POLICIES FOR HUMAN CAPITAL DEVELOPMENT

ARMENIA

AN ETF TORINO PROCESS ASSESSMENT
Disclaimer
The report was prepared in the framework of the Torino Process 2018-20 by Vincent McBride, ETF.

The contents of this report are the sole responsibility of the ETF and do not necessarily reflect the views of the EU institutions.

© European Training Foundation, 2020

Reproduction is authorised, provided the source is acknowledged.
PREAMBLE

The European Training Foundation (ETF) assessment provides an external, forward-looking analysis of a country’s human capital issues and vocational education and training (VET) policies from a lifelong learning perspective. It identifies challenges related to education and training policy and practices that hinder the development and use of human capital. It takes stock of these challenges and offers recommendations for possible solutions.

These assessments are central to the Torino Process, an initiative launched by the ETF in 2010 with the aim of providing periodic reviews of VET practices in the wider context of human capital development and inclusive economic growth. In order to make a high-quality assessment of VET policy from a lifelong learning perspective, the process builds on four key principles: ownership, participation, holistic analysis, and evidence-based analysis.

For ETF, human capital development is defined as the provision of support to countries for the creation of lifelong learning systems that provide opportunities and incentives for people to develop their skills, competences, knowledge and attitudes throughout their lives for the sake of employment and the realisation of their potential, and as a contribution to prosperous, innovative and inclusive societies.

The purpose of the assessments is to provide reliable information to assist in the planning and monitoring of national education and training policies for human capital development. They also aim to help promote dialogue with the European Union and other donors about programming and policies to support initiatives in this realm.

The ETF assessments rely on evidence from countries collected with the use of a standardised reporting template called the National Reporting Framework (NRF). Information is gathered through a participatory process that involves a wide variety of actors and a high degree of ownership by the country. The findings and recommendations of the ETF assessment have been shared and discussed with national authorities and beneficiaries.

The assessment report starts with a brief description of the country’s strategic plans and national policy priorities (Chapter 1). It then presents an overview of issues related to the development and use of human capital in the country (Chapter 2), before moving on to an in-depth discussion of problems in this area that the ETF believes require immediate attention (Chapter 3). Chapter 4 offers overall conclusions.

The annexes provide additional information: a summary of the recommendations (Annex 1) and an overview of the country’s education and training system (Annex 2).

ETF would like to thank to all of the members of the Torino Process working group in Armenia who worked on the Torino Process National Report. Particular thanks should be sent to the Ministry of Education, Science, Culture and Sport, which provided valuable support through the whole process. The National Torino Process Report compiled by the country itself can be found here: https://openspace.etf.europa.eu/trp/torino-process-2018-2020-armenia-national-report.
# CONTENTS

<table>
<thead>
<tr>
<th>EXECUTIVE SUMMARY</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>7</td>
</tr>
<tr>
<td>Summary of findings on human capital</td>
<td>7</td>
</tr>
<tr>
<td>Recommendations for action</td>
<td>10</td>
</tr>
</tbody>
</table>

## 1. INTRODUCTION

<table>
<thead>
<tr>
<th>About this assessment</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country overview</td>
<td>13</td>
</tr>
<tr>
<td>Strategic context</td>
<td>15</td>
</tr>
</tbody>
</table>

## 2. HUMAN CAPITAL: DEVELOPMENT AND CHALLENGES

<table>
<thead>
<tr>
<th>Overview</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient capacity for human capital development in the public sector</td>
<td>18</td>
</tr>
<tr>
<td>Gender-based discrepancies in the use of human capital</td>
<td>19</td>
</tr>
<tr>
<td>Weaknesses in skills utilisation in employment</td>
<td>20</td>
</tr>
<tr>
<td>Shortage of resources for human capital development</td>
<td>21</td>
</tr>
</tbody>
</table>

## 3. ASSESSMENT OF KEY ISSUES AND POLICY RESPONSES

<table>
<thead>
<tr>
<th>Area of challenges: training opportunities in support of lifelong learning</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of challenges: SME employment opportunities and quality of skills</td>
<td>31</td>
</tr>
</tbody>
</table>

## 4. CONCLUSIONS

| ANNEX 1. SUMMARY OF RECOMMENDATIONS | 45 |
| ANNEX 2. EDUCATION SYSTEM OF ARMENIA | 47 |
| ACRONYMS | 49 |
| REFERENCES | 51 |
EXECUTIVE SUMMARY

Context

The European Training Foundation (ETF) assessment provides an external, forward-looking analysis of a country’s human capital issues and vocational education and training (VET) policies from a lifelong learning perspective. It is based on evidence provided in the Armenian National Torino Process Report compiled in 2019 using a standardised questionnaire called the National Reporting Framework (NRF) and additional information sources, where relevant.

The assessment process included an extensive phase of desk research based on responses to the NRF and the preparation of a paper about the major issues that included an overview of the themes to be discussed in the present report. It was finalised in consultation with the country and thematic teams that are responsible for Armenia at ETF.

The National Development Strategy for Armenia for 2014-2025 views education ‘as one of the preconditions for sustainable development for the country’. In this context, vocational education is recognised as a small but important contributor.

In Armenia, VET initiatives concentrate primarily on initial VET (IVET). IVET is divided into two levels: preliminary (craftsmanship) and middle vocational education. Both offer vocational qualifications, which help open access to the labour market. Individuals can also pursue a secondary general diploma, called a Matura.

Armenia faces significant human capital development challenges – including a high rate of labour market inactivity (39.1%), high unemployment (17.8%), particularly in urban areas, a large informal sector and substantial differences between regions and population groups. Notably, young people and women are underrepresented in the labour market. These challenges limit the development and use of human capital, leading to both constraints and extra costs. The country spends relatively little on education (2.8% of GDP) and employment programmes (0.1% state expenditure).

VET programs suffer from a perceived disadvantage because higher education seems to offer students better returns. The employment rate for higher education graduates is 60.5%, compared to 51.1% for VET graduates. Higher education graduates tend to obtain better jobs: 72.6% hold high-skilled jobs compared to 30% of VET graduates, and they earn 27% more on average. This would seem to make higher education more attractive to students; however, at the same time, a greater focus on higher education could lead to more mismatches in the labour market.

Summary of findings on human capital

A brief analysis of economic and labour market developments in Armenia points to the following issues regarding the use of human capital in the country.

Armenia has made important and valuable progress in appropriate directions in recent years with limited resources. In the past 10 years, the country has updated its VET system to include:

2. ETE KIESE Indicators, 2019
entrepreneurial learning in the curriculum; regular continuing professional development for VET teachers; sector skills councils; work-based learning; qualification standards, including the use of learning outcomes; quality assurance measures; and closer links between VET institutions and businesses, with significant progress on career guidance. The approach undertaken by Armenia is in line with contemporary approaches to VET.

Most current measures address skill development, largely through educational institutions, basically preliminary and middle VET schools. There are few other options for individuals to participate in recognised training. Multiple actors provide business-related training, but the sector is fragmented. It could be further developed to create a system of continuing vocational training (CVT) centred around enterprises and private entities to complement the existing school-based system. The present system also fails to integrate non-governmental organizations (NGOs) and their substantial training programs. These are important from a human capital development perspective because they often work with marginalised people who, for example, work in the informal sector or are not active in the labour market.

To maximise the potential of current initiatives to improve the experience of people in the labour market, existing reforms need to be augmented by new measures to improve links between the different reforms. These could include, for example, stakeholder partnerships, particularly between employers and public authorities. Stakeholders should focus on networking, the sharing of expertise and cooperative decision making, specifically between public and private institutions. To meet the challenges of human capital development, both public policy and market-oriented initiatives will be needed. This will help ensure that improvements in one part of system can be tracked and adopted in another area.

Steps have been taken to establish a national qualification framework. Armenia should continue to work on its development and implementation, focusing specifically on industrial sectors. A qualification framework can lead to further progress on reforms. Promising initiatives would be more easily connected by a common reference point. To further develop the qualification framework, public authorities would need to work more closely with the private sector and NGOs, particularly in relation to the accreditation of recognised training.

The government recently started to develop a work-based learning scheme. It has prepared a road map based on a national consensus. The proposed system has the potential to provide a valuable additional option for people in the labour force to access training and complement existing institutional programmes. Introducing the system will require more resources and closer cooperation with industry and NGO stakeholders.

The existing system for teachers would be improved by the development of a qualification framework for them and VET professionals. This could also be used to create links with people in new and related occupations, such as mentors, coaches, demonstrators, and assistants. The framework could also be used to develop new standards for emerging specialties in the vocational training area, such as workplace trainers and assessors.

VET teachers and practitioners are in theory ‘dual professionals’ who have acquired skills from both industry and the educational system. In this respect, VET is unique in the education sector. This engenders both challenges and opportunities for staff recruitment and retention. In addition, the pro-reform atmosphere opens opportunities for VET professionals to take positions in organisational leadership and management instead of doing hands-on training.
The current system does not address job quality or management capacity. Progress in these areas would help boost productivity and ensure that skilled workers are optimally deployed by enterprises. Micro, small and medium-sized enterprises play significant roles in the country. There are strong entrepreneurship programmes in schools, but limited opportunities for small business people, particularly in the rural areas, where there are large numbers of own account workers. Targeted programmes could promote productivity by offering them more access to information and training.

Working age women tend to have higher levels of education and qualification than men. Nevertheless, women lag significantly behind men in the labour market. Active measures to overcome wage inequalities and labour force participation should be developed within the context of an updated employment strategy.

The Ministry of Labour provides short-term employment-related training as part of its suite of unemployment programmes. Run by the Ministry of Education, VET targets mainly entry-level training. There are links at the local level between two ministries, but training run by the ministries and the business community mostly take place in separate environments and have different orientations and cultures. More integration between the two programmes would support learning pathways from education to employment and likewise from the labour market to continuing vocational training.

The assessment makes recommendations in two main areas. First, in relation to the VET education system's institutional framework and programmes with the aim of supporting the development of a lifelong learning system. These principally address areas where there is evidence of innovation that could be accelerated (e.g. work-based learning and the qualification framework) and where new initiatives would improve the overall operation of the system (e.g. partnerships).

The second set of recommendations is principally linked to the context in which skills will be used - mainly employment and enterprises - and the need to focus on the quality of employment. The recommendations also suggest that people in the labour market need support, for instance, through pathways to skill development that enable people to move out of the informal sector.

Education and employment policies need to be considered together. The sole aim should be to create a system that supports the development of good skills and high-quality employment. With these long-term goals in mind, it will be important to identify the right steps to take both now and in the medium-term.

---

Recommendations for action

Increase training opportunities to support lifelong learning

**R1. Develop and expand the continuing vocational training sector**
The government should work with the private sector and NGOs to accelerate the development of an industry-led continuing vocational sector.

**R.2. Strengthen and create new VET and skills partnerships**
The current policy advisory structures for employment and training should be reviewed to identify the strengths and weaknesses of existing structures in the context of VET and employment policies. This should include the role that could be played by employers in the implementation of the framework. Partnerships should take account of four main types of relations that need to be improved. These are:

1. Relations between public authorities and agencies (e.g. the Ministry of Education, the Ministry of Labour, and others with responsibility for skill development, such as those in charge of rural and business policies).
2. Public Private Partnerships related to the management and guidance of VET and the coordination and implementation of continuing vocational training. This would include the expected national qualification framework.
3. National and local partnerships that connect local and regional organisations with national authorities.
4. Private and private partnerships, e.g. between companies and business organisations, particularly at the sectoral level.

**R3. Strengthen work-based learning**
Promote work-based learning in more schools and companies. These should focus on various target groups, such as young people and adults. The national regulations on work-based learning should be adopted and supporting tools and instruments should be developed. Priority should be given to the training and employment of business relations coordinators, one from each vocational school. Lessons learned from successful donor projects should be made available to other vocational schools.

**R.4. Implement the Armenian Qualification Framework**
The Armenian Qualification Framework should be fully implemented. Among other things, it should be used to help bolster quality assurance for vocational education and training programmes, in particular those offered by private and non-for-profit training providers.

**R5. Update teacher training and professional development through the creation of a sector qualification framework for teachers and trainers**
Teachers need to acquire new functions and skills. The Ministry of Education, Science, Culture and Sport should launch a sector qualification framework for teachers. It should bring all secondary education professionals together into an integrated career structure that facilitates transfers and career progression. It should incorporate new and emerging human capital professions such as mentors, assessors and workplace trainers.

In cooperation with other relevant business stakeholders, the ministry should:

- Help teachers of VET schools acquire new knowledge (to update and upgrade their skills)
- Help employees of private companies obtain training so they can support learners
- Expand career guidance services for students to better inform them of career opportunities
Better skills and employment: small business and the labour market

R.6. Support enterprises in skill development
Regional enterprise resource centres should be established to provide informal enterprises with access to information and advice on how to access potential markets for their products and services and to support their participation in training.

Managerial competence impacts directly on the labour market because it affects the ability of firms to recruit, sustain and develop staff.

The business community should support community education programmes for entrepreneurs. They should focus on providing information and guidance, including:

- mentoring and/or one-to-one interaction
- better use of business networks and local cooperation
- the use of cutting-edge computer and communications technologies to deliver management development assistance to small enterprise owners and managers, along with more flexible education and development systems, such as open learning

Policy should target informal enterprises in rural areas to provide support measures which strengthen their abilities to cooperate and share resources.

R.7. Support the participation of women in the labour force and work
The government should review its policies in education and employment to identify areas where women are disadvantaged and work on new programmes to support their participation in continuing training and employment, particularly for those women who face multiple barriers to employment. The government should work with employers to identify and eliminate pay discrimination.

R.8 Revise and update the employment policy
A substantial effort is needed to increase the number of quality jobs. This should be a major component of a revised employment strategy that should promote job creation and forge pathways to higher skilled employment. In the previous revision, employment policy shifted from passive to active measures. The next one should integrate human capital development to combat informality by offering pathways into quality employment. This could be achieved through a new countrywide training scheme aimed at lower- and mid-qualification levels (e.g., 1-4) that includes young people.

The programme should provide a stepping stone to primary labour market jobs, improve and increase broad-based work-related training, and help people build better lives. The programme should improve the status of many jobs. The target group must include both employed and unemployed individuals because many jobs offer unstable employment and few training opportunities.

R.9. Conduct a review of the costs of reforming training to meet the demand for higher skills and better labour market participation
The review should gather evidence from multiple stakeholders, including employers and community organisations. It should consider short-and-medium-term costs as well as possible sources of funding.
1. INTRODUCTION

About this assessment

This ETF assessment was prepared in 2019 on behalf of national authorities in Armenia with the help of a standardised framework questionnaire called the NRF. The assessment summarises the main challenges to the development and use of human capital in the country and discusses how education, in particular VET, and labour market policies can help address them.

This ETF assessment comes at an important time, as the country prepares for the next Eastern Partnership (EaP) multiannual programme. Launched in 2009 as a joint policy initiative, EaP aims to deepen and strengthen relations between the European Union (EU), its member states and its six Eastern neighbours: Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine. In May 2020, all six EaP countries and the EU will launch the third phase of the initiative and agree on a new ambitious workplan, revising the 20 deliverables for 2020. It will aim to bring tangible benefits to the lives of citizens across the region. In this context, cooperation between the EU and its EaP partners will focus on building stronger economies, stronger governance, stronger connectivity and stronger societies.

The assessment process included an extensive phase of desk research based on responses to the NRF and the preparation of an issues paper with an overview of themes to be discussed in the present report. These were then finalised in consultation with the country and thematic teams responsible for Armenia at ETF. An advanced draft of the ETF assessment was circulated to national stakeholders and international partners and discussed at a consultation meeting in Erevan on 26-27 November 2019 to verify the findings and recommendations.

Like other ETF assessments, this paper is not meant to be exhaustive. The National Torino Process Report on Armenia covers a broad selection of problems related to human capital development and use. The focus here is on challenges and recommendations considered to be priorities by the ETF.

The problems featured in the assessment share three common features. First, they obstruct the development and use of human capital. Secondly, they can be resolved at least in part through education and training - actions that fall under the purview of VET decision-makers, practitioners and stakeholders. Thirdly, in the view of the ETF, they require immediate attention.

Country overview

Armenia is an upper middle-income country with an estimated per capita GDP of US$ 4046.75.

Economic growth in Armenia has been strong in recent years: 7.5% in 2017, 5.2% in 2018, and projected 4.3% in 2019. A further 4.5% increase is forecast for 2020, primarily reflecting higher private consumption and a strong build-up of investment inventories6.

---

There has been a consistent shift from employment in Armenia from industry and agriculture towards services. However, agriculture continues to play a substantial role and still accounts for almost one-third of jobs.

**TABLE 1. EMPLOYMENT BY ECONOMIC SECTOR**

<table>
<thead>
<tr>
<th>Sector share of Employment</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>34.8</td>
<td>35.3</td>
<td>33.6</td>
<td>31.3</td>
</tr>
<tr>
<td>Industry</td>
<td>16.7</td>
<td>15.9</td>
<td>15.8</td>
<td>13.1</td>
</tr>
<tr>
<td>Services</td>
<td>48.5</td>
<td>48.8</td>
<td>50.6</td>
<td>55.5</td>
</tr>
</tbody>
</table>

Source: ETF, 2019

One-third of the population lives in the capital, and Yerevan accounts for half of the enterprises in the country and 70% of private sector employment and turnover.

Armenia ranks 41st in the World Bank’s Doing Business Survey, up from 47th in 2017, the gain largely due to improvements in the business regulatory environment.

In the Human Capital Index, Armenia ranks 78th among 157 countries. The country’s score of 0.57 is lower than the average for the European and Central Asian region.

The population of Armenia is 2 980 000. It is small, shrinking and ageing. The average annual population growth rate in recent years is 0.2% However, between 2010 and 2018, Armenia’s population fell from 3,055,200 to 2,972,700.

By 2050, more than 22% of Armenia’s population will be 65 or older, creating a growing demand for social services, and associated government expenditures.

The trend is caused by a combination of factors, including declining fertility rates and increased migration. According to the National Statistical Service of Armenia (Armstat), the fertility rate is 1.6 children per woman. The population decline tends to be greater among males than females, mainly due to male migration. The male population fell by 36 800 compared 19 800 for females since 2010. Significantly, the ratio of the youth population (aged 15–24) to the working-age population is also falling - from 24.6% in 2010 to 17.2% in 2018.

This demographic trend is likely to translate into new demands for continuing education.

Remittances from migrant workers, which normally contribute significantly to the Armenian economy, have decreased since 2015 mainly due to the slowdown in Russia, where there has been reduced domestic demand and less need for migrant labour.

---

7 ETF KIESE indicators, Armenia 2019
8 World Bank Armenia update, 2019
10 World Bank, 2018: https://data.worldbank.org/indicator/SP.POP.GROW
11 ETF KIESE indicators 2019
13 ETF KIESE indicators, 2019
Armenia has made progress in reducing poverty. The percentage of people under the poverty line plunged from a peak of close to 55% in 2004 to 25.7% in 2017. Wage increases and employment growth, notably in the construction sector, fuelled the improvement, along with agricultural revenues in rural areas generated during the double-digit growth period of the 2000s.

Regional disparities persist between the capital, Yerevan, and rural areas. These are generally due to limited economic activity and a lack of job creation beyond the agricultural sector. The poverty rate is highest in urban areas outside the capital, at 27.9% in 2017; these areas register elevated levels of emigration as well. Poverty in rural areas is 26.8%. Over two-thirds (70%) of Armenia’s poor live in secondary cities and rural areas. The lowest poverty rate is in Yerevan, where it stands at 22.4%.

Strategic context

Peaceful and popular street demonstrations in May 2018 in Yerevan and other Armenian cities forced Armenia’s long-standing leader from power and resulted in a change of government followed by the election of a new prime minister. Subsequent political developments have been well supported by the population of Armenia. The parliamentary elections in December 2018 enjoyed public trust and recognition for their respect for fundamental freedoms.

The changes led to new teams in both the Ministry of Education, Science, Culture and Sport and the Ministry of Labour and Social Affairs. The overall challenges have not changed but the new environment offers policymakers an opportunity to look at their options with a fresh perspective. The changes in the portfolios coincided with a period when the policies for vocational education and employment were both scheduled for review.

The new government has committed itself to democracy-building, modernisation, an open economy, and a new five-year government programme. The main pre-requisites for the success of the reforms are believed to be good governance, anti-corruption measures, and support for the rule of law.

The new government has also reiterated its full commitment to the implementation of the EU-Armenia Comprehensive and Enhanced Partnership Agreement (CEPA) signed in November 2017. Among other things, the partnership agreement calls for the mobilisation of human capital. The reform process remains at an early stage, but progress on this front by the new government will be important. Armenia’s vocational education and employment strategies are expected to be updated by May 2020.

In recent years, Armenia’s GDP growth accelerated from a very low 0.2% in 2016 to 7.5% in 2017. This helped both the labour market and the business environment; as would be expected. It also affected the employment rate, especially for young people.

The EU has deep and sustained relations with Armenia in the realms of education and employment, with assistance activities dating to the early 2000s. Armenia’s current employment and vocational

---

14 National Poverty Rate, cited in WB Partnership Framework report – cited table 1, page 5, and page 6 – based on WB staff calculations using NSS data
15 International bank for reconstruction and development International finance corporation Multilateral investment guarantee agency Country partnership framework for the republic of Armenia for the period fy19–fy23 February 28, 2019
16 https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/countries/armenia_en
education policies are both backed by an EU budget support programme called Better Qualifications for Better Jobs.

It provided €15.2 million for 2017-2019. The programme targets the efficiency of Armenia’s labour market and the employability of its workforce, with an emphasis on agricultural employment. The assistance also includes a grant to help NGOs develop work-based learning schemes. The political changes of 2018 have led to delays which will likely extend its implementation into 2020-21.

The main implementers of the programme are the Ministry of Education, the Ministry of Labour and Social Affairs, the Ministry of Agriculture, private sector organisations and social partners.

Armenia also participates in the EU Eastern Partnership’s EU4 Youth programme. Its four grant projects aim primarily to boost youth inclusion and employability.

As in many countries, VET is mainly provided by secondary public schools in Armenia. Policies are developed by the Ministry of Education in collaboration with some NGO stakeholders, generally national employer organisations, and other related government agencies and ministries, such as the Ministry of Labour and Social Affairs, the Ministry of Economy, the National Council for VET Development and the National Centre for VET Development.

Although the growth outlook is positive, institutional and structural challenges remain for both employment and vocational education. On the institutional side, organisational changes need to be made in both policy areas, now and in the medium-term, if Armenia hopes to overcome its problems in human capital. Organisational change and policy development might be more advanced in the education sector than the employment sector.

Given the expectations for change, the window of opportunity for progress might seem short; however, policies should be designed to meet long-term goals.

2. HUMAN CAPITAL: DEVELOPMENT AND CHALLENGES

2.1 Overview

This section reviews the state of human capital development and how key strategies may help bring improvements, mainly in employment and education. It does so from several perspectives. First, it looks at the people who participate in human capital development. Secondly, it examines the use of human capital, mainly in the labour force. Thirdly, it focuses on women in the labour market. Finally, it considers the resources associated with human capital development.

Armenia’s problems arise from multiple sources. It will take time to resolve them. Such efforts will require closer alignments of diverse policies, such as those related to employment, education, and small businesses.

The assessment takes a broad view of human capital and looks beyond public institutions and accredited training programmes. It does so because individuals acquire skills and capacities from multiple sources and develop those skills through participation in employment, which is itself a source of human capital development. Adopting a broader perspective on human capital enables the assessment to consider the impact of informal employment, job quality and mobility within the labour market.

As stated above, professional expertise is developed not only in education and training and the institutions that supply them, but also through work experience. The quality of work is important. This includes the diversity and richness of tasks and opportunities for individuals to use their capacities and develop expertise. In addition, higher quality employment opportunities usually support longer-term professional development, including better salaries, promotions, training, job security, and flexible working conditions. Such features provide employees with stable foundations on which to build their own human capital on the job.

---


Chris Warhurst and Patricia Findlay University of Sydney and University of Strathclyde


Improving Skills Utilisation in the UK – Some Reflections on What, Who and How? SKOPE Research Paper No. 124, August 2016 Ewart Keep Director, SKOPE, Centre for skills Knowledge and Organisational Performance
2.2 Insufficient capacity for human capital development in the public sector

Armenia suffers from a bottleneck in skill formation. More skilled workers are needed.

This will mean shifting away from government-run training programs. Firms will need to rely less on external sources of training and more on in-company schemes. The shift will also change the target audience for training and development from students to workers.

Based on data from Armstat, ETF believes that 19,676 students were participating in VET\(^{21}\) – which would translate to 28.4% of the upper secondary student population. Taking into account all relevant levels and sectors (higher education, VET and general secondary), Armstat’s data suggest that there were 138,000 full time students in Armenia of working age\(^{22}\). In addition, according to Armstat each year 19,253 people participate in vocational training in medium and large enterprises\(^{23}\), including 1,100 individuals identified as apprentices. Beyond this, in 2017, a further 34,927\(^{24}\) people participated in employment-related training provided through the State Employment Agency of the Ministry of Labour and Social Affairs.

The total figure comes to 192,180 – which would represent 9.5% of the working age population\(^{25}\). This may be an underestimation as it does not include training or skills formation provided by small businesses, community organisations and NGOs.

This suggests that 100,000 newly skilled people graduate from different programmes each year, according to Armstat’s estimates. This covers people in vocational training in enterprises, people participating in training with the State Employment Agency and graduates of all forms of education. In total, this would represent about 5% of the working age population\(^{26}\).

An overwhelming majority, (73%) receive education and training through institutions of secondary and higher education. The supply of people from this source will decline in line with the fall in the population of young people\(^{27}\).

This means that the existing public training and education sector may not be able to supply the range and numbers of skilled workers required by the labour market. Policies for human capital development need to be conceived of more broadly. It must extend beyond the current VET sector, which is small and unlikely to grow sufficiently or fast enough. To address the challenges of skill development to support economic growth and facilitate labour market adaptation, policies should focus on continuing education, with the private sector and NGOs playing bigger roles.

\(^{21}\) ETF KIESE indicators 2019
\(^{24}\) Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Job Seekers Assistance, Table 10.8
\(^{25}\) Estimated as 2,021,000 by Armstat in 2018, Labour Resources 2016-2017, table 1.1
\(^{26}\) Estimated from 2671 graduates from preliminary VET schools, 7164 from Middle VET schools, 18700 from General Education and 17800 from University plus those in enterprise training and state employment training programmes
\(^{27}\) ETF KIESE indicators 2019
2.3 Gender-based discrepancies in the use of human capital

An important characteristic of the Armenian economy is the difference between men and women in the labour force. Evidence can be found in their respective employment and activity rates.

In its analysis prepared as part of its partnership agreement with Armenia, the World Bank found significant issues related to women and human capital development. The bank noted that:

There are 1.5 women for every man enrolled in tertiary education. (yet) only 60% of women participate in the labour force, with the widest gap among those aged 25 to 34 years. There is a clear ‘gender streaming’ dynamic in the subjects that people choose to study, with women tending to focus on social sciences, education, and health rather than science, technology, engineering, and math (STEM) fields. This imbalance lays the foundation for gender-based sector, occupational, and wage differences. Women face an average earnings gap of 33%

In the labour force, employment rates are 17.6% lower for women, while activity rates are 21.8% higher for men. However, in general, women have higher levels of education. For example, in the working age population, more that 25.7% of women, compared to 23.1% of men, have tertiary qualifications.

For the economically active population, the respective figures are 32% for women and 27.6% for men. Similarly, a higher proportion of women than men have specialised vocational education. The figures are 26.4% and 19.5%, respectively.

These differences are also reflected in the employed population. Data show that 31.8% of women with jobs have tertiary qualifications as opposed to 27.6% of men. For those with VET qualifications, the figures are 26.1% vs. 19.6%.

In general, the unemployment rates are similar (18% for males and 17.5% for females).

In the inactive population, twice as many women as men identified themselves as available for work, although not actively seeking it. A key issue could be family circumstances: 192,000 cited that as a reason they were unavailable for work. The corresponding figure for men was 3,200.

When employed, women tend to occupy job levels at least as high as those of men: 19.5% were classified as professionals vs. 13.8% of men; 12% worked as technical professionals, while the rate for men was 5.9%.

---

28 ETF KIESE indicators, 2017 based on age group 20-64
29 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook Labour Resources. Table 1.9 based on 15-75-year-old group
30 ETF KIESE Indicators, 2019
32 ETF KIESE indicators, 2019
34 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Employment, Table 4.1.22
However, higher levels of educational and similar levels of employment do not translate into commensurate salaries. In general, the average salary for women stands at 67% of that for men. This is sustained across education levels, with the average salary for women with tertiary qualifications being 68% of that for men. For specialised vocational education, the average salary for women was also 67% of that for men. Salary differences remain consistent by industry, including major ones such as of agriculture, wholesale and retail, education, manufacturing, and public administration.

Women’s participation in the labour force and their returns from education reflect a broader challenge about the use of human capital and its effect on equity. Family responsibilities represent a key constraint on labour force participation for women. For example, 245,300 of the 522,300 women identified as economically inactive were listed as housekeepers; the corresponding figure for men was 3,700. Over time, these differences lead to inequalities. They limit opportunities for women and constrain their ability to overcome poverty through employment. This can have intergenerational consequences. It can also have an impact on the economy as a whole: for example, the skills shortage identified by employers may partly stem from the lower levels of female activity. There’s another potential issue: the growth in the Armenian economy in recent years may have depended in large part on lower salaries among highly skilled women in the labour market.

2.4 Weaknesses in skills utilisation in employment

Employment and labour market participation are important for human capital development. Having a job allows people to extend their skills and develop new capacities, for example as they learn new technologies or new forms of work organisation. The more people who participate in employment, the more likely they will develop themselves. Consequentially, a greater percentage of the working age population will have room for improvement. This phenomenon is reinforced by CVT. Conversely, the fewer people in employment, the fewer people with access to human capital development.

Human capital development does not only emerge from education but also from employment. For the economy as a whole, several factors complement the training system, including the aggregate level of employment, the number of jobs, and the quality of those jobs.

Armenia’s key labour market variables (i.e., employment, participation and unemployment rates) suggest few opportunities for human capital development in employment by addressing labour market participation or the type of employment. For example, human capital development opportunities are divided by the differences in formal and informal employment and job quality.

The economic activity rate (also known as the labour market participation rate) is 60.9%. The employment rate is 50.1%. Differences exist at the disaggregated level: for example, in urban areas, the economic activity rate is 56.9, while in rural areas it is 67%. Similarly, the employment rate in urban areas is 42%, compared to 62.3% in rural areas in 2017. There is lower unemployment in rural areas: 7.4% as against 25.7% in urban areas.

35 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Incomes, Table 5.2
38 ETF KIESE Indicators, 2019
The following figures describe the aggregate use of qualifications and education in the labour force.

In general, in Armenia, a higher level of education is associated with a higher level of labour market participation. Approximately 73% of those with tertiary education and 62% of those with vocational education are active in the labour market\textsuperscript{41}, while 60.5% of those with tertiary education and 50.1% with VET are employed\textsuperscript{42}. The corresponding shares of tertiary and VET graduates among the unemployed are 29.2% and 26%, respectively\textsuperscript{43}. Likewise, a lower percentage of more highly qualified people are inactive.

Although the employment rate is higher in rural areas, the quality of human capital development may be lower, as a higher proportion of employment is informal.

The share of informality among total employment is 44.5\%.\textsuperscript{44} Some 70\% those with informal jobs did not have a tertiary or vocational qualification; of this group, 75\%, were working in the rural sector\textsuperscript{45}. This may indicate that higher levels of qualification, such as tertiary or vocational qualification, lead to higher participation rates in the formal sector, while lower, levels of attainment are associated with the informal economy and, within that, the rural sector.

Data suggest that Armenia is falling behind in its use and development of human capital in the labour market and that this is a major challenge for the use of skills, including the availability of jobs and the quality of employment.

Higher levels of qualification, however, will not necessarily lead to higher levels of participation or employment; for example, 29\% of inactive persons identified the absence of employment opportunities as their principal obstacle to participation, whereas only 3.8\% said that relevant qualifications would solve their problems\textsuperscript{46}. Similarly, lack of mobility is a factor: 69.6\% of employed people, 46.7\% of unemployed, and 66.5\% of the inactive stated that they would not move to take a job\textsuperscript{47}.

Raising qualification levels without also increasing the number of jobs will generally lead to reshuffling people in the labour market.

2.5 Shortage of resources for human capital development

As the system as it develops, one major challenge is the need to increase the resources available for education. Presently, public expenditure on education is very low. At 2.8\% of GDP, it corresponds to only 58\% of the EU-28 average of 4.7\%.\textsuperscript{48} Expenditures on labour market programmes are also low\textsuperscript{49}.

\begin{footnotesize}
\begin{enumerate}
\item Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Active Population, Table 2.8
\item Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Employed, Table 4.1.32
\item Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Unemployment, Table 9.5
\item Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Labour Resources, table 4.3.1
\item ETF KIESE Indicators, 2019
\item Asian Development Bank, ‘Good Jobs for Inclusive Growth in Central Asia and the South Caucasus, 2019; p84, Box 5
\end{enumerate}
\end{footnotesize}
TABLE 2: EXPENDITURES ON ACTIVE LABOUR MARKET PROGRAMMES

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%) Share of ALMP expenditures in state employment programme spending</td>
<td>13</td>
<td>6.4</td>
<td>32</td>
<td>36</td>
<td>52</td>
<td>94</td>
</tr>
<tr>
<td>(%) Share of ALMP expenditures in total budget</td>
<td>0.07</td>
<td>0.03</td>
<td>0.12</td>
<td>0.1</td>
<td>0.07</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: Asian Development Bank, 2019

Funding for VET and employment programmes in the 2017 state budget and the 2017-2019 Medium Term Expenditure Framework (MTEF) was limited. The allocation to education represented 9.38% of the annual state budget for 2017 and 8.68% for 2018; only 0.81% in 2017 and 0.72% in 2018 went to preliminary and middle-level VET.

The MTEF had foreseen a rise of 20.33% for VET between 2017 and 2019, representing approximately €3.429 million. Additional funds for VET, covering both preliminary and middle-level, are expected from other related areas, namely in the Ministry of Sport, Youth, Culture and the Ministry of Labour and Social Affairs.

To achieve the potential promised by the reforms, especially those related to work-based learning, additional resources would be required. For the upcoming development strategy to be effective, policymakers will need to devise a funding stream that supports employment and skill development.

Information about the level of training expenditure by industry is unclear. It is not possible to give a precise or definitive answer to the question of how much extra training will be involved as a result of a new approach to VET and employment policy, or what it will cost.

There is no easy solution to this critical problem, but it is essential to find one. As part of its broader considerations of various policy options, the government and relevant stakeholders, such as employers and NGOs, should conduct a review of the costs of transforming education and training programmes.

---

3. **ASSESSMENT OF KEY ISSUES AND POLICY RESPONSES**

The assessment finds that the upcoming revision of policies for employment and vocational education offers an opportunity for Armenia to create new synergies between employment and VET programmes and between the public and private sectors to strengthen the link between skills formation and quality employment.

The VET and employment systems could be better integrated from both programme and policy perspectives. A stronger focus on partnerships would act as a bridge to connect diverse types of skills development.

There are two main challenges: (1) lifelong learning and (2) a stronger role for VET in policies related to small businesses and employment.

Both include multiple sub-issues and challenges with ripple effects through the educational system and the labour market. The broad range of challenges includes some that will require significant time and money to address. When it comes to human capital, education and employment, the default mode puts responsibility in the hands of the public sector – just as tradition would have it. Yet, public resources are limited. Additional help must come from outside, including from the private sector.

Local circumstances may often determine what will work in certain places. The government can develop strategies and allocate resources, but support from NGOs and the private sector will be vital. That also means that some things will fall beyond the scope of government control. The government might become more of a facilitator.

3.1 **Area of challenges: training opportunities in support of lifelong learning**

3.1.1 **Key issue (i) implementation of vocational education policies**

Armenia has developed a progressive and comprehensive set of VET policies. They focus on relevance, school improvement, career guidance, quality assurance, and engagement with the business community. The policies have had time to mature. In some key areas, such as career guidance and entrepreneurial learning, they are being successfully launched.

For the labour market, the main public policy framework is the National Employment Strategy 2013-2018. It lays the groundwork for targeted programmes that aim to match the supply of labour with the needs of the economy and encourage the balanced treatment of different demographic groups and regions.

Both the employment and the VET strategies have received backing from the international donor community, particularly from the EU through its budget support programme.

The EU budget support programme focuses on human capital development in agriculture, a key sector of the Armenian economy. It accounts for 31.3% of employment, but just 13.7% of GDP\(^51\). It links

\(^{51}\) ETF KIESE Indicators, 2019
education and employment through initiatives to encourage the modernisation of VET agricultural institutions in parallel with labour market programmes. The overall aim is to facilitate the transition from education to the workforce. It provides the government with significant funding, contingent on the attainment of performance-based indicators agreed upon between the EU and Armenia.

Revised policies for employment and VET are expected to be completed in the first half of 2020. The overall direction is not expected to change. Instead policies are likely to be strengthened and implementation encouraged.

Priorities and effectiveness
VET usually takes place at schools. The VET system is evolving into a core network of 12 regional colleges that operate in partnership with local schools to provide a range of services to students, communities, employment service offices, and businesses and employers.

These services include vocational training programmes that are offered in many ways: as part of preliminary and middle-level curricula, as part of specific programmes, or as employment-related training for adults. In the future, services may expand to include support for work-based learning, career guidance, continuing vocational training, and the validation of prior learning.

In addition, a new quality assurance system will be adopted. The concept of Centres of Excellence will be explored. The aim is to make VET more attractive to students and to employers by improving its reputation. The Centres of Excellence idea reflects the Ministry of Education's concern with what it calls 'optimisation', essentially making better use of resources and building on efficiency.

Related recommendations
For an outline of the recommendations in this area, see Recommendation 2 in Annex 1 of this report.

Work-based learning
The government is also keen to establish a system of work-based learning. It launched a new working group in 2017 to frame an initial policy and adapt the concept to Armenian conditions. An official concept note presents three types of work-based learning: internships, company-based schools, and an apprenticeship/dual system. Interns would maintain their student status. Apprentices would be employees. The status of those enrolled at in-house schools has yet to be defined.

The government drew up a road map for execution. It envisions short-term progress on internships, with in-house classrooms coming next and apprenticeships at a later stage.

The EU budget support programme, which includes a grant scheme, will also support this endeavour. It will fund projects designed to identify new approaches to encourage wider access to training, better student performance, and improved transitions to the next step, whether via further study, training, or employment.

The scheme will include:

- pilot programmes for VET innovation and labour market reform (e.g. work-based learning, apprenticeships, skills and jobs matching mechanisms)
- efforts to help VET graduates become more employable and productive, especially for entry-level jobs.
The broad-ranging scheme will involve companies, VET providers and other stakeholders in pilot projects designed to help lead to more systematic and sustainable programmes. Strategies include knowledge transfer and learning from best practices.

Specific target sectors may include agriculture and food processing, tourism and hospitality, creative industries, art, construction, healthcare, and transport.

The growth in work-based training may reflect a trend among companies to adopt internal labour market strategies that favour the training of current employees over outside recruitment. This may be in reaction to the inability of external institutional providers to meet the demands for skilled workers both quantitatively and qualitatively. Perhaps the skill shortages highlighted by business leaders can be overcome by more in-house training rather than through more public expenditure.

The policy agenda is as broad as it is full. It emphasizes partnerships and collaboration. Steady progress has been made for several years based on consistent actions that have effectively deployed limited resources.

The Ministries of Labour and Education coordinate their efforts at the national level, but the most effective collaboration is at the local level. At the national level, policymaking tends to take place in silos. This does not seem to have delayed any current policies, but it may have diminished their potential; more regular consultations would help both sides share experiences, discuss problems, and review possible solutions.

Notwithstanding, the ministries have recorded significant achievements. The entrepreneurial learning curriculum has advanced to the point where it can now make available instruments and materials. This progress reflects two main assets: their ability to identify new program areas and to coordinate implementation and to work effectively with the international community and donors, such as Germany’s GIZ.

Career guidance offers another positive example. It is one of the most effective areas of cooperation between the ministries. The agency is formally part of the Ministry of Labour and Social Affairs, but the programme is run through VET schools, part of the Ministry of Education.

The government could examine these two experiences to figure out why they work. There are few evaluations of policies at the crossroads of education and employment. The government could mandate the ministries to work together, perhaps with the support of experienced international donors such as GIZ, on this front. This would add to the expertise of the ministries while providing evidenced-based information to help future policymaking.

Related recommendations
For an outline of the recommendations in this area, see Recommendation 3 in Annex 1 of this report.

Shortcomings and policy gaps
The ministries face constraints mainly because the scope of some problems outstrips their ability to address them with the instruments and resources they have on hand.

Development of partnerships for the implementation of VET
Better collaboration between the ministries and the private sector is a top objective. Structures and partnerships have been established, but there is room for small businesses to play a greater role in the consultation process. Furthermore, it is unclear if the present structure of the National Council for VET Development, described in the national report, will remain relevant in the long term. A review of
1. Further develop continuing vocational training
   - Accelerate the development of an industry-led continuing vocational training sector

2. Create new vocational training and skills partnerships
   - Review advisory structures for employment and training
   - Improve relations between public authorities and agencies
   - Explore public-private partnership opportunities
   - Connect local and regional organisations with national authorities

3. Implement the Armenian qualifications framework
   - Use the Armenian qualifications framework for the quality assurance of vocational education and training programmes, in particular those offered by private and non-profit providers

4. Strengthen work-based learning
   - Promote work-based learning in more schools and companies and to different target groups
   - Finalise the national concept and regulation on work-based learning and develop support tools and instruments
   - Share lessons learnt

5. Update teacher training by creating of a sector qualification framework for teachers and trainers
   - Support vocational teachers to update and upgrade their skills
   - Train company staff to support learners
   - Expand career guidance services for students to make them more aware of career opportunities
   - Support community education to strengthen enterprising and entrepreneurial behaviour

6. Develop enterprise resource centres

7. Support women’s participation in the labour force and in work
   - Review policies in education and employment to identify areas for improvement
   - Improve women’s participation in continuing training and employment
   - Work with employers to identify and eliminate pay discrimination

8. Promote job creation and the development of pathways to higher skilled employment

9. Reform training to meet the needs of the higher skills needs and labour market participation
   - Gather evidence from multiple stakeholders, including employers and community organisations
   - Consider short and medium term costs as well as possible sources of funding, including the donor community
7. Support women’s participation in the labour force and in work

- Review policies in education and employment to identify areas for improvement
- Improve women’s participation in continuing training and employment
- Work with employers to identify and eliminate pay discrimination.

8. Promote job creation and the development of pathways to higher skilled employment

- Revise the employment strategy to increase the volume of quality jobs
- Integrate human capital development measures to overcome informality through pathways into quality employment

9. Reform training to meet the needs of the higher skills needs and labour market participation

- Gather evidence from multiple stakeholders, including employers and community organisations
- Consider short and medium term costs as well as possible sources of funding, including the donor community.
existing arrangements would appear to be in order. Such a review would examine whether: more regular meetings are needed, council operations should be updated, or if a different model would be more appropriate.

For example, in recent years, business associations have grown substantially in sectors that are not represented in the existing consultative structures and main business confederations. These include wine, tourism and information technology. It is important to note the reference in the national report to the failures of the wine and tourism sectoral committees to facilitate cooperation for business education. Lessons learned from this experience need to be incorporated in future efforts.

Agreements forged with schools will ensure that they have governing boards that involve partners. Thus the present emphasis is on national and institutional initiatives.

In the future there may also be potential for arrangements at the community or local level. They could help communities make employment programs and training more relevant to local needs.

**Qualification frameworks**

Armenia has also worked to develop a national qualification framework. This was not included in the 2011-2025 development strategy, and its progress has moved more slowly than parallel initiatives in other countries. The national report provides a basic outline of the framework. The updated VET strategy is expected to provide a clearer picture of the framework.

Initiatives could include credit transfer arrangements and the establishment of a higher vocational qualification for use outside of the school system. With a framework that can be referenced against the European Qualification Framework (EQF), Armenia would be in a better position to develop its systems internationally, particularly with regard to VET. This may improve the relative attractiveness of the VET system, which currently has few international connections compared to a higher education system that is linked internationally through the Bologna Process to the European Higher Education Area. For students, international connections to vocational qualifications could be valuable.

In the national report, the framework is presented mainly as a series of qualification levels, arranged in a hierarchy and described in terms of knowledge, skills and competencies.

The national report also appears to establish existing credentials as benchmarks for the framework levels. This approach risks reinforcing existing arrangements by favouring current qualifications and, consequently, the institutions and procedures of their management and coordination. This makes change difficult. Reference levels and frameworks need to be managed independently of ministries, preferably by the private sector.

In general, decisions about the levels and descriptions should be made independent of established qualifications. The process should draw on the standards in the labour market.

In taking the framework ahead, the ministries could work with sectors to develop, test and implement ways forward. Based on the results, they could finalise a more general framework.

Sector representatives should develop communications and marketing plans to inform potential employees of available career paths and employment prospects. The active leadership of industry is essential to the success of the qualifications framework. This is not made clear in the national report, which may indicate less than optimal levels of cooperation between business and education.
The framework should be clear about the use of short programmes, which are most popular with companies and NGOs. The framework’s management structure must be defined. This would include the establishment of rules and regulations for issuing credentials. More decentralised decision-making will be needed as more people enter the system.

**Continuing vocational education and training**

Other issues besides qualification could be solved more quickly with greater cooperation among businesses and other stakeholders. For instance, the Ministry of Education has been working on initiatives on the validation of prior learning (VPL) and continuing education, but they have not yet been put into practice. There is considerable potential on both fronts, especially for people in the informal sector.

The present approach to VET policy places the public sector at the heart of the coordination and delivery of education and training. But the public system is just one model. Another relies on NGOs and the private sector. The second alternative needs to grow if Armenia wants to meet the demand for skilled workers.

Basic and higher education are meeting the needs of huge numbers of Armenians. As the population ages, so will the demand for continuing education. People already in the workforce will need new skills. Sometimes called upskilling, this on-going training will be increasingly important to help employees tackle new and more complex tasks and take on a broader range of functions.

The government could assist continuing vocational training simply by providing basic infrastructure. This could include training rooms in local communities, guidance materials, and a training support service network. The government could also promote the development of assessment and learning centres organized around communities, companies and industries. These could be sponsored by public-private partnerships uniting, for example, municipalities and employer associations. This would involve cooperation rather than regulation, which would probably be a better fit with industry groups. As part of the process, stakeholders might want to consider models of industry-based self-regulation that might encourage more business people to get on board.

**Related recommendations**

For an outline of the recommendations in this area, see Recommendation 2 in Annex 1 of this report.

### 3.1.2 Key issue (ii): teacher training and professional development for school quality

**Priorities and effectiveness**

The skills of education professionals play a critical role in the development of human capital because they directly influence the quality of student learning. In the future, a stronger emphasis is expected on the capability of learning to learn. Armenia’s commitment to the development of entrepreneurial competencies means that this will be a focus of teaching also.

In addition, the government is developing a national digital transformation agenda that is expected to encourage an increase in the digital capacities throughout the population, with a consequent increase in the abilities of trainers. The move towards more workplace training will also influence the demand for more competent trainers.

These changes will require teachers to acquire new skills. In some cases, they will add to their current duties and tasks.
For teaching staff, the National Centre for Professional Education Quality Assurance (Ncpeqa) and the National Centre for VET Development (Ncvetd) lead and coordinate the process. Training requires teachers to be able to generate active participation among students with a strong emphasis on navigating through complex information, acquiring practical and cognitive skills, and adapting to different contexts.

The process covers both management and teaching staff. As noted in the national report, between 2014-2017, approximately 4 147 VET teachers were trained by Ncvetd (1 122 in 2014; 1 016 in 2015; 934 in 2016, 975 in 2017, and 477 in 2018). In addition, during the same period, 150 college directors and deputies, 207 management board members, seven standards development experts, and other staff in the VET system received training on different topics.

The process is linked to schools through quality management. The Ncpeqa has trained 80 staff members from educational institutions on a new model of quality assurance for schools. The curriculum covers planning, coordination, reporting, and feedback and consultation mechanisms.

A network of 12 regional state colleges has made self-assessments based on the process and has incorporated links to curriculum implementation. There is no formal specific pedagogical specialisation for VET teachers, who tend to receive the same training as general education teachers. Similarly, there is no national recruitment programme for teachers. Most are hired directly by schools.

The process could be made more systematic through the development of a sector qualification framework for teachers that identified core teaching skills and specific elective competencies for specialties, such as vocational teaching. The national report states that the student teacher ratios for preliminary and middle-level VET are 7.2 and 5.6 respectively. As the student population declines, that will grow. One possible response may be to retrain and redeploy teachers from the existing VET workforce in general education.

A qualification framework for the sector that mapped out the different possible jobs and related qualifications would help teachers to transfer to new positions and bolster their mobility. It could also act as a bridge from the public to the private sector.

**Shortcomings and policy gaps**

For practitioners, the public sector dominates the human capital development space. There are opportunities to work with NGOs and the private sector. However, civil servants and teachers have few ways to learn about them. Ncpeqa and Ncvetd focus mainly on the public sector with respect to teacher training and the public curriculum.

In addition to the gap in the institutional infrastructure, there is also a shortage of training for occupations that will be important to the expansion of learning and training services. These include workplace trainers – who will become increasingly important as workplace learning grows and becomes more popular. Benchmarks need to be set for businesses and other organisations that want to move in this direction.

A set of recognised core competencies for workplace training would identify the necessary skills that all professionals should have – although it would not necessarily be exhaustive. This list could form...
the basis of a nationally recognised certificate in Armenia. The Ministries of Education and Labour could lead the process with assistance from well-known national and international training organisations working in the country, such as World Skills Armenia, the German development agency GIZ, and the International Labour Organisation (ILO).

As a corollary to increased training, there will be more demand for skills assessments. A national programme for standards-based assessors could provide useful benchmarks. It could work along the lines of that for workplace training certificates. Professionals will need to be skilled in the vocations they oversee, a fact that could encourage more cooperation between industry and educators.

These certificates could provide a set of professional qualifications for people involved in human capital development. They could also be attractive to private providers, thereby increasing the supply of quality-assured professionals.

Other occupations that need to be encouraged include coaches and mentors. These are important for many adult learners who want to refresh their study skills. They provide guidance and can help balance practical and theoretical skills. These specialties could be developed and incorporated into a framework as electives.

The national report highlights the adoption of a European Quality Assurance in Vocational Education and Training (EQAVET) framework. This will serve as a valuable mechanism to ensure quality control in the VET system. It will also facilitate interactions with the EU and EU-member state systems. There is also room for quality assurance systems for industry-based skills. These could be developed by organisations related to sectors that are demonstrating substantial growth, such as tourism, information technology, and wine production.

The report does not place much emphasis on digital learning. It has not yet made a visible impact on VET to date, it states. Nevertheless, the government has clear ambitions in this regard. For example, digital classrooms, formulated through partnerships with firms such as Google and Apple, can support institutional programmes by making it easier for learners and instructors to connect – inside and outside of schools. They can make it easier to create classes, distribute assignments, communicate and stay organised.

**Related recommendations**
For an outline of the recommendations in this area, see Recommendation 5 in Annex 1 of this report.

### 3.2 Area of challenges: SME employment opportunities and quality of skills

In Armenia, most firms are small-and-medium-sized enterprises. In 2017, they accounted for all 99% of all companies in the non-rural sector, accounting for 66% of business-related employment and 60% of value added in the business sector. In total, 66.3% of jobs are in small and medium sized enterprises.

Micro enterprises, those with 10 or fewer employees, provide 94% of all jobs. More than half employ no one. The service sector encompasses 87% of the country's companies. Yerevan is home to almost half of the nation's firms, including 70% of those outside of agriculture.

Armenians generally work in small businesses, frequently in the services sector, and their skill-sets reflect that.
People may use their skills in the small business sector, but the labour market is much larger. The quality of available jobs will shape the skills that people develop, their incomes, and the opportunities they will have. The more quality jobs, the more skill development. And greater the contribution to economic growth.

This section looks at the main initiatives to support small business and the quality of the labour market. With regard to the support of small businesses, it draws on the preliminary findings of Armenia’s 2019 assessment within the European Small Business Act. In terms of the labour market, it highlights current policies that focus on entry-level jobs and applicants. It outlines policy initiatives that deserve further attention.

There has been progress on both fronts, but there is a growing need for continuing education and training for working people. As better firms emerge and better opportunities become available, people will be more likely to find better jobs and advance professionally. Notably, VET and employment policies will need to be more closely aligned to continuing and lifelong learning.

3.2.1 Key issue (i): skills for small businesses

Small business is a key target for skills development in Armenia. The country’s work in this area is evaluated every 2-3 years as part of its participation in the EU Small Business Act assessment. The assessment looks at three main dimensions of skill formation in relation to small business: entrepreneurial learning, enterprise skills, and women’s entrepreneurship. The first examines whether graduates have the tools they need to become entrepreneurs. The second looks at abilities to forge careers in a small business. The third focuses on the preparation of women self-employment.

Priorities and effectiveness
The business sector deserves considerable attention, including through integrating entrepreneurship into the curricula from primary to upper-secondary general education; strengthening education-business cooperation to ensure skills matching and practical experience, even at an early stage; and extending career guidance, although mainly via VET.

Under the lead of the Ministry of Education, Armenia has shifted its initial focus on financial education towards VET in the development of an entrepreneurial mind-set at all levels from primary to upper secondary.

A related key achievement since 2016 has been the development of teaching and learning materials. Take, for example, the teacher manuals for a new entrepreneurship education module of the second-fourth grade technology curriculum. In second grade, it provides an overview of entrepreneurship and covers idea generation and activity planning. In the third grade, they move on to examine innovation, creativity, business ideas, product presentation, and advertising. By the fourth grade, they focus on market research and business plan development.

The country has also included entrepreneurship as a career option in career guidance for VET students. As they mull over the future of their working lives, students can receive advice on this path as an option.

As for entrepreneurial internships, they have depended mainly on initiatives by individual schools.

---

54 EU4Business Country Report 2018, chapter 2 – Armenia
One way to boost cooperation between the educational and business communities would be to pull in the private sector to help provide mandatory practical entrepreneurial experience. This would be handled through the new entrepreneurship module in secondary schools and by providing more work-based learning through VET.

In higher education, business and economics departments teach subjects such as finance, economics and management. Universities and the business community also work together to encourage entrepreneurship outside of business and technical schools. For example, the National Polytechnic University of Armenia offers an entrepreneurship programme. Students receive internships and address real world problems. Based on their performance, many receive job offers after graduation.

Women’s entrepreneurship is now on the agenda, and there is room for further advancement. A national strategy for women’s entrepreneurship aims in part to create awareness and identify role models. Likewise, Armenia’s Small and Medium Enterprise (SME) Development Strategy 2016-2018 made women’s entrepreneurship a priority, but national efforts have mostly been limited to Yerevan. NGOs lead the way. They have had many success stories, including from border and rural regions. They should be better disseminated, including through social media.

The programme for the promotion of entrepreneurship for women includes several parts:

- training, consulting services, and financing for women entrepreneurs with little or no experience
- information sharing and capacity building for women entrepreneurs and business service provider organizations that work with them
- encouraging women entrepreneurs to participate in the programme Support for Entrepreneurs with Little or No Experience
- organisation of meetings to provide information, consulting and more - in collaboration with local and international organizations that support women entrepreneurship

The high-profile Prime Minister’s Best Women Entrepreneur Award aims to encourage and recognise women’s entrepreneurship in different sectors of the economy and share best practices during a national event.

Entrepreneurship is promoted through VET partnerships, such as: the National Council for Vocational Education and Training, which includes employers; related sectoral skills councils and sectoral commissions; and management bodies at VET educational institutions, which include representatives from student bodies, partner organisations, employment offices, companies and local institutions.

A 2017 memorandum of understanding between the Ministry of Education and Junior Achievement of Armenia (JAA) mandated the inclusion entrepreneurship studies in general educational institutions.

A 2011 partnership championed by the SME Development Council includes the Ministry of Economy, representatives of the business community, the European Bank of Reconstruction and Development (EBRD) and the Organisation of Security and Cooperation in Europe (OSCE). Similar efforts by the SME Development Council could help identify and make use of examples of best practices among small businesses.
The 2019 Small Business Act assessment found that the Armenian education system remains unable to meet the needs of SMEs - even though SMEs account for a majority of the country’s businesses. It is important to learn about the current and future skills requirements of SMEs and to provide financial support for SME training.

**Shortcomings and policy gaps**

Small business-related training tends to focus on the start-up process, idea generation, business plans and regulatory issues. While critical, these topics cover only a fraction of what’s needed to successfully run a small business. Improved management training, including the management of skills, can help boost productivity. This requires a stronger focus on aspects of management training such as communications, operational planning, and the use and development of skills.

Vocational training programmes offer little on skills management. Owners and managers have limited time for training sessions and few resources to fund development programs. In addition, since many owners lack formal training, its value sometimes comes under question.

Future waves of technological innovation and new competitive challenges will likely require enterprises to continuously update themselves. They will need skilled managers who know how to learn and can help draw out the best of their teams.

Many Armenians are own account workers. Sometimes, rather than serving as examples of entrepreneurial zeal, they are self-employed partly because they cannot find anything better.

Own account workers often complain about isolation. Efforts to improve their productivity and circumstances should include strategies to strengthen cooperation among them. This would help them share ideas, best practices and resources. It would also help improve their access to and use of support programmes. One approach could be the expansion of parts of the current women’s entrepreneurship programme, such as the informational meetings cited above, to encompass a broader range of own account workers.

In addition, many owner-managers are unaware of development options or prefer to operate informally and maintain control of the decision-making process. This leads to a preference for information from informal (but often less knowledgeable) sources, such as friends, suppliers and family members.

Advisory programmes could be offered at dedicated enterprise resource centres to help people with micro-businesses learn about skills issues. These could be community-based or associated with colleges, schools, or local employer organisations. They could focus on promoting cooperation among small businesses in relation to skills and creating networks for cooperation to encourage the more efficient use of scarce resources.

Even though many programmes are available, most Armenian small business owners do not get any management training before they open shop. Nor were most of them exposed to it in secondary school.

This is partly because it is not recognised as a VET programme, but mostly due to limited public resources. But building better companies is not just a matter for business. The institutions and systems that train managers must be ready to help. Entrepreneurship studies in vocational and tertiary education could be introduced to make management training more accessible.

---

education in the VET system could be expanded to offer specialisation in small business management.

Courses could cover topics such as workplace relations, conflict resolution, team performance, negotiations, change management, the use of technology, and working in partnerships. Support could prove critical in recruitment, to ensure the hiring of the right people with the right skills, and skill matching, to ensure that the right employees are performing the right tasks.

The public sector generally lacks this type of expertise, which opens room for the private sector to take the lead. There is a gap on this front when it comes to both VET and private sector training. There is potential for the private sector to better serve the broader community.

3.2.2 Key issue (ii): updating employment policy

An efficient labour market plays a critical role in the broader economy. It helps provide a skilled workforce to businesses. It improves the distribution of income, and helps individuals shape their futures. The demand for skills is based on the demand for labour, so employment and human capital development are intricately connected: as more people find jobs, the demand for more and better skills goes up. This contributes to economic growth.

Priorities and effectiveness

Labour market trends

Armenian authorities have been focusing on the labour market for some time. It figured prominently in the 2014-2025 development strategy, which established a number of targets for that period.

Forecasts envisioned most of the progress during in the second half of the period, in 2020-2025. For example, the unemployment rate was expected to decline to 13.1% by 2021 and to 10% in 2025. The employment rate was forecast to reach 53.9% in 2021 and to 57.2% by 2025

The projected growth rates of 4-5% for the period 2019-2023, based on the estimated employment coefficient of 0.2% used in the 2014-2025 development strategy, could reduce unemployment by an additional 4-5% over the period, bringing it down to 12%, which is within range of the original estimates.

The unemployment rate has remained relatively stable in recent years, at 17.8%, but a substantial difference exists between the urban and rural figures, 25.4% and 7.4%, respectively. The difference indicates the role of informal employment in the countryside.

Unemployment is particularly worrisome in urban areas, but informal employment stands out in rural areas, where agriculture predominates. Farming accounted for 337 300 of the country’s 465 900 informal jobs in 2017. Women hold 52% of informal jobs in the countryside, compared to 34% in towns and cities.

Employment and activity rates have been more or less stable in recent years.

---

57 Armenian Development Strategy 2014-2025, p58, the estimate is based on non-agricultural employment growth only
58 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Labour Resources, Table 1.1
59 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Employment, Table 4.3.9
TABLE 3: KEY LABOUR MARKET VARIABLES 2014-2017

<table>
<thead>
<tr>
<th>Indicator (%)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity rate</td>
<td>63.1</td>
<td>62.5</td>
<td>61</td>
<td>60.9</td>
</tr>
<tr>
<td>Employment rate</td>
<td>52</td>
<td>50.9</td>
<td>50</td>
<td>50.1</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>17.6</td>
<td>18.5</td>
<td>18</td>
<td>17.8</td>
</tr>
</tbody>
</table>


These figures may improve in the 2019 labour market report, as they do not incorporate the impact of the strong GDP growth in 2017-2018.

Anticipation and labour market relevance

The government makes significant efforts to promote employability by following trends in the labour market and adjusting its school-based programmes accordingly. As the national report outlines, the government consults systematically with regional authorities, employers, educational institutions, employment services and relevant donors on possible skill needs.

Improvements in skills planning, anticipation and forecasting can help improve outcomes for employment and employability. This is particularly important because 28.7% of young people aged 15-24 are not working, studying or in training - though the proportion has fallen substantially from an estimated 44.6% in 2010. A sizeable difference exists between men and women, 20.7% and 37.5%, respectively. There is a strong correlation between education levels and labour market transition for young people. Those with tertiary education can move from school to stable and satisfactory jobs in less than half the time of those with secondary degrees. The reality is worse for young women.

As indicated in the national report, in terms of the use of skills, Armstat reveals that an overwhelming majority (80.1%) believe their education was relevant to their employment and that work-related variations between over education and under education were reasonably small. However, 45% of respondents did not provide an answer because they said that they had not received vocational or professional education. This compares to 43.6% who found their education useful or very useful.

The potential impact of sound labour market research on employability is highlighted in the national report in its discussion of a study on job placements for graduates from 41 selected institutions in 2016-2017. It also called attention to the benefits of quality VET in this regard.

Labour market programmes

The government supports employment directly through active labour market programmes within the existing employment strategy. As described in the national report, these are generally well targeted and in line with international practices. They include initiatives that support:

61 Based on working age population aged 15-75
62 ETF KIESE Indicators, 2019
64 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Employment, Table 4.1.26
66 Tables 14 and 15 National reference report for Armenia, 2019
- Immediate job placement or self-employment
- Job placement or self-employment within three months of programme completion. Target groups include job seekers at risk of dismissal or who are unemployed and unemployed, or who needed to obtain experience in their areas of professional qualification.
- People looking for work in their specific fields, notably with financial backing to visit a potential employer
- Temporary employment, including seasonal work for farmhands and in public works projects for the unemployed

In the Ministry of Labour and Social Affairs, there is a strong move towards the integration of social support services into a network of service delivery centres. The initial focus has been outside of Yerevan. The centres are designed to link different social and community services provided by the ministry into a single package of assistance to individuals. This will ultimately lead to localised social programmes designed through community needs assessments. Eventually they may be run at the community level. Presently, the centres provide services for: veteran’s affairs, occupational rehabilitation, community health and social assistance. They may later also take on career guidance and work information, and skill validation, particularly for migrants and in the informal labour market.

The ministry also coordinates the work of the State Employment Agency and its programmes related to career information, job counselling, job placement, and employment-related training. In recent years, the agency has been strengthening its job matching and labour market forecasting capacities, including the launch of an improved online system for job seekers in 2017.

According to the Asian Development Bank (ADB) in its recent report on Good Jobs in Central Asia and the Caucasus:

> The Armenian policy in reflects ‘a transition from passive to active labour market policies (ALMPs) in 2014. Before this, total expenditures for ALMPs were and most expenditures on labour market policies were directed toward an unemployment benefit program, which was discontinued at the end of December 2013, as it was found that it created disincentives for job search and acceptance of job offers by the unemployed’.

State employment services provided support to 113 435 people in 2017, accounting for approximately 50% of the unemployed. Armstat notes that most unemployed persons did not use the state employment service in their job searches. They tended to use general market information as well as their own networks.

---

TABLE 4: METHOD OF JOB SEARCH

<table>
<thead>
<tr>
<th>Means of job Search</th>
<th>% of the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied to state employment service</td>
<td>6.1</td>
</tr>
<tr>
<td>Applied to private employment agency</td>
<td>2.5</td>
</tr>
<tr>
<td>Applied directly to employer</td>
<td>20.8</td>
</tr>
<tr>
<td>Followed announcements</td>
<td>23.6</td>
</tr>
<tr>
<td>Applied through acquaintances</td>
<td>39.8</td>
</tr>
</tbody>
</table>


According to 2016-2017 data from the State Employment Agency, young people are overrepresented in its programmes (30%-39% of beneficiaries) compared to their share among the registered unemployed (24%). During the three years 2015-2017, roughly 7 030 young people benefitted from agency programmes. This figure represents a small fraction of the young registered unemployed (12% in 2015 and 20% in 2016). In 2017, Armenia substantially downsized funding for its state employment programme. The number of participants dropped to about 2 500 (one-fifth of the figures for previous years).68

TABLE 5: FEWER PEOPLE ASSISTED THROUGH STATE EMPLOYMENT SERVICES 2010-2014.

<table>
<thead>
<tr>
<th>Coverage indicators</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of beneficiaries of all programmes</td>
<td>36,076</td>
<td>28,396</td>
<td>15,131</td>
<td>15,234</td>
<td>10,509</td>
</tr>
<tr>
<td>Matching rate (jobs found/job seeker %)</td>
<td>12.1</td>
<td>13.2</td>
<td>15.9</td>
<td>19.4</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Source: Asian Development Bank, Good Jobs for Inclusive Growth, page 84

The state employment programme could be evaluated to identify the agency’s overall impact. Such a study could also examine possible differences between rural and urban areas and measures that could help improve its services. One idea would be to incorporate some services into the Ministry of Labour’s integrated service centres. Another idea: possible outsourcing of some services to NGOs.

Labour market programs alone will have limited effects on employment. Macroeconomic policies have much greater effects on the demand for labour. Efforts to ensure healthy labour markets will depend in large part on broader economic progress.

Shortcomings and policy gaps

Improvements in employability mainly affect the pipeline of newly qualified graduates into the labour force. This previews gradual improvement later on and bodes well for young new entrants. But it does nothing for the existing workforce, often employed informally. Nor does it address the creation of quality jobs, which is necessary both to maximise skills and reduce inequalities.

Productivity gains are most likely to come by working with the existing workforce.

Skill and occupational profiles of the labour force

The skill profile of Armenia’s active population is rising. The proportion graduates of higher education grew from 22.9% of the active population in 2010 to 29.7% in 2107. The share of people with low

---

68 ETF Youth in Armenia Report, 2018
attainment fell by half from 8.2% to 4.2% over the same period. The percentage of those with middle level skills was more or less constant at around 66%.

The national report indicates that 66% of employed Armenians work in low-to-medium skilled occupations and that 72.6% of highly-qualified people work in high-skilled employment.

Three occupational areas account for 70% of jobs: professional (16.5% of employment), technical (8.8%), and skilled workers (44.9%). Of those with tertiary education, 57% hold professional or technical positions. Of VET graduates, 64.3% of are employed as technical-professional or skilled workers.

Relatively few persons with higher or vocational education work at lower rungs of the chain.

The nature of employment presents a major challenge.

**Informal employment**

Own account workers constitute 33.6% of total employment. Of this figure, 85.5% are skilled workers, mainly VET qualified. They represent 318 400 individuals and 31% of total employment. Only 2 700 are professionals, generally tertiary graduates. This might be partly explained by tax rates, among the highest in region and characterised as regressive by the ADB.

Many of these jobs are in the informal sector. The informal sector offers little room for advancement. Non-employees (frequently own account workers) in the informal sector earn on average 57% of what their counterparts get in the formal sector. With so many informal workers, Armenia faces an important challenge.

Many informal workers are also at least in part subsistence labourers producing for their own personal consumption, according to findings in 2018 by Armstat. There were significant differences between men and women.

**TABLE 6: NATURE OF ACTIVITY IN EMPLOYMENT**

<table>
<thead>
<tr>
<th>Purpose of activity</th>
<th>Percentage share%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Produced for own use</td>
<td>14.3</td>
</tr>
<tr>
<td>Produced partially for own use, partly for exchange</td>
<td>25.9</td>
</tr>
<tr>
<td>Mainly exchange</td>
<td>61.5</td>
</tr>
</tbody>
</table>


The high level of informality and the nature of employment correspond with high levels of self-employment (40.3% in 2017) and high levels of vulnerability (39.1% in 2017). The proportion of

---

69 ETF KIESE Indicators
70 Torino Process, National reference report, Armenia, 2019 Table 16
71 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Employment Table, 4.1.23
72 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Labour Resources, 4.1.25 – the corresponding number for own account workers that are technical professionals is 3200
73 Asian Development Bank, Good Jobs for Inclusive Growth in Central Asia, and the South Caucasus REGIONAL REPORT, Edited by Giovanni Capannelli and Ravi Kanbur, February 2019
74 Labour Market in the Republic of Armenia, 2013-2017 Statistical Handbook, Incomes, Table 5.2
75 ETF KIESE Indicators
employees classified as contributing family workers has declined since 2010, but the percentage of own account workers has risen from 27.5% to 36.8% during the same period\textsuperscript{76}.

The phenomenon extends to the youth population. Armstat found that informal workers accounted for 40.6% of youth employment in 2016. That translates to 77,600 people between the ages of 15-29, and 17% of all informal workers. The informal employment rate among young women is lower than for men, 37.8% vs. 42.3%. The most important difference is between urban and rural areas. In urban Armenia, the informal employment rate for young people is less than 20%. In rural Armenia, it exceeds 67\textsuperscript{77}.

The informal labour market can provide experience, income, socialisation to the world of work, and the security of a community; however, it does not generally enhance long-term labour market prospects. If nothing changes, many people will find their aspirations frustrated and their financial independence uncertain.

At the same time, their chances of becoming unemployed and remaining so may grow. Informal employers have little or no incentive provide training. Nor do employees have much reason to improve their skills. The high proportion of informal jobs is tantamount to a ‘deskilling’ of the workforce. In a worst case scenario, it will perpetuate inequality.

When people cannot upgrade their skills, it can send ripple effects throughout the broader system. The overabundance of low-to-moderately skilled people tends to depress earnings, thereby clamping down on incomes and demand. It also removes pressures on employers to introduce productivity-enhancing innovations, such as new forms of work organisation or technology.

The highlights the need for the integration of employment and VET policies to encourage advances on both fronts.

VET and employment policies must address the needs of two job markets – a primary one based on formal enterprises, which generally require accredited or recognised skills, and a secondary informal one made up of low wage non-career jobs.

\textbf{Developing employment pathways}

Skill formation remains crucial even for people who already have jobs or are of working age. Such people generally want skills to help them find a position or for career advancement. Skill-related pathways, supported by relevant training, could help enable them to progress to higher levels of employment in specific sectors. People generally need to upgrade their skills from a low base to a medium level or to go from medium to high. The occupational distribution shows that VET-qualified workers can often move up to become technical professionals, but it is harder for them to break into purely professional positions.

\footnotesize{\textsuperscript{76} ETF KIESE Indicators
\textsuperscript{77} ETF Armenia Youth Report, 2018}
TABLE 7: OCCUPATIONAL DISTRIBUTION BY EDUCATIONAL ATTAINMENT LEVEL

<table>
<thead>
<tr>
<th>Level of education attainment</th>
<th>Total</th>
<th>Tertiary</th>
<th>Vocational</th>
<th>General education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled worker</td>
<td>44.9</td>
<td>11.2</td>
<td>41.2</td>
<td>66.9</td>
</tr>
<tr>
<td>Technical professional</td>
<td>16.5</td>
<td>9.3</td>
<td>23.1</td>
<td>2</td>
</tr>
<tr>
<td>Professional</td>
<td>8.8</td>
<td>48.2</td>
<td>2.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Managerial</td>
<td>6.1</td>
<td>15.1</td>
<td>3.9</td>
<td>1.6</td>
</tr>
</tbody>
</table>


Armenia’s profile of education and occupational employment suggests that pathways could be developed based on existing labour benchmark levels rising from skilled craftsperson to technical-professionals to professionals.

Such pathways would obviously be attractive to individuals, but they would also be interesting to industries. Skilled people would be keener to enter industries that offer opportunities for advancement. Pathways would help the broader the labour market by reducing the stagnation of people at lower levels and facilitating vertical mobility.

Pathways could act as stepping stones into the primary labour market and offer a way to improve informal secondary employment. Programmes could bolster the status of many jobs. The target groups must include both the employed and the unemployed because many jobs offer what amount to unstable employment with few training opportunities.

A well-designed pathways programme could be an important part of a new continuing vocational training sector. This could include adult apprenticeships and traineeships. Work and training could be developed within a skills framework, leading to the next benchmark level, advancing from skilled craftsperson to technical professional to professional. It matters how these pathways are developed. Among other things, substantial community and local input is essential.

**Related recommendations**

For an outline of the recommendations in this area, see Recommendation 8 on page nine of this report.
4. CONCLUSIONS

The ETF assessment has provided an overview and analysis of selected challenges for human capital development and its use in Armenia. It has offered recommendations on how education and training can help address them.

Several elements must be included in the solution of the problems facing the country’s labour market: investment, innovation in the development and implementation of policies, and a focus on improving the quality of employment, particularly in the informal sector. Accelerated progress is possible. It could be fuelled in part through better integration of employment and education policies.

Huge challenges plus limited resources equal doing a lot with a little. As a consequence, a broader perspective on skills formation is needed, one that is not limited only to formal training. Continuing education and training and flexible programmes for informal workers, for instance, must be part of the mix. Program administrators must shift from coordination and management towards support for practitioners in the field.

Authorities and stakeholders in Armenia are aware of the challenges and have put in place plans for improvement. Many rely on cooperation and partnerships that include different sectors of the economy and the public sector. There are sundry ways to achieve greater efficiency and effectiveness.

The Ministry of Labour and Social Affairs is testing an integrated service model (ISM) that could prove useful because it links the delivery of government services with individual needs and local contexts. It also opens the door to supplementary services provided by NGOs. The ISM effectively operates as a service platform. It could be adapted for use in education in partnership with local authorities, regional college centres and the private sector.
### ANNEX 1. SUMMARY OF RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Human capital development and use: issue</th>
<th>Recommendations No.</th>
<th>Recommendation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase training opportunities to support lifelong learning</td>
<td>R1</td>
<td>Develop continuing vocational training section</td>
<td>The government should work with the private and non-government sector to accelerate the development of an industry-led continuing vocational sector</td>
</tr>
<tr>
<td></td>
<td>R2</td>
<td>Strengthen and create new VET and skills partnerships</td>
<td>The current policy advisory structures for employment and training should be reviewed to identify the strengths and weaknesses of existing structures in the context of VET and employment policies. This should include the role that could be played by employers in the implementation of the framework. Partnerships should take account of four main types of relations that need to be improved. These are: Relations between public authorities and agencies (e.g. the Ministry of Education, the Ministry of Labour, and others with responsibility for skill development, such as those in charge of rural and business policies). Public Private Partnerships related to the management and guidance of VET and the coordination and implementation of continuing vocational training. This would include the expected national qualification framework. National and local partnerships that connect local and regional organizations with national authorities. Private and private partnerships, e.g. between companies and representative ‘business management organisations’ particularly at the sectoral level.</td>
</tr>
<tr>
<td></td>
<td>R3</td>
<td>Strengthen work-based learning</td>
<td>Promote work-based learning in more schools and companies. These should focus on various target groups, such as young people and adults. The national regulation on work-based learning should be adopted, and supporting tools and instruments should be developed. Priority should be given to the training and employment of business relations coordinators, one from each vocational school. Lessons learned from successful donor-projects should be made available other vocational schools.</td>
</tr>
<tr>
<td></td>
<td>R4</td>
<td>Implement the Armenian Qualification Framework</td>
<td>The Armenian Qualification Framework should be fully implemented. Among other things, it should be used to help bolster quality assurance for vocational education and training programmes, in particular those offered by private and non-for-profit training providers.</td>
</tr>
</tbody>
</table>
| | R5 | Update teacher training and professional development through the creation of a sector qualification framework for teachers and trainers | Teachers need to acquire new functions and skills. The Ministry of Education, Science, Culture and Sport should launch a sector qualification framework for teachers. It should bring all secondary education professionals together into an integrated career structure that facilitates transfer and career progression. It should incorporate new and emerging human capital professions such as mentors, assessors and workplace trainers. In cooperation with other relevant business stakeholders, the ministry should:  
- Help teachers of VET schools acquire new knowledge (to update and upgrade their skills);  
- Help employees of private companies obtain training so they can support learners; |
<table>
<thead>
<tr>
<th>R.6</th>
<th>Support enterprises in skill development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Higher quality skills and employment: small business and the labour market</strong></td>
<td></td>
</tr>
<tr>
<td>• Expand career guidance services for students to better inform them of career opportunities</td>
<td></td>
</tr>
<tr>
<td>Regional enterprise resource centres should be established to provide informal enterprises with access to information and advice on how to access potential markets for their products and services and to support their participation in training. Managerial competence impacts directly on the labour market because it affects the ability of firms to recruit, sustain and develop staff. The business community should support community education programmes for entrepreneurs. They should focus on providing information and guidance, including mentoring and/or one-to-one interaction. Better use of business networks and local cooperation, the use of cutting-edge computer and communications technologies to deliver management development assistance to small enterprise owners and managers, along with more flexible education and development systems, such as open learning. Policy should target informal enterprises in rural areas to provide support measures which strengthen their abilities to cooperate and share resources.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.7</th>
<th>Support the participation of women in the labour force and work</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The government should review its policies in education and employment to identify areas where women are disadvantaged and work on new programmes to support their participation in continuing training and employment, particularly for those women who face multiple barriers to employment. The government should work with employers to identify and eliminate pay discrimination.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.8</th>
<th>Revise and update the employment policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A substantial effort is needed to increase the number of quality jobs. This should be a major component of a revised employment strategy that should promote job creation and forge pathways to higher skilled employment. In the previous revision, employment policy shifted from passive to active measures. The next one should integrate human capital development to combat informality by offering pathways into quality employment. This could be achieved through a new countrywide training scheme aimed at lower- and mid-qualification levels (e.g., 1-4) that includes young people. The programme should provide a ‘steppingstone’ into primary labour market jobs, improve and increase broad-based work-related training and boost the ‘life chances’ of participants. The target group must include both employed and unemployed individuals because many jobs offer unstable employment and few training opportunities.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.9</th>
<th>Conduct a review of the costs of reforming training to meet the demand for higher skills and better labour market participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The review should gather evidence from multiple stakeholders, including employers and community organisations. It should consider short- and medium-term costs as well as possible sources of funding.</td>
<td></td>
</tr>
</tbody>
</table>
## Annex 2. Education System of Armenia

<table>
<thead>
<tr>
<th>Age</th>
<th>Grades</th>
<th>Complementary Education</th>
<th>Mandatory Education</th>
<th>Secondary Education</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>I</td>
<td>Nursery/Kindergarten</td>
<td>Pre-school Education</td>
<td>Primary Education</td>
<td>ISCED 1</td>
</tr>
<tr>
<td>7</td>
<td>II</td>
<td>Primary Education</td>
<td>ISCED 1 Elementary Schools</td>
<td>Lower Secondary Education</td>
<td>ISCED 2 Middle Schools</td>
</tr>
<tr>
<td>8</td>
<td>III</td>
<td>Basic General Education</td>
<td>ISCED 2</td>
<td>Upper Secondary Education</td>
<td>ISCED 3A High Schools</td>
</tr>
<tr>
<td>9</td>
<td>IV</td>
<td>Compulsory Education</td>
<td>ISCED 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>V</td>
<td>ISCED 2 Middle Schools</td>
<td></td>
<td>Upper Secondary Education</td>
<td>ISCED 3A High Schools</td>
</tr>
<tr>
<td>11</td>
<td>VI</td>
<td>ISCED 3A High Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>VII</td>
<td>ISCED 3A High Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>VIII</td>
<td>ISCED 3A High Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>IX</td>
<td>ISCED 3A High Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>X</td>
<td>ISCED 3A High Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>XI</td>
<td>Diploma on Middle Vocational Education and Matura (qual: Specialist)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>XII</td>
<td>Diploma on Middle Vocational Education and Matura (qual: Specialist)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Main Diplomas, Qualifications or Certificates Awarded at End of Programme**

- **ISCED 0**: Pre-primary (ISCED 0)
- **ISCED 1**: Primary Education (qual: Attestat on Secondary (Complete) General Education)
- **ISCED 2**: Pre-school Education
- **ISCED 3A**: Lower Secondary Education
- **ISCED 3B**: Middle Vocational Education
- **ISCED 3C**: Craftsmanship (ISCED 3C)
- **ISCED 4**: Higher Secondary Education (ISCED 4)
- **ISCED 5A**: Diploma on Higher Professional Education (qual: Bachelor Degree)
- **ISCED 5B**: Diploma on Preliminary Vocational Education without Matura (qual: Craftsman)
- **ISCED 5C**: Diploma on Middle Vocational Education and Matura (qual: Craftsman)
- **ISCED 5D**: Diploma on Preliminary Vocational Education (qual: Craftsman)
- **ISCED 5E**: Diploma on Secondary Education without Matura (qual: Craftsman)
- **ISCED 5F**: Diploma on Secondary Education and Matura (qual: Craftsman)
- **ISCED 5G**: Diploma on Secondary Education (qual: Craftsman)
- **ISCED 5H**: Diploma on Higher Professional Education (qual: Master Degree)
- **ISCED 5I**: Diploma on Higher Professional Education (qual: PhD)
- **ISCED 5J**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5K**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5L**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5M**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5N**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5O**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5P**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5Q**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5R**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5S**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5T**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5U**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5V**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5W**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5X**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5Y**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 5Z**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 6**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 7**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 8**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 9**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 10**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 11**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 12**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 13**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 14**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 15**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 16**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 17**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 18**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 19**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 20**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 21**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 22**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 23**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 24**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 25**: Diploma on Higher Professional Education (qual: Specialist)
- **ISCED 26**: Diploma on Higher Professional Education (qual: Specialist)
ACRONYMS

ADB - Asian Development Bank
ALMP - Active Labour Market Programmes
Armstat - National Statistical Services of Armenia
CEPA - EU-Armenia Comprehensive and Enhanced Partnership Agreement
CVT - Continuing Vocational Training
EBRD – European Bank of Reconstruction and Development
Equavet – European Quality Assurance for Vocational Education and Training
EQF - European Qualification Framework
ETE KIESE - Key Indicators on Education, Skills and Employment
GDP - Gross Domestic Product
GIZ - Deutsche Gesellschaft für Internationale Zusammenarbeit (German International Development Agency)
HCD – Human Capital Development
ILO – International Labour Organisation
ISM - Integrated Service Model
IVET – Initial Vocational Education and Training
JAA - Junior Achievement of Armenia
MTEF - Medium-Term Expenditure Framework
NGO - Non-Governmental Organisation
NCVETD - National Centre for Vocational Education and Training Development
OSCE – Organisation of Security and Cooperation in Europe
SEA – State Employment Agency
SBA - Small Business Act
SME – Small and Medium Sized Enterprises
REFERENCES


Asian Development Bank, ‘Good Jobs for Inclusive Growth in Central Asia and the South Caucasus’, 2019; p. 84, box 5

ETF, KIESE indicators 2018

ETF, ‘Some Policy Index, Eastern Partner Countries, 2019, Small Business Act for Europe Assessment’, Unpublished draft assessment – to be finalised

ETF, Youth in Armenia Report, 2018


OECD, SME Policy Index, Eastern Partner Countries, 2016, Small Business Act for Europe Assessment


Where to find out more

Website
www.etf.europa.eu

Online platform
https://openspace.etf.europa.eu

Twitter
@etfeuropa

Facebook
facebook.com/etfeuropa

YouTube
www.youtube.com/user/etfeuropa

Live&Learn
https://issuu.com/etfeuropa/

Instagram
instagram.com/etfeuropa/

LinkedIn
linkedin.com/company/european-training-foundation

E-mail
info@etf.europa.eu