



**DUAL AFS: Baseline Study - Skills
Demand and Supply in Agriculture and
Food Safety in Albania & Kosovo**



Dual Curricula - Study and Work Practice
in Agriculture and Food Safety (DualAFS)

**Baseline Study - Skills Demand and Supply in
Agriculture and Food Safety in Albania & Kosovo**

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ERASMUS+, KA2 – COOPERATION FOR INNOVATION &
EXCHANGE OF GOOD PRACTICES
CAPACITY BUILDING IN THE FIELD OF HIGHER EDUCATION -
JOINT PROJECTS

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Project no. 619178-EPP-1-2020-1-DE-EPPKA2-CBHE-JP

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Nürtingen-Geislingen University, Germany (NGU)



Savonia University of Applied Sciences (Savonia UAS)



Agricultural University of Tirana, Albania (AUT)



University "Fan Noli" Korca, Albania (UNIKO)



University of Prishtina "H. Prishtina", Kosovo (UP)



University of Mitrovica "Isa Boletini", Kosovo (UMIB)

Work Life Partners (WLP):

Livestock and Rural Development Centre, Albania (LRD)
Food and Veterinary Agency, Kosovo (FVA)
Kosovo Association of Milk Producers, Kosovo (KAMP)
Agricultural of Technology Transfer Center, Korca (ATTC)

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Quality Assurance Agency in Higher Education (ASCAL)
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The questionnaires and the preliminary results of the survey were discussed in the meetings and workshops of the DualAFS project steering committee. Further to the members of the project's steering committee, the following people also contributed by answering the questionnaires and providing comments on the preliminary results of the survey in the workshops organised as part of the DualAFS project: The Director General for Agricultural and Food Policy at the Ministry of Agriculture and Rural Development, Irfan Tarelli, the Head of the Agricultural Extension Department of this Ministry, Festim Shytaj, the Chairman of the Albanian Agricultural Council, Agim Rrapaj, experts of the regional departments of the Agricultural Extension Service and the regional departments of Agriculture and Food Safety, farmers, representatives of other companies in the agri-food sector, experts from NGOs and other organisations in the agri-food sector, as well as students and lecturers of the relevant courses at the partner universities in Albania and Kosovo. We would like to express our sincere acknowledgement to everyone involved.

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LIST OF ABBREVIATIONS



ASCAL - Quality Assurance Agency in Higher Education, Albania

ATTC - Centers for Technology Transfer in Agriculture

ATTC -Agricultural Center of Technology Transfer, Korca, Albania

AUT - Agriculture University of Tirana

FVA - Food and Veterinary Agency, Kosovo

GDP – Gross Domestic Product

HEI - Higher Education Institution

INSTAT – Institute of Statistics, Albania

KAMP - Kosovo Association of Milk Producers, Kosovo

LAPS - Livestock and Animal Origin Product Safety

LLL – Life Long Learning

LRD - Livestock and Rural Development Centre, Albania

MAFRD – Ministry of Agriculture, Forestry and Rural Development of Kosovo

MARD - Ministry of Agriculture and Rural Development of Albania

NGO - Non-governmental Organization

NGU - Nürtingen-Geislingen University, Germany

Savonia UAS – Savonia University of Applied Sciences

SEE – South East Europe

UMIB - University of Mitrovica “Isa Boletini”, Kosovo

UNIKO - "Fan S. Noli" University of Korça

UP - University of Prishtina “H. Prishtina”, Kosovo

VET - Vocational Education Training

WB – World Bank

WLP - Work Life Partners

I. INTRODUCTION



Myqerem Tafaj¹ & Dorjan Marku²

Agriculture as a whole with all its sub-sectors (agriculture, forestry, and fishing), value added (% of GDP) accounts for a total of 17.7 % of GDP in Albania (AL) and 7.0 % of GDP in Kosovo (XK) (World Bank -WB, 2021)¹. Livestock is the most important agricultural sub-sector of the total agricultural production in Albania and Kosovo, and is mostly concentrated in ruminant production, where both countries have a rich tradition, especially in small ruminants. The high share of the agricultural sector

in the GDP of Albania and Kosovo is also related to its high share in employment. In 2021, 36,4% of the labor force was employed in agriculture in Albania and 23.6% in Kosovo (WB²). However, the structure of entrepreneurship in agriculture remains a challenge, as more than 80 % of farms and other enterprises in the sector are households producing for self-sufficiency, which is partly due to the very small amount of land available on average for a farm (0.5 - 1.5 ha in Albania and 3.2 ha in Kosovo) (INSTAT, 2020)³, the still unsettled ownership structure, and the still inadequate tradition of land acquisition and tenancy.

Besides the great importance of agriculture with its sub-sectors for GDP growth and employment, this sector is also of strategic importance for the country as it produces food for the population. Moreover, the development of agriculture directly serves the harmonious development of the country's regions, the development of rural areas and the reduction of population out-migration from these areas.

The climatic conditions, the considerable natural resources (especially natural pastures) and the very fertile soils in both countries allow for higher agricultural production in general and especially that of livestock, in Albania also aquaculture and fisheries, horticulture, citrus fruits, olives, etc. Despite these favorable conditions, productivity per unit of agricultural land and per head of livestock in Albania and Kosovo is far below the average of developed countries, also compared to the Balkan countries. As a result, agricultural production in both countries is still below real potential, which has led to a still very negative food import balance for the population, food prices among the highest in SEE and very low competitiveness of agricultural producers. Therefore, the priority for both countries remains to increase productivity and overall agricultural production, which is quite possible under the conditions of both countries, leading to an increase of plant and animal food production, an increase in meeting the needs of the consumer market and the agri-food industry, a reduction in the still large volume of food imports from other countries in the region and beyond, an increase in exports of agricultural and livestock products, an expansion of the labor market and an increase in the number of well-trained workers and professionals in the sector, as well as an increase in the competitiveness of farms and other enterprises in the sector.

¹World Bank -WB (2021)

²World Bank Database (2021)

³INSTAT, 2020

It is imperative that both countries look for more efficient ways to increase overall agricultural production. Besides the structural problems of farm size, low investment and financial support to the sector and the still low level of technology, the sufficient level of knowledge and well-trained human resources is probably the most important challenge both countries are facing and will face even more in the future.

Although the number of graduates in some traditional occupations has declined rapidly in Albania and Kosovo, paradoxically a large number of them remain unemployed. This is due to the underdeveloped agricultural labor market, especially for the university graduates. But the increase in productivity and agricultural production, its diversification, the increase in the requirements for the quality and safety of agricultural and animal products, the increase in the requirements for the reduction of negative impacts on the environment and the integration of agriculture into the green

economy, the approximation of the whole sector with EU standards, it is expected to lead to an expansion of the labor market in the field of agriculture, food and agri-tourism, as well as to an increase in demand for well-trained young people, especially in agricultural, food and environmental sciences with competences and skills needed for the future labor market in this sector / area.

The trend observed in many out-migration places of young people working in agriculture and livestock is manifesting itself more and more each year in Albania and Kosovo. This is also reflected in a decline in the number of graduates applying and enrolling in some agricultural science courses. In particular, there is a decline in the number of students in the rural and rural-urban areas of the country, where most students should come from, whose motivation would probably be greater and who could be employed more because they live in regions where there is agriculture and animal production. On the other hand, the influx of students from vocational high schools has decreased significantly, although there are quite a few vocational high schools offering courses in agriculture and livestock and even more in business and tourism in both countries. In this context, the negative demographic trend in higher education institutions in Kosovo cannot be ignored, which has led to a very rapid decline in the number of students and graduates, especially in small districts and rural regions of the countries.

In order to find ways to improve the quality of higher education of young professionals in the field of agriculture and livestock and to increase the employment rate of graduates in this sector, a consortium of universities was established consisting of two EU universities (Nürtingen-Geislingen University of Applied Sciences - NGU, the lead university of the project, Germany, and Savonia University of Applied Sciences - Savonia UAS, Finland), the Agricultural University of Tirana (AUT), the University "F. S. Noli" of Korca (UNIKO), the University of Prishtina "Hasan Prishtina" (UP) and the University "I. Boletini" of Mitrovica (UMIB), as well as 7 other labor market partner institutions (Work Life Partner - WLP). They are cooperating in the Erasmus CBHE project "Dual Curricula - Study and Professional Practice in Agriculture and Food Safety (DualAFS)", which will be implemented in the period 15 February 2021 to 15 February 2024. The main objective of this Erasmus project is to improve the current bachelor's degree programs, in particular the curricula for practical training in animal production and safety of animal products offered by the AUT and UP, Agribusiness Management offered by the UNIKO, and Food Technology and Safety at UMIB.

The models of higher education that better realize the combination of theory and practice and are also more successful in increasing the rate of early employment of graduates in the field of agriculture are practice-integrated higher education, especially "dual higher education" (as the most advanced form), where higher education is the result of an almost equal combination of theoretical education and in-company practice. This model of higher education is most developed in Germany, but it is also widely used in other European countries, especially at universities of applied sciences, also in the modified form, such as in Austria, Switzerland, Finland, the Netherlands, Denmark, Slovenia, etc.

Based on this rich experience of the above-mentioned countries with the integration of study and work in higher education, the bachelor's degree programs "Livestock and Animal Products Safety (LAPS)" at AUT and "Agribusiness Management" at UNIKO are being reorganized in the form of practice-integrated degree programs, which are close to the model of dual higher education and are

mainly based on the experience of the partner universities of this Erasmus project, NGU and Savonia UAS, as well as on some other higher HEIs mainly in Germany, Austria, Finland, Switzerland, the Netherlands and Denmark. Currently, these two bachelor's programs have been reorganized in such a way that on-farm/business training takes up seven months out of three academic years, which corresponds to about 22% of the total number of credits (40 ECTS out of 180 ECTS). In this model, farms and enterprises contribute to the practical training of students. These newly organized pilot study programs are more or less the "pioneer programs" of dual university education in the field of agriculture in Albania. The Work Life Partners (WLP) of the labor market in both countries, such as farms, enterprises, farmers' associations, central and regional public institutions, have welcomed this reform of the bachelor's degree programs and support AUT and UNIKO in the implementation of dual tertiary education in the fields of animal production, agribusiness and food safety.

In addition to the above main objective, this project also aims to improve human academic capacity and teaching infrastructure in laboratories and IT, integrate e-learning into the teaching process, develop capacity for training and knowledge and technology transfer from university to practical production (life-long learning – LLL), and develop close cooperations between the university and farms/companies (WLP) to implement student in-farm/company practice.

In order to develop the curriculum for a practice-integrated degree program, it was necessary to have a detailed knowledge of the needs of the labor market in this sector and of the expectations of employers regarding the level of practical training of graduates in the field of agriculture and food, and of the cooperation of universities with farms and companies in this sector. To investigate all these aspects, the DualAFS project conducted a baseline study: Skills Demand and Supply in Agriculture and Food Safety in Albania & Kosovo, consisting of two parts: (i) 1st part: Joint Survey Backdrop Description - Desc Research and Secondary Data Analysis, and (ii) 2nd part: Survey on Skills Supply and Demand in The Livestock, Agribusiness and Animal Food Safety Labor Market in Albania and Kosovo.

The baseline study used a mixed methods approach with quantitative and qualitative data. The description of the common survey background was carried out using the secondary data collection method. The statistical data was collected from government agencies (statistical offices, ministries and other agencies). The survey was conducted using the primary data collection method. A series of questionnaires were developed to collect quantitative data from various stakeholders in the survey with stakeholders from the private sector, public sector, students and academic staff being interviewed.

This report presents only the results of the survey, including an introduction and an executive summary based on the baseline study conducted, i.e. the research and analysis of secondary data and the survey on skills supply and demand in the labour market for livestock, agro-industry and food safety in Albania and Kosovo. Without going into details in this introduction, we would like to very briefly mention the results of the survey, which mainly refer to the aspects of practical training during the university studies, and in this context also to the cooperation of the universities with the WLP, as contributors to the carrying out of the in-farm/company practice of students during the university studies.

The labor market study has clearly shown that more than 150 farmers and representatives of farms and enterprises in the field of agriculture and livestock from Albania and Kosovo consider practical vocational training as the most important, almost decisive, factor for the rapid employment of university graduates. In addition to a solid scientific and technical training, they also require graduates to be trained in the use of information technology and digitalization, to be proficient in foreign languages, and to be trained in communication and extension in agriculture and livestock. Similar assessments of the graduates' skills were expressed by around 190 representatives of public institutions at central and regional level from the fields of agriculture, livestock, food and food safety, as well as around 270 students and academic staff from the study programs of the project partner universities included in this project.

In interviews and workshops during the baseline study and survey, farms and enterprises from the livestock and agribusiness sector, as well as representatives of the public sector in this area, expressed their full and very encouraging support for the university partners of this project for the application of university studies combined with practice (dual model) in the field of agriculture and livestock, as this is the surest way to increase the quality of professional, theoretical and practical training of students as young professionals who will contribute to the long-term sustainable development and modernization of the livestock sector in our countries.

Farms, enterprises and their associations from the agribusiness sector have expressed their willingness to work closely with the university partners in this project to provide practical training for students through long in-farm/company practice as part of the bachelor's degree, and to formalize this cooperation, initially by extending existing cooperation agreements for professional internships for students and, in a second phase, by concluding contracts for professional internships with students by farms and companies in this sector. In addition, the representatives of the farms/associations have called for the recognition and institutionalization of their contribution towards the implementation of students' professional internships by the state.

In the meetings held by the university partners of this project with the enterprises, the forms of cooperation with mutual benefit between the enterprises and the university, were extensively discussed, as well as possible incentives to support them through incentive measures, such as: granting a bonus in the evaluation of projects or applications to the agencies for financial support under the domestic budgets of both countries or the IPARD program, tax relief for the contribution to the practical training of students, up to the financial support of a training expert for students during their practice period, etc., in large farms and enterprises in agriculture and livestock.

The results of this project, as well as the baseline study conducted as part of the project and presented in this book, can serve as an aid in addressing these challenges not only for the higher education partners of this project, but also for other higher education institutions in Albania and Kosovo, with the difficult challenge of aligning tertiary studies with the needs of the socio-economic development of countries and regions as well as the labor market, especially since there are currently very few such studies in both countries on the demand and supply of qualifications and

skills from tertiary education in the labor market in the agriculture and food sector, in other sectors or even in the labor market as a whole in Albania and Kosovo.

This baseline study is the result of the work of the partner universities in the Erasmus project, who have been cited as authors and co-authors in this publication. However, conducting this study would be impossible without the very valuable contribution of hundreds of representatives of various farms and enterprises, as well as associations and other representative organizations in the field of agriculture, livestock and food, professionals and officials of public administration and policy at central, regional and municipalities levels in these sectors, as well as students and academic staff of the study programs involved in this Erasmus project at the four universities in Albania and Kosovo. We sincerely thank all the participants in this study for their valuable cooperation and contribution.

II. SKILLS SUPPLY AND DEMAND IN THE LIVESTOCK, AGRIBUSINESS AND ANIMAL FOOD SAFETY LABOR MARKET IN ALBANIA AND KOSOVO.



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2.1. Methodology

The survey was conducted by applying the quantitative research method, using structured questionnaires with different types of question and responses, named as follows:

- Yes/No;
- Category;
- Choose from a list;
- Rating scale. Likert scales from 1 to 5 were used and defined: **1 - nothing; 2- too little; 3 - average; 4 - a lot; 5 - too much.**

The methods used for conducting the interviews with the respondents were as follows: Online distribution of interviews. Before approaching this step, Webropol⁴ platform was used as a tool for creating and evaluating web-based surveys; Face to face interviews. The questionnaire was structured as follows:

a) The general part of the questionnaire included demographic information:

- Country (Albania, Kosovo);
- Gender; Age;
- Education level, all certificates/degrees: primary school certificate, high school state matura, professional high school state matura, post-secondary professional diploma; higher education diploma: bachelor's, master's, doctor of science & academic titles;
- Occupation/employment.

b) Specific part of the questionnaire

Depending on the respondent's answer or their affiliation to a particular profession, they were directed to the appropriate section of the questionnaire or to the section that corresponded to the following three *target groups*:

⁴WEBROPOL: BASELINE ASSESSMENT WP & QUOT; DualAFS (webropolsurveys.com)

1. *Private sector* - In this target group, the respondents belonged to agricultural and livestock farms, other firms involved in agriculture activities or agricultural associations that operated in Albania and Kosovo. The size of the farm or business was set as a criterion for the respondents. Respectively, only representatives of medium and large size farms and businesses were interviewed.
2. *Public sector* – Part of this target group were employers of public institutions related to agriculture and food in Albania and Kosovo. The respondents of this category comprised the

following public institutions or agencies: ministry of agriculture and rural development; regional offices for agriculture and food; regional agencies for agricultural extension service; municipality departments for agriculture and nutrition.

3. *Academic sectors ("Academia")* –Academic and administrative staff and students of higher education institutions in Albania and Kosovo were assigned to this category of respondents. The respondents included mainly students and lecturers in the field of Animal Production at Agricultural University of Tirana (AUT)/Albania and University of Pristina (UP)/Kosovo, in the field of Agribusiness Management at University of Korca (UNIKO)/Albania and in the field of Food Technology at University of Mitrovica (UMIB)/Kosovo, as well as teachers at vocational high schools in both countries. The total number of the questionnaires distributed was 919, of which 561 were fully completed and statistically valid. In the rest of the questionnaires (respectively 358) only the general part was completed. Therefore, this group of respondents could not access the specific part of the questionnaire and were only addressed on the general part. The valid numbers of questionnaires distributed by target groups were as follows:

- Private sector target group (150 responses)
- Public sector target group (144 responses)
- Academic (Academia) target group (267 responses)

The number of valid questionnaires can be considered sufficient for the objectives of this study in both countries. Comparable studies have been conducted with a small number of responses (about 30 per target group). In total, there are about 30,000 medium and large livestock farms and businesses in both countries, i.e., Albania and Kosovo. According to Rama & Xhabiri (2017)⁵, there are a total of 32,644 registered enterprises (active enterprises according to INSTAT Business Register, BR, in the field of agriculture in Albania with at least one registered employee). This means that the total sample with 150 valid questionnaires of the target group "private sector" is about 0,5 % of the total number and can be considered as a sufficient sample.

⁵Rama, L. & Z. Xhabiri (2017): *Skills Needs Analysis Questionnaire, 2017*

The number of students and lecturers in the study programs of Animal Production at AUT and UP, Agribusiness Management at UNIKO and Food Technology at UMIB is about 1500-1600, i.e., the total sample of 267 valid questionnaires represents about 17% of the total number, which means a very good representative sample.

Furthermore, the total number of employees in the public sector of agriculture and food safety in Albania and Kosovo is about 2000 - 2500, i.e. the total sample of 144 valid questionnaires makes up about 7% of the total and can be considered as a representative sample.

Statistics: The data obtained from this survey sample were statistically analyzed using the Webropol package and the SPSS package⁶. For the analysis of variance, two main fixed factors were used, namely "region or country" (with 2 levels: Albania and Kosovo) and "target group by type of occupation or labor market" (with 3 levels: private sector, public sector and academia target group). This means that the design was a two-factor design.

The statistical descriptive parameters were calculated and after that a variance analysis was carried out. This analysis was carried out for the whole sample (valid data for all three target groups of

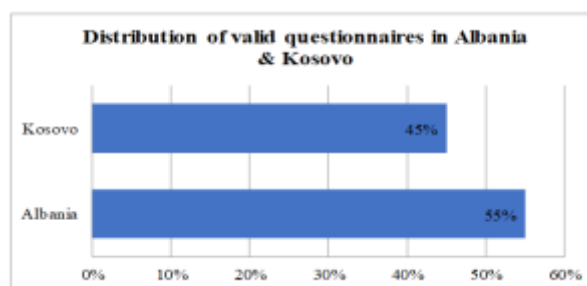
respondents) and then the effects were evaluated for each target group and quantified for various parameters investigated in this survey.

2.2. General characteristics of the sample of respondents in the survey

a) Region or country of the respondents

According to the data represented on Figure 2-1, it is indicated that 55% of the valid questionnaires derived from Albania, while Kosovo accounts for 45%. Nevertheless, the regional distribution of the data can be described as acceptable.

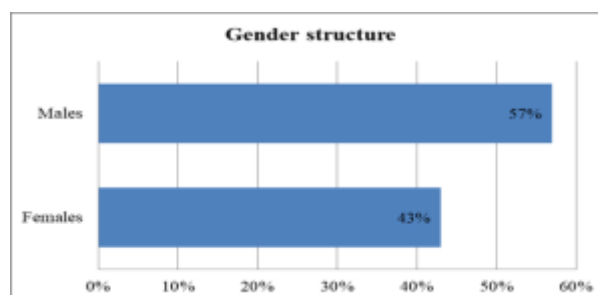
⁶SPSS package, 2021



1 - Figure 2-1. Regional distribution of respondents

b) Gender of the respondents

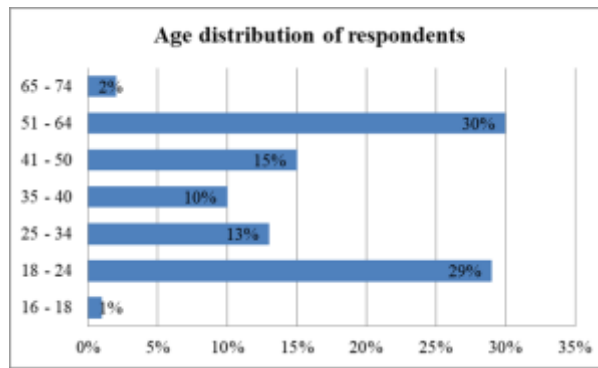
Considering the number of valid questionnaires, 57% of the respondents were male, while 43% were female. These numbers are very close to the gender ratio involved in activities related to the agricultural sector.



2 - Figure 2-2 Gender structure of respondents

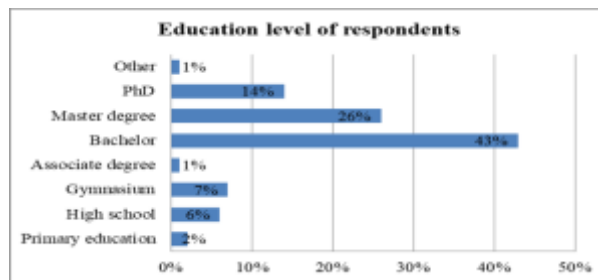
c) Age of the respondents

Two age groups account for the largest share of the respondents: the 51-64 age group accounts for 30% of the responses gained, while the other groups, i.e. 25-34, 35-40 and 41-50, account for approximately 10-15% of the respondents. This categorization of the responses is consistent with the age structure of the agricultural workforce. The almost double proportion of the 51-64 age group compared to the other age groups of workers in the sector indicates that the age of workers in the sector is increasing rapidly among farmers and workers in government agricultural institutions. The 18-24 age groups practically consist of the students of the above-mentioned courses, i.e. it has nothing to do with the agricultural labor force.



3 - Figure 2-3 Age distribution of respondents

d) Educational level of the respondents



4 - Figure 2-4 Distribution of respondents by level of education

Since the target groups are very heterogeneous and the composite sample also includes the student group, the distribution by educational level based on the total number of respondents is very inaccurate. Therefore, it makes sense to discuss this distribution according to different occupational groups (see table 2-1).

Table 2-1 Educational level of respondents from different target and professional groups

| Target group | Parameter | Education level | | | | | | | Total number (n) | |
|--|--------------------|-----------------|-----------------|--------------------------------|--------|---------------|-------|----------------|------------------|-----|
| | | Basic education | VET High school | Compulsory Education (Bachlor) | Master | Doctor Degree | Other | Prof. (master) | | |
| Industry business and associations | Count | 1 | 4 | 1 | 25 | 18 | 2 | 1 | 0 | 51 |
| | % within Education | 5,2 | 7,1 | 3,4 | 4,4 | 7,1 | 3,4 | 7,1 | 3,0 | |
| Farms and farm associations | Count | 21 | 21 | 21 | 98 | 7 | 3 | 1 | 0 | 122 |
| | % within Education | 14,2 | 14,1 | 14,1 | 72,0 | 5 | 2 | 7,1 | 0 | |
| Students | Count | 1 | 25 | 14 | 282 | 11 | 0 | 2 | 0 | 305 |
| | % within Education | 3,3 | 8,2 | 4,6 | 92,0 | 3,6 | 0 | 0,7 | 0 | |
| VET students | Count | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | % within Education | 0 | 1,1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Education, consult agencies of agriculture | Count | 0 | 0 | 0 | 17 | 29 | 0 | 0 | 0 | 46 |
| | % within Education | 0 | 0 | 0 | 3,7 | 50,0 | 0 | 0 | 0 | |
| Regional agencies | Count | 0 | 0 | 1 | 34 | 72 | 7 | 0 | 0 | 108 |
| | % within Education | 0 | 0 | 0,9 | 31,6 | 66,7 | 6,5 | 0 | 0 | |
| Specialist organizations | Count | 0 | 0 | 0 | 14 | 7 | 0 | 0 | 0 | 21 |
| | % within Education | 0 | 0 | 0 | 67 | 33 | 0 | 0 | 0 | |
| Dept of agriculture and food in municipalities | Count | 0 | 1,4 | 0 | 3,8 | 3 | 0 | 0 | 0 | 8 |
| | % within Education | 0 | 17,5 | 0 | 47,5 | 37,5 | 0 | 0 | 0 | |
| FERG representing in agri. and food | Count | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 |
| | % within Education | 0 | 0 | 0 | 66,7 | 0 | 33,3 | 0 | 0 | |
| Profession professionals | Count | 0 | 0 | 1 | 8 | 18 | 7 | 0 | 1 | 34 |
| | % within Education | 0 | 0 | 2,9 | 23,5 | 52,9 | 20,6 | 0 | 2,9 | |
| Academics staff | Count | 0 | 0 | 0 | 28 | 19 | 120 | 0 | 0 | 147 |
| | % within Education | 0 | 0 | 0 | 19,0 | 12,9 | 81,1 | 0 | 0 | |
| Total | Count | 27 | 10 | 42 | 382 | 291 | 122 | 14 | 10 | 882 |
| | % within Education | 3,1 | 1,1 | 4,8 | 43,4 | 33,1 | 13,9 | 1,6 | 1,1 | |

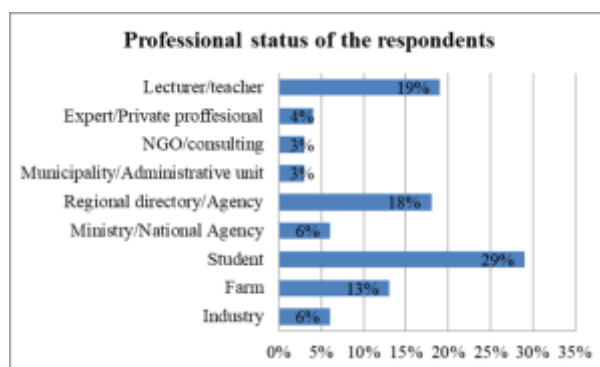
The results of table 2-1 are summarized as follows:

- In the target group "**private sector**" there is a total of 222 valid questionnaires. Of these, 175 belong to respondents from farms, industrial agribusinesses and agricultural associations. In terms of education level: 60.6% of them possess a university degree; 14.9% high school diploma; 15.4% a vocational training degree; 9.3% a primary education diploma (compulsory schooling with 8 years of schooling until 2009 and 9 years of schooling thereafter). The distribution is much more interesting in the subgroup of farms and agribusinesses associations, with a total of 120 participants: 47.5% of them possess a university degree, 20.8% have a high school degree, 19.2% have a vocational high school degree and only 12.5% have compulsory education. This relatively high proportion of participants with a university degree in this target group is significantly higher than the educational level of

farmers or other firms' owners in the field of agriculture and food. In addition, it can be concluded that a considerable number of the participants with a university degree in this target group belong to large farms and businesses, as well as to associations (farmers, businesses, professionals) in this sector. This large target group (private sector) also includes the 47 professionals with a university degree that work as freelance experts and in NGOs and consultancy firms.

- The target group "**public sector**" includes a total of 238 employees that are part of central, regional and local authorities/departments of agriculture and food safety, as well as Centers for Technology Transfer in Agriculture (ACTT) in Korca and Fushe Kruja, where there are departments for animal production. All the employees' respondents of the public sector possess a university degree, either the former diploma (4 – 4.5 years of study) before the introduction of the Bachelor/Master system, or the new bachelor's and master's degree. According to this target group, 108 respondents had a master's degree, while 12 of them had completed their PhD studies. Most of the doctoral graduates' work as researchers and consultants at ACTT.

e) Professional categories of the respondents

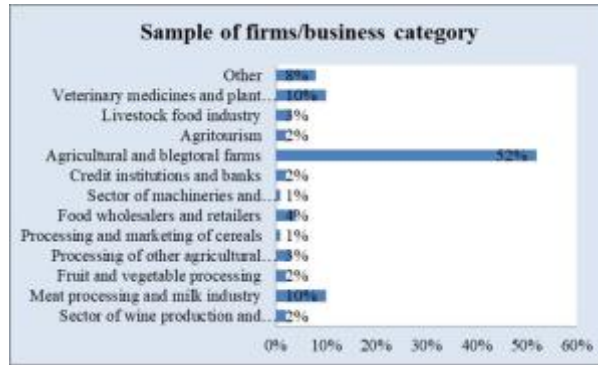


5 - Figure 2-5 Distribution of respondents by professional categories

The distribution of respondents (914 participants in total) by occupational status shows that 25% of the respondents belong to the target group "Private Sector", 27% fall into the target group "Public Sector", and finally students and lecturers, referred to as "Academic Group", make up the largest proportion of respondents, with 48%. This distribution of respondents is almost independent of region or country.

2.3 Assessment by private sector employers of skills supply and demand in the livestock, agribusiness and animal food safety sectors
2.3.1 Characteristics of the employers' target group sample "Private sector"

a) The sample according to the type of firms/businesses in the "private sector"



6 - Figure 2-6 Sample type of firms/businesses in the "private sector" (responses n= 147)

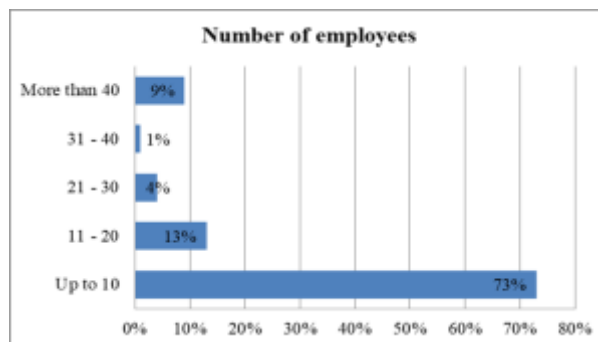
The largest share of enterprises are livestock farms (52%), followed by food enterprises (10%), veterinary medicines and plant protection products firms (10%), agricultural inputs trading (4%) and animal compound feeds enterprises (3%).

b) Sample according to the number of employees in the "private sector"

Figure 2-7 indicates that 86 % of the respondents were part of medium-sized enterprises with less than 20 employees, 5% had 21-40 employees, while 8.5% belonged to large enterprises with more than 40 employees. This data reflects very well the structure of enterprises in the agri-food sector, comparable to other data from labor market studies related to the agribusiness

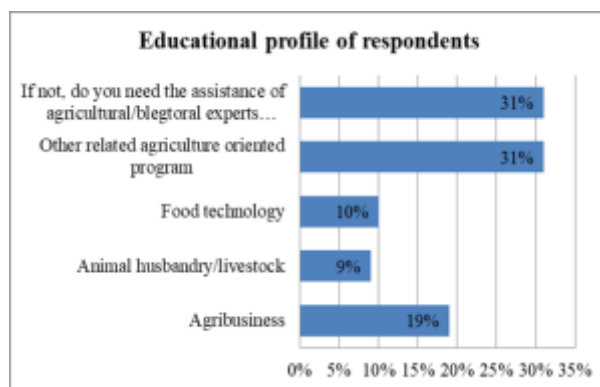
sector in the Albanian economy (e.g. Honorati et al., 2018⁷). In fact, most of the enterprises that employed more than 40 employees belong to food industry companies.

⁷Honorati, Maddalena; Johansson De Silva, Sara; Kupets, Olga; Berger, Sara. 2018. *Job Dynamics in Albania: A Note Profiling Albania's Labor Market*. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/29962>.



7 - Figure 2-7 Sample according to the number of employees in the "private sector" (n=147)

c) Sample according to educational level of employees in "private sector"



8 - Figure 2-8 Sample according to educational level of employees in the "private sector" (n= 138)

The results of figure 2-8 show that about 28% of the respondents have studied Agricultural Sciences, 10% Food Technology, while 31% have university degrees in other agriculture-oriented study programs. Interestingly, 31% of the firms/businesses do not have staff with relevant university degrees but are advised by the consultants that have graduated in university studies in agricultural sciences.

a) Assessment of business, management and extension skills of graduates by the private sector



9 - Figure 2-9 Assessment of business, management and extension skills of graduates by the private sector (n = 147).

Considering the results from figure 2-9, it can be clearly observed that the respondents possess above average levels of the necessary economic, managerial and extension knowledge and skills (the mean values are between 2,5 and 3,0 from the scale of 1 to 5). In their respective economic sectors, the employers surveyed placed a high value on the knowledge and skills related to agricultural extension, rural development, marketing, and human resource management.

b) Assessment of ICT skills of graduates by the private sector

Table 2-2 Assessment of ICT skills of graduates by the private sector (n=147)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---------------------------------------|-------|-------|-------|-------|------|------|--------|
| Basic computer skills | 25% | 22.9% | 32.6% | 18.8% | 0.7% | 2.5 | 3 |
| Advanced computer skills | 27.9% | 27.9% | 19.0% | 25.9% | 2.1% | 2.9 | 2 |
| Computer programs for farm management | 33.1% | 19.9% | 21.8% | 24% | 2.1% | 2.4 | 2 |
| Computer-aided process control | 22.9% | 12.2% | 42.9% | 22.4% | 0% | 2.7 | 3 |

*Rating Scale: 1 - nothing; 2 - too little; 3 - average; 4 - a lot; 5 - too much

On average, the private sector employers rated graduates' ICT knowledge and skills with a mean of 2.4 – 2.7 and a median of 2 - 3 on a scale of 1 to 5, with more emphasis on basic computer programs (mean 2.7 and median 3)

c) Assessment of core technical professional skills of graduates by the private sector

Table 2-3 Assessment of technical professional skills of graduates by the private sector (n=146)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|-------------------------------------|-------|-------|-------|-------|------|------|--------|
| Plant and livestock technology | 10.5% | 14% | 27.3% | 39.8% | 8.4% | 3.2 | 3 |
| Product processing technology | 19.2% | 18.9% | 21% | 37.2% | 4.7% | 2.9 | 3 |
| Transport and distribution systems | 16% | 33.3% | 35.3% | 15.3% | 2.1% | 2.5 | 3 |
| Production mechanization | 22.9% | 30.8% | 22.9% | 30.6% | 2.8% | 2.7 | 3 |
| Computerized control processes | 20% | 27.4% | 26.8% | 24.1% | 3.5% | 2.6 | 3 |
| Building in agriculture & livestock | 19.6% | 20% | 34.9% | 24.8% | 2.2% | 2.7 | 3 |

The employers surveyed from the target group "private sector" had quite high expectations of the core professional knowledge and skills of university graduates. The mean scores for all listed skills are above average, ranging from 2.5 – 3.2 and a median of 3 on a scale basis of 1 to 5. The highest mean values exist for skills in animal and plant production technology. All the knowledge and skills included in this group are practically core professional competences and skills. Therefore, such a high score can be taken as a signal that university graduates lack skills that are obtained from practice or in the labor market. Honorati & Johansson (2018)⁸ came to a similar conclusion in their labor market study, in which Albanian enterprises clearly point out the high need for improving core professional and technical skills and competences of graduates.

d) Assessment of communication and foreign language skills of graduates by the private sector.

⁸Honorati, M. & Johansson, S. da Silva (2018): "Demand for Skills in Albania: An Analysis of the Skills Towards Employment and Productivity Survey", the World Bank, Washington, DC

d) Assessment of communication and foreign language skills of graduates by the private sector.

Table 2-4 Communication skills and foreign language (n = 143)

| Skills | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|-------|-------|-------|-------|------|------|--------|
| Drafting reports and various documents | 19.4% | 33.9% | 32.4% | 13.7% | 0.7% | 2.4 | 2 |
| Eloquent & precise in communication | 23% | 20.1% | 36.3% | 18% | 2.2% | 2.6 | 3 |
| Creative ideas in written communication | 22.5% | 25.4% | 35.5% | 15.2% | 1.4% | 2.5 | 3 |
| Creative ideas in oral communication | 21% | 10.9% | 41.3% | 25.4% | 1.4% | 2.8 | 3 |
| Road, informal & professional communication | 22.7% | 13.7% | 38.9% | 20.1% | 3.6% | 2.7 | 3 |
| Competency in official online communication | 21.5% | 20.7% | 28.1% | 29.7% | 3% | 2.7 | 3 |
| Command of foreign languages | 33.6% | 17.8% | 19.3% | 23.6% | 5.7% | 2.5 | 2 |

Based on the employers' responses, the communication skills of graduates as employees are rated as important, while foreign language skills are considered as a necessity. The scores of all communication skills parameters are slightly above average, with a mean that ranges from 2.4 – 2.7 and a median of 2 - 3 on a scale basis 1 to 5. These scores are considered very important indicators, proving that employers in these economic sectors in Albania and Kosovo have a high demand of the so-called "new economy skills" (Honorati & Johansson, 2018), which is a good signal for a dynamic development of these enterprises.

e) Assessment of interpersonal skills of graduates by the private sector in recruitment



10 - Figure 2-10 Assessment of interpersonal skills of graduates according to private sector recruitments (n = 143)

Interestingly, employers in the agriculture sector and subsectors in Albania and Kosovo have valued highly all the skills that belong to the group "Interpersonal skills". The mean values vary between 2.8 – 3.5 while the median values between 3 - 4, in a scale basis from 1 - 5. Based on the frequency of employers' responses observed from the questionnaires, the most important skills are rated those related to teamwork, personality, positive attitude, self-confidence, ability to manage difficult situations at work, ability to work in different conditions, and loyalty to the company. The above-mentioned skills have scored the highest values of mean (3.5) and median (4), reaffirming once again the high demand for these skills and the need that the "university product" must focus on mastering these. Similar tendencies have also been observed by Honorati & Johansson (2018) among Albanian firms in other economy sectors.

f) Assessment of practical professional skills by the private sector in recruitment of graduates

Table 2-5 Assessment of required professional practical skills according to graduates' recruitments by the private sector (n = 142)

| Skills | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|--|-------|-------|-------|-------|-------|------|--------|
| In-company training during studies | 17.7% | 10.1% | 23.7% | 47.5% | 11.5% | 3.3 | 4 |
| Studies, practical training abroad | 9.2% | 20.4% | 24.6% | 37.3% | 8.5% | 3.2 | 3 |
| Continuous training (L.L.) | 5% | 16.6% | 19.4% | 48.3% | 10.8% | 3.4 | 4 |
| Development of a business plan | 12.4% | 16.3% | 21.2% | 42.3% | 8% | 3.2 | 4 |
| Organization of various activities in the fields of volunteering, social affairs, NGOs, etc. | 17.9% | 29.3% | 32.1% | 19.3% | 1.4% | 2.6 | 3 |

Employers expect graduates to possess good practical skills, economic knowledge and in some cases, to have studied abroad, which is reflected in the high values of the mean (3.2 – 3.4) and median (4). The importance of these skills has been highlighted by the Albanian employers in several labor market studies (e.g., Honorati & Johansson, 2018; Honorati et al., 2018; Rama & Xhabiri, 2017). Therefore, it can be said that there is a very broad understanding of labor market needs for professionals with solid practical and applied knowledge and skills. This observation applies for both countries, Albania and Kosovo.

g) Assessment of cooperation between the university and Work Life Partner (WLP) by the private sector.

Table 2-6 Assessment of cooperation between the university and Work Life Partner (n = 142)

| Items | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|-------|-------|-------|-------|-------|------|--------|
| Participation of WLP in the development of curricula for practical training | 13.6% | 26.4% | 28.6% | 28.6% | 2.8% | 2.8 | 3 |
| Acceptance of students into the company for practical training | 13.5% | 10.6% | 28.4% | 37.6% | 9.9% | 3.2 | 3 |
| Supervision of practical training of students | 19.6% | 17.4% | 31.1% | 26.8% | 5.1% | 3.8 | 3 |
| Identify and publicize companies for practical training of students | 1.7% | 24.8% | 22% | 31.9% | 4.3% | 2.8 | 3 |
| Financial incentives for companies for practical training of students | 9.1% | 27.5% | 19% | 33.8% | 10.6% | 3.1 | 3 |

This survey confirms that employers of these sectors in both countries are aware that close cooperation between the university and the Work Life Partners (WLP) is a crucial aspect for the realization of good practical and in general professional higher education. This is reflected in the scores of the average mean (2.8 – 3.1) and median (3). Nevertheless, it must be mentioned that these values are below the ones observed for the above-mentioned practical vocational skills. It can be argued that while it is quite clear to employers how important the practical skills of graduates and applicants are, there is still work to be done to convince them (employers) to better understand the proper solution, which is good practical training during university studies.

2.3 Assessment results by public sector employers with reference to skills supply and demand in the livestock, agribusiness and animal food safety sectors.

2.3.1 Characteristics of the target group "public sector" employers

a) The sample according to the type of institutions in the "public sector"



11 - Figure 2-11 Sample according to type of institutions in the "public sector" (responses n= 144)

According to the data shown in figure 2-11, around 64% of the respondents were mainly employees of the regional agencies and departments of agriculture, livestock, food safety and extension services, followed by the national authorities (ministries, agencies, authority, etc) with 19%, while the rest of the respondents of the public sector belonged to Municipalities, Consultings and Agricultural Centers of Technology Transfer (ATTC).

b) Assessment of qualifications and skills by the public sector in recruitment of graduates

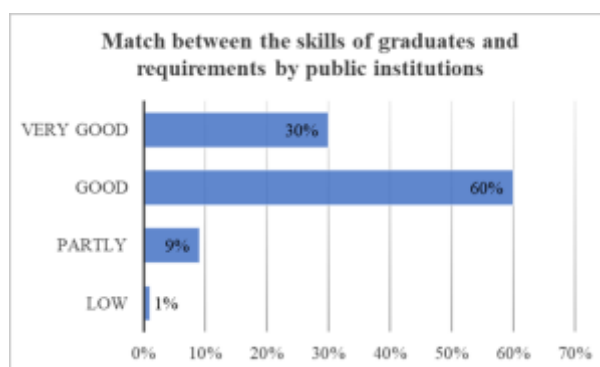


Figure 2-12 Ranking of qualifications and skills (in %), according to recruitments of graduates by the public sector (n= 136)

When recruiting graduates as professionals/employees in the public sector, formal higher education qualifications (diploma, field of study, list of modules, list of grades, etc.) were rated as most important by 73 % of respondents. Practical training accounted for 49 % of the respondents' responses, while professional practice or experience before or during university studies accounted for 55 % of the responses, which are also rated very highly. Studying abroad for part of a semester or for a few semesters was rated by only 18% of respondents, written recommendation or endorsement is mentioned by 13% of them, while family relations and other subjective factors (e.g. political influence, etc.) are also present, although this influence is declared as very weak in terms of impact (only 7% of respondents state this), which is not entirely realistic, as these subjective factors frequently have a considerable influence and sometimes play a decisive role in the recruitment of employees in the public institutions.

When analyzing the results of the ranking of criteria for hiring young graduates in the private sector compared to the public sector, it can be generally stated that in Albania and Kosovo there is a broad agreement in both sectors about the labor market needs for employees or graduates with solid practical and applied knowledge and skills.

c) Assessing the match between the skills of the graduates recruited and the requirements of the jobs in public institutions



12 - Figure 2-13 Match between the skills of the recruited graduates and the requirements of skills in public institutions (n=139)

According to the data of figure 2-13, the match between the skills of the recruited graduates and the requirements of skills in public institution jobs in the field of animal production, agri-business and animal food safety was rated as average by 60% of the respondents, while 30% of them considered it as very good. This seems to be an overestimation compared to the ratings for the individual skills and qualifications discussed in the following paragraphs of this study.

d) Assessment of business, management and extension skills of graduates by the public sector



13 - Figure 2-14 Assessment of business, management and extension skills of recruited graduates by the public sector (n = 130)

The ratings of the public sector for this group of skills are generally higher compared to those of the private sector. The mean score varies from 2.6 – 3.6 on a scale basis from 1 to 5, i.e. a significantly above average rating. The public sector places more emphasis on the skills of extension services (mean 3.5), rural development (mean 3.6) and international agricultural policies (mean 3.5), followed by knowledge on management of enterprises and human resources (mean 3). These ratings indicate that the labor market of both private and public sector has almost equally high expectations in terms of economic and managerial skills.

e) Assessment of ICT skills of graduates by the public sector

Table 2-7 Assessment of ICT skills of graduates by the public sector (n=142)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---------------------------------------|-------|-------|-------|-------|-------|------|--------|
| Basic computer skills | 17.1% | 17.9% | 33.1% | 26.8% | 4.9% | 2.8 | 3 |
| Advanced computer skills | 2.5% | 11.5% | 43.4% | 36.9% | 5.7% | 3.3 | 3 |
| Computer programs for farm management | 4.6% | 10% | 36.2% | 40% | 9.2% | 3.4 | 3 |
| Computer-aided process control | 5.8% | 8.3% | 43.4% | 31.7% | 10.8% | 3.3 | 3 |

According to the responses of the respondents, the ICT skills of the graduates are rated above average and high by public sector employers, with a mean that varies from 2.8 - 3.4 and a median of 3 on a scale basis from 1 to 5. In contrast to the private sector, the public sector places more emphasis on the following skills: Computer programs for farm/business management, advanced

computer skills and computer-aided process control, while the private sector places more emphasis on basic computer skills. This means that the public sector is much more aware of the need for "new economy skills" (Honarati & Johansson, 2018) and the development trends of ICT and digitalization in agriculture. From the data indicated on table 7, it can be concluded that this sector is also much closer to the development of ICT and digitalization compared to all other sectors in Albania and Kosovo. However, it must also be considered that the majority of private farms and enterprises that participated in this survey are medium-sized and very few of them are large farms and businesses. It is well known that compared to medium-sized businesses and farms, large firms/businesses have much more capacity, especially human resources for new developments and innovations in technology, mainly in the areas of ICT and digitalization.

f) Assessment of core technical professional skills of graduates by the public sector

Table 2-8 Assessment of core technical professional skills of graduates by the public sector (n = 140)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|------|-------|-------|-------|------|------|--------|
| Product processing technology | 3.9% | 10.8% | 41.3% | 36.9% | 6.9% | 3.3 | 3 |
| Transport and distribution systems | 8.5% | 20.3% | 51.7% | 15.3% | 4.2% | 2.9 | 3 |
| Production technology and mechanization | 9.3% | 13.2% | 39.5% | 31% | 7% | 3.1 | 3 |

The high score ratings observed from the responses of questionnaires for core professional knowledge and skills, indicated by the mean score, ranging from 2.9 – 3.1 does easily indicate the very high expectations of the public sector for these types of skills. Evidently, these are very important data that point out the lack of these skills in the study programs offered by higher education institutions with regard to young graduates. There is also a similarity of labor market expectations between private and public sectors for core professional skills, which are observed in other studies on the Albanian labor market (e.g., Honarati & Johansson, 2018).

g) Assessment of communication and foreign language skills of graduates by the public sector

Table 2-9 Assessment of communication and foreign language skills of graduates by the public sector (n = 143)

| Skills | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|------|-------|-------|-------|------|------|--------|
| Drafting reports and various documents | 9.6% | 19.2% | 44.8% | 22.4% | 4% | 2.9 | 3 |
| Eloquent & precise in communication | 4.1% | 21.9% | 52.8% | 17.1% | 4.1% | 3 | 3 |
| Creative ideas in written communication | 7.3% | 15.3% | 47.6% | 23.4% | 6.4% | 3.1 | 3 |
| Creative ideas in oral communication | 7.5% | 15% | 51.7% | 20% | 5.8% | 3 | 3 |
| Read, understand & professional communication | 7.9% | 15.1% | 43.6% | 27.8% | 5.6% | 3.1 | 3 |
| Competency in official online communication | 8.7% | 17.5% | 40.5% | 26.2% | 7.1% | 3.1 | 3 |
| Command of foreign language | 1.6% | 9.8% | 49.6% | 30.1% | 8.9% | 3.3 | 3 |

The rating score of the employers of the public sector in terms of communication skills and foreign languages group is considered as *above average*, with mean scores ranging from 2.9- 3.3 and median scores of 3.0 on a scale basis from 1 to 5. Compared to the private sector employers, the assessment of scores is significantly higher, especially in foreign language skills, writing of reports and various documents, creative ideas in written communication & reading comprehension and professional communication, and competences in official online communication. This means that public sector employers are much more aware of the need for "new economy skills" than private sector employers. This can also be seen as a shortcoming of private sector employers in managing human resources and identifying the skills and qualifications of employees and workers.

h) Assessment of interpersonal skills of graduates by the public sector in recruitment



14 - Figure 2-15 Assessment of interpersonal skills of recruited graduates by the public (n = 143)

All the skills that belong to the interpersonal skills group have been rated *above average* and with high mean scores between 3 – 3.9 and median scores of 3 – 4 on a scale basis of 1 – 5, by public sector employers in Albania and Kosovo. These ratings are definitely higher than those rated by private sector employers (mean scores 2.5 – 3.5). Public sector employers rate as significantly important the following skills: teamwork, personality and positive attitude, self-confidence, ability to deal with difficult situations at work, ability to work in different conditions, and loyalty to the company. The highest mean scores vary from 3.7 – 3.9 and a median score of 4.

i) Assessment of practical professional skills by the public sector in the recruitment of graduates

Table 2-10 Assessment of practical professional skills by the public sector in the recruitment of graduates (n = 140)

| Skills | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|--|------|-------|-------|-------|-------|------|--------|
| In-company training during studies | 2.3% | 6.2% | 21.7% | 52% | 17.8% | 3.8 | 4 |
| Studies, practical training abroad | 4.7% | 1.6% | 19.5% | 48.4% | 25.8% | 3.9 | 4 |
| Continuous training (LLL) | 0.8% | 3.9% | 22.1% | 56.7% | 16.5% | 3.8 | 4 |
| Development of a business plan | 2.4% | 4% | 35.7% | 46.8% | 11.1% | 3.6 | 4 |
| Organization of various activities in the fields of volunteering, social affairs, NGOs, etc. | 1.6% | 12.3% | 50% | 29.5% | 6.6% | 3.3 | 3 |

Public sector employers have very high expectations of graduates' practical training, in particular good practical skills, technical and business knowledge, and full studies or semesters abroad, which is reflected in the very high scores of the mean (3.3 – 3.9) and median (4). The highest score ratings apply to internships, study abroad and continuous training (LLL), with mean value ranging from 3.8-3.9 and median 4. This is also consistent with the observations of other related surveys in the Albanian labor market (including Honorati & Johansson, 2018; Honarati, 2020). These mean values are between 0.4- 0.7 points higher compared to those of the private sector. This indicates that the labor market in Albania and Kosovo, both in the public and private sectors, has a high demand for employees, i.e., graduates, with solid practical and applied knowledge and skills.

j) Assessment of cooperation between the university and Work Life Partner (WLP) by the public sector

Table 2-11 Assessment of cooperation between the university and Work Life Partner (WLP) by the public sector (n = 140)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|------|------|-------|-------|-------|------|--------|
| Participation of WLP in the development of curricula for practical training | 2.4% | 7.8% | 40.6% | 36.7% | 12.5% | 3.5 | 3 |
| Acceptance of students into the company for practical training | 2.3% | 8.3% | 36.3% | 34.7% | 18.2% | 3.6 | 4 |
| Supervision of practical training of students | 3.2% | 5.0% | 32.8% | 44.8% | 13.6% | 3.6 | 4 |
| Identify and publicize companies for practical training of students | 4.2% | 3% | 33.6% | 47.1% | 10.1% | 3.5 | 4 |
| Financial incentives for companies for practical training of students | 5.5% | 4% | 22.8% | 48.8% | 18.9% | 3.7 | 4 |

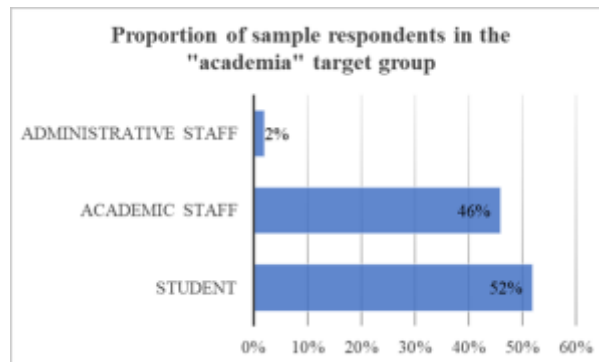
The results of this study clearly show that compared to the employers of the private sector, the public employees are much more aware of the fact that close cooperation between the university and the work-life partners is crucial for good practical and general vocational higher education. This is reflected in the score ratings (higher than average) with mean scores between 3.5 – 3.7 and median scores of 4 which are about 0.7 points higher than those in the private sector. This means

that compared to private employers, public sector employees are clearly more aware of the fact that higher levels of education, especially practical skills of graduates, can be achieved primarily through on-the-job training (in-company training) during studies in higher education institutions.

2.3 Assessment results by “Academia” target group with reference to skills supply and demand in the livestock, agribusiness and animal food safety sectors

2.3.1 Characteristics of the sub-sample of the “Academia” target group

a) Proportion of students and lecturers in the “Academia” subsample



15 - Figure 2-16 Proportion of students and lecturers in the "Academia" sample (n = 265)

The proportion of students' and lecturers' responses is respectively 52% student responses and academic staff 46%, while administrative staff only accounts for 2%. Due to the low number of responses (2.2%), the academic staff responses are not considered in the following analysis of the results of the target group "academia".

2.3.1 The assessment results of the "academia" target group with reference to the objectives and the qualification offer of the study programs and the success of the graduates in the labor market.

a) Infrastructure and equipment of university teaching and working environment

Table 2-12 Infrastructure and equipment of university teaching and working facilities (n = 267)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|--|-------|-------|-------|-------|------|------|--------|
| Infrastructure of teaching and working rooms | 9% | 18.5% | 51.3% | 15.5% | 5.7% | 2.9 | 3 |
| Level of university library | 13.9% | 28.5% | 37.4% | 19% | 5.2% | 2.7 | 3 |
| Internet Network | 17.8% | 23.9% | 38.6% | 17% | 2.7% | 2.6 | 3 |

The "Academia" target group rates the suitability of the infrastructure, the equipment and the internet connection in the teaching and working environment with average mean values. However, this rating cannot be considered entirely realistic, as the equipment facilities are minimal and very old. This situation of infrastructure and equipment in the teaching rooms has been confirmed especially in the last two years during the pandemic of Covid-19, as the HEIs from Albania and Kosovo participating in this study, did not have even a minimal capacity of fast internet and ICT infrastructure for students and lecturers for e-learning.

b) Assessment of participation in the adaptation of curricula according to the needs of the labor market

Table 2-13 Participation in the development of curricula (n = 267)

| | 1 | 2 | 3 | 4 | 5 | Mean | Median |
|---|-------|-------|-------|-------|------|------|--------|
| Are students well informed about the study program? | 2.3% | 10.1% | 37.1% | 42.3% | 8.2% | 3.4 | 4 |
| Are students encouraged to make an active contribution to improving the university's performance? | 7.2% | 23.3% | 36.8% | 26.7% | 6% | 3 | 3 |
| Are all stakeholders, i.e., students, teachers and Work Life Partners (WLP), involved in curriculum development? | 11.3% | 28.8% | 37.9% | 17.8% | 4.2% | 2.7 | 3 |
| Are the teaching objectives and competences of the curricula oriented towards the reality (i.e., labor market, needs of the sector) and practical training? | 6% | 19.9% | 45.1% | 23% | 6% | 3 | 3 |
| Do the curricula of the study programs correspond to the development trends of the respective economic sectors? | 5.3% | 19.7% | 44.7% | 24.6% | 5.7% | 3.1 | 3 |

The assessment of the entire "Academia" target group on the participation in the development and adaptation of curricula to the needs of the labor market and the economy is above average, which does not correspond to the assessment of private and public sector employees, especially with regard to the questions: "Are all stakeholders, i.e. students, teachers and Work Life Partners (WLP), involved in curriculum development?", "Are the teaching objectives and competences of the curricula oriented to reality (i.e. labor market, needs of the sector) and practical training?", and, "Do the curricula of the study programs correspond to the development trends of the respective economic sectors?". On this question, employers in both the private and public sectors are not satisfied and therefore have significantly higher expectations of higher education institutions and study programs. They therefore demand active involvement of employers in the development of study programs and better adaptation of curricula and study programs to the skills needs of the labor market and the economy.

c) Consideration of the theoretical and practical part of the curriculum

Table 2-14 Consideration of the theoretical and practical part of the curriculum when restructuring it (n = 265)

| | 1 | 2 | 3 | 4 | Very Much | Mean | Median |
|------------------|------|-------|-------|-------|-----------|------|--------|
| Theoretical part | 2.7% | 6.9% | 41.7% | 42% | 7.7% | 3.4 | 3 |
| Practical part | 8.3% | 24.5% | 33.2% | 23.3% | 8.7% | 3 | 3 |

The assessment of the target group "university" related to the theoretical and practical curricula also does not seem to be entirely realistic, as the respondents in the other questions of this survey expressed very high expectations, especially for the practical training of the students. It is possible that this question was misunderstood by the respondents, i.e. the respondents probably assessed how important it should be that both theoretical and practical parts are included in the curriculum structure. In other words, respondents were simply assessing "how important it should be" and not how it has been handled in their experience in previous cases.

d) Necessity for promoting student skills in ICT and digitalization

Table 2-15 Should the curriculum promote the students' skills in ICT and digitalization? (n = 265)

| Response type | n | In % |
|---------------|-----|------|
| Yes | 262 | 98.9 |
| No | 3 | 1.1 |

As expected, the need to promote students' competences in ICT and digitalization was rated almost unanimously (98.9% of respondents).

In order to better examine and discuss the evaluation of lecturers and students, the results of the statistical analysis were included by means of interactions "Parameter * Subgroup", based on the statistical analysis of the evaluation for the respective question or parameter of the subgroup "Academic staff" and the subgroup "Students" separately.

Table 2-16 provides the assessment of the target groups "academic staff" and "academics - students" on the need to promote students' competences in ICT and digitalization. From the data of the table, no large differences are observed for the corresponding sub-groups, "academic staff" (100%) and "students" (97.8%).

Table 2-16 Should the curriculum promote the students' skills in ICT and digitalization?

| Response type | Statistics | Students | Academic staff | Administrative staff | Total |
|---------------|----------------|----------|----------------|----------------------|-------|
| Yes | Count | 134 | 121 | 5 | 260 |
| | % within total | 97.8% | 100% | 100% | 98.9% |
| No | Count | 3 | 0 | 0 | 3 |
| | % within total | 2.2% | 0% | 0% | 1.1% |
| Total | Count | 137 | 121 | 5 | 263 |
| | % within total | 100% | 100% | 100% | 100% |

e) Necessity of promotion of the students' skills in communication

Table 2-17 Should the curriculum promote the students' skills in communication? (n = 263)

| Response type | n | In % |
|---------------|-----|-------|
| Yes | 260 | 98.9% |
| No | 3 | 1.1% |

The question "Should the curriculum promote students' skills in communication?" was rated unanimously by all respondents (98.9%) of the target group "Academia". The statistical evaluation showed no differences in the evaluation of the two "sub-groups" for this question.

f) Necessity of promotion of the students' skills in agribusiness management and production.

Table 2-18 Should the curriculum promote the students' skills in agribusiness management and production? (n = 262)

| Response type | n | Percent |
|---------------|-----|---------|
| Yes | 255 | 97.3% |
| No | 7 | 2.7% |

The results of the almost unanimous evaluation (97.3%) of the following question are surprising: Should the curriculum promote the students' skills in agribusiness management and production? as far as the students are concerned. This shows that the students are aware of the need for these skills.

g) Partnership of universities with WLP for the implementation of practical training of students.

Table 2-19 The universities have entered into partnerships with WLP for the implementation of practical training of students (n = 260)

| Response type | n | Percent |
|---------------|-----|---------|
| Yes | 169 | 65% |
| No | 91 | 35% |

The question "If the universities have entered into partnerships with WLP for the implementation of professional internships?" was positively evaluated by 65% of the respondents from the entire target group "Academia", while 35% of those answered negatively.

The following table indicates the differences in the evaluation of this question by students and lecturers. Only 77.3% of the lecturers consider the cooperation between the university and WLP as necessary, while 22.7% do not consider it necessary. This rate of responses cannot be considered a good attitude of the lecturers, regarding the implementation of the practical training of students. On the other hand, 53.3% of the surveyed students are convinced of the necessity of the cooperation between the university and the WLP. This can be considered as a very good sign of the students for the practical training and thus represents a great challenge for the universities to meet the expectations of the students regarding the practical training.

Table 2-20 The universities have entered into partnerships with WLP for the implementation of professional internships

| Response type | Statistics | Students | Academic staff | Administrative staff | Total |
|---------------|----------------|----------|----------------|----------------------|-------|
| Yes | Count | 72 | 82 | 4 | 168 |
| | % within total | 53.3% | 77.3% | 100% | 65.1% |
| No | Count | 63 | 27 | 0 | 90 |
| | % within total | 46.7% | 22.7% | 0% | 34.9% |
| Total | Count | 135 | 119 | 4 | 258 |
| | % within total | 100% | 100% | 100% | 100% |

h) Should curricula provide students with the necessary skills to be competitive in the labor market?

Table 2-21 Should curricula provide students with the necessary skills to be competitive in the labor market? (n=289)

| Response type | n | In % |
|---------------|-----|-------|
| Yes | 184 | 70.8% |
| No | 76 | 29.2% |

Two thirds of the respondents in the "Academia" target group answered the question positively: Should curricula provide students with the necessary skills to be competitive in the labor market?

Table 2-22 Should curricula provide students with the necessary skills to be competitive in the labor market?

| Response type | Statistics | Students | Academic staff | Administrative staff | Total |
|---------------|----------------|----------|----------------|----------------------|-------|
| Yes | Count | 89 | 89 | 4 | 183 |
| | % within total | 67.2% | 74.2% | 100% | 70.9% |
| No | Count | 44 | 31 | 0 | 75 |
| | % within total | 32.8% | 25.8% | 0% | 29.1% |
| Total | Count | 134 | 120 | 4 | 258 |
| | % within total | 100% | 100% | 100% | 100% |

Interestingly, 67.2% of the students' subgroup answered this question positively, which is a good sign of the students' confidence or attitude towards the competences and skills that they need to acquire during their studies, in order to be able to compete in the labor market after graduation.

i) Opportunities for students during university studies

In this survey, students and lecturers were asked about the opportunities or conditions that the universities offer to students during their studies. From this, two opportunities were identified as more important, namely: Possibility of a study abroad for practice, conferences, seminars, etc. and participation of students in research projects, which are presented in table 2-23.

Table 2-23 Assessment of target group "Academia" on students' opportunities during their studies (n=265)

| | 1 | 2 | 3 | 4 | Very much | Mean | Median |
|--|-------|-------|-------|-----|-----------|------|--------|
| Possibility of studying abroad for practice, conferences, seminars, etc. | 20.8% | 30.8% | 31.3% | 14% | 3% | 2.5 | 2. |
| Involvement or participation of students in research projects | 11.7% | 25% | 41.7% | 17% | 4.6% | 2.8 | 3 |

Almost 56% of students and 47% of lecturers rate "Possibility of studying abroad for practice, conferences, seminars, etc." as non-existent or very limited, while 29% of students and 33% of

lecturers rate it as average. This near agreement of the results of both sub-groups, i.e. students and lecturers, on the one hand increases the confidence in these results, while on the other hand it shows that students are well informed and that they are often undervalued or even ignored without a good reason.

Table 2-24 Assessment of the possibility of students for study abroad (practice, conferences, seminars)

| Response | Statistics | Students | Academic staff | Administrative staff | Total |
|----------|----------------|----------|----------------|----------------------|-------|
| 1 | Count | 33 | 21 | 0 | 54 |
| | % within total | 23.5% | 17.4% | 0% | 20.5% |
| 2 | Count | 44 | 36 | 2 | 82 |
| | % within total | 31.5% | 29.8% | 50% | 31.2% |
| 3 | Count | 40 | 40 | 2 | 82 |
| | % within total | 29% | 33.3% | 50% | 31.2% |
| 4 | Count | 17 | 20 | 0 | 37 |
| | % within total | 12.3% | 16.5% | 0% | 14.1% |
| 5 | Count | 4 | 4 | 0 | 8 |
| | % within total | 2.9% | 3.3% | 0% | 3% |
| Total | Count | 138 | 121 | 4 | 263 |
| | % within total | 100% | 100% | 100% | 100% |

j) Employment success and performance of the graduates in the labor market

In order to assess the employment success and performance of graduates in the labor market, the following characteristics were analyzed: the cooperation between the university and the WLP in advising graduates for employment; the cooperation between the university and the WLP in tracking the performance of their graduates in the labor market; and the mismatch between graduates' qualifications and the labor market's need for such qualifications.

Table 2-25 Assessment of the target group "Academia" on employment success and performance of graduates in the labor market. (n = 260 - 265)

| | 1 | 2 | 3 | 4 | Very much | Mean | Median |
|---|-------|-------|-------|-------|-----------|------|--------|
| University-WLP collaboration to recommend/advocate graduates for employment. (n = 265) | 15.9% | 30.9% | 36.6% | 13.6% | 3% | 2.6 | 3 |
| University-WLP collaboration to track the performance of its graduates in the labor market. (n=260) | 15.4% | 31.9% | 35.8% | 15% | 1.9% | 2.6 | 3 |
| Do you think there is a mismatch between the qualifications of graduates and the labor market's need for such qualifications? (n = 264) | 9.1% | 21.6% | 42.4% | 20.1% | 6.8% | 2.9 | 3 |

Approximately 47% of the respondents in the target group "Academia" rate the first two characteristics as non-existent or very limited. When considering the evaluation of the individual sub-groups, i.e. students and lecturers, regarding "the University-WLP collaboration to track the performance of its graduates in the labor market", 47 % of the students and 49 % of the lecturers responded as non-existent at all or very limited. Again, a very high level of agreement between students and lecturers is surprising; as such an assessment was not expected from students, who usually are not as well informed as lecturers.

Table 2-26 The assessment of University-WLP collaboration to track the performance of its graduates in the labor market

| Response | Statistics | Students | Academic staff | Administrative staff | Total |
|----------|----------------|----------|----------------|----------------------|-------|
| 1 | Count | 31 | 8 | 0 | 39 |
| | % within total | 23.3% | 6.6% | 0% | 15.1% |
| 2 | Count | 30 | 30 | 3 | 63 |
| | % within total | 22.6% | 41.3% | 75% | 32.2% |
| 3 | Count | 48 | 43 | 1 | 92 |
| | % within total | 36.1% | 35.3% | 23.0% | 35.7% |
| 4 | Count | 21 | 18 | 0 | 39 |
| | % within total | 15.8% | 14.5% | 0% | 15.1% |
| 5 | Count | 3 | 2 | 0 | 5 |
| | % within total | 2.3% | 1.7% | 0% | 1.9% |
| Total | Count | 133 | 121 | 4 | 258 |
| | % within total | 100% | 100% | 100% | 100% |

As it can be seen from the following table, about 32.1 % of the students surveyed and about 20.6 % of the lecturers rated the question "Do you think there is a mismatch between graduates' qualifications and the labor market's need for such qualifications?" as "a lot" and "very much", i.e. they think that this mismatch exists. In addition, 51.3% of lecturers rated the mismatch between

graduates' qualifications and the labor market's need for such qualifications as "average", while only 8.3% and 19.8% of lecturers surveyed believe that this mismatch "does not exist" or is "minor", respectively; i.e. only 28.1% believe that graduates' qualifications meet the labor market's need for qualifications. This means that there is a widespread belief among lecturers that there is a great mismatch between the graduates' qualifications and the labor market's need for such qualifications, which results in insufficient quality and has as a direct impact on the level of higher education, at least in the field of agriculture and food safety.

Table 2-27 Assessment of the mismatch between the qualifications of graduates and the labor market's need for such qualifications

| Response | Statistics | Students | Academic staff | Administrative staff | Total |
|----------|----------------|----------|----------------|----------------------|-------|
| 1 | Count | 11 | 10 | 1 | 24 |
| | % within total | 9.5% | 8.3% | 25% | 9.2% |
| 2 | Count | 53 | 34 | 0 | 57 |
| | % within total | 34.5% | 19.8% | 0% | 21.8% |
| 3 | Count | 47 | 62 | 2 | 111 |
| | % within total | 34.2% | 51.2% | 50% | 42.4% |
| 4 | Count | 28 | 24 | 1 | 33 |
| | % within total | 20.4% | 19.8% | 25% | 20.2% |
| 5 | Count | 16 | 1 | 0 | 17 |
| | % within total | 11.3% | 0.8% | 0% | 6.5% |
| Total | Count | 137 | 121 | 4 | 262 |
| | % within total | 100% | 100% | 100% | 100% |

k) Influence of results of high school and of university studies on employment success of the university graduates in the labor market.

Another factor that can influence the employment success of graduates in the labor market is the success or results achieved in high school and university studies. The question "Do they think that the university graduates' unemployment is related to their poor performance in high school?" was answered with "Yes" by 30.7% of the respondents of the target group "Academia", "No" by 39.8% and "Don't know" by almost one third.

Table 2-28 Assessment of target group "Academia" on the role of high school and university marks and employment opportunities (n = 261 - 264)

| | Yes | No | Don't know | Mean | Median |
|---|-------|-------|------------|------|--------|
| Do they think that the university graduates' unemployment is related to their poor performance in high school? (n = 264) | 30.7% | 39.8% | 29.5% | 2 | 2 |
| Do they think that the university graduates' unemployment is related to their poor performance in university studies? (n = 261) | 43% | 30.3% | 28.7% | 1.9 | 2 |

If we look at the evaluations of separate groups, i.e. students and lecturers, about the influence of the results of high school on employment success of the university graduates in the labor market (table 2-29), we find very different evaluations between the two sub-groups, i.e. students and lecturers. Specifically, 43.7% of the lecturers surveyed consider the results of high school to have a negative influence on the employment success of the graduates, while significantly less, practically only 19.6% of the students surveyed, share this opinion.

Table 2-29 Assessment on the influence of results of high school on employment success of the university graduates in the labor market

| Response | Statistics | Students | Academic staff | Administrative staff | Total |
|----------|----------------|----------|----------------|----------------------|-------|
| Yes | Count | 27 | 52 | 2 | 81 |
| | % within total | 19.6% | 43.7% | 49% | 30.9% |
| No | Count | 68 | 35 | 1 | 104 |
| | % within total | 49.3% | 29.4% | 20% | 39.7% |
| Total | Count | 43 | 32 | 2 | 77 |
| | % within total | 31.2% | 26.9% | 49% | 29.4% |

The other question regarding employment success was "Do they think that the university graduates' unemployment is related to their poor performance in university studies? This question was answered by 41% of the total Academia respondents with "Yes", 30.3% with "No" and 28.7% are not sure (don't know).

Table 2-30 Assessment on the influence of graduation results on employment success of the graduates in the labor market

| Response | Statistics | Students | Academic staff | Administrative staff | Total |
|----------|----------------|----------|----------------|----------------------|-------|
| Yes | Count | 46 | 50 | 1 | 106 |
| | % within total | 33.6% | 50.4% | 29% | 48.9% |
| No | Count | 47 | 30 | 1 | 78 |
| | % within total | 34.3% | 25.6% | 29% | 30.1% |
| Total | Count | 44 | 38 | 3 | 75 |
| | % within total | 32.1% | 23.9% | 60% | 29% |

If we look at the assessments of the separate sub-groups, i.e. the students and the lecturers respectively, on the influence of the university study results on the employment success of graduates in the labor market, we see very different assessments between the two sub-groups. Specifically, 50.4% of the lecturers surveyed are of the opinion that university study success has a negative influence on the employment success of graduates, while significantly less, namely only 33.6% of the students surveyed, are of this opinion.

In general, it becomes clear that the results of the evaluations of both the lecturer and student sub-groups regarding the results or success of university studies, have a significantly stronger influence on the employment success of the graduates after their studies than their high school results.

III. EXECUTIVE SUMMARY & CONCLUSIONS



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Main objective of the baseline study "Skills Demand and Supply in Agriculture and Food Safety in Albania & Kosovo"

The Purpose of the baseline study is to specify the contents and approaches needed for the capacity building and curriculum development of the intended dual higher education. The results of the baseline study to adjust curricula to different local needs legitimize choice of course content and as a

knowledge base and point of departure in developing an array of teaching materials. Lastly, the knowledge produced will assist in precisely targeting the dissemination and exploitation strategy.

The overall purpose of the survey is to identify target groups and needs-oriented contents for the dual curricula in livestock, agribusiness and food quality and safety. This applies for the two countries Kosovo and Albania and also for life long training (LLL) as well, so that AUT, UNIKO, UP and UMIB besides teaching can provide training services to develop professional competencies of agribusiness and livestock experts in order to support the development of agriculture, livestock, agribusiness and food quality and safety in two countries.

Some detailed objectives of the baseline study are:

- What are the expectations and needs of the private sector (farms and other businesses) and public institutions of agriculture and the food sector as potential employers for including graduated professionals in agricultural and food sciences?
- What are the knowledge types and skills needed for agriculture, livestock, agribusiness and food quality and safety in Albania and Kosovo: (i) to be able to meet the needs of the sector and (ii) what practices and professional roles will support the successful transfer of the needed knowledge and skills and create new awareness?
- What resources are available and what challenges face the dual practical training of students during period of university study especially.

Research methodology of baseline study:

The baseline study used a mixed methods approach with both quantitative and qualitative data.

The following methods were applied:

- *Primary data collection method:* a set of questionnaires were developed in order to collect quantitative data from different stakeholders of the scope of the survey. Stakeholders from private sector, public sector, students and academic staff were interviewed.
- *Secondary data collection method:* Collect statistical data from governmental offices (institutes/agencies of statistics; ministries and other agencies). **Methodology of survey** The survey was conducted by applying the quantitative research method, using structured questionnaires with different types of question and responses, named as follows (Yes/No; category; choose from a list; and rating scale). The methods used for conducting the interviews with the respondents were as follows: Online distribution of interviews. Before approaching this step, the Webropol platform was used as a tool for creating and evaluating web-based surveys. ([Survey Powered by Webropol: Baseline assessment WP & quot; DualAFS \(webpolsurveys.com\)](#)); Face to face interviews.

The questionnaire was structured as follows:

1. **The general part of the questionnaire included demographic information:** country (Albania, Kosovo); gender; age; education level; occupation / employment.
2. **Specific part of the questionnaire.** Depending on the respondent's answer or their affiliation to a particular profession, they were directed to the appropriate section of the questionnaire or to the section that corresponded to the following three *target groups*:

1. *Private sector* - In this target group, the respondents belonged to agricultural and livestock farms, other firms involved in agriculture activities or agricultural associations that operated in Albania and Kosovo. The size of the farm or business was set as a criterion for the respondents. Respectively, only representatives of medium and large size farms and businesses were interviewed.
2. *Public sector* – Employers of public institutions for related to agriculture and food in Albania and Kosovo were part of this target group. The respondents of this category comprised the following public institutions or agencies: ministries of agriculture and rural development; regional offices for agriculture and food; regional agencies for agricultural extension service; municipality departments for agriculture and nutrition.
3. *Academic sector (“Academia”)* – Academic and administrative staff and students of project partner higher education institutions in Albania (AUT, UNIKO) and Kosovo (UP and UMIB) were assigned to this category of respondents.

The total number of the questionnaires distributed was 919, of which 561 were fully completed and statistically valid. The valid number of questionnaires distributed by target groups were as follows: private sector target group - 150 responses; public sector target group - 144 responses, and Academia target group - 267 responses.

The number of valid questionnaires can be considered sufficient for the objectives of this study in both countries.

CONCLUSIONS



Survey: Skills Supply and Demand in The Livestock, Agribusiness and Animal Food Safety Labor Market in Albania and Kosovo.

1. The analysis of the results of the ranking of the criteria for hiring young graduates in the private sector compared to the public sector shows that in Albania and Kosovo, in general, there is a broad agreement in both sectors on the labor market needs for graduated professionals with *solid practical and applied knowledge and skills*. The highest score ratings comply with in-farm/business practice and internships during the university studies, practice and study abroad periods and continuous training (LLL) after graduation. Furthermore, academic staff as well as students surveyed stress the importance of cooperation between university and labor market partners in the agriculture and food sector for the employment success of graduates in agricultural sciences.
2. Public sector scores for *business and management skills* of professionals graduated in agricultural sciences are generally higher than those of the private sector. The public sector places more emphasis on extension, rural development and international agricultural policy skills, followed by business management and human resource skills. These ratings indicate that the private and public sector labor markets have almost equal expectations for economic and business management skills. The students are also aware of the need for these skills.
3. The *ICT skills and generally the "new economy skills"* of the graduates in agricultural sciences are rated significantly above average and high by the public sector employers in this survey. In contrast to the private sector, the public sector in agriculture as well as in the "academia" target group (students and academic staff) place more emphasis on the following skills: computer programs for farm/business management, advanced computer skills and computer-aided process control, while the private sector places more emphasis on basic computer skills. This means that the public sector is much more aware of the need for "new economy skills" and the development trends of ICT and digitalization in agriculture, and that this sector is also much closer to the development of ICT and digitalization compared to all other sectors in Albania and Kosovo. However, it must also be considered that the majority of farms/firms that participated in this survey are medium-sized and very few of them are large farms/firms. It is well known that large companies/businesses have much more capacity compared to medium-sized companies and farms, especially human resources, for new developments and innovations in technology, especially in ICT and digitalization.
4. The high score obtained in this survey for *core technical professional skills* clearly shows that the public sector has very high expectations for these types of skills. Obviously, this is very important data indicating that these skills are lacking in the study programs offered by higher education institutions in agricultural sciences in Albania and Kosovo. The expectations of the private and public sectors for core professional skills are also similar, which has also been found in other studies on the Albanian labor market.
5. The public sector employers' ratings of the *communication skills and foreign languages* group are considered above average. Compared to private sector employers, the ratings are significantly higher, especially in the areas of foreign language skills, report writing and various documents, creative ideas in written communication & reading comprehension and professional communication, and competences in official online communication. This means

that public sector employers are much more aware of the need for "new economy skills" than private sector employers. This can also be seen as a shortcoming of private sector employers in managing human resources and identifying the skills and qualifications of employees and workers.

6. All skills belonging to the *interpersonal skills* group were rated above average and with high average scores by public sector employers, and significantly higher than by private sector employers in Albania and Kosovo. Employers ranked the following skills as particularly important: teamwork, personality and positive attitude, self-confidence, ability to deal with difficult situations at work, ability to work in different conditions, and loyalty to the company.
7. The employers of the public employees are much more aware, compared to the employers of the private sector, of the fact that *close cooperation between the university and the work-life partners (WLP) is crucial for good practical and, in general, vocational higher education*. This means that compared to private employers, public sector employees are clearly more aware of the fact that higher levels of education, especially practical skills of graduates, can be achieved primarily through in-farm/company training during university studies. Only 77.3% of the lecturers consider the cooperation between the university and WLP as necessary, while 22.7% do not consider it necessary. This rate of responses cannot be considered a good attitude of the lecturers, regarding the implementation of the practical training of students. On the other hand, 53.3% of the surveyed students are convinced of the necessity of the cooperation between the university and the WLP, which can be considered as a very good signal from the students for the need of practical training and thus represents a great challenge for the universities to meet the expectations of the students regarding the practical training.
8. There is a widespread belief among university lecturers that there is a great mismatch between graduates' qualifications and the labor market needs for such qualifications, which has as a direct consequence on low quality of higher education, at least in the field of agriculture and food safety.
9. Overall, the prevailing opinion in the responses of all three target groups (private sector, public sector and academia) surveyed, seems to be that the agricultural sector is unfortunately considered one of the economic sectors in Albania and Kosovo that is most lacking in knowledge, expertise, know-how and innovation, which is also related to the quality of enrolled students in secondary vocational and higher education in agriculture and food (43.7% of the lecturers surveyed consider the results of high school to have a negative influence on the employment success of the graduates), to the unsatisfactory level of higher education in these fields, the very theoretical curricula and, above all, the totally insufficient practical training of graduates (50.4% of the lecturers surveyed are of the opinion that university study success has a negative influence on the employment success of graduates). In general, the results or success of university studies, have a significantly stronger influence on the employment success of the graduates after their studies than their high school results. Both vocational schools and university departments and faculties offering education in agriculture and food still have an inadequate and outdated teaching infrastructure and other conditions (library, internet access, etc.), outdated teaching and learning methods, and academic staff with good basic academic qualifications but without advanced qualifications and with a lack of motivation due to a very inadequate remuneration (salaries), especially in Albania. More than 80 % of the academic staff and students surveyed evaluate the level of

the teaching infrastructure and teaching conditions in all four HEIs of Albania and Kosovo that participated in this survey as insufficient to mediocre.