



## Sectoral Assessment of Labour Market Skills in Shirak Region, Armenia

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## ACRONYMS

<b>AMD</b>	Armenian Dram
<b>ANAU</b>	Armenian National Agrarian University
<b>BEP</b>	“Business and Education Partnership” Foundation
<b>EI</b>	Educational Institutions
<b>EEU/EAEU</b>	Eurasian Economic Union
<b>EU</b>	European Union
<b>F2F</b>	Face to face standardized interview
<b>GDP</b>	Gross Domestic Product
<b>LM</b>	Labour Market
<b>NGO</b>	Non-Governmental Organization
<b>NSS RA</b>	National Statistical Service of the Republic of Armenia (renamed in 2017 to Statistical Committee of RA)
<b>PWD</b>	Persons with Disabilities
<b>RA</b>	Republic of Armenia
<b>SNCO</b>	State Non-Commercial Organization
<b>StatCom</b>	Statistical Committee of RA
<b>SME</b>	Small and Medium Entrepreneurship
<b>SEA</b>	State Employment Agency
<b>VET</b>	Vocational Education and Training
<b>WBL</b>	Work based Learning
<b>WB</b>	World Bank

# REPORT

on

## Labour Market (Sectoral Skills) Assessment in Shirak Region of Armenia

### 1. RESEARCH ISSUES AND METHODOLOGY

#### 1.1. Background

On the initiative of the international organization "People in Need", the Business and Education - Partnership Foundation has carried out research in the framework of the "Public-Private Partnerships for Successful Transition from Education to Employment in Shirak Region" ("Transition from Education to Employment") project. The main goal of the research is identification of the (non)compliance between demand and actual supply at labour market, particularly in the companies active in textile and agribusiness sectors, as well as related fields (subsectors) in Shirak marz of the Republic of Armenia (RA). The study allows to see the real picture of the region's labour market and identify its weaknesses and strengths in the context of a certain professional environment, industrial or sectoral segment. Studying the employment realities of the region gives an understanding of what level of competencies and what kind of specialists need to be trained in VET institutions in order to compensate shortage at the labour market of the region and its enterprises. Besides, analysis of the existing gap between free labour force and available workplaces has identified the relevance for development of convergence mechanism reducing the supply and demand imbalance of the labour market and education market.

The main objectives of the study are as follows:

- assessment of the recent developments in the relevant labour market;
- qualitative study of the labour market in the specific sectors of the region;
- identification of the obstacles that employers face when seeking or selecting the right professionals in the labour market;
- revealing the difficulties that job seekers face in selected sectors;
- determine the level of (non)compliance between actual needs of employers in specialists and their competence;
- analyze opportunities for existing gap reduction.

#### 1.2. Methodology

The manufacture of textile/knitwear and agribusiness sectors was selected for the study, which are identified as the priority areas with development potential of economy by the Government of the RA for the last ten years. The selected sectors are to be considered having a significant growth potential in Shirak marz (region).

Surveys were conducted among individuals in the following categories, each with a separate questionnaire (for questionnaire, see **ANNEX 1**):

- employers and their representatives;
- directors of vocational education and training institutions;
- students of VET institutions with specialization in textile and knitwear production, as well as agribusiness;
- Regional Employment Center.

According to the Terms of Reference (TOR) of the survey, it was intended to conduct a research of 55 companies (including sole proprietors, farmers) in Shirak marz of the Republic of Armenia, 15 large companies and 40 SMEs.

The sample list of companies to be surveyed was based on data provided by various partner/ international organizations, state and non-governmental organizations (Ministry of Economy of the RA, Ministry of Education, Science, Culture and Sports of the RA, National Centre for Vocational Education and Training), as well as “Spyur” Directory.

As a result of the preliminary works, arrangements were made by telephone to conduct interviews with the heads of the companies included in the survey list. The phone calls revealed that some of the employers included in the list were inaccessible or no longer operating in the relevant sectors. However, experience has shown that it is extremely difficult to find companies in these areas, especially SMEs operating in Shirak marz. After getting appointments for interview with the companies, the final version of the list was clarified. The total number of employers initially included in the sample list was 138, however after desk study the list has been shortened up to 42 (**ANNEX 2**).

The survey team developed the appropriate toolkit for conducting the research, in particular:

- research methodology;
- a sample list of surveyed companies;
- questionnaires;
- interviewers’ instructions;
- Final Report structure.

The questionnaires were developed on the basis of model questionnaires used for similar surveys in the framework of projects previously implemented by the BEP Foundation, in particular the German methodology, as well as relevant survey and evaluation methods published by other international organizations<sup>1</sup>. The constructive recommendations of the People in Need experts were also taken into account for the final design of the questionnaires.

**Desk study.** Information on the target areas of research was collected from various available sources (Ministry of Education, Science, Culture and Sport of the RA, Ministry of Economy of the RA, National Centre for Vocational Education and Training Development, international organizations, NGOs, etc.). The available databases were used to conduct statistical analysis, including potential correlations among the variables considered.

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<sup>1</sup> “How to conduct a qualitative assessment of the local labour market. Handbook for Vocational Education Institutions”, EEF, 2001.

[http://www.etf.europa.eu/webatt.nsf/0/C12578310056925BC125701900497934/\\$file/EECA\\_LM\\_HANDBOOK\\_01\\_EN.pdf](http://www.etf.europa.eu/webatt.nsf/0/C12578310056925BC125701900497934/$file/EECA_LM_HANDBOOK_01_EN.pdf)



**Focus groups meetings.** Totally, 4 on-site focus groups meetings (FGM) were organized with local EI representatives and employers, during which the explanations and necessary information on the activities under the project have been provided.

**Interviews.** Face-to-face (F2F) interviews were conducted with 42 employers or human resource managers of the companies that are active in the selected sectors with potential for development. Interviews with representatives of 4 VET institutions were carried out. Besides, the additional phone surveys with VET institutions directors and students were performed. Fieldwork was carried out within the agreed timeframe.

After completion of fieldwork, the questionnaires filled in by respondents were reviewed. Some deficiencies were found in the questionnaires during data compilation process, but they have been clarified and completed through telephone interviews.

As a result, one employer or human resources manager from each company were interviewed. The total number of interviewed companies is 42. The directors or executives of 4 VET institutions of Shirak Marz of the RA, as well as 114 students with corresponding qualifications participated in the survey. 56 students were selected by targeted/related sectors, and 58 - from other professions. The Director of Shirak Regional Employment Center was also interviewed by phone on the subject of the survey. Thus, the total number of respondents constituted 161.

Totally, 160 questionnaires were filled in. The response rate was 100%, with the exception of a few questions that needed clarification in the text.

## **2. SELECTED FIELDS OF ECONOMY**

### **2.1. Brief Overview of Economic Situation in Armenia**

In the beginning of 2018, the economic growth in Armenia slowed during the rest of the year after its initial surge, largely driven by weak external conditions, lower performance than projected government capital expenditures, production difficulties in two major mines, and low agricultural yields. True, during the political transition it was possible to avoid more serious economic phenomena, but the associated uncertainty could be due to economic orientation. Actually real GDP growth, compared to 9.7% in the first quarter of 2018, it made up only 2.7% in the third quarter. As a result, total GDP growth for the first nine months of the year was 6%. All major economic sectors recorded declining growth.

In the last quarter of 2018, high frequency data show some growth slowdown, mainly explained by the stabilization of growth in industry and services. At least according to estimates, GDP growth for the whole year has dropped to 5.5%. This result is high and is one of the highest in Europe and Central Asia among the economies of Europe and Central Asia over the past decade, compared to Armenia's 2.5% historical average growth rate<sup>2</sup>.

Light industry and agriculture, which are defined as priority areas by the Government of the RA for the last ten years, in particular textile and knitwear production and processing of agricultural products with significant development potential in the Shirak region, were selected for the aforementioned study.

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<sup>2</sup> Source: National Statistic Service

Although **the textile and clothing sector** has a small contribution to the overall economy of the RA (0.2%), its share in the production and export value of goods has increased by 2%.

**Agribusiness** is the largest sector of the Armenian economy, but with a considerable unused potential unused. The country's share of agriculture in GDP is about 15%<sup>3</sup>. More than 30% of the working population is engaged in agriculture. Despite some volatility in recent years, the sector has shown an upward trend in export volumes, mainly to the EEU market.

The results of various expert studies indicate that the soil and climate of the country create a favorable field for agriculture to become one of the main drivers of economic growth in Armenia in the coming years. The Government of the RA provides continuous support in accessing necessary finance, introducing new technologies, increasing productivity and efficiency of farms, and expanding organic farming.

With the opportunity to enter the EAEU market, Armenia has the potential to be among the first of its prospective partners in the fruit and vegetable market worth more than \$ 2.5 billion. The Russian market remains the dominant market for imported dairy products, which currently remains closed to most traditional partners due to sanctions. Today, only cheese imports to Russia reach \$ 300-400 million.

Overall, agricultural output in Armenia has been consistently reduced for three years. In the third quarter of 2018, agricultural production (especially horticulture and vegetable growing) decreased by 2.2% compared to the same period of last year. The sector has been experiencing negative growth for three consecutive years, with both lower investment (sowing, farm animals) and productivity (production volumes). With 31.6% of primary employment in agriculture, it is essential to address structural issues that impede the expansion of the sector, including land fragmentation and limited application of advanced technologies.

## **2.2. Brief Overview of Economic Situation in Shirak marz<sup>4</sup>**

Leading industries in Shirak marz of the RA are food and beverage and non-metallic mineral products, as well as textile industry, building materials extraction and agriculture.

In 2018, the share of the main sectors of economy of Shirak marz in the total volume of the corresponding branches of the Republic of Armenia made up: industry - 3.6%, agriculture - 11.0%, construction - 3.7%, retail - 4.1%, services - 1.6%.

As of the beginning of the 2019, the total number of population was 233,300, of which 124,675 were women and 108,570 were men.

According to the results of labour force surveys, there are obvious socio-economic disparities between the regions in the country, which are due to a number of factors: level of economic development, climate conditions, soil fertility, population density, etc. In particular, in 2018 the highest unemployment rate among marzes of Armenia was recorded in Shirak marz (24.3%) (**CHART 1**), which is five times over the same rate in Gegharkunik marz - 5%<sup>5</sup>.

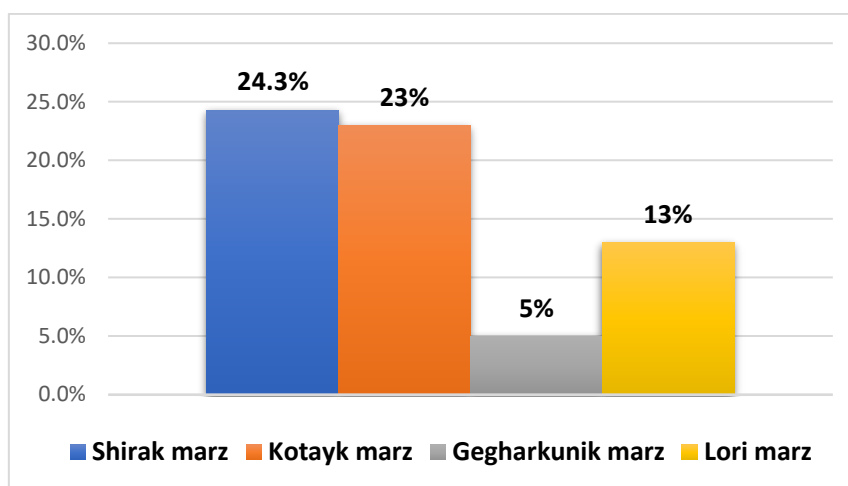
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<sup>3</sup> Source: National Statistic Service

<sup>4</sup> [https://www.armstat.am/file/Map/MARZ\\_08.pdf](https://www.armstat.am/file/Map/MARZ_08.pdf)

<sup>5</sup> TRP Report 2019

CHART 1. Unemployment Rate in Northern Regions of the RA, 2018



As of January 1 of 2019<sup>6</sup>, there are 6 state preliminary professional (craftsman) educational institutions in Shirak marz, 9 state VET institutions, 2 non-state VET institutions, 1 state higher education institution, 5 branches of state higher education institutions and 2 non-state higher education institutions (TABLES 1 and 2).

TABLE 1. Educational Professional Institutions in Shirak Marz of the RA

	2014	2015	2016	2017	2018
	<b>Quantity</b>				
<b>State preliminary professional (craftsman) education</b>	5	5	5	6	6
<b>State middle professional education</b>	9	9	9	9	9
<b>Non-state middle professional education</b>	3	3	3	2	2
<b>State higher education</b>	1	1	1	1	1
<b>Branch of State Higher Education Institution</b>	5	5	5	5	5
<b>Non-state higher education</b>	1	2	2	2	2

TABLE 2. Distribution of VET Institutions by Professions Related to the Sectors/Subsectors in Shirak marz of RA

N	Educational Institution	Studied Specialty in specified areas	Total number of study places available for admission, 2018 (tuition free/paid)	Length of study (distant/full-time)
1.	Academy of National Agrarian University of Armenia after Academician M.G. Tumanyan, Shirak State	Meat and meat technology	5/10	2-3 years

<sup>6</sup> [https://www.armstat.am/file/Map/MARZ\\_08.pdf](https://www.armstat.am/file/Map/MARZ_08.pdf)

	<b>Agricultural College SNPO</b>			
2.	<b>State University after M. Nalbandyan, Department of Vocational Education, Shirak branch</b>	Marketing	5/15	3 years
3.	<b>Shirak Regional State College SNPO</b>	➤ Computer software and automated systems software	5/10	3 years
		➤ Computing machines, complexes, systems and networks	15	4 years
		➤ Clothing modeling and design	15	3,6 years
		➤ Computer software and automated systems software	20	4 years
		➤ Economics, accounting and auditing	25	4 years
		➤ Transportation organization and management in motor transport	25	3,6 years
		<b>Pre-vocational (vocational) educational program</b>	➤ Operation of computers ➤ Sewing technology ➤ Advertising	15/5
4.	<b>Gyumri State Technical College SNPO</b>	➤ Organization and management of transport	20	2-4 years
5.	<b>Gyumri State Technical college, branch of "National Polytechnic University of</b>	➤ Clothing making technology ➤ Computer software and automated systems software	5-12	3 years

	<b>Armenia Foundation"</b> (middle professional education program)	<ul style="list-style-type: none"> <li>➤ Decorative and Folk art design</li> </ul>		
6.	<b>Artik State College SNPO</b>	<ul style="list-style-type: none"> <li>➤ Technical support for rural work</li> <li>➤ Sewing technology</li> <li>➤ Design</li> </ul>	10/10	2-3 years
7.	<b>Maralik State Vocational School</b>	<ul style="list-style-type: none"> <li>➤ Sewing technology</li> <li>➤ Carpet weaving and lace making</li> </ul>	20	1-3 years
8.	<b>Gyumri State Craftsmanship College N 1</b>	<ul style="list-style-type: none"> <li>➤ Carpet weaving and lace making</li> <li>➤ Sewing technology</li> </ul>	20	1-3 years
9.	<b>Gyumri State Vocational School N 3</b>	<ul style="list-style-type: none"> <li>➤ Carpet weaving and lace making</li> </ul>	20	1 year
10.	<b>Gyumri State Vocational School N 4</b>	<ul style="list-style-type: none"> <li>➤ Maintenance and repair of radio electronic devices (radio technicians)</li> </ul>	20	1-3 years
11.	<b>Amasia State Vocational College</b>	<ul style="list-style-type: none"> <li>➤ Sewing production specialist</li> <li>➤ Operation of computer</li> <li>➤ Oils, cheese and milk production technology</li> <li>➤ Technical provision of rural work</li> <li>➤ Organization of rural economy (farm)</li> </ul>	10/16	1-3 years

### 2.3. Manufacture of Textile and Knitwear Sector

According to the Report "Textile and Knitwear Development Strategy of the Republic of Armenia" presented by the Ministry of Economy of the RA, textile, knitwear and carpet making are among the oldest branches with rich traditions of the Armenian economy.

The sector also provided the largest employment - about 115,000 people (about 25-30% of the total workforce involved in the country's industry). Armenia was one of the largest suppliers of

textile and knitwear products in the Soviet economy. During the post-independence period, like other sectors of the economy, the textile and knitwear sector in Armenia declined by 60-70%.<sup>7</sup>

Larger factories, unable to obtain the necessary raw materials and provide sales markets, were operating at a modest amount of capacity or had stopped altogether. Since the late 1990s, the sector has revived again, thanks largely to overseas orders.

The overseas clients are mainly European well-known brands, particularly from Italy and Germany, whose Armenian manufacturers provide sewing services (mainly textile clothing). “Temporary import” customs regime in Armenia is an important facilitator for getting such foreign orders. The majority of locally produced products are also consumed in the domestic market. The above mentioned products are mainly made of knitwear and hosiery.

According to the results of the studies<sup>8</sup>, despite the existing problems, this sector has a great potential for rapid development. Most of the major companies active in this field export 100% of their products to CIS countries, Europe, Canada and the USA (**TABLE 3**).

*TABLE 3. Market Share of Textiles Exported from Armenia to the World Market (Countries, Million Drams)*

Country	Export /USD thousand dollars/	Share of textile in the total volume of goods exported from the Republic of Armenia 2017
<b>Russian Federation</b>	<b>44,417.14</b>	<b>11.91%</b>
<b>Italy</b>	<b>28,212.36</b>	<b>89.53%</b>
<b>Germany</b>	<b>15,858.78</b>	<b>11.74%</b>
<b>Belarus</b>	<b>2,087.07</b>	<b>15.92%</b>
<b>Kazakhstan</b>	<b>1,479.49</b>	<b>28.09%</b>
<b>North America</b>	<b>1,170.55</b>	<b>0.68%</b>
<b>Canada</b>	<b>1,020.94</b>	<b>0.77%</b>
<b>France</b>	<b>487,20</b>	<b>11.83%</b>
<b>Georgia</b>	<b>394,17</b>	<b>0.28%</b>
<b>Kyrgyzstan</b>	<b>154,43</b>	<b>13.64%</b>
<b>USA</b>	<b>149,60</b>	<b>0.38%</b>
<b>Hungary</b>	<b>92,62</b>	<b>11.94%</b>
<b>Spain</b>	<b>62,20</b>	<b>49.92%</b>
<b>Czech</b>	<b>55,90</b>	<b>2.46%</b>
<b>Ukraine</b>	<b>43,03</b>	<b>0.53%</b>
<b>Lithuania</b>	<b>7,06</b>	<b>0.28%</b>
<b>Central and North Africa</b>	<b>5,83</b>	<b>0.00%</b>
<b>Turkmenistan</b>	<b>5,49</b>	<b>0.11%</b>
<b>The United Kingdom</b>	<b>4,83</b>	<b>0.31%</b>
<b>Bulgaria</b>	<b>4,32</b>	<b>0.00%</b>
<b>Poland</b>	<b>3,52</b>	<b>0.02%</b>
<b>United Arab Emirates</b>	<b>2,93</b>	<b>0.00%</b>
<b>Lebanon</b>	<b>2,90</b>	<b>1.84%</b>
<b>Latvia</b>	<b>2,50</b>	<b>0.14%</b>
<b>Greece</b>	<b>1,03</b>	<b>0.21%</b>
<b>Switzerland</b>	<b>0,69</b>	<b>0.00%</b>

<sup>7</sup> Survey made by EV Consulting “Armenian textile and knitwear sector”

<sup>8</sup> *Analysis of Textile Value Chain of Northern Regions of Armenia, 2018*, <https://www.smeda.am/uploads/libraries/>

South Africa	0,20	0.04%
Kenya	0,20	1.11%
East Asia	0,08	0.00%
China	0,07	0.00%
Other countries	245,37	1.17%
Total	95,972.5	

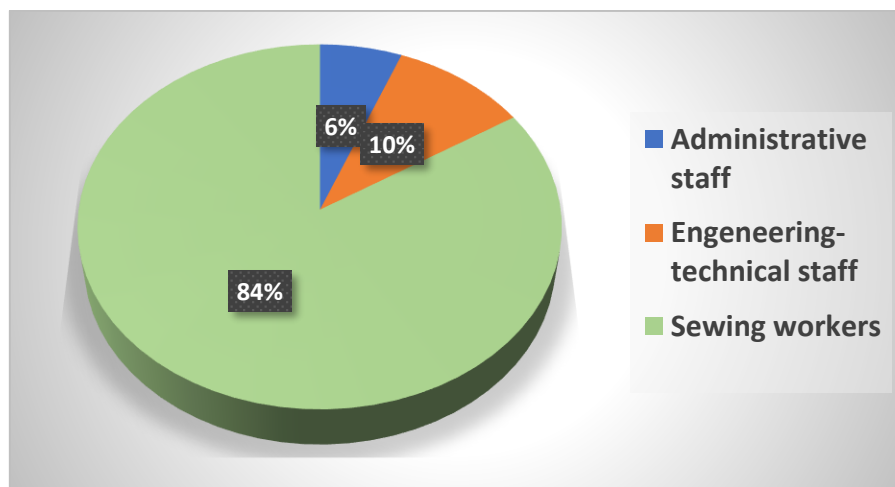
As can be seen from the CHART below (CHART 2), there was a steady increase mainly due to foreign orders for sewing services in the light industry of Shirak marz, particularly in the textile and clothing production, during 2014-2016 period. According to NSS data released, there was a decline in this sector in 2017, but in 2018 tendencies for stabilization again have emerged, in particular through the production of knitwear and clothing.

*CHART 2. Production of Industrial Products in Shirak Marz by Economic Activity for 2014-2018<sup>9</sup>*



In 2018 only 0.57% of Shirak marz employees were involved in the textile industry (CHART 3)<sup>10</sup>.

*CHART 3. Distribution of Workforce in Textile Sector in Shirak Region by Specialty*



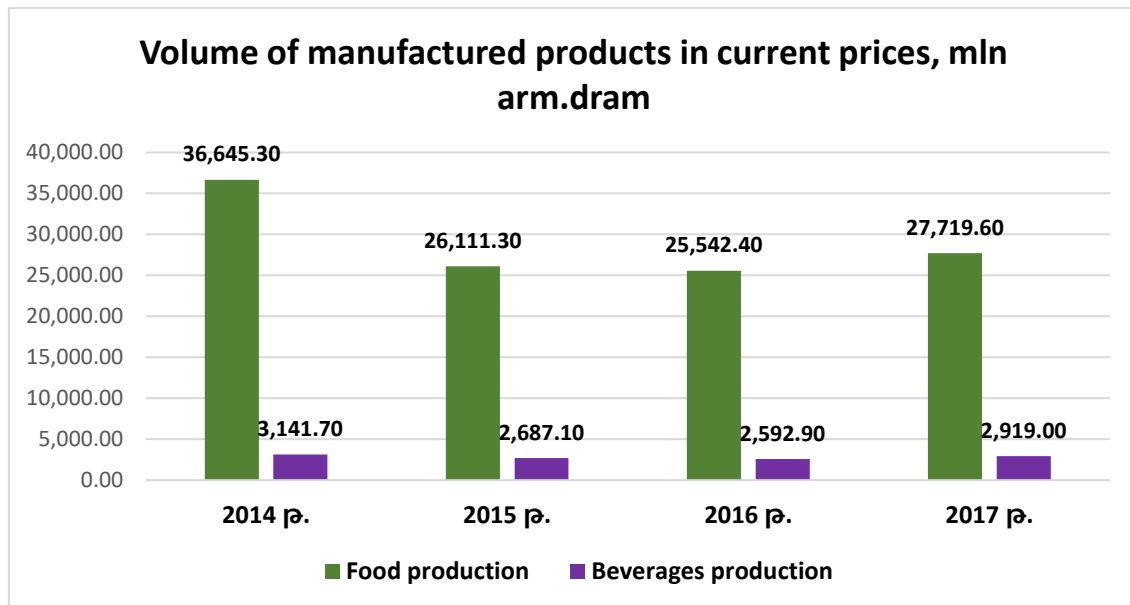
<sup>9</sup> Source: National Statistical Service. Calculated without value added tax and excise tax.

<sup>10</sup> Analysis of Textile Value Chain of Northern Regions of Armenia, 2018

## 2.4. Agribusiness Sector

According to the regional development strategy of Shirak marz for 2017-2025, agricultural production is organized through husbandries and farms. There are 28,200 family (rural) households, 16 agricultural processing companies operating in the region. 41.6% of the population in the region is engaged in agriculture, there are more than 6 specialized milk processing companies in the region whose products are consumed not only in the markets of the republic, but also exported (**CHART 4**).

*CHART 4. Food Production in Shirak Marz, 2014-2017*



As can be seen from the data presented in **CHART 4**, the volume of food products produced in Shirak marz of the RA in 2017 is depressed compared to 2014. The negative growth is generally due to the steady decline in agricultural production volumes in Armenia for the last three years.

Risks associated to agricultural productions are a major issue in the region, which is one of the main reasons for not cultivating the land. Natural disasters, early spring floods, frostbite, drought, hailstorm often occur in the region.

## 3. RESULTS OF THE RESEARCH

### 3.1. Employers

The survey involved employers of 42 companies, most of which with growth development potential. The total number of surveyed companies' employees made up 1,653. Among the researched employers/companies, 25 are active in knitwear and textile production sector and 17 from agricultural processing and production/agribusiness sector were interviewed in Shirak marz of the RA. The list of surveyed companies can be found in **ANNEX 2**. The distribution of surveyed companies by selected sectors, as well as related subsectors is shown in **TABLE 4 and TABLE 5**. Geography of the survey cities was predetermined by TOR conditions: Gyumri, Amasia, Artik, Ashotsq, Maralik, as well as their neighboring villages (**CHART 5**).



TABLE 4. Total Number of Surveyed Companies and Employees by Sectors

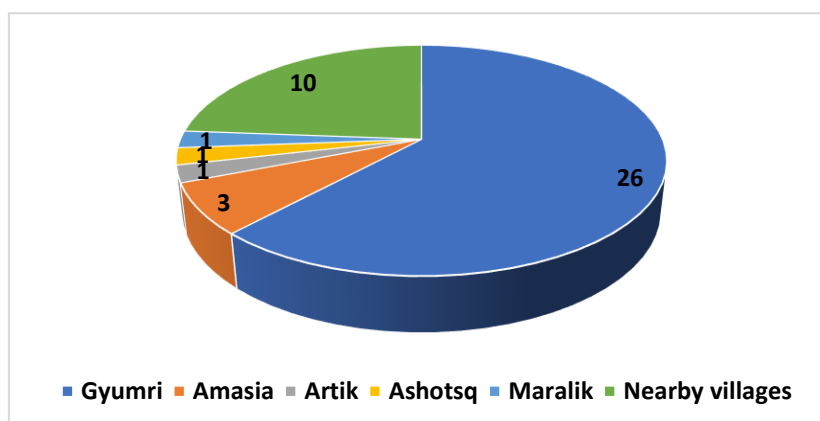
	Sector		
	Manufacture of textile and knitwear	Processing and production of agricultural products	Total
Number of surveyed companies	25	17	42
Total number of employees of the surveyed companies	1,240	413	1,653

TABLE 5. Total Number of Surveyed Companies by Subsectors

Subsector	Sector		Sector	
	Manufacture of textile and knitwear	Number of companies	Agribusiness	Number of companies
Carpet weaving		1	Milk production and processing	7
Shoe making		3	Cheese production	4
Walk-mill		1	Fish breeding	1
Wool processing		1	Cattle breeding	1
Hand-made toys production		1	Bread-baking production*	1
Sewing manufacture		9	Noodle production	1
Manufacture of knitted underwear		1	Meat production	1
Manufacture of hosiery		3	Production of seeds and spices	1
Manufacture of sportswear		1		
Textile production		4		
<b>Total</b>		<b>25</b>		<b>17</b>

\*The bread-baking production is considered as subsector of agribusiness

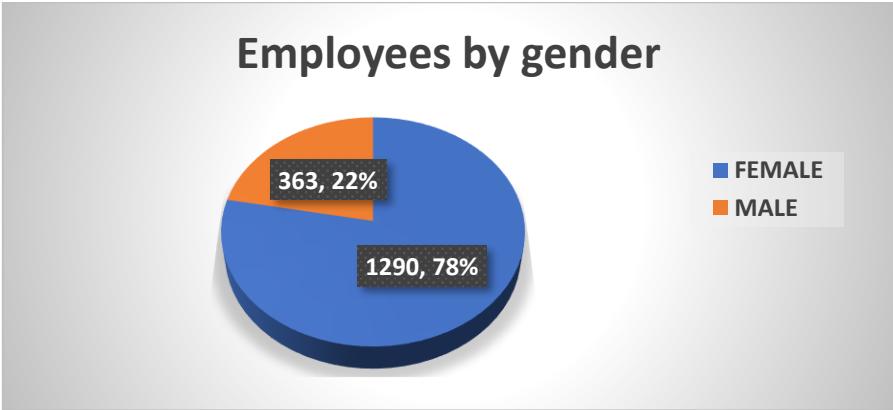
CHART 5. Surveyed Employers Number by Location



Of the total number of employees, women made up 1,290 and men constituted 363. Here, the gender gap is obvious (**CHART 6**). It should be noted that the **manufacture of textile and knitwear sector** has a specific peculiarity, as about 90% of the staff in the textile manufacturing companies are women.

The study in the **agribusiness sector** has shown that although agriculture in Armenia, particularly in Shirak marz, is prominent in the large number of businesses involved in the sector, most of the farms/enterprises are characterized by small size. The peculiarity of small farms is that they are able to do almost all the work with the help of household members. And if the economy needs to involve labour (such as harvesting, haying), the overwhelming majority of cases are about workers and non-professional labour<sup>11</sup>. As a rule, the number of employees in enterprises involved in agribusiness sector varies greatly during the year, depending on type of seasonal work. Actually, the staff with preliminary professional (craftsmanship) education or middle professional education is 2-3 times less than workers without vocational/professional education in enterprises operating in agribusiness sector.

*CHART 6. Employees of the Surveyed Companies by Gender*



The sample list of the surveyed companies was divided into two groups based on the number of employees (up to 10 and 10 more). The average number of employees in companies with more than 10 employees comprised 110 (see **TABLE 6**).

As it was noted before, majority of the agribusiness companies base is the family, most of them employ 2 to 20 employees during the seasonal work. That is the reason that number of workers engaged in agribusiness sector would not be steady. Survey findings show that the only agribusiness subsector where businesses operate steadily throughout the year is milk processing. That is why the staff of the milk processing companies consists exclusively of permanent staff. There are no seasonal workers here.

*TABLE 6. Surveyed Companies by Number of Employees*

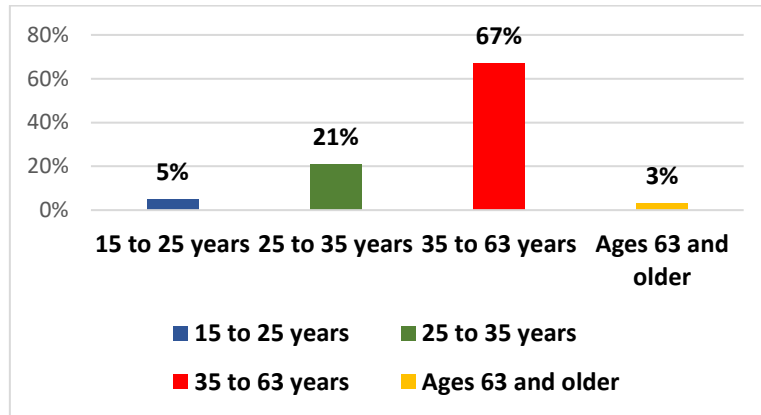
Sector	Up to 10 employees	More than 10 employees	Total
<b>Manufacture of textile and knitwear</b>	14	9	<b>23</b>
<b>Processing and production of agricultural products</b>	14	5	<b>19</b>

<sup>11</sup> "EU4Youth – SAY YES Skills for Jobs" project within the EU

<b>Total</b>	<b>28</b>	<b>14</b>	<b>42</b>
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According to the survey responses, the majority of company employees fell in the 35-63 age group (**CHART 7**).

*CHART 7. Employees of the Surveyed Companies by Age Group*

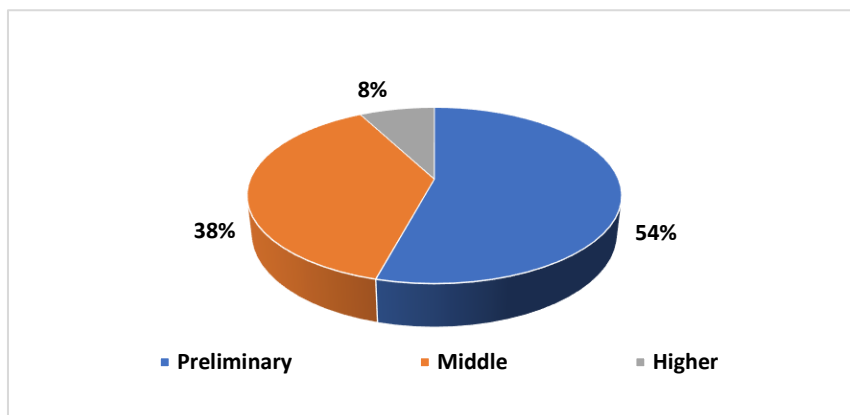


The number of employees with preliminary (craftsmanship) professional education, middle professional education, higher education in the surveyed companies is presented in the TABLE below (**TABLE 7 and CHART 8**).

*TABLE 7. Education of Employees in the Surveyed Companies According to Their Professional Background*

Education	Male (M)	Female (F)	Total
<b>Preliminary (craftsman) professional</b>	189	707	896
<b>Middle Professional</b>	119	510	<b>629</b>
<b>Higher</b>	55	73	<b>128</b>
<b>Total</b>	<b>363</b>	<b>1290</b>	<b>1653</b>

*CHART 8. Education of Employees in the Surveyed Companies According to Their Professional Background in %*

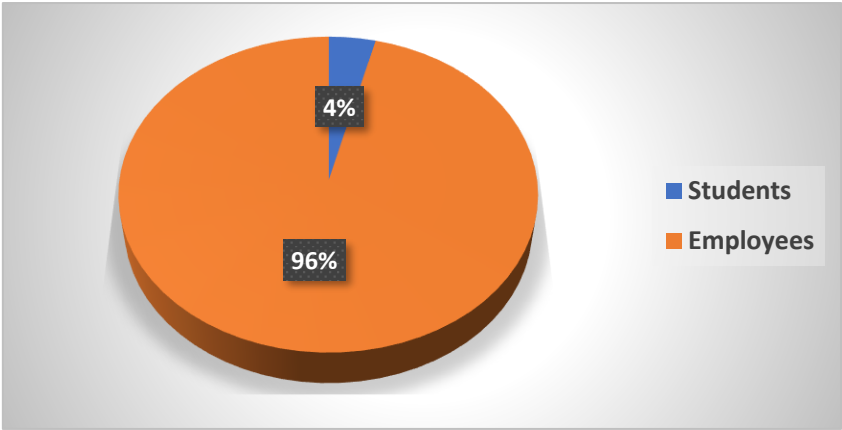


There are only 14 companies that have students from VET institutions in the staff working in accordance with their graduated profession (see **TABLE 8**). The number of working students was 65, which made up 4% of the total number of employees (**CHART 9**). The study findings showed, that 63 students work in textile and knitwear production, and 2 are employed in agribusiness sector. As it was mentioned before, the major part of labour force involved in agribusiness consists of workers (seasonal), who lack any vocational/professional education.

**TABLE 8. Number of VET Students Working in Accordance with Their Profession**

N	Specialty		Sector	
	Manufacture of Textile and Knitwear	Number	Agribusiness	Number
1.	Tailor	46	Cattle-breeder	1
2.	Market Analyst/Computer Expert	1	Agronomist	1
3.	Clothing Designer	8		
4.	Designer- carpet weaver	1		
5.	Sewing Technologist	2		
6.	Art Designer	1		
7.	Shoe-maker	4		

**CHART 9. Total Number of VET Students Working in the Surveyed Companies in Accordance with Their Specialty**



According to the employers, the most demanded specialties/professions were identified using the quantitative methodology (**TABLE 9**).

**TABLE 9. Most Demanded Specialties/Professions According to Employers**

N	Specialty		Sector	
	Manufacture of Textile and Knitwear	Number of companies	Agribusiness	Number of companies
1.	Tailor	13	Cheesemaker	5
2.	Market Analyst	3	Market Analyst	1
3.	Designer	7	Cattle-breeder	1
4.	Technologist-Designer	3	Dairy Production Technologist	6
5.	Carpet -Weaver	1	Milk Operator	1
6.	Tights Master	1	Baker*	1
7.	Fuller	1	Confectioner*	1
8.	Wool processing specialist	1	Agronomist/Plant breeder	1
9.	Shoemaker	3	Laboratory of dairy production	2
10.	Shoes designer	2	Meat production technologist	1
11.	Weaver	2	Fish breeder	1
12.	Engineer/technician	2	Specialist in caviar preparation	1

*\*The specialties/professions were indicated by employers*

The employed respondents were asked whether there were any persons with special needs or with disabilities employed at their workplace. Only 21% of employers reported a PWD employed at their workplace. Totally 21 employees with disabilities were reported by the surveyed companies, which comprises 1% of the total number of registered employees. Most employees with disabilities are involved in the textile and knitwear production as sewing specialists. The figures for agribusiness sector is strikingly low: only one company reported about one employee with disabilities. The reports on human rights finding showed, persons with disabilities (PWD) face discrimination and obstacles to the execution of their rights almost every day in Armenia<sup>12</sup>. Employment is one of the most important elements of social integration and self-reliance for people with disabilities. Our survey data indirectly comes to confirm the low employment figures of PWD in both selected sectors of Shirak marz.

The study of core staff influx at the surveyed companies showed that totally 58 workers were dismissed from the companies during the last year, which consists 4% of total number of employees. The following main reasons for dismissal were specified by the employers: leaving the country of employment and non-compliance with professional requirements. The large influx of personnel in manufacture of textile and knitwear sector is explained due to the large number of female employees: care of infants, maternity leave.

In response to question on recruitment on new employees at the surveyed companies from both sectors, 52% of employers confirmed that hired new workers at their companies in the last 6

<sup>12</sup> <http://www.ombuds.am/en/categories/persons-with-disabilities.html>

months. The total number of new employees hired in this period made up 109 (TABLE 10). For details on specialties/positions of newly recruited employees, see TABLE 11.

**TABLE 10. Employees Recruited by the Surveyed Companies in the Last 6 Months by Sectors**

Sector	Number of companies		
	Manufacture of textile and knitwear	Agribusiness	Total
Number of companies recruited new employees	16	7	23
Number of employees	85	24	109

**TABLE 11. Employees Recruited in Last 6 months by Professions/Specialties**

Sector	Manufacture of textile and knitwear	Number Of Employees	Agribusiness	Number Of Employees
Profession	Designer/carpet weaver	10	Milk production operator	2
	Market specialist	1	Baker*	2
	Sewing specialist	33	Cheese-maker	2
	Shoes maker	7	Workers	18
	Weaver	5		
	Technologist/process engineer	1		
	Wool processing specialist	16		
	Operator	2		
	Textile Worker	10		

\*The profession indicated by employer

The main reason for the hiring of new employees, according to employers, was the increase in volume of work. According to received data, 12% of employers hired new workers because of the replacement labour force, 29% added extra labour, 43% increased volume of work, 5% for short-term (seasonal) jobs, and 1% cited other reasons.

Although most employers have used all possible channels for announcement on open vacancies (State Employment Agency (SEA), private employment agencies, social networks, friends and acquaintances), 57% of employers found it difficult to fill vacancies in the last 6 months, particularly with respect to particular professions/types of work (TABLE 12 and TABLE 13). Some of them even applied to television advertising to spread the vacancy announcement. List of employers having difficulties for seeking employees in last 6 months in ANNEX 3.

**TABLE 12. Number of Employers Having Difficulties for Seeking Employees in Last 6 Months**

Sector	Total number of companies	Number of employers with difficulties
Manufacture of textile and knitwear	23	22
Agribusiness	19	2
Total	42	24

**TABLE 13. Hardly Filling Professions/Specialties at the Surveyed Companies in Last 6 Months**

Sector	Manufacture of textile and knitwear	Agribusiness
Profession	Designer/carpet weaver	Milk production operator
	Designer	Cattle-breeder
	Sewing specialist	Baker*
	Shoes maker	Technologist/process engineer
	Tailors cutter	Cheese-maker
	Technologist/process engineer	
	Textile worker	

\*The profession indicated by employer

According to employers' answers, the main way to fill jobs was long and intensive seeking process. Employers reported that the focal challenge is the lack of facilitation on the buffer zone between the labour force moving from education institutions towards the employment sector, which should have contributed to filling in the gaps and ensuring a better link between demand and supply.

Totally, 57% of surveyed employers faced difficulties in finding the right professionals. Of these, 31% had to increase volume of the work for existing staff, 14% had to delay or reject orders, and only 31% responding that these difficulties had no impact on work. 21% of respondents managed to solve difficulties concerning lack of appropriate professionals through training courses conducted for staff. Average duration required for staff training according to most respondents made up 1-3 months, see **TABLE 14**.

**TABLE 14. Required Duration for Staff Training in the Surveyed Companies**

N	Training period	Number of employers
1.	Up to 1 week	5
2.	Up to 1 month	10
3.	Up to 3 months	15
4.	Up to 6 months	7
5.	Find it difficult to answer	3

Currently, 27 of the surveyed companies had open vacancies totaling 138. Most required occupations for vacancies see **TABLE 15**. The analysis of the data concerning available open vacancies at the companies revealed high labour demand in both selected sectors, indicating rapidly growth of manufacturing industry in surveyed region. The details on open vacancies see in **ANNEX 4**.

**TABLE 15. Available Open Vacancies at the Surveyed Companies According to Required Qualification**

N	Sector		Sector	
	Manufacture of textile and knitwear		Agribusiness	
	Required qualification		Required qualification	
	Vocational	Higher	Vocational	Higher
1.	Carpet weaver		Cattle breeder	Cheese maker
2.	Tailor	Designer	Milk production technologist	
3.	Sewing specialist		Baker*	
4.	Shoe maker			
5.	Weaver			

*\*Profession was mentioned by respondent*

According to employers' forecasts, 90% expect their business to grow within the next 12 months. Most employers are planning to introduce innovative methods in different directions at their companies over the next three years (**TABLE 16**).

**TABLE 16. Expected Introduction of Innovative Methods by Directions During the Next 3 Years**

N	Direction	Number of Employers
1.	Equipment upgrade	36
2.	Production line automation	10
3.	Attracting new specialties as a result of innovation introduction	22
4.	Introduction of new technologies	29
5.	Other	2

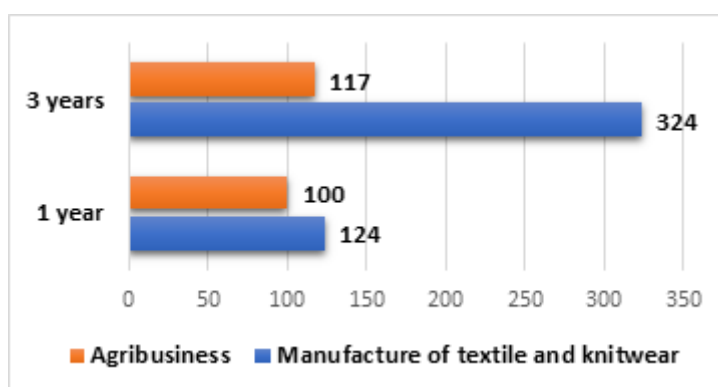
According to the estimates of the entrepreneurs, the introduction of the innovative methods expected in the above directions will enable to increase the productivity volumes without staff replenishment (TABLE 17).

**TABLE 17. Anticipated Increase of Production Volume due to Introduction of Innovative Methods**

N	Increase	Number of Employers
1.	Up to 10%	13
2.	11%- 20%	15
3.	More than 21%	11
<b>Total</b>		<b>39</b>

None of the respondents was intended to cut the number of employees during the next year. Contrariwise, 36 of surveyed employers, which consists 86% of total respondents, are planning to expand their staff in the coming year, leading to the creation of 224 new jobs will be created (CHART 10). Compared to 2019, according to 81% of employers' estimation, the increase of new job places will comprise more than 10% in the next three years. The growth of new jobs in the agribusiness sector is not so obvious, as the number of employees varies with seasonal jobs.

**CHART 10. Number of New Jobs by Sector in the Next One and Three Years**





In accordance with forecast made by employers, new workplaces creation will enable the increase of new specialists' involvement at their companies (**TABLE 18**).

**TABLE 18. Professions/Specialties as a Result of New Job Creation**

N	Sector	
	Manufacture of textile and knitwear	Agribusiness
1.	Carpet weaver	Milk production technologist
2.	Sewing specialist	Cheese production specialist
3.	Tailor	Market specialist
4.	Shoe maker	Fish-breeder
5.	Designer	Baker
6.	Artist-Designer	Equipment specialist
7.	Marketing specialist	
8.	Hosiery production manager	

The following main reasons for additional workforce attraction according to employers' opinion are to be considered: turnover increase/production volume increase - 83%, introduction of new technologies – 52%, new product development/production – 67%, new market attraction – 60%, staff turnover– 31%.

From the point of view of employers, the main attractive factor to involve employees in the surveyed areas is a stability of work (see **TABLE 19**).

**TABLE 19. Attractive Factors to Involve Employees in the Surveyed Sectors by Employers**

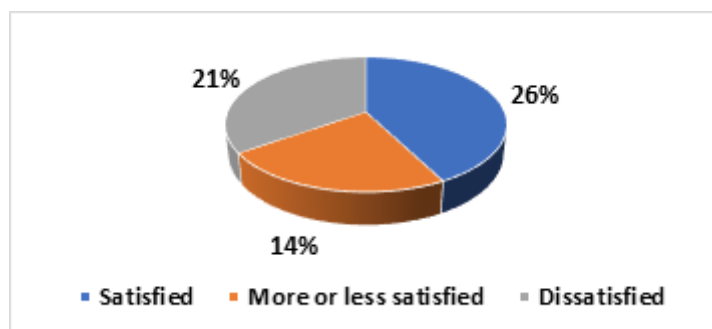
N	Factor of Attractiveness	Number of Employers
1.	High salary	21
2.	Opportunity to work by profession	24
3.	Stability of work	27
4.	Opportunity for professional growth	24
5.	Opportunity for vocational training	14
6.	Other	3

Although the manufacturing sector is developing in the Shirak marz, certain challenges need to be overcome. Employers reported problems related to recruiting staff, mainly due to the lack of motivation among the youth for working in manufacturing because of the laborious and low salary jobs being offered.

The managers of a textile companies in Gyumri stated that students do not want to enter the textile industry in Gyumri, as the work is hard and salaries are relatively low. The other employers also reported that graduates in the studied sectors do not learn the necessary skills and are underqualified.

To estimate the satisfaction of employers by students from vocational institutions, the respondents were asked to rate their satisfaction level. Only 11 interviewed employers expressed their satisfaction in professional qualifications of students employed in their companies, 6 of them were more or less satisfied, and 9 were dissatisfied (see **CHART 11**).

**CHART 11. Job Satisfaction Level**



The strengths of the Vocational Education and Training (VET) system according to employers see **TABLES 20**. The general weaknesses (technical and soft skills) of VET students by employers needed to be improved are given below in **TABLE 21**.

**TABLE 20. Strengths of VET System According to Surveyed Employers**

N	Strengths	Number of Employers
1.	Preliminary craftsmanship schools and vocational education in public educational institutions in Armenia is generally free of charge	7
2.	Preliminary craftsmanship schools and vocational education in Armenia has higher quality in state institutions than in private educational institutions	7
3.	Graduates of a preliminary craftsmanship schools and vocational education can easily learn another profession	5

**TABLE 21. Weaknesses of VET Students/Graduates needed to be improved According to Surveyed Employers**

N	Weaknesses	Number of Employers
1.	Professional theoretical knowledge	7
2.	Professional practical knowledge	17
3.	Professional skills	14
4.	Assume responsibility for work	10
5.	Punctuality	8
6.	Teamwork	7
7.	Communication skill	8
8.	Self-thinking or initiative	5
9.	Ability to self-educate	7
10.	Continuous self-development	8
11.	Lack of entrepreneurial thinking	7

According to generalized opinion of the respondents, the vocational practical education of a VET student to be an important part of their formal education, which they believe must be or should be conducted directly in companies where students are preparing to enter the workforce. Employers reported it is the best way to share experience with students, as well as to obtain practical knowledge and qualitative skills on the profession, which they would like to occupy in the future. They said, it is also the chance to engage youth in the sectors, to raise their motivation and turn on their interest for the selected professions. The on-site practical training provides an opportunity for familiarity with the business model of the new organization and the process of increasing operational efficiency. Besides, the vocational practical education, particularly based on dual approaches, allows establishing direct connection between employer

and VET graduate to make easier seeking a work place for graduate, as well as finding a skilled/professional specialist for employer.

38% of the companies have confirmed that they cooperate with professional educational institutions of Shirak marz (**ANNEX 5**), in particular:

- Shirak Regional State College SNCO;
- Gyumri Regional State College SNCO;
- Gyumri State Vocational School N 3;
- Amasia State Vocational School;
- Shirak State Agricultural College after M. Tumanyan included in the structure of Armenian National Agrarian University as Shirak branch;
- Gyumri State Craftsmanship Vocational College N 1;
- Gyumri State Vocational School N 4;
- Other.

According to employers' answers, the cooperation with VET institutions is realized in different directions (**TABLE 22**).

*TABLE 22. Directions of Cooperation with VET Institutions*

N	Direction	Number of employers
1.	Training program/module development	3
2.	Upgrading of training program/module	2
3.	Practical program development	12
4.	Professional training (in the workplace)	8

The survey findings showed that the most part of interviewed employers were aware about German Dual Education System from different sources, and some of them have already applied this approach for students practical training. In accordance with 55% of respondents, in order to complete full-time vocational training, the duration of practical training must be based on the German Dual Education System. According to generalized opinions, provision of guidance by qualified teacher-specialist (“teacher-master”) during the practical training of a VET student is also very important. The technical and soft skills required for Teacher-Master are listed below (**TABLE 23**).

*TABLE 23. Requirements to Teacher-Master by Surveyed Employers*

N	Qualification	Number of employers
1.	Being an entrepreneur himself	10
2.	Experience in working with young people	21
3.	Didactic skills/method	28
4.	Capacity to manage arrangements between assignees and executives (VET students)	16
5.	Prior experience in any VET institution as a teacher	9

6.	Knowledge of all processes in the organization and conduct of practical trainings	21
7.	Knowledge of the theoretical module for the relevant profession and its relevant practical application in the organization	18
8.	Teacher-master should constantly extend his/her qualification (preferably with certificates/diplomas)	14

Most employers agreed that a VET student should receive remuneration during his/her professional internship. Employers' opinions were shared almost equally for receiving additional pay by teacher-master during the vocational training of a VET student. According to employers, 11 answered that the remuneration of VET students during their internship should be paid by employers themselves, 2 responded that the student should pay, 16 – state bodies, 2 – all of them.

86% of employers pointed out, they are ready to offer VET students a traineeship in their company, expecting a better qualified prospective employee after completing additional internships (or dual vocational training). 99% of interviewed participants ready to open their company doors for one day to youth (and/or parents) and VET representatives as a potential employer (to organize a "Professional Orientation Day"). Heads of companies made suggestions for improving the VET sector (ANNEX 6).

Although, 60% of surveyed employers stated that they cooperate with local universities and colleges, but most of the students do the apprenticeship as a formality; actually very few want to enter the sector. The survey finding showed, that the existing cooperation between employers and VET institutions is not institutional and is centralized around students' practical programs. Besides, the apprenticeship program does not have an institutional monitoring system, which can control students' actual engagement in practical work.

Thus, it can be concluded that the existing cooperation between EI and employers is very weak as it mainly includes apprenticeship programs, while employers are not actively engaged in any other activities that would positively influence the university system and have impact on the students' education quality. Although the apprenticeship program gives practical benefits to students, reports about drawbacks in terms of shortage of practical work, lack of motivation among the students, and the formal nature of the apprenticeships were voiced by the interviewed employers.

The employers agreed that they need technical (non-financial) support in different directions for the company development (TABLE 24). The employers also anticipate support for modern/innovative equipment acquisition, as well as working area renovation.

*TABLE 24. Expected Support for the Company Development by Employers*

N	Expected Support	Number of Employers
1.	Training of employers/executives	25
2.	Mentoring/coaching of employers/executives	11
3.	Professional training of employees	27
4.	Guidance of VET graduates	21

### 3.2. VET Institutions Students

The total number of surveyed students is **114**. Data was collected from targeted **4** VET institutions in Shirak marz. The surveyed students' distribution according to VET institutions, as well as according to course of study is presented below in **TABLE 25** and **TABLE 26**.

*TABLE 25. Distribution of Students According to VET Institutions*

N	Name of VET	Number of Students (%)
1.	Amasia State Vocational School SNCO	58 (50%)
2.	Artik State College SNPO	17 (15%)
3.	Shirak State Agricultural College after Academician M.Tumanyan SNPO	20 (18%)
4.	Maralik State Vocational College	19 (17%)
	<b>Total</b>	<b>114 (100%)</b>

*TABLE 26. Surveyed VET Students According to Course of Study*

N	Course of Study	Number of Students
1.	I course based on secondary education	6
2.	I course	33
3.	II course	35
4.	III course	21
5.	One year short-term course	19
	<b>Total</b>	<b>114</b>

The surveyed students according to their specialties are presented in **TABLE 27**.

*TABLE 27. VET Institutions Students According to Specialties*

N	Sector	Number of students	Sector	Number of students	Sector	Number of students	Sector	Number of students
	<b>Manufacture of Textile and Knitwear</b>		<b>Agribusiness</b>		<b>Related subsectors</b>		<b>Others</b>	
1.	Sewing production technology	<b>10</b>	Technical provision of agricultural works	<b>10</b>	Commodity Expert	<b>2</b>	Auto repair master	<b>4</b>
2.	Knitwear and clothing production technology	<b>17</b>	Milk and dairy technology	<b>1</b>	Computer operation	<b>19</b>	Cooking	<b>13</b>
3.			Meat and meat products technology	<b>2</b>	Computer operation (operator)	<b>3</b>	Hairdressing	<b>5</b>
4.			Technology of oil, milk, cheese production	<b>7</b>	Accounting	<b>3</b>	Hairdressing art and make-up	<b>6</b>
5.					Management	<b>6</b>		

6.				Quality inspection of consumer goods	1		
7.				Organization and management of transportation	5		
	<b>Total number by sectors</b>	<b>27</b>			<b>20</b>		<b>28</b>

VET students were asked to name the inducements for selection of their specialties/professions. The answers showed that most of them selected their disciplines to be able to find a job - 45%, for convenient work schedule - 35%, for the future attractive profession – 41%, high salary – 39%, parents and/or others advice - 8%, a prestigious and demanding profession – 27%, having such a specialist in the family – 15%, the profession is easy to master – 22%, professional progress - 31%, random selection - 9% (**TABLE 28**).

**TABLE 28. VET Students Disciplines According to the Selection Inducements**

N	Inducement	Number of Students (%)
1.	Opportunity to find a job	45%
2.	Convenient work schedule	35%
3.	Future attractive profession	41%
4.	High salary	39%
5.	Parents and/or others advice	8%
6.	Prestigious and demanding profession	27%
7.	To have such a specialist in the family	15%
8.	Profession is easy to master	22%
9.	Professional progress	31%
10.	Random selection	9%

The research findings showed that most of the participants had difficulties choosing a career, and social norms and their respective families mainly influenced their choice. Generally, the motivation of youth in selection their specialties conditioned not by external but internal aspects like just having a job and earning money. Minority group reported looking at market trends at the time of choosing their profession.

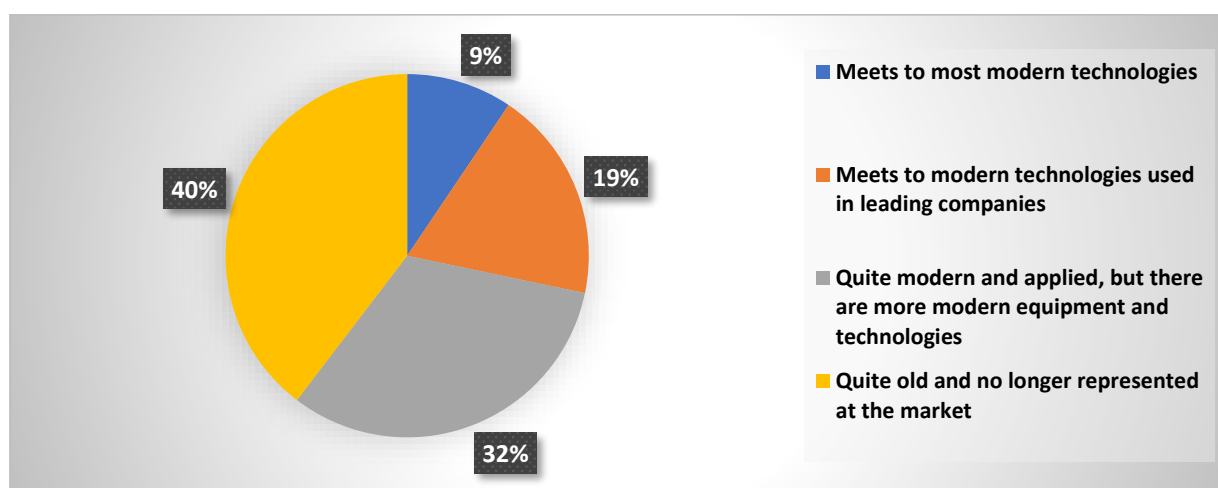
The students were asked to rate the quality of learning from different dimensions (**TABLE 29**). Contrary to the opinion of the surveyed employers, the majority of students rated the quality of education received in their institutions quite high, which can be explained in two ways: either students have great confidence in their educational institution, or they are simply formal in their education, without giving much importance for the evaluation.

**TABLE 29. Learning Quality Rates by VET Students**

		Good	Satisfied	Bad	Find it difficult to answer
1.	Curriculum	101	8	0	2
2.	Teaching methodology	102	5	0	3
3.	Access to the theoretical part of the project	101	7	0	2
4.	Quality of practical training and the duration	67	48	1	1
5.	Proportion of theoretical and practical programs	74	38	1	3
6.	Professional and practical skills (competencies) acquired	74	36	0	1
7.	Availability of modern equipment and technologies for practical training	51	51	7	2
8.	Applicability of knowledge gained in the workplace	73	15	0	6

10% of interviewed students agreed that the equipment that they study during their educational process meets the most modern technologies, 20% of them think that equipment meets to modern technologies used in the leading companies, 34% deem it quite modern and applied, but there are more modern equipment and technologies, 42% find them quite old and no longer represented in the market. As we can see from responses, the opinion of the students who finds the equipment studying in EI outdated and not meeting modern requirements was halved (**CHART 12**).

**CHART 12. Compliance of Studied Equipment with Modern Technologies According to Students**



According to interviewed students, 91% agree that provided time is enough to study the equipment and technologies. 48% of the surveyed students have already got practical training during their education, which had impacted on knowledge and skills needed for the future work, and 52% of them are going to pass it in the second half of the year. The average duration of apprenticeship is 4-5 weeks. Detailed information on hard/soft skills and knowledge was impacted, see in **TABLE 30**.

**TABLE 30. Hard/Soft Skills Impacted During Practical Training According to Students\***

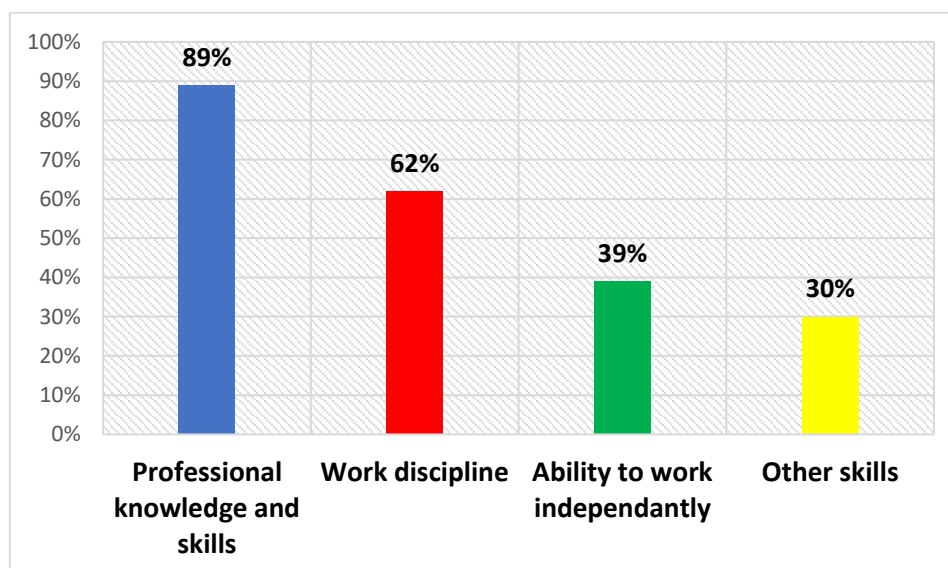
N	Skills	Number of Students
1.	Work-related (technical) skills	78
2.	To interact / collaborate with other people	86
3.	To work independently	66
4.	To solve problems arising during work	43
5.	To learn in practice	58
6.	Maintain a job discipline (work schedule, timely and quality management assignments, etc.)	63
7.	Expression of initiative	37
8.	Understanding the chosen profession	43
9.	Attitude towards work	38

*\*Here, the total number of answers exceeds 100%, because respondents were allowed to select several answers*

However, more than half of students stated that practical education provided them with knowledge and skills more suitable for their future jobs than theoretical part of education. Almost all the students had apprenticeship and internship experience and were satisfied overall with the quality. Nevertheless, the participants complained that employers do not consider either apprenticeship or internship as work experience.

Among the skills mostly rated by employers, the students pointed to several ones at once, which are professional skills and knowledge - 89%, work discipline - 62%, ability to work independently – 39%, other skills as working experience, teambuilding and self-development was more or less valued according to opinions of 30% students (CHART 13).

**CHART 13. Skills Mostly Rated Among Employers by Students Opinion**



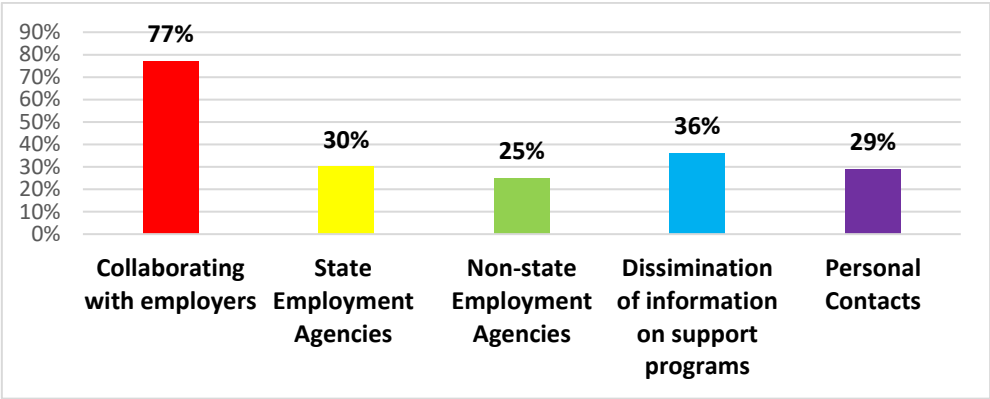
74% of students express their willingness to work in the future in their selected professions, 18% - to continue learning in higher institutions, 11% have no strong vision of their future, and only 1% see themselves in other profession.

82% of students confirmed that VET institution assists them in seeking a work, and 18% disclaimed it.

According to surveyed students' responses, VET institutions use different methods to assist their graduates/students in finding a job (CHART 14).



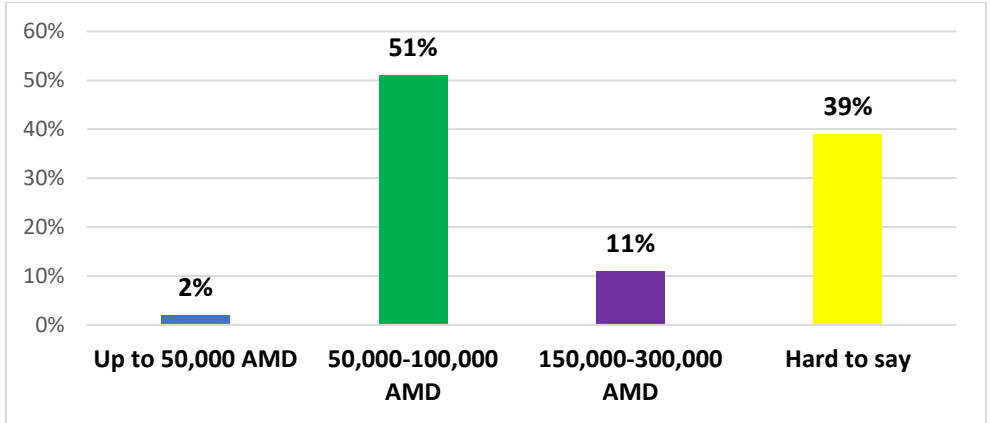
**CHART 14. Methods of Assistance to VET Students in Job Placement**



The survey results showed, that 80% of students hope to find job due to guidance and consultancy of VET institutions.

The majority of VET students express they wish to have a salary in the future in average amount of 50-100 thousand AMD (~100-200 EURO). Average monthly salary in Shirak marz 127.000 AMD<sup>13</sup>. See **CHART 15**.

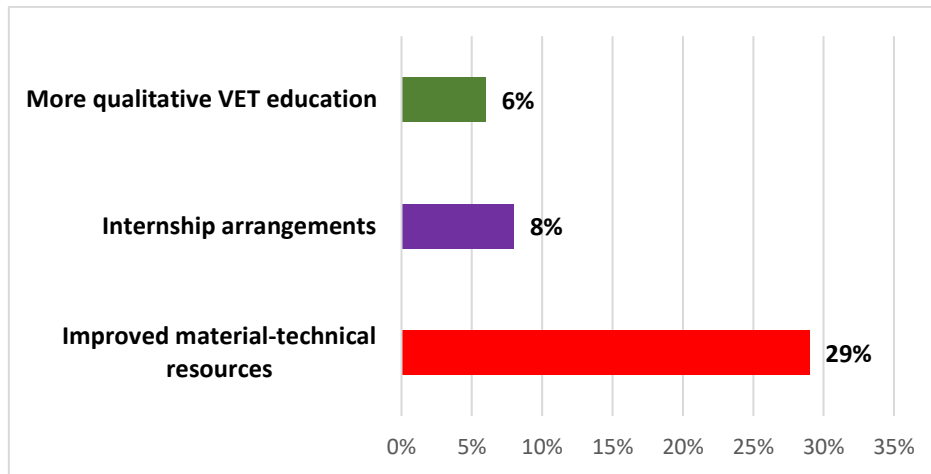
**CHART 15. Average Salary Expectations by Students**



A pleasant discovery was the demonstration of the desire by almost half of the respondents to gain new knowledge and skills based on up-to-date material and technical base combined with a high level of teaching, which in our interpretation shows the keen interest of modern students not in “easy” but in high-quality education which deserves investment (**CHART 16**). For students, also the important criterion for the quality improvement of the content of education, is its relevance in practical activities.

<sup>13</sup> National Statistical Service of Armenia Labour Market, 2018

*CHART 16. Needs to Improve Access to Employment (% of responses)*



### 3.3. VET Institutions Directors/Representatives

The survey was implemented in 4 targeted VET institutions of Shirak marz. F2F interviews with directors/executives of EI were conducted. The distribution of VET representatives per institutions is in **TABLE 31**. See also **ANNEX 7**.

*TABLE 31. VET Institutions Directors/Representatives*

Name of Institution	Title of Representative	Length of Teaching Experience (years)
Artik State College	Educator	8
Amasia State Vocational College SNCO	Director	34
ANAU Shirak Agricultural College Branch	Deputy Director/Educator	15
Maralik State Vocational College SNCO	Director (caretaker)	53

The respondents stated that they mainly used all material and equipment available in their institutions to prepare and organize the training courses (see **TABLE 32**).

*TABLE 32. Material and Equipment Used in Training Program by VET Directors/Representatives*

N	Material and Equipment	Number of Respondents
1.	Educational program	3
2.	Books and manuals written by VET teacher	1
3.	Textbooks in foreign languages	2
4.	Scientific literature (articles, books) in Armenian	1
5.	Teaching materials published for teachers (guidelines/manuals)	4
6.	E-learning materials	3
7.	Electronic databases	3
8.	Presentations, slides, observation manuals, models	4
9.	Production equipment	4
10.	Laboratory equipment	3
11.	Computer software programs	3

The distribution of workload according to respondents made up 30-40% of theoretical part, and 60-70% of practical training. According to VET representatives' estimations, material and technical resources available at their institutions were rated in total as satisfied. Representative of Shirak Agricultural College Branch rated it as bad on a scale of 4 (see **TABLE 33**).

**TABLE 33. Estimation of Material and Technical Resources by VET Directors/Representatives**

N	Material and Technical Resources	Estimation		
		Good	Satisfactory	Bad
1.	Administrative staff	4		
2.	Lecturing staff	4		
3.	Educational programs	4		
4.	Educational and methodological literature	1	3	
5.	Computers and other information devices	1	2	1
6.	Computer programs and databases	1	2	1
7.	Internet access		4	
8.	Educational Areas	1	2	1
9.	Furniture and property	1	3	
10.	Educational equipment		3	
11.	Production equipment		2	2

Although the estimation of educational equipment was rated satisfactory by VET representatives, all of them stated that the equipment and laboratory facilities is not sufficient (lacking) for providing of high quality practical trainings. According to all respondents' estimations, the available production equipment and laboratory facilities are lag behind the latest technological progress, and require constant updating. VET executives listed the facilities used by students during the study, including different laboratory facilities, production equipment, and special areas for practical trainings, computer engineering, specialized computer programs and databases (**ANNEX 8**).

VET directors also confirmed that they cooperate with local employers in different directions, particularly as follows:

- Conduction of trainings with use of enterprise production equipment;
- Participation in discussions on educational programs and standards development;
- Participation in the development of students' knowledge assessment indicators;
- Involvement in qualification exams;
- Provision of internship opportunities for students;
- Carrying out a targeted order to train specialists;
- Provision of job opportunities for students/graduates.

As main obstacles between VET institutions and employers, the respondents indicated non-compliance of students' professional knowledge/skills with business requirements, as well as lack of recommendations on conducting of student internship by the entrepreneurs. Although the respondents pointed out that they cooperate with local employers on satisfactory level, the research data analysis showed that cooperation between two sides is weak and mainly centralized around practical training arrangements.

Respondents were asked about apprenticeship program based on dual approach, and they answered that aware about this system, though it does not apply in their EI. The answers of EI representatives revealed, that the educational approaches need to be updated and modernized in the researched organizations. All the respondents agreed that including of dual system in their educational programs would affect positively on different aspects, particularly as mentioned below:

- increase the possibility of employing graduates;
- increase of the educational institution rating;
- improve the quality of curricula;
- growth of the professional level of teachers;
- expand the material-technical (logistical) support of the teaching process.

VET representatives expressed their point of view that the implementation of the dual education system would have a positive qualitative effect, increasing the efficiency of the general education system, however, the introduction of the mentioned system would require additional resources. VET leaders outlined the steps needed to be taken before implementing the new dual system. First of all, it is necessary to organize short-term trainings for the relevant staff of educational institutions in order to present the mechanisms and methodology of implementation of the given system. Other actions to be undertaken include the need to restructure the educational process and programs, including the development of new mechanisms/tools that allow employers to avoid negligent attitudes about curriculum involvement.

VET institutions executives stated that they provide a support to their students/graduates in seeking a work using different approaches and methods in this direction, see in **TABLE 34**.

*TABLE 34. Support Approaches for Seeking a Work according to VET Executives \**

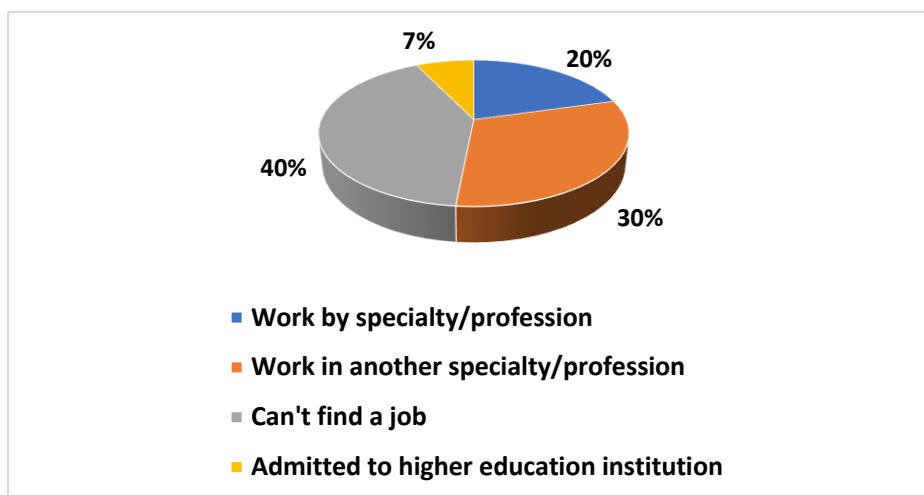
N	Support Approach	Number of VET Executives
1.	Collaborating with employers	4
2.	Through State Employment Agencies/State Employment Agency	1
3.	Through Non-Governmental Employment Organizations (Human Resource Centers, Employment Agencies, etc.)	1
4.	Providing information on projects implemented in the country	1
5.	Personal contacts (friends, relatives, and acquaintances)	4

*\*Here, the total number of answers exceeds 100%, because respondents were allowed to select several answers*

As we can see from the above shown data, approaching friends, relatives, and acquaintances for work is widely practiced. Also the main step taken in the pursuit of work is contacting the employer directly. The data also reveals that only few people have trust in the state employment agency, non-governmental organizations for seeking a job.

According to VET executives, around 20% of their EI graduates work by specialty/profession, 30% work in another profession, 40% cannot find a job, 7% were admitted to higher education institution (**CHART 17**).

**CHART 17. Share of Graduates Found Work after Graduation**



The VET executives interviewed in Shirak marz identified the lack of hard/soft skills and industry-specific knowledge among the graduates (TABLE 35).

**TABLE 35. Hard/Soft Skills and Knowledge Lack in Surveyed VET Institutions**

N	Hard/Soft skills	Number of VET Institutions
1.	Occupational (technical) skills	1
2.	Knowledge of foreign language	1
3.	Communication skills	2
4.	Decision-making skills	2
5.	Management skills	2
6.	Learning (self-development) skills	0
7.	Computer knowledge/skills	1
8.	Punctuality (work schedule, provision of timely and qualitative management assignments, etc.)	0
9.	Initiative	1
10.	Practical skills	1

The VET institutions executives express their willingness to improve the current educational system and programs in their organizations. They made suggestions targeted to increase an effectiveness of VET system, as follows:

- Improvement of current educational programs;
- Adding more practical trainings in leading companies;
- Stimulation of cooperation between employers and VET institutions;
- Development of new support mechanism in seeking a work;
- Design effective tools for nepotism<sup>14</sup> excluding.

<sup>14</sup> VET institutions executives stated that they often could support to their students for recruitment only using their own connections with employers.

### **3.4. Gyumri Regional Employment Center of State Employment Agency**

To obtain a full picture of the survey's results, a phone interview was conducted with Director of Gyumri Regional Employment Center (hereinafter, Employment Center), Ms. Amalia Adamyan. According to interviewed representative, today the employment policy in Armenia is implemented through active labour market programs. The payment of aids to citizens registered in employment centers and unemployed 5 years ago has been suspended so that the money allocated to the sector can be used for vocational training and job placement. The last changes were made in this area to raise motivation of unemployed persons to be involved more actively in self-development process, as well as getting a new skills and knowledge that will increase their employability. Employment centers have shifted from passive payroll to vigorous activity. Besides, different support mechanisms/tools targeted to unemployment reduction in the region have been implementing as follows:

- organizing job fairs;
- assistance in using the services provided by a non-governmental employment organization;
- provision of financial assistance to employers for the purpose of finding suitable employees in the labour market;
- providing support to the unemployed in order to gain professional work experience in the profession;
- organization of vocational training for unemployed;
- providing support to unemployed in the labour market for self-employment;
- providing support to the rural economy by promoting seasonal employment;

Despite recent changes in this area, there are still the problems concerning job placement to be addressed. The support programs exist, but there are no tangible results of the reduction in unemployment. According to Employment Center Director, there are currently registered 10,571 unemployed in the Gyumri Regional Employment Center. Last year, about 15% (1,316) of those registered were employed, which is a high figure compared to the previous years. The Employment Center offers jobs twice, when the unemployed rejects it, they are removed from the register. As a result, the number of registered unemployed decreases, but not at the expense of solving the employment problem. There are mostly vacancies for workers in the Employment Center, and few jobs for graduates from higher or vocational education. Often the demands could not meet the unemployed professional's knowledge, so people may not find a job.

As we can see, minimum unemployed support program implementation requirements are met, but the set targets and conditions are not realistic as they should at least be derived from previous years' statistics and not create an artificial high or low performance indicator.

The Gyumri Regional Employment Center's Director was asked about cooperation with VET institutions and local companies, what the respondent answered that the Center actively collaborates with both sides. The Center's representatives are involved in different EI commissions, participating in the discussions and round-table meetings concerning different issues/activities implemented by VET institutions. They have been also organizing and taking part in various surveys and assessments related to labour market needs and demand. Permanently, the Employment Center cooperates with more than 1500 local employers active in different areas of economy, including manufacture of textile and knitwear, as well as agribusiness sectors. At the moment, vacancies announcements have been placed by 10 local

employers using the Center's facilities. Besides, the informational events on support programs and free occupations announcements have been organizing by the Center's representatives among students/graduates at VET institutions.

The Director of the Center identified that there were few seekers for work in specialty of milk and dairy production. A bit more applicants were for textile and knitwear production sector.

The Employment Center's Director made suggestions on rising of employment effectiveness in the specific sectors of the region: "The training system based on dual system should be activated and applied in all VET institutions. The best graduates are also provided with a job through the dual system of internships, which is one of the important options for solving the employment issue".

## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4.1. Conclusions

The purpose of this survey is to present employers, students and VET institutions perception for (in)compliance of education (supply) with the requirements to the labour market (demand).

The study was carried out in selected sectors of economy in Shirak marz (region) of the RA: manufacture of textile and knitwear and agribusiness sectors.

The study was conducted among 3 focus groups: employers representing demand of labour market, VET institutions and VET students representing potential supply of the labour market. To supplement the results of study, it was also decided to undertake the interview with Regional Employer Center representative as a link between supply and demand at the labour market.

The findings provide insight into the current labour market conditions of two sectors in Shirak marz, as well as revealed the gap that exists between labour demand and supply, which are presented below:

#### Employers

1. The findings disclose the existing difficulties that the employers face at the labour market according to 57% of surveyed respondents. Currently, 27 of the surveyed companies had open vacancies totaling 138 in the current year in both sectors. Even with the existing oversupply and supply of professions in the market where there is labour demand (manufacturing), employers stated that have complications recruiting labour force because the local (regional) professionals and graduates from local EI are underqualified for the labour market demand.
2. According to employers' forecasts, 90% expect their business to grow within the next 12 months. Most employers are planning to introduce innovative methods in different directions at their companies over the next three years. Nobody from respondents was intended to cut the number of employees during the next year. Contrariwise, 36 of surveyed employers, which consists 86% of total respondents, are planning to expand their staff in the coming year, as a result of which 224 new jobs will be created, which allows us to assume that businesses will continue to grow and expand.
3. According to employers' statements, the education offered in local vocational educational institutions does not equip the students/graduates with the necessary practical skills and professional knowledge required in the specific sectors at the labour market; meanwhile the motivation for self-development among the young specialists is very low. It is also crucial to change the attitude to the study and self-development among students/graduates in EIs. The employers from both sectors indicated that besides theoretical and practical/professional knowledge (hard skills) required for specific sector professions, it is also very important to develop soft skills of students, like assume responsibility for work, communication skills, continuous self-development, punctuality.
4. The survey findings revealed the gender gap in surveyed companies, which is mainly due to the large number of female employees involved in **Manufacture of Textile and Knitwear sector**. Around 90% of the staff in the textile manufacturing companies are women. This is one of the reasons stipulated the large influx of personnel in this sector (care of infants, maternity leave, etc.). 85 new employees were recruited by employers



from the above-mentioned sector in the last 6 months in comparison with agribusiness sector, where 24 workers have been hired.

According to survey data, the most demanded specialties/professions in the sector of manufacture of textile and knitwear in the next 3 years were determined: sewing specialist, tailor/designer and (carpet) weaver.

5. The survey results showed that companies involved in **Agribusiness sector**, particularly in Shirak region are characterized by small sizes, and mainly able to do almost all the work with the help of household/family members. Even in case of need to involve new labour force, the overwhelming majority of cases are about workers and non-professional labour. Therefore, the employers acting in the given sector attracts new specialists/professionals in case of need (seasonal) and mostly make their efforts to develop the skills and knowledge of the permanent staff through trainings.

According to survey data, the most demanded specialties/professions in the sector of agribusiness were determined in the next 3 years: milk production operators, cheese making technologist.

6. There are **issues of effectiveness of the practical training** specifically thereof implemented at the companies. This is conditioned mainly by poor motivation of the employers to be involved in VET and provide their facilities, site and personnel for the students practical training. The reasons are diverse – from the low capacities of the companies (small facilities, limited human resources, scarce of materials and equipment) for accepting the trainees, to absolute distrust to, or ignorance.
7. Employers in the sectors of agriculture and manufacturing face another serious problem than having trouble finding qualified specialists. There is a lack of specialists as the youth is not motivated to work in manufacturing or agriculture, because the jobs in factories and fields are thought to be hard and pay low salaries. This notion poses quite a large risk for regional development, as agriculture is the sector in which half of the employed in the regions are working. With the generational change, the sector could face difficult problems that would negatively affect the whole country economy at large.
8. It should be noted that 60% of respondents are ready to take part in trainings for employers/executives, and 27% - in mentoring/coaching program. It speaks about employers' keen interest to be involved as active actors in activities targeted on improvement and development of labour market supply.

### **VET Students**

1. Most of VET students assessed fairly high quality of education provided in their institutions, although the above-mentioned findings indicate on incompliance/contradiction between the opinions of two focus groups (students and employers).
2. 42% of surveyed students point out an outdated equipment that they study during their educational process. Almost all the students had apprenticeship and internship experience and were satisfied overall with the quality. However, from the other side the participants complained that employers do not consider either apprenticeship or internship as work experience.
3. Most of the students selected their disciplines for opportunity to find a job - 45%, for convenient work schedule - 35%, for the future attractive profession – 41%, high salary – 39%, parents and/or others advice - 8%, a prestigious and demanding profession – 27%, having such a specialist in the family – 15%, the profession is easy to master –

22%, professional progress - 31%, random selection - 9%. These answers showed that a small part of them oriented on the profession/specialty as a demanded or prestigious one at the labour market. Most of them made their choice as opportunity to find a job or earn a money. The reasons behind this situation are mainly attributed **to the deficiency of career consulting bodies at general schools** that would help the youth choose professions for which there is a dynamic labour market in the regions and would equip the youth with the necessary skills to identify their career paths.

### **VET Institutions**

1. Although the estimation of educational equipment was rated satisfactory by VET representatives, all of them stated that the equipment and laboratory facilities is not sufficient (lacking) for organization of practical trainings at the appropriate level. According to all respondents' estimations, the production equipment and laboratory facilities are outdated in their institutions.
2. While the respondents pointed out that they collaborate with local employers, the survey data analysis showed that cooperation between two sides is weak and mainly centralized around practical training programs arrangements. Employers are not actively engaged in any other activities that would influence the EIs system and have positive impact on the students' education quality.
3. Vocational educational institutions do not have or have insufficient information on actual labour market demands to modernize/reform the current education programs, which is largely attributed to the absence of deep cooperation between industry and education.
4. Interviewed VET representatives were aware about the Dual/WBL system. According to respondents' opinion, Dual/WBL system will have the positive and progressive input in educational system, but the additional resources must be attracted for its introduction, i.e. conducting of training for corresponding VET staff. VET directors determined the issues to be addressed for applying of new educational approaches. Among the issues were indicated a need of complete restructuring the educational process and programs, as well as development of new mechanisms/tools allow to exclude negligent attitude on provision of employers input in the training program.

The presented findings of the research revealed both qualitative and quantitative gaps in the sectors between demand and supply at the LM market in selected sectors. As a result, in the context of the research, the main challenges could be uncovered that are unsatisfactory level of cooperation between employers and EIs aimed at the improvement of situation, as well as demotivation of VET students/graduates to be involved in specified areas.

### **4.2. Recommendations**

For addressing the issues raised by this survey, we propose implementing the actions are given below:

- The analysis of data received in the scope of the survey revealed that cooperation between employer-educational institution is week. Both sides should make more efforts at all stages of the educational (vocational) process to work together from decision making to program introduction, curriculum discussion, practical training and results evaluation.

- Awareness raising, gathering, processing and disseminating information on WBL and Dual educational system among labour market players/stakeholders (employers, VET institutions, students/graduates) in Shirak marz of the RA.
- VET institutions with collaboration of employers must constantly organize internal education quality assurance audits contributing to detection of maximum failures and determine measures which will guarantee a positive improvement of the situation.
- Activate students' involvement in procedures and work connected with improvement of education quality assurance in their VET institution, including processes of internal assessment of the quality of current educational programs, as well as participation in the working groups for conducting internal audit.
- Provision of active dialogue between public and private sectors to improve link to each other for better understanding of each other's needs and requirements. Management councils of VET institutions should strengthen their capacity through organizing of regular trainings, round-table discussions and dissemination of successful experiences and exchange of experiences among all stakeholders.
- VET institutions should bridge the technical gap (facilities, equipment, technologies,etc.) with employers and companies for provision of more productive transition from education to work.
- Increasing attractiveness of sectoral occupations through production modernisation/introduction of new technologies, improvement of work conditions (contracts), wage rise, application of remuneration system both for interns and masters (coachers) to motivate the students/graduates of VET institutions to be employed in the specified areas in Shirak marz.
- Improving the quality of education and vocational training programs, including curriculum development (hard/soft skills that are competence based), as well as provision of teacher participation in training/retraining courses.
- Organizing of short-term trainings with strong intervention of specific sectors key local/international experts to increase the knowledge of employers and VET institutions staff for introducing of new educational approaches/models (WBL/Dual system) at LM and EIs.
- Conducting of targeted skills and knowledge-building trainings (soft skills, hard/vocational skills) with practical components for students/graduates from local EIs to eliminate qualification mismatch at local labour market.
- Conducting capacity building trainings for employers.
- Provision of career employment guidance targeted to better match students with employers thus facilitating the transition from VET to industry.
- Development and implementation of vocational guidance technologies in general schools. The introduction of an integrated career guidance system will contribute to the creation of new productive forms of interaction between participants' educational process, VET institutions that important for the development of innovative and educational potential of the Shirak marz (region) and will meet current labour market requirements.
- The data base and contacts with organizations obtained as a result of this survey could be used for further in-depth research activities in labour market for more suitable timeframe.

## ANNEXES

### ANNEX 1. QUISTIONNAIRES BY SELECTED GROUPS



#### A. Questionnaire on labour demand (For Interview of Employers)

Date	Location	Interviewer

<b>Name of the company/ legal-organizational type</b>				
	<b>LLC</b> <input type="checkbox"/>	<b>CJSC</b> <input type="checkbox"/>	<b>S/P</b> <input type="checkbox"/>	<b>Other (note)</b> <input type="checkbox"/>
<b>Activity term</b>	<b>Մինչև 3 տարի</b> <input type="checkbox"/>	<b>3-5 տարի</b> <input type="checkbox"/>	<b>5 տարի և ավելի</b> <input type="checkbox"/>	
<b>Address</b>				
<b>Activity sector (detailed)</b>				
<b>Respondent name and surname</b>				
<b>Position</b>				
<b>Contacts</b>	<b>Tell.</b>		<b>E-mail</b>	

#### **Part 1. WORKFORCE STRUCTURE**

##### **1. Workforce structure as of 01.11.2019**

##### **1.1. Secondary Education. M- Male, F- Female**

Age	15-25 years		25-35 years		35-63 years		Ages 63 and older		Total	
	M	F	M	F	M	F	M	F	M	F
<b>Number</b>										

**1.2. Middle professional education, including preliminary professional (craftsman) education;**

Age	18-25 years		25-35 years		35-63 years		Ages 63 and older		Total	
Gender	M	F	M	F	M	F	M	F	M	F
Number										

**1.3.Higher Education.**

Age	18-25 years		25-35 years		35-63 years		Ages 63 and older		Total	
Gender	M	F	M	F	M	F	M	F	M	F
Number										

**1.4. Do you have students / interns in your company?**

Yes                  No

**1.4.1. Do students / graduates in your company work in their specialty?**

Yes                  No

**1.4.2. If Yes, please, fill in the below table:**

N	Target specialty	Number of students/graduates
1.		
2.		
3.		
4.		

**1.5. Do people with disabilities work in your company?**

Yes                  No

**1.5.1. If Yes, please, indicate number and specialty:**

1. ....

2. ....

3. ....

4. ....

**1.5.2. If not, are you ready to accept people with disabilities?**

Yes                  No

2. What are the 3 most demanding professions or types of work in your company (according to number of employees, from most demanding profession or type of job):

N	Profession/type of work	Number
1.		
2.		
3.		
4.		
5.		

**PART 2. STAFF TURNOVER FOR 12 MONTHS**

3. Have your company employees been fired during this period? (01.11.2018-01.11.2019)

Yes                      No

3.1. If Yes, please, specify the number and reason of their dismissal:

N	Reasons for Dismissal	Number
1.	Low salary	
2.	Change of profession	
3.	Departure from the country	
4.	Labour migration	
5.	Working conditions	
6.	Dismissal due to non-professional requirements	
7.	Other reasons	
<b>Total</b>		

4. Have you hired new employees in the last 6 months? (01.05.2019-01.11.2019)

Yes                      No

If the answer is yes, go to question 4.1, if not, then go to question 7

4.1. If the answer is Yes, go to question 4.1, if No, then go to question 7

N	Type of Work	Number
1.		
2.		
3.		
4.		
5.		
<b>Total</b>		

5. What was the primary reason for the hiring of new employees?

1.	Replacement workforce	
2.	Additional workforce	

3.	Increase workload	
4.	Short-term (seasonal) jobs	
5.	Other/specify	

**6. Have you faced any difficulties in filling the vacancies in the last 6 months (01.05.2019-01.11.2019)**

Yes  No

If the answer is Yes, go to question 6.1, if No, go to question 9

**6.1. If Yes, what specialties or types of work?**

1. ....
2. ....
3. ....
4. ....
5. ....

**7. How did you manage to fill the vacancies (specify)?**

1.	After a long and intensive search	
2.	After deduction of professional qualification requirements	
3.	Through the recruitment of temporary employees	
4.	Through the admission of foreign nationals	
5.	Through training courses organized for Company employees	
6.	Failed	
7.	Other (specify)	

**8. How have the difficulties in filling vacancies affected the performance of your company (specify)?**

1.	There was a need to delay or reject orders	
2.	There was a need to increase the workload of the existing staff	
3.	No impact	

**9. In your opinion, how long does it take to train staff?**

1.	Training up to 1 week	
2.	Training for up to 1 month	
3.	Training up to 3 months	
4.	Training up to 6 months	
5.	I find it difficult to answer	
6.	Other / Specify	

**PART 3. VACANCIES**

**10. Do you have any vacancies in your company?**

Yes

No



If the answer is Yes, go to question 10.1

**10.1 How many vacancies do you have according to specialty/job type?**

N	Specialty/job type	Number
1		
2		
3		
4		
5		

**11. How many vacancies have you registered/announced in different ways?**

N	Ways to register announcements	Number
1.	State Employment Agency	
2.	In a private employment agency	
3.	Social networks	
4.	Through friends and acquaintances	
5.	We have not registered	
6.	Other (specify)	

**12.  
For**

**which jobs do you currently need employees, and for what period (month, date)**

N	Title	Required Education	Number	Date for work beginning
1.				
2.				
3.				
4.				
5.				

**PART 4. COMPANY'S SHORT-TERM AND MEDIUM-TERM PROGRAMS**

**13. In your opinion, what prospects do you expect for your business in the next 12 months?**

1.	Growth	
2.	No change	
3.	Decrease	
4.	Liquidation	
5.	Merging with another enterprise	
6.	I don't know / can't tell	
7.	Other (specify)	



**14. Do you plan to apply innovative methods in your company over the next three years, if so in which directions (you can specify more than one option):**

1.	Technical upgrades of equipment	
2.	Automation of production line	
3.	Attracting new specialties as a result of innovation	
4.	Introducing new technologies	
5.	Other (specify)	

**15. To what extent will your company be able to increase production volumes before staffing?**

1. up to 10%
2. 11%- 20%
3. Over 21%

**16. Which work places cuts is expected in your company next year? (01.01.2020-01.01.2021)**

N	Name of work place	Number
1.		
2.		
3.		
4.		
5.		

**17. Which work places do you plan to increase next year? (01.01.2020-01.01.2021)**

N	Name of work place	Number
1.		
2.		
3.		
4.		
5.		

**18. Can you indicate which work places you plan to increase in the next 3 years?**

N	Name of work place	Number
1.		
2.		
3.		
4.		
5.		

**19. What is the main reason for additional staff (specify, please)?**

1.	Turnover growth / Production volume growth	
2.	Introduction of new technologies	

3.	Development / production of new products	
4.	Change of markets / customers	
5.	Personnel Flow / Recruitment	
6.	Other/specify	

**20. In your opinion, how will the number of employees in your enterprise change after 3 years compared with 2019? (specify):**

1.	It will increase by more than 10%	
2.	Increase up to 10%	
3.	It won't change	
4.	Will drop to 10%	
5.	Will decline by more than 10%	
6.	I don't know / can't tell	

**21.**

**How attractive is the sector in which your company operates (several answers can be selected)?**

1.	High salary	
2.	Opportunity to work in a profession/specialty	
3.	Stability of work	
4.	Opportunity for professional growth	
5.	Opportunity for vocational training	
6.	Other (specify)	

**PART 5.**

**PRACTICAL TRAINING OF PROFESSION**

**22. How do you evaluate the professional qualifications of graduates from educational institutions hired in your company (indicate):**

<b>State Institution</b>			
1	I am satisfied	move on to question 22	
2	I am somewhat satisfied	move on to question 23	
3	I am dissatisfied	move on to question 23	
<b>Private Institution</b>			
1	I am satisfied	move on to question 22	
2	I am somewhat satisfied	move on to question 23	
3	I am dissatisfied	move on to question 23	

23. If you have chosen the answer to point 1, **what are, in your opinion, the positive sides of the Armenian state vocational and vocational education system (indicate):**

1.	VET education in public educational institutions in Armenia is generally free of charge	
2.	VET education in Armenia has a higher quality in state institutions than in private education	
3.	A graduate of a VET institution can easily be taught another profession	
4.	Other (specify)	

24. If you have chosen the answers listed in points 2 or 3, **then what do you think is missing in Armenian vocational education (several answers may be indicated)?**

1.	Professional theoretical knowledge	
2.	Professional practical knowledge	
3.	Professional Skills	
4.	Assume responsibility for work	
5.	Punctuality	
6.	Teamwork	
7.	Self-thinking or initiative (finding a solution to one's own problems)	
8.	Ability to communicate	
9.	Ability to self-educate	
10.	Continuous self-development	
11.	Lack of entrepreneurial thinking	
12.	Other (specify)	

25. **How important is the vocational training of a VET student during education?**

- Very important**
- Important**
- Not important**

26. **Where do you think vocational training should be delivered (several answers can be selected):**

1.	VET institution, in separate training workshop	
2.	In companies	
3.	In your own company	
4.	Abroad	

5.	A foreign professional organization operating in Armenia	
6.	Other (specify)	

**27. Specify, please, which VET institutions do you cooperate with?**

1. ....
2. ....
3. ....
4. ....

**28. In which directions do you cooperate with VET institutions?**

1.	Curriculum development	
2.	Upgrading the curriculum	
3.	Internship development	
4.	Practical training (on-the-job)	
5.	Other (specify)	

**29. In your opinion, how long does it take to complete a vocational training?**

1.	Four months of study time	
2.	Two weeks after theoretical training	
3.	Based on the German dual education system, 70% professional practice and 30% professional theory	
4.	2-4 weeks each year of teaching in college during the summer holidays	
5.	Other suggestions, specify, please	

**30. How important is the guidance of an appropriately qualified teacher-specialist (“teacher-master”) during the practical training of a VET student?**

- Very important**
- Important**
- Not important**

**31. What qualifications does the Teacher-Master have (several answers can be selected)?**

1.	Be an entrepreneur himself	
1.	Experience working with young people	
2.	Didactic skills (know what to do, have the ability to explain, demonstrate, and then control/correct workflows)	
3.	Ability to manage agreements between assignees and executives (VET students)	
4.	Prior experience in any VET institution as a teacher	
5.	Have knowledge of all the processes of training and practical training in the organization, as well as know the requirements of the given organization	
6.	Knowledge of the theoretical curriculum for the relevant profession and its relevant practical application in the organization	
7.	Teacher-master should constantly expand his/her qualifications (preferably with appropriate certificates/diplomas)	
8.	Other (specify)	

**32. Should a VET student receive a training allowance during his/her professional internship?**

Yes

No



**32.1. Who should pay for a student's vocational training?**

1.	Employer	
2.	Student	
3.	State body	
4.	Other (specify, please)	

**32.2. If so, how much should the allowance be?**

**(A VET student will increase the productivity of a company to some extent during his/her practical training. Therefore, it is important for you as an entrepreneur or HR manager to know how you will reward the student for creating value added.)**

10 000 arm.dram	
Up to 20 000 arm,dram	
Up to 30 000 arm.dram	
Other/How much in arm.dram?	

**33. Should the Teacher-Master receive additional remuneration during the practical training of a VET student?**

**Yes**

**No**

**a. If yes, how much should the remuneration be?**

**(During the apprenticeship, the Teacher-Master trains a VET student who is likely to become a new employee of your company. This can be a prospective for your company in terms of productivity growth. That's why it's important for you as an entrepreneur or HR manager knows how to pay a master-teacher for added value).**

20 000 arm.dram	
Up to 50 000 arm.dram	
Up to 100 000 arm.dram	
Other/ How much in arm.dram?	

**34. Do you currently offer vocational training to VET students?**

**Yes**

**No**

**35. Will you offer to VET students to have a professional internships in your company?**

**Yes**

**No**

**36. Please, describe the internship process in more detail (several answers can be selected).**

<b>N</b>		<b>Yes</b>	<b>No</b>
1.	At the beginning of the internship, the trainee receives information about the company's processes		
2.	An individual interview is conducted with the intern		
3.	The intern is provided with a master-teacher (or other relevant specialist) to guide him/her.		
4.	It is expected that the intern will apply formally, e.g. submit a CV, motivation letter to work with the company, testimonials from other persons/workplaces or VET facility)		
5.	The internship period is 2-4 weeks		
6.	Internship lasts more than 1 month (and may also take place during study vacations)		

7.	In case of positive evaluation of the job, the intern will receive appropriate allowance		
8.	When providing internships, prospective employees may be offered a probationary period to prepare them for further work at the company.		
9.	Sign up for a database of internship placements to be created between VET institutions and companies		

**37. Your expectations from vocational training.**

	Yes	No
You are expected to have a better qualified start-up specialist as a future employee after completing an additional internship (or dual vocational training).		
Other/specify, please		

**38. Are you ready to open your company doors for one day to youth (and/or parents) and VET representatives as a potential employer (to organize a "Professional Orientation Day")?**

Yes

No



**39. What support do you expect for the company's development (non-financial)? (several answers can be selected):**

1.	Training for employer/management staff	
2.	Mentoring/coaching for employer/management staff	
3.	Professional training of employees	
4.	Guidance of VET institutions graduates	
5.	Other (specify)	

**What expectations/suggestions do you have for improving VET sphere?**

-----



**B. Questionnaire on needs assessment**

*(For Interview of Directors/Executives of Vocational Educational Training Institutions)*

Date	Location	Interviewer

<b>VET Institution Name</b>			
<b>Address</b>			
<b>Specialties taught in the above areas</b>			
<b>Name/Surname of the respondent</b>			
<b>Position</b>			
<b>Work experience in total, including in the given educational institution</b>			
<b>Contact Information</b>	<b>Tell.</b>		<b>E-mail</b>

**1. 1. Which of the following do you use to prepare and organize the training courses (you can specify all the relevant points):**

1.	Educational program	
2.	The books and manuals you wrote	
3.	Textbooks in foreign languages	
4.	Scientific literature (articles, books) in Armenian	
5.	Teaching materials published for teachers	
6.	E-learning materials	
7.	Electronic databases	
8.	Presentations, slides, observation manuals, models	



9.	Production equipment	
10.	Labouratory equipment	
11.	computer programs	
12.	None of the listed	
13.	Other (specify)	

**2. Which of the following is your workload (the answer amount should be 100%):**

1.	Lectures	%
2.	Seminars	%
3.	Practical training (including creative, labouratory, etc.)	%
4.	Other (specify)	%
	Total	100%

**3. To what extent is student involvement in seminars and workshops conducted by you in the following activities (you can specify one answer per line)?**

		Up to 30%	30 %- 70%	More then 70%	We do not hold seminars and workshops
1.	Student group work, assignments, or projects				
2.	Individual practical work of students (problem solving, laboratory work)				
3.	Student speeches or presentations				
4.	Independent search by students for information on the issue under study				
5.	Student participation in discussions				
6.	Students use theoretical knowledge to solve practical problems				

**4. How would you rate the quality of resources and opportunities available in your educational institution (you can specify one answer per line).**

		<b>Good</b>	<b>Good enough</b>	<b>Bad</b>	<b>Non available</b>
1.	Administrative staff				
2.	Teaching staff				
3.	Educational programs				
4.	Educational and methodological literature				
5.	Computers and other information devices				
6.	Software and databases				
7.	Internet access				
8.	Learning Areas				
9.	Furniture and furniture				
10.	Training equipment				
11.	Production equipment				
12.	Other (please specify)				

**5. Do you have any production equipment / labouratory base needed for practical training and production internship?**

1.	The necessary equipment is available	
2.	Necessary equipment is not available (missing), it is necessary to attract equipment from other educational institutions	
3.	The equipment needed is not sufficient (they are missing), it is necessary to use the equipment of enterprises	
4.	The equipment needed is insufficient and there is no opportunity to attract resources from other educational institutions or enterprises	
5.	Other (please specify)	

**6. Evaluate the state of the manufacturing equipment / labouratory used for student training (specify one answer).**

1.	They are mainly up-to-date equipment that are compatible with world-class technology development	
2.	They are mainly modern equipment that is compatible with the technologies used in enterprises	
3.	Most are outdated equipment	
4.	Other (please specify)	

**7. 7. What teaching equipment do your students use (you can specify all relevant answers)?**

1.	Stimulators and trainers	
2.	Labouratory equipment	
3.	Production equipment	
4.	Space for practical classes	
5.	Computers:	
6.	Specialized computer programs and databases	
7.	Do not use / study such equipment	
8.	Other (specify)	

**8. 8. How do you collabourate with employers (can you provide all the relevant answers)?**

	<b>Employers</b>	
1.	Organize trainings on the use of enterprise production equipment	
2.	Participate in the development and discussion of educational programs and standards	
3.	Participate in the development of student knowledge assessment indicators	
4.	Participate in qualification exams	
5.	Internship opportunities for students	
6.	Training opportunities for teachers	
7.	They carry out targeted training of specialists	
8.	Participate in the development of performance indicators for teachers	
9.	They support the educational institution	
10.	Graduates are hired	

11.	They do not participate in the activities of the educational institution	
12.	I don't know if they cooperate or not	
13.	Other (specify)	

**9. What are the main issues of cooperation between VET institutions and businessmen?**

1.	Non-compliance of students' professional knowledge / skills with business requirements	
2.	Absence of suggestion on organization of student internship/apprenticeship by the entrepreneur	
3.	Lack of information about each other	
4.	Other (specify)	

**10. In your opinion, how effective is the cooperation of the educational institution with the employers (can you name one answer)?**

1.	Very effective	
2.	Quite effective	
3.	Not effective enough	
4.	Absolutely ineffective	

**11. Are you familiar with the dual system / apprenticeship system in Armenia (you may specify one answer):**

1.	Yes, I am well acquainted	
2.	Yes, I have heard, but I do not know the details	
3.	No, I'm not familiar	

**12. Does your educational institution have a dual system of teaching / apprenticeship? Are you aware of the involvement of another educational institution in your region (you can specify two answers):**

1.	Yes, it is included in the dual system of learning	
2.	Another educational institution in our region is involved	
3.	No, neither our nor our region's educational institution is involved	
4.	Other (specify)	

**13. If you use a dual system / apprenticeship, do you find it useful for your institution (you may specify one answer).**

1.	Definitely yes	
2.	More so, yes	
3.	More, no	
4.	Absolutely not	

**14. What advantage can be provided from participation of educational institutions in a dual education system / apprenticeship (for all relevant answers)?**

1.	Graduates will be offered employment opportunities	
2.	The rating of the educational institution will increase	
3.	The quality of curricula will increase	
4.	The professional level of teachers will increase	
5.	The logistical support of the teaching process will increase	
6.	There is no particular advantage	
7.	Other (specify)	

**15. Why do you find the dual system / apprenticeship to be ineffective (you can specify all relevant answers).**

1.	There is a need to completely restructure the educational process and programs	
2.	The services of our educational institution are already in demand	
3.	This initiative can only remain at the level of ideas that will not actually materialize	
4.	Companies can act dishonestly without providing their share of the training	
5.	Participating in a dual system of learning will require many legal, administrative procedures	
6.	There are no or insufficient companies in this area	
7.	Other (specify)	

**16. Do you support your graduates in seeking/finding a job?**

Yes                  No

**17. If so, how do you support them in finding a job?**

1.	Collaborating with employers	
2.	Through State Employment Agencies / State Employment Agency	
3.	Job placement through non-governmental organizations (human resources, employment agencies, etc.)	
4.	Providing information on projects implemented in the country	
5.	Personal contacts:	
6.	Other (specify)	

**17. How effective is this support for your graduates?**

**Effective**

**Non effective**

**18. Can you note which part of the graduates of your educational institution has been able to get a job or continue their education (in percent)?**

1.	They work by profession	%
2.	They work in another profession	%
3.	Can't find a job	%
4.	Admitted to higher education institution	%

**19. In your opinion, what general / professional skills / capacities are not sufficient for your graduates to find a job (you can specify all relevant answers).**

1.	Occupational (technical) skills	
2.	Knowledge of a foreign language	
3.	Ability to interact / collaborate with other people	
4.	Ability to work independently	
5.	Ability to solve problems that arise during work	
6.	Ability to learn	
7.	Computer skills / skills	

8.	Maintenance of work discipline (work schedule, timely and quality management assignments, etc.)	
9.	Expression of initiative	
10.	All skills are sufficient	
11.	Practical skills	
12.	Other (specify)	

**What expectations / suggestions do you have for improving VET sector?**

.....

**C. Questionnaire on needs assessment**  
*(For Interview of VET Institutions Students/Graduates)*

Date	Location	Interviewer

<b>Student's Name/Surname</b>				
<b>VET institution</b>				
<b>What course do you study in?</b>				
<b>By what profession?</b>				
<b>Contacts</b>	<b>Tell.</b>		<b>E-mail</b>	

**1. Why did you choose this profession?**

h/h	Standards	Note
1.	A convenient work schedule for the future	
2.	Attractive profession	
3.	High salary	
4.	Parents and / or others advice	
5.	A prestigious and demanding profession	
6.	Having such a specialist in the family	
7.	Opportunity to find a job	
8.	This profession is easy to master	
9.	Professional progress	
10.	Random selection	
11.	Other (specify)	



2. How do you evaluate the quality of teaching from the following points (mark only one answer in each line):

		Good	Good Enough	Bad	Difficult to answer
1.	Curriculum				
2.	Teaching methodology				
3.	Access to the theoretical part of the project				
4.	Quality and period of practical training				
5.	Proportion of theoretical and practical programs				
6.	Level of obtained professional capabilities and practical skills				
7.	Availability of up-to-date equipment and technologies for practical training				
8.	The applicability of the knowledge gained in the workplace				

3. How modern are the equipment and technologies that you study during your training (you can only specify one answer).

1.	They are the most up-to-date technologies that are not really used yet	
2.	They are modern technologies used by leading companies	
3.	They are quite modern and applied, but there are more modern equipment and technologies	
4.	They are quite old and no longer represented in the market	
5.	I do not know, I cannot estimate	

4. What do you study and use during teaching (you can name a few answers).

	Name	Note
1.	Simulators and trainers	
2.	Labouratory equipment	
3.	Production equipment	
4.	Space for practical classes	
5.	Computers	
6.	Professional software and databases	
7.	We do not study and use teaching equipment	
8.	Other (specify)	

5. Is it enough time to study the equipment and technologies that you will use later in your work?

1.	Time is enough for both training and practice	
2.	Enough for the course, but the practice is superficial or missing at all	
3.	Practice is sufficient, but lacks the basic knowledge needed to use them	
4.	Neither the theoretical courses nor the internships are sufficient	

**6. Have you had any manufacturing practice while studying?**

Yes

No

**7. How long did your internship/apprenticeship last (how many weeks)?**  
 \_\_\_\_\_ weeks

**8. Has any manufacturing practice influenced your skills development?**

Yes

No

**8. In your opinion, what skills did influence due to participation in manufacturing practice? (You can specify all matching answers).**

1.	Occupational (technical) skills	
2.	Skill to interact / collaborate with other people	
3.	Skill to work independently	
4.	Skill to solve problems arising during work	
5.	Skill to learn	
6.	Maintenance of labour discipline (work schedule, timely and quality management assignments, etc.)	
7.	Expression of initiative	
8.	Understanding the chosen profession	
9.	Work Attitude	
10.	Other (specify)	

**9. What do you think is most important for an employer when hiring (you can specify no more than 2-3 answers)?**

1.	High professional knowledge and skills	
2.	Skill to work in a team	
3.	Skill to work independently	
4.	Skill to overcome difficulties	
5.	Desire for self-development	
6.	Expression of initiative	
7.	Labour discipline (work schedule, timely and quality management assignments, etc.)	
8.	Work experience	
9.	The authority of the educational institution	
10.	Personal connections/contacts	
11.	Other (specify)	

**10. What are your plans after graduation?**

1.	Work by profession	
2.	Work in another profession	
3.	Get higher education	
4.	I do not know yet	

**11. Does VET institution help/support you for seeking a job?**

**Yes**                      **No**  
                     

**12. If so, how does it help?**

1.	Collaborating with employers	
2.	Job placement through state agencies / State Employment Agency	
3.	Job placement through non-governmental organizations (human resources, employment agencies, etc.)	
4.	Providing information on projects implemented in the country	
5.	Through personal connections	
6.	Other (specify)	

**13. What do you think you need to find a job (You can specify no more than 2-3 answers)**

1.	High professional knowledge and skills	
2.	Communication skills	
3.	Skill to work in a team	
4.	Skill to work independently	
5.	Skill to solve problems that arise during work	
6.	to learn	
7.	Striving for self-development	
8.	Initiative	
9.	Work discipline, work schedule, timely and quality management assignments, etc.	
10.	Work experience	
11.	Personal contacts	
12.	Other (specify)	

**14. What are the most effective ways to seek / find a job after completing your studies?**

1.	Advice and guidance from the educational institution	
2.	Support from the Employment Center	
3.	Personal connections	
4.	Personal Initiative	
5.	Participation in job fairs	
6.	Other (specify)	

**15. What salary do you expect to receive?**

1.	Up to 50 thousands AMD	
2.	50-100 thousands AMD	
3.	I find it difficult to answer	
4.	Other (specify)	

**What expectations / suggestions do you have for improving VET sector?**

.....

.....

.....

## ANNEX 2. List of Surveyed Employers

NN	Company Name	Address	Field of activity:	Field T=Textile AB=Agribusiness	Name/Surname of the respondent
1.	"Kumayri Karpet" LLC	5g Gortsaranayin str., Gyumri c., Shirak marz, RA	Handmade carpets production	<b>T</b>	Heghine Adamyan
2.	"Nan-Kat" LLC	5g Gortsaranayin str., Gyumri c., Shirak marz, RA	Cheese production	<b>AB</b>	Heghine Adamyan
3.	Hasmik Khachatryan SP	13 Sayat-Nova str., Gyumri c., Shirak marz, RA	Garment manufacture	<b>T</b>	Hasmik Khachatryan
4.	Ashot Harutyunyan SP	7 Teryan str., Gyumri, Shirak marz, RA	Pantyhose production	<b>T</b>	Ashot Harutyunyan
5.	Narine Minasyan SP	44a Gortsaranayin str., Gyumri, Shirak marz, RA	Handmade doll production` "Naro Dolls"	<b>T</b>	Narine Minasyan
6.	Hasmik Sahakyan SP	1/4 Panyan str., Gyumri c., Shirak marz, RA	Garment manufacturing	<b>T</b>	Aleqsan Gyulbekyan
7.	"Armtex Group" LLC	1a Khmelnitski str., Gyumri c., Shirak marz, RA	Textile production	<b>T</b>	Roman Ziroyan
8.	"Karmen Textil" LLC	3/3 Savoyan str., Gyumri c., shirak marz, RA	Sportswear manufacturing	<b>T</b>	Karen Hovhannisyan
9.	Rustam Hakobyan SP	Ani district, 10 building, apt., 25, Gyumri c., Shirak marz, RA	Garment manufacturing	<b>T</b>	Rustam Hakobyan
10.	Anoush Saroyan Individual	67 Gorki str., Gyumri c., Shirak marz, RA	Design Evening , Wedding Dresses «Anes Fashion»	<b>T</b>	Anoush Saroyan
11.	"Haykavan Kat" Agricultural Cooperative	Haykavan Community 3/19 str., Shirak marz, RA	Milk processing: cheese, butter and melted butter production	<b>AB</b>	Samvel Voskanyan
12.	"AND-V" LLC	Krashen village, Shirak marz, RA	Tribal goat breeding, goat milk processing	<b>AB</b>	Artur Stepanyan

13.	"Mantashi Milena" Agricultural Cooperative	Mets Mantash village, Shirak marz, RA	Milk processing	<b>AB</b>	Siranush Andriasyan
14.	David Sekhleyan Individual	Panik village, 10 str., house 2, Shirak marz, RA	Milk processing: cheese, butter and melted butter production	<b>AB</b>	David Sekhleyan
15.	"Amasia Cheese Factory" LLC	Amasia village, Shirak Marz, RA	Cheese production	<b>AB</b>	Sergey Manukyan
16.	Karine Martirosyan Individual	169 Shahumyan str, Gyumri, RA	Individual tailoring` Fashion house "Decor"	<b>T</b>	Karine Martirosyan
17.	"Lentex" LLC	111/3 V.Sargsyan str., Gyumri c., Shirak marz, RA	Socks and knitwear manufacturing	<b>T</b>	Susanna Astoyan
18.	"SASSTEX" LLC	Amasia village, Shirak Marz, RA	Textile production	<b>T</b>	Jemma Tonoyan
19.	"Artik PHK" LLC	Gagarin str., Maralik c., Shirak marz, RA	Textile production	<b>T</b>	Tigran Gasparyan
20.	"Epsilon Invest" LLC	3/5 Komitas str., Gyumri c., Shirak marz, RA	Textile production	<b>T</b>	Tigran Gasparyan
21.	Robert Gevorgyan SP	3/5 Komitas str., Gyumri c. RA	Shoe production	<b>T</b>	Robert Gevorgyan
22.	Levon Yeghikyan SP	Kars Highway 29/3, Gyumri c., shirak marz, RA	Shoe production	<b>T</b>	Artur Yeghikyan
23.	"Miasin" Fund	19 Garegin Nzhdeh str., Gyumri c., Shirak marz, RA	Bread production	<b>AB</b>	Rima Khachatryan
24.	Marina Hlghatyan SP	31 M.Mkrtchyan str., Gyumri c., Shirak marz, RA	Shoe production	<b>T</b>	Marina Khlghatyan
25.	Mery Melikyan Individual	54 Sundukyan str., Gyumri c., Shirak marz, RA	Felt production	<b>T</b>	Meri Melikyan
26.	Arpine Sasunyan Individual	8/7 Bagratunyats str., Gyumri c., Shirak marz, RA	Sewing, Design Center` "ARPI Fashion"	<b>T</b>	Arpine Sasunyan

27.	Ruzanna Ghandilyan SP	72A Gorki str., Gyumri c., Shirak marz, RA	Children's clothing production ` "Vallini kids"	<b>T</b>	Ruzanna Ghandilyan
28.	"Aregdashogh" Cooperative	4 str., 10 house, Arapi village, Shirak marz, RA	Seeds and spices production	<b>AB</b>	Stepan Nazaryan
29.	Suren Hambaryan SP	Bashinjaghyan village, Shirak marz, RA	Pasta manufacturing	<b>AB</b>	Suren Ghambaryan
30.	"Artik Cheese Factory" OJSC	4 Gortsaranayin str., Artik c., Shirak marz, RA	Dairy production	<b>AB</b>	Gevorg Avdalyan
31.	"Eco kat" LLC	25 Shirakatsi str., Gyumri c., Shirak marz, RA	Dairy production	<b>AB</b>	Hovhannes Sharoyan
32.	Marianna Galstyan Individual	14/1 Atchemyan str., Gyumri c., Shirak marz, RA	Garment manufacturing	<b>T</b>	Marianna Galstyan
33.	"Nelli" LLC	1 Hnotsavan str., building 50/1, Gyumri c., Shirak marz, RA	Knitwear production	<b>T</b>	Karine Grigoryan
34.	Amasia woolen factory	Bashinjaghyan village, Shirak marz, RA	Wool processing	<b>T</b>	Andranik Tatevosyan
35.	"Belisimo Group" LLC	242 Mazmanyanyan, Gyumri c., Shirak marz, RA	Meat production	<b>AB</b>	Yervand Zeytunyan
36.	"Khayts-Ishkhan" LLC	1 Karmir Berd str., Gyumri c., Shirak marz, RA	Fish farming, caviar production	<b>AB</b>	Anahit Boyajyan
37.	"Ashotsk Cheese Factory" LLC	Musaelyan village, Shirak marz, RA	Cheese production	<b>AB</b>	Georgi Baghdasaryan
38.	Anushavan Vardparonyan SP	248/3 Abovyan str., Gyumri c., Shirak marz, RA	Socks manufacturing	<b>T</b>	Anushavan Vardparonyan
39.	Armenian Caritas	8 H.Sargsyan str., Gyumri c., Shirak marz, RA	Sewing Center	<b>T</b>	Gayane Norikyan
40.	"Voskeser" LLC	Ardenis village, Shirak marz, RA	Cheese production	<b>AB</b>	Samvel Gharibyan

41.	"Igit" LLC	Azatan village, Shirak marz, RA	Milk processing	<b>AB</b>	Aram Kroyan
42.	"Eliz-Group" LLC	Nahapetavan village, 3 house, Shirak marz, RA	Dairy production	<b>AB</b>	Hayk Sargsyan



### ANNEX 3. Vacant Positions in Surveyed Companies

	Company Name	Specialty/Type of work	Number	Specialty/Type of work	Number	Specialty/Type of work	Number	Specialty/Type of work	Number	Total
1.	"Kumayri Karpet" LLC	Carpet weaver	11							11
2.	"Nan-Kat" LLC	Cheese-technologist	1	Cheese maker	1					2
3.	Hasmik Khachatryan SP	Tailor	2	Sales Specialist	1					3
4.	Ashot Harutyunyan SP									0
5.	Narine Minasyan SP	Sewing speicalist/Embroideress	1	Market specialist	1	Sales Specialist	1			3
6.	Hasmik Sahakyan SP									0
7.	"Armtex Group" LLC	Sewing worker	3							3
8.	"Karmen Textil" LLC	Sewing Specialist	20							20
9.	Rustam Hakobyan SP	Sewing Specialist	3							3
10.	Anoush Saroyan Individual									0
11.	"Haykavan Kat" Agricultural Cooperative	Master Cheesemaker	1	Worker	1					2
12.	"AND-V" LLC	Cattle breeder	1	Milk Operator	1	Veterinarian	2	Worker	1	5
13.	"Mantashi Milena" Agricultural Cooperative	Cheese production								0
14.	David Sekhleyan Individual	Milk Technologist	1							1
15.	"Amasia Cheese Factory" LLC	Worker	2							2
16.	Karine Martirosyan Individual									0

17.	"Lentex" LLC	Knitter/hosiery worker	10	Rehandler	5					<b>15</b>
18.	"SASSTEX" LLC									<b>0</b>
19.	"Artik PHK" LLC	Technician	1	Master	1	Technologist	1			<b>3</b>
20.	"Epsilon Invest" LLC	Technician	1	Master	1	Technologist	1			<b>3</b>
21.	Robert Gevorgyan SP	Shoemaker	1	Sewing specialt	5					<b>6</b>
22.	Levon Yeghikyan SP	Designer	1	Shoemaker	2	Sewing specialist	1			<b>4</b>
23.	"Miasin" Fund	Baker	1	Baker-Manager	1	Confectioner	1			<b>3</b>
24.	Marina Hlghatyan SP	Shoemaker	3	Sewing specialt	3	Designer	1			<b>7</b>
25.	Mery Melikyan Individual	Sales Manager	1	Tailor	1					<b>2</b>
26.	Arpine Sasunyan Individual	Tailor	2							<b>2</b>
27.	Ruzanna Ghandilyan SP									<b>0</b>
28.	"Aregnashogh" Cooperative									<b>0</b>
29.	Suren Hambaryan SP									<b>0</b>
30.	"Artik Cheese Factory" OJSC	Dairy master	2	Labouratory	1	Driver-consignor-purveyor	2			<b>5</b>
31.	"Eco kat" LLC	Dairy master	1	Worker	2					<b>3</b>
32.	Marianna Galstyan Individual	Technologist	1	Designer	1	Sewing specialist	3			<b>5</b>
33.	"Nelli" LLC	Designer:	1	Designer	1					<b>2</b>
34.	Amasia woolen factory	Financier	1	Sales Manager	1					<b>2</b>
35.	"Belisimo Group" LLC									<b>0</b>
36.	"Khayts-Ishkhan" LLC	Waiter	10	Chef	2	Caviar Production Manager	2	Fish breeder	1	<b>16</b>

37.	"Ashotsk Cheese Factory" LLC									<b>0</b>
38.	Anushavan Vardparonyan SP									<b>0</b>
39.	Armenian Caritas									<b>0</b>
40.	"Voskeser" LLC	Cleaner	2	Warehouse worker	1					<b>3</b>
41.	"Igit" LLC									<b>0</b>
42.	"Eliz-Group" LLC	Milk Technologist	1	Worker	1					<b>2</b>
	<b>TOTAL</b>									<b>138</b>

#### ANNEX 4. Cooperation Between Employers and VET Institutions

NN	Company Name	Address	Field of activity	Field T=Textile AB=Agribusiness	Name of VET institutions
1.	"Kumayri Karpet" LLC	5g Gortsaranayin str., Gyumri, Shirak marz, RA	Handmade carpets production	T	
2.	"Nan-Kat" LLC	5g Gortsaranayin str., Gyumri, Shirak marz, RA	Cheese production	AB	
3.	Hasmik Khachatryan SP	13 Sayat-Nova str., Gyumri, Shirak marz, RA	Garment manufacture	T	Shirak Regional State College SNCO
4.	Ashot Harutyunyan SP	7 Teryan str., Gyumri, Shirak marz, RA	Pantyhose production	T	
5.	Narine Minasyan SP	44a Gortsaranayin str., Gyumri, Shirak marz, RA	Handmade doll production` "Naro Dolls"	T	
6.	Hasmik Sahakyan SP	1/4 Panyan str., Gyumri, Shirak marz, RA	Garment manufacturing	T	Gyumri N 3 Vocational State College SNCO
7.	"Armtex Group" LLC	1a Khmelnitski str., Gyumri c., Shirak marz, RA	Textile production	T	Shirak Regional State College SNCO
8.	"Karmen Textil" LLC	3/3 Savoyan str., Gyumri c., shirak marz, RA	Sportswear manufacturing	T	
9.	Rustam Hakobyan SP	Ani district, 10 building, apt., 25, Gyumri c., Shirak marz, RA	Garment manufacturing	T	
10.	Anoush Saroyan Individual	67 Gorki str., Gyumri c., Shirak marz, RA	Design Evening , Wedding Dresses «Anes Fashion»	T	
11.	"Haykavan Kat" Agricultural Cooperative	Haykavan Community 3/19 str., Shirak marz, RA	Milk processing: cheese, butter and melted butter production	AB	

12.	"AND-V" LLC	Krashen village, Shirak marz, RA	Tribal goat breeding, goat milk processing	<b>AB</b>	
13.	"Mantashi Milena" Agricultural Cooperative	Mets Mantash village, Shirak marz, RA	Milk processing	<b>AB</b>	
14.	David Sekhleyan Individual	Panik village, 10 str., house 2, Shirak marz, RA	Milk processing: cheese, butter and melted butter production	<b>AB</b>	
15.	"Amasia Cheese Factory" LLC	Amasia village, Shirak Marz, RA	Cheese production	<b>AB</b>	Amasia Vocational State School
16.	Karine Martirosyan Individual	169 Shahumyan str, Gyumri, RA	Individual tailoring` Fashion house "Decor"	<b>T</b>	
17.	"Lentex" LLC	111/3 V.Sargsyan str., Gyumri c., Shirak marz, RA	Socks and knitwear manufacturing	<b>T</b>	<ul style="list-style-type: none"> <li>➤ Gyumri N4 Vocational State College</li> <li>➤ Shirak Regional State College SNCO</li> <li>➤ Gyumri N1 Vocational State College</li> </ul>
18.	"SASSTEX" LLC	Amasia village, Shirak Marz, RA	Textile production	<b>T</b>	
19.	"Artik PHK" LLC	Gagarin str., Maralik c., Shirak marz, RA	Textile production	<b>T</b>	
20.	"Epsilon Invest" LLC	3/5 Komitas str., Gyumri c., Shirak marz, RA	Textile production	<b>T</b>	
21.	Robert Gevorgyan SP	3/5 Komitas str., Gyumri c. RA	Shoe production	<b>T</b>	Gyumri N 3 Vocational State College SNCO
22.	Levon Yeghikyan SP	Kars Highway 29/3, Gyumri c., shirak marz, RA	Shoe production	<b>T</b>	
23.	"Miasin" Fund	19 Garegin Nzhdeh str., Gyumri c., Shirak marz, RA	Bread production	<b>AB</b>	Gyumri N4 Vocational State College SNCO
24.	Marina Hlghatyan SP	31 M.Mkrtchyan str., Gyumri c., Shirak marz, RA	Shoe production	<b>T</b>	Shirak State University after M. Nalbandyan

25.	Mery Melikyan Individual	54 Sundukyan str., Gyumri c., Shirak marz, RA	Felt production	<b>T</b>	Amasia Vocational State School
26.	Arpine Sasunyan Individual	8/7 Bagratunyats str., Gyumri c., Shirak marz, RA	Sewing, Design Center` "ARPI Fashion"	<b>T</b>	Gyumri N 1 Vocational State College
27.	Ruzanna Ghandilyan SP	72A Gorki str., Gyumri c., Shirak marz, RA	Children's clothing production` "Vallini kids"	<b>T</b>	
28.	"Aregnashogh" Cooperative	4 str., 10 house, Arapi village, Shirak marz, RA	Seeds and spices production	<b>AB</b>	Armenian National Agrarian University after M.G. Tumanyan, Shirak branch
29.	Suren Hambaryan SP	Bashinjaghyan village, Shirak marz, RA	Pasta manufacturing	<b>AB</b>	
30.	"Artik Cheese Factory" OJSC	4 Gortsaranayin str., Artik c., Shirak marz, RA	Dairy production	<b>AB</b>	Armenian National Agrarian University after M.G. Tumanyan, Shirak branch
31.	"Eco kat" LLC	25 Shirakatsi str., Gyumri c., Shirak marz, RA	Dairy production	<b>AB</b>	
32.	Marianna Galstyan Individual	14/1 Atchemyan str., Gyumri c., Shirak marz, RA	Garment manufacturing	<b>T</b>	
33.	"Nelli" LLC	1 Hnotsavan str., building 50/1, Gyumri c., Shirak marz, RA	Knitwear production	<b>T</b>	
34.	Amasia woolen factory	Bashinjaghyan village, Shirak marz, RA	Wool processing	<b>T</b>	
35.	"Belisimo Group" LLC	242 Mazmanyanyan, Gyumri c., Shirak marz, RA	Meat production	<b>AB</b>	
36.	"Khayts-Ishkhan" LLC	1 Karmir Berd str., Gyumri c., Shirak marz, RA	Fish farming, caviar production	<b>AB</b>	Gyumri N 1 Vocational State College
37.	"Ashotsk Cheese Factory" LLC	Musaelyan village, Shirak marz, RA	Cheese production	<b>AB</b>	

38.	Anushavan Vardparonyan SP	248/3 Abovyan str., Gyumri c., Shirak marz, RA	Socks manufacturing	<b>T</b>	
39.	Armenian Caritas	8 H.Sargsyan str., Gyumri c., Shirak marz, RA	Sewing Center	<b>T</b>	
40.	"Voskeser" LLC	Ardenis village, Shirak marz, RA	Cheese production	<b>AB</b>	
41.	"Igit" LLC	Azatan village, Shirak marz, RA	Milk processing	<b>AB</b>	Armenian National Agrarian University after M.G. Tumanyan, Shirak branch
42.	"Eliz-Group" LLC	Nahapetavan village, 3 house, Shirak marz, RA	Dairy production	<b>AB</b>	

#### ANNEX 5. List of Employers Having Difficulties in Seeking Employees in Last 6 Months

<b>NN</b>	<b>Company Name</b>	<b>Address</b>	<b>Field of activity:</b>
1.	"Kumayri Karpet" LLC	5g Gortsaranayin str., Gyumri, Shirak marz, RA	Handmade carpets production
2.	"Nan-Kat" LLC	5g Gortsaranayin str., Gyumri, Shirak marz, RA	Cheese production
3.	Hasmik Khachatryan SP	13 Sayat-Nova str., Gyumri, Shirak marz, RA	Garment manufacture
4.	Ashot Harutyunyan SP	7 Teryan str., Gyumri, Shirak marz, RA	Pantyhose production
5.	Narine Minasyan SP	44a Gortsaranayin str., Gyumri, Shirak marz, RA	Handmade doll production` "Naro Dolls"
6.	Hasmik Sahakyan SP	1/4 Panyan str., Gyumri, Shirak marz, RA	Garment manufacturing
7.	"Haykavan Kat" Agricultural Cooperative	Haykavan Community 3/19, Shirak Marz, RA	Milk processing: cheese, butter and melted butter production

8.	"AND-V" LLC	Krashen village, Shirak Marz, RA	Tribal goat breeding, goat milk processing
9.	David Sekhleyan Individual	Panik village, 10 str., house 2, Shirak marz, RA	Milk processing: cheese, butter and melted butter production
10.	"Amasia Cheese Factory" LLC	Amasia village, Shirak Marz, RA	Cheese production
11.	"Lentex" LLC	111/3 V.Sargsyan str., Gyumri, Shirak marz, RA	Socks and knitwear manufacturing
12.	"Artik PHK" LLC	20 Garegin Nzhdeh str., Artik, Shirak marz, RA	Textile production
13.	"Epsilon Invest" LLC	3/5 Komitas str., Gyumri, Shirak marz, RA	Textile production
14.	Robert Gevorgyan SP	3/5 Komitas str., Gyumri, Shirak marz, RA	Shoe production
15.	Levon Yeghikyan SP	Kars Highway 29/3 str., Gyumri, Shirak marz, RA	Shoe production
16.	"Miasin" Fund	19 Garegin Nzhdeh str., Gyumri, Shirak marz, RA	Bread production
17.	Marina Hlghatyan SP	31 M.Mkrtchyan str., Gyumri, Shirak marz, RA	Shoe production
18.	Ruzanna Ghandilyan SP	72A Gorki str., Gyumri, Shirak marz, RA	Children's clothing production ` "Vallini kids"
19.	"Eco kat" LLC	25 Shirakatsi str., Gyumri, Shirak marz, RA	Dairy production
20.	Marianna Galstyan Individual	14/1 Atchemyan str., Gyumri, Shirak marz, RA	Garment manufacturing
21.	"Nelli" LLC	1 Hnotsavan str., building 50/1, Gyumri, Shirak marz, RA	Knitwear production



22.	Amasia woolen factory	Bashinjaghyan village, Shirak marz, RA	Wool processing
23.	"Belisimo Group" LLC	242 Mazmanyanyan str., Gyumri, Shirak marz, RA	Meat production
24.	"Ashotsk Cheese Factory" LLC	Musaelyan village, Shirak marz, RA	Cheese production

## ANNEX 6. Suggestions from Employers for Improving VET sector

NN	Company Name	What are your expectations/suggestions for improving of VET sector	
		Specify the direction	
1.	"Kumayri Karpet" LLC	Using the Soviet educational system to create professional groups in colleges, organize their internships and recruit them	
2.	"Nan-Kat" LLC	Re-use the Soviet education system, pay great attention to the theoretical and practical process of the professions in the colleges, and direct the intern to the employer, becoming a link.	
3.	Hasmik Khachatryan SP		
4.	Ashot Harutyunyan SP		
5.	Narine Minasyan SP	Normal programs, specialists	
6.	Hasmik Sahakyan SP		
7.	"Armtex Group" LLC		
8.	"Karmen Textil" LLC		
9.	Rustam Hakobyan SP		

10.	Anoush Saroyan Individual	I propose to be attentive to the process of VET institution admission, to accept students with stricter principles.	
11.	"Haykavan Kat" Agricultural Cooperative	We look forward to providing the students of the above institutions with the opportunity to see our manufacture through your organization and find core work in our cooperative.	
12.	"AND-V" LLC		
13.	"Mantashi Milena" Agricultural Cooperative		
14.	David Sekhleyan Individual		
15.	"Amasia Cheese Factory" LLC		
16.	Karine Martirosyan Individual	Assist custom tailoring workshops with the latest sewing machines and a young workforce	
17.	"Lentex" LLC	Collaboration with employers	
18.	"SASSTEX" LLC		
19.	"Artik PHK" LLC	Completely dismantle craftsmanship colleges, create new ones, introduce some new technologies, equipment. Introduce psychological education that can only be remunerated through work. Organize business trips, even camps, to get people involved in the work process.	

20.	"Epsilon Invest" LLC	Completely dismantle craftsmanship colleges, create new ones, introduce some new technologies, equipment. Introduce psychological education that can only be remunerated through work. Organize business trips, even camps, to get people involved in the work process.	
21.	Robert Gevorgyan SP		
22.	Levon Yeghikyan SP	We have a development plan that will enable to have at least 300 employees within 5 years.	Acquisition of new equipment with automation capabilities. Adolescent from poor families need vocational training costs, the best of which will be provided with employment. Costs include: raw materials, materials and specialist salaries
23.	"Miasin" Fund		
24.	Marina Hlghatyan SP		
25.	Mery Melikyan Individual	To improve training programs	
26.	Arpine Sasunyan Individual		
27.	Ruzanna Ghandilyan SP	Providing more educated and trained professionals	
28.	"Aregnashogh" Cooperative	Due to lack of equipment, grains, seeds and spices are processed in another company for 1kg 100 AMD. If I have own equipment, I can create new job places.	Introducing new technologies (drip irrigation) into the nursery.

29.	Suren Hambaryan SP		
30.	"Artik Cheese Factory" OJSC	Open Dairy Specialty faculty at Shirak Marz College. He is ready to teach, especially in Artik.	
31.	"Eco kat" LLC		
32.	Marianna Galstyan Individual		
33.	"Nelli" LLC		
34.	Amasia wool factory	Improving the quality and salaries of college teachers	
35.	"Belisimo Group" LLC	Complementation of the latest equipment, production lines to increase production costs. Territory of 1000 square meters	
36.	"Khayts-Ishkhan" LLC	Acquisition of new qualified specialists. Proper guidance	
37.	"Ashotsk Cheese Factory" LLC		
38.	Anushavan Vardparonyan SP	Educate a qualified professional. To create a equipped facility area in Shirak province to organize student internships.	
39.	Armenian Caritas		
40.	"Voskeser" LLC		
41.	"Igit" LLC		
42.	"Eliz-Group" LLC		

## ANNEX 7. List of Surveyed VET Institutions

	<b>VET Institution/Name</b>	<b>Address</b>	<b>Specialties taught in the research related areas</b>	<b>Name/Surname of the Respondent</b>	<b>Position</b>
1	Artik State College	Tonakanyan 33 str., Artik c., Shirak marz, RA	Clothing making technology	Liana Ghazaryan	Lecturer
2	Amasia State Vocational College SNCO	Amasia village, 24 street, dead end 1, ob.3 / 1, Shirak marz, RA	1. Sewing Technology – Tailor 2. Technology of oil, milk, cheese production	Margush Ghazaryan	Director
3	"ANAU Shirak Agricultural College" branch	Sargsyan 15 str., Gyumri c., Shirak marz, RA	1. Meat and Meat Technology 2. Consumer Quality Expertise 3. Milk and Dairy Technology 4. Management 5. Merchandising	Gayane Gabrielyan	Deputy Director
4	Maralik State Vocational College SNCO	Gagarin 4 str., Maralik c., Shirak marz, RA	1. Sewing technology 2. Provision of agricultural works	Gevorg Harutyunyan	Acting Director (Director on Vacation)

## ANNEX 8. List of Facilities Used by the Students During their Education

N	Facility	Number of VET Institutions
1.	Training simulator	0
2.	Labouratory equipment	2
3.	Production equipment	3
4.	Area for practical exercises	4
5.	Computers	2
6.	Specialized computer programs and databases	1

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