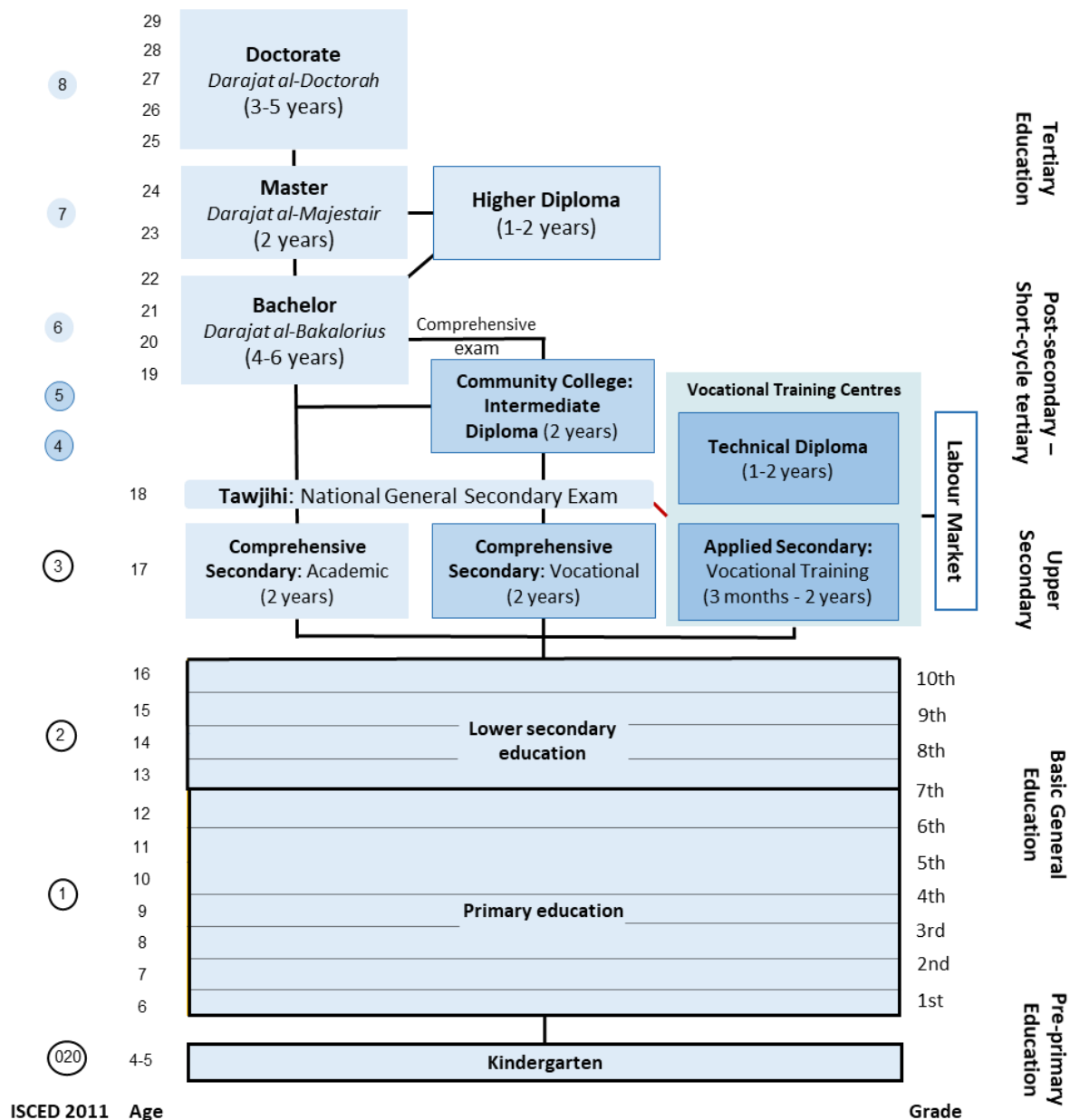
The upper secondary level comprises of two major tracks:

1. Comprehensive secondary (academic and vocational)
2. Vocational Training (UNESCO, 2008)

The comprehensive secondary track offers further specialisation in academic or professional subjects. At the end of the two years (11th and 12th grades) of comprehensive school, pupils must take the General Secondary Education Certificate Examination (Tawjihi). Based on the score obtained in this exam, graduates usually continue their academic career at a higher education institution such as a university or community college (UNESCO, 2008, p. 27).

The two-year applied secondary school (11th and 12th grades) prepares the future labour force with the relevant knowledge and skill set for the professional world. Vocational centres and apprenticeships build the basic institutions of practical training. Upon completion of two years, including a practical examination, graduates can continue their education with a technical diploma or enter the labour market (UNESCO, 2008, p. 27).

Figure 3: Jordan's Education System



Source: Own depiction based on (European Union, 2017) (UNESCO, 2008), (UNESCO, 2011), (UNESCO/UNEVOC, 2019).

Error! Not a valid bookmark self-reference. shows the gross enrolment rate (GER)¹⁰ and net enrolment rate (NER)¹¹ by education level for the year 2018/19. The NER quantifies the total number of students in the theoretical age group for a given education level enrolled at that level expressed as a percentage of the total population in that age group. The GER quantifies the number of students enrolled at a given education level—irrespective of their age—as a percentage of the official school-age population corresponding to the same level of education. For example, for the primary education level, the NER tells how many students in the typical primary school age are actually enrolled in primary school,

¹⁰ The UNESCO Institute for Statistics (UIS) (2020) defines the gross enrolment ratio as the “number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.”

¹¹ The UIS (2020) defines the net enrolment ratio as the “Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group.”

while the GER sets the actual number of students in primary education—irrespective of their age—in relation to those who are in the official age to attend primary education¹².

Table 5: Net Enrolment Rate (NER) and Gross Enrolment Rate (GER), 2018/19

Educational level	ISCED 2011	Net Enrolment Rate	Gross Enrolment Rate
Early childhood educational development programs	010		27.1
Pre-primary education	020	28.5	28.8
Primary education	1	81.2	81.8
Secondary education	2 – 3	64.6	65.2
<i>Lower secondary education</i>	2	70.47	70.5
<i>Upper secondary education</i>	3	54.25	54.03
Tertiary education	5 – 8	34.4	34.4*

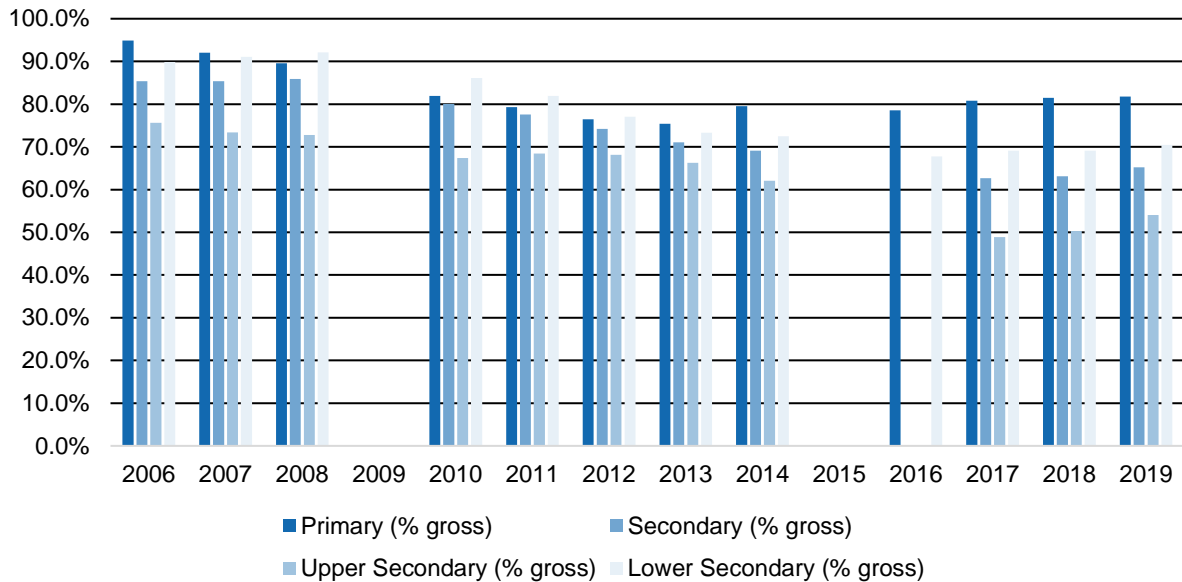
Source: own table based on (UNESCO, 2020) and 2018 (World Bank, 2020c). * = figures for 2018.

Figure 4: Evolution of the Gross Enrolment Rate by Educational Level, 2006-2019

displays the evolution of the GER of the primary, secondary, lower secondary and upper secondary education level in Jordan between 2006 and 2019. Overall, it can be observed that school enrolment rates are declining. It is evident that enrolment in primary school has suffered a smaller decrease compared to secondary school levels. The main reason is that primary education in Jordan is both free and mandatory. Nevertheless, it is still on the decline as impoverished families encourage their children to find work rather than attend school because of the opportunity costs of enrolling in education. Economic factors such as the direct and indirect costs of education were identified as the most widespread cause for not enrolling in primary education (UNICEF, 2014, p. 3).

¹² A gross enrollment ratio of 100 corresponds to a situation where each child in a given country is enrolled in the corresponding education level. A value above 100 could occur due to students who are older than the typical enrolment age for primary education (e.g. have to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age for primary education is actually enrolled.

Figure 4: Evolution of the Gross Enrolment Rate by Educational Level, 2006-2019



Source: Own table based on (UNESCO, 2020) and (World Bank, 2020c).

However, it is noteworthy that the absolute numbers of enrolments by educational level have only slightly decreased or even stabilised over the last 15 years (World Bank, 2020d). Consequently, the main reason for the decline in school enrolment rates, especially in secondary education, can be attributed to relative population growth. Jordanian population growth over the past decade can in large part be explained by the refugee influxes that commenced with the Syrian civil war in early 2011. According to the Jordan Country Report on Out-of-School Children (2014) by UNICEF, there are several other barriers to the basic education of refugee children besides financial challenges. On the one hand, many families with children may choose to wait until they return to their own country to continue their education. On the other hand, there is a lack of information about the available educational services in Jordan, as well as capacity problems leading to long waiting lists for public education (UNICEF, 2014, pp. 58-60).

Table 6 shows the GER by nationality for the year 2015/16. It shows that a detailed understanding of the situation in Jordan requires disaggregating the statistics from Error! **Not a valid bookmark self-reference.** shows the gross enrolment rate (GER) and net enrolment rate (NER) by education level for the year 2018/19. The NER quantifies the total number of students in the theoretical age group for a given education level enrolled at that level expressed as a percentage of the total population in that age group. The GER quantifies the number of students enrolled at a given education level—irrespective of their age—as a percentage of the official school-age population corresponding to the same level of education. For example, for the primary education level, the NER tells how many students in the typical primary school age are actually enrolled in primary school, while the GER sets the actual number of students in primary education—irrespective of their age—in relation to those who are in the official age to attend primary education .

Table 5 as the GER varies substantially by nationality. While the GER at the primary level was 78.6% and 67.6% at the secondary level (to compare data for the same year, the numbers for 2016 are used from Figure 4: **Evolution of the Gross Enrolment Rate by Educational Level, 2006-2019**

), one can clearly distinguish a clear tendency for enrolment among the national and foreign student body. The massive cleavage in participation rates is consistent on both education levels and similar for Syrian and other foreign nationalities.

Table 6: Gross Enrolment Rate (GER) by Nationality, 2015/16

Educational level	Jordanian GER	Syrian GER	Other Nationalities GER
Primary education	123.9%	36.7%	36.6%
Secondary education	98.5%	13.5%	23.4%

Source: own table based on (MOE, 2018).

2.1 Pre-Primary Education

A major challenge for the education system in Jordan is the limited access to high quality early childhood education. However, it was realised at an early stage in the last decade that the educational integration of Syrian refugee children would be crucial for the country's scholastic and economic development (World Bank, 2017). For this reason, the Jordanian government, in cooperation with international non-profit organisations and other donors, has initiated several development projects to promote early childhood education and development (ECED): the Education Reform for the Knowledge Economy (ERfKE I and II), the National Early Childhood Development Strategy, the National Plan of Action for Children and the Education Reform Support Program (ERSP) (Al-Hassan, 2018). Among various different initiatives, the ERfKE II (2010-2014) programme offered several training opportunities for ECED teachers to foster parental awareness, quality of infrastructure and skills of pupils. More recently, the ERSP received an additional US\$100 million in funding from the World Bank to address the challenges in the education sector in the context of the COVID-19 crisis. Increased access to pre-primary education remains one of the main objectives in this program (World Bank, 2020e).

Pre-primary education in Jordan can be divided into three levels:

1. Nursery for ages 0-4
2. Kindergarten 1 (KG1) for ages 4-5
3. Kindergarten 2 (KG2) for ages 5-6 (Queen Rania Foundation, 2017a, p. 1)

The first and second level are under the responsibility of the Ministry of Social Affairs and the private sector, while the KG2 is mainly overseen by the MOE. In Jordan there are four different types of registered nurseries (there are also unregistered types of nurseries, which are not covered in this paper due to a lack of public information). First, there is the registered private nursery. Secondly, there is the MOE school-based nursery, which is located in the school and run by teachers for their own children. Thirdly, there is the work-based nursery, which is run by private companies or organisations for their employees. And finally, there is the community-based organisational nursery run by non-profit organisations. According to the Queen Rania Foundation's National Early Childhood Development Survey (2015), the MOE school-based nurseries have the largest share in the sector, at 55%. This figure illustrates the fact that 49,000 of the total of 271,000 employed women in Jordan were working as teachers in 2015. By contrast, work-based nurseries only account for 3%. In 2018, the Jordanian Labour Committee amended Article 72, which now requires any private firm with employees who have a total of at least 15 children of nursery age to provide work-based childcare (Queen Rania Foundation, 2015, pp. 12-13).

Children of at least 4 years of age are permitted to enter KG1, an institution typically run by private and non-profit organisations. This phase aims to create a pedagogical environment that encourages a child's character physically and mentally and, above all, strengthens their passion for school (Jordan National Commission for Education, Culture and Science, 2008, p. 23). One educational level higher is KG2. The second stage of kindergarten is primarily the responsibility of the government, despite the fact that the majority of the educational institutions continue to be private. In 2016, only 30% of KG2 classes were provided by public kindergartens. Nevertheless, the MOE is accountable for the quality and licensing as well as the supervision of private KG2 classes (MOE, 2018, p. 5).

In the last decade there has been an immense growth in population and increase in the number of working mothers, which has led to an increasing demand for KG2. For this reason, the MOE plans to develop the infrastructure for further access to pre-primary education as part of the national Human Resources Development (HRD) strategy 2016-2025. A 10-year target for a 100% enrolment rate in KG2 and a 35% enrolment rate in KG1 is one of the key objectives in this paper (National Committee for Human Resource Development, 2015, pp. 25-26). However, GER in KG2 have fallen from 62% to 59% between 2014 and 2016. The MOE identifies the lower school enrolment rates for non-Jordanian children as the main reason for the overall low figures. The major limitations to improved access to KG2 are the insufficient capacity of kindergartens, the growing demand from the public and the lack of financial means to implement reforms and expand the education sector (MOE, 2018, pp. 4-5).

2.2 Primary and Lower Secondary Education

After pre-primary, pupils are admitted to basic education. This lasts from the first to the tenth grade, from six to sixteen years of age (MOE, 2020). Basic education comprises two phases: the first six years take place in primary education (ISCED 1), while the last four years continue in lower secondary education (ISCED 2) (UNESCO/UNEVOC, 2019). Both levels are mandatory and free of charge in government institutions as defined by Article 20 of Jordan's constitution (Constituteproject, 2019). Basic education is generally regulated by the Ministry of Education, which also includes the monitoring of private educational institutions. As the Jordanian Ministry of Education has stated, this phase is the foundation for the establishment of a national and pan-Arab identity and aims to achieve the general objectives of education and passion for lifelong learning. This includes basic skills for the Arabic language as well as the acquirement of knowledge in Islamic values and history (MOE, 2020).

In Jordan, there has been a shift from a content-based curriculum to a competence-based curriculum that focuses on student performances in each grade and educational cycle. The curriculum from the first to the third grade consists of the following subjects: Islamic religion, Arabic, English, mathematics, social studies, general science, art, physical education and music. In addition to these disciplines, the fourth to tenth grades introduce the pupils to new courses such as vocational education, IT, financial literacy and French. The classification for the various types of upper secondary education (more details in sub-chapter 2.3: Upper Secondary Education) is based on marks from eighth to tenth grade. With the purpose of supporting students with learning difficulties and promoting high-achieving students, a diagnostic assessment of the basic education cycle has been developed in collaboration with the Scottish General Examination Board (UNESCO, 2011, p. 13).

In 2014, the MOE reformed the curricula and education literature from first to third grade to promote literacy and numeracy skills. For this reason, an additional centre for curriculum and assessment was opened in 2017 as part of the national HRD strategy 2016-2025 (Queen Rania Foundation, 2017b, pp. 1-2). Table 7 gives an overview of the primary and lower secondary curriculum listed by lessons per week.

Table 7: Lessons Taught Per Week by Subject, Grades 1-10, 2017-2018

Subject	Grade									
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
Islamic Religion	2	2	2	3	3	3	3	3	3	3
Arabic	11	11	11	9	7	7	7	7	7	6
English	3	3	3	4	5	6	6	5	5	5
French (optional)	-	-	-	-	-	-	-	3	3	3
Mathematics	7	7	7	5	5	5	5	5	5	5
Social Studies	1	1	1	2	3	3	3	3	3	3
Science	2	2	2	4	4	4	4	5	7	7
Art	1	1	1	1	1	1	1	1	1	1
Physical Education	2	2	2	2	2	2	2	1	1	1
Music	1	1	1	1	1	1	1	1	1	1
Vocational	-	-	-	2	2	2	2	2	2	2
IT	-	-	-	-	-	-	2	2	2	2
Financial Literacy	-	-	-	-	-	-	1	1	-	-

Source: own table based on (Queen Rania Foundation, 2017b).

In primary education the GER was 81.8% in 2019, 0.6% lower than the estimated average of Arab states in the same year according to the UNESCO Institute for Statistics (2020). Moreover the Gender Parity Index (GPI) is 0.98, meaning for every 100 boys in primary education there are 98 girls. Lower secondary education has a GER of 70.4%, which is lower than the estimated average of Arab states of 89.3%. Contrarily, lower secondary education has a higher GPI of 1 (UNESCO, 2020). According to a research paper from Nuffic¹³ public schools represent 70% of all pupils at primary and lower secondary level in Jordan (Nuffic, 2017). From the third grade onwards, public schools are generally separated by gender. There are fewer than half the number female-only as there are male-only schools, although the number of girls in basic education exceeds the number of boys (Ministry of Education, 2014). Of all public schools, 68% are mixed, with 9% female-only and 23% male-only. Although the percentage of mixed schools is high, this is mainly because many female-only schools are categorised before grade three, where genders are still mixed (Queen Rania Foundation, 2018, p. 1).

Similar to the challenges in pre-primary education, basic education is also facing infrastructure constraints due to the growing enrolment of local and Syrian students. For this reason, a double-shift system has been established across the country to cope with the increasing number of enrolled students. Structured around a morning shift for Jordanian students from 7am to 12:30pm and an afternoon shift for Syrian students from 1pm to 4:30pm (double-shift.org, 2017), the double shift system experienced an increase from 460 to 708 classes from 2014 to 2017. This in turn has led to increasing problems in the school environment and ultimately to a deterioration in the quality of basic education. As a result, the government has started to rent additional school buildings, which account for about one-fifth of the total infrastructure. Consequently, there has been a growing discrepancy in the compliance of these buildings with the established standards for schools (MOE, 2018, pp. 6-8).

2.3 Upper Secondary Education

Upper secondary education in Jordan is optional and free of charge. The aim of this two-year education cycle is to provide specialised cultural, scientific and vocational skills, which prepare the students to

¹³ Dutch organisation for internationalisation in education

continue their career path in higher education or join different fields of work (MOE, 2020). Enrolment in upper secondary education is based primarily on grades from eighth to tenth grade of lower secondary education and, to a lesser extent, on the individual interests of the pupils. Students can choose between comprehensive secondary education and applied secondary education (UNESCO, 2008, p. 27). The GER in upper secondary education is 54%, 7.5% lower than the estimated average of 61.5% for the Arab states overall. Furthermore, the GPI is 1.11, indicating that there are a higher number of female students than male students. (UNESCO, 2020).

Applied secondary education is based on preparation both in vocational training centres and apprenticeship schemes (UNESCO, 2011, p. 7). In contrast to comprehensive secondary education, which is regulated by the MOE, the two-year vocational training cycle is supervised by the VTC. The vision of VTC is to prepare skilled labour in several professional disciplines to meet the demand on the labour market. This is accomplished by implementing and evaluating training programs in cooperation with employers and community organisations (Vocational Training Corporation, 2020).

In comprehensive secondary education, students have the possibility to focus solely on academic subjects or follow a vocational curriculum that includes academic and vocational knowledge. In this context, it is important to distinguish between academic vocational education and vocational training at the applied secondary level. Students enrolled in the latter are generally not permitted to participate in the nation-wide General Secondary Education Certificate (Tawjihi), which grants access to higher education institutions. Tawjihi assesses students at the end of upper secondary school by way of the most demanding examination in the general education system. It examines the competencies of 12th grade students in subjects such as Arabic, English, Islamic studies, civics and computer literacy, as well as in specialised modules within academic and vocational curricula (Queen Rania Foundation, 2017b, p. 3). Depending on the grade achieved in this certificate, students have the choice between public and private universities and public and private community colleges. The required score for admission to public universities is 65%, for access to private universities 55%, and for community colleges the minimum score is 50% (UNESCO, 2008). The Queen Rania Foundation (2017b, p. 3) estimates that every year approximately 40-50% of students who take the exam succeed. Nonetheless, a significant fraction of students in 12th grade do not take the exam in the first place. According to the NRDS, a major challenge is the lack of support and alternative solutions for the high number of students who fail the Tawjihi examination. For this reason, the ten-year plan proposes to modernise the curriculum and assessment by setting up an independent national authority (National Committee for Human Resource Development, 2015, p. 28).

2.4 Postsecondary/ Higher Education

The MOHESR oversees policies for tertiary and higher education (UNESCO, 2011, p. 5). The stated mission of higher education is to prepare the Jordanian workforce in various fields that contribute to the development of knowledge and, above all, bridge the gap between graduates and labour market demand. According to the MOHESR, the sector has grown immensely over the last two decades and has seen an expansion in the diversity of courses of study available. As a result, Jordan has reached an estimated 236,000 tertiary-level students spread across 10 public universities, 19 private universities and 51 colleges, as well as the World Islamic Sciences and Education University and Arab Open University (Ministry of Higher Education & Scientific Research, 2020). The academic years is divided into two semesters, each with 15-17 weeks of classes, supplemented by an optional summer semester (Nuffic, 2017, p. 8).

A distinction can be made between two main types of studies: academic studies at universities (Jamea't) and applied studies at colleges (*Kulleyat Mujtama'*) or in few cases also at universities. Universities are based on the three-cycle system, starting with a Bachelor's degree (*Darajat al-Bakalorius*), which normally takes four years, with the exception of architecture, engineering, pharmacy, veterinary medicine and dentistry, which require five years. Admission requirements in the Tawjihi score differ according to the subject of study. For instance, medicine and dentistry require a minimum score of 85%, while engi-

neering and architecture require a total score of at least 80%. In most other disciplines, the basic minimum for universities is 65% (60% for a private universities). Master degrees (*Darajat al-Majestair*) generally take one and a half to two years. Students in a Master's programme often have the choice between a diploma thesis and a comprehensive examination to obtain the degree. Some universities also offer a one-year higher diploma (*al-Diplome A'lee*) on completion of a Bachelor's degree, which is generally easier to enter than the Master's programme. For students who intend to continue on their academic path, a doctoral degree (*Darajat al-Doctorah*) is offered after the Master's degree, consisting of at least three years for the dissertation (EACEA, 2010, pp. 2-3).

Contrary to the three-cycle system, community colleges offer an affordable, generally one to two year post-secondary short-cycle tertiary program for higher professional education. All community colleges are under the supervision of the *Al-Balqa'* university of applied sciences (Nuffic, 2017, p. 8). In the two-year programmes, students have to take a national examination to obtain a diploma certified by the MOHESR (*al-Diplome al-Mutawaset*). For a small percentage of students who successfully complete the national comprehensive examination, access to regular programmes at a university is possible. The MOHESR has legislated a *bridging regulation*, which determines the accreditation of the study time spent at the community colleges, which can be transferred to a bachelor's degree at a university. In addition, there are a few mix-structured university colleges (Kulleyat Jame'iah) that offer a Bachelor's degree in some specific fields of study (European Union, 2017, p. 12).

2.5 Continuing/ Adult Education

One of the main philosophies of the Jordanian education system is *lifelong learning*. To support this mission, various non-formal adult education pathways have been implemented through the MOE, the MOHESR and the VTC. The Strategic Education Plan 2018-2022 (2018, p. 36) states that the following non-formal education programs should be provided to support inclusiveness within education: Adult education and literacy programme for the over-15 age group, a drop-out programme for the 13-18 age group for men and the 13-20 age group for women, and evening vocational centres of the VTC. One of the main objectives of these programmes is to decrease adult illiteracy from 9.5% to 7.4% for women and from 3.4% to 2.6% for men by 2022 (MOE, 2018, pp. 36-37). Additionally, the MOE, MOHESR and the Ministry of Labour (MOL), with the support of the Institute for International Cooperation of the German Adult Education Association¹⁴ are developing a national strategy for adult education and lifelong learning. The project is at a preliminary level, but first outlines of the strategy were announced by the MOL and discussed during a workshop in Amman in 2019 (European Training Foundation, 2019, p. 7)

A majority of the institutions that offer tertiary-level programmes also provide further education and training for adults in Jordan. In 2005 the MOE introduced a new system of adult education and addressing illiteracy, with the objective to set general policies, approve programs and coordinate with different institutions. Moreover, Jordan has also implemented the Community Learning Centre (CLC) project. The project involved the establishment of 13 CLCs in key areas of the country, the training of teachers and the provision of educational resources to be used in the centres. The community learning centres have proven to have a positive impact on the promotion of lifelong learning, literacy, numeracy and basic education at municipal level (Managing Directorate of General Education and Students' Affairs, 2008, pp. 6-7).

2.6 Teacher Education

In Jordan responsibility for supervision, training and appointment of teachers at public schools lies with the MOE. According to the law of education no. 3 of 1994, every teacher, from kindergarten to the secondary level, must have at least a Bachelor's degree. In addition, secondary school teachers must hold a one-year postgraduate diploma (Aljaghoub, 2012, p. 10). Pre-school and primary school teachers

¹⁴ Deutscher Volkshochschulverband e.V. (DVV International)

from first to third grade are usually trained in community colleges or universities with a bachelor's degree in education (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 131). However, there are no specialised programs in the curriculum for prospective teachers for fourth grade and above. As a result, most teachers graduate with a Bachelor's degree in a specific subject such as mathematics or biology instead of a pedagogical degree. This lack of specialisation could also be a reason for the findings of a 2012 study that revealed that half of all teachers in Jordan were not trained in the relevant skills for teaching mathematics and reading before entering the teaching profession (Queen Rania Foundation, 2017c, p. 2).

Between 2015 and 2016 there was an estimate of 121,000 teachers educating 1.9 million pupils. 67% of these teachers work in public schools, 27% in private schools and a further 5% in state-supported schools, for instance those administered by the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) (Queen Rania Foundation, 2017c). Furthermore, teaching personnel is organised to maintain gender segregation in public schools, which means that male-only schools employ male teachers, while mixed schools and female-only schools have female teachers (Queen Rania Foundation, 2018).

As stated in the national HRD strategy 2016-2025 (2015, p. 18), the teaching profession lacks attractiveness in terms of training and incentives. Consequently, one of the strategic objectives until 2025 is to improve the quality of teacher education at all levels of primary and secondary education by establishing a structured curriculum for teacher education and a clear recruitment process. Furthermore, the strategy considers the development of an in-service training programme to support teachers after they finished their basic education as crucial (National Committee for Human Resource Development, 2015, p. 28). In response to the recommendation of this strategy, a licensing system for teachers is under development, supervised by the MOE, in order to improve training requirements. On the same grounds, the Queen Rania Teacher Academy, in cooperation with the MOE, is introducing a one-year Teacher Education Professional Diploma for prospective teachers who are then required to teach in public schools for at least three years after completion (Queen Rania Foundation, 2017c, p. 2).

3. The System of Vocational and Professional Education and Training

This section of the Factbook describes the vocational education and training (VET) system at the upper secondary level and the professional education and training system (PET) at the tertiary level in more detail. The term vocational and professional education and training (VPET) refers to both the VET and the PET system. A general overview of the different career paths in the Jordanian VPET system can be found in Appendix I. More detailed information on the individual training courses in both VET and PET can be found in the following subchapters.

3.1 Vocational Education and Training (VET; Upper Secondary Education Level)

After the successful completion of the 10th grade, students are able to pursue different vocational streams at the ISCED level 3b. The Jordanian VET system in the upper secondary education revolves around two main cycles (International Labour Organization, 2015, p. 10):

- Vocational *education* cycle: comprehensive secondary vocational education

- Vocational *training* cycle: skilled worker level

Comprehensive secondary vocational education is overseen by the MOE, whereas *applied secondary training* is supervised the semi-autonomous VTC (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 21). Unfortunately, the vocational path continues to be stigmatised by both students and parents and is therefore treated as a second-route option. Consequently, the unequal distribution between the educational pathways of upper secondary education tends to reflect the pupils' grades. Students with better marks usually follow a fully academic educational path, those with lower marks a vocational educational stream and those with the lowest marks an applied secondary training. Given the lack of institutional career guidance, family members are often the main source of counselling and therefore contribute to the overall low participation rates in VET (United Nations Development Programme, 2014, p. 10).

The two-year secondary vocational stream is integrated into upper-secondary comprehensive education, next to the academic stream in grades 11 to 12. In 2015, around 86% of upper secondary school students opted for an academic path, while the share of vocational school students was only 14% (Rawashdesh, 2018, p. 16). However, of these 14%, approximately two thirds actually chose the vocational stream, while one third were directed to it because of limited space in the academic streams (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 93). These figures indicate that VET accounts for a small share of total enrolment in upper secondary education. Nevertheless, compared with other VET programs in Jordan (such as the VTC, explained in detail later in this subchapter) it is the most prevalent, with around 29,000 students enrolled per year (ETF, 2014, p. 9). Apart from the economic reason for the integration of the academic and vocational education cycle in the same institution, there are also social aspects such as the removal of barriers between the different domains in order to mitigate the stigma of vocational careers. Therefore, the administrative management of the institution and a number of courses from both tracks are organised and held collaboratively (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 87). The aim of the vocational education is to prepare qualified and trained workforces and to encourage students in their individual interests and abilities by giving them the opportunity to pursue higher vocational or professional education (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 87). Specialisation in vocational education gives students the opportunity to choose between four different paths such as industrial education with 33 sub-specialisations, home economics with five sub-specialisations, agricultural education with two sub-specialisations, and hospitality and tourism (United Nations Development Programme, 2014, p. 18). Prior to 2003, there was also a major in commerce, which has since been transferred to the academic sector. In comparison to VTC graduates, MOE vocational school students do not focus primarily on the acquisition of applied vocational skills, but rather on vocational theory. Although the MOE does not provide for compulsory on-the-job training, some of the students who pass the first year's examination spend up to 120 hours on work assignments in companies during the summer (Mayen, Johanson, Chemingui, & Mustafa, 2006, pp. 90-91).

More broadly, the two-year program prepares students for the General Secondary Certificate (GSC) in their vocational field of study. This examination is a prerequisite for admission to community college. However, there is a relatively high failure rate in vocational programmes. No more recent data are available, but according to the report of Technical and Vocational Education and Training in Jordan supported by the European Training Foundation (2006, p. 96), only 44% of applicants passed the 2000 GSC. Beyond the general vocational examination, vocational students can also take the Tawjihi examination to gain access to university. For this reason, additional courses of four hours per week are available to supplement the lack of academic classes in vocational education. However, only a fraction of those who take the general test are able to pass and make the transition from vocational education to university. Nevertheless, the vocational training cycle occupies an essential position in the Jordanian school system as a bridge between academic and practical education. Assets such as the high geographical distribution, widespread access, high female quota and qualified teaching personnel have established the vocational education cycle as the largest provider of VET in Jordan (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 98).

Compared to vocational education, the vocational training cycle, operated by various vocational training centres, is more practically oriented. Its regulatory body, the VTC, was established in 1976 in accordance with Law No. 35 as a semi-autonomous agency under the supervision of the MOL (Vocational Training Corporation, 2020). The VTC oversees several workforce training programmes at different occupational levels from limited skills to specialists. Its mission is the education and training of a skilled and competitive workforce through vocational training services tailored to the needs of the Jordanian labour market (UNESCO-UNEVOC International Centre, 2020).

With regard to upper secondary vocational education, two main programmes are offered for 10th grade graduates. On the one hand, there is the *skilled worker* program, which was originally inspired by the dual apprenticeship system. On the other hand, there is the *applied secondary* program, which was previously the general classification of basic education graduates who were allocated to practical training. After a modification of the structure of the skilled worker track towards semester-based training in 2000, recruitment for applied secondary decreased to 58 applicants in 2004. Thus, the applied secondary training no longer corresponded to the duration of secondary education, which led to a conversion of most apprentices to the *skilled worker* training. As a result, there are no recent studies on the outdated *applied secondary* program. Nevertheless, the term *applied secondary* is still used in many international reports as a generic description of the vocational training cycle in Jordan. For the purposes of technical correctness, this chapter refers to the *skilled worker* training as the only active upper secondary education program in the VTC system (Mayen, Johanson, Chemingui, & Mustafa, 2006, pp. 106-108).

Prior to the change of title in 2000, vocational training was originally referred to as *apprenticeship* with two years of institution-based training and one year of practical work experience. However, with the change in terminology from apprenticeship to *skilled worker*, the one-year work experience stage was abolished in order to be aligned with other two-year training programs at upper secondary level. Furthermore, the duration of the program has been adapted to the different occupational training fields on a more flexible basis. Depending on the occupation, vocational training takes two to four semesters (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 107). Students can choose between the following range of training fields: metal fabrication and mechanical maintenance, automotive maintenance, electricity, electronics, air conditioning, central heating and plumbing, civil constructions, wood working, mining and chemical industries, leather work and textile industries, press printing, tourism and hostelling, hair dressing and beautification, and information technology (Vocational Training Corporation, 2017). Most occupations follow the apprenticeship scheme in which they rotate on a weekly basis between education in the vocational centres and on-the-job training with supervising instructors (Mayen, Johanson, Chemingui, & Mustafa, 2006). For apprentices' practical experience, the VTC cooperates with an estimated 2400 small and large private companies and public institutions such as the Municipality of Amman. In 2016, the total number of enrolments for the skilled worker programme reached 12,010 students, representing 7% of all upper secondary pupils in Jordan (Rawashdesh, 2018, pp. 19-20).

In addition to the VET system, the VTC offers various informal or non-formal adult vocational training schemes, ranging from semi-skilled to short term upgrading programmes. Moreover, there are vocational training programs such as the NET, which is provided by the JAF in cooperation with VTC. Lastly, the informal VPET system also encompasses in-company training programmes organised by the companies themselves or non-profit organisations (UNESCO/UNEVOC, 2019, pp. 8-9). The vocational degrees used in Jordan consist of the following five categories: limited-skilled, skilled, craftsman, technical and specialist. While community colleges and universities are providers for the latter two occupational degrees, the VTC offers training programmes for limited-skilled, (skilled for VET), and craftsman level (Nuffic, 2019, p. 12).

Limited-skilled training is available to people aged 16 and older with no educational requirements, except for literacy. Typically, these courses have a duration of 700 hours or less and include specialisations in hairdressing, machine sewing, food production, carpentry, home maintenance, metalworking, IT, automotive electronics and painting. Craftsman programmes, on the other hand, require a secondary ed-

education as minimum admission criterion. The artisan courses were established in response to the demand for practical training among more highly educated adults in Jordan. The organisation follows a semester-based system similar to the skilled worker programme at the upper secondary level. Subjects taught at the craft level include light mechanics, auto mechanics, metal workers, pipe fitters, cosmetology, plastics manufacturing, water purification, website design and computer network support (Mayen, Johanson, Chemingui, & Mustafa, 2006, pp. 106-108). Finally, a more recent project has been introduced with the Model Skill Centres of Excellence (MSCOE). These training centres were established to offer vocational training in the form of public-private partnerships (PPP), in order to better to the market's need for appropriately trained workers. These projects take place within the framework of Jordan's national HRD strategy 2016-2025, due to the oversupply of graduates and the resulting high youth unemployment rate of 31.8% in 2014 (National Committee for Human Resource Development, 2015, p. 18). According to UNEVOC (2020), the VTC offers MSCOE programmes in the following disciplines: pharmaceutical manufacturers, renewable energy and energy efficiency, and water and environment.

There are also non-formal vocational training programmes and opportunities, which are mainly organised directly through companies or non-profit organisations. The most well-known are NET and UNRWA, which offer vocational training with a somewhat lower level of formality. NET was founded in 2007 by JAF with the aim of training unemployed youth in the construction sector. The partnership between JAF, the MOL and private institutions has since expanded its training programme with additional courses in manufacturing, industry and services (International Labour Organization, 2011, S. 42). The UNRW provides courses in vocational training centres including the *Amman Training Centre* (ATC) and the *Wadi Seer Training Centre* (WSTC). Its focus is on equal education for refugee children from Syria. In the 2018 school year the two centres trained around 2800 pupils, with the success rate at ATC being 31.1% and at WSTC 15% better than the Jordanian average of 61.2% (UNRWA, 2020).

3.2 Professional Education and Training (PET; Post-Secondary Level)

After upper secondary education, vocational education is offered at the short-cycle tertiary level (ISCED 5) in community colleges (Kulleyat Mujtama'). Numerous programmes are offered by public and private community colleges for higher education in vocational subjects under the authority of Al Balqa' Applied University (BAU) and in some cases in cooperation with the VTC (UNESCO/UNEVOC, 2019, pp. 8-9). The BAU was established in 1996 as an institutional body to oversee all public community colleges in Jordan. While it offers programmes of its own, its main function is the coordination of responsibilities regarding technical, financial or administrative issues (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 131).

Admission requirements for community colleges stipulate a general vocational certificate from comprehensive secondary education. In the two-year (grades 13-14) programmes, several intermediate/technical diplomas are offered, such as administration and finance, agriculture, applied arts, applied sciences, engineering, tourism and hospitality, information management and libraries, para-medical subjects or Sharia and Islamic civilisation (European Union, 2017, p. 12). The community college grading system is based on a percentage scale, with 60% being the lowest average passing score. Upon graduation from community college, it is possible for students to continue their studies at a university in the form of a bridging option as already described in subchapter 2.4 Postsecondary/ Higher Education.

This mirrors the strong preference for the academic career path in Jordan, which results in a low enrolment rate for community colleges (ETF, 2014, p. 9). For this reason, the council for higher education is endeavouring to decrease the number of students who apply for the transition from community college to university. Specifically, it aims to reduce enrolment in the bridging programmes from 20% to 5% between 2017 and 2020 with the purpose of encouraging demand for technical education (Ministry of Higher Education & Scientific Research, 2017). The BAU also collaborates with the VTC to implement various training programmes at the levels of the community college intermediate diploma and the equiv-

alent VTC technical diploma (UNESCO-UNEVOC International Centre, 2020). After a Bachelor's degree, students can opt for a Higher Diploma, which can be considered as the highest degree in the vocational education system, as most of them are usually vocationally oriented. However, this pathway is not as widely adopted as it does not give access to a PhD, although there is the possibility to continue with a Master's degree after completing the Higher Diploma (Nuffic, 2017, p. 9).

3.3 Regulatory and Institutional Framework of the VPET System

3.3.1 Central Elements of VPET Legislation

The Technical and Vocational Skills Development Council (TVSDC)¹⁵, is the overarching component of Jordan's VPET legislation. The establishment of a financially autonomous lead organisation for the VPET system is the government's response to a lack of coordination in the vocational sector. Thus, the TVSDC is the steering committee for all institutions involved in vocational programmes, which includes the vocational education cycle, the vocational training cycle, technical diplomas and continuing vocational training. This is particularly relevant for the VTC and informal providers of VPET courses, considering that the vocational education cycle of the MOE and the technical colleges of the BAU are still to a large extent under the responsibility and regulation of their respective ministries. At the same time, the TVSDC also governs the Centre for Accreditation and Quality Assurance (CAQA), which is the national authority for quality standards for VPET training providers and their apprentices (National E-TVET Council, 2014, p. 16).

Prior to the implementation of this governing entity in 2019, a large number of public and private institutions operated autonomously without clear policy or strategic guidance. Despite the TVSDC finally being the first step towards a more coherent development in the alignment of the VPET system, the organisational structure is still perceived as fragmented (UNESCO/UNEVOC, 2019, p. 13). Among the main reasons is the absence of a strong connection to the private sector, which plays an essential role especially in dual vocational programmes. The majority of companies consider participation in training programmes as an additional cost and an unproductive use of time. Given these challenges, the future objective is to promote a market-driven approach in vocational training and simultaneously coordinate the current ministries and organisations in the VPET system (National E-TVET Council, 2014, p. 16).

3.3.2 Key Actors

Government

The TVSDC was established in March 2019, based on Article 31 of the Jordanian Constitution, and is therefore a comparatively new institution (UNHCR, 2020, p. 7). However, there have been previous initiatives for the strategic policy alignment of the VPET system in Jordan. Calls for fundamental reform of VPET providers and their programmes were first voiced in Jordan's national agenda of 2006 under the authority of King Abdullah II. Two years later, the E-TVET Council, headed by the MOL, was created as the predecessor of the TSDVC. The launch was followed by two phases of the national E-TVET

¹⁵ Prior to 2020: Employment – Technical and Vocational Education and Training (E-TVET) Council

strategy 2008 to 2013 and 2014 to 2020 with a substantial focus on achieving better alignment and more cohesive governance in the VPET sector (National E-TVET Council, 2014, p. 4).

Nevertheless, the European Training Foundation (ETF) (2017, p. 2) noted that there was no legal provision for the participation of the MOE, MOHESR and BAU in the policymaking process of the E-TVET Council. Moreover, the concentrated reliance on the MOL led to both inefficiencies and a failure of system-wide coordination. To overcome this fragmentation, the national HRD strategy 2016-2025 urged the establishment of a Skills Development Corporation (SDC) with more connections to the private sector in order to lead Jordan's diversified VPET system (European Training Foundation, 2017, p. 2). As a result, the E-TVET Council was reconstituted into the TVSDC composed of the Ministers of Labour (as chairperson), Education, and Higher Education, the secretary General of the MOL, the president of CAQA, a representative of the Crown Prince Foundation, and eight representatives of different private sectors. In this context, it should be mentioned that the General Federation of Trade Unions is not included in this composition (TVSDC, 2020a).

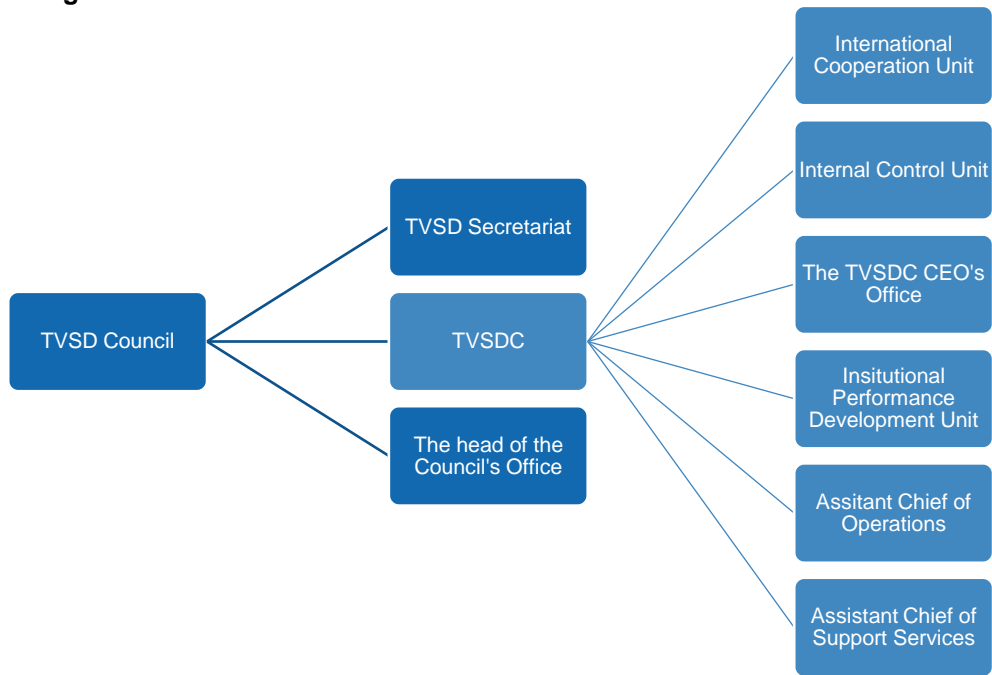
The TVSDC is structured along different organizational organs.

shows the three leading bodies, which are the council itself, the TVSD Secretariat and the head of the council's office. Subordinate to the TVSDC is the Internal Control Unit, the International Cooperation Unit, the TVSDC CEO's Office, the Institutional Performance Development Unit, as well as the Assistant Chief of Operations and the Assistant Chief of Support Services. Among the responsibilities of the Assistant Chief of Operations are the quality assurance and licensing departments as well as the TVET support fund (TVSDC, 2020b).

Outside the council, the mandate for vocational education and training in Jordan is spread across several state entities, the most relevant being the Ministries of Education, Labour and Higher Education and Scientific Research, the VTC, the BAU and the CAQA (UNESCO/UNEVOC, 2019, p. 13). All of these bodies have been introduced in previous chapters, therefore, this chapter will provide an overview of their organisation and roles in the Jordanian VPET system.

The Directorate for Secondary Vocational Education and Training reports to the Secretary General for Educational Affairs. Their work encompasses three main areas: vocational services, vocational production and vocational education. The vocational education department is responsible for monitoring the various specialisations offered in vocational education and has separate units for the different paths in the branches of industry, agriculture, hospitality, nursing and home economics (Mayen, Johanson, Chemingui, & Mustafa, 2006, p. 88).

Figure 5: Organisational Structure of the TVSDC



Source: own figure based on (TVSDC, 2020b)

Education and Training Providers and Advisory Bodies

The MOE is the biggest provider of VET in terms of student enrolment with around 29,000 pupils in its vocational stream in grades 11 and 12, accounting for 13% of high school students in 2013. This VET programme is part of the MOE's comprehensive upper secondary school provision, providing both academic and vocational education in the same schools. Overall, the MOE oversees a network of 190 secondary level schools offering VET (ETF, 2014, p. 9).

The MOHESR provides vocational education at post-secondary non-tertiary and tertiary level (PET) through their network of 51 community colleges. Out of the 51 community colleges, 26 are public colleges: 14 under the auspices of Al Balgaa' University, 6 sponsored by the Armed Forces Department of Education, and 6 other public institutions. Both the public and private technical community colleges are mainly under the supervision of the BAU (ETF, 2014, p. 8). The MOHESR is mainly entrusted with policy implementation, while the Council of Higher Education is responsible for strategic affairs such as policy making and monitoring of universities and community colleges. A private university or community college is required to undergo an assessment by the Higher Education Council before it is considered an independent academic institution. In addition, its curriculum is accredited by examinations of the Higher Education Accreditation Commission as a quality assurance standard (European Training Foundation, 2019, p. 7).

Another major player in VET provision is the VTC, responsible for formal apprenticeship programs with around 10,000 annual enrolments. A semi-autonomous agency supervised by the MOL (Vocational Training Corporation, 2020), the VTC primarily targets the younger segment of the workforce – aged 16 and above – offering apprenticeship programs and vocational training at various skill levels. According to a UNESCO report, *Work-Based Learning in Jordan*, (2018, p. 16), 42 vocational training centres are active in Jordan. This number does not include PET providers such as the National Employment and Training Company (NET), provided by the Jordanian Armed Forces (JAF), and the UNRWA as well as private organizations (Rawashdesh, 2018, p. 16). Training is delivered through a network of 10 specialised institutes and 35 multidisciplinary training institutes (European Training Foundation, 2019, p. 9). The VTC works closely with industry through an established Industrial Advisory Department that advises companies on how to improve their productivity and profitability.

All private universities and community colleges are required to undergo assessment by the Higher Education Council before being considered an independent academic institution. In addition, curriculum is accredited by examinations of the Higher Education Accreditation Commission as a quality assurance standard (European Training Foundation, 2019, p. 7).

A foreign advisory partner for the Jordanian VPET system is the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). It supports the Ministry of Labour in reducing frictions between the needs of the labour market and the VPET provision. The GIZ has assisted in forming and strengthening ties between the education and private sector, and establishes platforms for dialogue (GIZ, 2021).

3.4 Educational Finance of the VPET System

The main bodies of the financing in VPET system are the government of Jordan, the TVET fund, donors, and private funding (ETF, 2014, p. 12). The following section reviews the financing of the three major agencies providing TVET services, including the Directorate of Vocational Education at the MOE, the VTC, and the BAU.

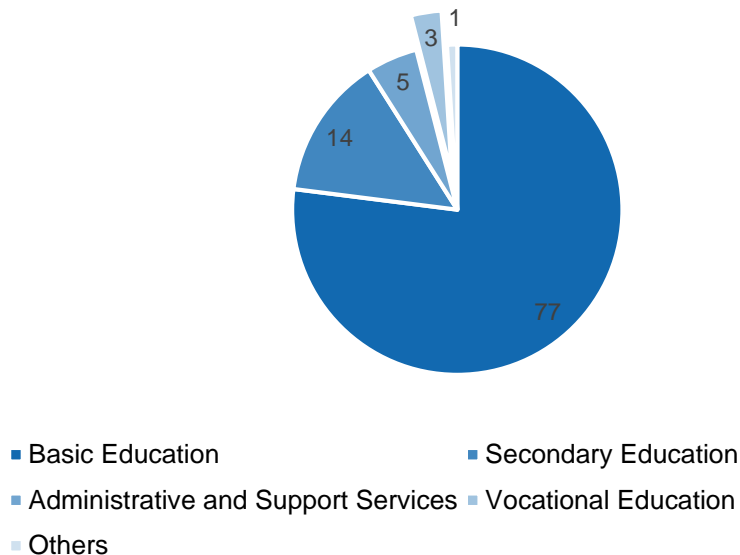
MOE's Directorate of Vocational Education

Three sources account for the financing of public vocational schools from the MOE's Directorate of Vocational Education. The overwhelming majority of financing comes from the public budget. The budget allocation is based on a real-needs assessment of each different training location. The budget approval process entails four main steps. First, at the local level, the schools indicate their financial needs. Second, this budget request is handed to the Directorate of Vocational Education at the MOE, which reviews this preliminary needs identification and incorporates it in the annual budget of the MOE. Third, the total budget of the MOE is sent to the Ministry of Finance for final approval. This overall budget of is later sent to the parliament and subsequently to the King (ETF, 2006, p. 36).

Minor sources of financing include international donations and loans, and symbolic annual contribution of JD6 per trainee (a large share of the student body is exempted from this requirement, mainly those from lower socioeconomic backgrounds) (ETF, 2006, p. 34). In a recent attempt to map out the complex current TVET donor structure in Jordan, the MOL, with the support of the GIZ, found 38 employment and skills development projects with a total funding of €335 million contributed by a 12 agencies. Other TVET programmes belong to broader programmes (e.g. relief agency projects for Syrian refugees) (ETF, 2020, p. 2). One major donor is the European Union (EU), which contributed €54 million to the Jordanian TVET system through a so-called Sector Reform Performance Contract from 2018-2020. Overall donor support in the form of grants, loans, and technical assistance committed to the Jordanian education sector for the years 2014-2023 adds up to US\$1.6 billion as of 2019 (ESC/ UNICEF, 2020, p. 22).

Free public education is primarily funded through government contributions. Government revenue from different sources are pooled and allocated to the respective ministries based on their financial needs (ESC/ UNICEF, 2020, p. 22). The Treasury allocated a budget of JD1.16 billion to the education sector in 2019, accounting for 12.5% of total government expenditure. The major recipient was the MOE with 84%, the MOHESR with 9%, and the remaining 7% to the Ministry of Defence and Ministry of Finance. The share of government spending on public education has decreased since 2013, and represented 3.6% of GDP in 2019, significantly lower than the MENA average of 4.75% (ESC/ UNICEF, 2020, p. 6). Figure 8 shows the MOE's total expenditure of JD1.16 billion by program for 2019. With 77%, the MOE spends the vast majority of resources on basic education, followed by 14% on secondary education. Vocational education only receives a relatively minor share, with 3% of the MOE's annual budget.

Figure 6: MOE Expenditure by Program, 2019

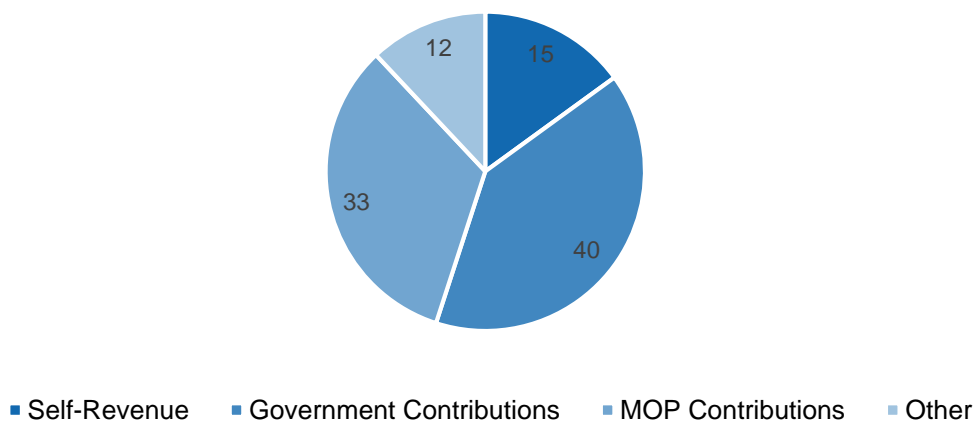


Source: own display based on (UNICEF, 2020, p. 14)

Vocational Training Cooperation

The VTC budget relies on three main sources of income, including government transfers, foreign loans, and self-generated revenue. The approval process of the VTC budget is an abbreviated version of that of the Directorate of Vocational Education. The VTC defines an annual strategy including the specific training provided in each training centre. Costs for all training programs are estimated and aggregated to form a provisional annual budget, which is then sent to the Ministry of Finance for approval. This overall budget of is later sent to the parliament and subsequently to the King (ETF, 2006, p. 40). Revenues generated directly by VTC services primarily stem from trainee contributions. Such training fees of between JD40 and JD80 per semester are considered rather high in the economic context of Jordan and, as with trainees under the MOE, a significant proportion of the student body are exempted from payment (mainly from lower socioeconomic backgrounds) (ETF, 2006, p. 38).

Figure 7: VTC Revenue by Source, 2004



Source: own display based on (ETF, 2006, p. 40)

Al-Balqa University

The university of applied sciences offers training through both private and public community colleges and is financed through government contributions, student fees, and foreign loans and donations.

In the case of PET, public education institutions, funding comes primarily from student fees, government funds, donations and other grants, as well as through income generated from consultancy and research services. About two-thirds of the budget of public universities and colleges comes from tuition fees, while state funding accounts for a mere 10-15%. For this reason, so-called "parallel programmes" have been introduced. These special programmes permit a small number of students to access university programmes without having sat the entrance examination, and charge substantially higher fees to improve the financial situation in academic institutions (European Union, 2017, p. 4).

TVET Support Fund

The Technical and Vocational Education and Training Support Fund is stipulated in Jordanian law. The goal of this fund is to subsidize and enhance contributions to both private and public sector training providers. The fund is financed primarily through a levy on corporate profits and receives voluntary contributions from government transfers, private donations, and foreign aid. This system is unique worldwide, insofar as there is no other country imposing taxes or levies on corporate profits (as opposed to the overall payroll bill) in order to finance the training of its labour force (ETF, 2006, p. 43). This TVET tax is not applicable to all companies as it only applies to (a) public-participation companies, (b) limited-liability companies, (c) private-participation companies, and (d) to foreign companies.

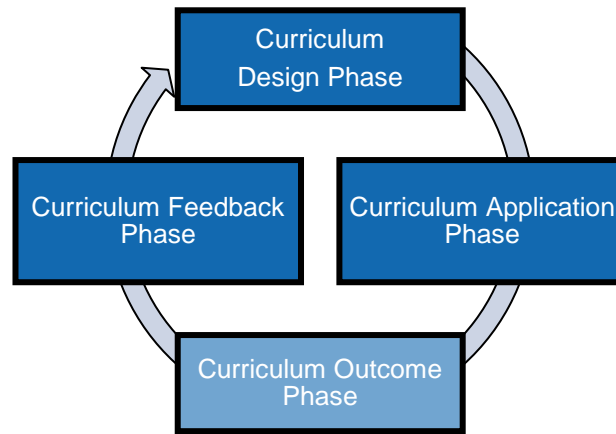
The public TVET fund was replaced by the Technical and Vocational and Skills Development Activities Support Fund established by the 2019 Technical and Vocational Skills Development Law. This fund finances TVET programmes for unemployed individuals as well as for low-income groups and enables them to find work opportunities (ETF, 2020, p. 2).

3.5 Curriculum Development

The curriculum is a central element for the functioning of a VPET system by defining the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with a curriculum design, a curriculum application and a curriculum feedback phase. This theoretical concept is called the Curriculum Value Chain and is depicted in figure 15 below (CVC; for more details see Renold, et al. 2015; Rageth & Renold, 2019).

In the curriculum design phase, VET curriculum content and qualification standards are decided upon by the relevant actors. Therefore, the discussion in the respective subchapter below focuses on the degree and the amount of stakeholder participation concerning curriculum design in Jordan. The curriculum application phase revolves around the implementation of the curriculum. Because learning environments differ heavily across countries—especially with respect to the prevalence of workplace learning—the curriculum application phase subchapter in this Factbook focuses on those learning environments. Specifically, it addresses where learning takes place and whether the curriculum dictates both school and workplace learning or only one of the two. Finally, curriculum outcomes can be collected and analysed in the curriculum feedback phase. This evaluation process is important as it may render a more refined curriculum design than was possible in the first place.

Figure 8: Curriculum Value Chain



Source: Renold et al. (2015) and Rageth & Renold (2019).

3.5.1 Curriculum Design Phase

The design phase is crucial for the whole curriculum process. In order to ensure that the skills taught in the VPET programmes correspond to the needs of the labour market, experts from companies should be involved in defining the qualification standards and learning contents of the curricula. A demand-responsive VPET system can adapt quickly to the needs of the labour market, to reduce output in areas of oversupply and to ratchet up production in areas of unsatisfied demand. However, most VPET programmes in Jordan are developed based on rigid and unresponsive supply-driven model and do not sufficiently take into account the actual training needs of employers (Evans, 2002, p. 123). The minimal employer engagement in identifying relevant knowledge and skills that VPET programs should teach results in a significant mismatch between demand and supply on the labour market (Nuffic, 2020, p. 13).

The VTC is the only TVET institution in Jordan that actively involves companies in VPET provision and thus ensures a demand-responsive service delivery (ETF, 2006, p. 24). The VTC has introduced many reforms to develop a supply-driven curriculum design approach, which is highly responsive to the demands of the labour market (ETF, 2014, p. 9). In order to achieve this, the VTC established sector-specific training committees and curriculum groups in the late 1990s. The goal was to increase the fit of the VPET content with labour market demands by incorporating employers' interests in curriculum development. Because of a lack of employer interest, such curriculum groups have not been able to deliver expected results and have ceased to exist. Very few cases of employers being able to introduce a meaningful shift in the curriculum are known (Evans, 2002, p. 122). In interviews conducted for the ETF report (2006, p. 24), many employers stated that their curriculum advice was often ignored in the VPET content development phase or that they were simply outvoted by bureaucrats. Employers were often viewed as guests, which limited their voice in the groups and contributed to a growing frustration with the insufficient oversight and bureaucratism of the curriculum development process, which ultimately discouraged participation.

Another effort towards closing the skills mismatch in the Jordanian labour market through active curriculum adjustments came from the National Centre for Human Resources Development (NCHRD). This national institution was established to survey private-sector appetite for specific skills in order to design relevant job curricula for VPET institutions (Nuffic, 2020, p. 14). Despite the well understood need of close cooperation between employers and educators, Jordan so far has limited success in achieving systematic private sector expert involvement upstream in the VPET process - in planning, developing, and implementing vocational curricula (ETF, 2006, p. 24). Overall, VPET programmes show little demand-responsiveness as most curricula are outdated and centrally developed based on a supply-driven model (Nuffic, 2020, p. 14).

Understanding the mismatch between the demand and supply of a specialized workforce and thus a lack of private sector involvement in the VPET curriculum development, the Jordanian government has addresses the challenges in the "National Strategy for Human Resource Development 2016-2025" and

reached out to GIZ for support (GIZ, 2021). Together with the GIZ, the MOL aims to strengthen partnerships and catalyse discussion between the education and the private sector by establishing dialogue platforms.

3.5.2 Curriculum Application Phase

The way in which a curriculum is implemented - especially with respect to learning environments - is important for achieving the intended learning outcome. The following discussion of the curriculum application phase is divided between the two main providers of vocational education and training, the MOE and the VTC.

Despite the limited participation of social partners upstream in the training process, as noted above, employer involvement is strong downstream. The most salient feature of the collaboration of industry and training downstream in the Jordanian VPET system is the practice of “apprentice dual training”, where trainees are exposed to both workplace and classroom training (ETF, 2006, p. 24). This level of employer involvement in the curriculum application phase is rarely seen outside of Europe. The emphasis on practical work experience, as introduced by the over 5’000 enterprises who provide apprenticeship places, helps graduates to develop practical skills needed on the job later in their career (ETF, 2006, p. 24).

The VTC is mandated by law to incorporate work-based learning in the form of apprenticeship training in its training programmes. Such work-based training is available for multiple occupations and occurs in equipped training facilities and in the respective companies. Only in a few cases is the complete training delivered by the company exclusively (UNESCO, 2018, p. 19). In order to provide this learning experience, the VTC cooperates with more than 2400 private employers of all scales, from micro enterprises to large companies. Public sector institutions also provide such apprenticeship training programs (UNESCO, 2018, p. 20). VTC programs entail three distinct stages. The basic stage includes up to 100 hours of vocational theory and practical training conducted within the training facility. The specialised stage alternates between one week of vocational theory and practical training at the training facility and one week work experience with an employer. The duration of third and final stage depends on the profession and involves purely work-based learning (UNESCO, 2018, p. 21).

The VTC closely monitors the skill development of the apprentice by mandating both the trainer and the trainee to record progress in skills learned in a logbook. The apprentice is required to track both theoretical and practical details of their apprenticeship in a special trainee book developed by the VTC. The content of this trainee book is closely monitored, commented, and adapted by the employer and trainers (UNESCO, 2018, p. 32).

The MOE is the main vocational education and training provider through its upper secondary comprehensive vocational education stream, available at around 200 vocational schools across Jordan. The MOE’s vocational education and training entails theoretical education and practical training at the vocational schools but no compulsory on the job training (UNESCO, 2018, p. 23). However, some students who pass the first year spend up to three weeks of practical training in a real workplace setting during summer break (Mayen et al., 2006, p. 90 et seq).

A relevant distinction in the Jordanian context of work-based training is with respect to the formality of the training. Although declining, the historically important work-based training for the youth to acquire traditional craftsmanship is still widely used both by young labour market entrants and companies. While no comprehensive data exists on informal apprenticeships in Jordan, some studies suggest that between 70 and 85% of the surveyed companies did not employ TVET trained individuals (revised in UNESCO, 2018, p. 19). This suggest they primarily rely on skills acquired in an informal work-based setting. The studies also suggested that informal work-based training occurs mostly in small businesses with less than 11 workers. In larger companies, informal training also takes place but in a more structured way through their own training facilities and workshops.

3.5.3 Curriculum Feedback Phase

The curriculum feedback phase deals with the question, whether and how educational outcomes are analysed. Based on this, the curriculum can be reworked and improved.

In order to establish a demand-responsive system of TVET provision, an educational system requires both regularly updated information on the labour market and corporate engagement. Jordan has installed an information system called *Al Manar* that tracks demand trends and identifies mismatches between demand and supply resulting in workforce shortages or unemployment (UNESCO, 2018). Despite these efforts, employers can often not find the relevant skills. The establishment of a national centre for curriculum development by the Jordanian cabinet is another attempt to see specific skills demanded by the employers reflected in educational programmes (Nuffic, 2020, p. 14). Although the new centre for curriculum development has developed new demand-responsive curricula for academic subjects, it has not yet developed vocational curricula.

3.6 Supplying Personnel for the VPET System (Teacher Education)

The following paragraph on selection, qualification, and professional development of teachers is based on MOE (2018) and Aljaghoub (2012, p. 10). The MOE and VTC works to recruit teachers in cooperation with the Civil Service Bureau (CSB). The appointment of qualified teachers poses a major challenge and is based on a weighted average of the candidate's secondary GPA, academic qualifications, civil service examination results, and graduation and application year. The CSB does not recognize technical qualifications in its recruitment process. Although VPET teachers must hold at least a Bachelor's degree, there is currently no comprehensive and clear career path for teacher pre-service training. Thus, the MOE and VTC mostly receive fresh graduates with little practical work experience, which is particularly problematic. This is partly attributable to the low level of wages the Civil Service pays, which tends to be an unattractive choice for workers with working experience and those in high-salary occupations.

The National Teacher Training Institute (NTTI) was established as one of Al-Balqa' Applied University's centres and is concerned with training pedagogical skills in teachers of all levels of VPET (UNESCO UNEVOC, 2020). Its primary goal is to develop the professional skills of teachers and trainers to work in VPET institutions in the public and private sector. The NTTI offers basic pedagogical courses with a duration of approximately 250 hours and aims to provide this service to all VPET teachers so no teacher or trainer conducts VPET without the specific certification (ETF, 2006, p. 31 et seq). At the time of its establishment, the plan was to annually train around 1'900 teachers. It is important to understand that the NTTI operates parallel to the Training and Development Institute of the VTC, which provides training in technical rather than pedagogical subjects (ETF, 2006, p. 31 et seq).

4. Major Reforms in the Past and Challenges for the Future

4.1 Major Reforms

The Government of Jordan has launched several national policies and strategies to reform the TVET sector. These include the "National Strategy for Human Resource Development" (NSHRD) 2016–2025, which aims to increase enrolment in secondary vocational education to 15% by 2025. The strategy pursues this goal by improving access, quality, and governance in the TVET sector (GoJ, 2016). While the NSHRD pursues a holistic strategy aiming to improve various levels of the education sector in order to achieve sustainable economic, social and environmental development in the country, it has a clear

focus on the TVET sector. This includes strengthening the relevance of TVET, improving the quality of training and education in the sector, introducing private sector-centred governance structures (e.g. Sector Skills Councils) and, finally, breaking the negative stigma around TVET in the country (ILO, 2019)

Another reform adopted by the Jordanian government is the "Jordan National E-TVET Strategy 2014-2020," which aims to build better alignment and coherent governance in the TVET sector. The comprehensive strategy identifies five key action points (ILO, 2019, p. 21). Its main objective is to integrate women, youth, and people with disabilities into the labor market. This comprehensive reform aims to create a demand-driven E-TVET system that harmonizes policies and strategies and effectively manages the coordination of the E-TVET system as a whole (ILO, 2017, p. 12).

The "Technical and Vocational Skills Development Law" of 2019 established multiple Sector Skills Councils (SSC) in partnership with both public and private actors with three SSCs supported by international organisations (ILO, 2019, p. 24). The ILO, the European Bank for Reconstruction and Development, and GIZ each support a SSC (e.g., the EBRD supports the Skills Council of the hospitality and tourism sector). All SSCs are established for several purposes: a) develop, manage, and maintain an effective and responsive labour market intelligence system, b) improve the matching of supply and demand for skilled workers in the labour market, c) monitor and evaluate the process and results of TVET and workers productivity.

4.2 Major Challenges

This chapter describes some of the most pressuring issues for the Jordanian TVET system, including a lack of employer involvement in curriculum design, the demand-irresponsive TVET system, and the low performance and exclusionary effect of the Tawjihi.

The lack of involvement from the private sector in the curriculum design phase, as discussed previously in section 3.5.1, is highly problematic because the content of TVET programmes are insufficiently aligned with the demands from the labour market. The lack of employer engagement in identifying relevant knowledge and skills that VPET programs should teach results in a strong skills mismatch on the labour market (Nuffic, 2020, p. 13).

This is a major challenge that concerns both the VTC's and the MOE's demand-responsiveness of education and training provision. The primary problem is that VPET centres need to be able to respond to labour market needs in a more flexible and autonomous manner. The European Training Foundation (2006, p. 146) thus recommends an exhaustive action plan which aims to improve communication procedures, speed of decision-making processes, and ensure flexibility in meeting the needs of the local environment.

A major challenge of the Jordanian TVET system has to do with the central, highly important exam in Jordan's education system, the Tawjihi. This general secondary certificate examination serves the dual purpose of high school graduation and determining admission to PET tertiary colleges or universities. However, approximately 50% of the students do not obtain a passing score and a further 25% do not show up for the exam. The major problem with this is that most students leave high school empty-handed in terms of qualifications and with just a "Tawjihi failure certificate". Put simply, the highly competitive, high-stakes exam acting as a gatekeeper for higher education has a devastating exclusionary effect on the majority of school-leavers (World Bank, 2017, p. 6).

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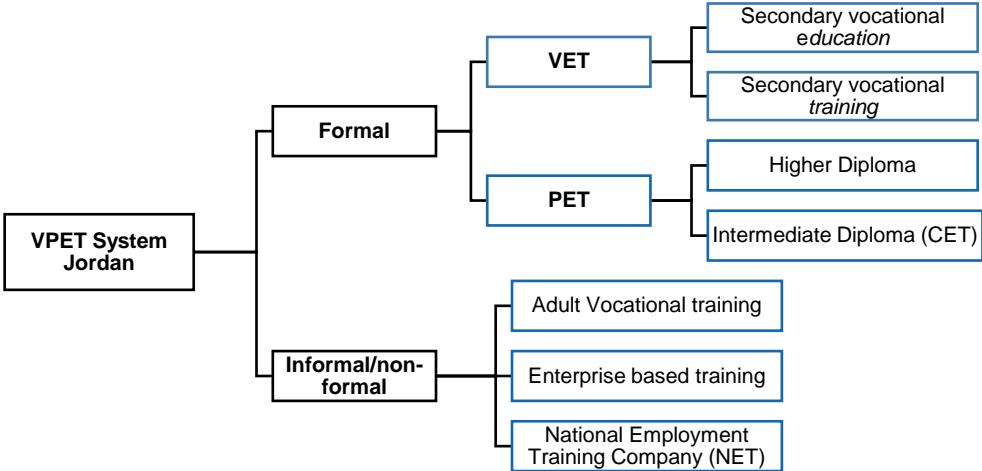
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Appendix

Appendix I: Overview of the VPET system



Source: Own figure based on (National Erasmus+ Office Jordan, 2018) and (UNESCO/UNEVOC, 2019)

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