Hen-Gear Graduates' Profile Survey

2014 Graduates

Prepared by:

HEN-GEAR Project Consortium

National Centre for Professional Education Quality Assurance Foundation

HEN-GEAR Partner Universities

Yerevan, 2015

Project Consortium

The HEN-GEAR Project

The Project Coordinator AlmaLaurea: *the "idea" behind the HEN-GEAR Project*
AlmaLaurea is an Inter-university consortium **set up in Italy**, a bottom up initiative developed at the University of Bologna, **in 1994**. As a meeting point for graduates, universities and the business world, nowadays AlmaLaurea represents **72 Universities** in the Country (currently collects the curricula of **90% of Italian graduates**) with more than **2.100.000 curricula of graduates in its database**. AlmaLaurea operates on behalf of Universities and with the support of the Ministry of Education for monitoring the quality of graduates' educational processes and job insertion, being a reference point for the whole higher education (HE) governance system, and for giving a concrete response to the difficulties of young people entering the labour market. Since, "*On many markets, buyers and sellers do not always make contact with one another immediately. This concerns, for example, employers who are looking for employees and workers who are trying to find jobs. Since the search process requires time and resources, it creates frictions in the market. On such search markets, the demands of some buyers will not be met, while some sellers cannot sell as much as they would wish. Simultaneously, there are both job vacancies and unemployment on the labor market*" (Nobel Prize for Economics 2010 Diamond, Mortensen and Pissarides)", AlmaLaurea aims at **enhancing the linkage between the higher education system and society**, by **providing tools for a better management of HE system**, for the **monitoring of quality assurance**, for the **set up of a demand/supply matching model** and the **promotion of both employability and job mobility of graduates** in local and international labour markets. What is more, AlmaLaurea provides **guidance tools** to assess students strengths, choose the university and better understand the labour market (AlmaOrièntati) together with tools for the **assessment of secondary school system and career guidance** (AlmaDiploma). Every year AlmaLaurea issues **two main surveys**:

- the "**Graduates profile**" (at graduation) analysing every year graduates' characteristics and performances, allowing a direct comparison between different courses, faculties and universities
- the "**Graduates work experiences**" at *1, 3 and 5 years after graduation* (www.almalaurea.it/en/).

AlmaLaurea has taken a strong commitment to internationalize its services in the perspective of a European knowledge-based society, as it has been defined by the Lisbon strategy. The aim is to establish cooperation agreements in Europe and at extra-European level, as to ensure a capacity transfer for the build-up of universities networks and graduates databanks, contributing to enhance the potential of young people.

The unique experience of AlmaLaurea in Italy, able to give the national education system a complete, functional, affordable and unifying model based on different universities and other society organisations, as well as its exceptional experience in the European and worldwide scenario, has given rise to international cooperation and acknowledgements. All these characteristics represented the basis for the Hen-Gear Project, with the strong interest of the Armenian Universities, Students Association, Business Community and Armenian Government.

HEN-GEAR Project: Background and rationale

Like other former soviet countries, Armenia has gone through a profound transition since the start of political, economic, and social reforms in early 1990s. Those changes imposed new role and requirements for education. Despite some improvements, Armenia's labour market is still characterized by high overall

level of unemployment and a structural mismatch between labour supply and demand. Young people in Armenia's

labour market, much like their peers in developed and transition countries, are more vulnerable to unemployment than adults. According to the 2004 Integrated Living Conditions Surveys (ILCS), youth unemployment rate was 43%, in small decline compared to 45.9% of the 1998/99 ILCS (World Bank | NSS

2006), whereas data show a remarkable increase in 2007, to 57.6%. In the last years, the unemployment youth (total % of total labour force ages 15-24, modelled ILO estimate), was 36.2% (2008), 40.20% (2009), 38.29% (2010), 38.70% (2011), 35% (2012) and in 2013 (last available data) the unemployment youth was 33.09%.

The ratio of youth-to-adult unemployment in Armenia is 2.5, the same as both developed and transition countries. The absolute number of unemployed youth in Armenia is extremely high.

Current local policies aim at support skilled workforce through close cooperation between governments, socio-economic partners, students and higher education institutions; in such framework, the latter should improve the provision, accessibility and quality of careers and employment related guidance services to students and alumni. To date, National level graduate's data gathering, profiling, and analysing at support of curricular reform are very weak or even absent.

Despite the commitment of Armenian government in higher education (through the 2008-2015 National Development Program for Education), one of the issues still impeding the development of the Armenian higher education (HE) system, is the blurred link between the labour market and professional education. While the local market shows its inability to act as an economic leader and as active stakeholder of the education process, the HE system, finds it difficult to face the challenge of moving onto student-centered teaching and learning, a prerequisite for the development of knowledge-based society. Economic and community isolation prevailing in Armenia make the orientation of the higher education towards the market quite complicated also creating extra obstacles to workforce mobility.

The Republic of Armenia, by joining the Council of Europe and the Bologna Process, has stated its commitment to undergo all the required reforms to become a full-fledged member state of the European Higher Education Area (the three-tire degree structure is entered in force in 2005-2006 and ECTS is operational in all HEIs since 2008). The legal conditions are established by Law on Education (1999), Law on State program for educational development for the period of 2001-2005, Strategy of Higher Education (approved in 2002), Law on Higher and Postgraduate Professional Education (approved in 2004).

The new setting introduces the idea of a modern model of quality assurance including punctual definition of quality and accreditation through self-evaluation and self-assessment methods. The Recently Established National Centre for professional education quality assurance (member in the project) will lead the sharing of accreditation function and overall assessment and monitoring of Universities in Armenia.

A prerequisite for the transferability of academic credits between universities—nationally or internationally—is their adhering to a common set of practices for guaranteeing quality assurance compliant with international best practices. As Armenia is not yet at the point of granting such assurances to European, American or other international universities, the adherence to the European standards will be an important step ahead. However, there are ample reasons for optimism: universities themselves are aware of the importance of creating internal mechanisms for quality assurance and institutional improvement.

They are well aware of their strengths and weaknesses and of the need to develop a culture of constant improvement through periodic evaluation.

HEN-GEAR Project Objectives

In line with the European policies on Higher Education (Art. 149 of the Treaty of Nice, the Bologna Process. The Barcelona Declaration and its objectives, the HEN-GEAR Projects pursues the following objectives:

General objectives:

The project aims at establish an integrated demand/supply matching model based on the graduates' database designed for:

- collect and analyse data on universities and graduates performances (providing reliable, continuous and updated documentation for assessing the HE system at support of the ongoing reform process;
- facilitate the placement of graduates in the labour market (ensuring a better match between education and employment);
- improve internal and external efficiency of the higher education system.

Specific Objectives

The project envisages the following specific objectives:

- implement the Armenian database of university graduates;
- produce the first Armenian Graduates Profile Survey;
- design of the first Armenian Graduates Job conditions Survey (one year after graduation);
- set up a Qualified System of Armenian Graduates Placement.
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HEN-GEAR Project Beneficiaries

The project envisages the following beneficiaries and benefits:

Partner Universities

- Obtain reliable, complete, up-to-date, timely , continuous and regularly updated statistical data useful for improving educational programs and for quality assurance
- Have documentary evidence for all decisional processes and activity planning
- Get a comprehensive system of information for the assessment of both internal and external efficiency
- Facilitate the placement of graduates in labour markets

Armenian Graduates/Graduands

- Free of charge get and use of placement services
- Easy access to information on job/internship opportunities
- Improve career guidance and placement opportunities
- Certification of academic career

- Democratic and qualified access to labour market

Firms and Local business
- Availability of certified CVs regularly updated by graduates
- CV search facilities for human resource selection and recruitment purposes
- Possibility to check and compare profiles of graduates to hire
- A direct link with the universities and their career service as concrete and real reference point

Achieved outcomes and Results

The HEN-GEAR project officially started on January 2013, when delegates from all Project' consortium - Armenian Universities, representatives from Armenian Ministries of Education and Labour and Government bodies, the Armenian National Quality Assurance Agency, the Students Association and the Business World representatives took part to the kick-off meeting in Bologna. Thus, AlmaLaurea established the fruitful cooperation with the Armenian academic world that was interested in setting up a graduates' database for its own university system, based on the recognition of the aforementioned benefits for the stakeholders and with the aim to:

- produce updated, on time, continuous and reliable documentation useful to the academic system governing bodies and institution in higher education and labour market for decision making process
- create innovative instruments to help graduates find a job
- provide companies and universities a joint platform to match demand and supply of qualified human capital

For this purpose, the AlmaLaurea model was taken as a natural operational model to develop the Armenian experience. The 3 years HEN-GEAR cooperation has been very positive: all the projects objectives have been achieved, with tangible results overcoming in many cases, the expected outcomes; all these achievements would have hardly been possible without the joint commitment of universities, students, entrepreneurial associations, institutions and local governments, all engaged in pursuing the set targets in different ways.

The HEN-GEAR graduates' database is now a reality for the 8 partner universities; over 8,200 graduates have entered their data, with 92% of them filling the online evaluation questionnaire of their university experience. The Armenian labour market representatives, the business sector, employers, and companies are well aware of the platform and have been trained on how to use the system for get in touch with the qualified human capital produced by the universities. More than 30 Armenian companies have already registered into the platform with more than 100 CV search performed and almost 2000 CVs downloaded[1].
Also, thanks to the online database, all HEN-GEAR universities have carried out the first Pilot Survey on their Graduates' Profile that, together with the unique framework provided by the ANQA and summarizing the main results, it the subject of the present publication. A proof that the Armenian Universities who joined the initiative were determined in choosing a transparency-oriented approach, working in favour of the young generations, in order to test the educational capabilities of our University systems as well as the development and growth of research and production systems.

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[1] Data are taken from the HEN-GEAR platform at end September 2015.

Hen-Gear Project[2]		
Expected Outcomes	**Indicators of Progress**	**Achieved outcomes according to indicators**
Armenian Graduates Database set up	Database network composed by 5 partner universities	Database network composed by 8 partner universities
	around 10000 graduates record input	More than 8200 registered graduates; 7565 filled out questionnaires; 6258 CVs available to Armenian companies*
Training and capacity transfer	24 administrative staff trained	√ (38 Armenian administrative staff trained)
	18 universities IT staff trained	√
	Researcher training (from 40 to 60 participants)	√ (94 Researchers trained)
Dissemination	3 international dissemination conference	√
	1 local seminar in each university	√
	Project website	√ www.hen-gear.net
	Dissemination material	√ Communication and Dissemination Plan HEN-GEAR Platform instruction, tutorials and videos: https://international.almalaurea.it/armenia/
Sustainability	Sustainability actions performed at local level	√
Quality control	1st , 2nd, 3rd monitoring report	√
Management	Steering committee every 6-7 month	√

√ = achieved

*at September 2015

Project sustainability and future prospective

Sustainability is the capacity of the Project to continue and use its results beyond the end of the implementation period. It will thus allow the HEN-GEAR Project achieved outcomes to be used and exploited in the longer-term, with the auspice for the HEN-GEAR to become a National initiative thanks to the future involvement of new Armenian partner universities. In particular, sustainability entails the structuring of the HEN-GEAR system in a centralized manner (a single node) to accommodate data from all universities, allowing from one side the shared management and arrangement, with each university acting as different nodes, and on the other, the platform subsequent sustainable operation and maintenance.

The HEN-GEAR Project Armenian Partners reached a shared agreement with respect to project sustainability, that is the decision on where (at what organization level) to centralize the HEN-GEAR platform in Armenia before project completion: the Armenian National Center For Professional Education and Quality Assurance (ANQA) has been delegated the responsibility for HEN-GEAR platform maintenance, functioning and related service for the next two years following the project life cycle. Thus, as a core of future sustainability, the HEN-GEAR universities will fill the data into the platform with such information to be used by ANQA during its monitoring missions in the HEIs.

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[2] Data are taken from the HEN-GEAR platform at end September 2015.

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List of Abbreviations

ANAU Armenian National Agrarian University

ASUE Armenian State University of Economics

GSPI Gyumri State Pedagogical Institute

GSU Gavar State University

HEI Higher Education Institution

NAS RA National Academy of Sciences of the Republic of Armenia

NPUA National Polytechnic University of Armenia

NUACA National University of Architecture and Construction of Armenia

YSAFA Yerevan State Academy of Fine Arts

YSU Yerevan State University

Introduction

The report summarizes the results of the pilot survey among graduates of 8 Armenian universities carried out in the framework of HEN-GEAR Tempus[3] project in 2014. The data was obtained through the graduate database system following the AlmaLaurea Interuniversity Consortium model in Italy. The report provides an analysis of the features and performance of the graduates focusing on a number of variables derived from the six sections of the online platform's questionnaire used for the graduates' interviews and filled out by the HEN-GEAR graduands themselves before leaving the university. Particularly, the following six sections are included in the questionnaire:

1. Personal information
2. Education and training
3. Information on the course
4. Evaluation of the course
5. Information about the family
6. Future intentions and perspectives

The analysis will pay particular attention to the features of the human capital produced by the Armenian universities in 2013-2014. Some comparisons will be drawn between universities. The first chapter of the report describes the Armenian Higher education context. The second chapter contains the description of each HEI participating in HEN-GEAR project. The third chapter is the collection of individual reports produced by each HEI. The forth chapter summarizes the main features of the Armenian graduates in 2014 and provides comparisons between universities. The last fifth chapter provides suggestions and recommendations regarding QA for Armenian universities and HE system.

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[3] Higher Education Network for Human Capital Assessment and Graduate Employability in Armenia

Chapter1: Description of the Armenian University Context

The higher education system in Armenia consists of public, private, and foreign[4] educational institutions. It is provided by two major types of institutions: universities and other institutions such as institutes, academies and a conservatory. In 2014 there were 70 higher education institutions in Armenia, including 24 public universities with 14 branches and 33 private ones.

Table 1: Higher Education Institutions

	Public	Private	Foreign	Total
Yerevan	24	26	13	63
Regions	4	7	0	11
Total	24	33	13	70

In 2013-2014 there were around 100854 students enrolled in public and private HEIs in Armenia, of which 85922 (85%) were Bachelor and 14923 (15%) were Master students. 55% of the total student body were females and 45% were males. 85% of these students were enrolled in the universities in Yerevan, while the other 15% were in the regional ones. 87936 (87%) students were enrolled in public universities, out of which 16% (13948 students) were in regional universities, and 84% (73988 students) were in Yerevan. Table 2 provides the detailed distribution of the students within public and private universities in the regions and Yerevan by gender.

Table 2. Number of enrolled students in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	33511	40477	73988	5727	5480	11207	39278	45957	85235
Regions	5570	8378	13948	1002	709	1711	6532	9087	15619
Total	39081	48855	**87936**	6729	6189	**12918**	45810	55044	**100854**

Source: National Statistical Service of RA

Table 2.1 Number of enrolled students in Bachelor programs in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	29099	31 825	60 924	5443	5192	10635	34582	37017	71599
Regions	5312	7340	12652	1002	709	1711	6274	8049	14323
Total	34411	39 165	**73 576**	6445	5901	**12346**	40856	45066	**85922**

Source: National Statistical Service of RA

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[4] The number includes intergovernmental institutions and branches of foreign public and private HEIs. Intergovernmental universities are the ones established on the basis of agreement between two countries. Intergovernmental universities belong to both the Armenian education system and that of the partner country and the awarded qualifications are recognized in both countries.

Table 2.2 Number of enrolled students in Master programs in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	4412	8652	13064	-	-	-	4696	8940	13636
Regions	258	1038	1296	-	-	-	258	1038	1296
Total	4670	9690	**14360**	284	288	**572**	4954	9978	**14932**

Source: National Statistical Service of RA

Table 3 demonstrates the detailed distribution of graduates in 2014 along public and private universities in the regions and Yerevan by gender[5]. In 2014 27224 students graduated from Armenian HEIs, of which 22686 (83%) graduated from public ones and 38% were males. 86% of these students were enrolled in the universities in Yerevan, while the other 14% were in the regional ones.

Table 3. Number of graduates in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	7088	12320	19408	1769	2196	3965	8857	14516	23373
Regions	1220	2058	3278	322	251	573	1542	2309	3851
Total	8308	14378	**22686**	2091	2447	**4538**	10399	16825	**27224**

Source: National Statistical Service of RA

Table 3.1 Number of graduates of Bachelor programs in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	4960	7959	12919	1617	2056	3673	6577	10015	16592
Regions	1093	1524	2617	269	224	493	1362	1748	3110
Total	6053	9483	**15536**	1886	2280	**4166**	7939	11763	**19702**

Source: National Statistical Service of RA

Table 3.2 Number of graduates from Master programs in 2014

	Public			Private			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Yerevan	2128	4361	6489	152	140	**292**	2280	4501	6781
Regions	127	534	661	53	27	80	180	561	741
Total	2255	4895	**7150**	205	167	**372**	2460	5062	**7522**

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[5] The number of alumni in 2014 is not yet available, hence, the number of 4th and 6th year students enrolled at the HEIs will be used as a proxy for the number of graduates. The number of graduates in 2014 will be published by the Statistical Service of Armenia in July 2015 and will be integrated in the report accordingly.

In 2011 the RA Government adopted the National Education Qualifications Framework of the Republic of Armenia (ANQF)[6] consisting of 8 levels. The private universities and other private HEIs, with the exception of some of the leading providers, offer primarily bachelor programmes, whereas the public ones offer bachelor, master and research programmes (ANQF levels 6, 7 and 8).

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[6]http://studyinarmenia.org/www/uploads/2011/08/QualificationFramework.pdf

Chapter 2: Description of the Participating Universities

The data contained in the survey was based on 8 HEIs, including 6 in Yerevan (Yerevan State University (YSU), Yerevan State Academy of Fine Arts (YSAFA), National University of Architecture and Construction of Armenia (NUACA), National Polytechnic University of Armenia (NPUA), Armenian State University of Economics (ASUE), Armenian National Agrarian University (ANAU) and 2 in the regions (Gavar State University (GSU), Gyumri State Pedagogical Institute (GSPI). These universitites provided **44%** of all the students enrolled in Armenian HEIs in 2014 and **51%** of the students in private HEIs. Table below illustrates the number of students enrolled in each of the participating universities.

Table 4. Total number of students in 2014

	Bachelor	Master	Male	Female	Total
YSU	13430	3245	-	-	16675
YSAFA	569	135	160	544	704
NUACA	2808	459	2369	895	3367
NPUA	2949	379	-	-	3328
GSU	1970	520	1280	1210	2490
GSPI	2522	380	933	1969	2902
ASUE	5652	1816	-	-	7468
ANAU	7116	414	5421	2109	7530
Total					**44474**

Source: National Statistical Service of RA

In 2014 in total **12925** students graduated from 8 member universities, which constitutes **48%** of graduates from HEIs in Armenia and **58%** of graduates from public ones.

Table 5. Total number of graduates in 2014

	Bachelor	Master	Male	Female	Total
YSU	3180	1712	-	-	4892
YSAFA	169	68	40	197	237
NUACA	655	181	598	236	836
NPUA	1464	518	-	-	1982
GSU	352	89	147	294	441
GSPI	767	212	246	733	979
ASUE	1524	1100	-	-	2624
ANAU	715	219	509	425	934
Total					**12925**

Source: Data provided by universities

These universities offer a large variety of bachelor, master and research programs[7].

- YSU provides specialists in Languages, History, Sociology, Chemistry, Physics, Mathematics and Mechanics, Informatics and Applied Mathematics Biology, Law and International Relations, Economics, Geography and Geology, Oriental Studies, Journalism, Philosophy and Psychology, Theology, Romance and Germanic Philology.

- YSAFA has programs in Painting, Sculpture, Graphics, Art History and Theory, Fashion Design, Art Computer Graphics, Design, Applied Arts.

- GSU offers programs in Natural Sciences, Philology, Humanities, Economics and Part-time Education.

- GSPI provides graduates in Physics and Mathematics, History and Philology, Biology and Geology, Foreign Languages, Pedagogy, Preliminary Military Preparation and Physical Education.

- ANAU prepares specialists in Agronomy, Foodstuff Technology, Economics, Agribusiness and Marketing, Veterinary Medicine and Animal Husbandry, Agriculture Mechanization and Automobile Transportation and Hydro Melioration, Land Management and Land Cadaster.

- ASUE supplies graduates in Management, Finance, Marketing and Business Management, Computer Science and Statistics, Accounting and Audit, Regulation of Economy and International Economic Relations.

- NPUA provides specialists in Transportation Systems, Computer Systems and Informatics, Electrical Engineering, Cybernetics, Mining and Metallurgy, Applied Mathematics, Power Engineering, Radio Engineering and Communication Systems, Chemical technologies and Environmental Engineering and Machine Building, Mechanics and Machine Study.

- NUACA supplies graduates in Architecture, Design, Computer Graphics, Engineering, Economics, Philology, Cadaster and Ecology, Applied Art and Historic Cultural Tourism, Industrial and Civil Construction, Transport, Hydraulic Construction and Urban Economics.

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[7] The list of courses of study of the HEN-GEAR universities (by university, faculty and degree level) is available at the Student's area of the HEN-GEAR platform webpage:
https://international.almalaurea.it/armenia/stud/coursecatalogue/. See Annex 1 for instructions.

2.1 Armenian National Agrarian University (ANAU)

The **Armenian National Agrarian University** (ANAU) is the leading Armenian institution in agronomy, agricultural economics, land management, food technology, forestry engineering, veterinary science and livestock breeding. ANAU consists of 7 faculties with 1200 staff members and 1000 students including 9000 regular students and 1000 correspondence students. ANAU has a Career Center and a tradition to organize "Labour market day" for graduates and with potential employees to facilitate job finding and employment. ANAU has established international cooperation with many countries in Asia, Europe and North America. In particular, ANAU has cooperation projects with USA on rural development and with Sweden on forestry management. Since 2000, ANAU is participating in 4 Tempus projects. In addition, ANAU is participating in Erasmus-Mundus "External cooperation windows for Georgia, Armenia and Azerbaijan" programme.

Webpage: http://www.anau.am/

2.2 Armenian State University of Economics (ASUE)

The **Armenian State University of Economics** was established in 1930 and has been operating for 80 years. At the 5 Departments there are 30 Chairs, 20 of which are of economic specialties and 10 of common specialties. The academic staff consists of 35 Professors, Doctors of Science; 141 Associate Professors, Candidates of Science; 87 Assistant Professors; 103 Lecturers and more than 60 qualified specialists. ASUE is the largest and leading economic educational institution in Armenia and has got more than 7000 students and academic staff and around 650 employees. Main strategic directions of ASUE activities are: providing a high quality higher education based on modern standards, training of qualified economists, retraining specialists and improving their qualifications, conducting research in economics, reform of education process in order to successfully integrate education and research activities, as well as developing and implementing the university system of specialties and specializations.

Webpage: http://www.asue.am/

2.3 Gavar State University (GSU)

The **Gavar State University** (GSU) is a public institution providing higher education to the population in the Gegharkunik region and outside it. Established in May 1993, it has more than 3000 full-time and part-time students, three buildings in its campus, dormitory for incoming lecturers, creating facilities in order to nurture the necessary learning environment for its students and academic staff. Since 2007 education at GSU has been organized according to Bologna principles, particularly focusing on European Credit Transfer and Accumulation System (ECTS). The University has internet access in its four large and equipped computer laboratories. The University seeks internationalization and enhancement of collaboration with European universities aiming at the exchange and development of scientific and practical skills of its students and professors. *Webpage: http://www.gsu.am/*

2.4 Gyumri State Pedagogic Institute (GSPI)

The **Gyumri State Pedagogic Institute** (GSPI) was founded in 1934. Currently the Institute has more than 5.500 students including the Correspondence learning department, where more than 3.000 students study. The Institution offers Bachelor (30 specialties), Master (11 specialties) and PhD (4 specialties) programs.

The three cycle educational system has been established in GSPI since 2004 and European Credit Transfer and Accumulation System has been implemented since 2007. Reforms aimed at implementing the standards of Bologna Process are being held in GSPI coordinated by Educational Department and Office of International Relations and Reforms. Activities aimed at establishing and developing the Internal Quality Assurance System are carried out in GSPI. Currently, GSPI participates in 2 Tempus Projects.

Webpage: http://www.gspi.am/

2.5 National Polytechnic University of Armenia (NPUA)-former SEUA

The **National Polytechnic University of Armenia (NPUA)-**former State Engineering University of Armenia (SEUA) is the legal successor of Yerevan Polytechnic Institute, founded in 1933. It was and remains the premier provider of technological education in the country. SEUA has over 10,500 students at all 3 study levels. The number of academic staff exceeds 900, most of them holding doctoral degrees. The specialization scope of SEUA includes over 50 Bachelor's and about 40 Master's specializations in Engineering, Industrial Economics, Engineering Management, Applied Mathematics and Sociology.

SEUA has a leading role in the running reform of HE in Armenia. It has successfully implemented over 10 TEMPUS projects in the areas of university management and educational reforms, curricular renovation and strategic planning. During the last decade, SEUA has developed an extended network of international cooperation including many leading EU universities and research centers. The University is a member of EUA and other international associations and networks.

Webpage: http://www.seua.am/

2.6 National University of Architecture and Construction of Armenia (former YSUAC)

The history of the Armenian School of Architecture and Construction started in 1921, with the opening of a Technical School in Yerevan State University. In July 1930, the Armenian Construction Institute was founded. In February 1933, it was restructured into the Polytechnic Institute. Pursuant to the Decree N339 of July 11, 1989 of the USSR Council of Ministers, on the basis of the related departments and chairs of the Yerevan Polytechnic Institute, the Architectural/Construction Institute was established which was renamed as the Yerevan State University of Architecture and Construction and involves today about 4000 students and more than 700 employees. YSUAC is only university in Armenia in the field of Architecture and Construction. Its basic activities are Higher Education, Post-Graduate Professional Education,

Scientific Research and Development. YSUAC has established international cooperation with many countries in Asia, Europe and America. The main management body is the Council.

Webpage: http://nuaca.am/

2.7 Yerevan State Academy of Fine Arts (YSAFA)

The **Yerevan State Academy of Fine Arts** (YSAFA) was founded in 1945. It has two faculties: Fine Arts and Design and Decorative Applied Arts. YSAFA consequently has eight departments: Painting, Drawing, Graphics, Design, Sculpture, Computer Design, Textile Design and Decorative Applied Arts. Beginning from 2007-2008 academic years YSAFA was integrated to European Credit Transfer System (ECTS). YSAFA has three-cycle educational system, which is Bachelor programme, Master programme and PhD (post-graduate programme). YSAFA also cooperates with many international institutions. It has bilateral educational agreements with higher education institutions in France /Reims, Limoges, Lyon, Marseille, Russia, Check Republic, Ukraine and several international projects, workshops and conferences. The head of International Relations department performs general coordination of YSAFA internationalization process, student exchange process, establishment of educational contracts and maintaining them.

Webpage: http://www.yafa.am/

2.8 Yerevan State University (YSU)

The **Yerevan State University** (YSU) was founded in 1919 and is the largest university in Armenia. Since 1995-96 academic year, YSU has applied the two-level (BA and MA) educational system. Over 54 different undergraduate (bachelor's) and 186 postgraduate (master's and postgraduate) programs are offered. Academic staff is comprised of about 1,250 professors. More than 30 academicians of NAS RA perform scientific and pedagogical activities at YSU. At present the university has up to 18,000 students in 20 faculties. Currently YSU has bilateral agreements with almost 150 universities and scientific centers in 40 countries around the world. YSU is actively involved in many grant programs and also in several international project such as Tempus, DAAD, USAID, ISTC, CRDF, etc., and numerous research projects. Since 2007 YSU has been actively participating in the Erasmus Mundus "External Cooperation Window for Georgia, Armenia and Azerbaijan" programme.

Webpage: http://www.ysu.am/

Chapter 3: Armenian Graduate Profiles

ARMENIAN NATIONAL AGRARIAN UNIVERSITY (ANAU)

Report
ANAU Graduates' Profile
(Pilot Survey)

YEREVAN - 2015

Introduction

In the scope of *Higher Education Network for Human Capital Assessment and Graduate Employability in Armenia (HEN-GEAR)* TEMPUS project ANAU collected data from 2014 graduates. ANAU Graduates' Profile Report is a pilot survey based on AlmaLaurea Interuniversity Consortium (Italy, Bologna) experience. The objectives of the survey are to identify the main features of the ANAU's graduates, to provide the information to those, who are involved in policy development for the further progress of university education system, to provide a tool kit for the university study programs selection and to evaluate current relations between universities and companies. The Survey included analysis of variables coming out from 6 main sections included in questionnaire. These are:

- Personal information
- Education and training
- Information on the course that the graduate is completing now
- Evaluation of the course that the graduate is completing now
- Information about the family
- Future intentions and perspectives

Data

In 2014 ANAU had more than 900 graduates' registered on Hen-Gear platform. In the pilot survey there are 660 observations, which are satisfying the criteria established by the research team of the project. The requirement is that at least for 3 questions out of total 6 questions that are considered as essential for the Report are answered, particularly:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

Estimation results

The survey shows that 45.4 % of respondents are female; consequently 54.6 % of ANAU graduates are male. All graduates were full-time bachelor students which means that they earned their credits through class work done during university attendance. The interviewed graduates include several specialties, particularly economics (33.9 %),

Figure 1. Gender of ANAU graduates in 2014

45,41% F

54,59% M

agribusiness and marketing (25.2%), foodstuff technologies (13.4 %), etc.

Figure 2. ANAU departments
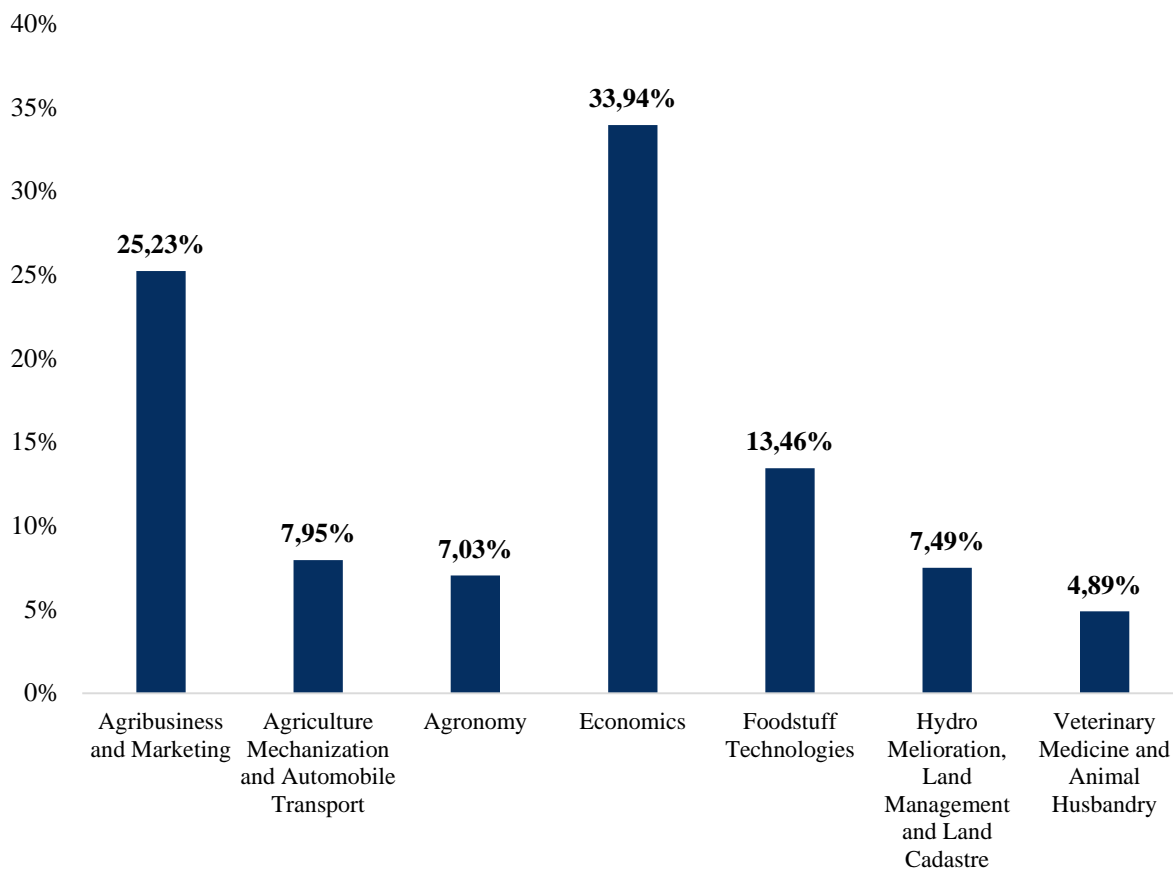
Education and trainings of graduates

According to the analysis, only 39.44 % of graduates are from Yerevan, another 57.74% are representatives from 10 regions of Armenia and 2.82 % of respondents are from foreign countries.

Figure 3. Graduates birthplace

Figure 3. Graduates birthplace
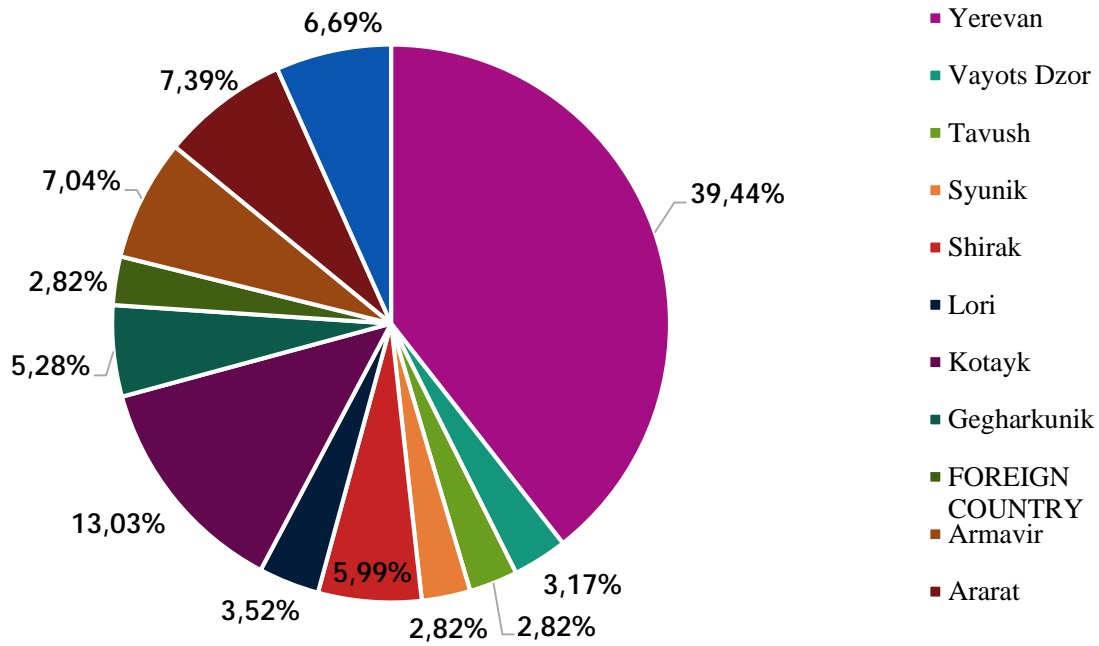
83.03% of ANAU graduates have Secondary school (1-12 years) diploma, approximately 1% have diploma of junior specialist (from colleges), and only 13% of graduates have honorary diploma. 2% of interviewed graduates have academic degree prior to current education. 89% of respondent's native language is Armenian. 81.1 % of graduates first foreign language is Russian, among those 49% evaluated their writing and speaking skills good, 13% of interviewed graduates assessed their skills excellent. 14.7 % of respondent's second foreign language is English. The third foreign language for ANAU graduates is German.

Figure 4. Evaluation of Russian writing and speaking skills of graduates
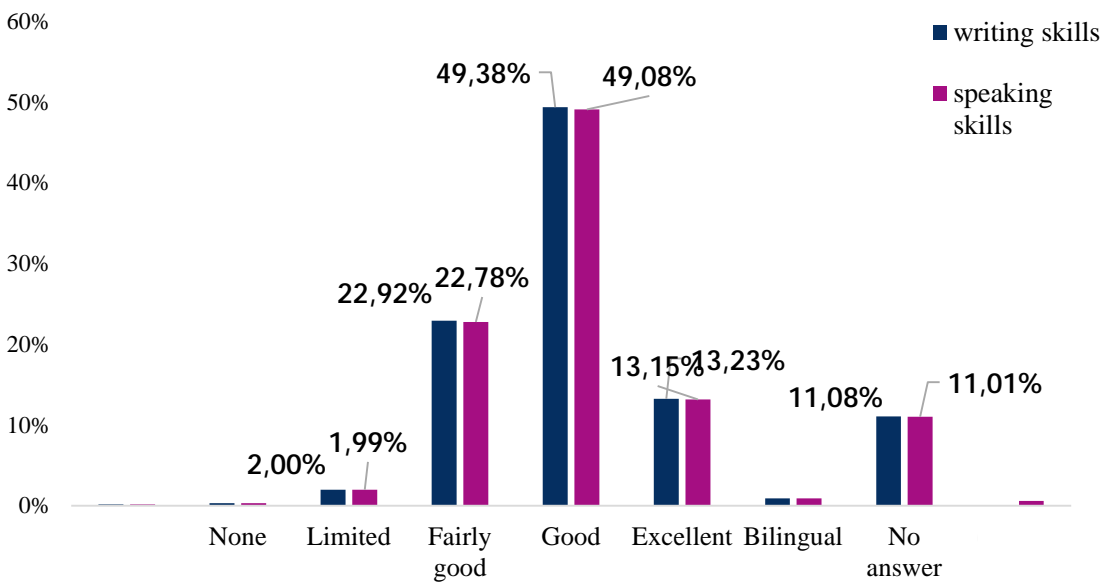
Evaluation of IT Skills: 51.2% of interviewed graduates evaluated their knowledge of operation systems excellent. 6.2% of 2014 graduates have certificates proving their IT knowledge.

Figure 5. Evaluation of IT skills
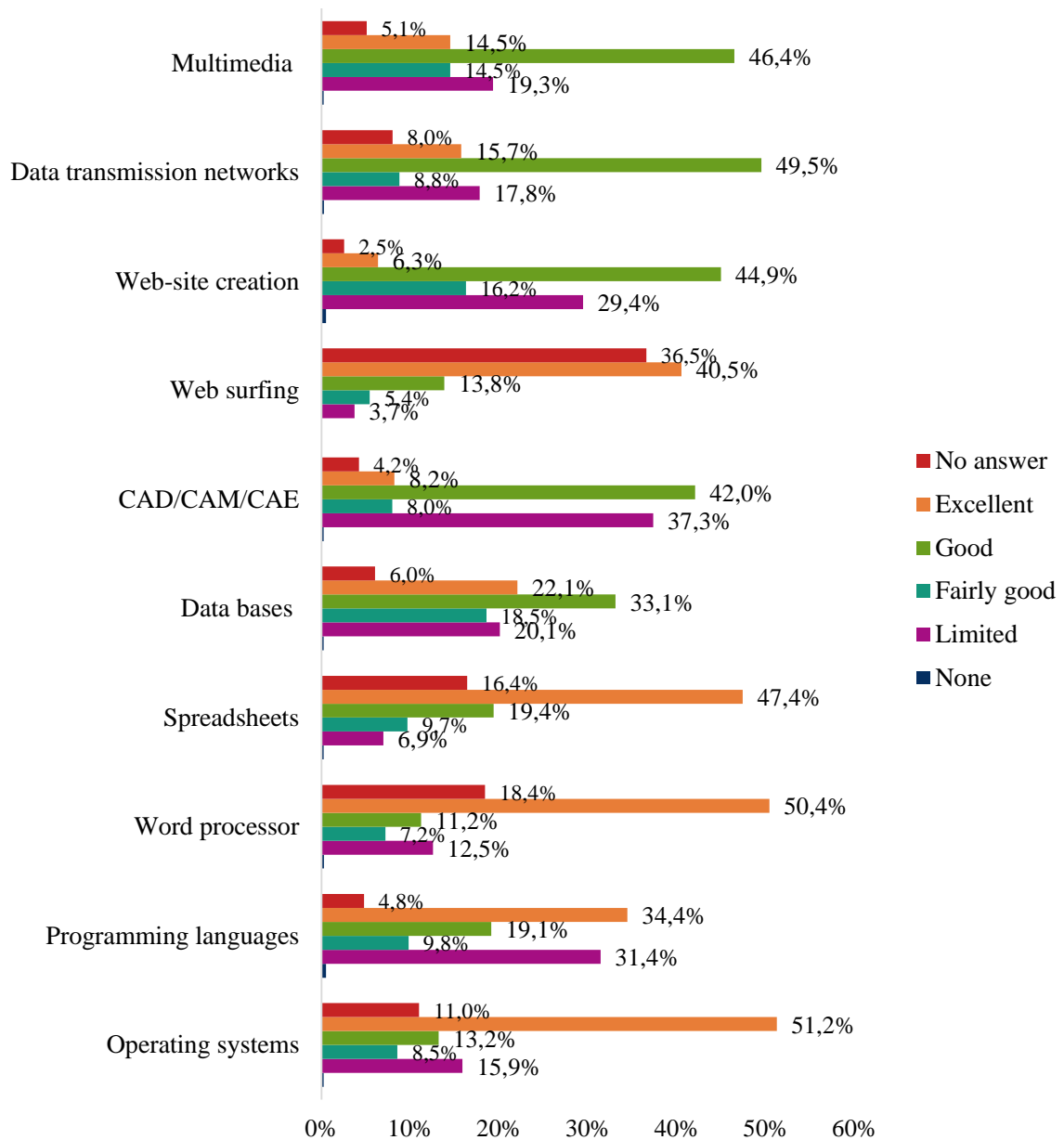
Evaluation of the course

To the Question "As far as teaching and learning materials provided to you during the study were useful in preparing for the exam?" 40.06% of respondents' answer was "always or almost always adequate" and 42.35 % responded that "it was adequate for more than the half of the exams". 40% of graduates mentioned that overall exam organization (dates and timetable, information given, registration etc.) was acceptable.

Figure 6. Evaluation of teaching and learning materials
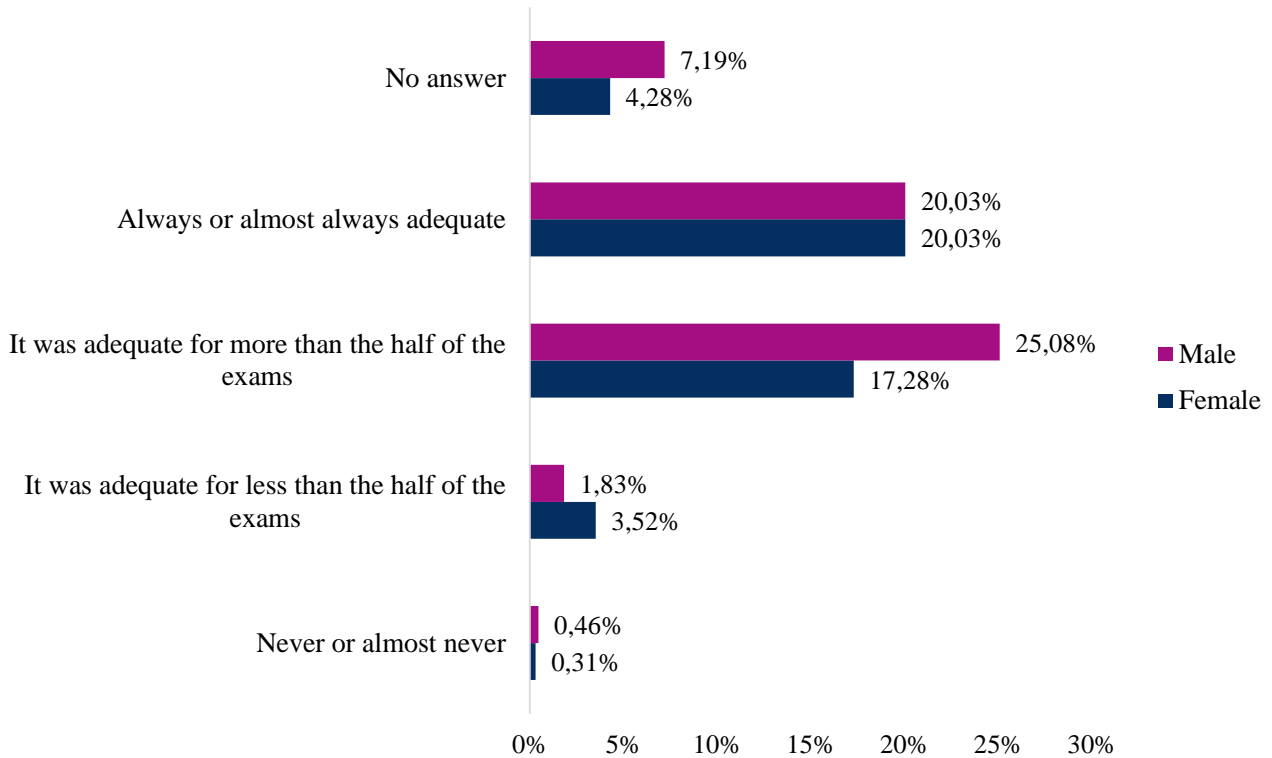
The graduates' satisfaction with the learning methods, as well as organization of final exams was analyzed based on the information received from the answers of graduates given to the questions "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" and "Were the evaluation methods used during interim and final exams coherent with knowledge and skills acquired during the course of study?". The results of the statistical analysis are displayed graphically on the Figure 7. It shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 21.9% of the respondents gave the answer "yes, definitely", 32.4% - "more yes than no", and 6.27 % - "no, definitely" and "more no than yes".

Figure 7. Evaluation of learning methods used during exams

Evaluation of methods used during interim and final exams
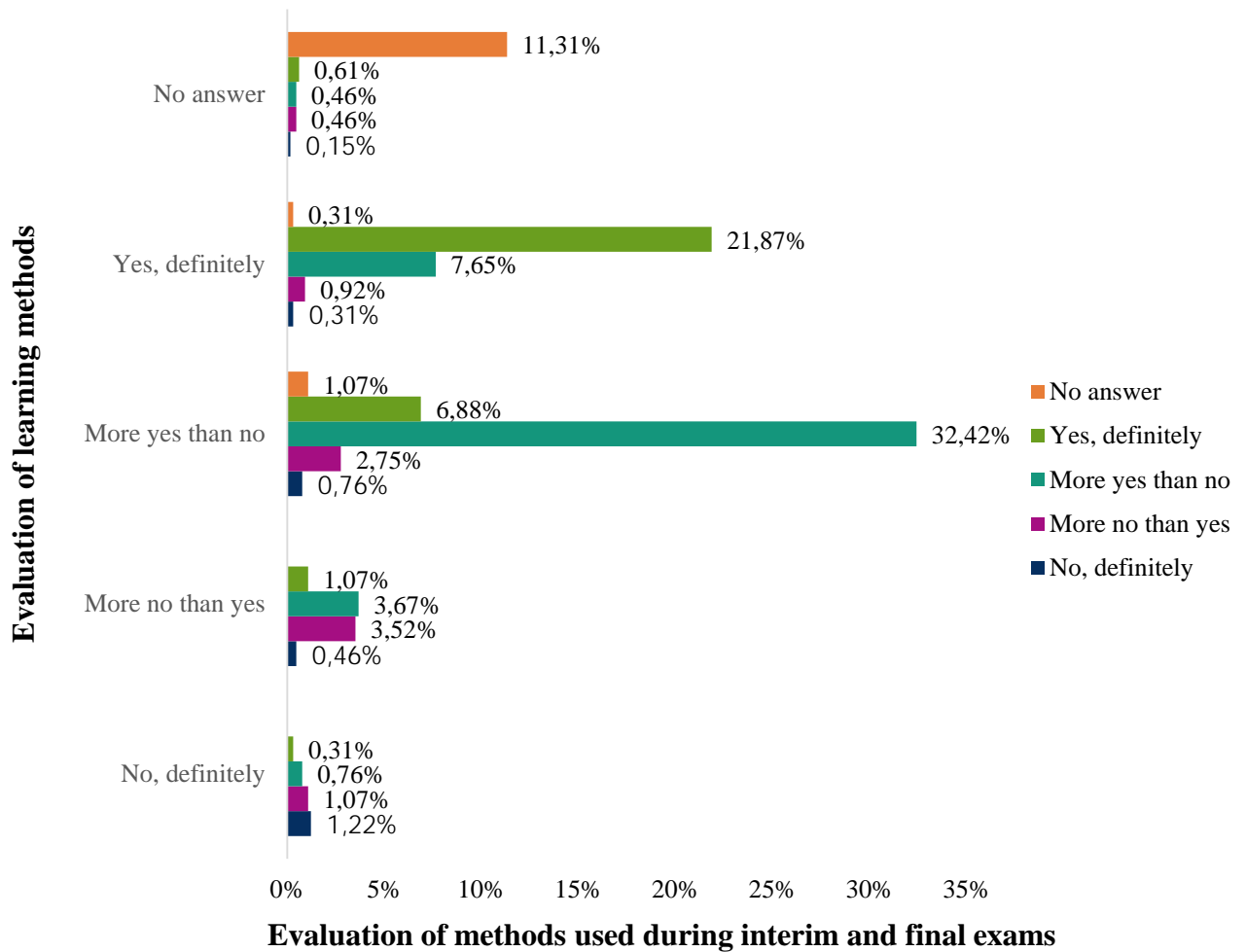
Particularly, 32% of the respondents answered "yes, definitely" and 45.6 % - answered "more yes than no" to the question "Did the teachers help and drive you in the acquisition of knowledge and skills related to your course of study?"

Analysis shows that 15.14% of ANAU graduates at the time of university studies spent their time out of class on a working activity, as well as 5.99% of respondents were working on a part-time job while attending classes.

As the chart on figure 8 shows, 29.6% of ANAU graduates were working. And 16.7% of graduates' current working activities were relevant to their university studies.

__Figure 8__. Evaluation of working experience

Is your current working activity relevant to the university studies you carried out?
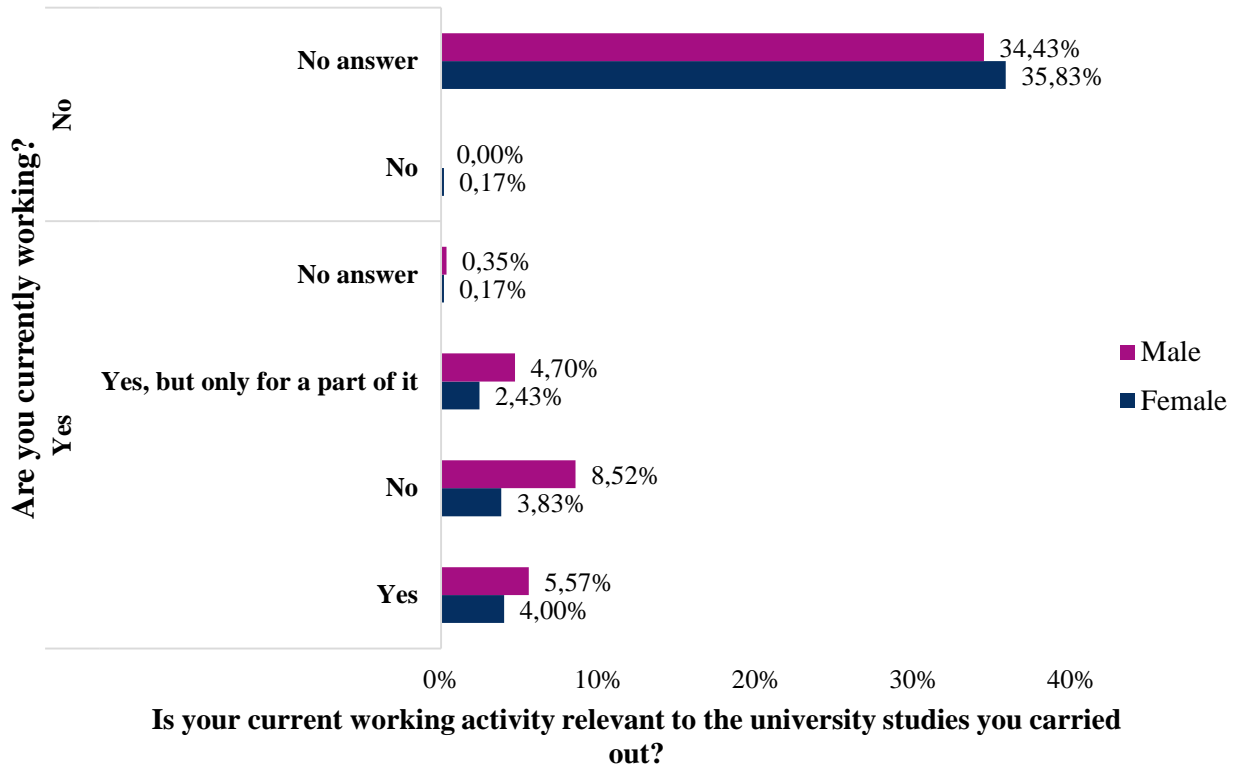
The database information collected from the 660 quality questionnaires indicates that only 1.53% of graduates have an experience of study abroad.

As the statistical analysis shows, the majority of the interviewed graduates had a training period/training practice during their university studies. 9.33% of practices have been carried out in a public organization or a public company. 50.8% of practices have been carried out in private companies. 2.45% of respondents mentioned that they had a job activity that has been subsequently acknowledged by the degree course.

Evaluation of the course that graduates are completing now

The graduates' overall evaluation of the university experience was analyzed based on the question "Are you on the whole satisfied with your course of study?". The majority of the respondents answered to this question positively. The statistical analysis shows that more than 80% of graduates of all ANAU specialties are satisfied with their course of study.

The results of statistical analysis are displayed graphically on the Figures 9.

Figure 9. *Evaluation of satisfaction from course by institutions*
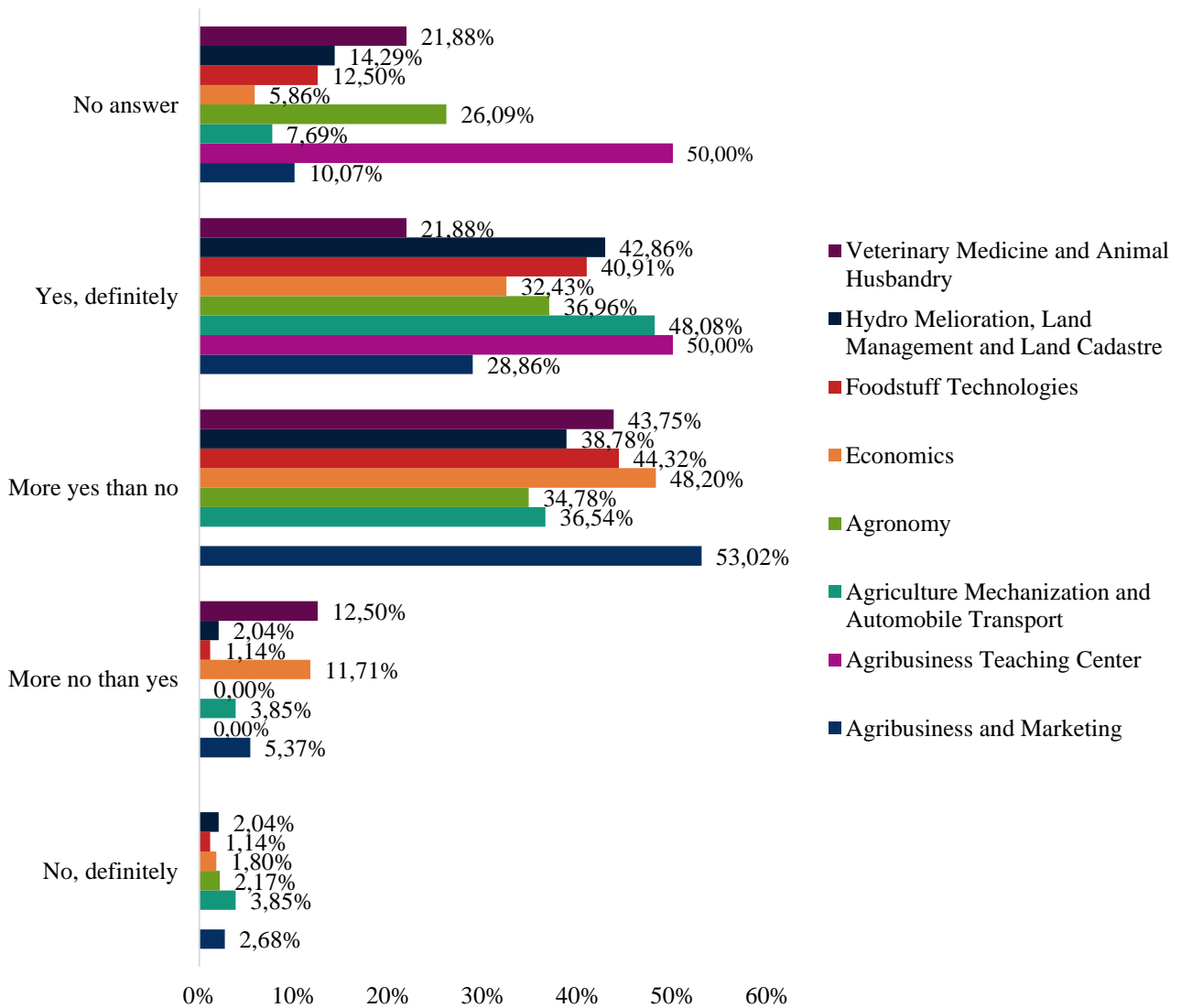
Evaluation of satisfaction from the relationship among ANAU students, administrative staff, teachers, etc. shows that majority of respondents are definitely satisfied with those relationships. The data of figure 10 shows, that dissatisfaction from the relationship with administrative staff was among 2.2% of the sample, and only 0.4 percent of respondents were dissatisfied from the relationship among students.

Figure 10. Evaluation of satisfaction from the relationship with
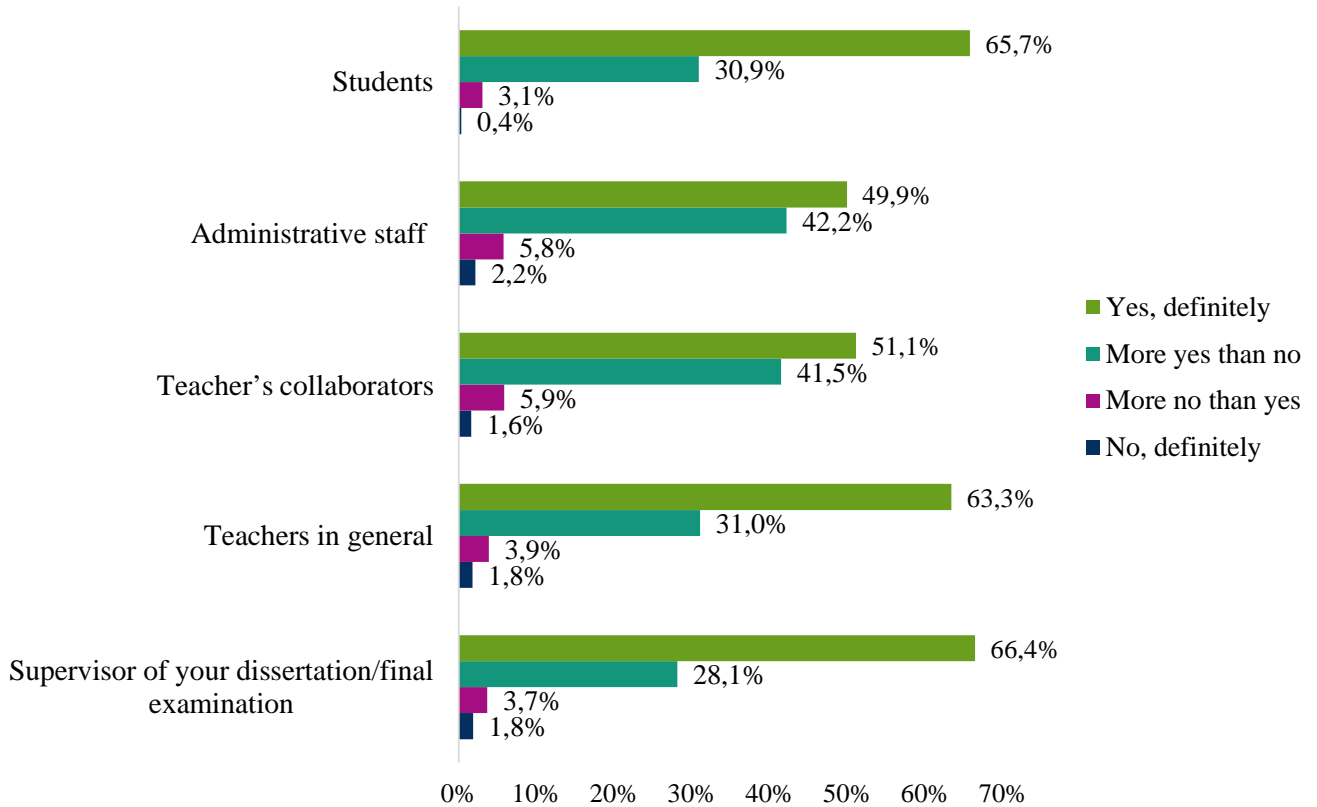
Figure 10. *Evaluation of satisfaction from the relationship with*

The fact that the majority of the graduates answered respectively to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this university" (38.23%) and "on the same university but in another course" (15.67%) is exciting. 25.82% of respondents refused to come back again to the university. 7.65% of graduates would not enroll at the university at all.

Figure 11. *Evaluation of graduates answers to question "If you could go back in time would you enroll again at university" by gender*
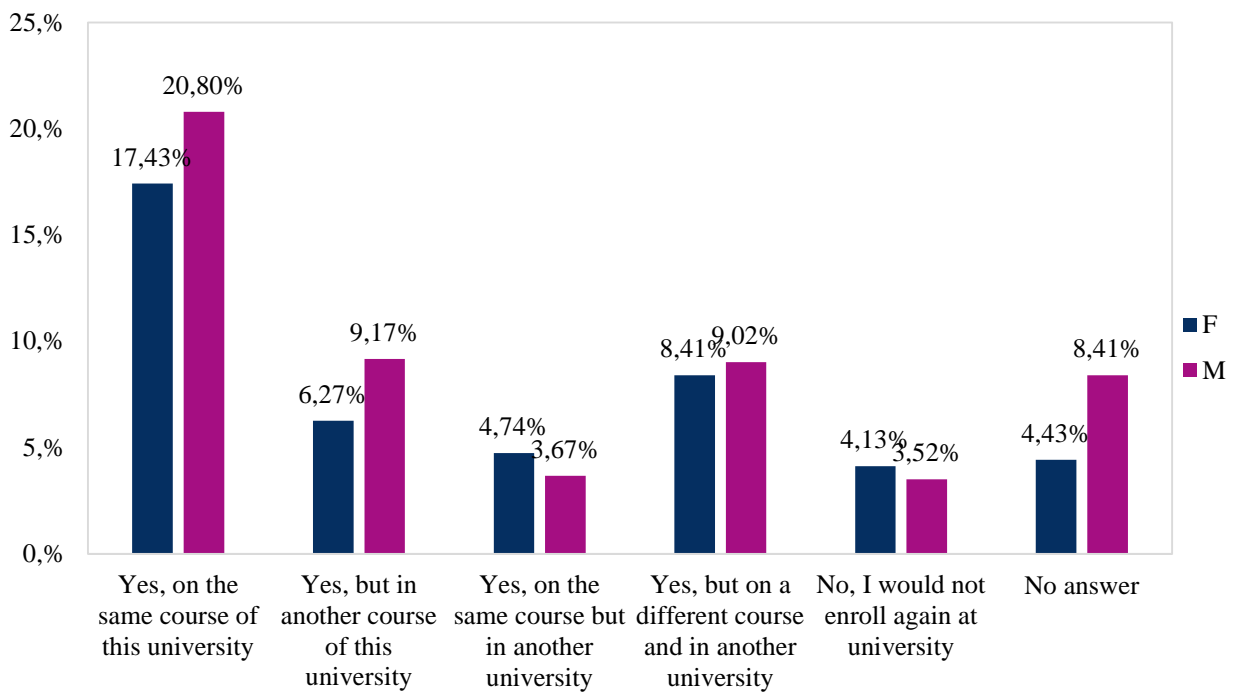
To the Question "What do you think about the classrooms in which lessons and exams took place?" 38.5% of respondent's answer was "often adequate".

48.62% of respondents assessed IT workstation facilities as available, but not in adequate quantity and 32.4% of respondents assessed facilities as available in adequate quantity.

46.64% of respondents evaluated library services (borrowing service, reading rooms, opening hours etc.) as fairly positive.

To the Question "Are you satisfied with the quality of the meals of the canteen?" 32.57% of respondent's answer was "more yes than no".

Statistical analysis has showed that the percentage of people satisfied with university's career center services is 45.11%. Although 33.33 % of graduates never consumed the career center services.

Figure 12. Evaluation of satisfaction from services of career center
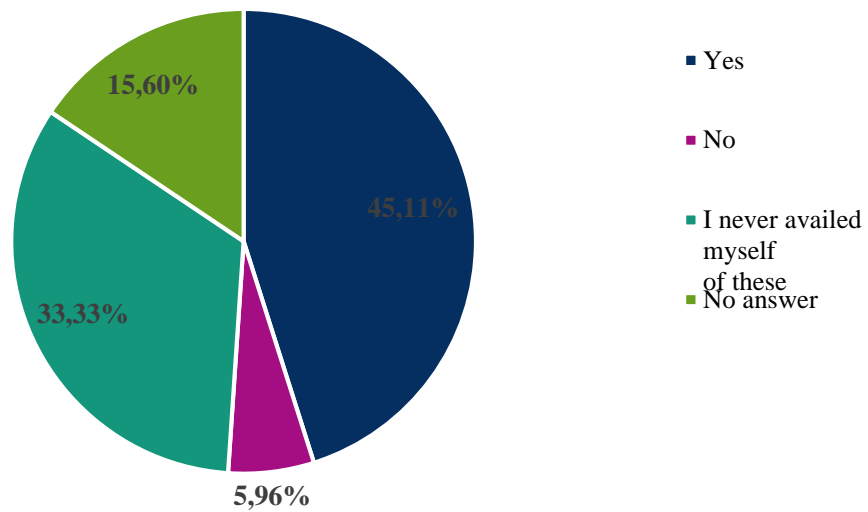
Information about the family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential questions among others. The statistical analysis shows that both parents of 57.49% of respondents have a university degree. Another 11.47% have secondary school-leaving certificate. And only 0.15% of respondents mentioned that their parents do not hold any degree.

Figure 13. Parent's qualification
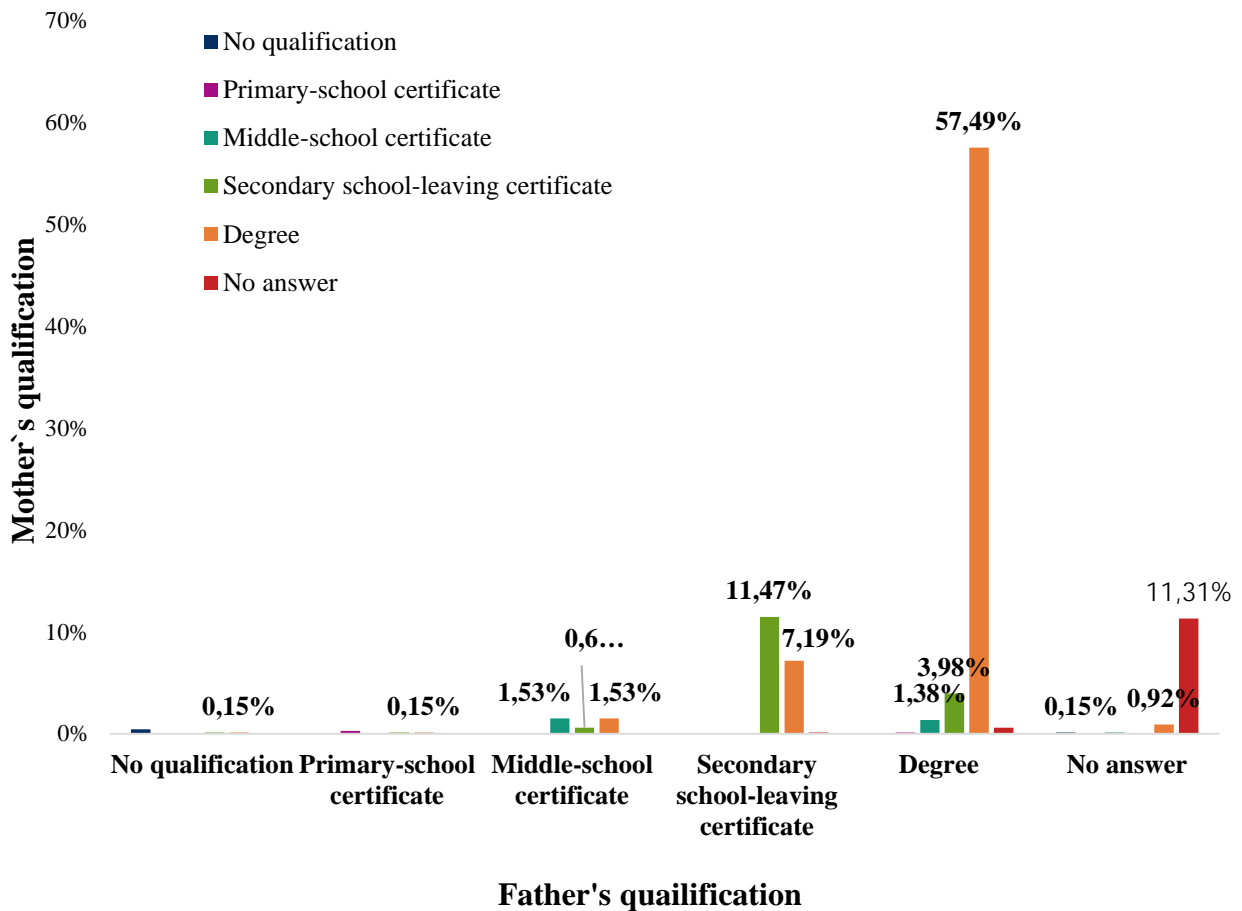
Future intentions and perspectives

According to analysis of the answers to the question "Do you want to continue study" 59.33% of ANAU graduates are willing to continue the education in the graduate school. Among the respondents who answered positively females and males were 47.42 % and 52.58 % respectively.

Figure 14. Evaluation of willingness to continue study
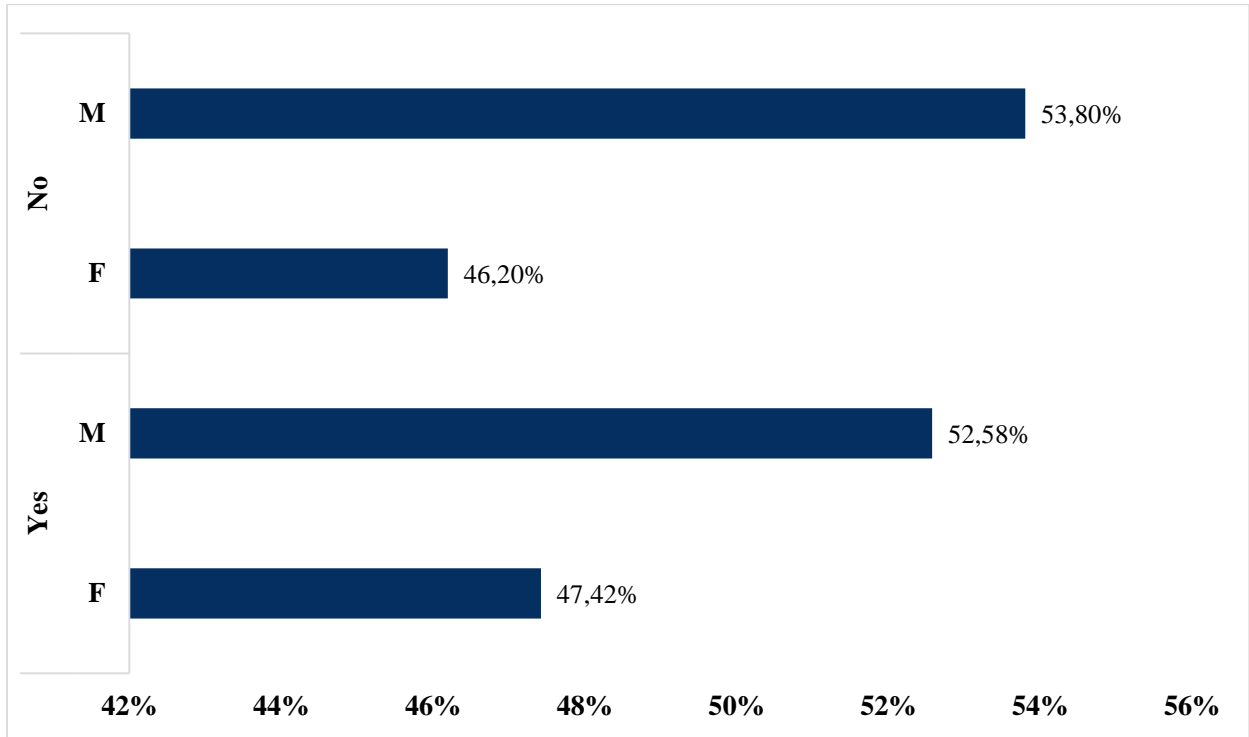
Among respondents who indicated the interest to graduate studies, 36.85% told that they would like to enroll at the same university that they have graduated. 7.8% of graduates indicated another country university, 13.76% indicated another Armenian university, 41.6% of respondents did not respond to this question.

Figure 15. Preferences regarding to the University for Graduate Study
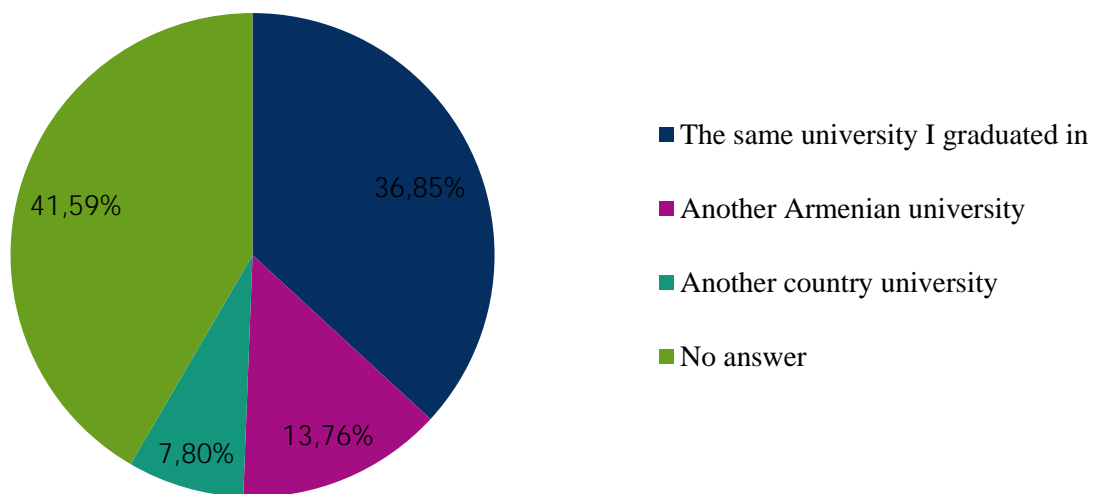
27.22% of ANAU graduates were interested on jobs in the public sector, and 39.91% of respondents had no preferences related to sectors.

Figure 16. Evaluation of preferred kind of job
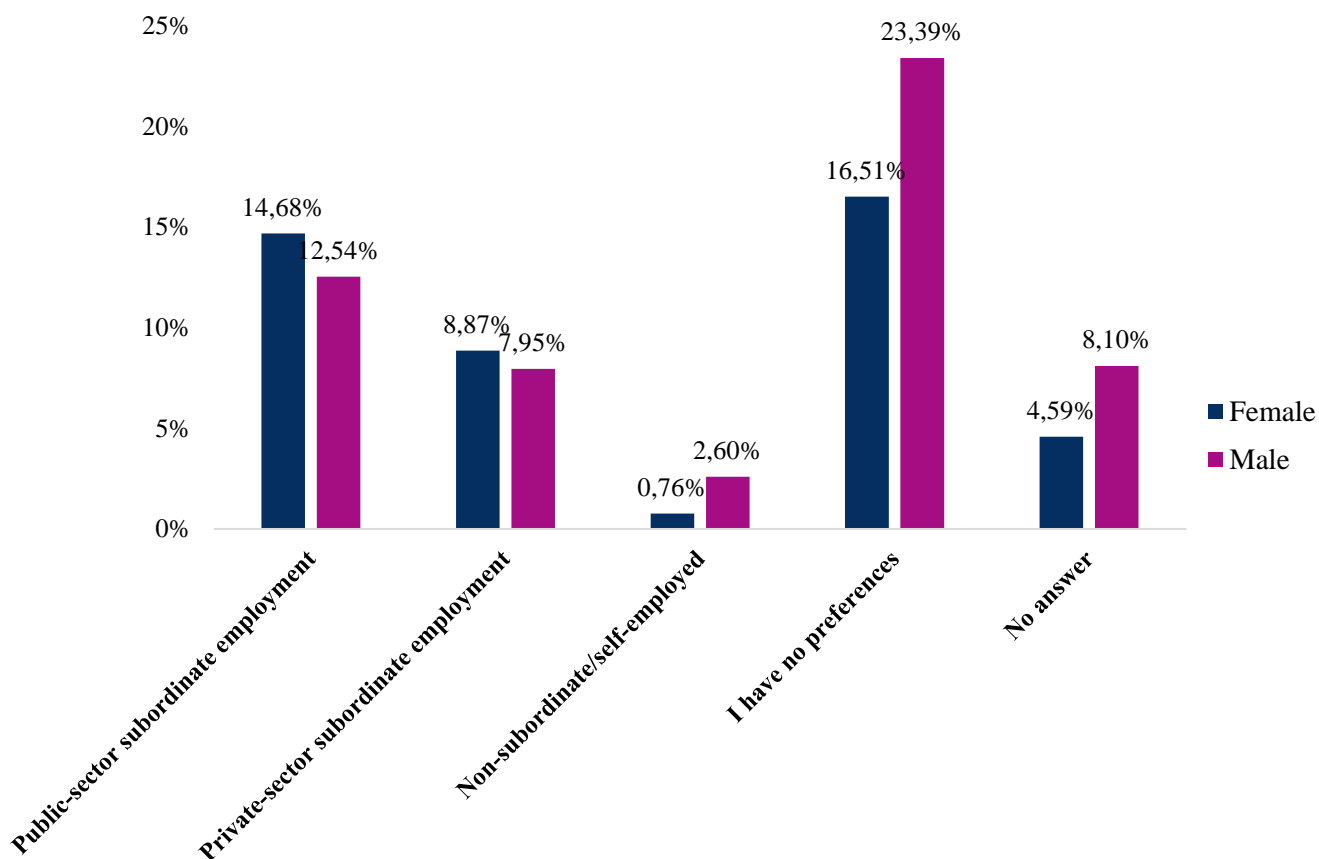
21.25% (15.14% of females and 6.12% of males respectively) of graduates preferred to work in credit and insurance field. For males (10.40%) the most preferred sphere was agribusiness. The last preferred sphere for ANAU graduates was health services and social welfare (0.15%) and building, constructing, planning and installing (0.76%).

Figure 17. Evaluation of preferred fields
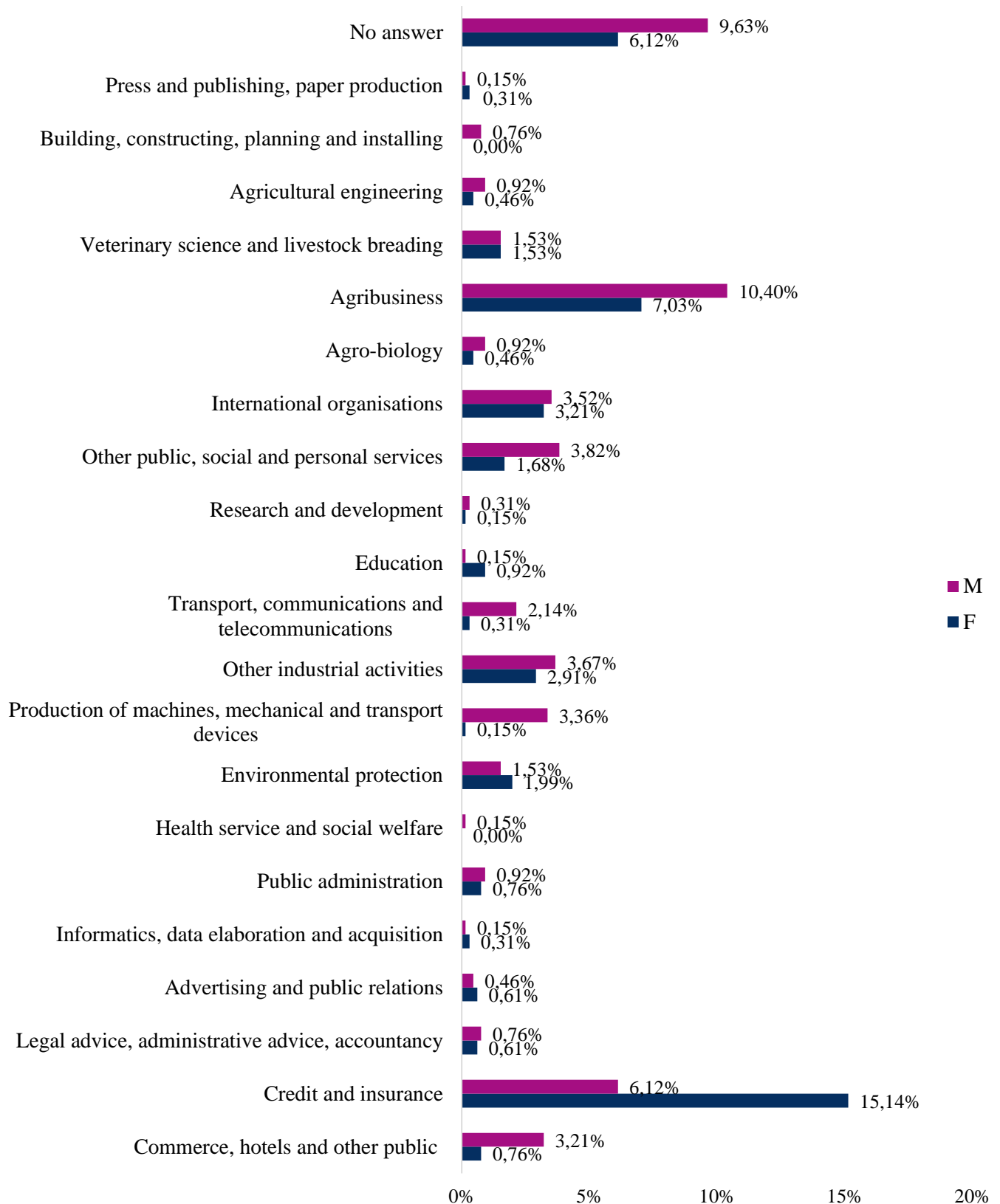
The majority of respondents indicated their interest in a specific industrial or administrative field for the further job, particularly 31.04% of all respondents indicated accounting, 39.76% management control, 40.06% finance, 38.84% marketing, and 35.47% production.

The analysis of the question "Are the following aspects relevant in the job you are looking for?" shows that 55.5% of ANAU graduates valued the most the profit prospects in the prospective job and also acquisition of professional skills (57.03%). The majority of respondents (66.82%) indicated that they prefer to work in the Republic of Armenia, particularly 58.26% of all graduates would like to find work in Yerevan and 51% of all respondents express their willingness to go back to the regions of residence. Statistical analysis shows that 62.14% of respondents would like to work in Armenia, 5.18% in U.S and 3.9% in Russian Federation.

Figure 18. Evaluation of preferred countries to work
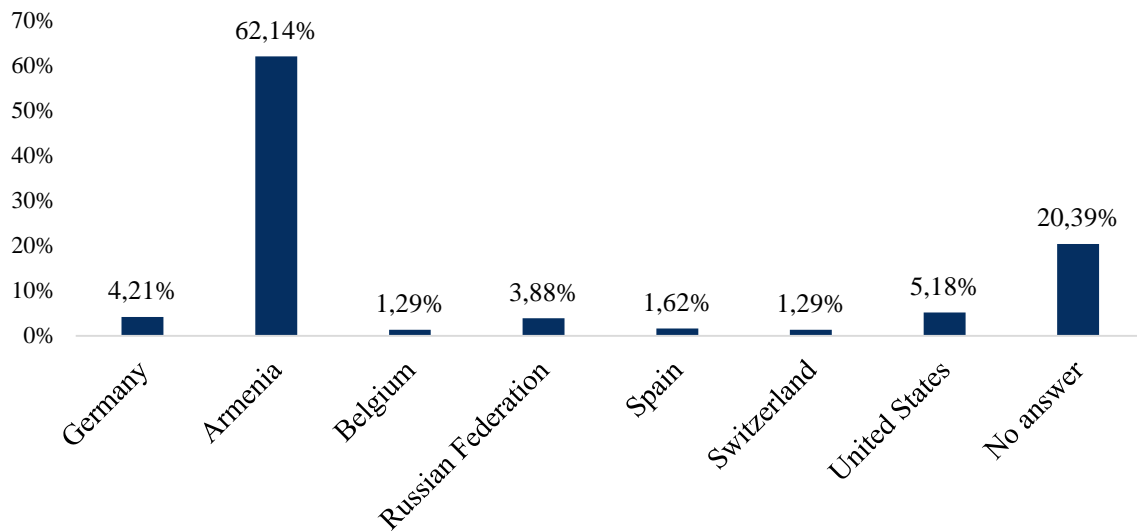
Figure 21 shows that 18.96 % of respondents were ready to travel, including changing residence, while another 30.12% were ready to frequent business travels, but without a change of the residence. Figure 21 shows that males were more prepared to business travels compared with females.

Figure 19. Evaluation of willingness to business travels
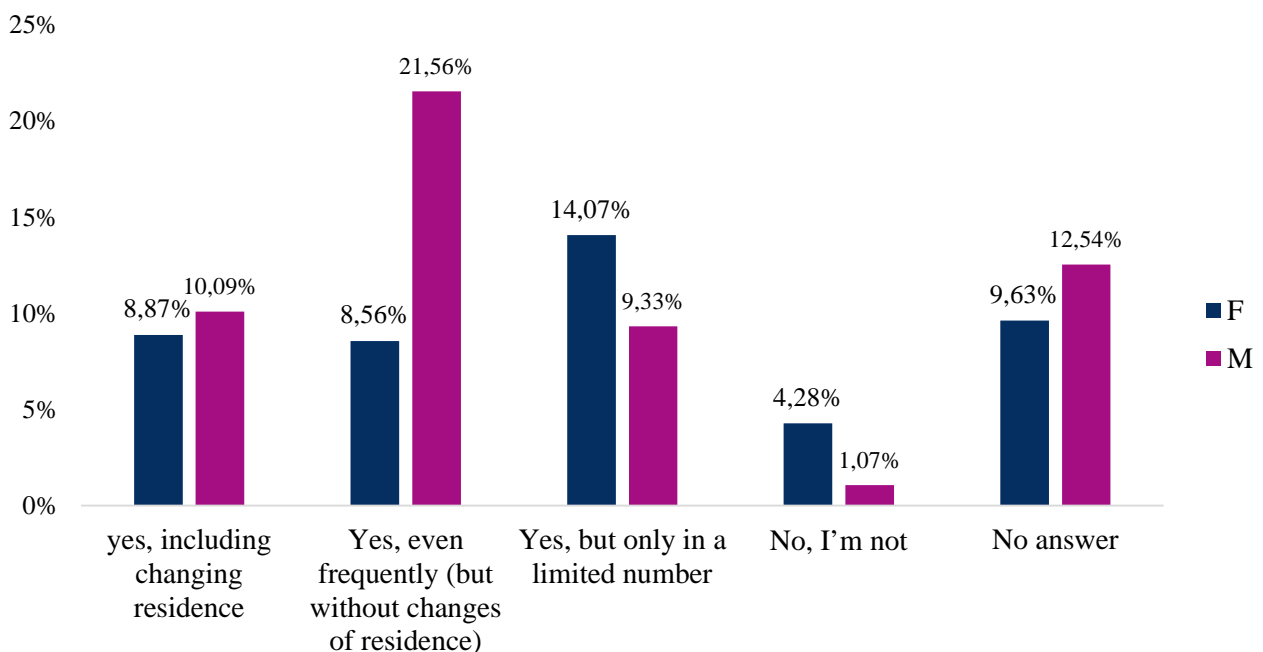
69.88% of respondents preferred to work in a full-time job, 48.32% of graduates expressed their willingness to work also in a part-time job.

To a question "How long do you think it will take for you to find a job after the graduation from the University?" 23.24% of graduates answered 1-3 months, 19.42% - 4-6 months and 13.9% of graduates indicated the answer "more than 1 year".

Figure 20. *Evaluation of ability to find a job*
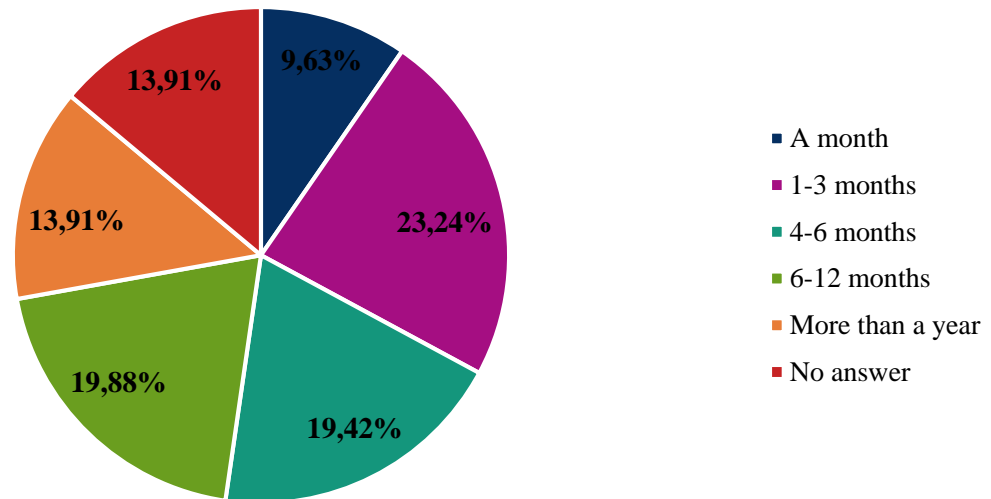
ANAU graduates in the near future will be looking for a job (18.5%) or continue university studies (17.13%). 33.94% of respondents were planning to do other activities, not mentioned above.

Figure 21. *In the near future, they…*
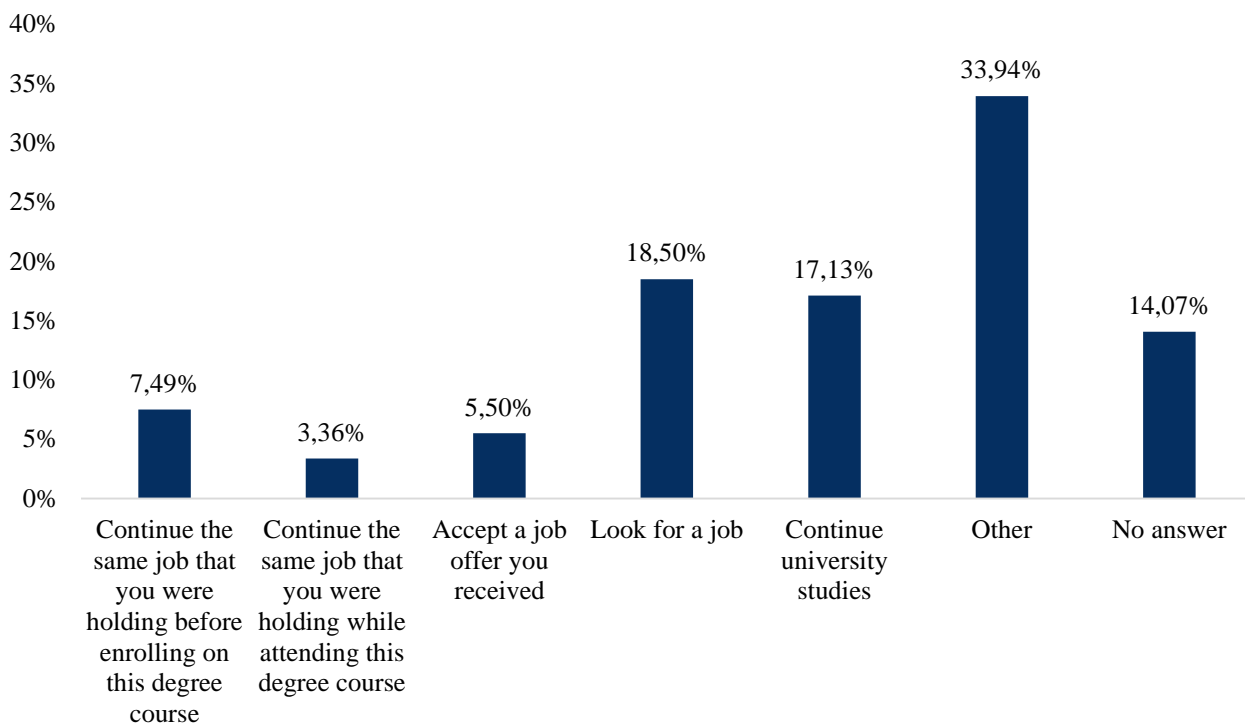
Conclusion

In 2014 ANAU had more than 900 graduates registered in Hen-Gear platform. In the pilot survey there are 660 observations, which are satisfying the criteria established by the research team of the project. The following conclusions could be considered as the results of the ANAU graduates' survey executed for 2014:

- The Survey shows that 45.4% of respondents are females, consequently 54.6% of ANAU graduates are males. All graduates are full time students. 39.44 % of graduates are from Yerevan, another 57.74% are representatives from 10 regions of Armenia and 2.82 % of respondents are from foreign countries. 83.03% of ANAU graduates have Secondary school (1-12 years) diploma.
- 89% of respondent's native language is Armenian. 81.1% of graduates' first foreign language is Russian. 14.7% of respondent's second foreign language is English.
- 44.37% of interviewed graduates evaluated their knowledge of operation systems as good.
- The majority of the respondents (82%) are satisfied with the training and learning methods used at the university during their study.
- 29.6% of ANAU graduates were working. And 16.7% of graduates' current working activities were relevant to their university studies.
- More than 80% of graduates of all ANAU specialties are satisfied with their course of study.
- ANAU graduates want to be enrolled "on the same course of this university" (38.23%) and "on the same university but in another course" (15.67%).
- Both parents of 57.49% of respondents have a degree.
- 59.33% of ANAU graduates are willing to continue the education, 36.85% at the same university.
- 21.25% (15.14% of females and 6.12% of males respectively) of graduates preferred to work in credit and insurance fields.
- ANAU graduates in the near future will look for a job.

Armenian State University of Economics (ASUE)

Report
ASUE Graduates' Profile

(Pilot Survey)

YEREVAN - 2015

1. **Introduction**

The ASUE Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the HEN-GEAR Tempus project (October 2012-October 2015) and is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) experience, who is a key project partner. It contains an analysis of the features and performance of the graduates of the Armenian State University of Economics (ASUE) in 2014, focusing on a number of variables coming out from the six sets of the on-line platform's questionnaire used for the graduates' interviews. Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that graduate is completing now
- Evaluation of the course that graduate is completing now
- Information about the family
- Future intentions and perspectives

The objectives of the Report development are:

- to outline the main features of the ASUE's graduates,
- to provide the information to those, who are interested in ASUE or involved in policy development for the further progress of university education system,
- to provide a tool kit for university study programs selection.

2. Sampling of ASUE graduates surveyed

The total number of ASUE graduates in 2014 was 2624, which included the students of bachelor and master degree programs' (full-time and part-time). Accordingly, the number of ASUE graduates for full-time bachelor degree programs in 2014 was 1147, and the number of graduates of full-time master degree programs was 653. At the same time, in 2014 824 students graduated from part-time degree programs, which included 377 bachelors and 447 masters. Out of 2624 graduates 2060 (or 79%) were registered and filled in the questionnaires in the HEN-GEAR platform. The sample of the eligible questionnaires was developed for the pilot survey.

The Report contains survey results based on the sample including 1016 eligible questionnaires that were selected from the total number of filled in questionnaires which is 2060. The eligible questionnaires were selected via applying the exclusion criterion on completeness to the filled questionnaires.

Particularly, the questionnaire completeness criterion is satisfied, if the graduate presented comprehensive information at least for 3 questions of the questionnaire out of total 6 questions that are considered as essential for the Report, particularly:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The sample includes 1015 graduates' questionnaires, out of which 694 questionnaires were filled in by females and 321 – by males. As for the degree programs, 727 questionnaires were filled in by bachelor's degree programs' graduates and 288 – by master's degree programs' graduates. The bachelor degree program's (four years study) students within females and males constitute respectively 69,18% (or 486 female students) and 77,24% (or 241 male students), and the master degree program's (two years study) students within females and males constitute respectively 30,82% (or 217 female students) and 22,76% (or 71 male students) (Fig. 1).

Figure 1. The qualification level of study program of the survey sample's graduates by gender (percentage)
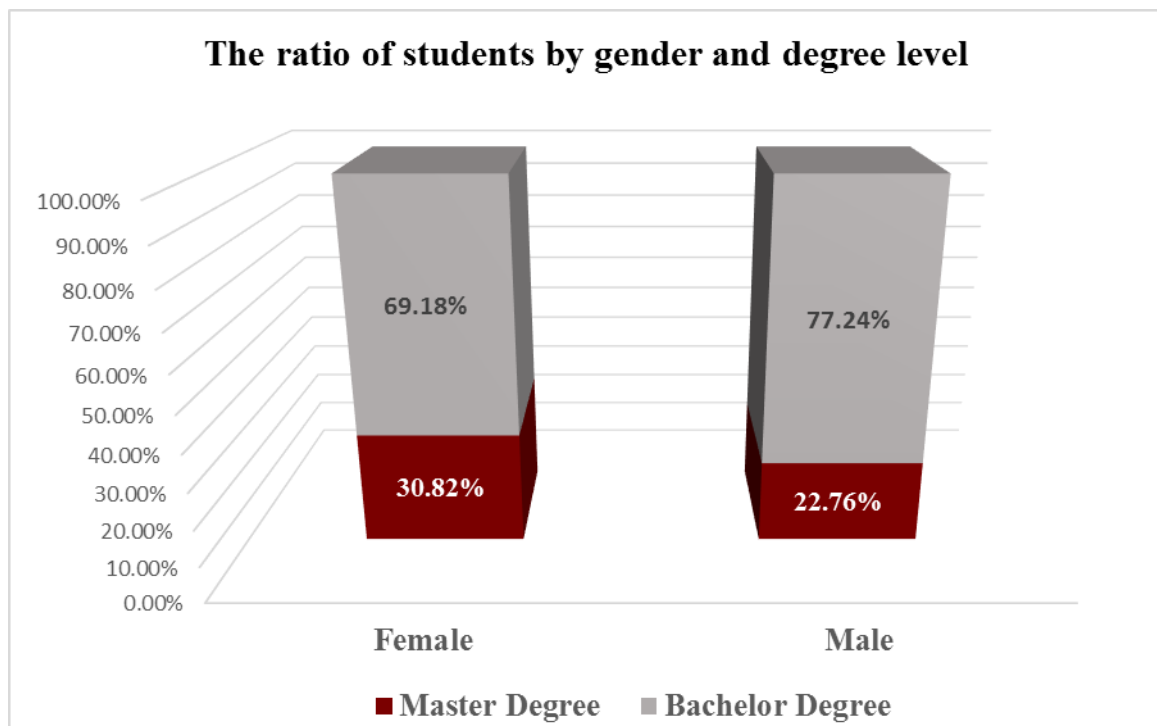
Most of the sample's graduates are full-time students which means that they earned their credits through the class work achieved by university attendance.

The sample of graduates interviewed includes a wide diversity of economic specialties in both Bachelor's and Master's Degree Programs (Fig. 2 & Fig. 3), particularly management, finance, banking, accounting, international economic relations, architecture, etc.
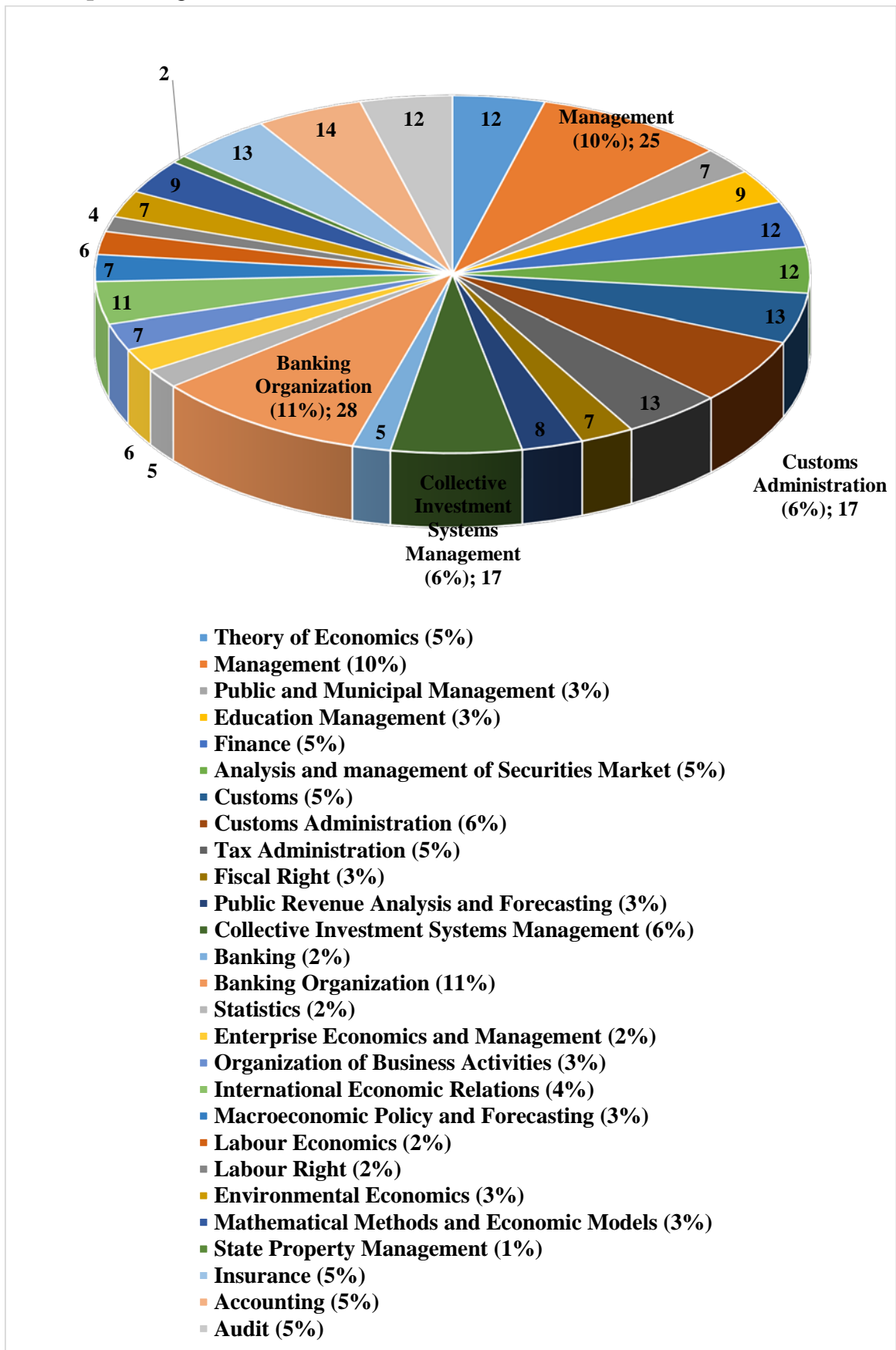
Figure 2. The specialties of ASUE Bachelor's Degree of the sample's graduates interviewed (numbers and percentage)
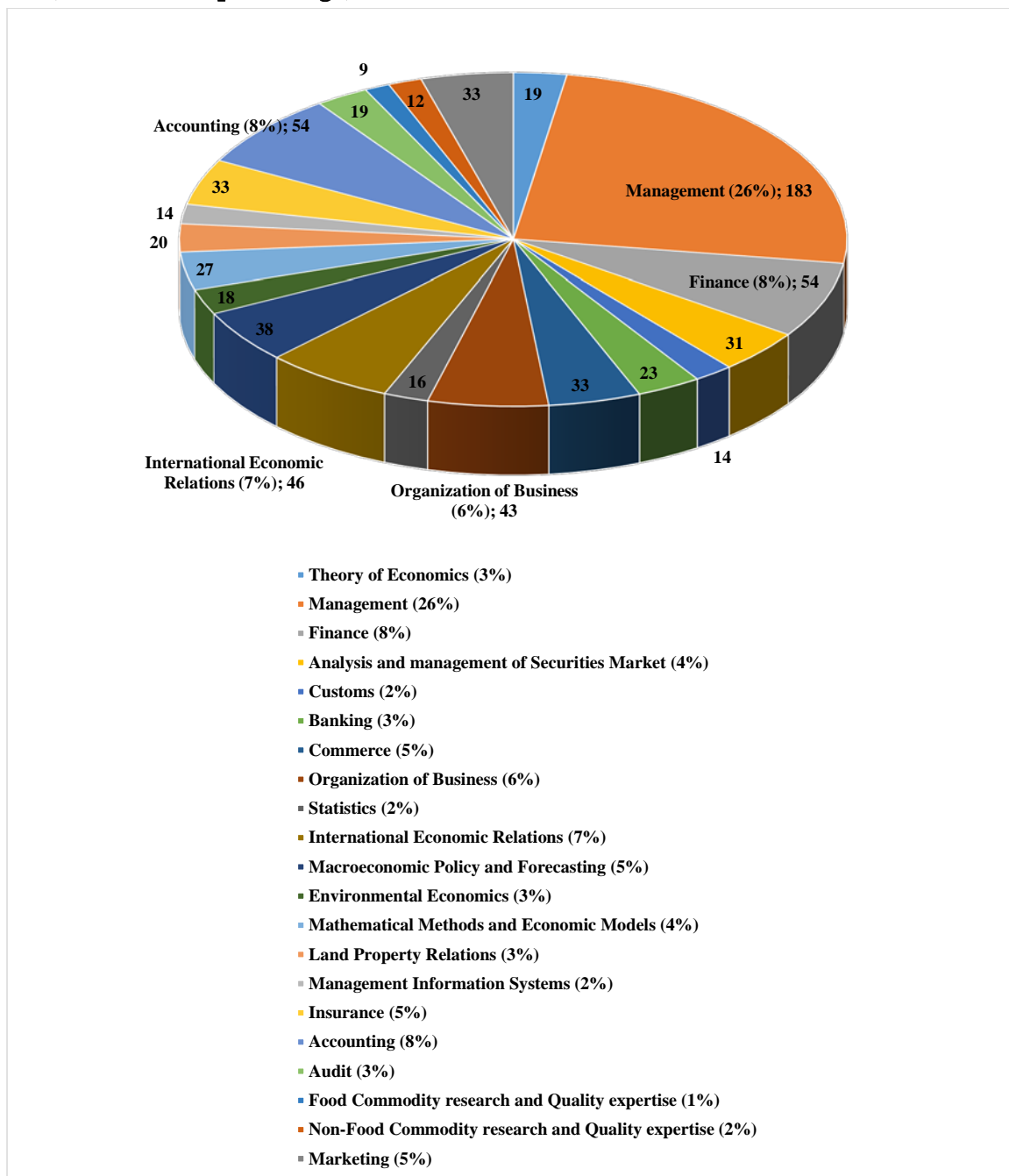
For Bachelor Degree programs the larger part of the sample (26%) are graduates of "Management" specialty, which is followed by "Finance" and "Accounting"- 8% each, "International Economic relations" (7%), "Organization of Business" (6%), the share of the other specialties does not exceed 5% (Fig. 2).

Figure 3. The specialties of ASUE Master's Degree of the sample's graduates interviewed (numbers and percentage)

- Theory of Economics (5%)
- Management (10%)
- Public and Municipal Management (3%)
- Education Management (3%)
- Finance (5%)
- Analysis and management of Securities Market (5%)
- Customs (5%)
- Customs Administration (6%)
- Tax Administration (5%)
- Fiscal Right (3%)
- Public Revenue Analysis and Forecasting (3%)
- Collective Investment Systems Management (6%)
- Banking (2%)
- Banking Organization (11%)
- Statistics (2%)
- Enterprise Economics and Management (2%)
- Organization of Business Activities (3%)
- International Economic Relations (4%)
- Macroeconomic Policy and Forecasting (3%)
- Labour Economics (2%)
- Labour Right (2%)
- Environmental Economics (3%)
- Mathematical Methods and Economic Models (3%)
- State Property Management (1%)
- Insurance (5%)
- Accounting (5%)
- Audit (5%)

For Master Degree programs the larger part of the sample (11%) are the graduates of "Banking Organization" specialty, 10% belong to "Management" specialty, which is followed by "Customs Administration" and "Collective Investment System Management"- 6% each, the share of the other specialties does not exceed 5% (Fig. 2).

3. Information on the course that graduates are completing now

The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the answers of graduates given by them to the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" of the Questionnaire. The results of statistical analysis are displayed graphically on the Figure 4. It shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 32% of the respondents gave the answer "yes, definitely" and 38% - "more yes than no".

Figure 4. Graduates' satisfaction with the training and learning methods (percentage)
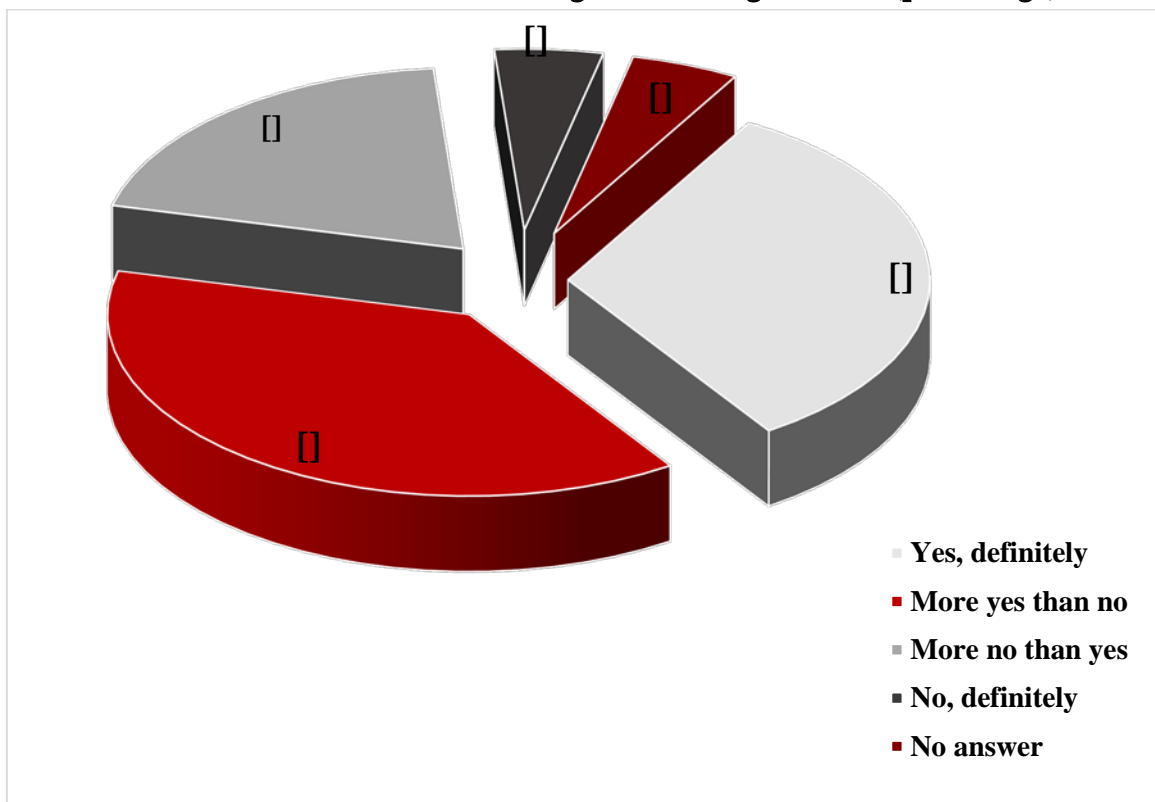
- Yes, definitely
- More yes than no
- More no than yes
- No, definitely
- No answer

The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire:

- Did you carry out a working activity while attending classes?
- At the time of your university studies did you spend time out of class on a working activity?

The results of statistical analysis are displayed in the Figures 5.

According to the results, only a few number of students used to work during the study, particularly, 12% of the respondents answered that they had a full-time job and 5% had a part-time job during the study and other 5% was busy with an occasional, irregular or seasonal activity.

Figure 5. The graduates' working activity during the study at the university (percentage)
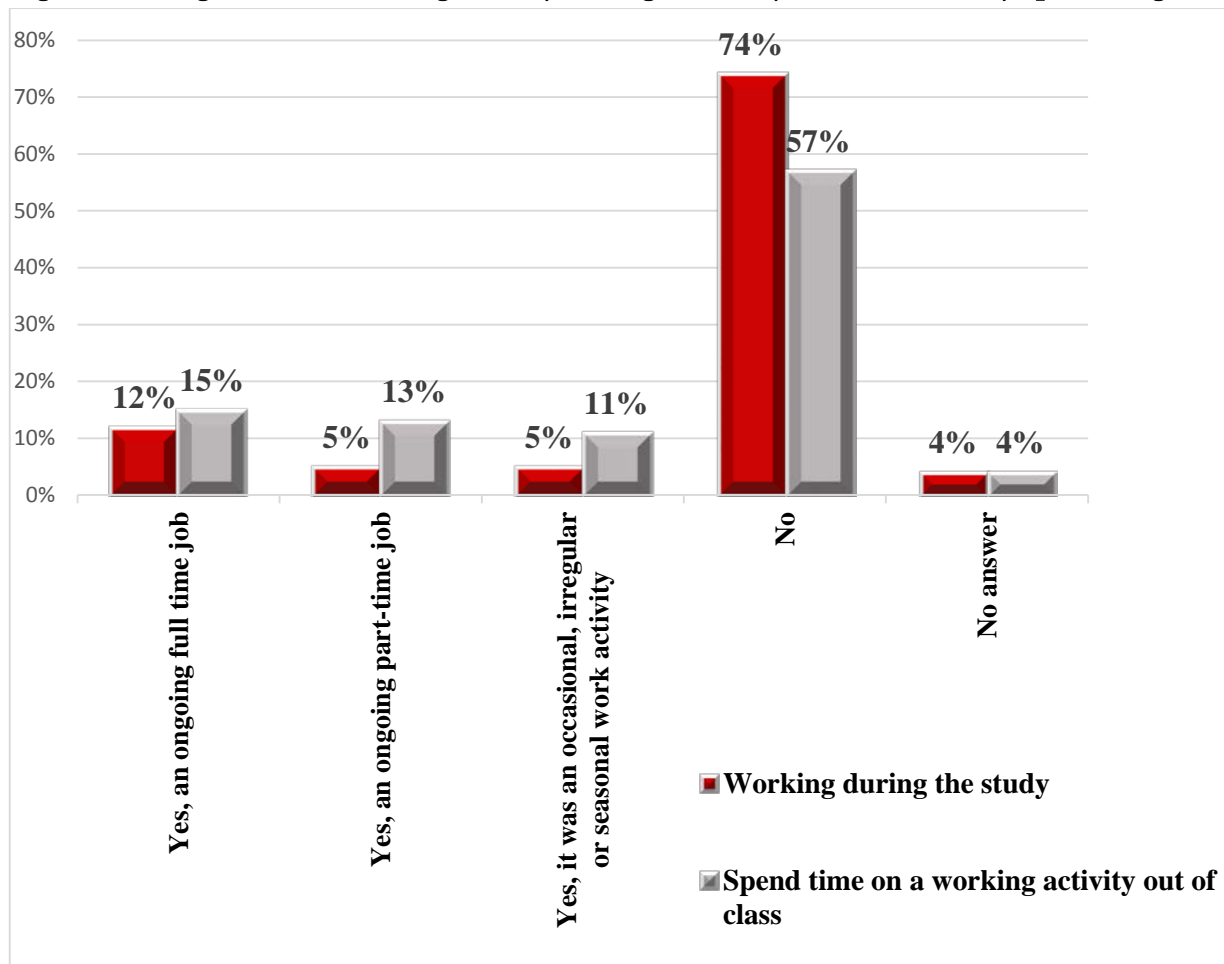
The database information collected from the 1015 quality questionnaires indicates that only a small number of graduates (20 graduates or 2% of the sample) have an experience of study abroad. This indicator allows making an assumption on the lack mobility among the students of the university. The mobility programs for the university students are activated within the European Commission "Erasmus Mundus" project launched in 2007. However, the number of students involved in the mobility programs remains still very small (Figure 6).

Figure 6. Students studied abroad during their study (percentage)
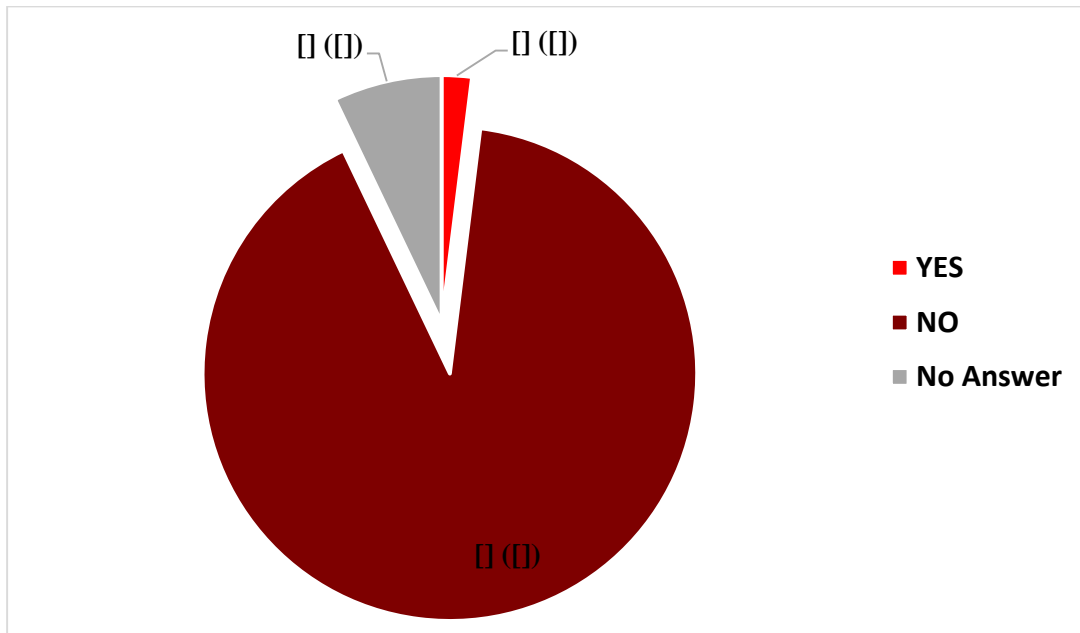
Evaluation of the course that graduates are completing now

The graduates' overall evaluation of the university experience was analyzed based on the information received from the answers of graduates given by them to the question "Are you on the whole satisfied with your course of study?" of the Questionnaire. The majority of the respondents answered to this question positively. Particularly, 41% answered "yes, definitely" and 38% - "more yes than no". The results of statistical analysis are displayed graphically on the Figures 7.

Figure 7. Are you satisfied with your course of study? (percentage)
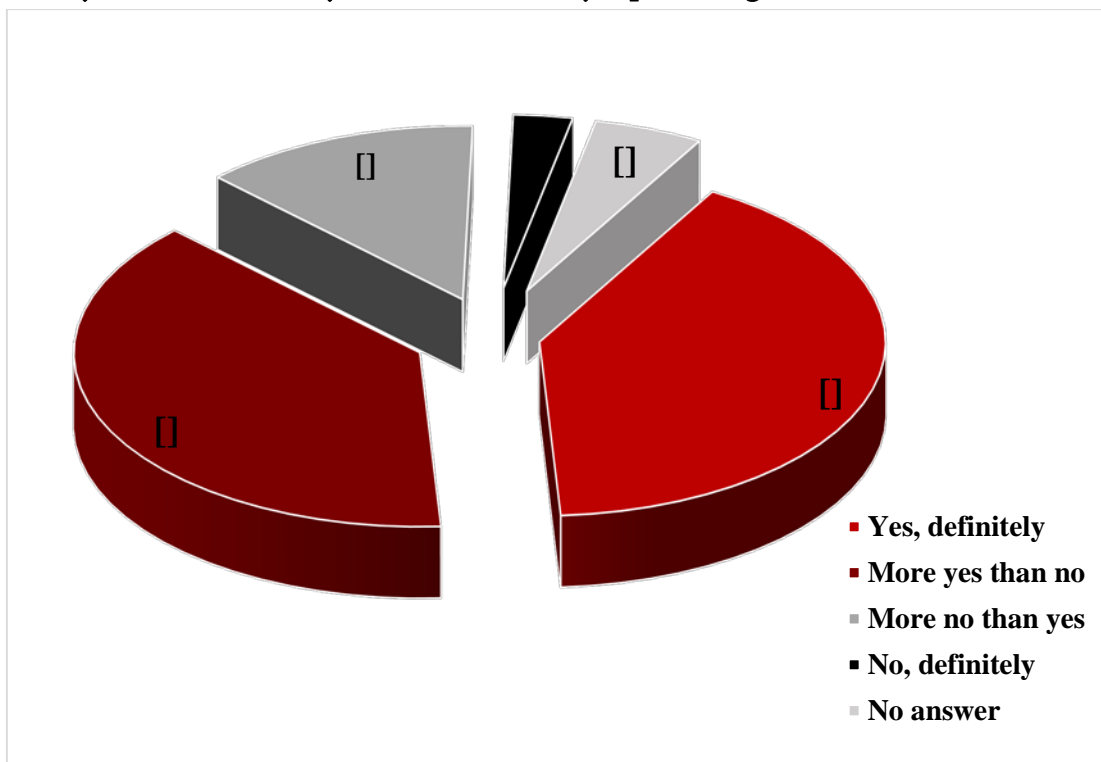
The fact that the majority of the graduates answered respectively to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this university" (52%) and "on the same university but in another course" (20%) is exciting (Fig 16). Only 5% of the respondents answered that they want to be enrolled "on the same course but in another university", 14% preferred to be enrolled "on a different course and in another university", and some of the graduates (3%) wouldn't like to enter a university at all.

Figure 8. If you could go back in time, would you enroll again at university? (percentage)

- Yes, on the same course of this university
- Yes, but in another course of this university
- Yes, on the same course but in another university
- Yes, but on a different course and in another university
- No, I would not enroll again at university
- No answer
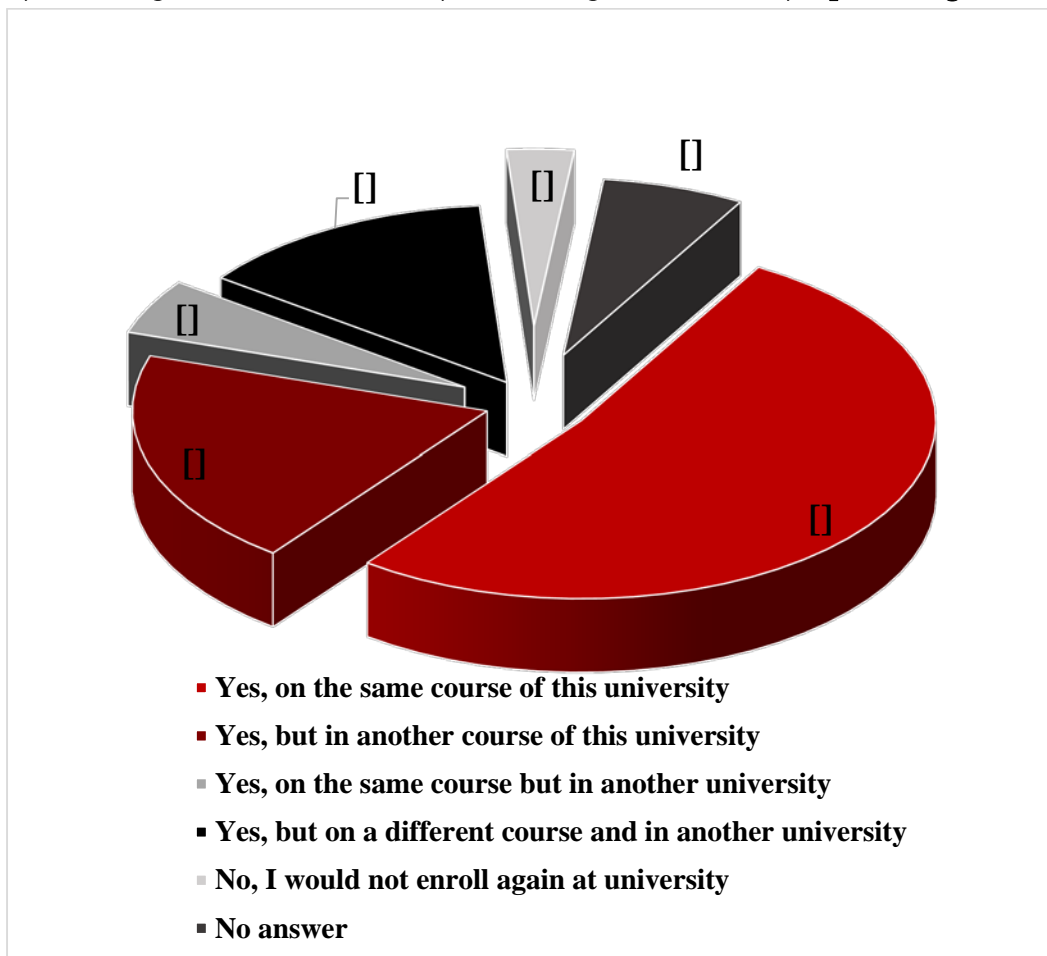
4. Information about family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential question among others. The statistical analysis shows that 73 interviewees (7.2%) out of total number of eligible (quality) 1015 questionnaires didn't give any answers to this question. The majority of the respondents' parents (76.3-76.6%) are degree holders, this shows that there is a strong connection between qualifications of children and their parents. And only a few amount of interviewers have parents with secondary school-leaving certificates (14.7-15.1%) and about 1% of the parents have middle school or primary school qualification or don't have any qualification. Graphical display of the statistical analysis' results of graduates parents' educational qualification is presented below on the Figure 18.

Figure 10. Parents' educational qualification (number of people and percentage)
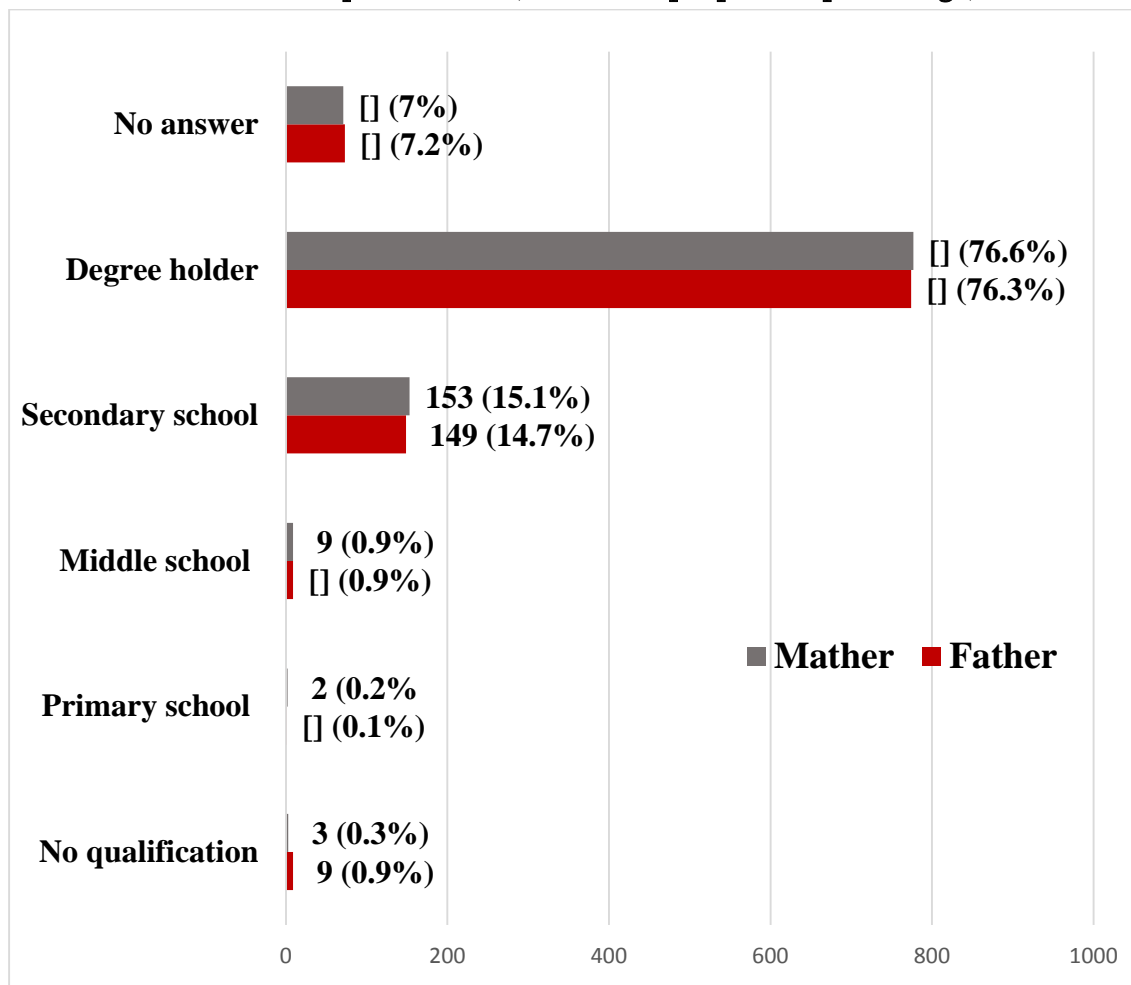
5. Future intentions and perspectives

The graduates' intention to pursue postgraduate education was analyzed based on the information received from the answers of graduates given by them to the question "Do you want to continue study?" of the Questionnaire. The results of statistical analysis are displayed graphically on the Figure 10. As it shows, 73% of respondents answered to this question positively.

Figure 10. Do you want to continue study? (percentage)
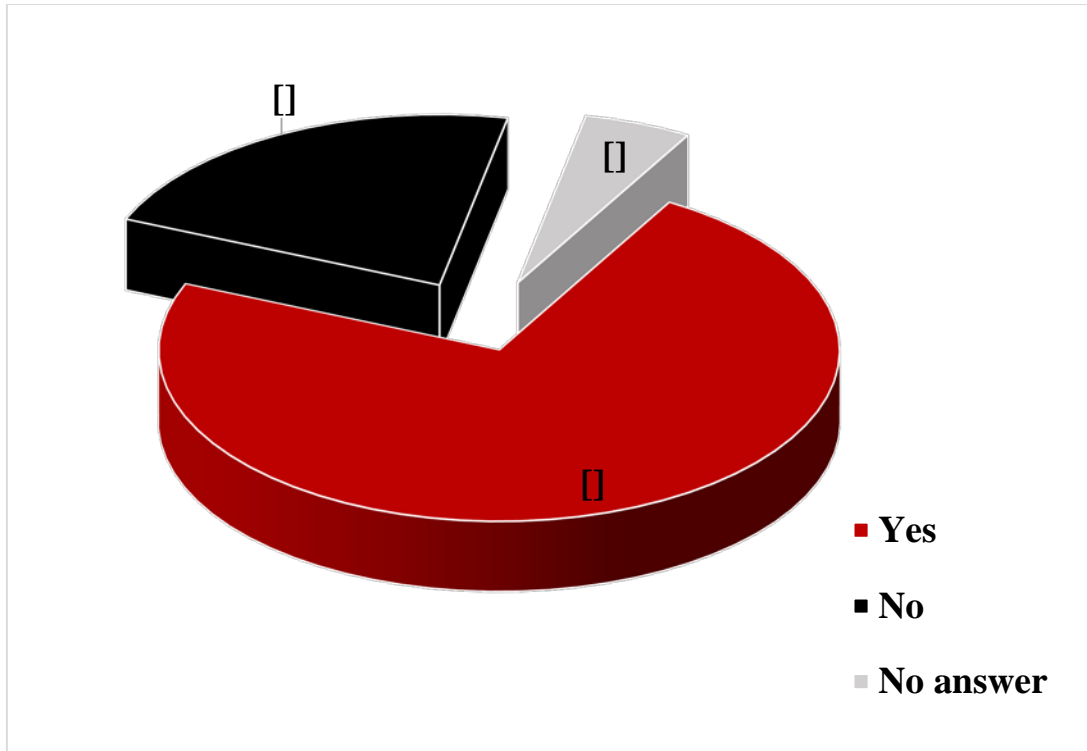
6. Conclusions

The following conclusions could be considered as the results of the ASUE graduates' survey executed for 2014:

- In 2014 out of 2624 ASUE graduates 2060 (or 79%) were registered and filled in the questionnaires in the HEN-GEAR platform.
- The sample includes 1015 graduates' questionnaires, out of which 694 questionnaires were filled in by females and 321 – by males. As for the degree programs, 727 questionnaires were filled in by bachelor's degree programs' graduates and 288 – by master's degree programs' graduates. The bachelor degree program's (four years study) students within females and males constitute respectively 69,18% (or 486 female students) and 77,24% (or 241 male students), and the master degree program's (two years study) students within females and males constitute respectively 30,82% (or 217 female students) and 22,76% (or 71 male students).
- The sample of graduates interviewed includes a wide diversity of economic specialties in both bachelor's and master's degree programs, particularly management, finance, banking, accounting, international economic relations, architecture, etc.
- For bachelor degree programs the larger part of the sample (26%) are the graduates of "Management" specialty, which is followed by "Finance" and "Accounting"- 8% each, "International Economic relations" (7%), "Organization of Business" (6%), the share of the other specialties does not exceed 5%.
- For master degree programs the larger part of the sample (11%) are the graduates of "Banking Organization" specialty, 10% belongs to "Management" specialty, which is followed by "Customs Administration" and "Collective Investment System Management"- 6% each, the share of the other specialties does not exceed 5%.
- The majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 32% of the respondents gave the answer "yes, definitely" and 38% - "more yes than no".
- According to the survey results, only a few number of the students used to work during the study, particularly, 12% of the respondents answered that they had a full-time job and 5% had a part-time job during the study and other 5% was busy with an occasional, irregular or seasonal activity.
- The database information collected from the 1015 quality questionnaires indicates that only a small number of graduates (20 graduates or 2% of the sample) has an experience of study abroad. This indicator allows making an assumption on the lack mobility among the students of the university.
- The majority of the respondents are satisfied with their course of study. Particularly, 41% answered "yes, definitely" and 38% - "more yes than no".
- The majority of the graduates answered to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this

university" (52%) and "on the same university but in another course" (20%). Only 5% of the respondents answered that they want to be enrolled "on the same course but in another university", 14% preferred to be enrolled "on a different course and in another university", and some of the graduates (3%) wouldn't like to enter a university at all.

- The statistical analysis shows that 73 interviewees (7.2%) out of total number of eligible (quality) 1015 questionnaires didn't give any answers the question on parents' educational qualification. The majority of the respondents' parents (76.3-76.6%) are degree holders, this shows that there is a strong connection between qualifications of children and their parents. And only a small number of interviewers have parents with secondary school-leaving certificates (14.7-15.1%) and about 1% of the parents have middle school or primary school qualification or don't have any qualification.

- The graduates' intention to pursue postgraduate education was analyzed based on the information received from the answers of graduates given by them to the question on "Do you want to continue study?". As the results show, 73% of ASUE graduates intend to continue study.

Gyumri State Pedagogical Institute (GSPI)

Report
GSPI Graduates' Profile

(Pilot Survey)

Created by: Asya Harutyunyan, Lilit Margaryan

1. INTRODUCTION

Gyumri State Pedagogical Institute (GSPI) Graduates' Profile Report (hereinafter Report) is a pilot survey, which was executed within the Tempus HEN-GEAR project. It contains and analyses data on GSPI graduates in 2014, on the basis of variables coming out from the following six sets of the HEN-GEAR on-line platform's questionnaire used for the graduates' interviews:

7. Personal information
8. Education and training
9. Information on the course that the graduate is completing now
10. Evaluation of the course that the graduate is completing now
11. Information about the family
12. Future intentions and perspectives

The objectives of the Report development are:
- to outline the main features of GSPI graduates,
- to provide information to those, who are interested in GSPI or are involved in policy development for the further progress of education system,

The sample of questionnaire was developed for the pilot survey. The report contains survey results based on 190 eligible questionnaires that were selected from the total number of questionnaires, which is 288. 190 eligible questionnaires were selected on the basis of completeness criteria of the questionnaires. Particularly, the questionnaire completeness criteria is satisfied, if the graduate presented comprehensive information at least for 3 questions of the questionnaire out of following 6 questions, that are considered as essential for the Report, particularly:
- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The report includes 190 bachelor graduates' questionnaires, out of which 162 (85%) questionnaires were filled out by females and 28 (15%) – by males (Fig. 1).

Figure 1. Gender of graduates
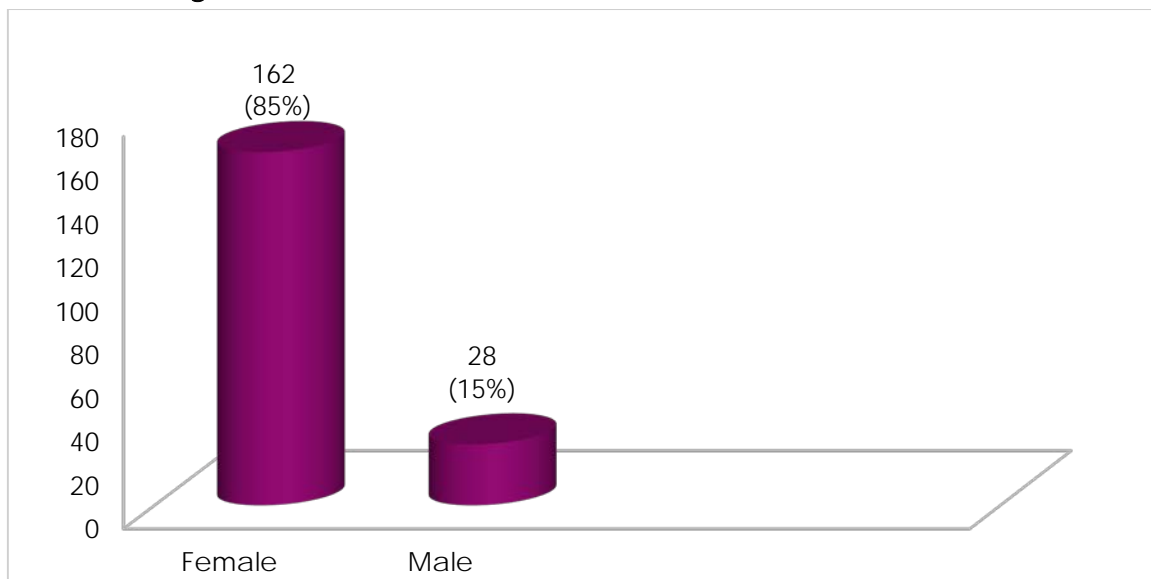
The report includes data of GSPI graduates from existing 6 departments: Physics, Mathematics and Economics; Biology and Geography; History and Philology; Foreign Languages; Pedagogy; Physical Training and Primary Military Training (Fig. 2).
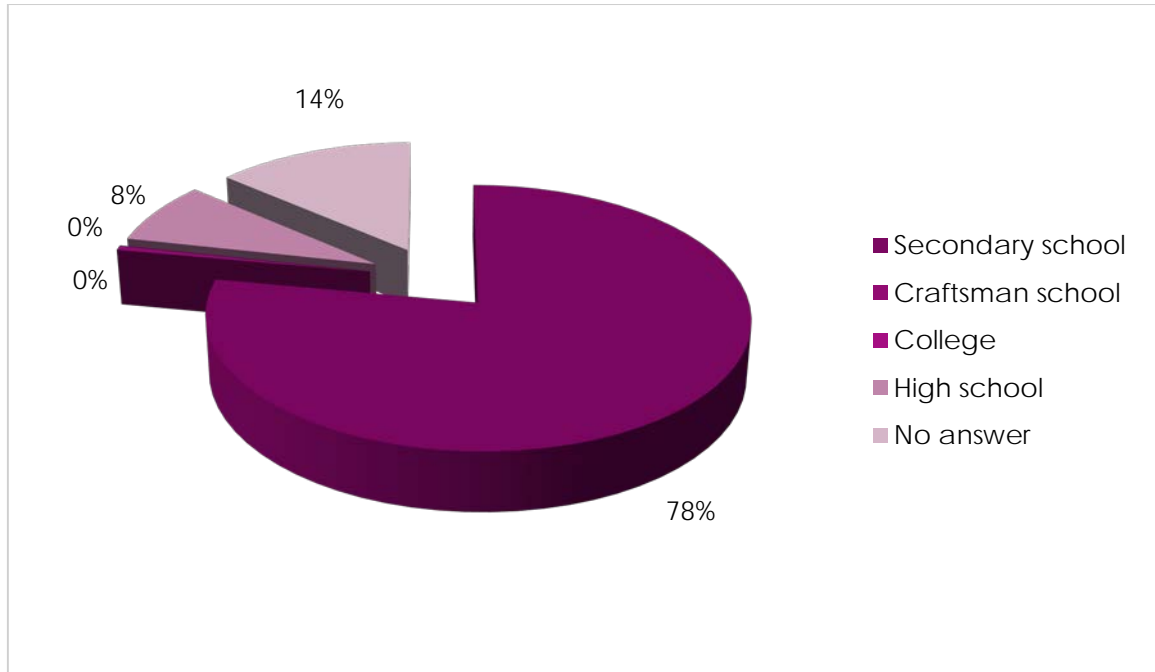
Figure 2. Number of graduates by departments
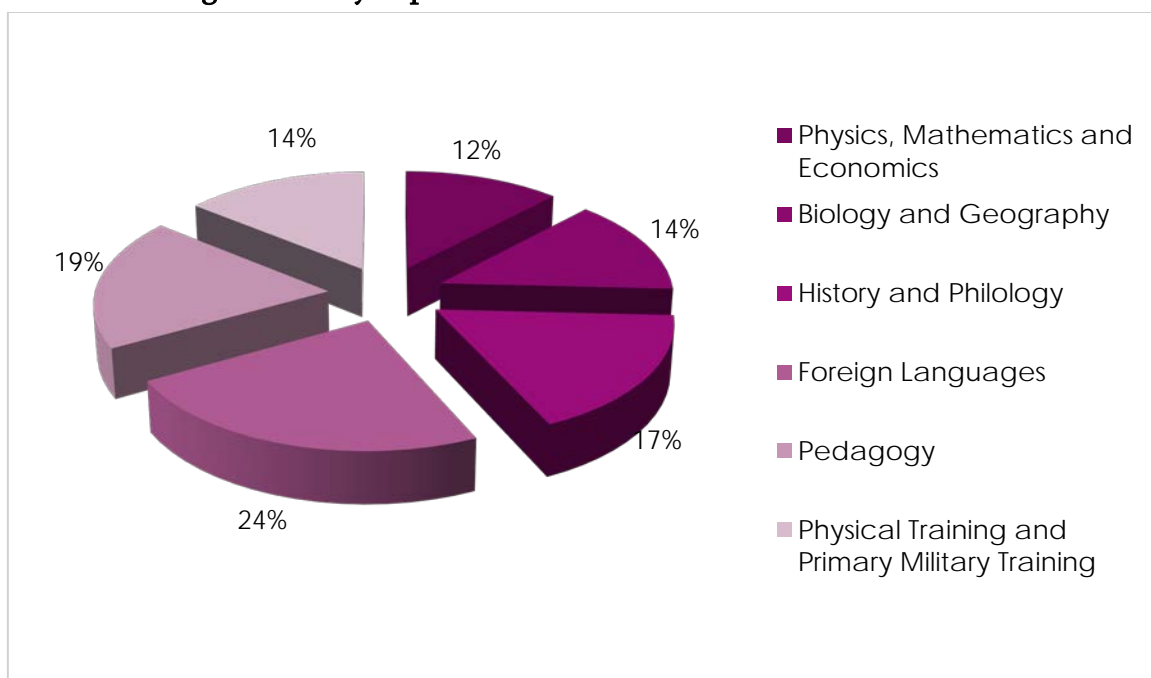
2. EDUCATION AND TRAINING OF GRADUATES

The majority of graduates (77%) included in the sample have a secondary school diploma awarded for 12 years study at the secondary school (Fig. 3).

Figure 3. Kind of Graduates' high school diploma

Legend:
- Secondary school
- Craftsman school
- College
- High school
- No answer

14%
8%
0%
0%
78%

Among graduates, who are holders of secondary school diploma, more than half (69%) have graduated high school in Gyumri, and 6% of them studied in other cities in Shirak region (particularly, Artik, Maralik, Akhuryan), and 25% – in different villages of the country (particularly, Horom, Jajur, Nor Kyanq, Toros, Meghrashat, Sarnaghbyur, Lusakert, Panik, etc.) (Fig. 4)

Figure 4. Graduates' high school location
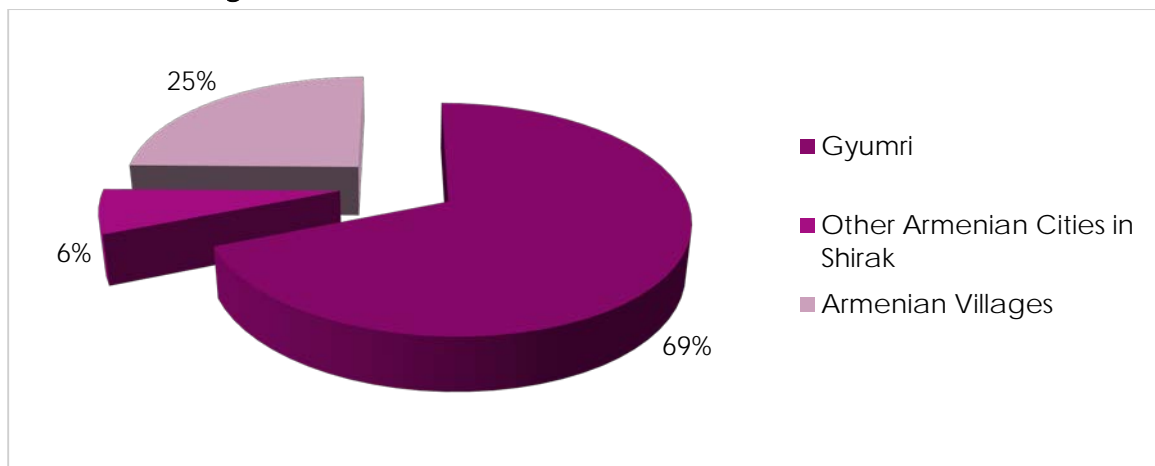
Legend:
- Gyumri
- Other Armenian Cities in Shirak
- Armenian Villages

25%
6%
69%

The answers to the question "Have you already achieved another academic degree prior to academic degree that you are now completing?" showed that 100% of the graduates did not obtain another academic degree prior to the current one (Fig. 5). The reason is that bachelor degree graduates were interviewed. 98% of the sample's respondents answered negatively to the question "Have you started any other academic course different from the current one, but without completing it?"

Figure 5. Graduates' who were awarded another academic degree prior to the current one
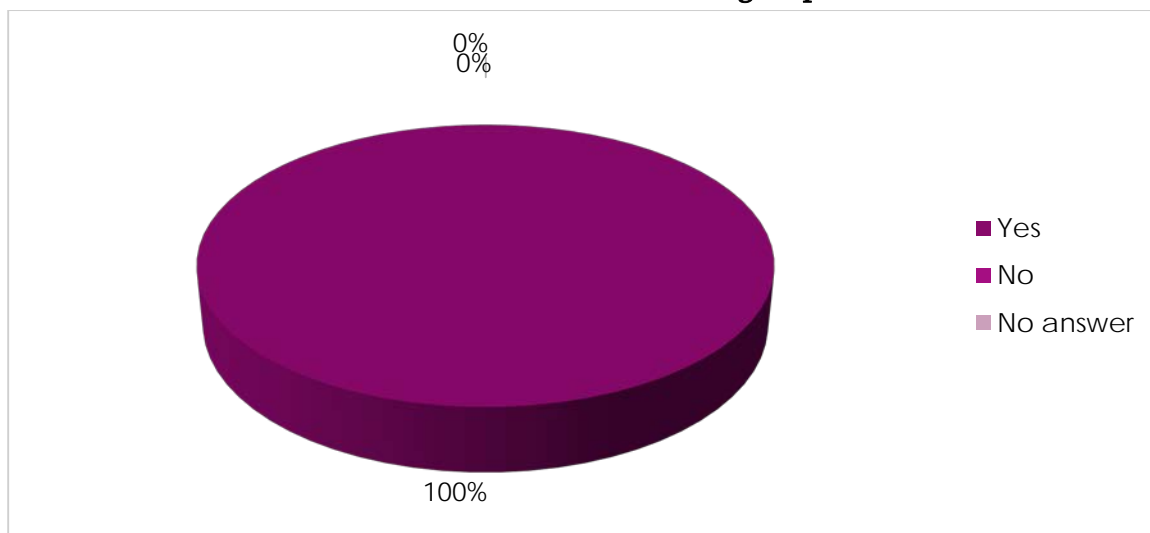
Regarding the language skills: Armenian language is the mother tongue for 96% of graduates. Russian is the first foreign language for 63% of them, and English is the first foreign language for 25% of them. The second foreign language for 51% of graduates is English, and for 21% it is Russian (Fig. 6).

Figure 6. Graduates' first and second foreign language
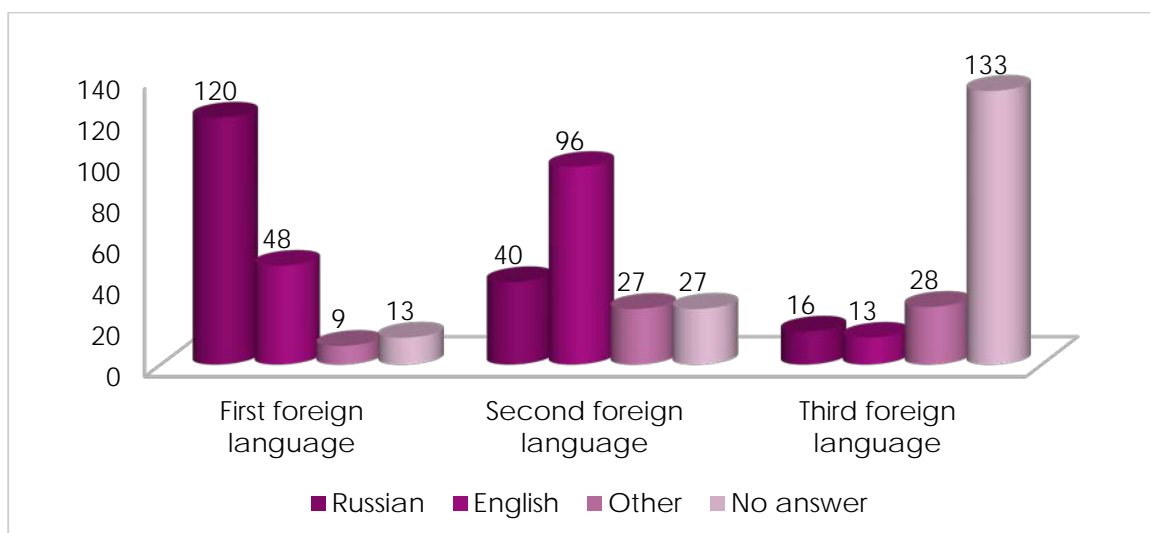
Graduates' IT skills can be introduced as follows (Fig. 7)

Figure 7. Graduates' IT skills
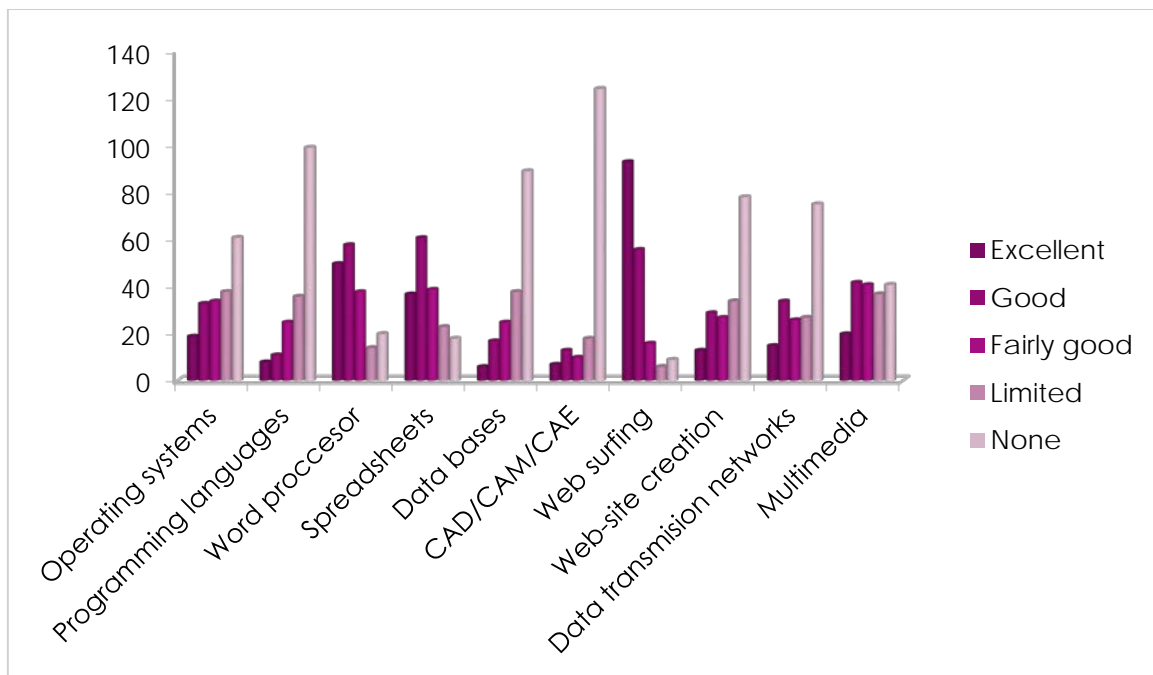
3.   INFORMATION ON THE COURSE THAT GRADUATES ARE COMPLETING NOW

The most of the interviewed graduates indicated that they have known before enrolling at the university what knowledge and skills they were going to acquire by the end of the chosen course of study. Particularly, 42% of the respondents answered "yes, definitely" and 26% - answered "more yes than no" to the question "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (Fig. 8).

Figure 8. Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?
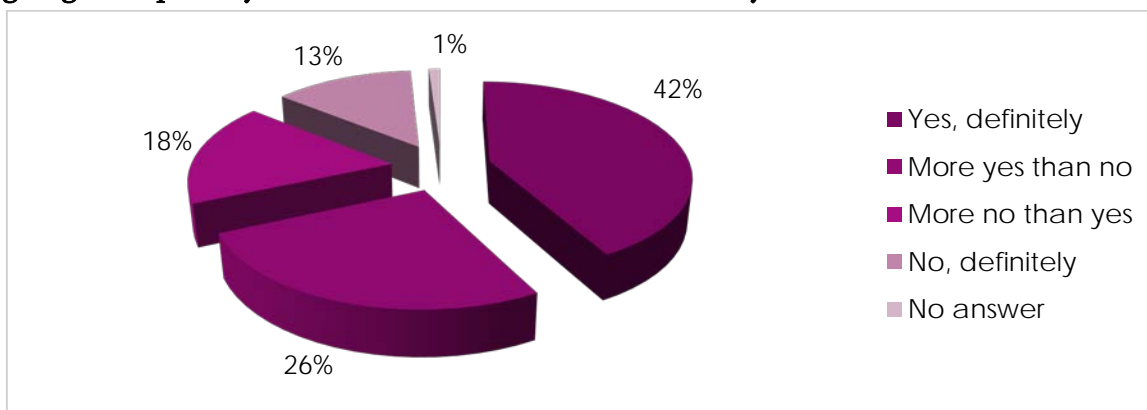
The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" of the questionnaire. The results of statistical analysis are displayed graphically on the Figure 9. It shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 49% of the respondents gave the answer "yes, definitely" and 36% - "more yes than no".

Figure 9. Graduates' satisfaction with the training and learning methods
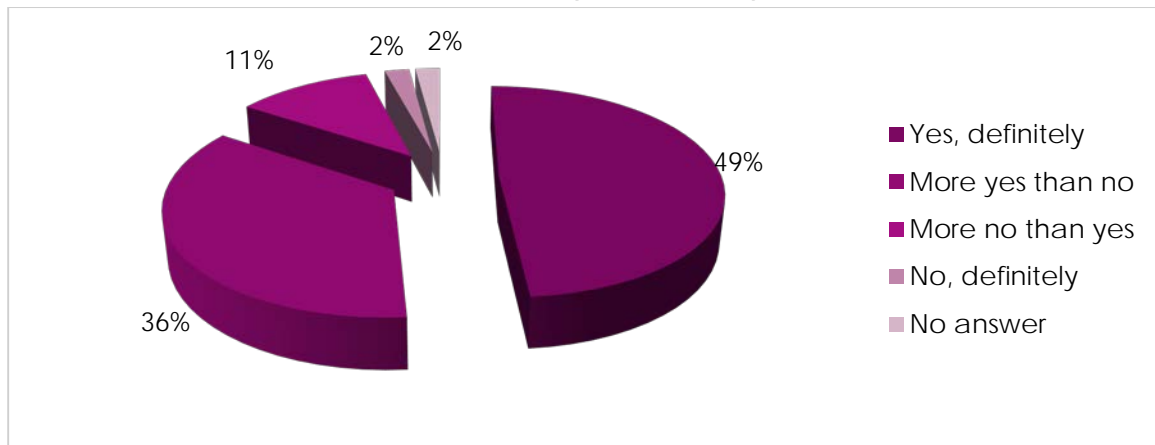
The work experience of graduates during the study was analyzed based on the information received from the following questions of the Questionnaire:

- Are you currently working?
- Did you carry out a working activity while attending classes?
- At the time of your university studies did you spend time out of class on a working activity?

The results of statistical analysis are displayed on the Figures 10 and 11.

Figure 10. Graduates' employment status by gender
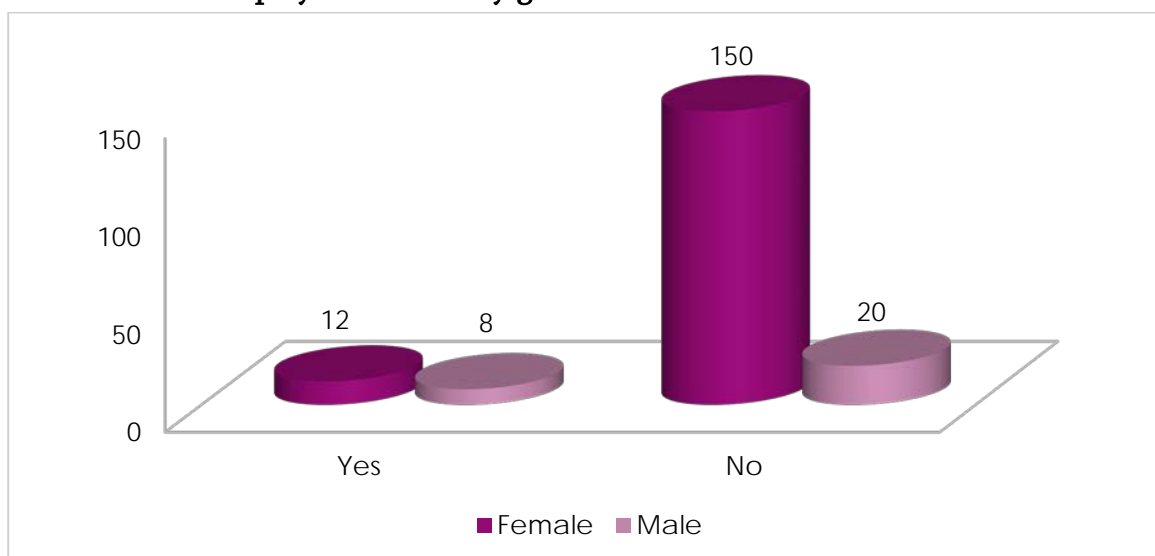
Figure 11. Graduates' working activity during the study at the university
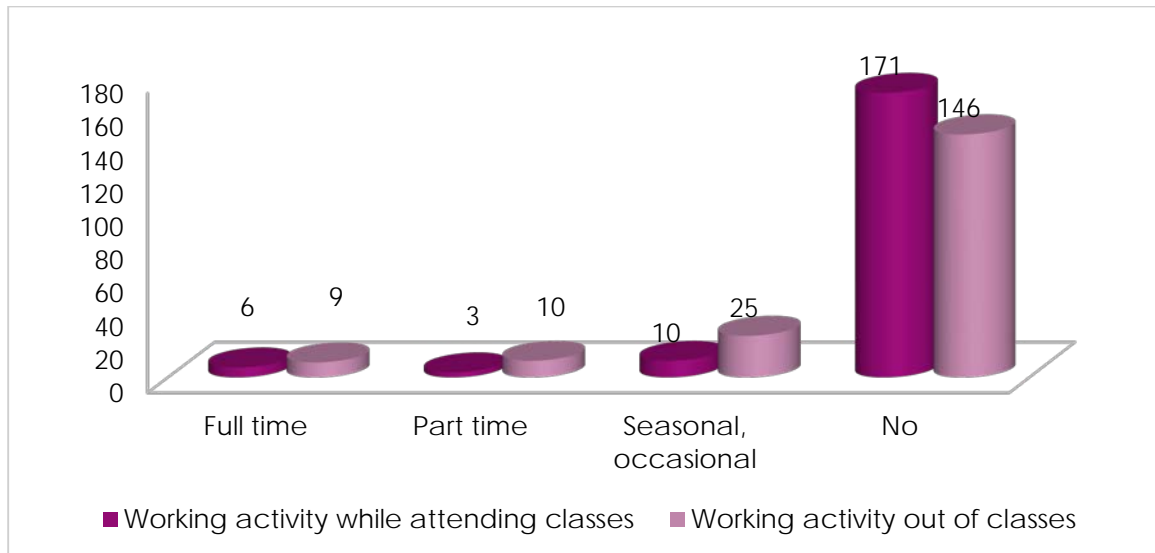
The database information collected from the 190 questionnaires indicates that no graduates have an experience of study abroad. The mobility programs for the students have been activated since 2014 within the Erasmus Mundus INFINITY project launched in 2013. However the number of students involved in the mobility programs still remains very small.

## 4. EVALUATION OF THE COURSE THAT GRADUATES ARE COMPLETING NOW

The graduates' overall evaluation of the university experience was analyzed based on the question "Are you generally satisfied with your course of study". The majority of the respondents gave a positive answer: particularly, 57% answered "yes, definitely" and 32% - "more yes than no". The results of statistical analysis are displayed graphically on the Figure 12.

Figure 12. Are you generally satisfied with your course of study?
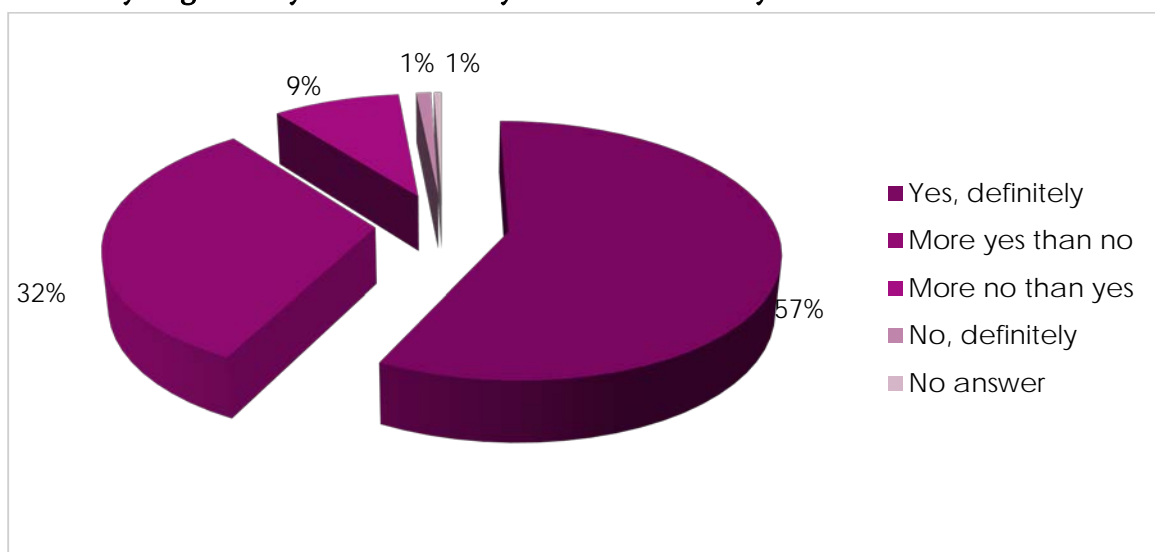
The statistical analysis has shown that the percentage of satisfied people among females is higher than among males (Fig.13).

Figure 13. Overall evaluation of the university experience by females and males
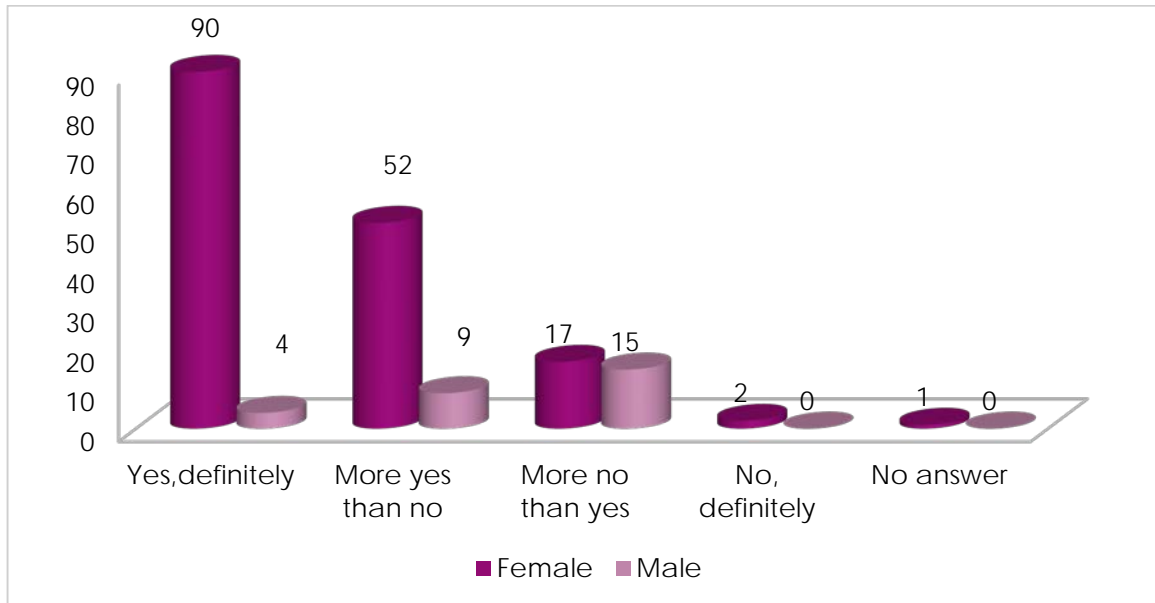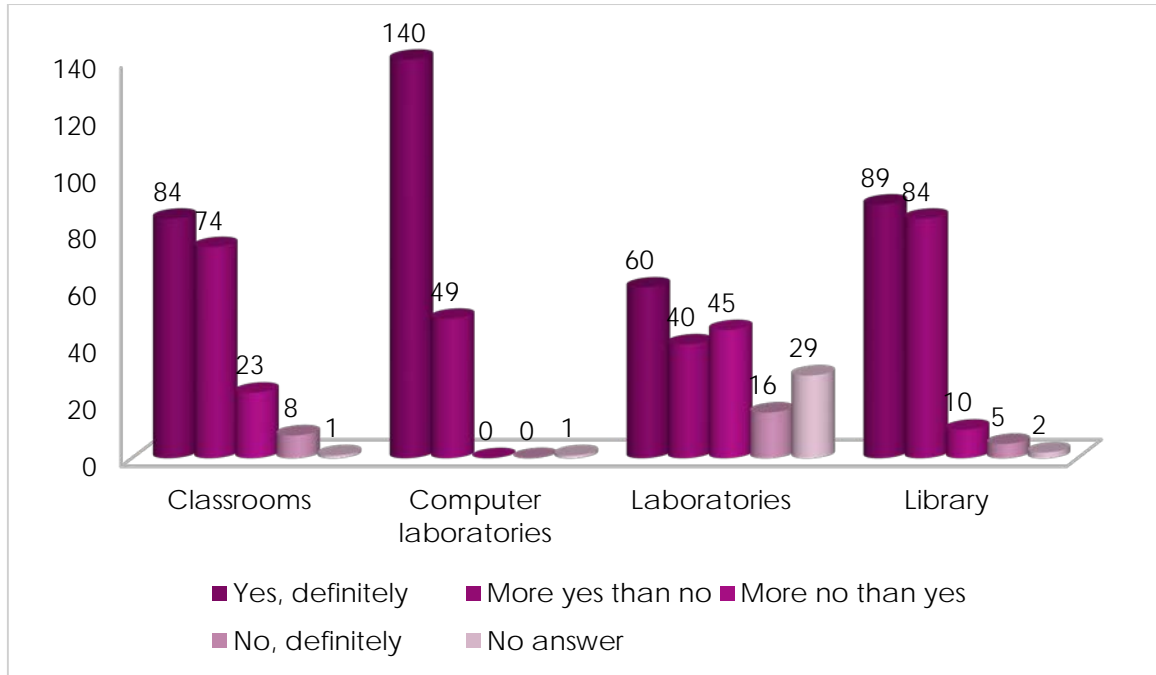

Analyzing graduates' satisfaction with possible relationships, facilities: classrooms, computer laboratories, laboratories, libraries, the following results were obtained (Fig.14, 15).

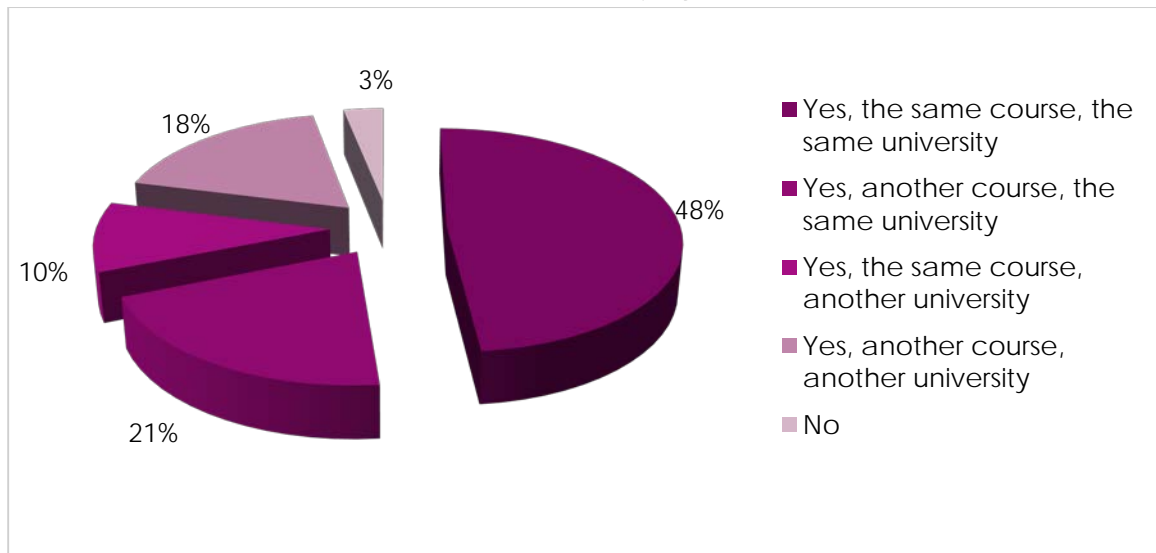**Figure 14. Graduates' satisfaction with possible relationship**
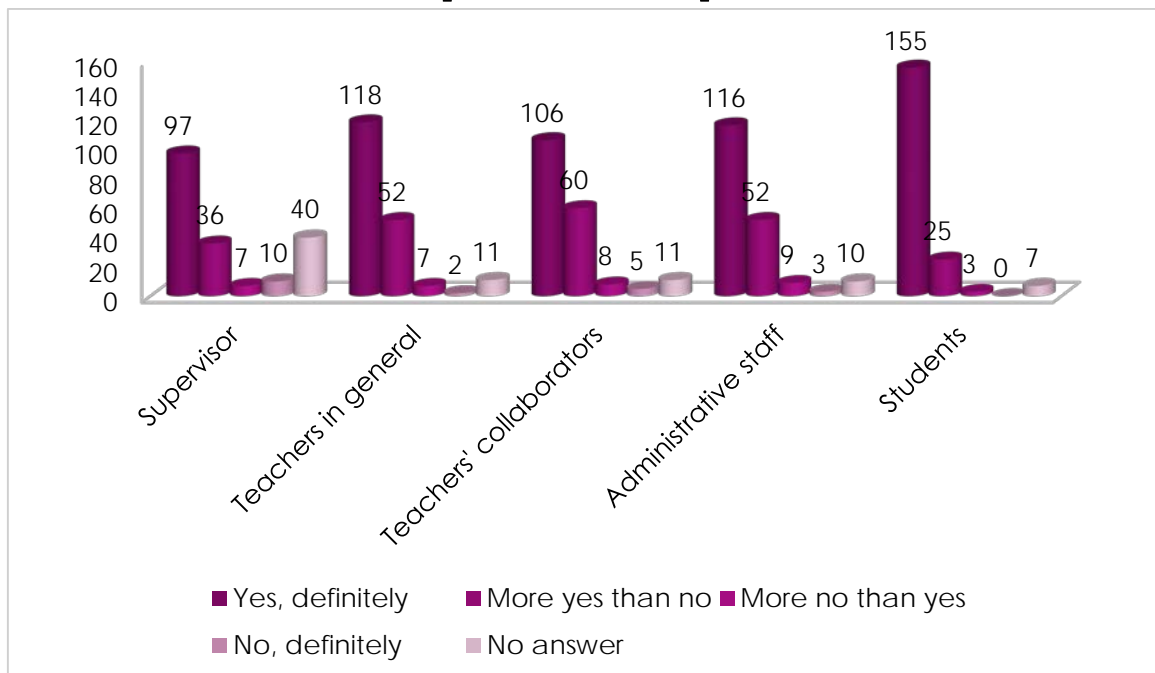
Figure 15. Graduates' satisfaction with facilities

As we can see from Figure 16 the majority of the graduates want to keep on education in GSPI either in the same course or in a different one.

Figure 16. Graduates' preference to enroll at university again

5. INFORMATION ABOUT FAMILY

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential question. The significant part of graduates indicates that their parents have a higher education. Graphical display of the statistical analysis of parents' educational qualification is presented below on the Figure 17.

Figure 17. Parents' educational qualification
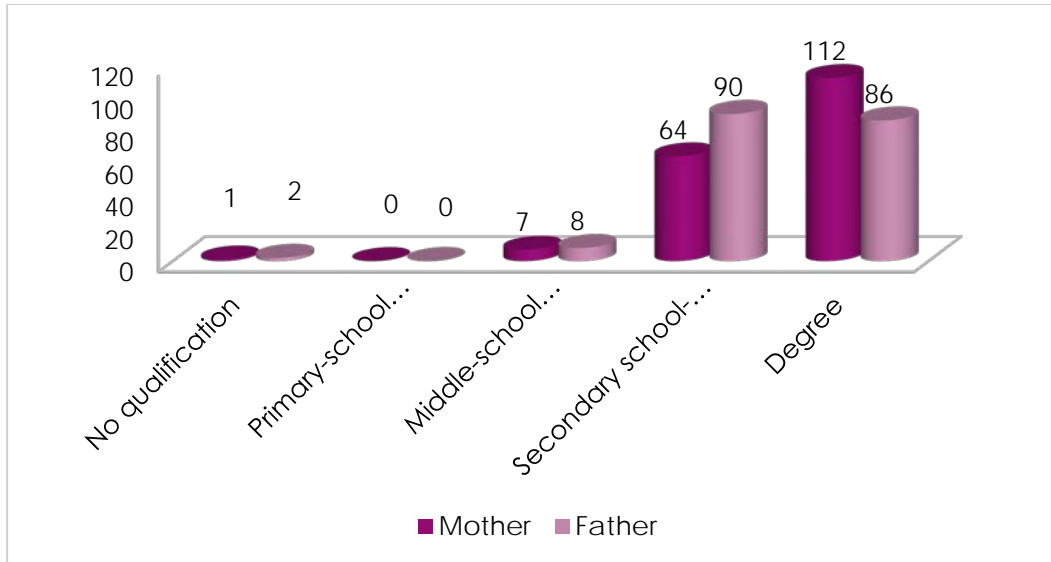

FUTURE INTENTIONS AND PERSPECTIVES

The graduates' intention to pursue postgraduate education was analyzed based on the information received from the question "Do you want to continue study?". The results of statistical analysis are displayed graphically on the Figure 18. As it shows, 78% of respondents answered to this question positively.

**Figure 18. Do you want to continue study?**
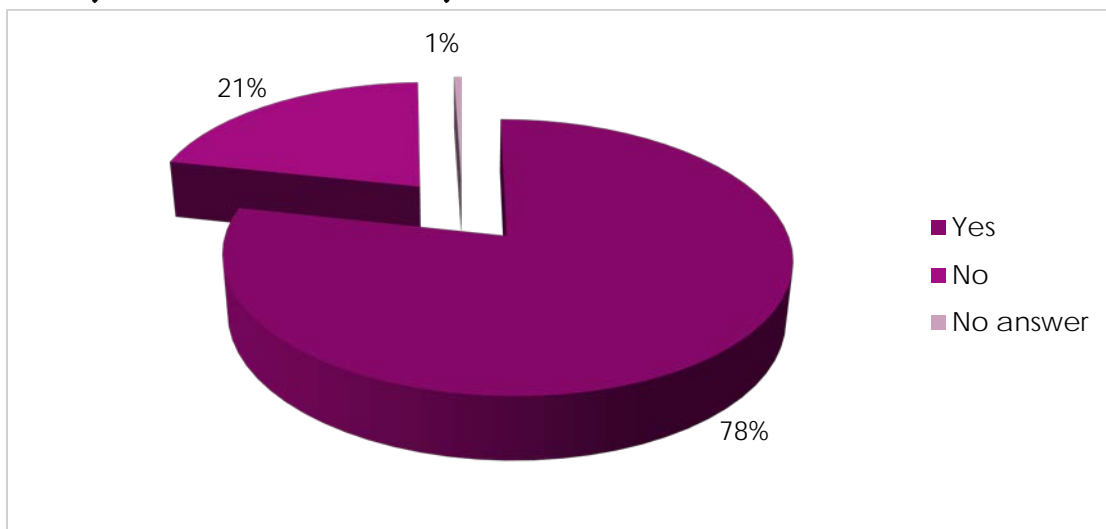
It is notable that among the females and males respectively 140 and 9 people answered "yes" to the above mentioned question. (Fig.19).

Figure 19. Females' and males' intention to continue education
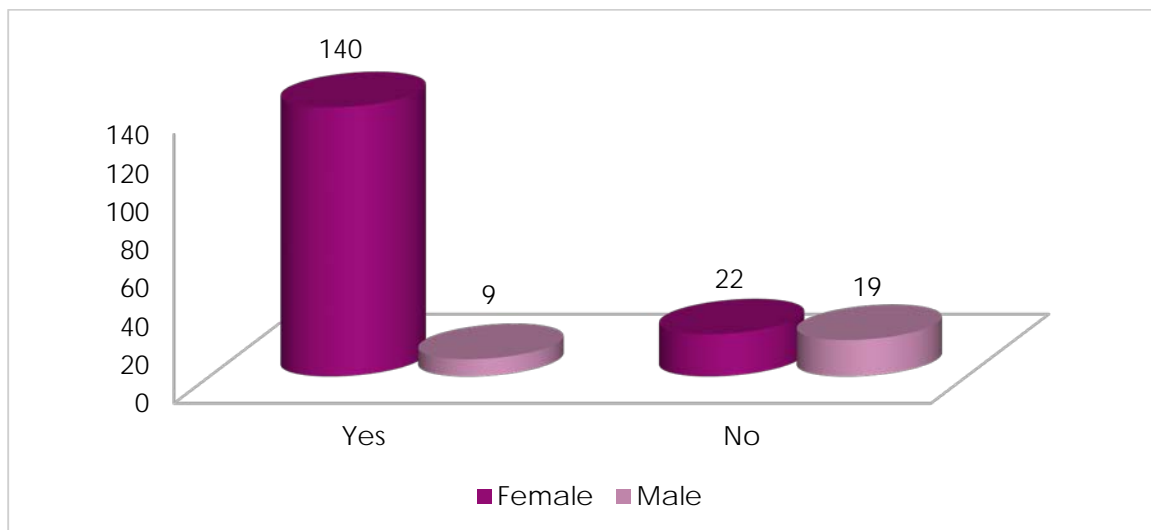

Among the 78% respondents, who indicated her/his interest to postgraduate education, 55% answered they would like to enroll at the same university of graduation, 14% indicated another country university and 27%- another Armenian university (Fig.20).

Figure 20. Graduates' preferences regarding the university selection for postgraduate study
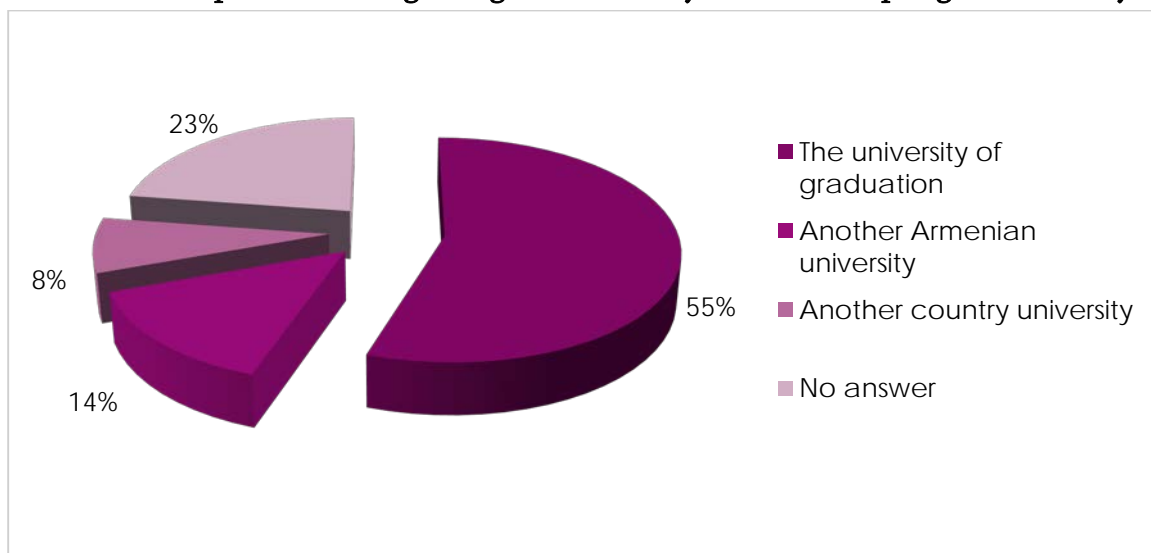
The 78 % and 5% of the sample's respondents preferred respectively the public and private sectors for their job with subordinate employment, while only 14% have a preference to be self-employed (Fig.21).

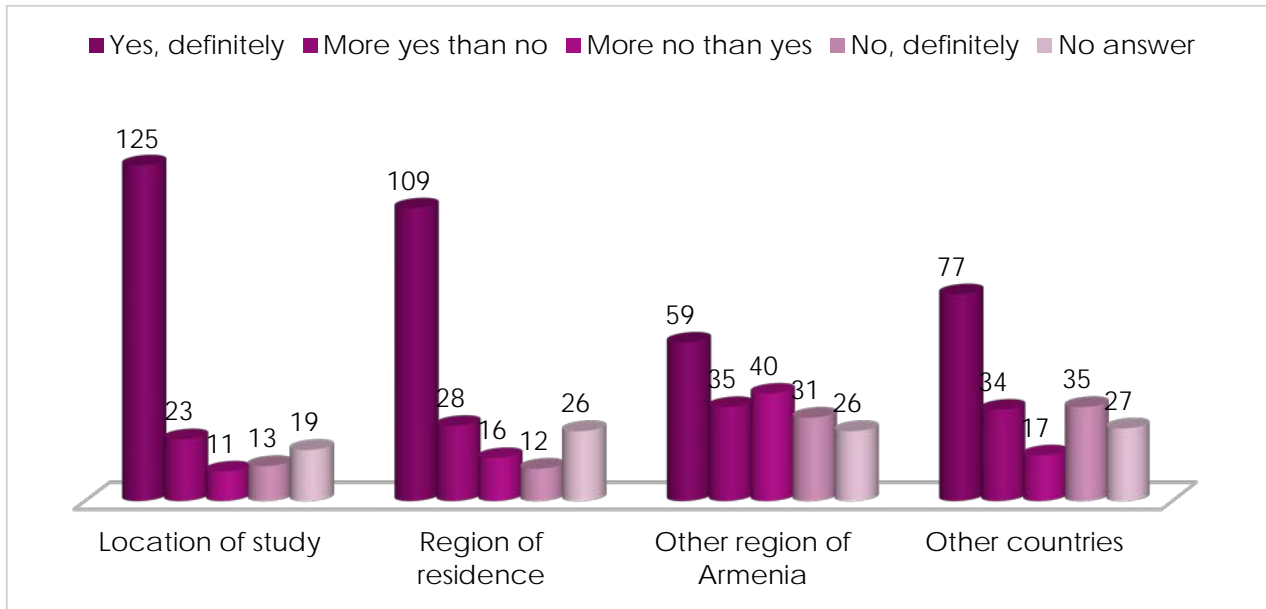**Figure 21. Graduates' preferences regarding types of employment (percentage)**
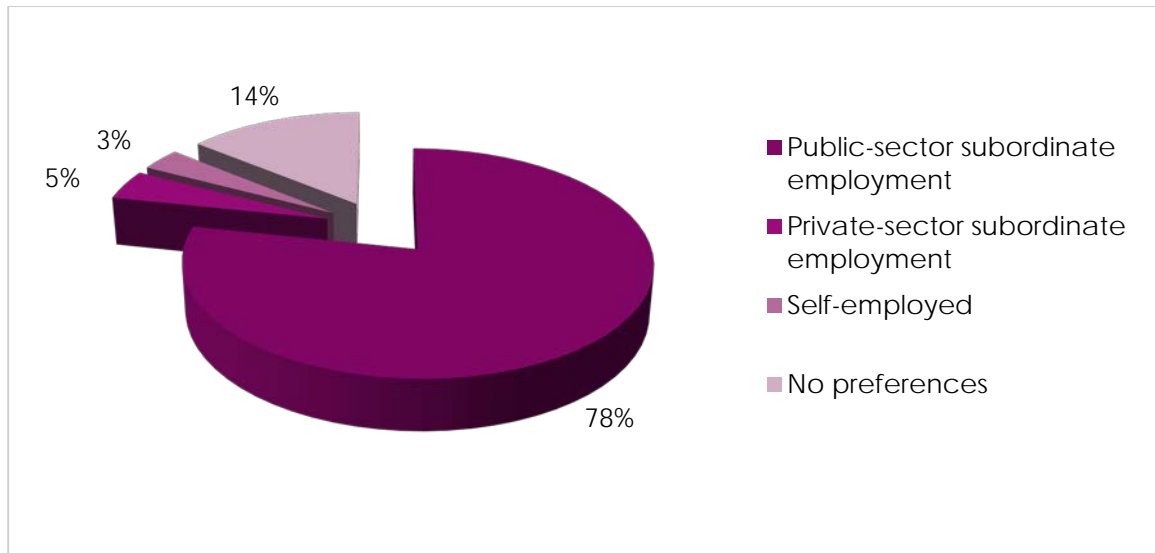
As we can see from the Figure 22 graduates' preferred economic sectors are the Marketing and Organization, Planning.

**Figure 22. Graduates' preferred economic sectors**
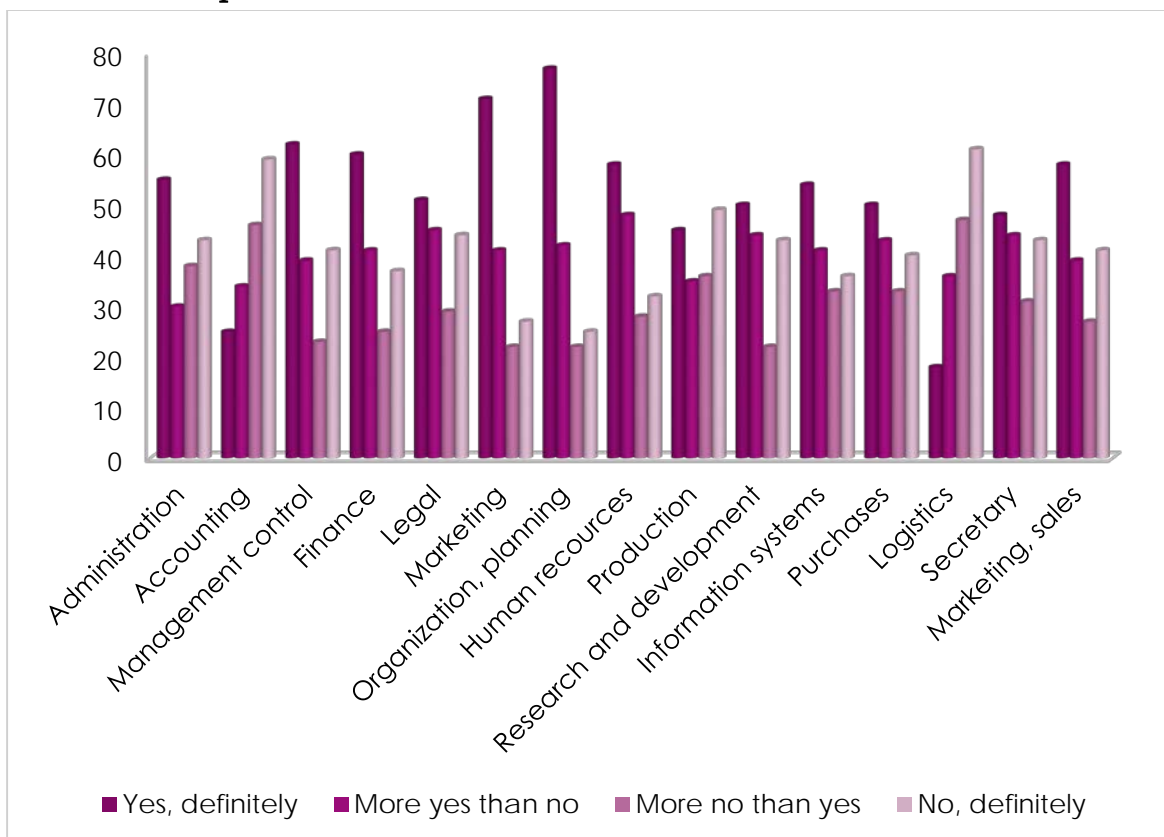
Analyzing the graduates' answers to the question "Where do you wish to work?", we can see that most of the graduates prefer to work in the location of study (Fig.23) .

Figure 23. Graduates' preferred region for work

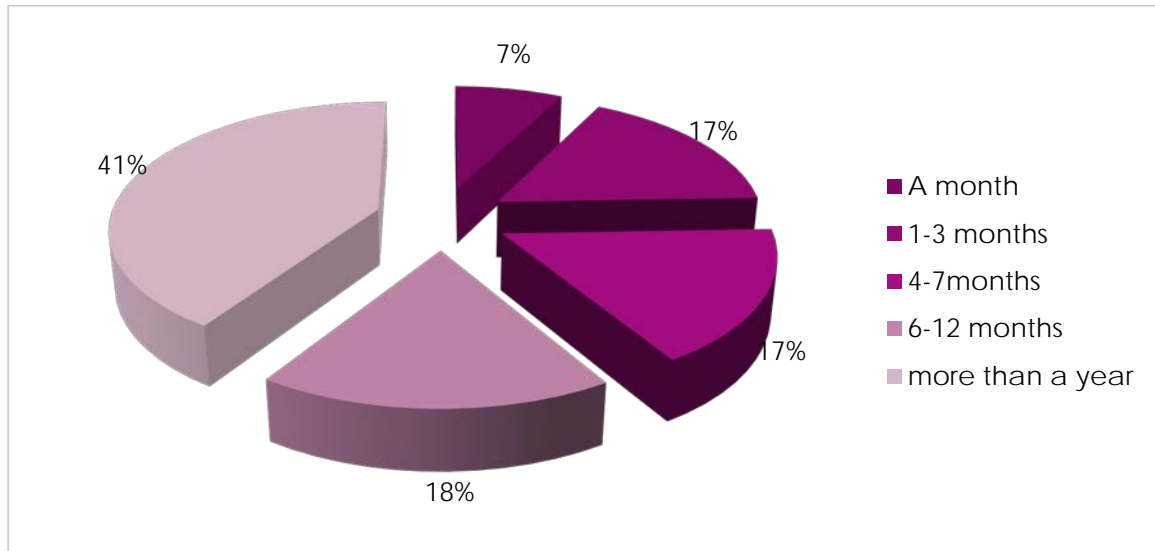Regarding the type of labor contract, as we can see from the Figure 24, probation contract.

Figure 24. Graduates preferred type of labor contract
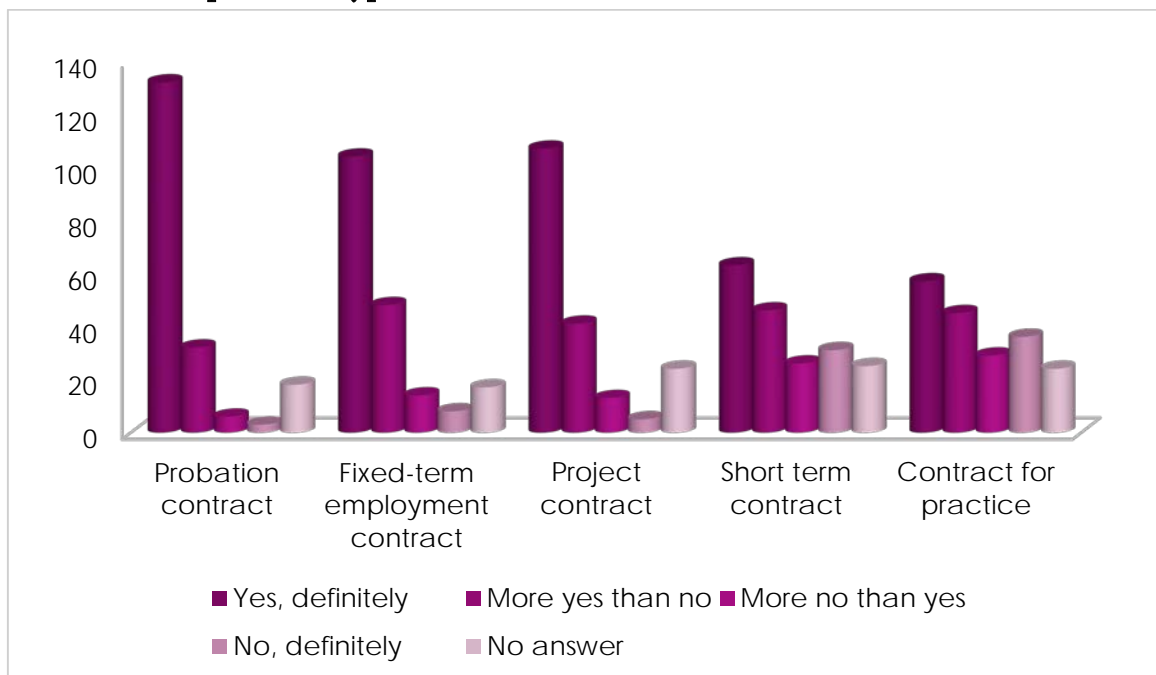
As we can see from Figure 25, graduates think that it will take more than a year to find a job after the graduation.

Figure 25. How long do you think it will take for you to find a job after graduation? (percentage)

6. CONCLUSIONS

The following conclusions can be introduced regarding the 6 essential questions:

The majority (78%) of the students enter the institute from secondary schools among which 69% leave from Gyumri schools.

Concerning language knowledge, it should be mentioned that Russian is the first foreign language for more than half of the graduates.

Regarding IT skills, the graduates are quite good at web surfing and MS office. Other skills aren't developed because of the institute's profile: it is pedagogical.

Survey results show that before enrollment approximately half of the students were informed what knowledge and skills they would gain at the end of the study.

As to the percentage of those working currently or during study, it is very low mainly because the survey was filled in by bachelor graduates.

Overall evaluation of the course shows that the graduates are mostly satisfied with their study course, with their possible relations (teachers, administrative staff, students, etc.) as well as with facilities (classrooms, laboratories, library, etc.).

As a result of their satisfaction, the majority of both males and females prefer to enrol at GSPI either in the same course or in a different one.

As we can see from the survey analysis, graduates' parents mostly have a degree.

Concerning the alumni's employability, public-sector is more preferable, and especially in the sectors of organization, marketing and administration. The alumni mostly prefers working either in Gyumri or in the region of their residence (which is mainly Shirak region).

Among the types of contracts probation, project and fixed-time ones seem to be most preferable.

Concerning the chance of finding a job after graduation, 41% aren't very optimistic as they think it'll take them more than a year.

Gavar State University (GSU)

Report
GSU Graduates' Profile
(Pilot Survey)

GAVAR - 2015

1. Introduction

Gavar State University (GSU), Armenia Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the HEN-GEAR Tempus project (October 2012-October 2015) and is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) experience, who is a key project partner. It contains an analysis of the features and performance of the graduates of the Gavar State Univeristy (GSU) in 2014, focusing on a number of variables coming out from the six sets of the on-line platform's questionnaire used for the graduates' interviews. Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that the graduate is now completing
- Evaluation of the course that the graduate is now completing
- Information about the family
- Future intentions and perspectives

The objectives of the Report development are:

- to outline the main features of the GSUs' graduates,
- to provide the information to those, who are interested by the GSU or involved in a policy development for the further progress of the university education system,
- to provide a tool kit for the university study programs selection.

2. Sampling of GSU graduates surveyed

The sample of the eligible questionnaires was developed for the pilot survey. The Report contains survey results based on the sample including **59** eligible questionnaires that were selected from the total number of questionnaires which is **323**. The eligible questionnaires were selected via applying the exclusion criterion on completeness to the questionnaires. Particularly, the questionnaire completeness criterion is satisfied, if the graduate presented comprehensive information at least for 3 questions of the questionnaire out of total 6 questions that are considered as essential for the Report, particularly:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The sample includes 59 graduates' questionnaires. The bachelor degree program's (four years study) students within females and males constitute respectively 37% and 63%, and the master degree program's (two years study) students within females and males constitute respectively 34% and 66% (Fig. 1). The sample of graduates interviewed includes all five faculties. The main part of the sample (68%) are the graduates of faculty of "Economics" (Fig. 2).

Figure 1. The qualification level of study program of the survey sample's graduates within females and males (percentage)

	Bachelor	Master
■ Female	37,00	34,00
■ Male	63,00	66,00
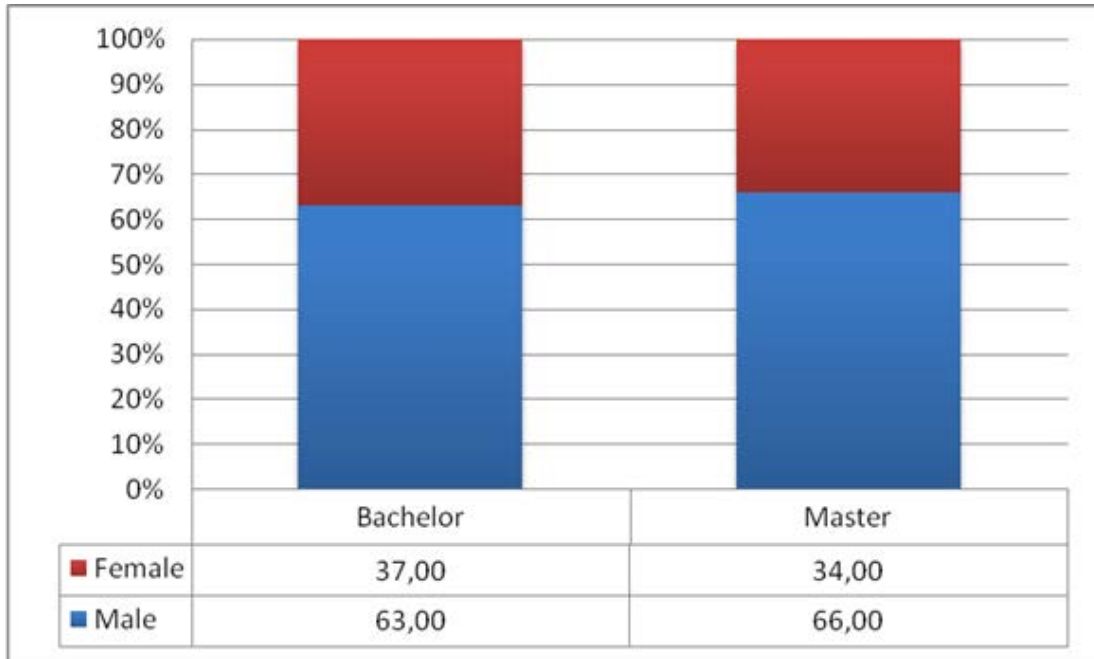
Figure 2. The specialties of the sample's graduates interviewed (percentage)
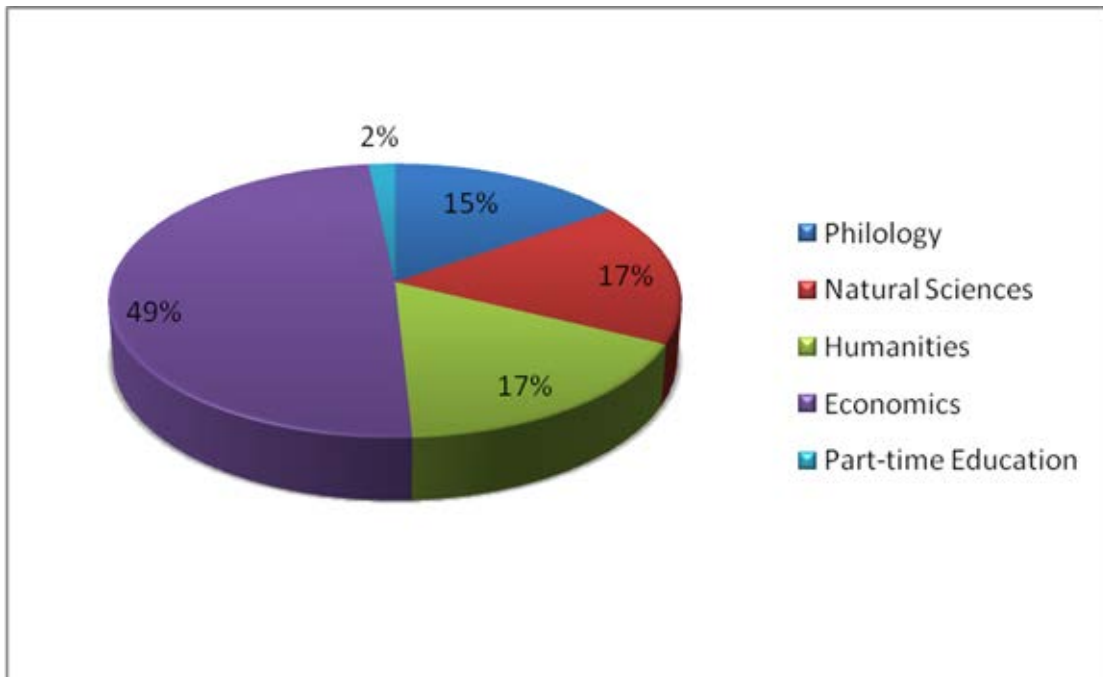
3. Education and trainings of graduates included in the sample

The majority of graduates (80%) included in the sample have a secondary school diploma awarded for 12 years study at the secondary school. Among these respondents for 69,5% the first foreign language is Russian, and for 22% - it is English. 57,7 % of respondents indicated that the second foreign language for them is English, and 20,3% mentioned Russian as a second foreign language (Fig.4).

Figure 3. Kind of Graduates' high school diploma (percentage)
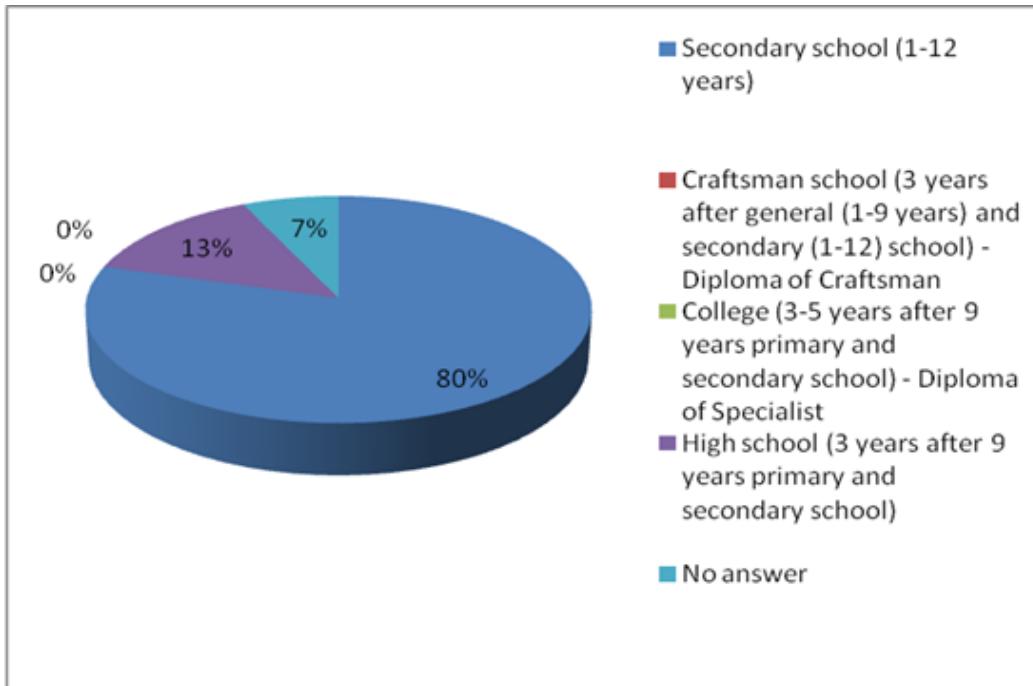

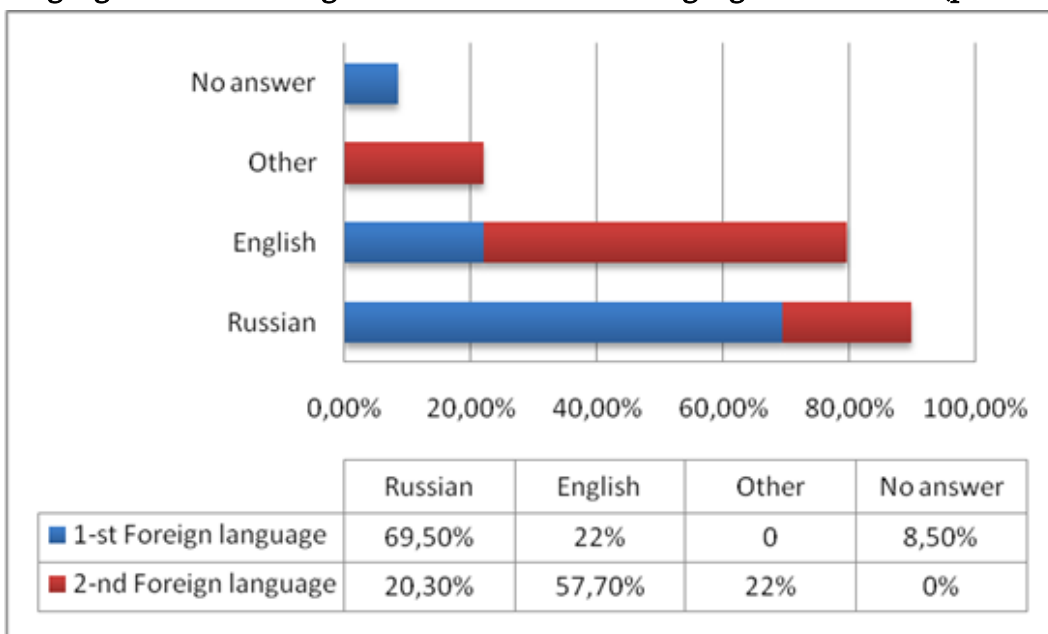**Figure 4. Language skills of those graduates whose native language is Armenian (percentage)**

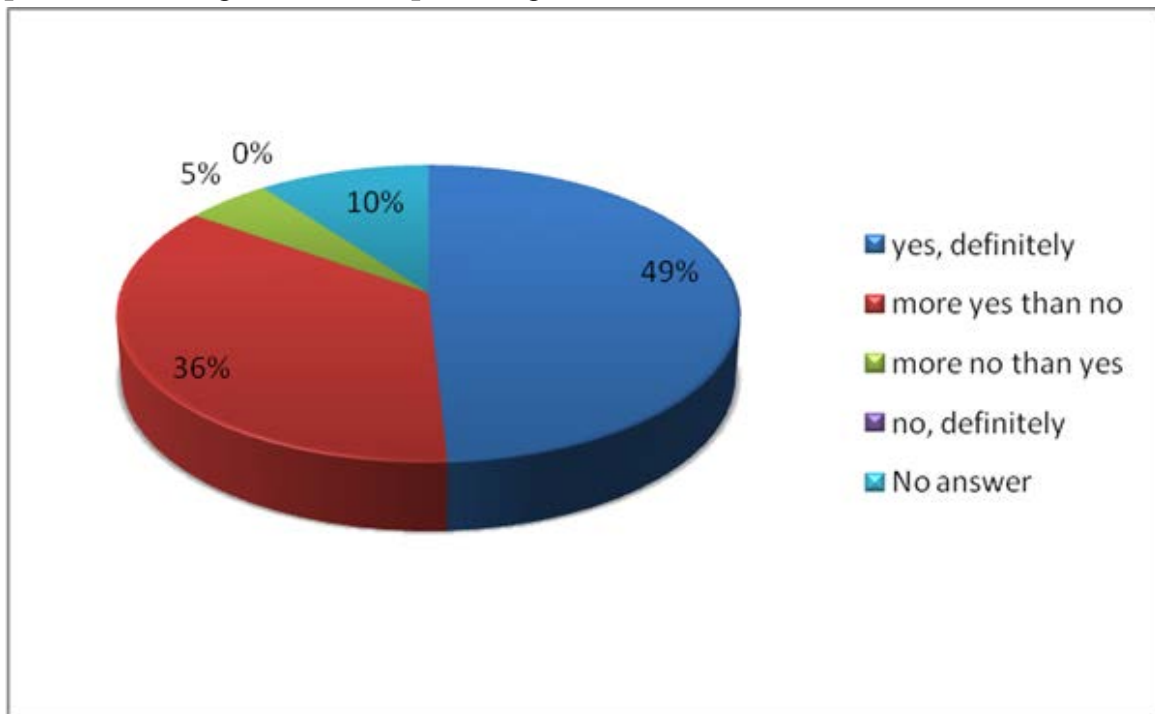|	Russian	English	Other	No answer
1-st Foreign language	69,50%	22%	0	8,50%
2-nd Foreign language	20,30%	57,70%	22%	0%

4. Information on the course that the graduates are now completing

The most of the interviewed graduates indicated that they have known before enrolling at the university what knowledge and skills they were going to acquire by the end of the chosen course of the study. Particularly, 24% of the respondents answered "yes, definitely" and 38% - answered "more yes than no" to the question "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (Fig. 6). The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" of the Questionnaire. The results of statistical analysis are displayed graphically on the Figure 7. Figure 7 shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 49% of the respondents gave the answer "yes, definitely" and 36% – "more yes than no".

Figure 6. Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (percentage)
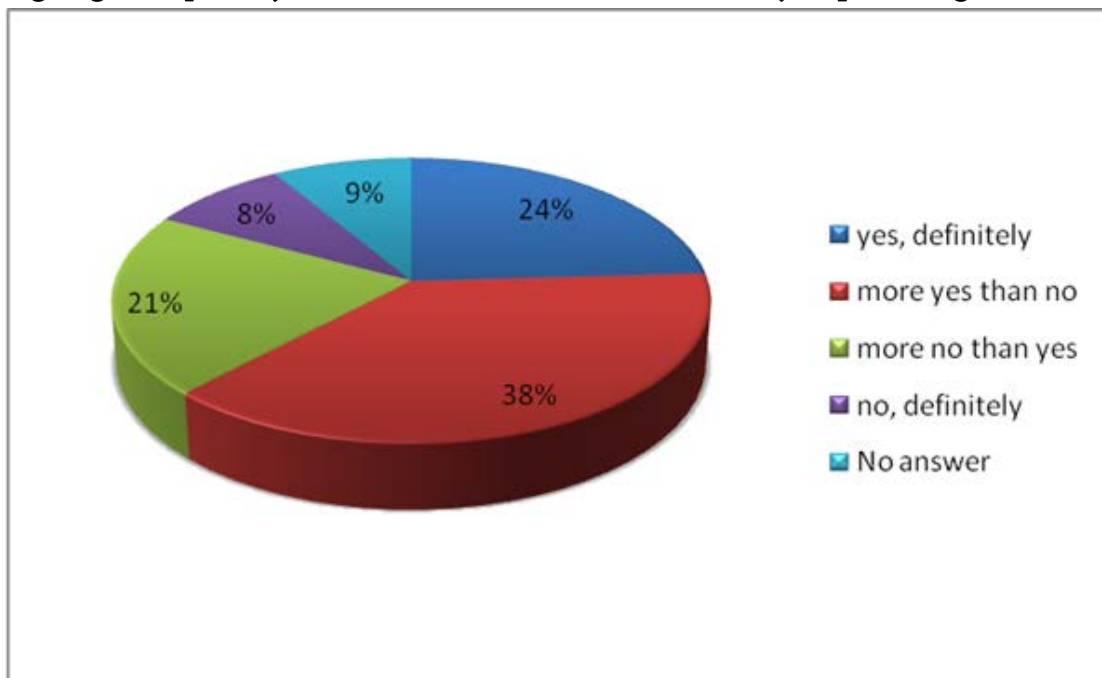
Figure 7. Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills? (percentage)


The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire:

- Did you carry out a working activity while attending classes?
- At the time of your university studies did you spend time out of class on a working activity?
- Are you currently working?

The results of the statistical analysis are displayed on the Figures 8 and 9.
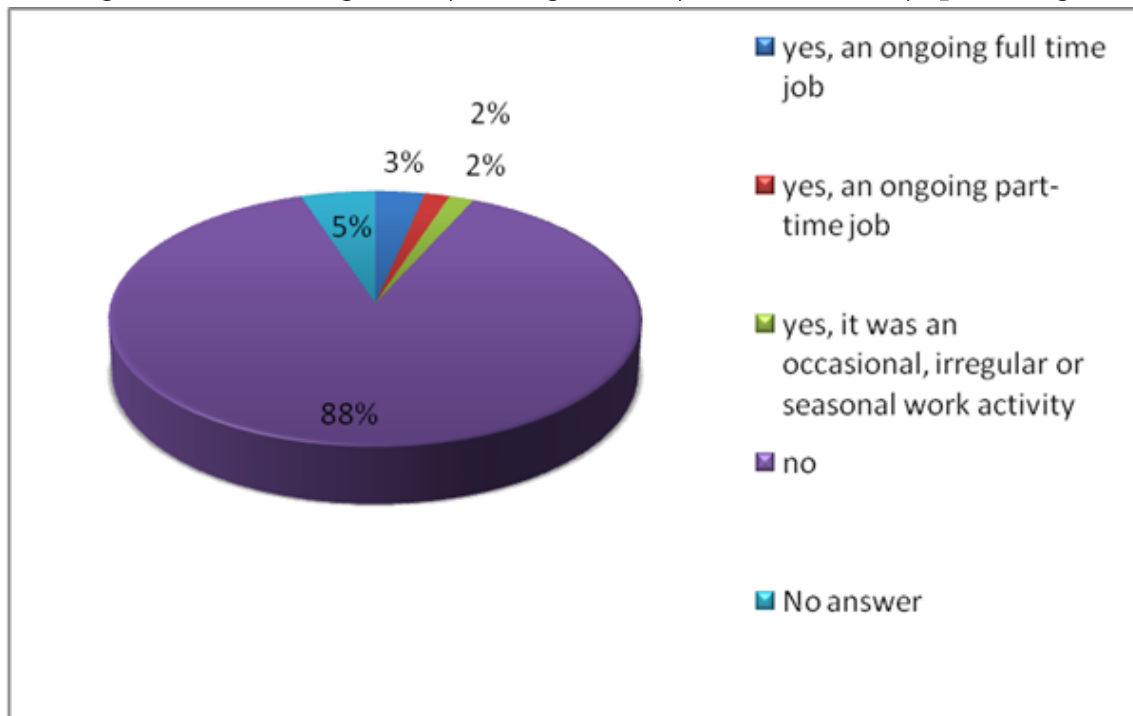
Figure 8. Graduates' current working (percentage)
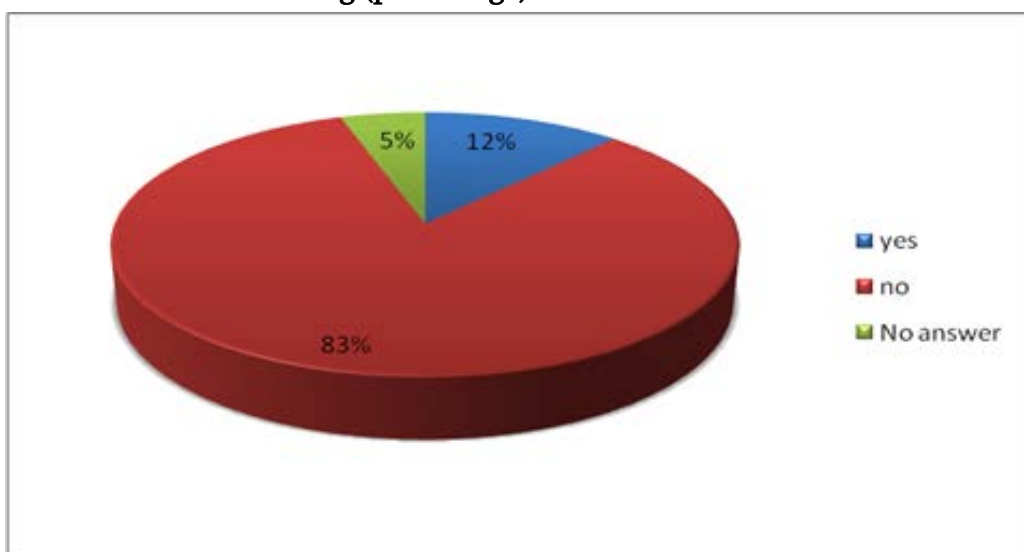
As the chart of Figure 8 shows, 12% of respondents indicated that they are currently working.

Figure 9. The graduates' working activity during the study at the university (percentage)

The information collected from the 59 questionnaires indicates that some graduates have an experience of study abroad (Figure 10).

Figure 10. Did you study abroad during your university studies? (percentage)
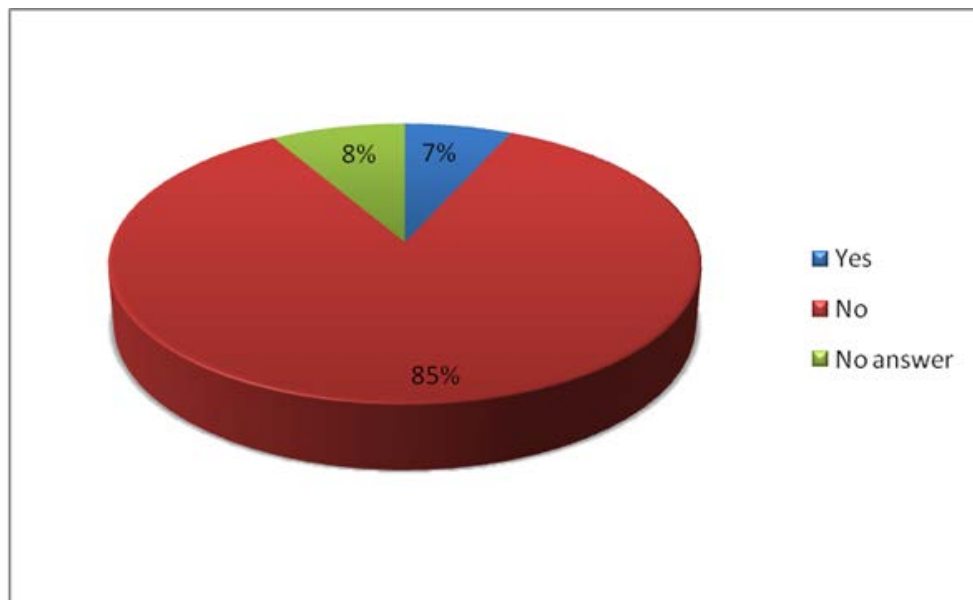
5. Evaluation of the course that graduates are completing now

The graduates' overall evaluation of the university experience was analyzed based on the question "Are you on the whole satisfied with your course of study?". The majority of the respondents answered to this question positively. Particularly, 64% answered "yes, definitely"

and 29% - "more yes than no". The results of statistical analysis are displayed graphically on the Figures 11.

Figure 11. Are you satisfied with your course of study? (percentage)
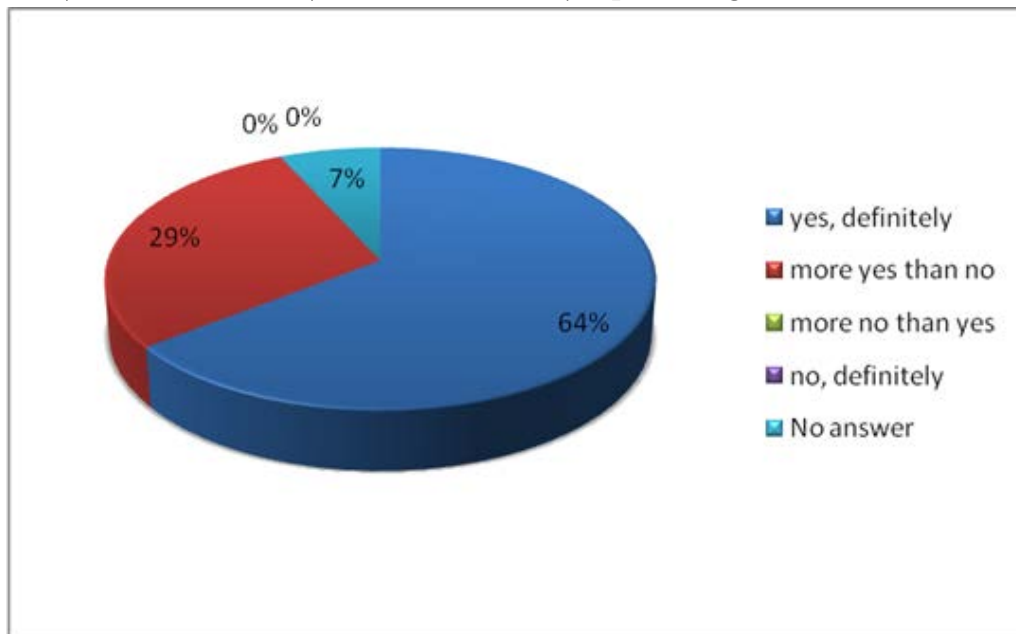

It is worth noting that the majority of the respondents are satisfied with the teachers (82%), administrative staff (80%) and students (81%) of the university (Fig.12). The fact that the majority of the graduates answered to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this university" (61%) and "on the same university but in another course" (22%) is exciting (Fig 13).

Figure 12. Graduates' satisfaction with the teachers, administrative staff, students (percentage)

	yes, definitely	more yes than no	more no than yes	no, definitely	no answer
students	81%	14%	0%	0%	6%
administrative staff	80%	14%	0%	0%	7%
teachers in general	82%	11%	0%	0%	7%
teacher's collaborators	80%	10%	2%	0%	8%
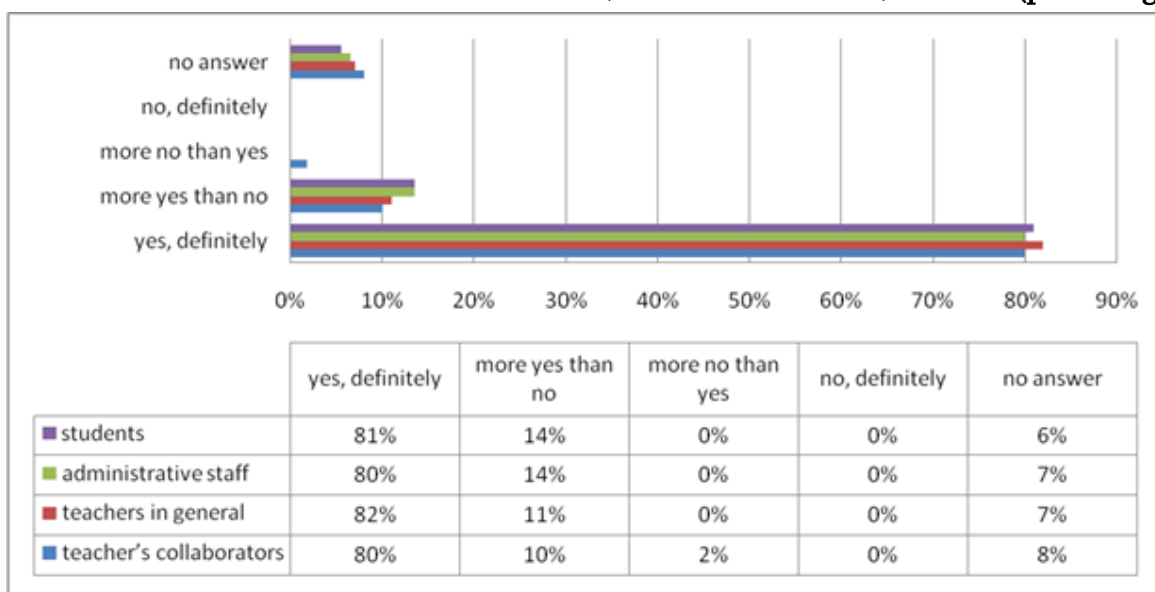
Figure 13. If you could go back in time, would you enroll again at university? (percentage)
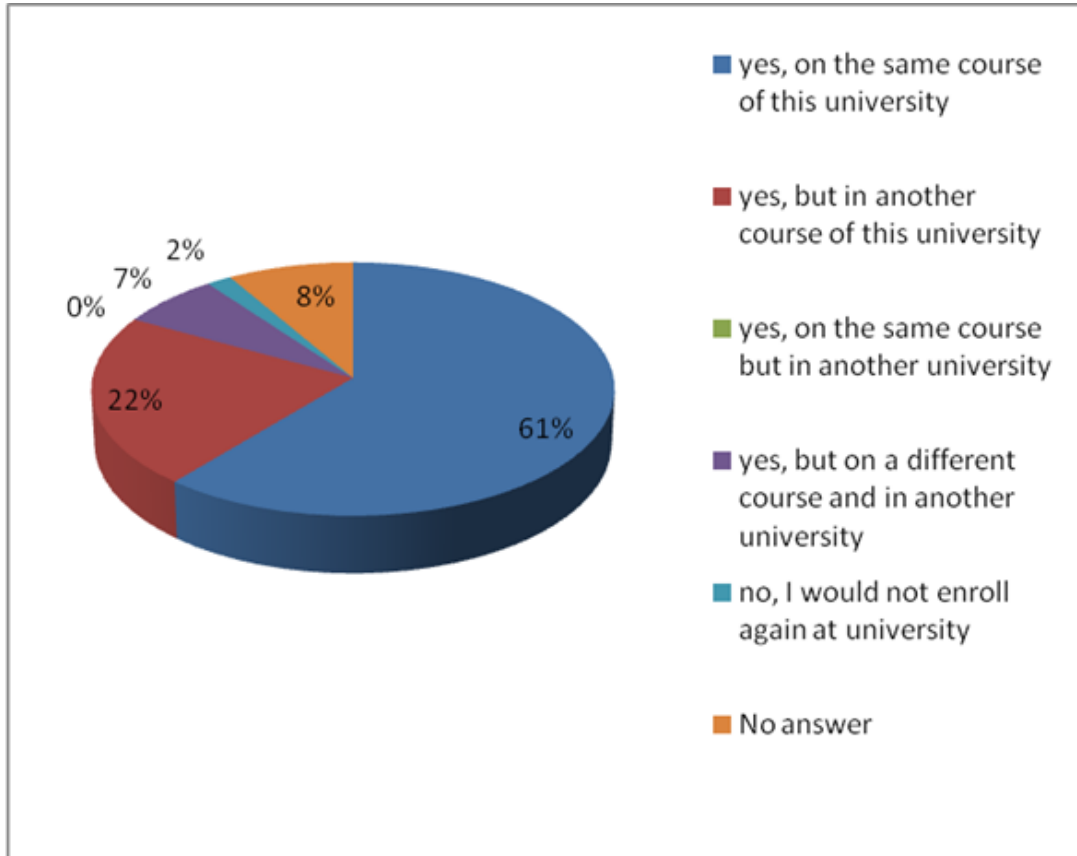
6. Information about family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential question among others.

Figure 14. Parents' educational qualification (percentage)

	no qualification	primary-school certificate	middle-school certificate	secondary school-leaving certificate	degree	no answer
■ Mother	0%	0%	3%	27%	66%	4%
■ Father	0%	2%	2%	29%	56%	11%
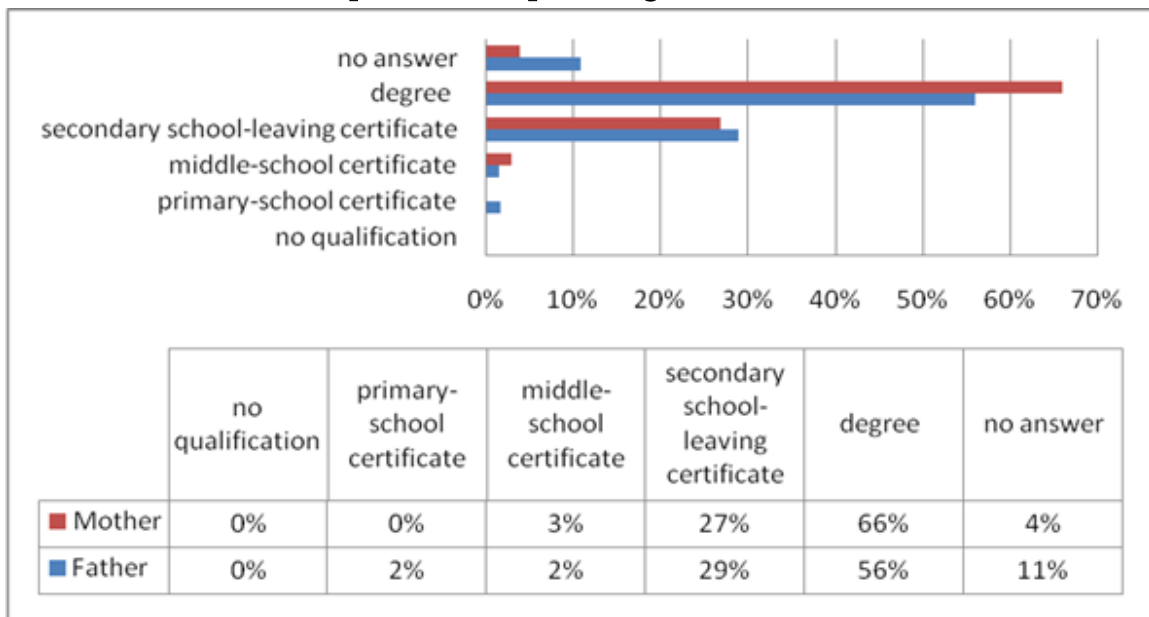
The result indicates that the graduates' parents (66% of mothers and 56% of fathers) mostly have higher education.

7. Future intentions and perspectives

The graduates' intention to pursue postgraduate education was analyzed based on the question "Do you want to continue study?. The results of statistical analysis are displayed graphically on the Figure 15. As it shows, 24% of respondents answered to this question positively.
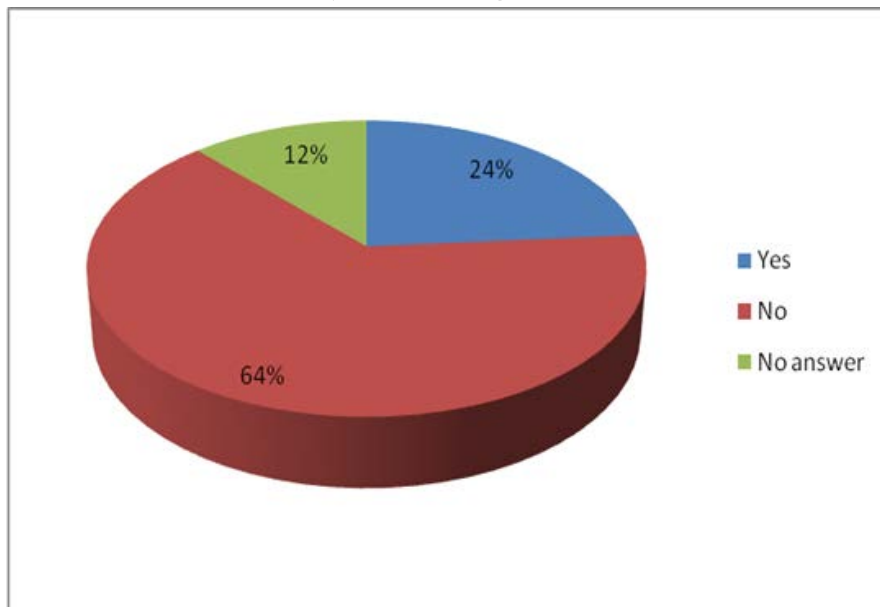
Figure 15. Do you want to continue study? (percentage)

The 49 % and 12% of the sample's respondents preferred respectively the public sector and private sector for their job with subordinate employment, while only 3% have a preference to be self-employed. (Fig.16). Presumably the high percentage of public sector preference could be explained by more protected conditions in terms of remuneration.

Figure 16. Graduates' preferences regarding to selection the kind of job (percentage)
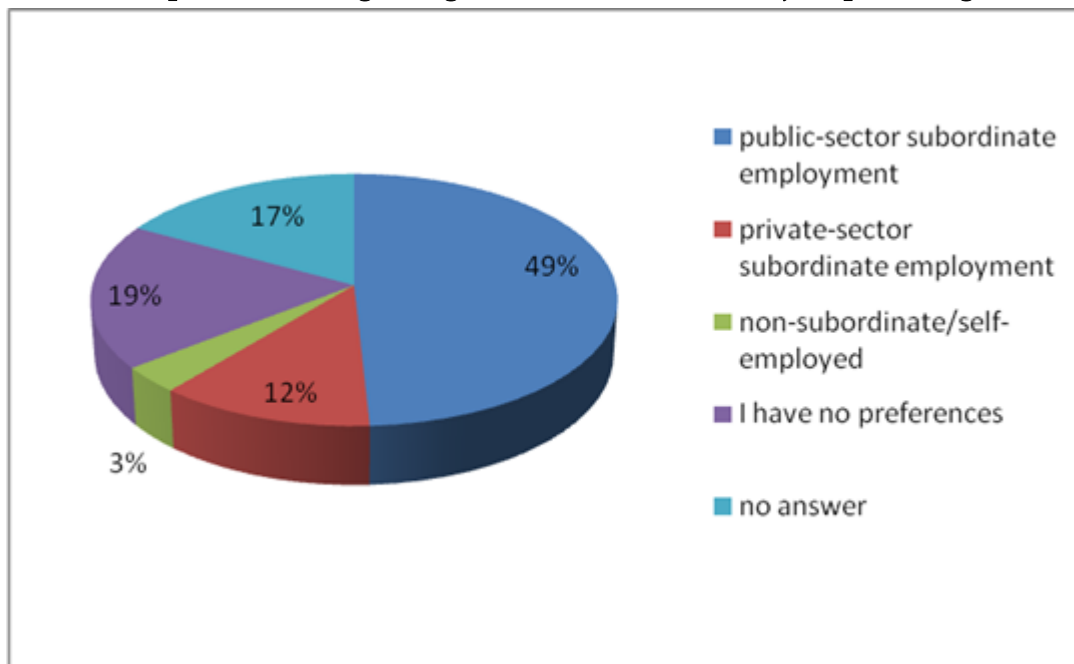
An analysis of graduates' preferences regarding the areas to work has been implemented based on the question "In which areas do you wish to work?". The majority of the respondents indicated that they prefer for the further work the Republic of Armenia, particularly location of the university study (61%), region of residence (59%) or other region of Armenia (35%). 32% of the respondents indicated other countries as a preferable place for the further work (Fig. 17). 7% of respondents believe that the job search duration after university graduation will be a month, 10% believe that it will be 1-3 months, and 14% believe it will be 4-6 months. 32% of graduates interviewed indicated that they are expecting to find a job within a year after university graduation (Fig.18).

Figure 17. Graduates' preferences regarding the work areas (percentage)
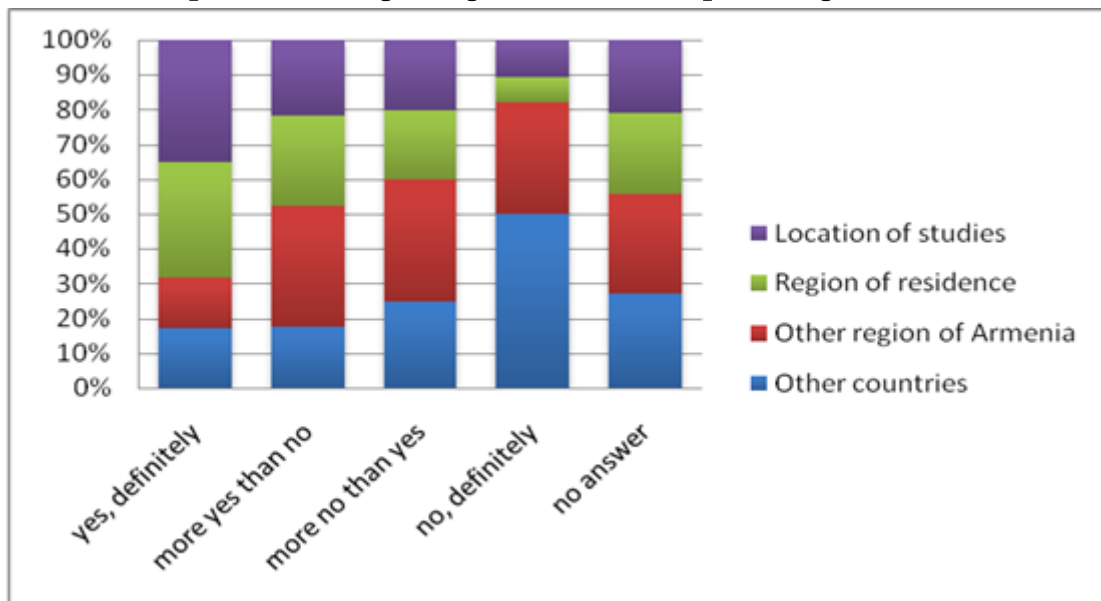
Figure 18. How long do you think it will take for you to find a job after the graduation from the University? (percentage)
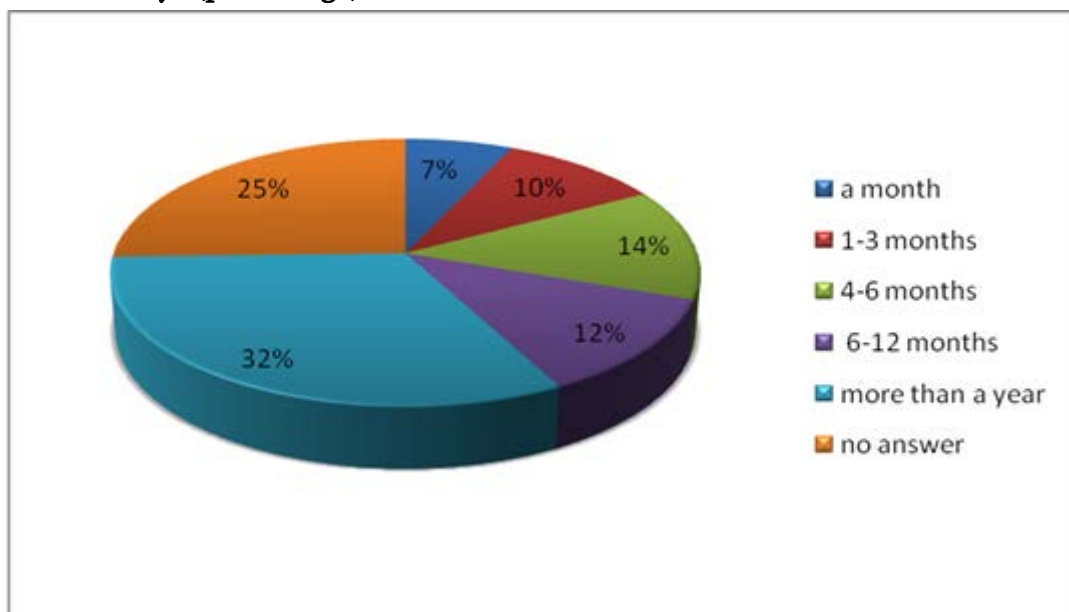
Conclusions

The following conclusions could be considered as the results of the GSU graduates' survey executed for 2014:

- The sample includes **59** graduates' questionnaires. It includes all five faculties. The majority of the graduates interviewed are bachelor degree program students. 80% of the interviewed graduates have a secondary school diploma.
- For graduates interviewed Armenian language is the mother tongue and almost for all of them the first foreign language is Russian and the second is English. The significant part of the graduates doesn't own a third foreign language.
- The majority of the respondents are satisfied with the training and learning methods used at the university during their study.
- 12% of sample's respondents are working currently.
- 64% of sample's graduates want to continue their study.
- 7% of sample's graduates have an experience of study abroad.
- The 49% and 12% of the sample's respondents preferred respectively the public sector and private sector with subordinate employment for their job, while only 3% have a preference to be self-employed.

National Polytechnic University of Armenia (NPUA)

Report
NPUA Graduates' Profile
(Pilot Survey)

Created by: Arpine Vahanyan, NPUA HEN-GEAR Research team leader

YEREVAN - 2015

1. Introduction

The NPUA Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the HEN-GEAR Tempus project (October 2012-October 2015) and is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) model. It contains an analysis of the features and performance of the graduates of the National Polytechnic University of Armenia (NPUA) in 2014. Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that graduate is completing now
- Evaluation of the course that graduate is completing now
- Information about the family
- Future intentions and perspectives

The objectives of the Report development are:

- to introduce data on university and graduates performances
- to outline the main features of the NPUAs' graduates,
- to provide the information to those, who are interested by the NPUA or involved in policy development for the university education system further progress,
- to provide a tool kit for the university study programs development and selection,
- to improve the HEN-GEAR questionnaire.

In addition, we have focused our attention on the gender ratio, features of faculties and specialties and graduates' distribution in terms of qualification levels of study program in this Report. In those sets of the Questionnaire and in those questions where we found any differences between answers of male and female graduates or between bachelor and master degree program respondents we have presented results with the appropriate ratio. Generally the interpretation of the results *of the statistical analysis has been done taking these features into account.*

2. Sampling of NPUA graduates surveyed

The Report contains a survey results based on the sample including 71 eligible questionnaires that were selected from 133 filled in questionnaires. The eligible questionnaires were selected via applying the exclusion criterion on completeness to the questionnaires. Particularly, the questionnaire completeness criterion is satisfied, if the respondents replied to at least 3 of the essential questions.

Particularly essential questions for this report are:

- parents' educational qualification,
- training and learning methods assessment,

- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

This sample of 71 graduates' questionnaires, out of which 59 (83%) questionnaires were filled in by bachelor degree program's (four years study) students and 12 (17%) - by master degree program's (two years study) students. All of the sample's graduates are full time students which means that they have earned their credits through the class work achieved by university attendance (Fig. 1).

Figure 1. The qualification level of study program of the graduates with female-male ratio
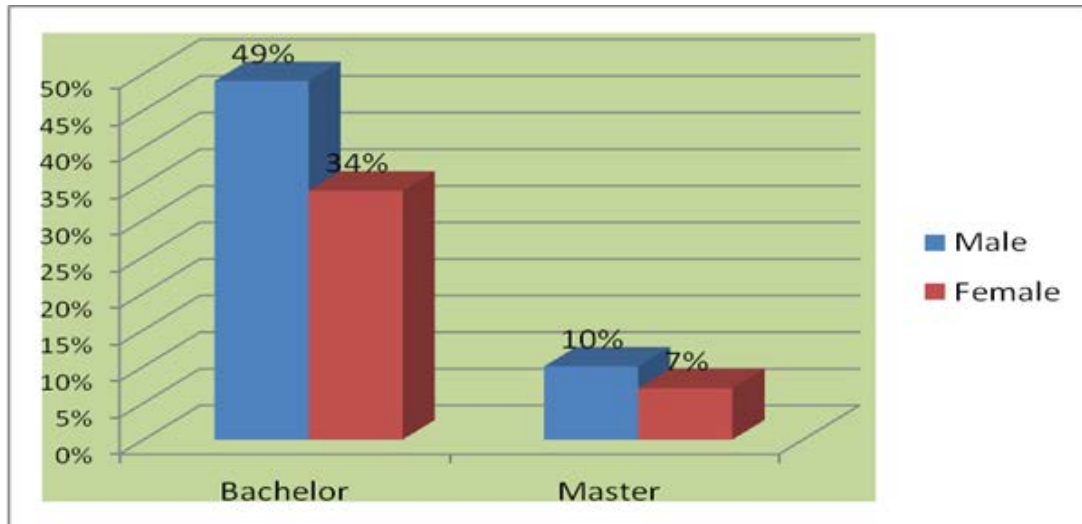
In Figure 1 female-male ratio shows that more than half of respondents are males (59%) as it was expected (as a rule in the technical university majority of students are males). Republic of Armenia is divided into ten <u>provinces</u> (regions), with the city of <u>Yerevan</u> having special administrative status as the country's capital. In this sample we have representatives from almost all regions, except Vayots Dzor, Tavush and provinces of Nagorno-Karabakh Republic (Fig. 2).

Figure 2. The qualification level of study program and region of birth of the graduates
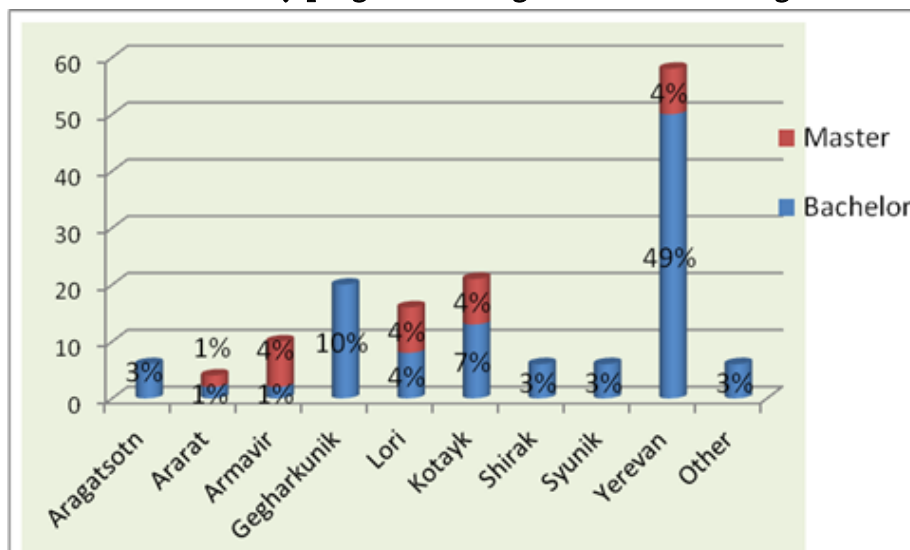
As it is shown in Figure 2, about half of respondents are from Yerevan (53%), followed with Kotayk, Gegharkunik, Lori, Armavir, Shirak, Syunik, Aragatsotn and Ararat with decreasing percentages. Only 3% of respondents are from other regions (neighbor countries).

We have respondents from Transportation Systems, Computer Systems and Informatics, Electrical Engineering, Cybernetics, Mining and Metallurgy, Applied Mathematics, Power Engineering, Radio Engineering and Communication Systems, Chemical technologies and Enviromental Engineering and Machine Building faculties. It means that the sample includes all faculties, except the faculty of Mechanics and Machine Study.

The main part of the sample (21% and 20%) make the graduates of "**Transportation Systems**" and "**Computer Systems and Informatics**" faculty (Fig. 3).

Figure 3. Faculties of the NPUA
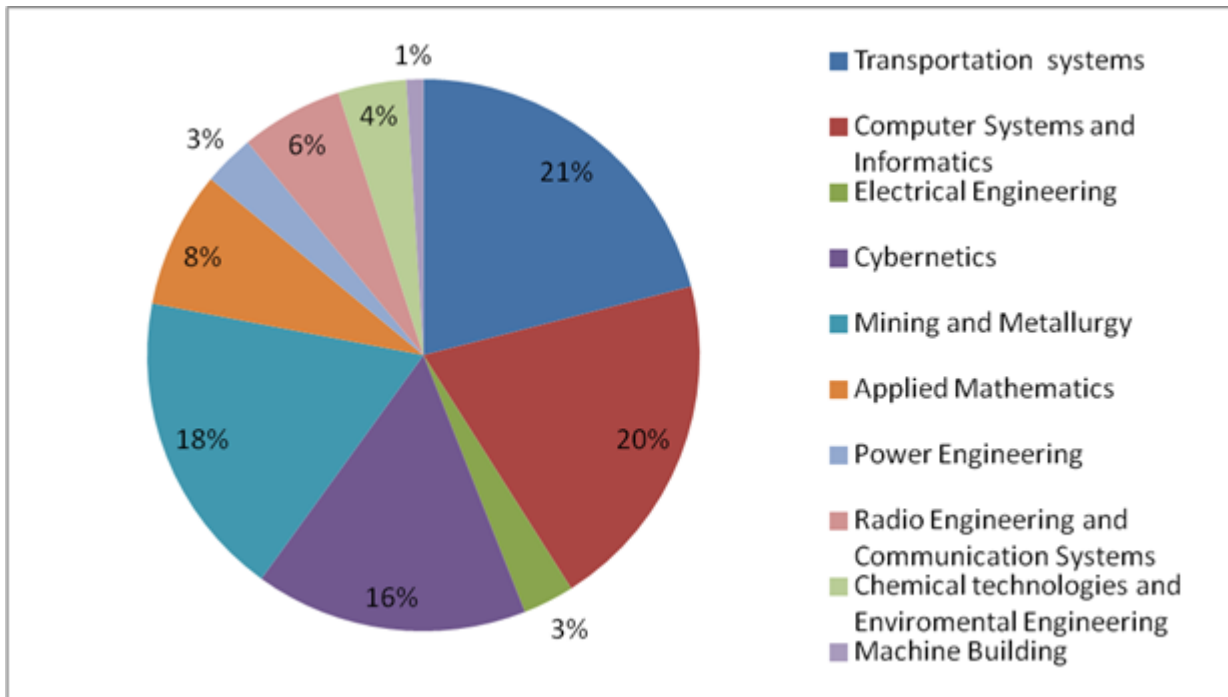
To make more detailed introduction of the sample's graduates by faculties we present results by the qualification level of study program. The results of statistical analysis are displayed on the Figures 4 and 5.

Figure 4. Faculties of the Bachelor degree program with male-female ratio
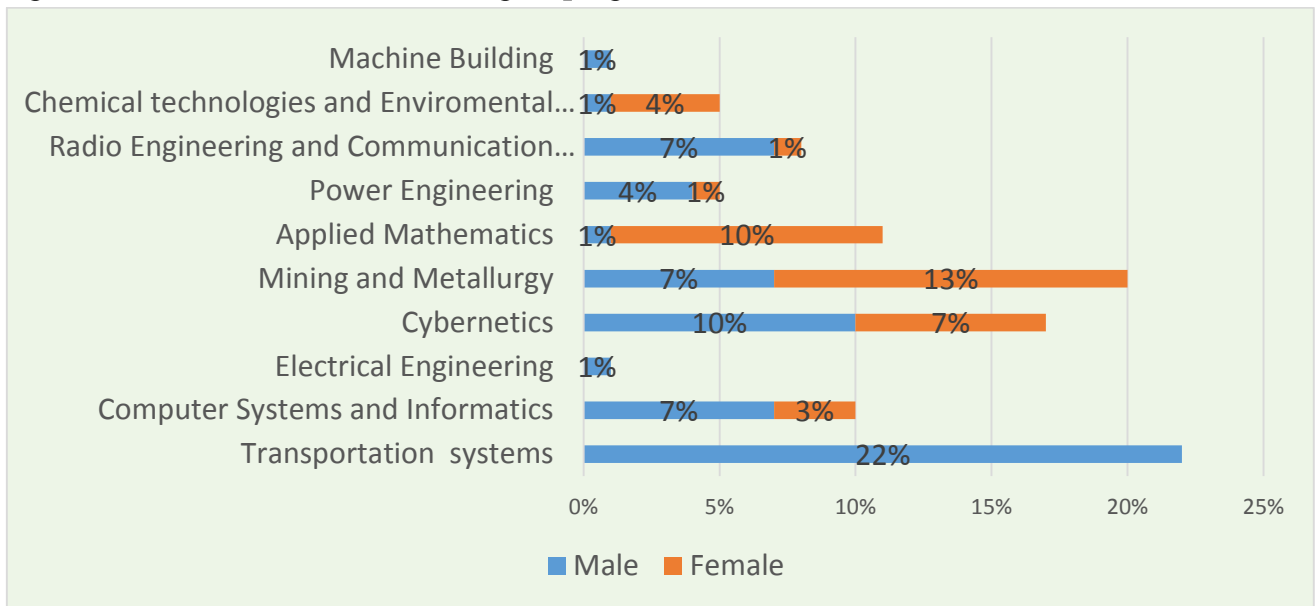
As becomes clear from Figure 4, there are three faculties (Transportation Systems, Electrical Engineering, Machine building) with only male graduates. The majority of graduates of the Bachelor degree program are male in the faculties of Cybernetics, Computer Systems and Informatics, Power Engineering, Radio Engineering and Communication Systems.

Figure 5. Faculties of the Master degree program with male-female ratio
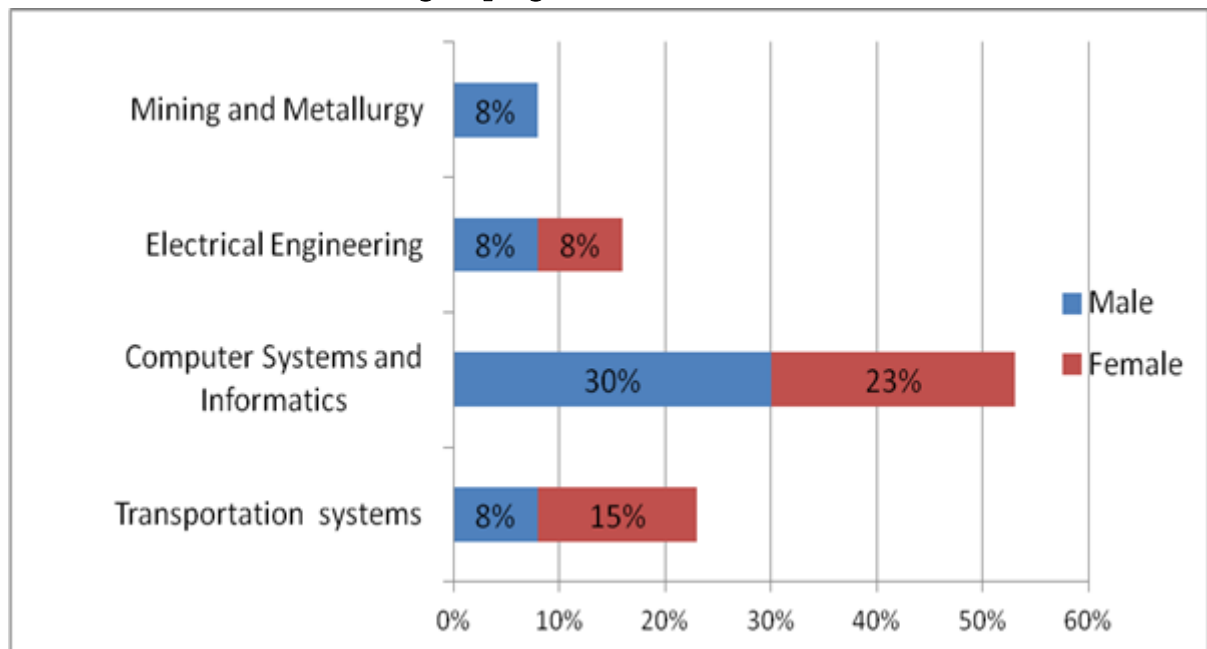
Figure 5 shows that the faculty of Mining and Metallurgy has only male graduates of Master degree program. The main part of the graduates of Master degree program are from faculties of

Computer Systems and Informatics (53%) (with male dominance) and Transportation Systems (23%) (with female dominance).

After presenting faculties included in this sample with the male-female ratio in both qualification levels of the study program, in the next figure we would like to show specialties of the sample's graduates also divided into categories of qualification levels of study program with no differentiation of male and female since the quantity is not enough for all specialties to see the dominating category.

As there are many specialties mentioned by the sample's graduates' we have chosen five most popular specialties by increasing percentage to have statistics of the change of popular specialty for each year (Fig. 6).

Figure 6. Five most popular specialties of the sample's graduates interviewed (Bachelor and Master degree program) (scale 1-5, where 1 is the highest point and 5-the lowest point)
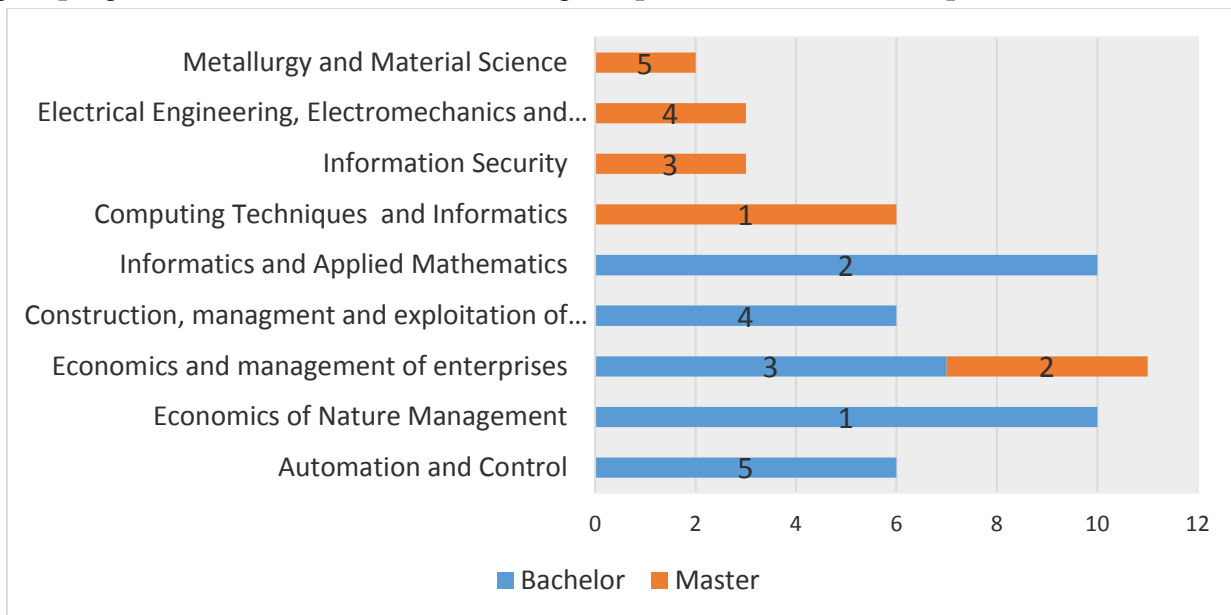
Specialties with higher percentage are shown in Figure 6. Particularly, specialties of Bachelor degree program are Economics of Nature Management, Informatics and Applied Mathematics, Economics and Management of the Enterprises, Construction, Management and Exploitation of Transportation Roads and Means, Automation and Control. Within specialties of Master degree program the following ones are dominating - Computing Techniques and Informatics, Economics and Management of the Enterprises, Information Security, Electrical engineering, Electromechanics and Electrotechnologies, Metallurgy and Material Science. Other specialties have low percentage and are not included in this figure. In the sample we also have graduates with the specialties of Electronic Technology, Environmental Protection, Thermal Power Engineering, Environmental Observance /in Power Engineering's branch/, Power-Energetic, Machine Building and Material Processing, Microeconomics and Management of Enterprises, Information

Technology, Biomedical Engineering, Radioengineering and Communication, Environmental Protection and Efficient Use of Natural Resources, Organization and Management of Transportation and Road Traffic, Electronic technology.

Here we found out very surprising difference in the ranking of specialties of Bachelor and Master degree programs. There is only one specialty (Economics and Management of the Enterprises) mentioned in the list of popular specialties in both Bachelor and Master degree program.

Finally, analyzing grade point average of graduates' from each faculty we found out that there are two faculties (Applied Mathematics and Cybernetics) where graduates have only excellent progress in their university study. Thus 42% of graduates have excellent progress in university study, although only 14% of them have diploma with honor from secondary school (Fig. 7).

Figure 7. Degree/grade point average of graduates'
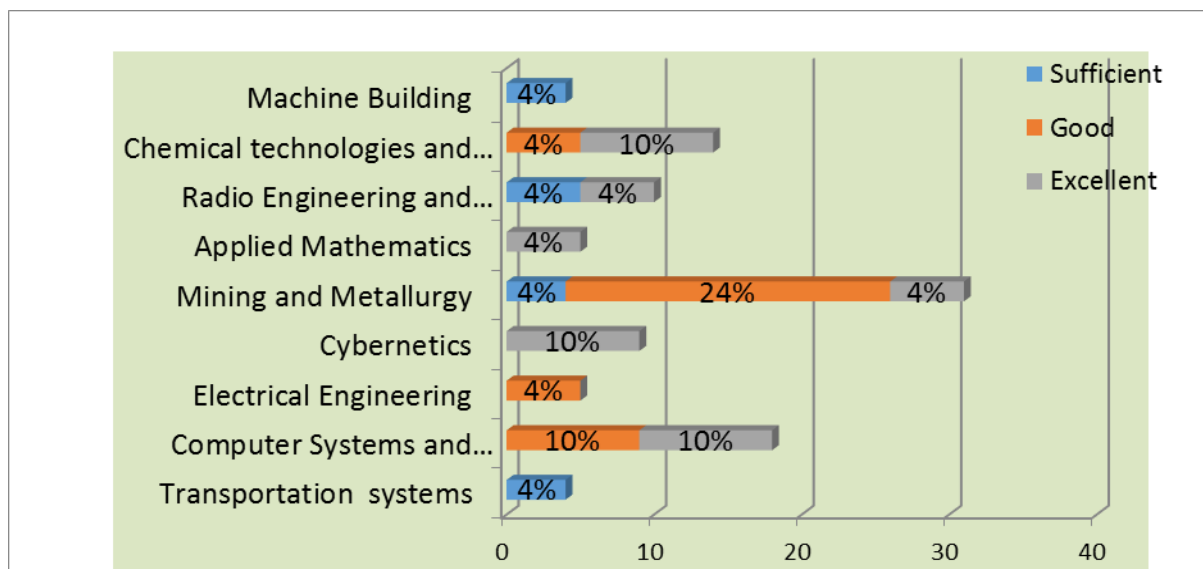
As the Figure 7 shows, the majority of the interviewed graduates have good (42%) or excellent (42%) progress in university study. This very interesting result makes us declare that the university has produced highly-qualified and promising young specialists in 2014.

3. Education and trainings of graduates

The majority of graduates (91%) included in the sample have a secondary school diploma awarded for 12 years study at the secondary school. Among graduates, who is a holder of secondary school diploma, more than a half (61%) have graduated a high school in Yerevan, and 39% of them were studied in different provinces of Armenia (Kotayk, Lori, Gegharkunik, Syunik, Ararat, Armavir, Aragatsotn, Shirak) and in provinces of neighbour countries (Fig. 8).

Figure 8. Kind of graduates' high school diploma
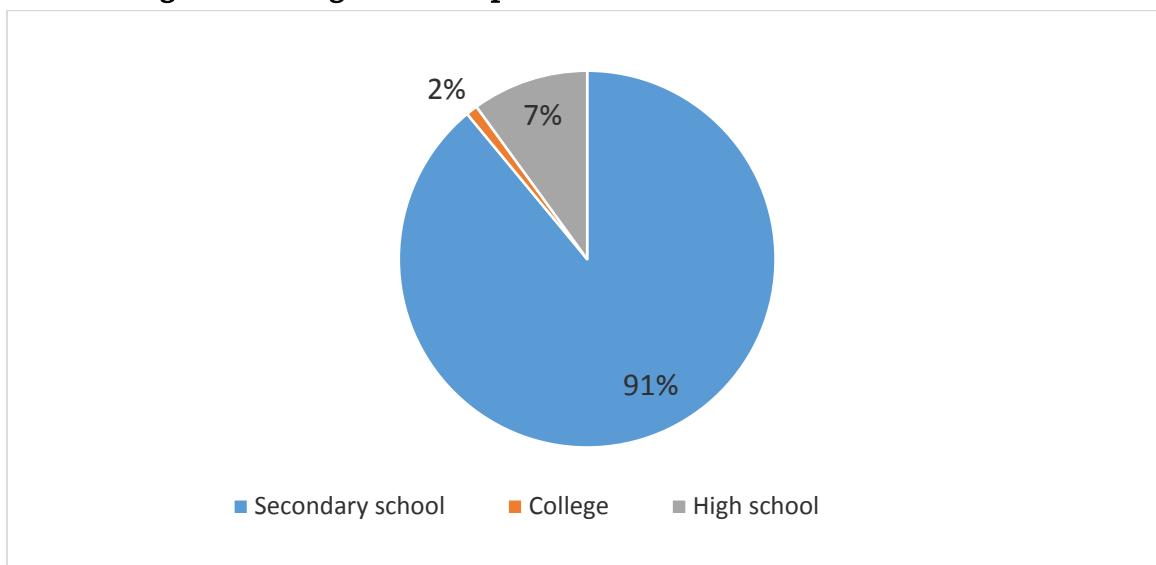
Figure 8 shows that the most popular kind of school in the sample is secondary school. Colleges are in the stage of becoming popular in Armenia. So this result was expected.

Analysis of the answers to the question "Have you already achieved another academic degree prior to academic degree that you are now completing?" with the female-male ratio showed that about three quarter (73%) of the interviewees (52% are male graduates) don't have any other academic degree prior to academic degree they have completed lately. It can be explained by the fact that the majority of respondents are bachelor degree graduates and this was their first academic degree (Fig. 9).

Figure 9. Graduates' distribution by gender who don't have another academic degree
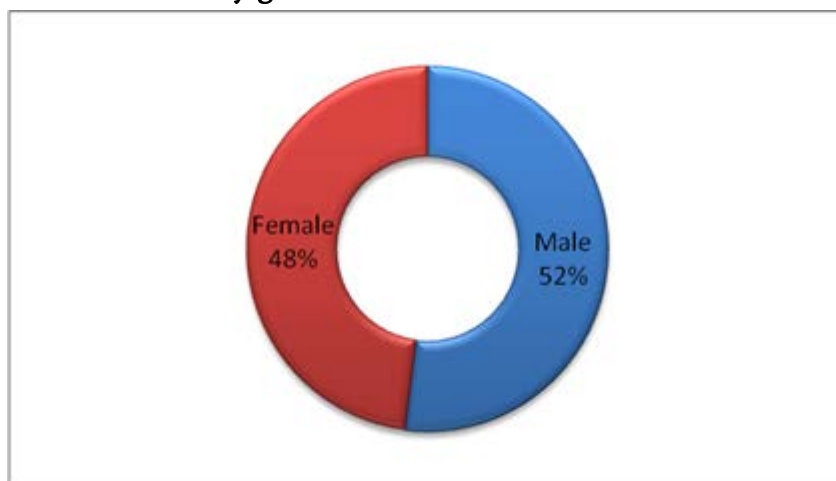
In Figure 9 we can see that there is no significant difference between male and female graduates' distribution.

38% of graduates' have graduated secondary school with honors, from which 81% are Bachelor degree program's and 19% are Master degree program's respondents (Fig. 10).

Figure 10. Female-male ratio of graduates' who graduated high school with honors
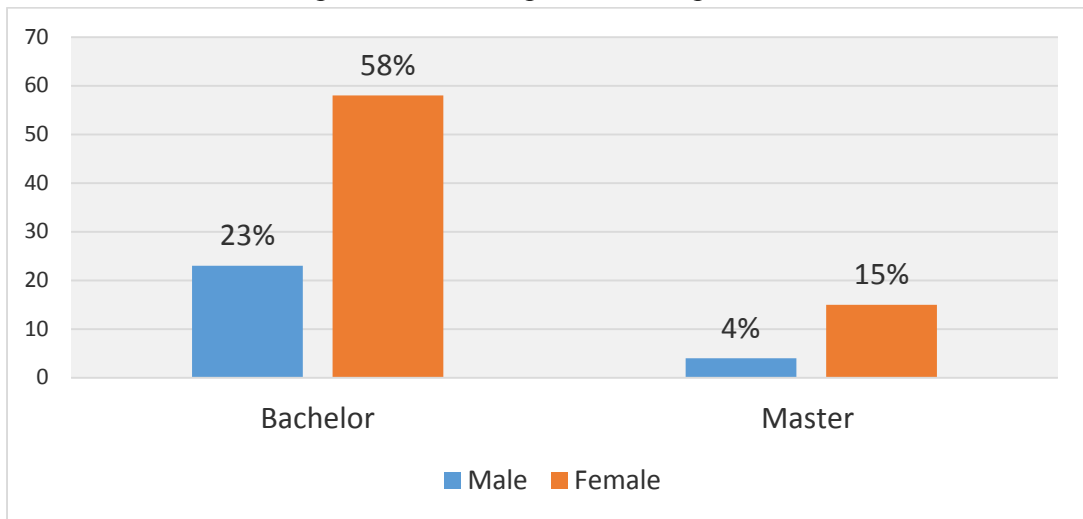
Figure 10 shows that three quarter of respondents, who graduated high school with honors, are female graduates (73%).

Regarding the language skills, Armenian language is the mother tongue for 99% and Russian- for the rest 1% of the graduates.

Russian, English, German, Greek are popular among foreign languages.

Russian is the first foreign language for 86% and English - for 13% of respondents. 80% of respondents indicated that the second foreign language for them is English, and 13% mentioned Russian as a second foreign language (Fig.11).

Figure 11. Language skills of the graduates
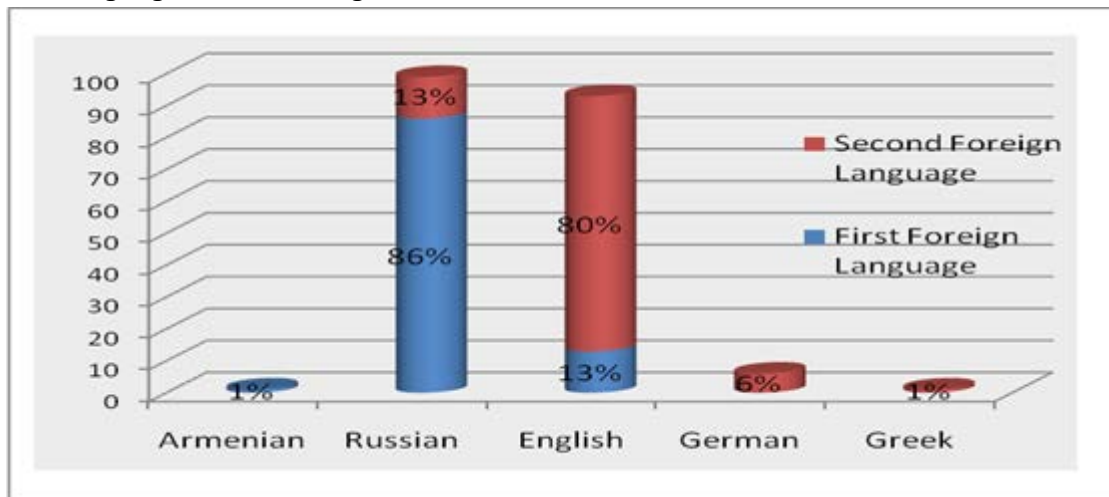
As becomes clear from Figure 11, a few respondents (6% and 1%) have mentioned German and Greek languages as the second language.

Only 3% of respondents indicated that they have third foreign language skills (Korean and other languages).

As worldwide known, there are many differences between the skills of foreign language writing and speaking. So aiming to find out how big such difference is among our graduates we analyzed answers to the questions about foreign language writing and speaking skills (Fig.12).

Figure 12. Foreign Language writing and speaking skills of graduates (Mean: scale of 1-5, where 1-poor, 2- fair, 3-good, 4- very good, 5-excellent)
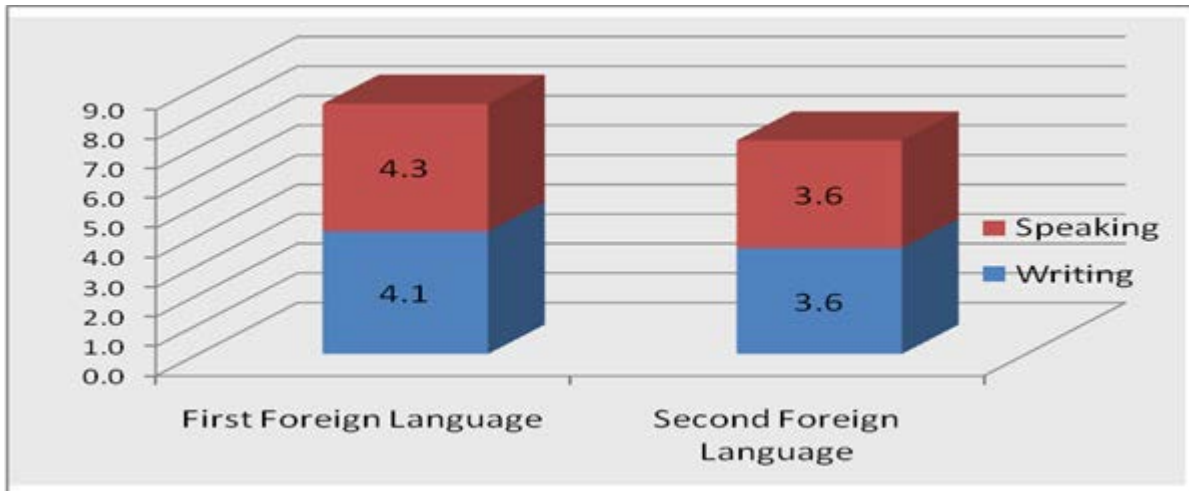
Figure 12 shows that there is no significant differences between foreign language writing and speaking skills, but we have noticeable difference between first and second foreign languages' writing and speaking skills. Here points from 3.6 to 4.3 mean that the respondents are well skilled in the first foreign language and sufficiently skilled in the second foreign language.

Analysis of IT skills of our graduates helps us to find out in which spheres they are skilled. The results are displayed on the Figure 13.

Figure 13. IT skills of Armenian graduates interviewed (Mean: scale of 1-5, where 1-poor, 2- fair, 3-good, 4- very good, 5-excellent)
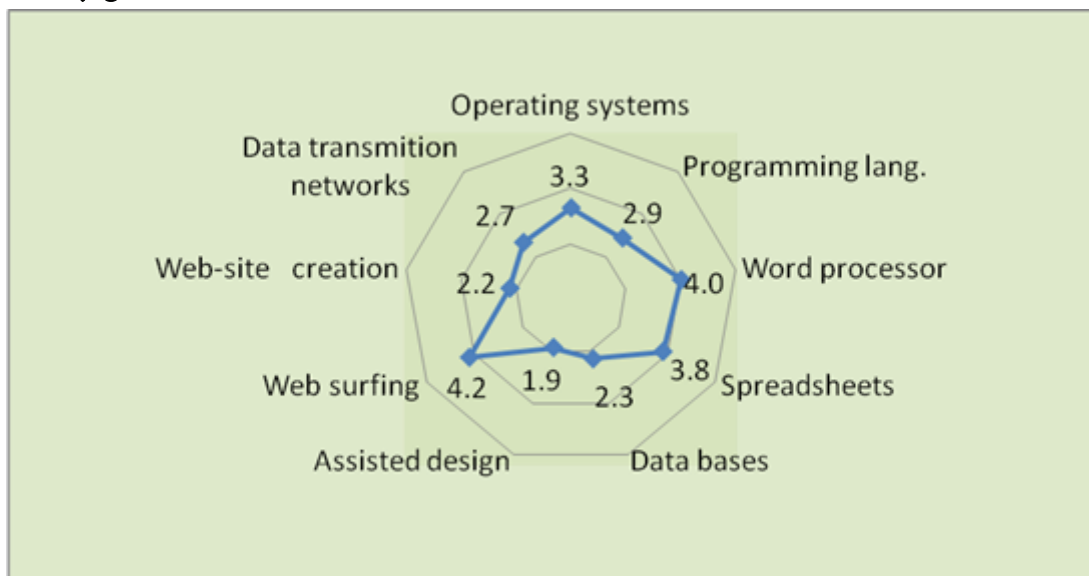
Figure 13 shows that NPUA graduates are well skilled mostly in web surfing and word processing and sufficiently skilled in spreadsheets and operating systems. Assisted design have the lowest

grade. And this is one of the weaknesses of the sample respondents we found out regarding their IT skills. An overall evaluation of this part shows that the graduates have good IT skills.

4. Information on the course that graduates have completed

The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the answers of graduates given by them to the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?". This question correlating with the question on "Do you want to continue to study?" we got statistical results that are displayed on the Figure 14.

Figure 14. Satisfaction with the training and learning methods and intention to continue studying
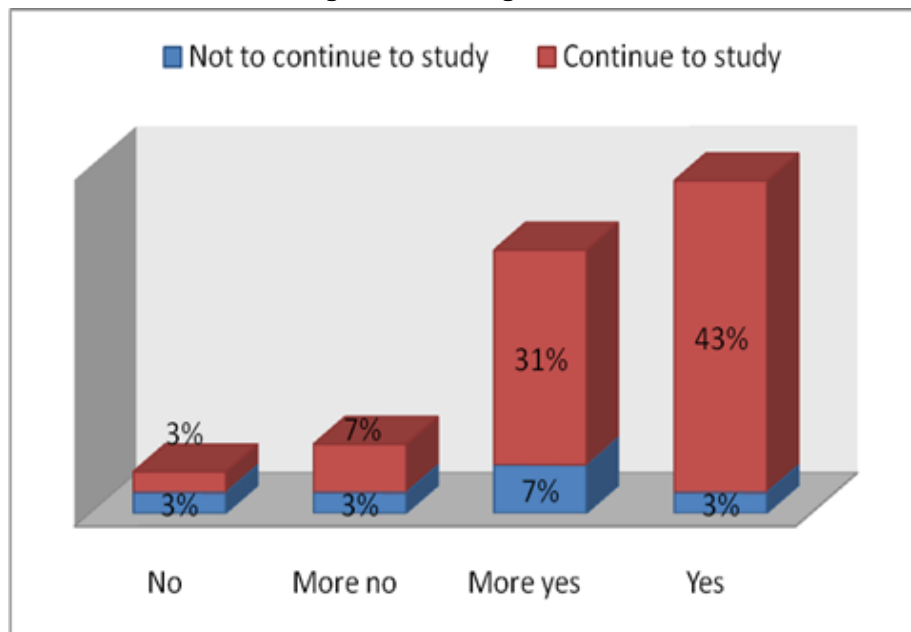
Figure 14 shows that the majority of the respondents (84%) are satisfied with the training and learning methods used at the university during their study. A correlation between two questions ("Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" and "Do you want to continue study?") shows that 16% of respondents don't want to continue study from which 6% are not satisfied with the training and learning methods.

The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire: "Did you carry out a working activity while attending classes?" and "Are you on the whole satisfied with your course of study?" (Fig. 15).

Figure 15. Correlation of the graduates' working activity during the study at the university and satisfaction with the course
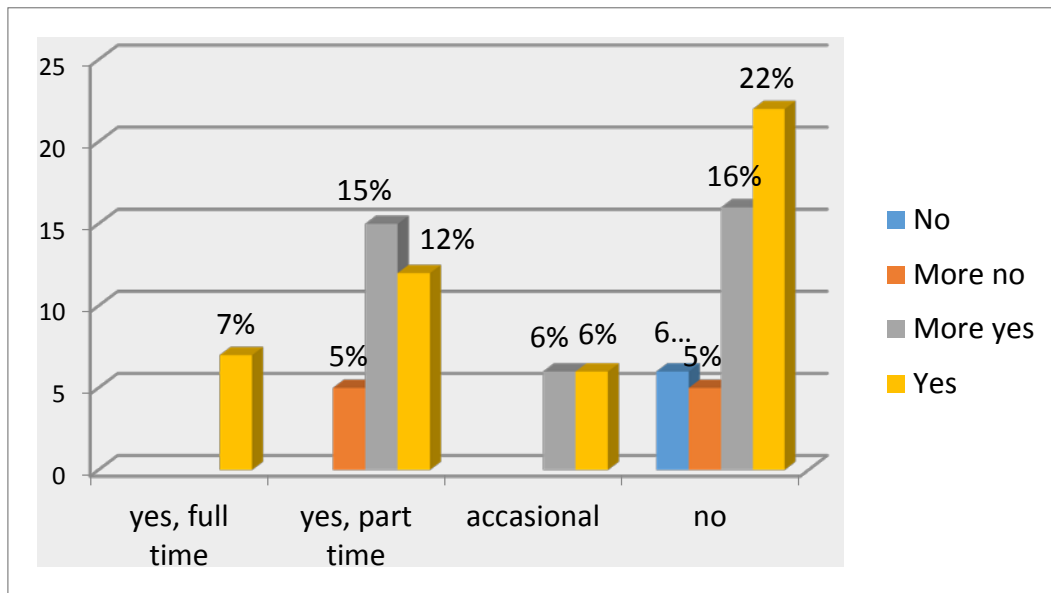
As the chart of Figure 15 shows, 51% of respondents indicated that they are currently working. Presumably such percentage of working graduates could be explained by chargeable high education. Regarding the satisfaction with the course among the graduates who have a current working activity we can see that there is only 5% (out of 51%) of respondents are not satisfied with the course. 11 % of respondents who don't have a current working activity are also not satisfied with the course. However the majority of graduates are on the whole satisfied with the course of study. So there is not significant correlation between having a working activity during study and the level of satisfaction with the course.

After analyzing graduates' current working activity, which shows that about half of graduates' (51%) are currently working, in the next figure we present the results of the statistical analysis of the graduates' answers to the question "Was the working activity relevant to the university studies carried out?" (Fig.16).

Figure 16. "Was the working activity relevant to the university studies carried out?"
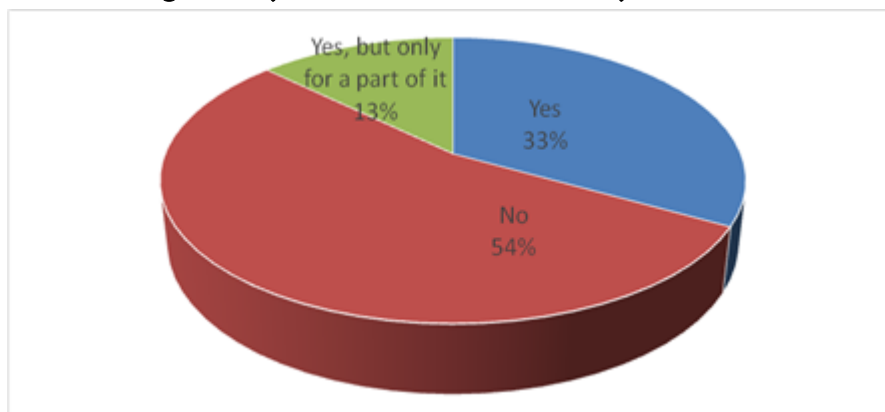
From Figure 16 it becomes clear that about half of the respondents (46%) have working activity relevant to the university studies. This can be assessed as good result from the side of getting study-based practical skills.

As the percent of currently working graduates is high, we decided to find out male and female distribution among them, which is shown in the Figure 17.

Figure 17. Female and male graduates' current working
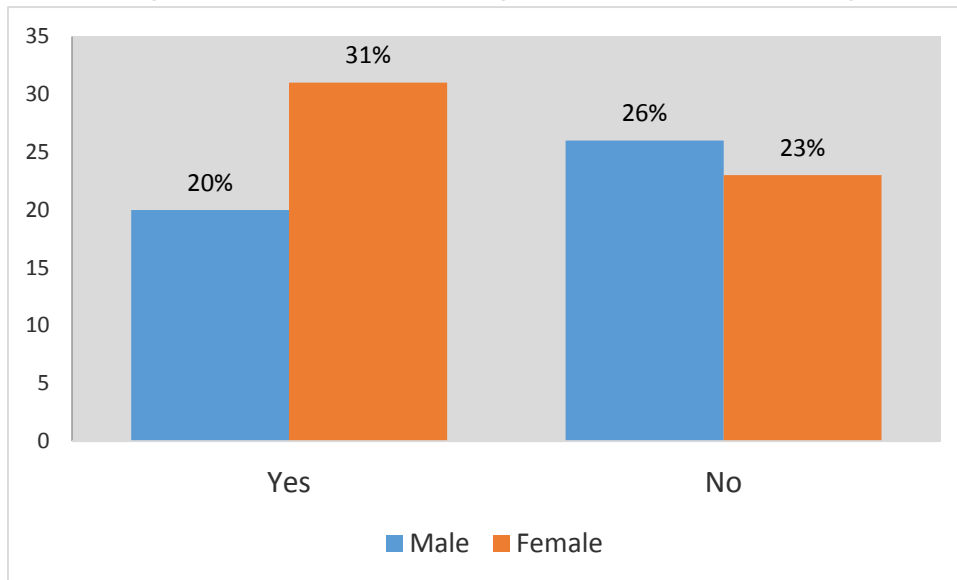
The database information collected from the 71 questionnaires indicates that no graduates have an experience of study abroad. This indicator allows making an assumption on the lack of mobility among the students of the university despite the surveyed sample is not large enough to insist on that. As the statistical analysis shows, 43% of the interviewed graduates haven't carried out any trainings during the university study period, the rest 40% have carried out trainings and 17% have a job activity that has been subsequently acknowledged by the degree course (Fig.18).

Figure 18. "During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree course?"
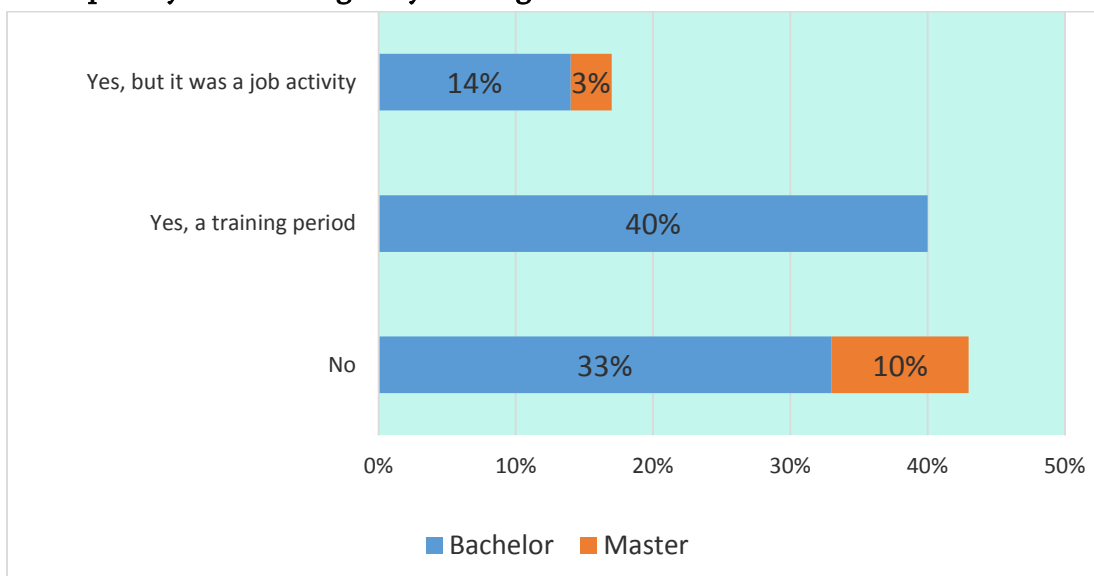
Figure 18 shows that the majority of the respondents (87%) who answered positively to this question are Bachelor degree program graduates. This is expected as the main part of the sample consists of graduates of Bachelor degree program (83%).

5. Evaluation of the course that graduates have completed

The graduates' overall evaluation of the university experience was analyzed based on the information received from the answers of graduates given by them to the question on "Are you on the whole satisfied with your course of study?". The majority of the respondents answered to this question positively (84%). Particularly, 47% answered "yes, definitely" and 37% - "more yes than no". The results of statistical analysis are displayed on the Figure 18.

Figure 18. Graduates' satisfaction with the course
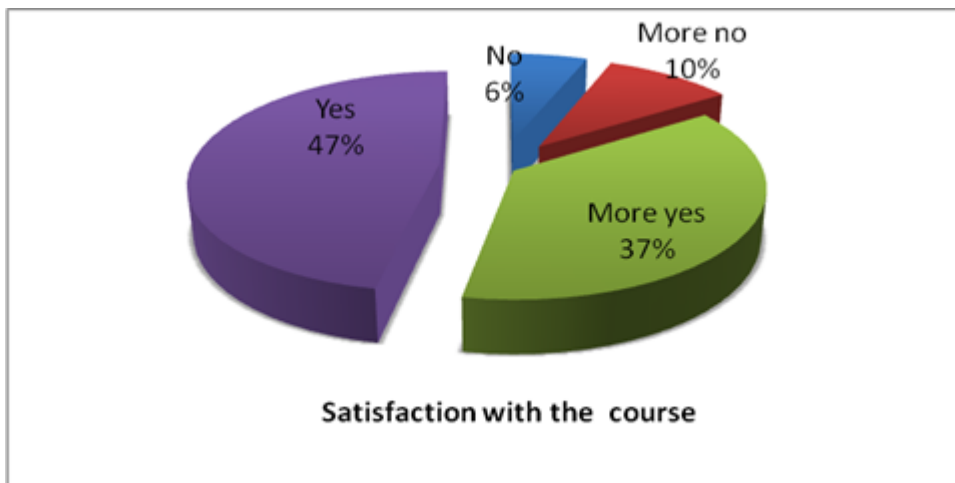
As the main part of the sample (21% and 20%) make the graduates of "Transportation systems" and "Computer Systems and Informatics" faculty, it makes sense to identify the satisfaction of graduates of these faculties and specialties included in them. High percent of positive assessment of university course and accordingly satisfaction level with the study make us think that educational process in the university is organized on a high level.

Satisfaction with the course of graduates was statistically analyzed both by the direct question ("Are you on the whole satisfied with your course of study?") and by such a question as "Are you satisfied with the examination, teachers, administrative staff and students of the university". The results of the analysis of this question are displayed in the Figure 19.
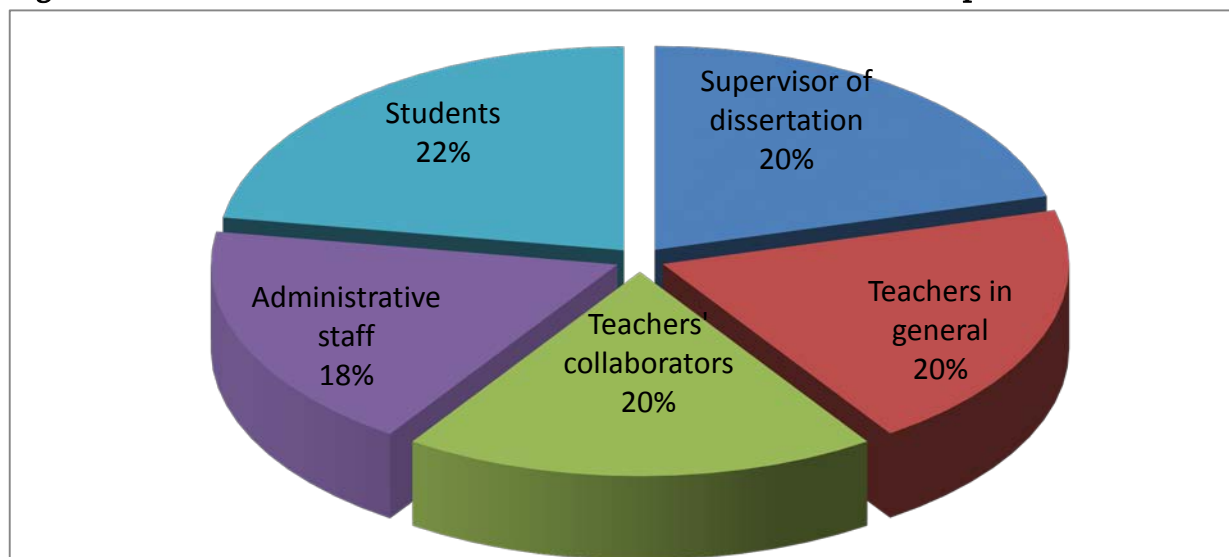
In Figure 19 we can see that graduates are mostly satisfied with the relationships with students (22%) and minimally satisfied with the administrative staff (18%) of the university.

The fact that the majority of the graduates answered respectively to the question on "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same university" (52%) and "another armenian university" (27%) and "another country (21%) is excited (Fig. 20).

Figure 20. Graduates' intention to enroll again at university and satisfaction with the course
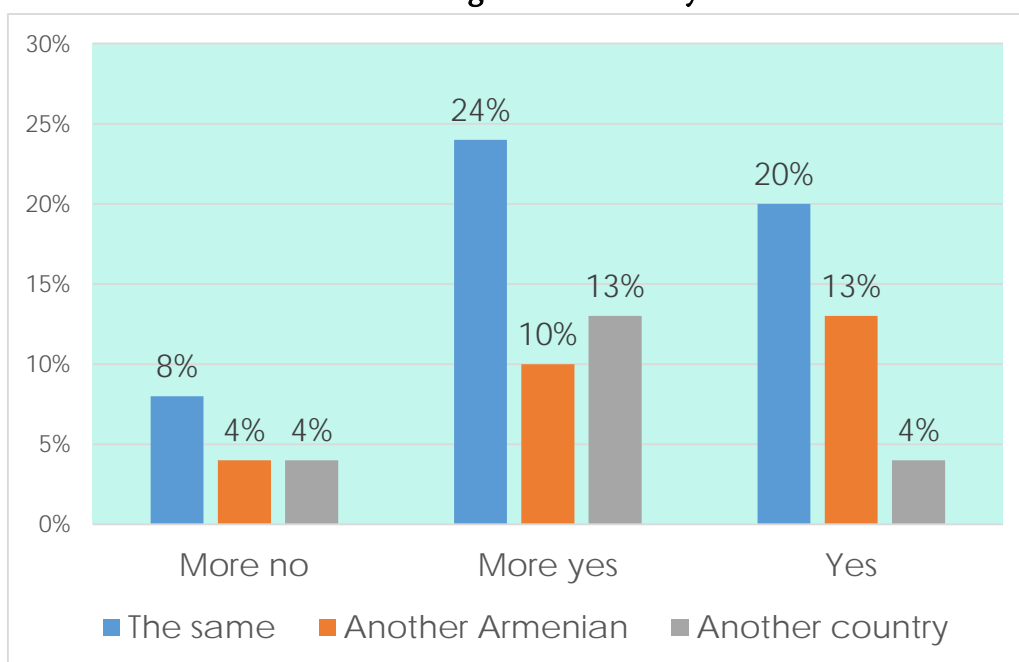
6. Information about family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential questions of the Questionnaire. It is important to find out how strong is a link between parental and children's education. Statistical analysis shows that there is a positive correlation between both father's and mother's education and graduates' educational

choice to continue the study in the same or other university. We also find out that if one of the parents has higher education or secondary school-leaving certificate graduate may choose to continue the study not only in the same university but also in another Armenian or foreign university (Fig. 21).

Figure 21. Parental education and graduates' choice to continue their study
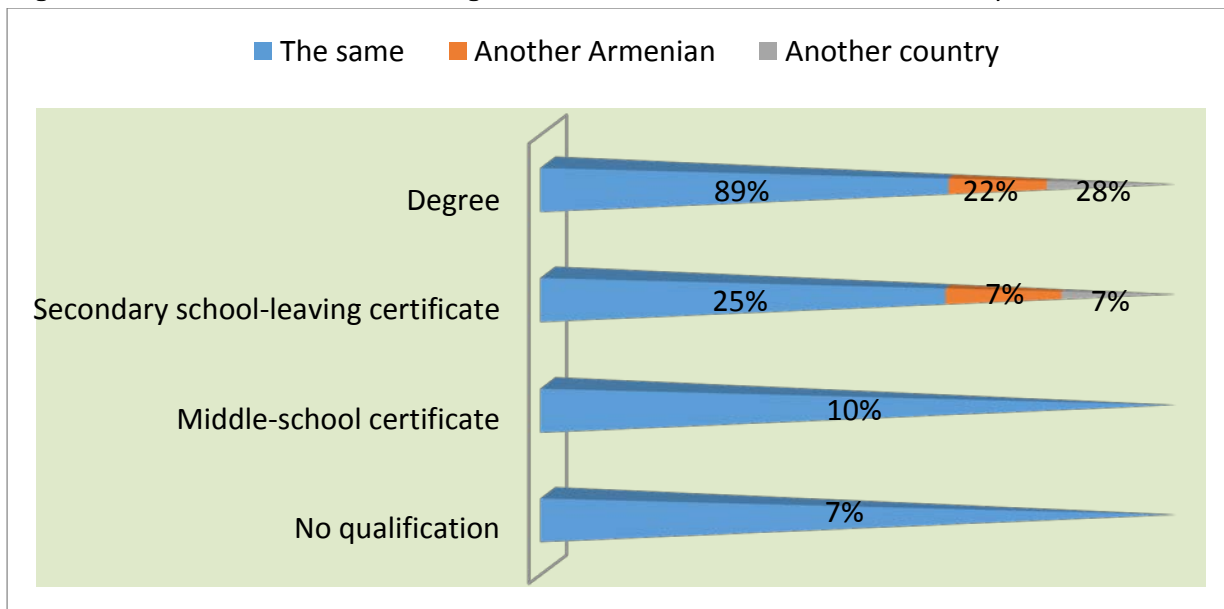
Figure 21 shows that one quarter of the respondents, whose parents (72% of fathers and 67% of mothers) have higher education, choose to continue to study in another university, from which about half choose foreign university. Graduates, whose parents have secondary school-leaving certificate, mostly prefer to continue the study in the same university as do graduates, whose parents have only middle-school certificate or do not have any qualification.

7. Future intentions and perspectives

The graduates' intention to purpose postgraduate education was analyzed based on the information received from the answers of graduates given by them to the questions on the intention to continue study and intention to continue the same course or another. The results of statistical analysis are displayed on the Figures 22 and 23.

Figure 22. Graduates' intention to continue studying
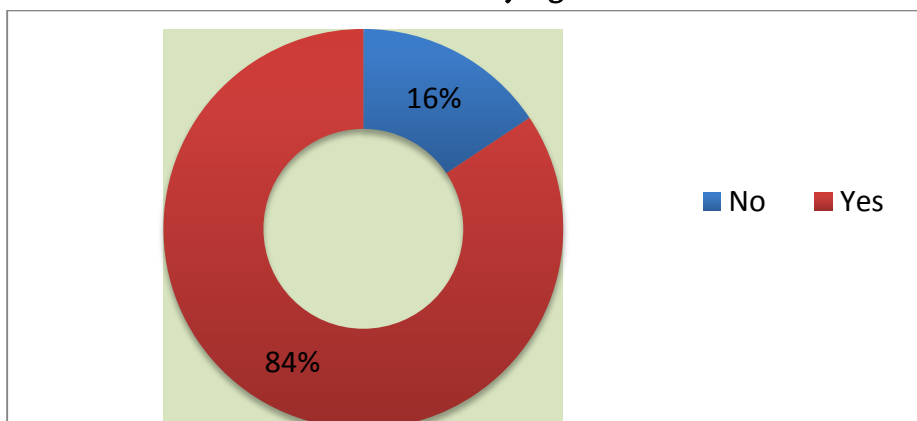
Figure 23. Graduates' intention to purpose postgraduate education
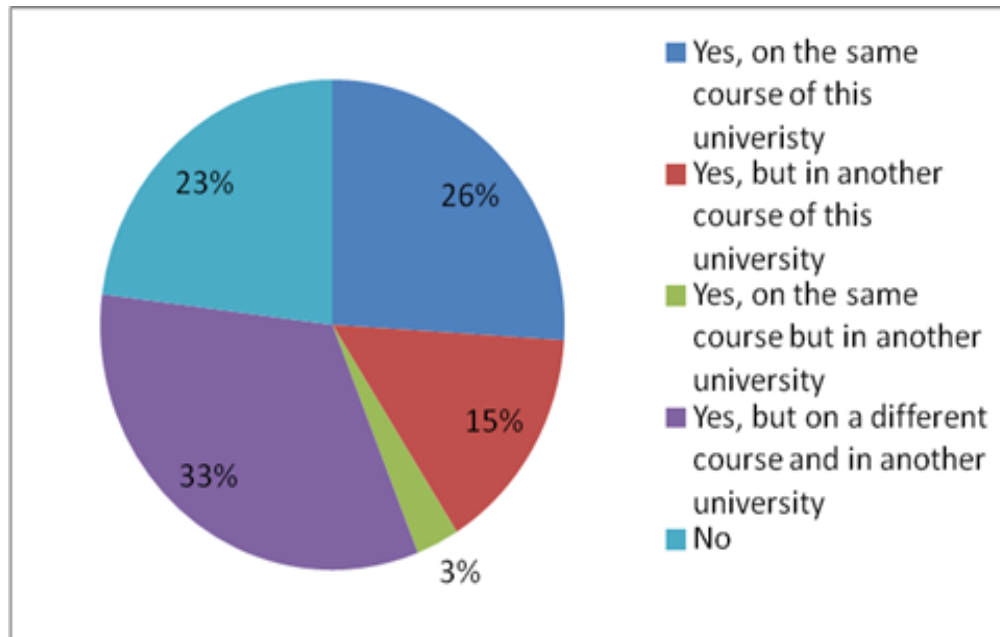
As Figure 23 shows, the majority of graduates (41%) want to continue the study in the same university - NPUA, from which 26% want to continue the same course and 15% want to study another course in NPUA. 33% of respondents choose to study different course in another university.

Graduates' future intentions where asked in the Questionnaire not only regarding their postgraduate education and the choice of the university but also regarding the choice of the field for the further job and most preferred economic sectors. Statistical analysis was done based on the choice of the sector of job with the male-female ratio (Fig. 24).

Figure 24. Graduates' preferences regarding to selection the sector of job
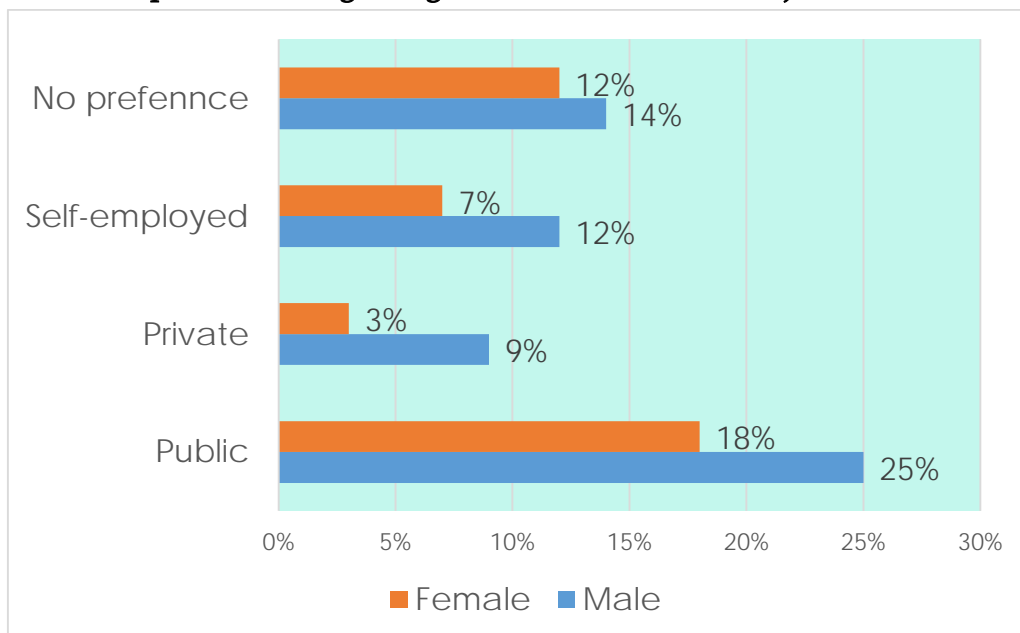
From Figure 24 it becomes clear that the majority of interviewed graduates (43%) prefer public sector for the further job, from which 25% are male and 18% are female graduates. Presumably

the high percentage of public sector preference could be explained by more protected conditions from the point of remuneration view. 17% of respondents prefer to be self-employed (12% male and 7% female). Here we find out that 26% of graduates do not have any preference, which is concerning result because of its high percentage. That means we have one quarter of respondents with a need of career guidance. Below we present the result of the analysis to the question regarding the preferences of the kind of job.

Figure 25. Graduates' preferences regarding to selection of the kind of job

As Figure 25 shows, the majority of interviewed graduates mostly preferred five fields of further job, particularly Finance, Marketing, Communication, PR, Organization, Planning, Production, Information systems. An analysis of graduates' preferences regarding the areas to work has been implemented based on the question "In which areas do you wish to work?" The majority of the respondents indicated that they prefer to work in the Republic of Armenia. The percentage of the respondents that indicated the other countries as a preferable place for the further work is very low.

The respondents believe that a month (18%), 1-3 months (34%), or 4-6 months (30%) will make the time of looking for job after the university graduation. 11% of graduates interviewed indicated that they are expecting to spend more than a year to find a job after university graduation (Fig. 26).

Figure 26. Graduates' evaluation of the time to find a job
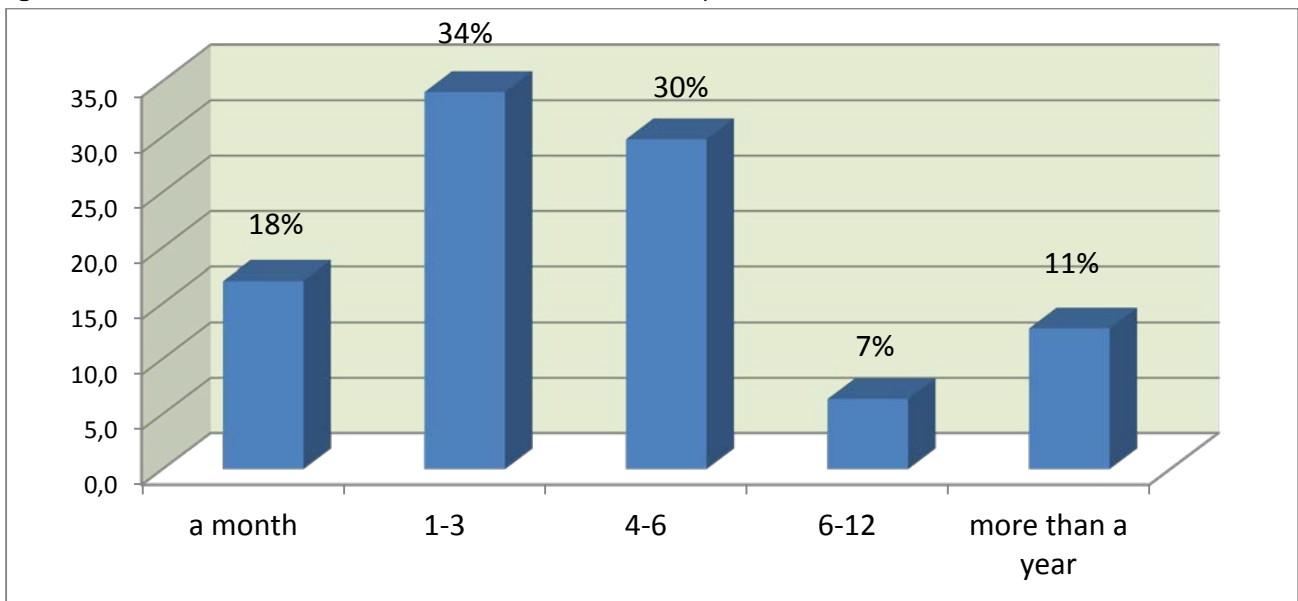
As we can see in Figure 26 majority of the graduates have positive assessment of how long time it might take them to find a job. 82% of them think 1-6 months will be enough to find a job.

8. Conclusions

The following conclusions could be considered as the results of the NPUA graduates' survey executed for 2014:

- The sample includes 71 graduates from almost all faculties, out of which 59 (83%) are bachelor degree program's (four years study) students and 12 (17%) - master degree program's (two years study) students. All of the sample's graduates are full time students which means that they have earned their credits through the class work achieved by the university attendance.

- The most popular specialties of Bachelor degree program are Economics of Nature Management, Informatics and Applied Mathematics, Economics and Management of the Enterprises, Construction, Management and Exploitation of Transportation Roads and Means, Automation and Control. Within specialties of Master degree program are dominating the following ones- Computing Techniques and Informatics, Economics and Management of the Enterprises, Information Security, Electrical engineering, Electromechanics and Electrotechnologies, Metallurgy and Material Science.

- 91% of the interviewed graduates have a secondary school diploma from which 38% graduated with honor. During university study the majority of the graduates have good or excellent progress. This very interesting result makes us declare that the university has produced highly-qualified promising young specialists in 2014.

- Armenian is the mother tongue for 99% of graduates. Russian is the first and English is the second foreign language for the majority of respondents. There is no significant differences between foreign language writing and speaking skills.
- NPUA graduates have good IT skills, particularly, they are well skilled in web surfing and word processing and sufficiently skilled in spreadsheets and operating systems.
- The majority of the respondents are satisfied with the course and are going to continue to study mainly at the same university.
- Parents' education level has a positive effect on graduates' intention to continue studying in another country.
- 51% of sample's respondents are working currently. 46% of them indicated respectively that their current working activity is relevant or relevant partially to the university studies carried out.
- No graduates of the sample have an experience of study abroad. This indicator allows making an assumption on the lack of mobility among the students of the university despite the surveyed sample is not so big.
- The majority of interviewed graduates (43%) prefer public sector for the further job, from which 25% are male and 18% are female graduates. 26% of graduates do not have any preference, so they may need a career guidance.
- The most preferred working business areas among NPUA's graduates are Finance, Information systems, Marketing, PR, Communication, Organization, Planning and Production.
- The respondents have a positive evaluation of the time to find a job (1-6 month) after the graduation from the University.

We proceed to summarize briefly the NPUA Graduates' Profile Report the results of which are generally positive. Some proposals can be developed according to this report in order to conduct more reliable data collection for more accurate results based on the AlmaLaurea Interuniversity Consortium's good practice.

National University of Architecture and Construction of Armenia (NUACA)

Report
NUACA Graduates' Profile

(Pilot Survey)

Created by: Irina Vanyan, PhD in Economics, Associate Professor

YEREVAN - 2015

1. Introduction

The NUACA Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the HEN-GEAR Tempus project (October 2012-October 2015) and is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) experience, who is a key project partner. It contains an analysis of the features and performance of the graduates of the National University of Architecture and Construction of Armenia (NUACA) in 2014, focusing on a number of variables coming out from the six sets of the on-line platform's questionnaire used for the graduates' interviews. Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that the graduate is completing now
- Evaluation of the course that the graduate is completing now
- Information about the family
- Future intentions and perspectives

The objectives of the Report development are:

- to outline the main features of the NUACAs' graduates,
- to provide the information to those, who are interested by the NUACA or involved in policy development for the further progress of university education system,
- to provide a tool kit for the university study programs development and selection.

2. Sampling of NUACA graduates surveyed

The total number of NUACA graduates in 2014 was 836, out of which 164 were registered and filled in the questionnaires in the HEN-GEAR platform. The sample of the eligible questionnaires was developed for the pilot survey. The Report contains survey results based on the sample including 100 eligible questionnaires that were selected from the total number of filled questionnaires which is 164. The eligible questionnaires were selected via applying the exclusion criteria on completeness to the questionnaires. Particularly, the questionnaire completeness criterion is satisfied, if the graduate presented comprehensive information at least for 3 questions of the questionnaire out of total 6 questions that are considered as essential for the Report, particularly:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The sample includes 100 graduates' questionnaires, out of each 40 questionnaires were filled in by females and 60 – by males. The bachelor degree program's (four years study) students within females and males constitute respectively 65% and 87%, and the master degree program's (two years study) students within females and males constitute respectively 35% and 13% (Fig. 1). All of the sample's graduates are full time students which means that they earned their credits through the class work achieved by the university attendance. The sample of graduates interviewed includes several specialties, particularly, computer engineering and management, economics, architecture and design, etc. The main part of the sample (68%) are the graduates of "Computer Engineering and Management" specialty (Fig. 2).

Figure 1. The qualification level of study program of the survey sample's graduates within females and males (percentage)
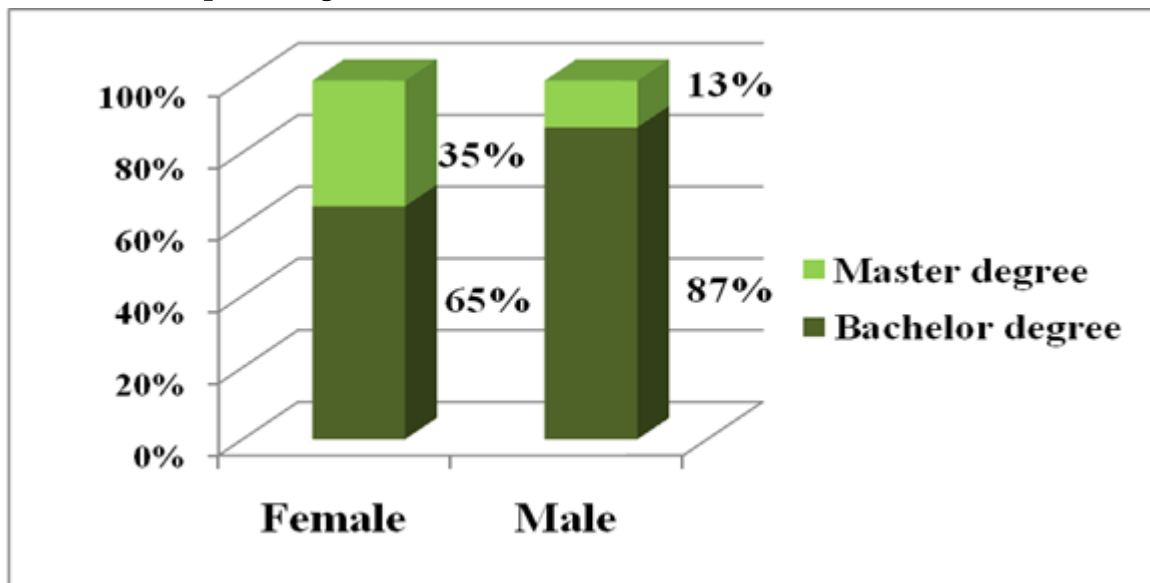
Figure 2. The specialties of the sample's graduates interviewed (percentage)
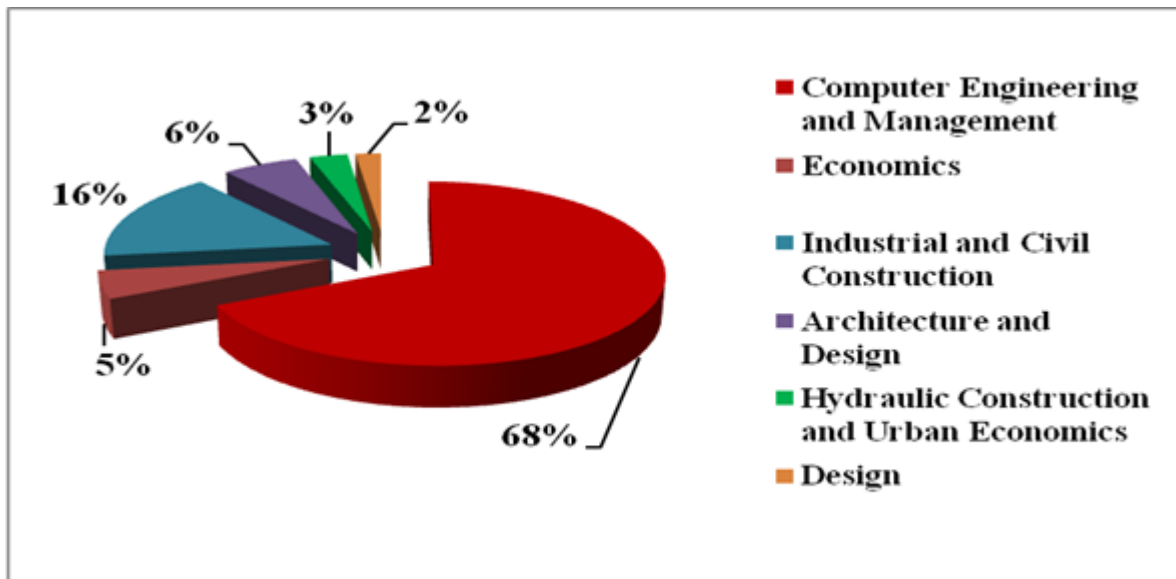
3. Education and trainings of graduates included in the sample

The majority of graduates (80%) included in the sample has a secondary school diploma awarded for 12 years study at the secondary school. Among graduates, who are holders of secondary school diploma, more than half (52%) have graduated high school in Yerevan, and 25% of them studied in other small cities of Armenia (particularly, Echmiadzin, Abovyan, Charentsavan, Artashat, Ashtarak, Ararat, Kapan, etc.), and 23% - in different villages of the country (for instance, Baghramyan, New-village, Achajur, Arbat, etc.) (Fig. 3).

The answers to the question "Have you already achieved another academic degree prior to academic degree that you are now completing?" showed that 80% of the interviewees ignored this question, 17% of respondents gave a positive answer, and only 3% - answered negatively. From our perspective, the phenomena of such high level of non-response could be explained presumably because the majority of respondents are bachelor degree students. Among the 17% of the respondents, who has a prior academic degree, 76% have a bachelor degree and 24% - master degree. Ninety four percent (94%) of the sample's respondents answered negatively to the question "Have you started any other academic course different from the current one, but without completing it?".

Regarding the language skills, Armenian language is the mother tongue for 92% of the sample's respondents. For 84% of the respondents the first foreign language is Russian, and for 10% - it is English. 71 % of 92 respondents indicated that the second foreign language for them is English, and 14% mentioned Russian as a second foreign language (Fig.4).

As Figure 5 shows, 61% of the interviewed graduates are excellent skilled in web surfing and 45% are excellent skilled in word processing.

Figure 3. Kind of Graduates' high school diploma (percentage)
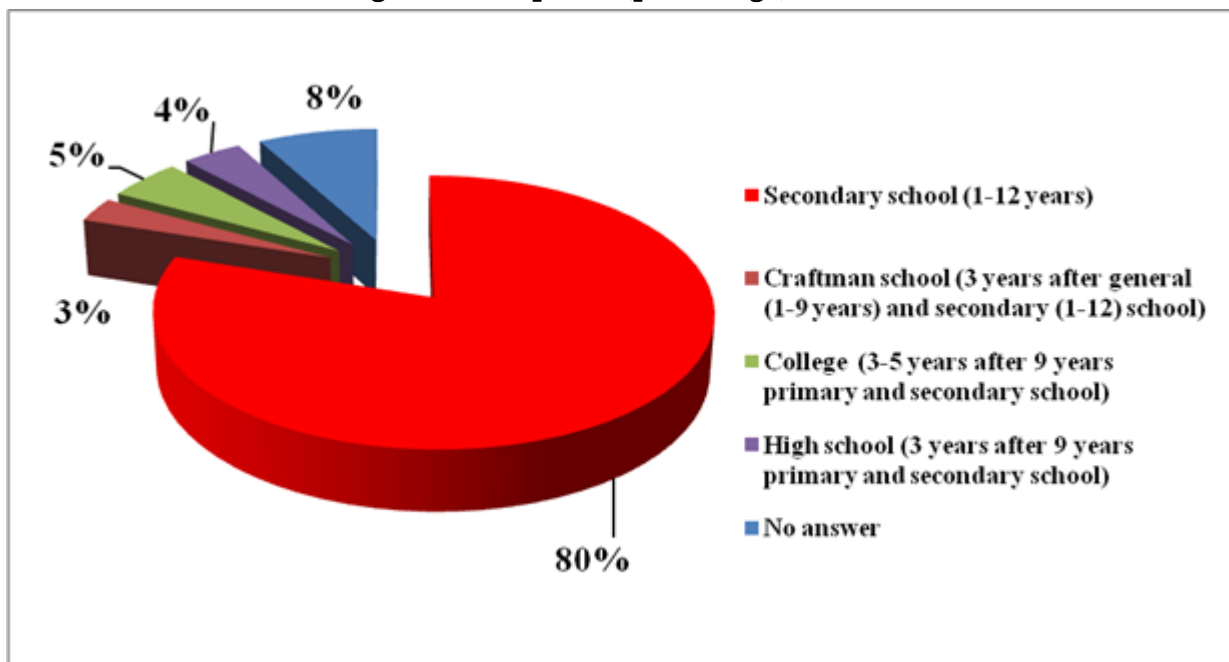
Figure 4. Language skills of those graduates whose native language is Armenian (92% of respondents) (percentage)
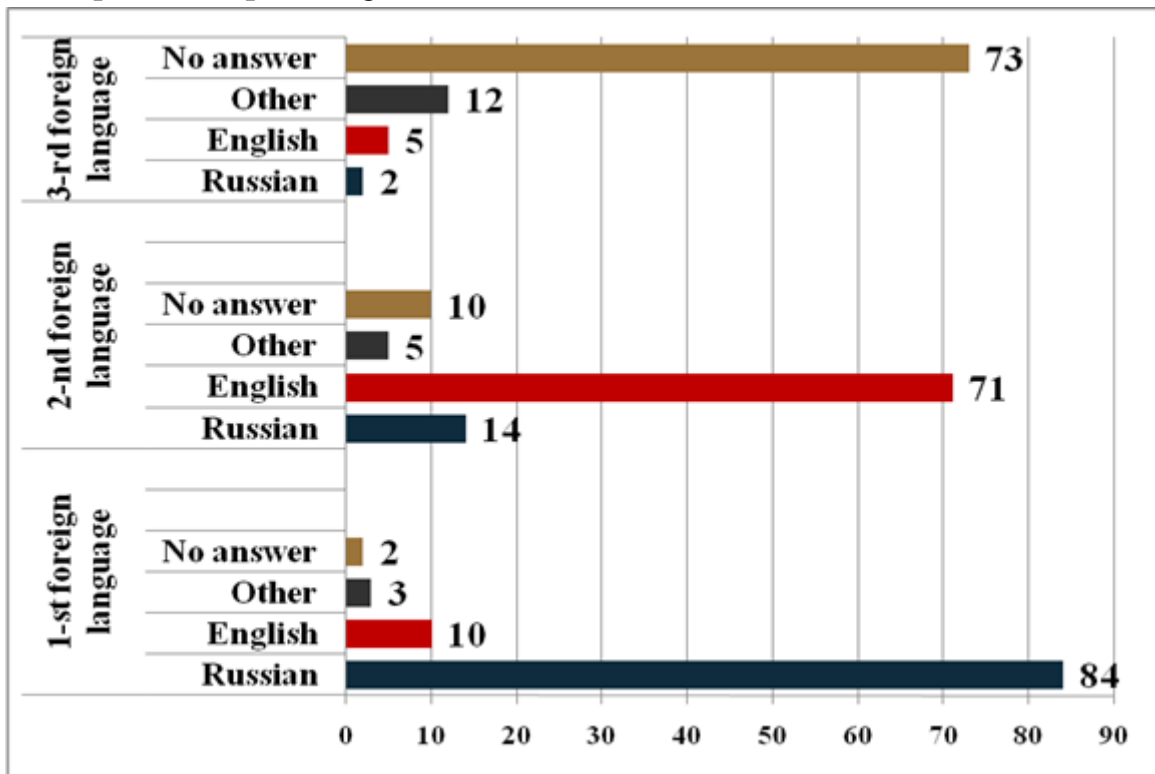
Figure 5. IT skills of Armenian graduates interviewed (percentage)
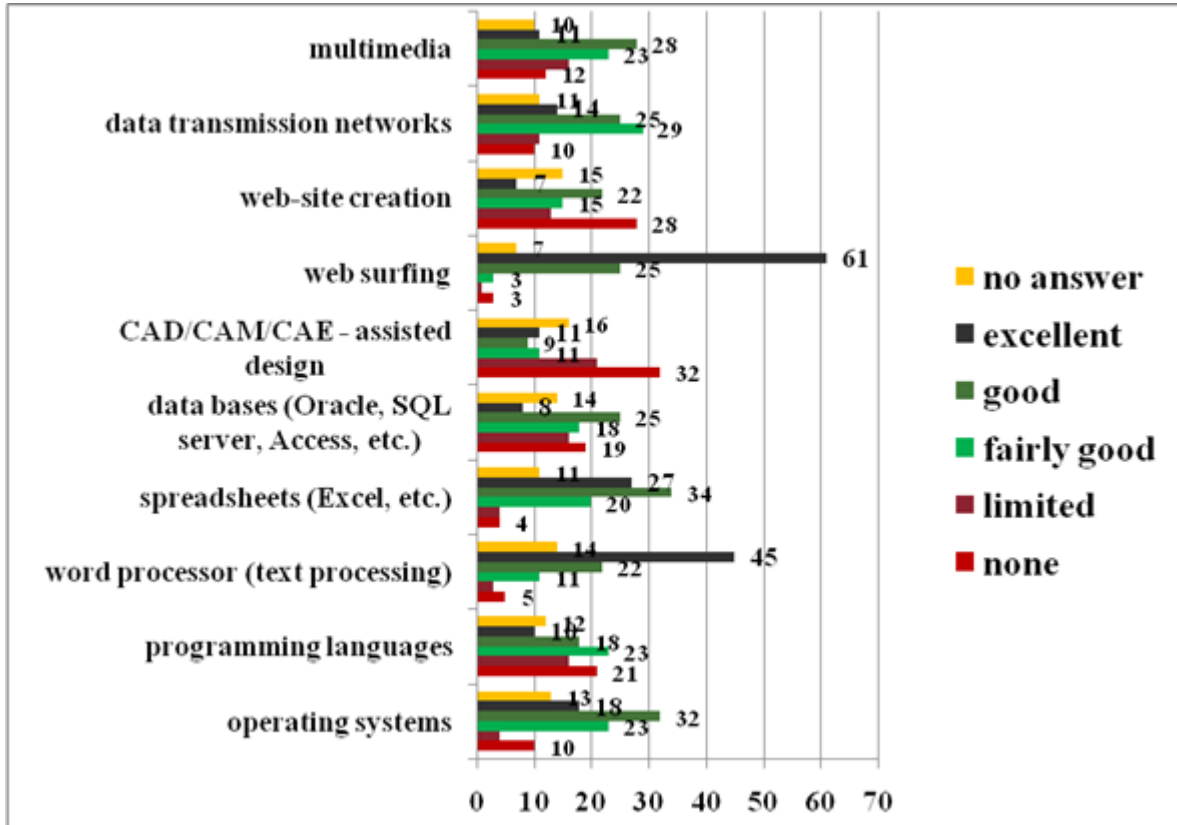
4. Information on the course that graduates are completing now

Most of the interviewed graduates indicated that they have known before enrolling at the university what knowledge and skills they were going to acquire by the end of the chosen course of study. Particularly, 40% of the respondents answered "yes, definitely" and 27% answered "more yes than no" to the question "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (Fig. 6).

The graduates' satisfaction with the training and learning methods was analyzed based on the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" of the Questionnaire. The results of statistical analysis are displayed graphically on the Figure 7. It shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 34% of the respondents gave the answer "yes, definitely" and 39% - "more yes than no".

Figure 6. Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study? (percentage)

Figure 7. Graduates' satisfaction with the training and learning methods (percentage)

The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire:

- Did you carry out a working activity while attending classes?
- At the time of your university studies did you spend time out of class on a working activity?
- Are you currently working?

The results of statistical analysis are displayed on the Figures 8, 9 and 10.

Figure 8. Graduates' current working status (percentage)

As the chart of Figure 8 shows, 48% of respondents indicated that they are currently working. Presumably the high number of current working graduates could be explained by paid higher education. It is notable that among the graduates who have a current working activity simultaneously with the university study 38% and 29% of interviewees indicated respectively that their current working activity is relevant or relevant partially to the university studies carried out.

However 29% gave a negative answer to the question "Was the working activity relevant to the university studies carried out?" (Fig.9).

Figure 9. Was the working activity relevant to the university studies carried out? (percentage)
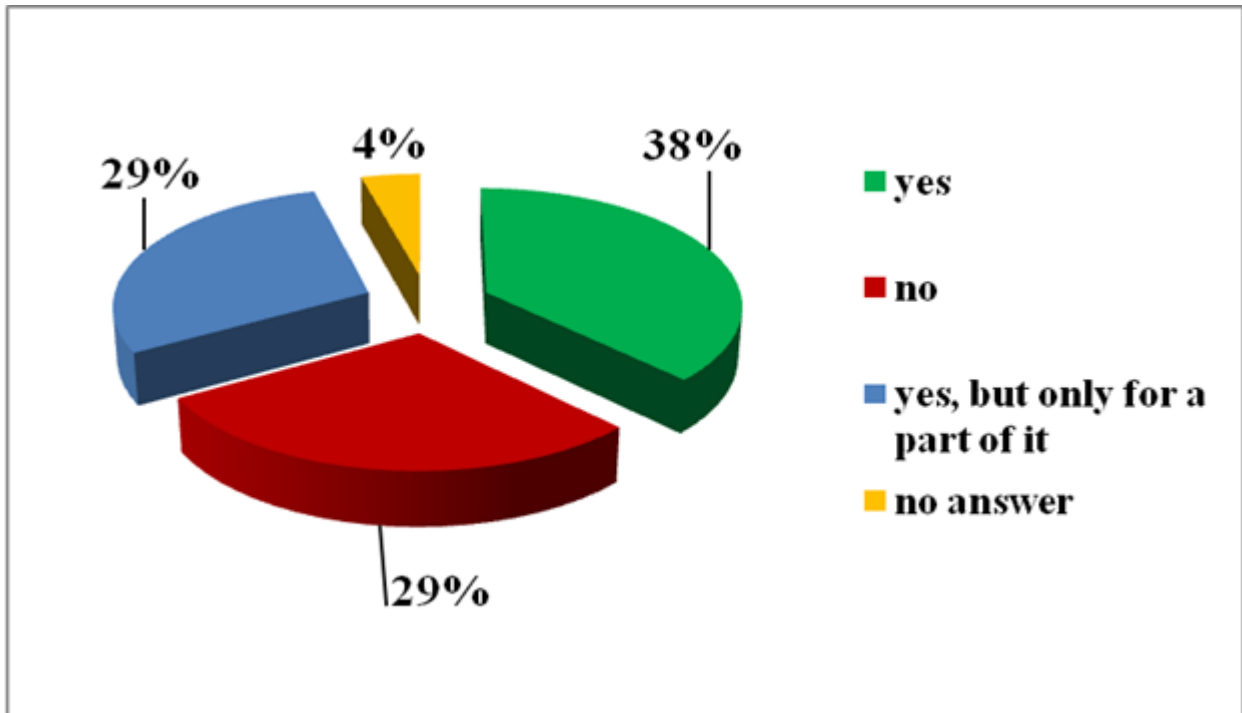
Figure 10. Female and male Graduates' current working status (percentage)
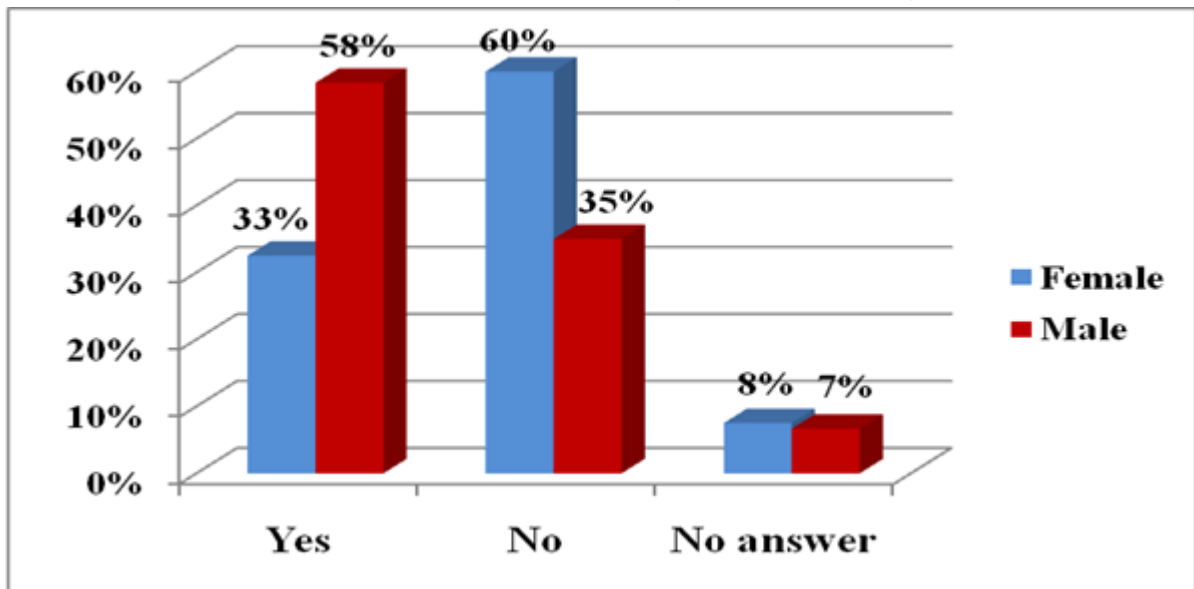
Figure 11. The graduates' working activity during the study at the university (percentage)
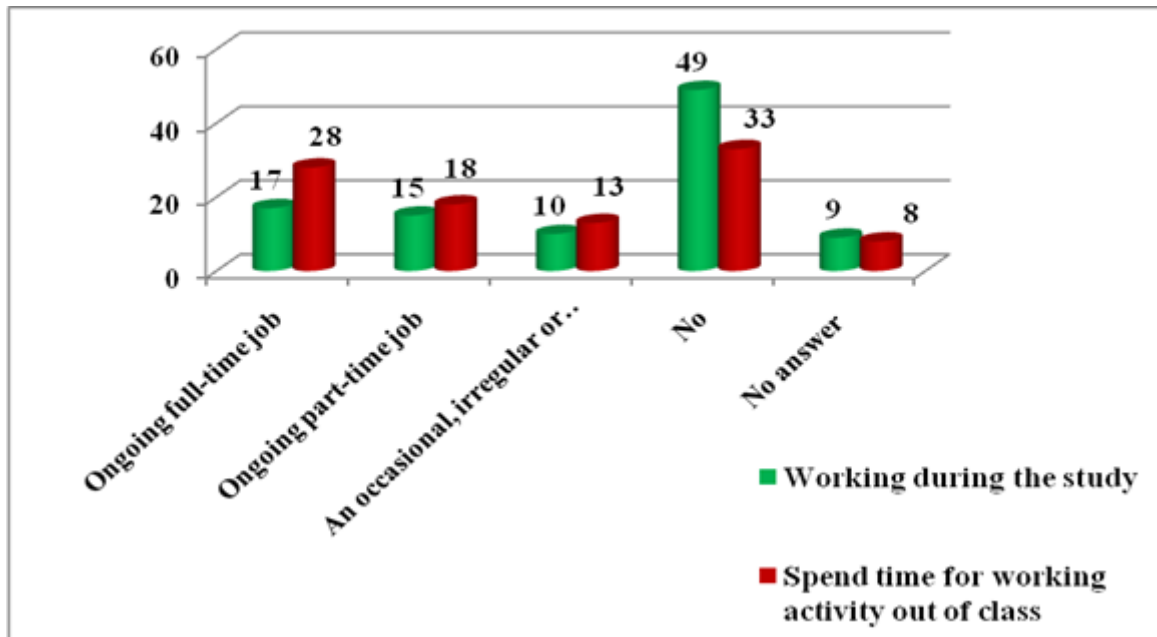
The database information collected from the 100 quality questionnaires indicates that no graduates have an experience of study abroad. This indicator allows making an assumption on the lack of mobility among the students of the university despite the surveyed sample is not so big. The mobility programs for the university students were activated in 2014 within the European Commission Erasmus+ INFINITY project launched in 2013. However the number of students involved in the mobility programs still remains very small.

As the statistical analysis shows, the majority of the interviewed graduates (52%) haven't carried out any trainings during the university study period. 38% of the respondents answered that they have some training practice that was organized by the degree course and 4% have showed that they had a job activity that has been subsequently acknowledged by the degree course (Fig.12).

Figure 12. During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree course? (percentage)
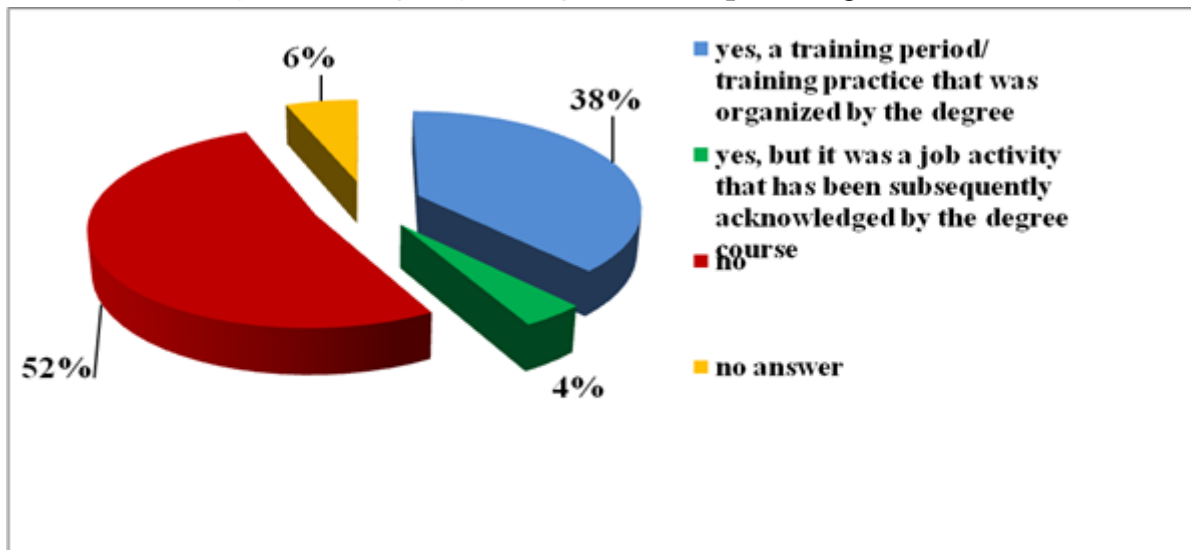
5. Evaluation of the course that graduates are completing now

The graduates' overall evaluation of the university experience was analyzed based on the question "Are you on the whole satisfied with your course of study?" of the Questionnaire. The majority of the respondents answered to this question positively. Particularly, 39% answered "yes, definitely" and 34% - "more yes than no". The results of the statistical analysis are displayed graphically on the Figure 13. As the main part of the sample (68%) are the graduates of the "Computer Engineering and Management" specialty, it makes sense to identify the satisfaction of this stratum. The results of analysis have shown that 44% of the respondents are satisfied by the university experience definitely, and 35% of the respondents indicated that they are more satisfied than no. (Fig. 14).

Figure 13. Are you satisfied with your course of study? (percentage)
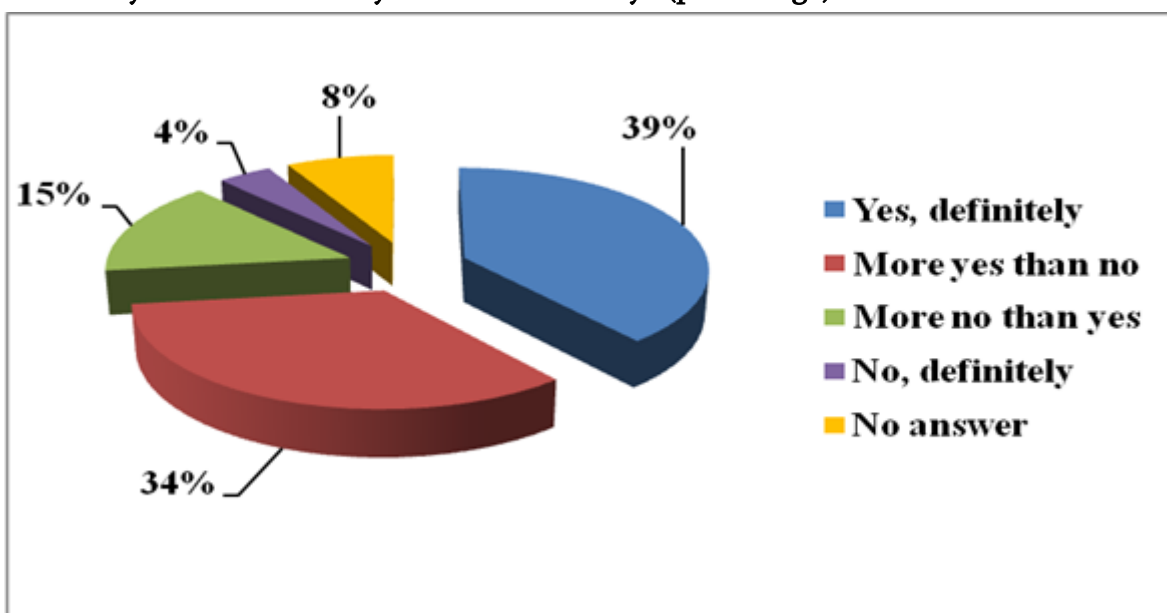
Figure 14. Overall evaluation of the university experience by the graduates of the "Computer Engineering and Management" specialty (percentage)
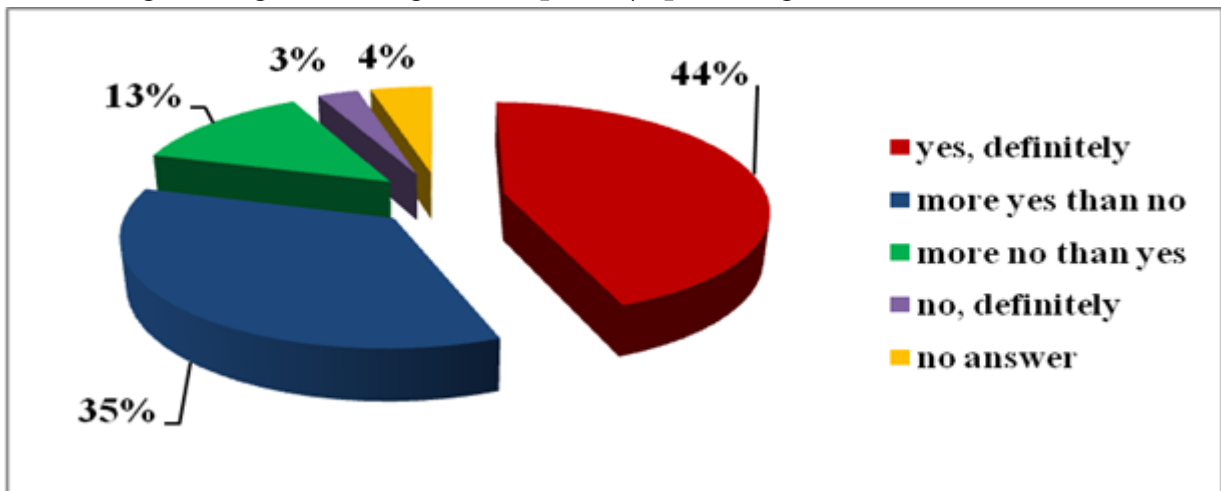
It is worth noting that the majority of the respondents are satisfied with the examination (82%), teachers (58%), administrative staff (59%) and students (77%) of the university (Fig.15). The fact that the majority of the graduates answered respectively to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this university" (43%) and "on the same university but in another course" (18%) is exciting (Fig 16).

Figure 15. Graduates satisfaction with the examination, teachers, administrative staff, students (percentage)
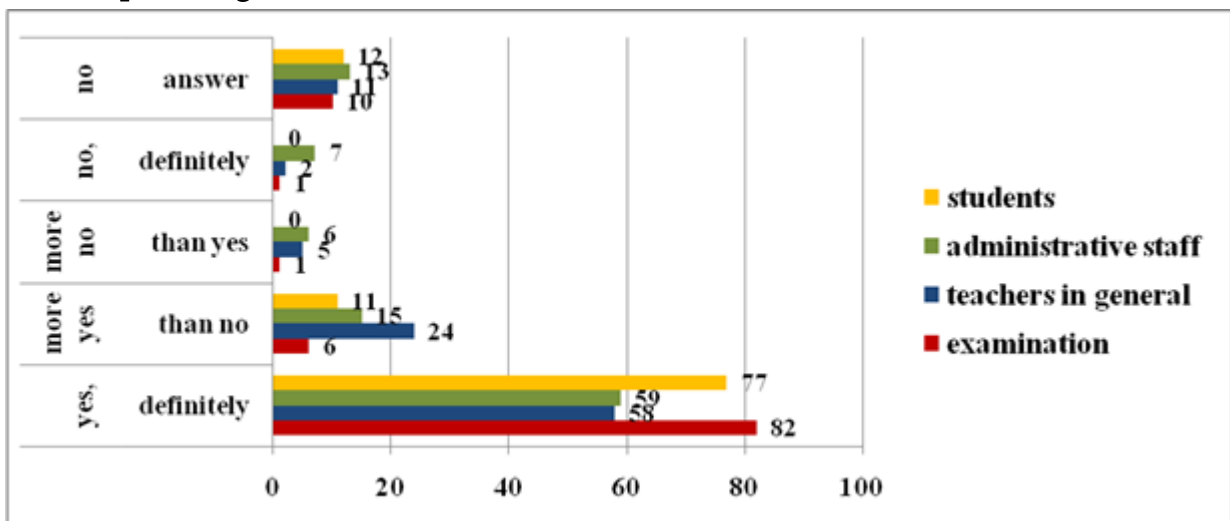
Figure 16. If you could go back in time, would you enroll again at university? (percentage)
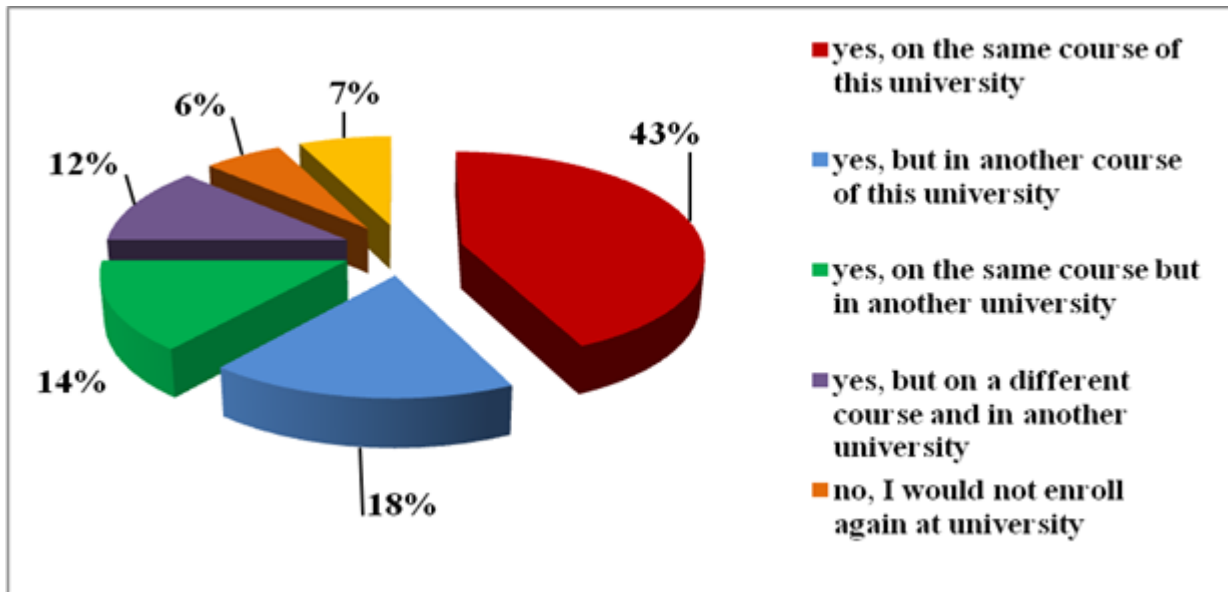
Legend:
- yes, on the same course of this university — 43%
- yes, but in another course of this university — 18%
- yes, on the same course but in another university — 14%
- yes, but on a different course and in another university — 12%
- no, I would not enroll again at university — 6%

(percentages shown: 43%, 18%, 14%, 12%, 6%, 7%)

The statistical analysis has showed that the percentage of people satisfied with university experience among males is higher than among females. Particularly, 47 males (or 78%) out of total 60 males indicated that they are satisfied definitely or more satisfied than no, while 26 females (or 65%) among the total 40 females indicated that they are satisfied or more satisfied than no. (Fig.17).

Figure 17. Overall evaluation of the university experience by the females and males (people)
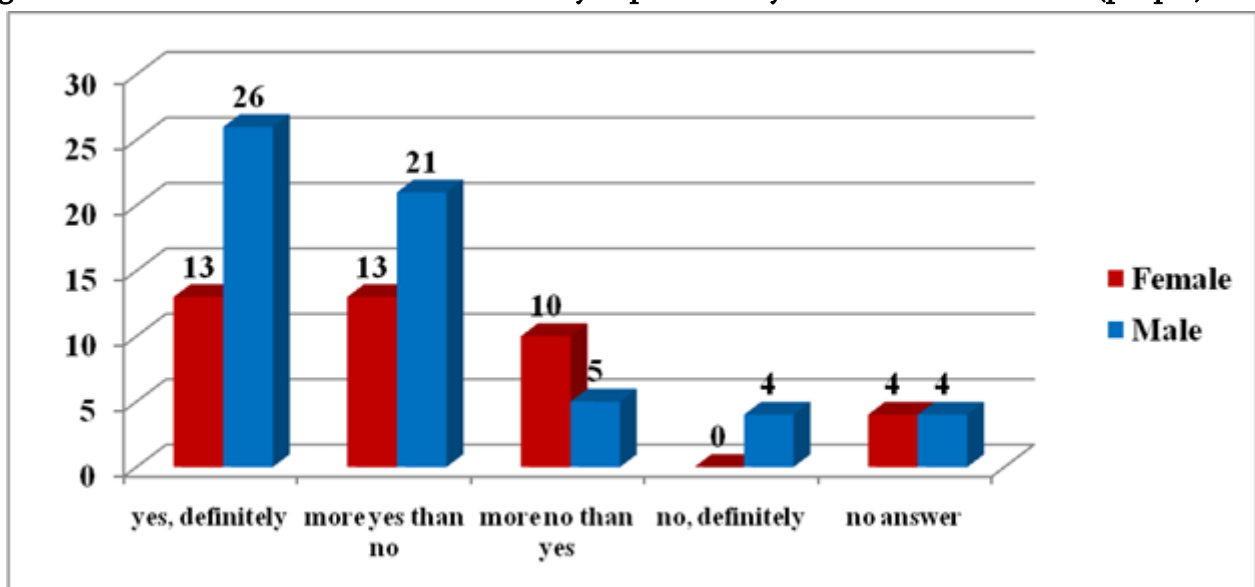
6. Information about family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential question among others. The statistical analysis shows that 63 interviewees (63%) out of total number of eligible (quality) 100 questionnaires didn't give any answers to this question without mentioning any reason. The fact of ignoring this question by too many respondents needs an additional research. However, we would like to outline a few assumptions regarding the non-response, particularly:

- graduates are not inclined to mention their parents' non-qualified level of education,
- graduates have no idea on their parents' qualifications,
- graduates didn't understand the question completely.

Graphical display of the statistical analysis of graduates' parents' educational qualification is presented below on the Figure 18.

Figure 18. Parents' educational qualification (people)
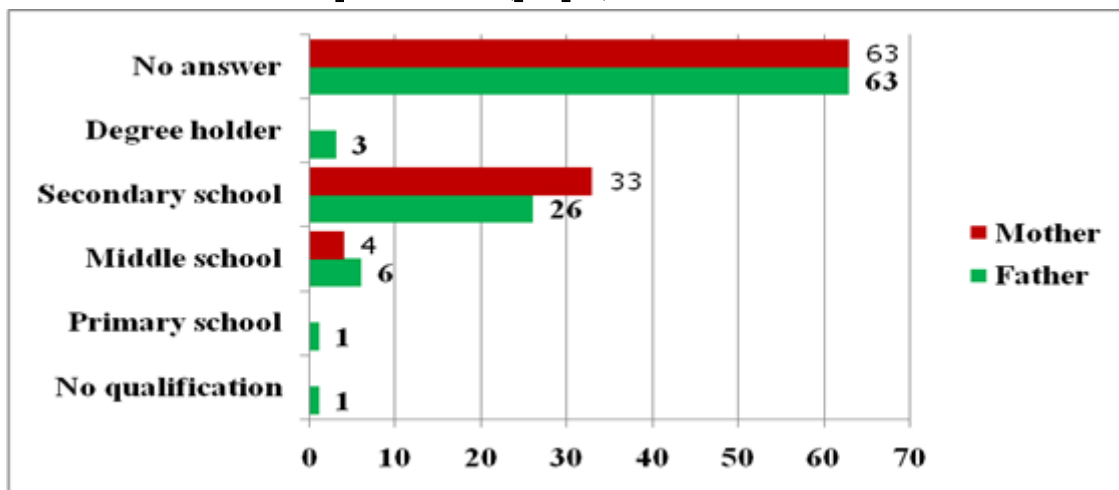
The significant part of 37 respondents, who gave the answer to this question, indicates that their parents (89% of mothers and 70% of fathers) have a higher education.

7. Future intentions and perspectives

The graduates' intention to pursue postgraduate education was analyzed based on the question "Do you want to continue study?" of the Questionnaire. The results of the statistical analysis are displayed graphically on the Figure 19. As it shows, 64% of respondents answered to this question positively. It should be noted that among the females and males respectively 70% and 60% answered "yes" (Fig.20).

Figure 19. Do you want to continue study? (percentage)
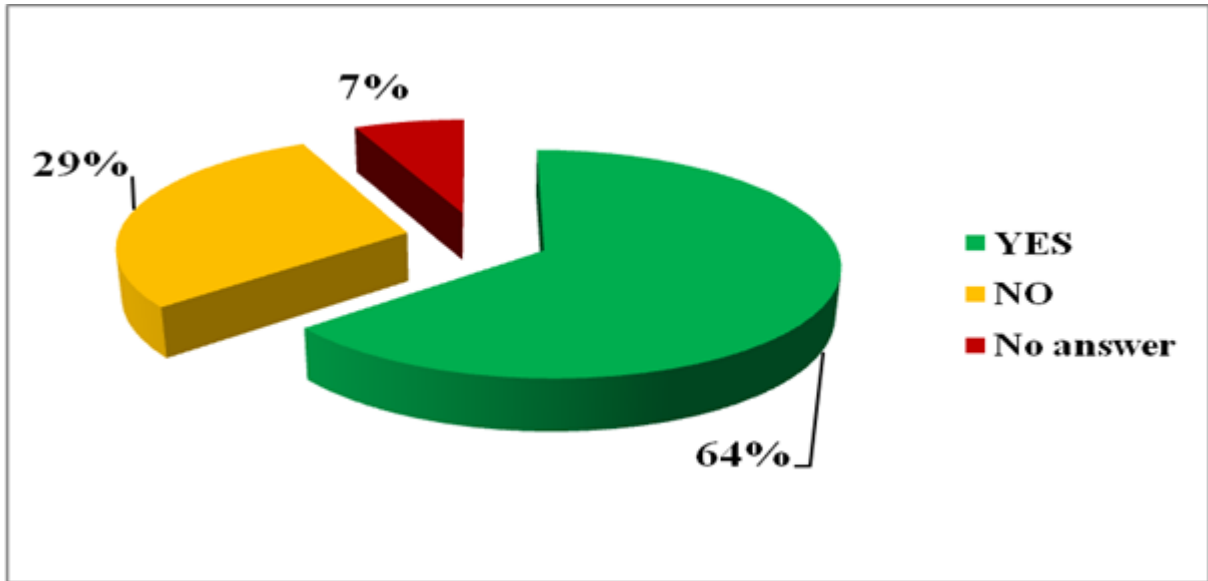
Figure 20. Females' and males' intention to purpose postgraduate education (percentage)
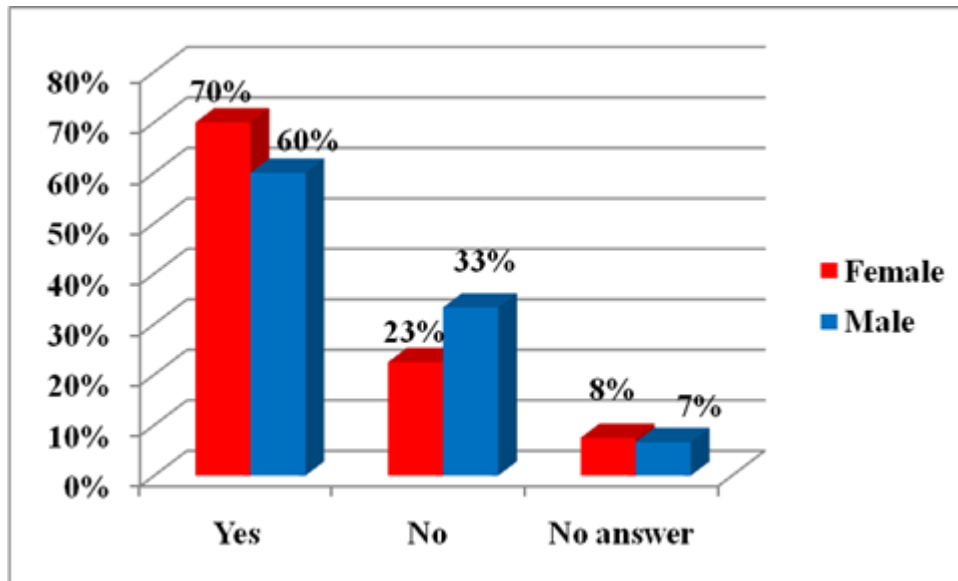
Among the 64 respondents, who indicated her/his interest to postgraduate education, 55% told that they would like to enroll at the same university that they graduated, 31% indicated another country university and 11% - another Armenian university. (Fig.21). 33% of Bachelor and 2% of Master degree students prefer the same university for postgraduate study (Fig 22).

Figure 21. Graduates' preferences regarding to selection the university for postgraduate study (percentage)
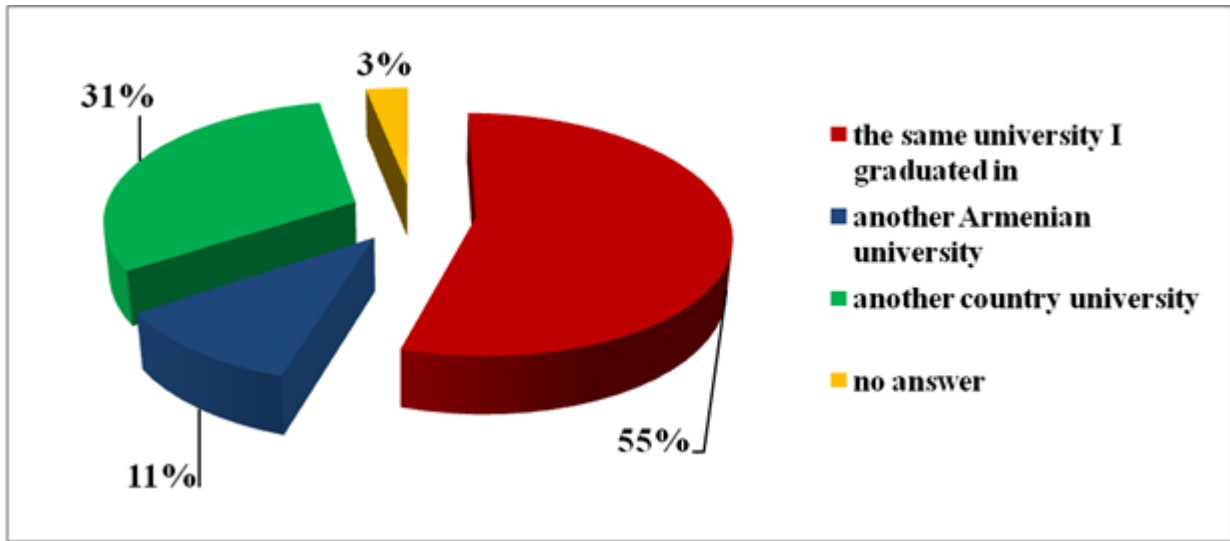
Figure 22. Master and Bachelor degrees graduates' preferences regarding the selection of the university for postgraduate study (percentage)
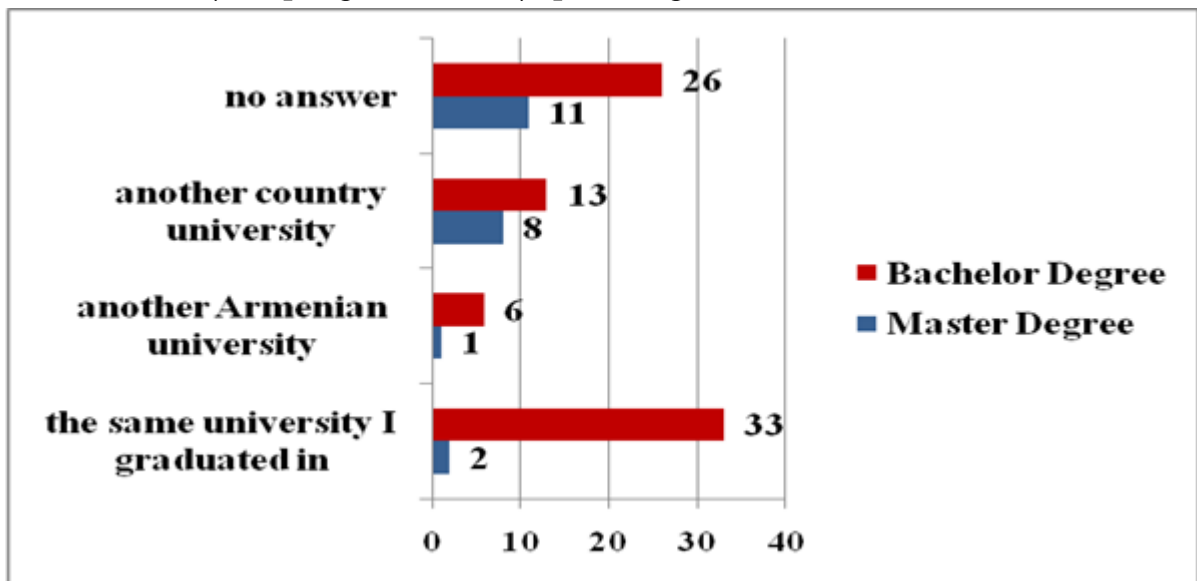
The 40 % and 22% of the sample's respondents preferred respectively the public sector and private sector with subordinate employment for their job, while only 13% have a preference to be self-employed (Fig.23). Presumably the high percentage of public sector preference could be explained by more protected conditions in terms of remuneration.

Figure 23. Graduates' preferences regarding the selection of the kind of job (percentage)
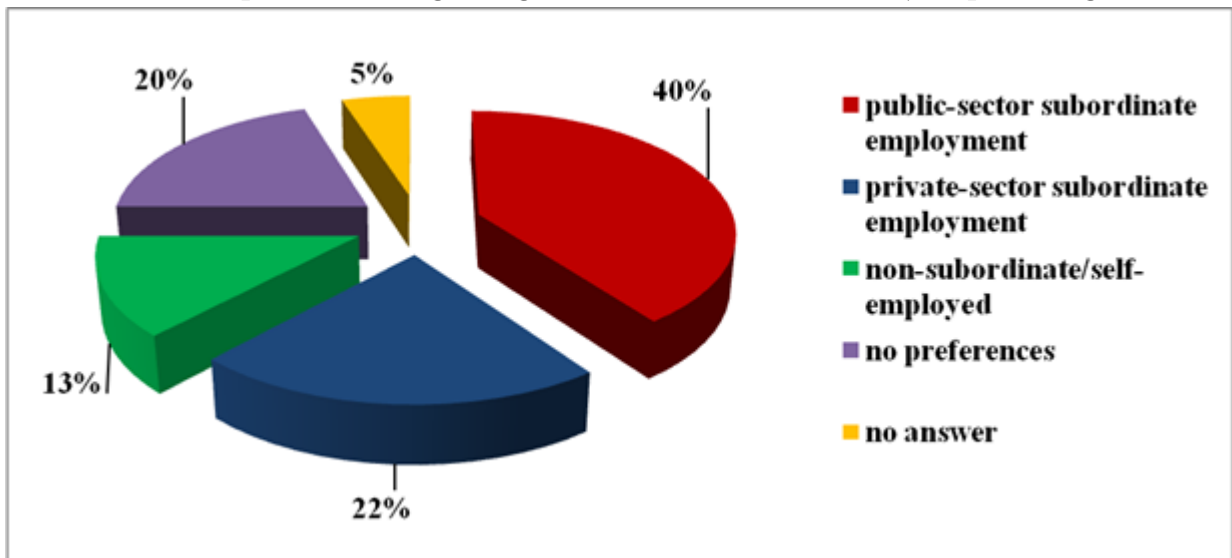
The majority of interviewed graduates (61%) preferred the services field for the further job, particularly commerce, hotels and other public commercial concerns (2%), credit and insurance (7%), legal and administrative advice, accountancy (4%), advertising and public relations (1%), informatics, data elaboration and acquisition (30%), public administration (3%), health service and social welfare (2%), environmental protection (1%), transport, communications and telecommunications (3%), education (1%), research and development (2%), other public, social and personal services (1%), international organizations (4%). Twenty three percent (23%) of respondents indicated that they are prefer the industrial field for the further job, particularly building, constructing, planning and installing (16%), production of machines, mechanical and transport devices (3%), other industrial activities (4%). Only 2% of graduates indicated agriculture field as a preference for the further job (Fig 24).

Figure 24. Graduates' preferences regarding the selection of the economic sector (percentage)
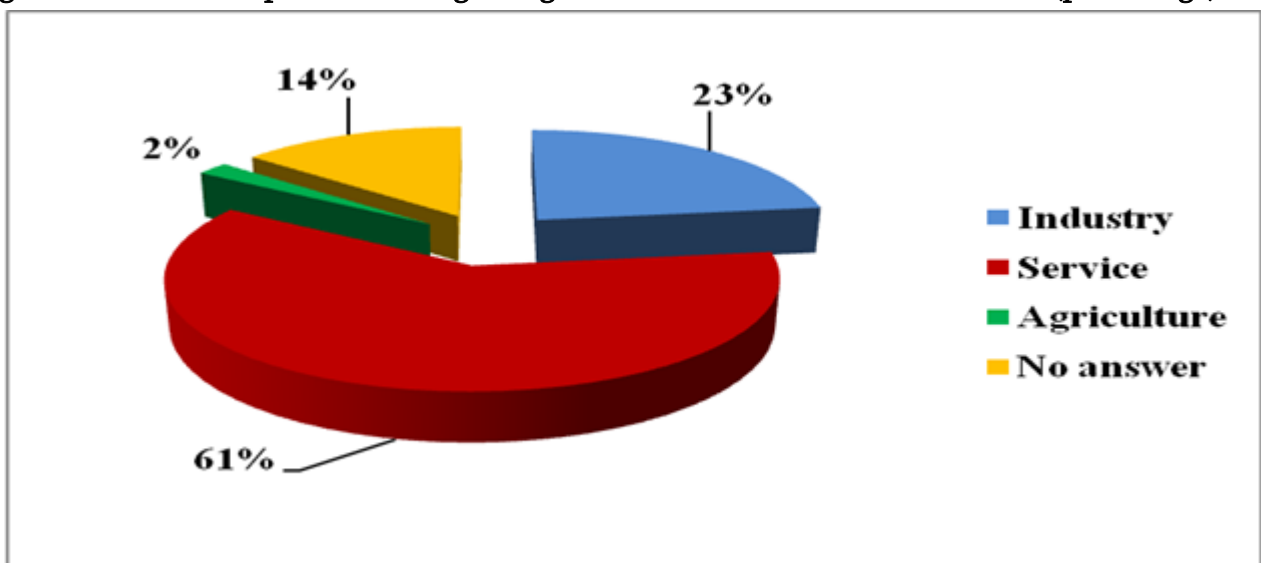
An analysis of graduates' preferences regarding the areas to work has been implemented based on the question "In which areas do you wish to work?". The majority of the respondents indicated that they prefer for the further work the Republic of Armenia, particularly location of the university study (62%), region of residence (52%) or other region of Armenia (29%). 57% of the respondents indicated the other countries as a preferable place for the further work (Fig. 25). The respondents believe that a month (17%), or 1-3 months (37%), or 4-6 months (14%) will be the duration of looking for job after the university graduation. 14% of graduates interviewed indicated that they are expecting to spend more than a year to find a job after university graduation (Fig.26).

Figure 25. Graduates' preferences regarding the work areas (percentage)
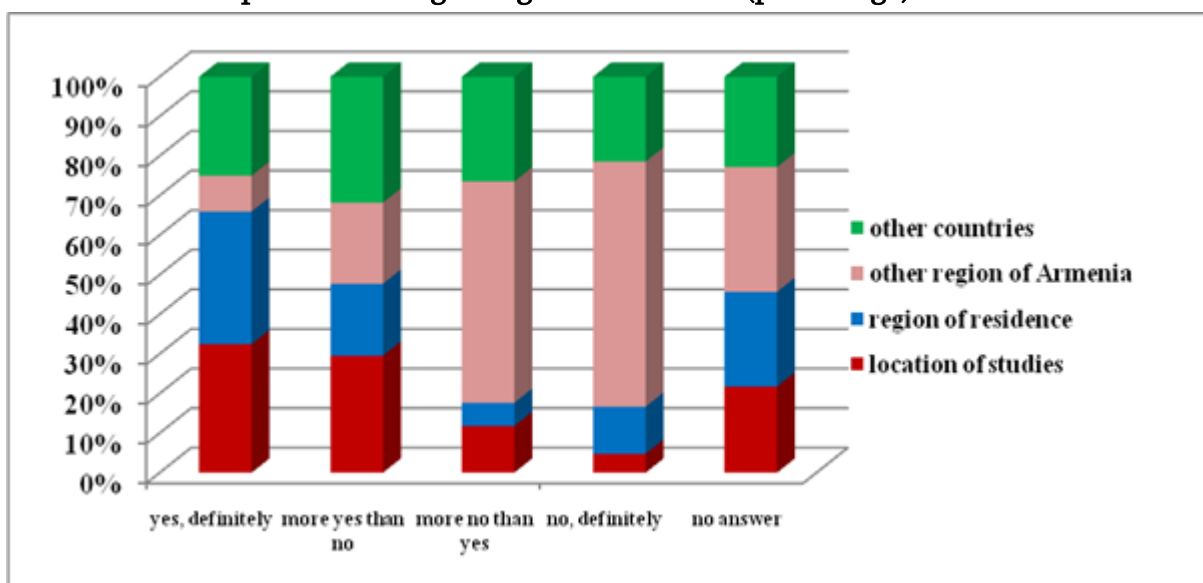
Figure 26. How long do you think it will take for you to find a job after the graduation from the University?
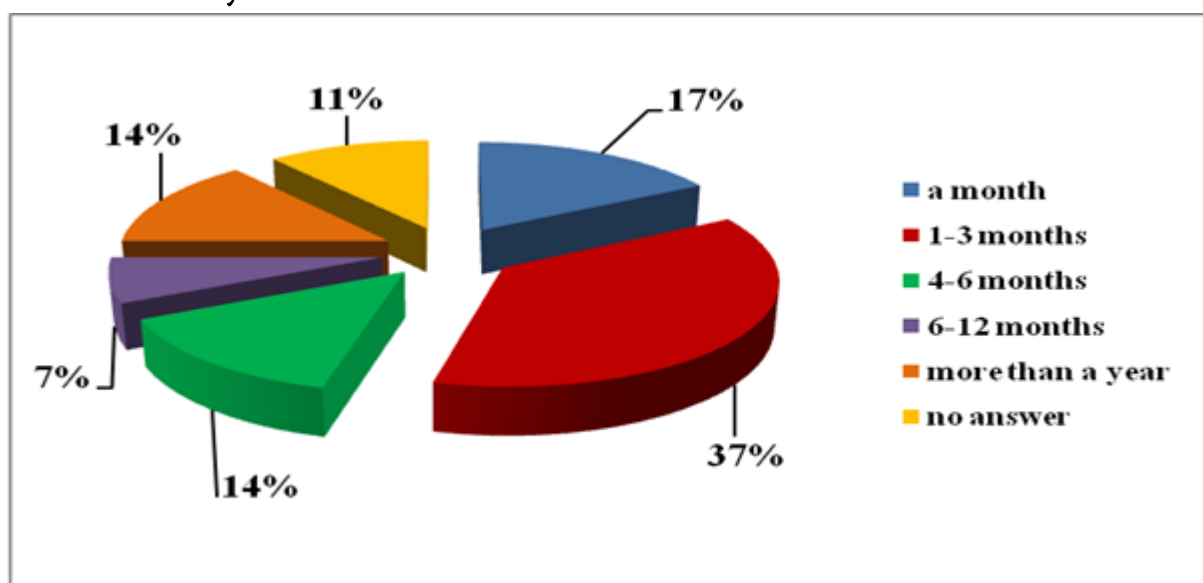
8. Conclusions

The following conclusions could be considered as the results of the NUACA graduates' survey executed for 2014:

- The sample includes 100 graduates' questionnaires, out of each 40 questionnaires were filled out by females and 60 by males. It includes several specialties, particularly, computer engineering and management, economics, architecture and design, design, industrial and civil construction, hydraulic construction and urban economics. The 68% of the sample's graduates belong to the specialty of Computer engineering and management. The majority of the graduates interviewed are bachelor degree program students. 80% of the interviewed graduates have a secondary school diploma.

- For the majority of graduates (92%) Armenian language is the mother tongue and almost for all of them the first foreign language is Russian and the second is English. The significant part of the graduates doesn't own a third foreign language.

- The graduates interviewed are skilled mostly in web surfing and word processing.

- The majority of the respondents are satisfied with the training and learning methods used at the university during their study.

- 48% of sample's respondents are working currently. Out of them 38% and 29% of interviewees indicated respectively that their current working activity is relevant or relevant partially to the university studies carried out. 29% of respondents are engaged currently in the working activity that is not relevant to the university study carried out.

- 64% of sample's graduates want to continue their study. Among the 64 respondents, who indicated her/his interest to postgraduate education, 55% told that they would like to enroll at the same university that they graduated, 31% indicated another country university and 11% - another Armenian university.

- No graduates of the sample have an experience of study abroad. This indicator allows making an assumption on lack of mobility among the students of the university, although the surveyed sample is not so big.

- 40 % and 22% of the sample's respondents prefer respectively the public sector and private sector with subordinate employment for their job, while only 13% have a preference to be self-employed.

- The majority of interviewed graduates (61%) preferred the services field for the further job. Twenty three percent (23%) of respondents indicated that they prefer the industrial field for the further job. Only 2% of graduates indicated agriculture field as a preference for the further job.

- The respondents believe that a month (17%), or 1-3 months (37%), or 4-6 months (14%) will be the time of looking for job after the university graduation. 14% of graduates interviewed indicated that they are expecting to spend more than a year to find a job after university graduation.

- It is recommended to enhance the survey sample representing an appropriate proportion between all specialties listed in the NUACA so as to provide more reliable analysis of the graduates' profile.

YEREVAN STATE ACADEMY OF FINE ARTS
(YSAFA)

Report
YSAFA Graduates' Profile
(Pilot Survey)

*Created by: Yekaterina Kashina, Head of Information Management
and Student Career Center
Tigran Stepanyan, Information Management Specialist*

YEREVAN - 2015

1. Introduction

The YSAFA Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the HEN-GEAR Tempus project (October 2012-October 2015) and is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) experience, who is a key project partner. It contains an analysis of the features and performance of the graduates of the YEREVAN STATE ACADEMY OF FINE ARTS (YSAFA) in 2014, focusing on a number of variables coming out from the six sets of the on-line platform's questionnaire used for the graduates' interviews. Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that graduate is completing now
- Evaluation of the course that graduate is completing now
- Information about the family
- Future intentions and perspectives

The objectives of the Report development are:

- to outline the main needs of the YSAFA's graduates,
- to improve the quality
- to satisfy future students
- to provide the information to those, who are interested by the YSAFA or involved in a policy development for the further progress of university system,
- to provide a tool kit for the selection of university study programs.

2. Sampling of YSAFA graduates

The sample of the eligible questionnaires was developed for the pilot survey. The Report contains survey results based on the sample including 136 eligible questionnaires that were selected from the total number of questionnaires, which was 222. The eligible questionnaires were selected via applying the exclusion criterion on completeness. Particularly, the questionnaire completeness criterion is satisfied, if the graduate responded to at least to 3 questions of the questionnaire out of total 6 questions that are considered as essential for the Report, particularly:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The sample includes 137 graduates' questionnaires, out of which 102 questionnaires were filled out by females and 34 – by males. The bachelor degree program's (four years study) students within females and males are respectively 73.3% and 61.2%, and the master degree program's (two years study) students within females and males are respectively 26.2% and 38.8% (Fig. 1). The sample of graduates interviewed includes several specialties, particularly sculpture, painting, graphics, fashion design, design, computer graphic design, history and theory of fine arts and history and theory of fine arts. The main part of the sample is from fashion design (28%) and design (22%) specialties (Fig. 2).

Figure 1. The qualification level of study program of the survey sample's graduates by gender (percentage)
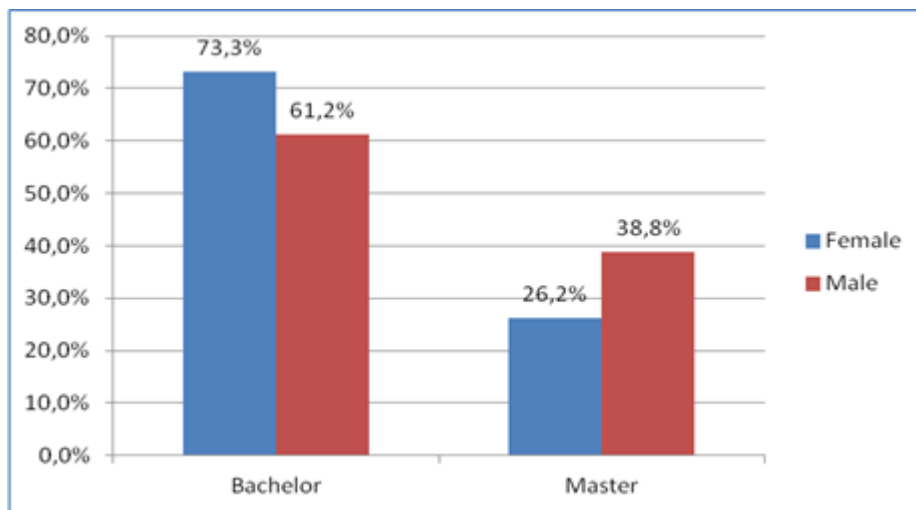
Figure 2. The specialties of the sample's graduates interviewed (percentage)
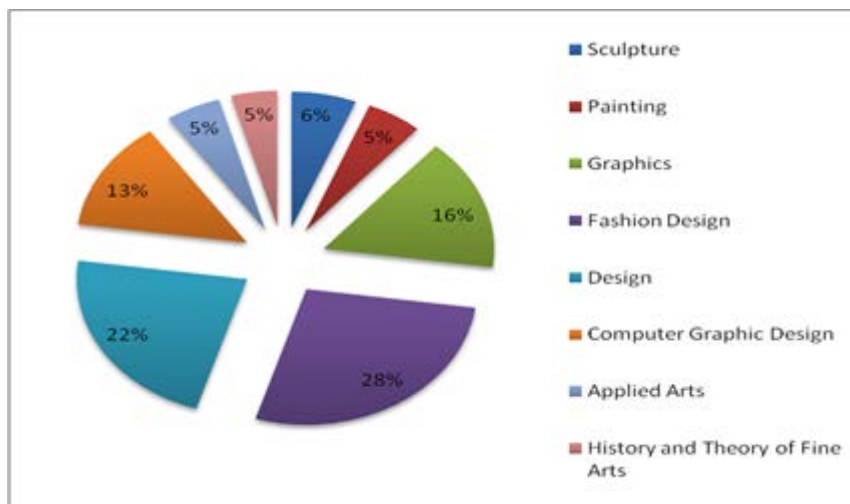
3.   Education and trainings of graduates

The majority of graduates (77%) included in the sample have a secondary school diploma awarded for 12 years study at the secondary school. Among graduates, who are holders of secondary school diploma, approximately half (44%) have graduated a high school in Yerevan, and 18% of them studied in other small cities of Armenia (particularly, Echmiadzin, Abovyan, Charentsavan, Vanadzor, Ashtarak, Gyumri, Kapan, etc.), and 38% - in different villages of the country (Fig. 3).

Figure 3. Kind of Graduates' high school diploma (percentage)
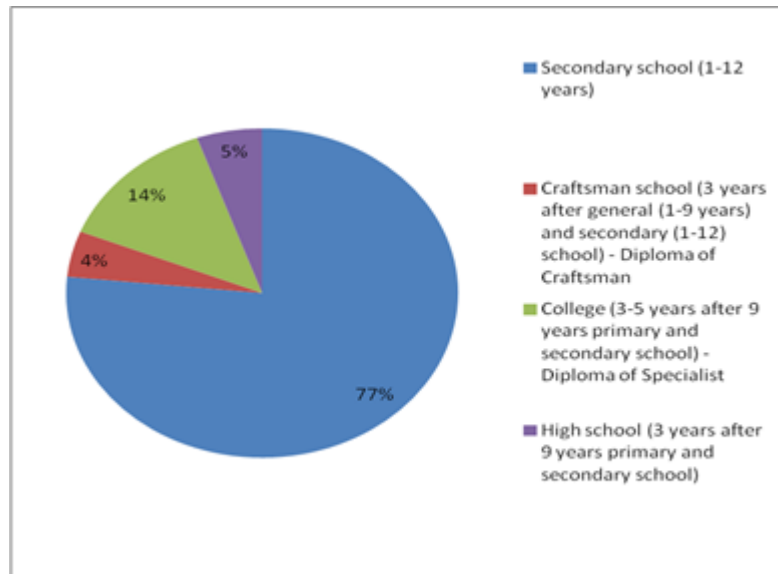
Regarding the language skills, Armenian language is the mother tongue for 82% of the sample's respondents. Among these respondents for 83,5% the first foreign language is Russian, and for 15,6% it is English. 69,8 % of 136 respondents indicated that the second foreign language for them is English, and 19,8% mentioned Russian as a second foreign language. Some students (0, 9%) mentioned French as the first foreign language, and 4,9% mentioned it as the second foreign language (Fig.4).

Figure 4. Language skills of those graduates whose native language is Armenian (for 82% of respondents) (percentage)
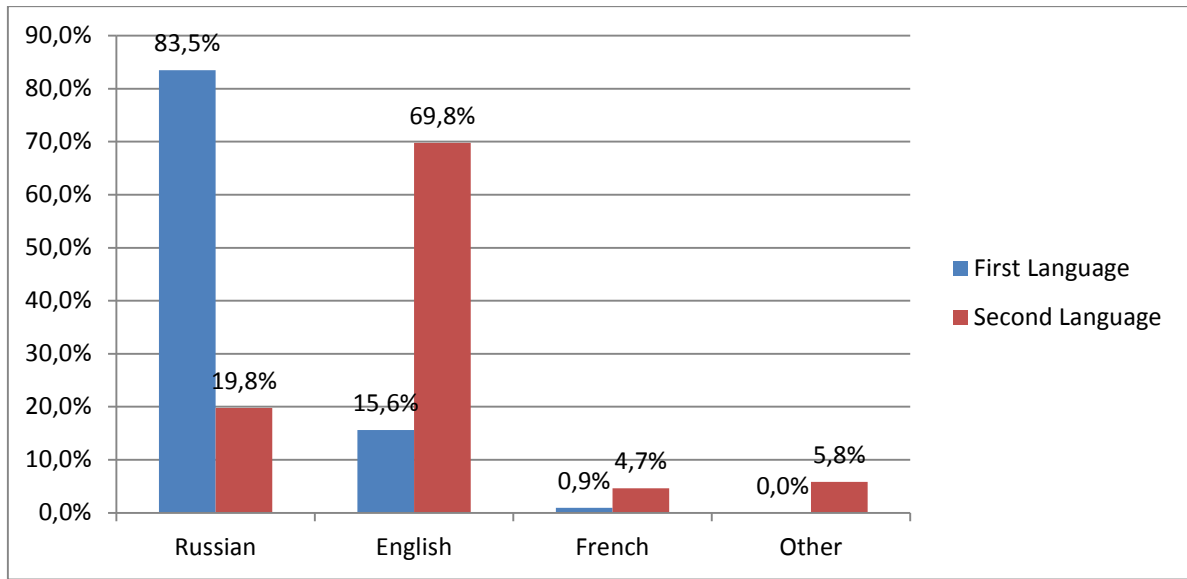
As the Figure 5 shows, 35% of the interviewed graduates are excellent skilled in web surfing and 16% are excellent skilled in word processing and 15% of respondents excellent skilled in multimedia.

Figure 5. IT skills of Armenian graduates interviewed (percentage)

4. Information on the course that graduates are completing now

The most of the interviewed graduates indicated that they have known before enrolling at the university what knowledge and skills they were going to acquire by the end of the chosen course of the study. Particularly, 40% of the respondents answered "yes, definitely" and 27% - answered "more yes than no" to the question "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (Fig. 6).

The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the answers of graduates given by them to the question "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?" of the Questionnaire. The results of the statistical analysis are displayed graphically on the Figure 7. It shows that the majority of the respondents are satisfied with the training and learning methods used at the university during their study. Particularly, 34% of the respondents gave the answer "yes, definitely" and 39% - "more yes than no".

Figure 6. "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (percentage)

Figure 7. Graduates' satisfaction with the training and learning methods (percentage).

The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire:

- Did you carry out a working activity while attending classes?
- At the time of your university studies did you spend time out of class on a working activity?
- Are you currently working?

The results of statistical analysis are displayed on the Figures 8, 9 and 10.

Figure 8. Graduates' current working status (percentage)

As the chart of Figure 8 shows, 32% of respondents indicated that they are currently working

Figure 9. Female and male Graduates' current working (percentage)

117
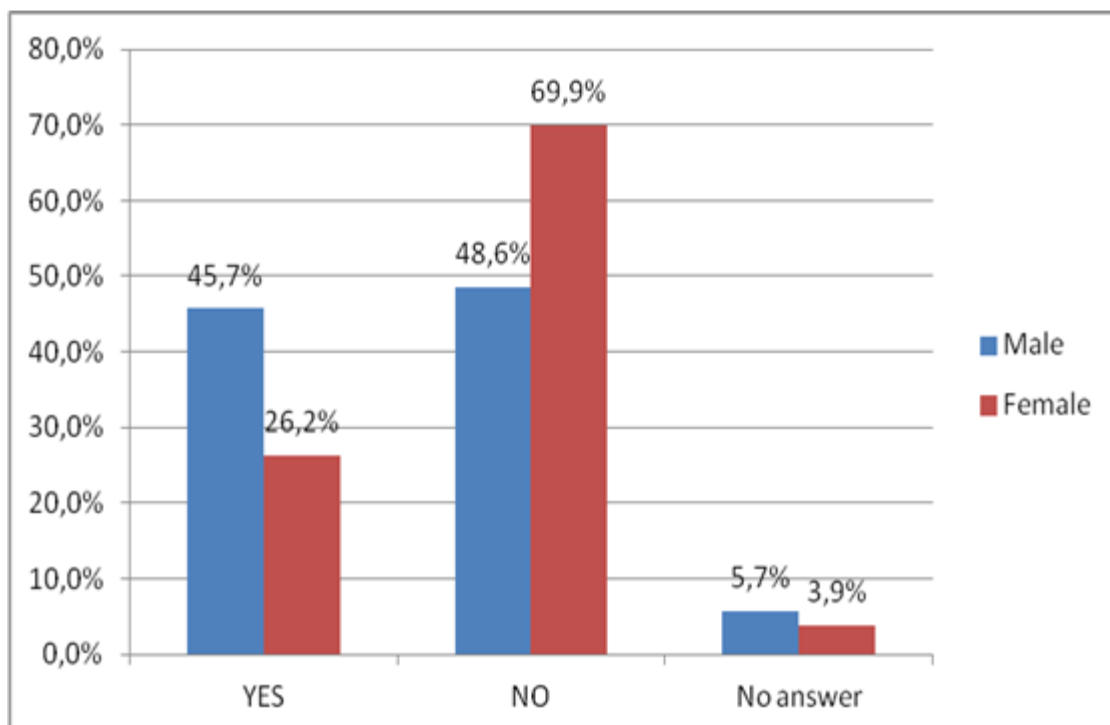
Figure 10. The graduates' working activity during the study at the university (percentage)
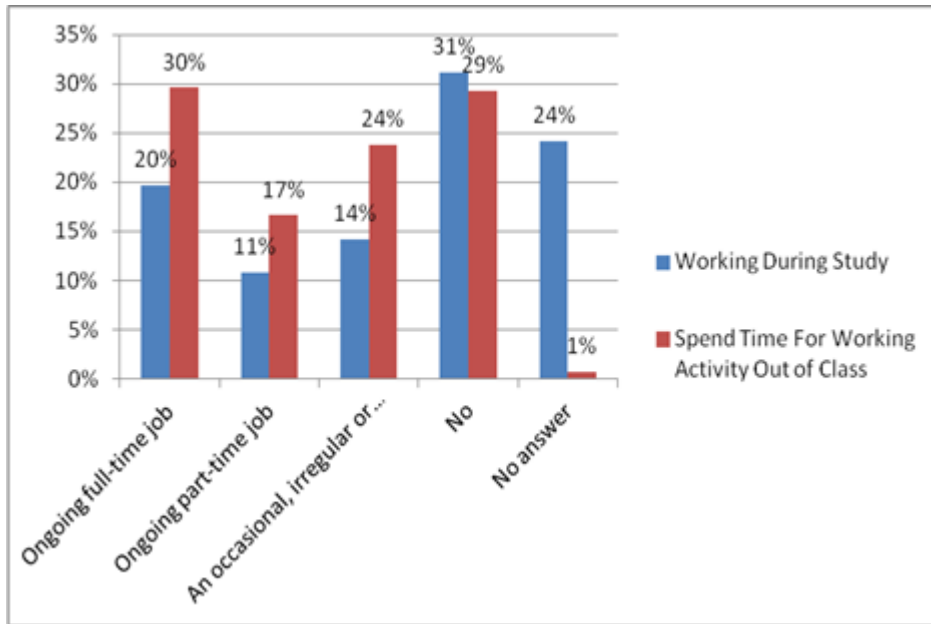
Trying to understand whether there is a link between students' language skills and their current working activity, we found out that the employment level of graduates, who have knowledge of English (59%) or other language (48%) is much higher compared to those who know only Russian (22%).

Figure 11. Connection between graduates' language skills and current working status (percentage)
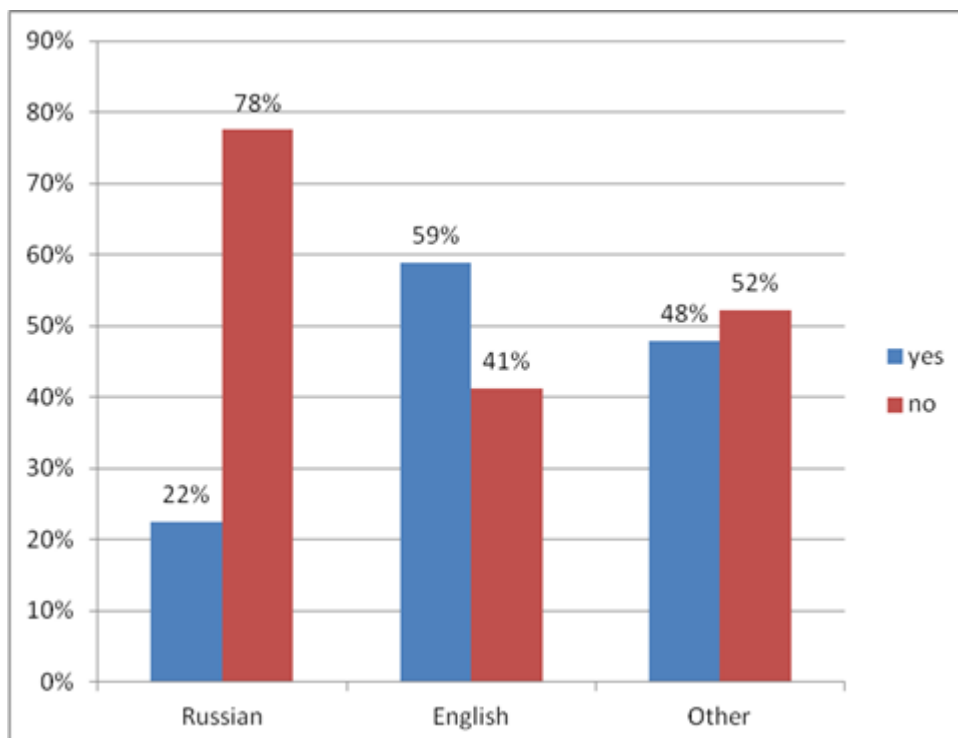
Figure 12. "Was the working activity relevant to the university studies carried out?" (percentage)
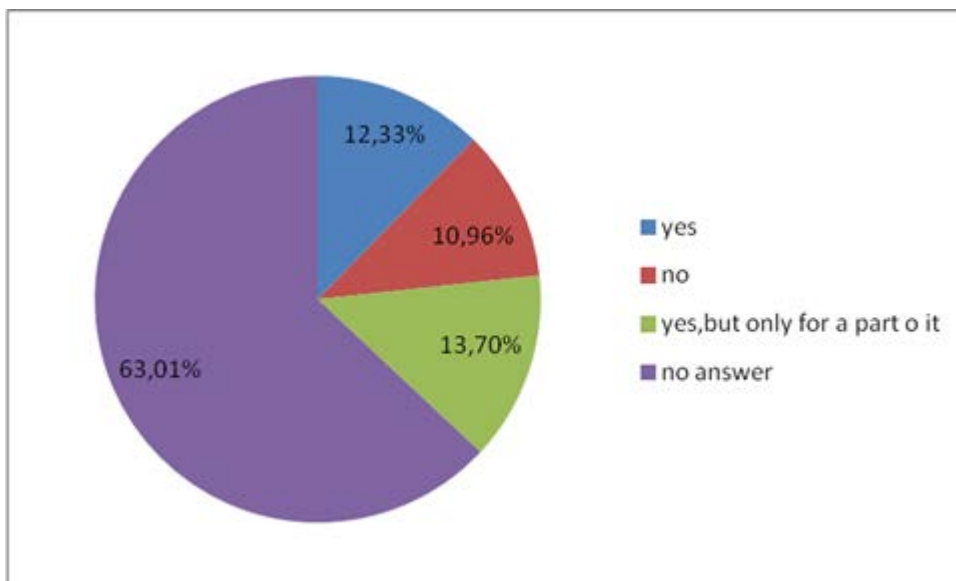
The database information collected from the 136 quality questionnaires indicates that a small number of graduates (3,7%) have an experience of study abroad.

The number of students involved in the mobility programs is small but in average in Armenia it isn't a very negative indicator (Fig. 12).

Figure 13. Did you study abroad during your university study?
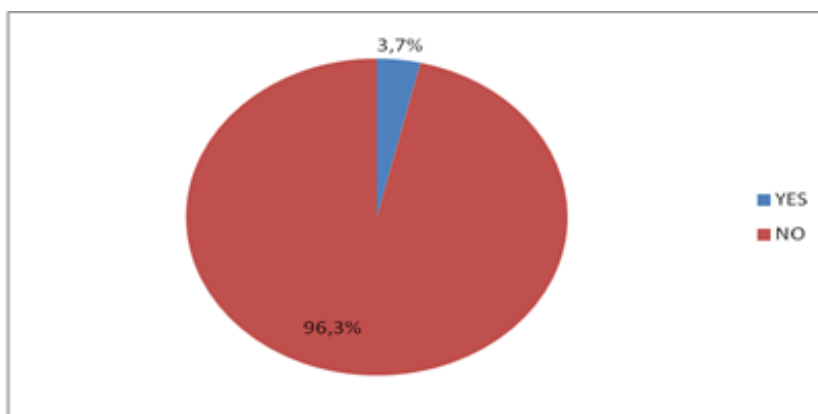
As the statistical analysis shows, the majority of the interviewed graduates (34%) haven't carried out any trainings during the university study period. 12% of the respondents answered that they have some training practice that was organized by the degree course and 3% have showed that they had a job activity that has been subsequently acknowledged by the degree course (Fig.14).

Figure 14. "During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree course?" (percentage)

5. Evaluation of the course that graduates are completing now

The graduates' overall evaluation of the university experience was analyzed based on the information received from the answers of graduates given by them to the question "Are you on the whole satisfied with your course of study?" of the Questionnaire. The majority of the respondents answered to this question positively. Particularly, 56% answered "yes, definitely" and 27% - "more yes than no". The results of statistical analysis are displayed graphically on the Figures 15.

Figure 15. "Are you satisfied with your course of study?" (percentage)
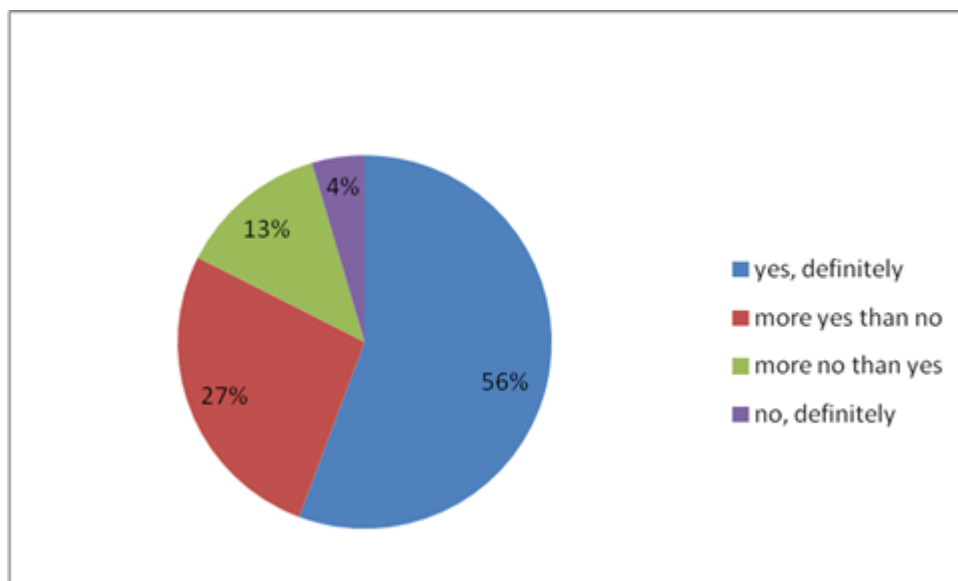
It is worth noting that the majority of the respondents are satisfied with the supervisor (87%), teachers (75%), administrative staff (69%) and students (74%) of the university (Fig.16). The fact that the majority of the graduates answered respectively to the question "If you could go back in time, would you enroll again at the university?" that they want to be enrolled "on the same course of this university" (66%) and "on the same university but in another course" (17%) is exciting (Fig 17).

Figure 16. Graduates satisfaction with the examination, teachers, administrative staff, students (percentage).
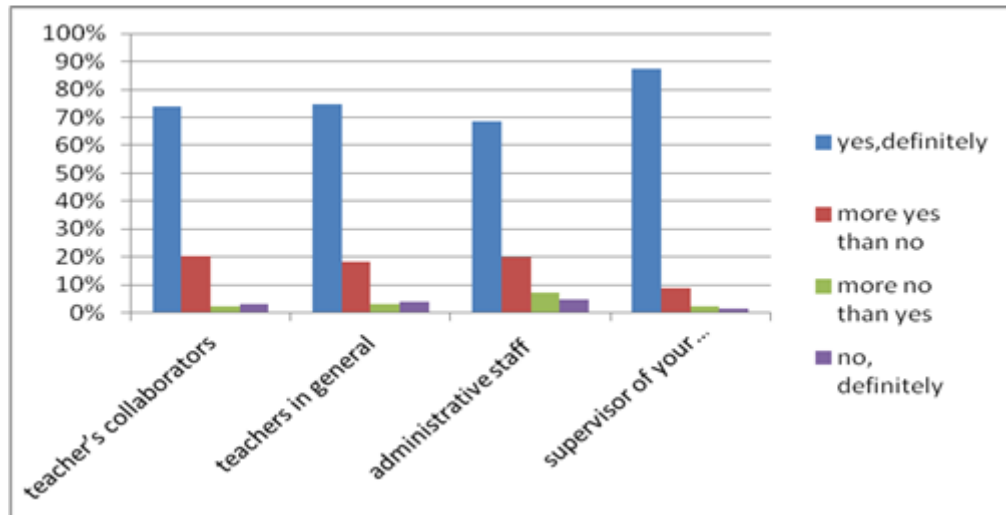
Figure 17. "If you could go back in time, would you enroll again at university?" (percentage)
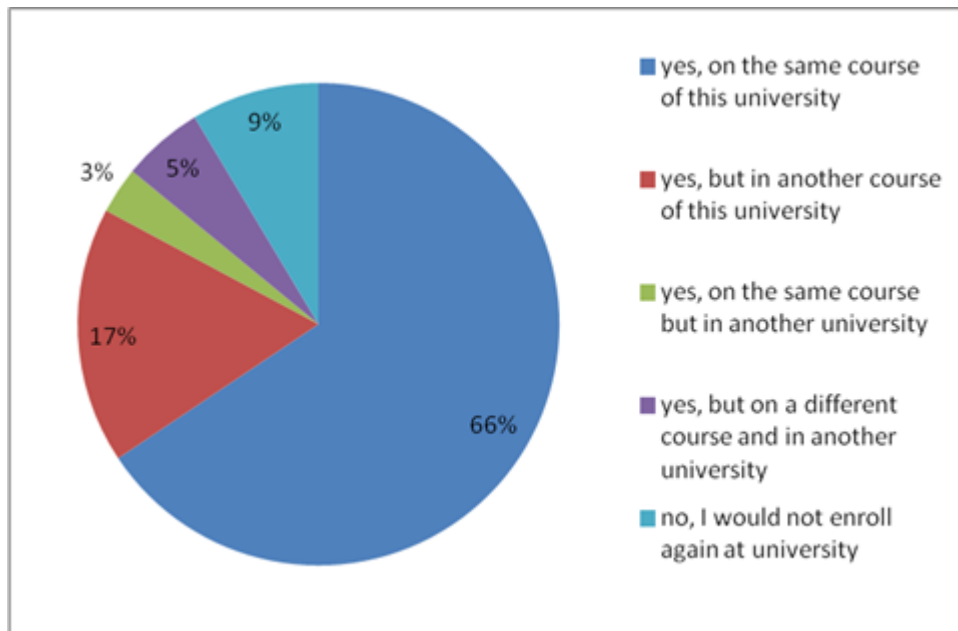
Figure 18. Overall evaluation of the university experience by females and males (percentage)
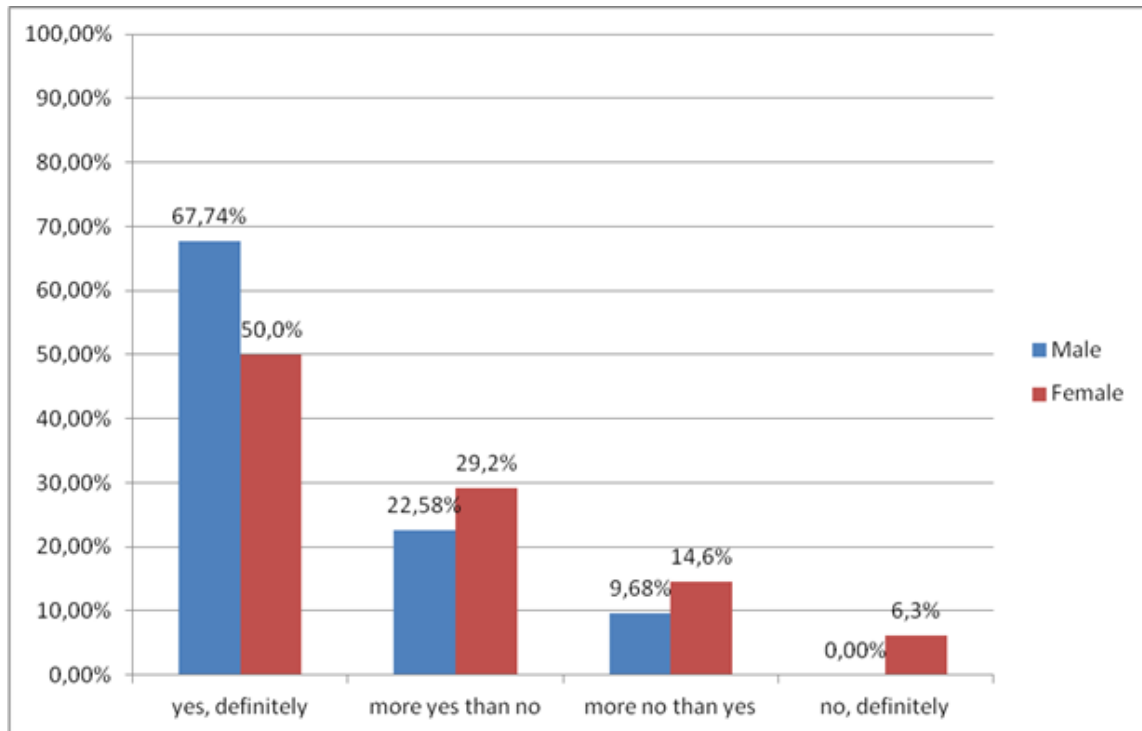
6.   Information about family

We can see that the vast majority of students' parents both mothers and fathers are degree holders, with percents 68% (Father) and 70% (Mother) which is a very high indicator (Figure 19).

Figure 19. Parents' educational qualification (percentage)
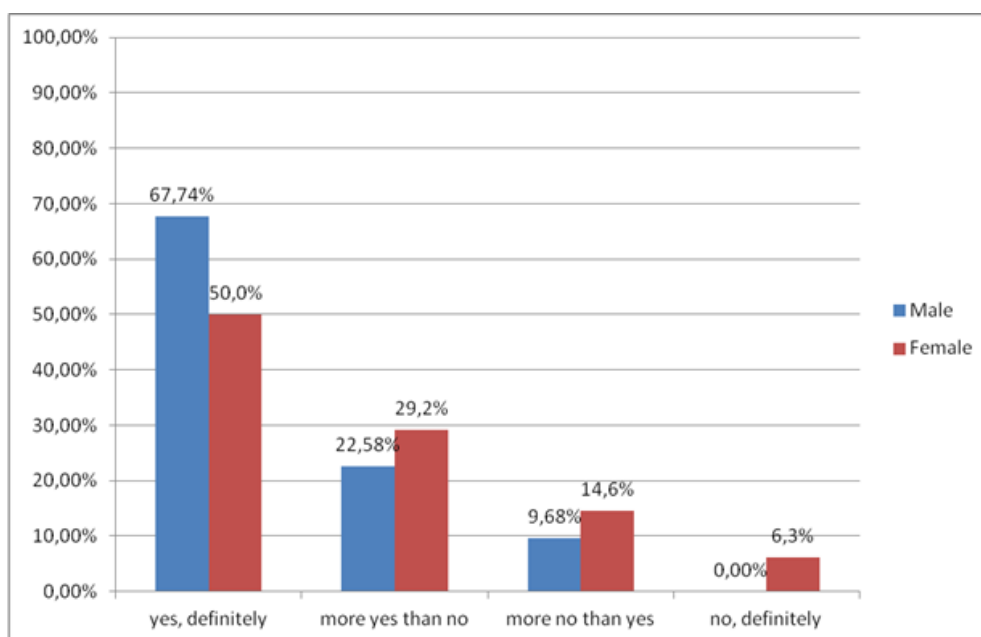
7. Future intentions and perspectives

The graduates' intention to pursue postgraduate education was analyzed based on the information received from the answers of graduates given by them to the question "Do you want to continue study?". The results of the statistical analysis are displayed graphically on the Figure 19. As it shows, 54% of respondents answered to this question positively. It is worth noting that among the females and males respectively 57% and 44% of total number of each stratum answered "yes" (Fig.22).

Trying to understand how the parents' educational qualifications are connected with graduates' intention to continue their study, we found out, that there is no significant difference in the answers of graduates, whose parents are university degree holders, and those, whose parents are other degree holders. The comparison is made by two groups: fathers' educational qualification and mothers' ones (Figure 22 and Figure 23).

Figure 20. "Do you want to continue study?" (percentage)
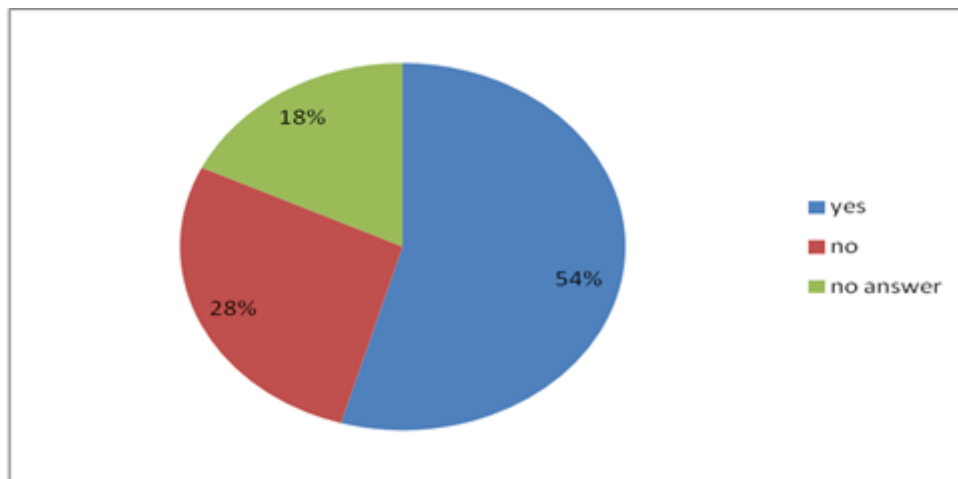
Figure 21. Intention to purpose postgraduate education by gender (percentage)
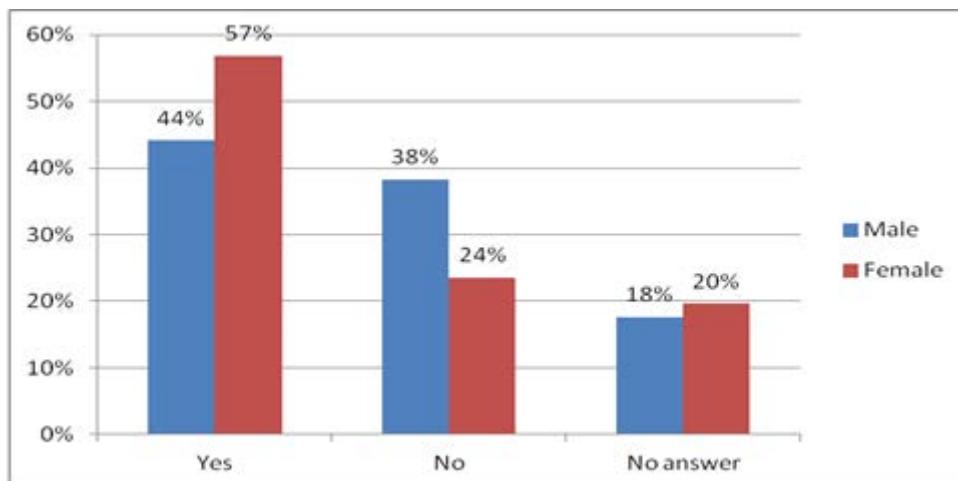
Figure 22. Connection between graduates' intention to continue study and their fathers' educational qualification
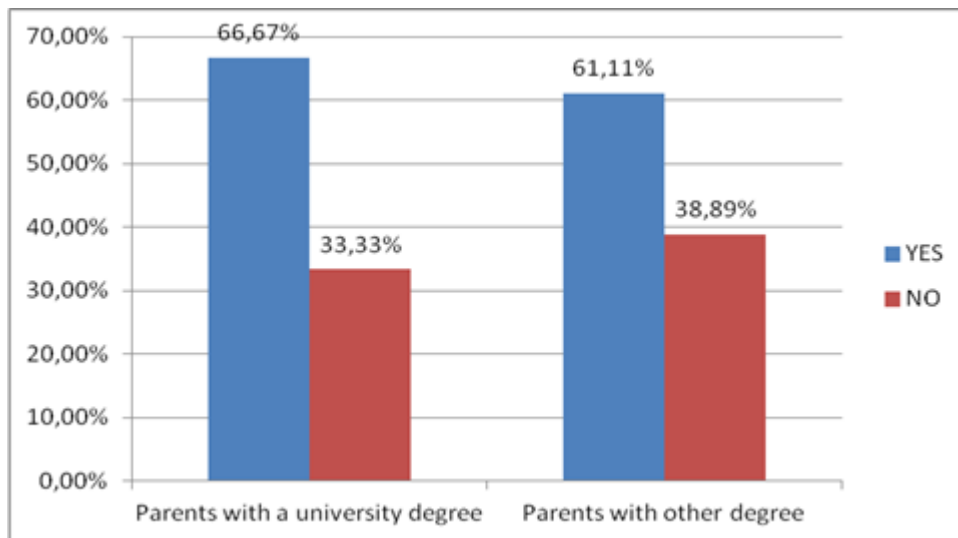
Figure 23. Connection between graduates' intention to continue study and their mothers' educational qualification.
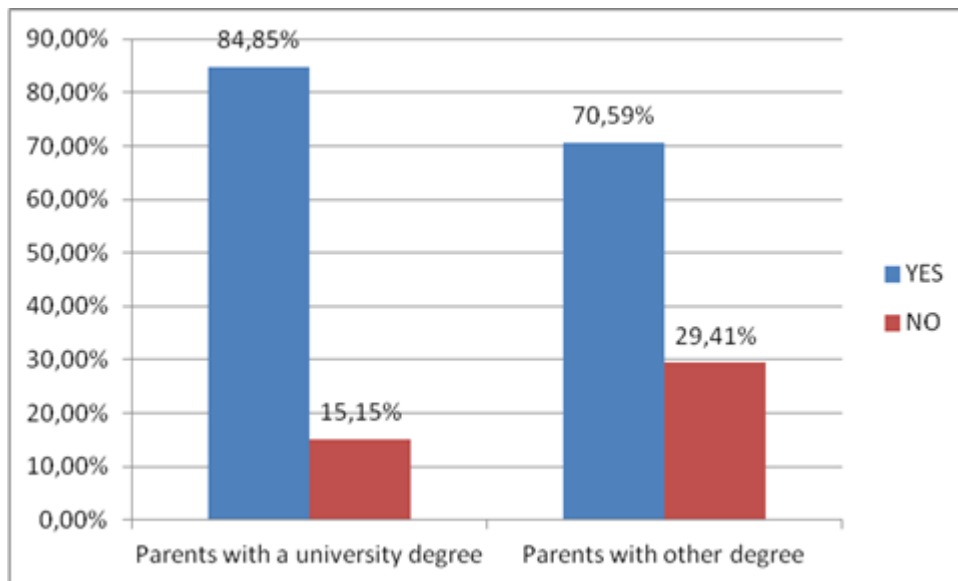
24 % and 11% of the sample's respondents preferred respectively the public sector and private sector for their job, while only 19% have a preference to be self-employed (Fig.24). Presumably, the high percentage of opting for self-employment among our graduates could be explained by the fact, that most of our students' sector is art. Also we tried to find the connection between the graduates' specialties and their preferences regarding the kind of job. For that purpose the graduates were grouped in accordance to their faculties: the Faculty of Fine Arts and the Faculty of Design and Decorative Applied Arts. As we can see from Figure 25, the graduates from the Faculty

of Fine Arts prefer to work in the public sector (41%), while the majority of graduates from the other faculty have no preferences (33%) or would prefer to be self-employed (27%).

Figure 24. Graduates' preferences regarding the selection of the kind of job (percentage)
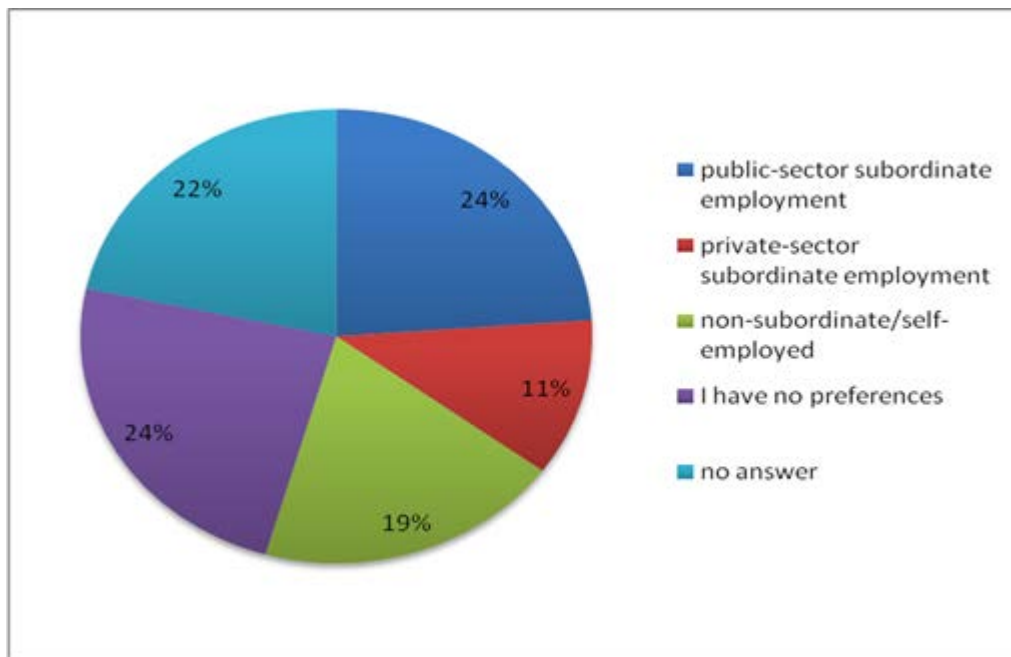
Figure 25. Connection between graduates' specialities and their preferences regarding the preffered type of job (percentage)
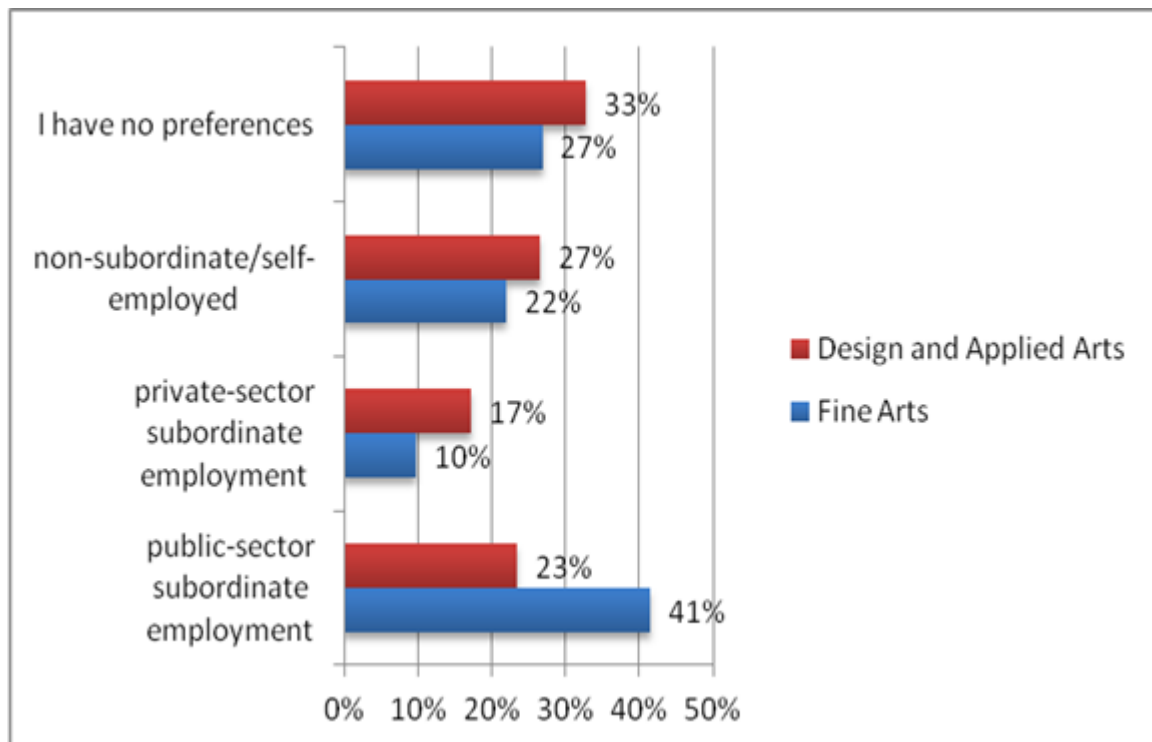
Figure 26. "How long do you think it will take for you to find a job after the graduation from the University?"
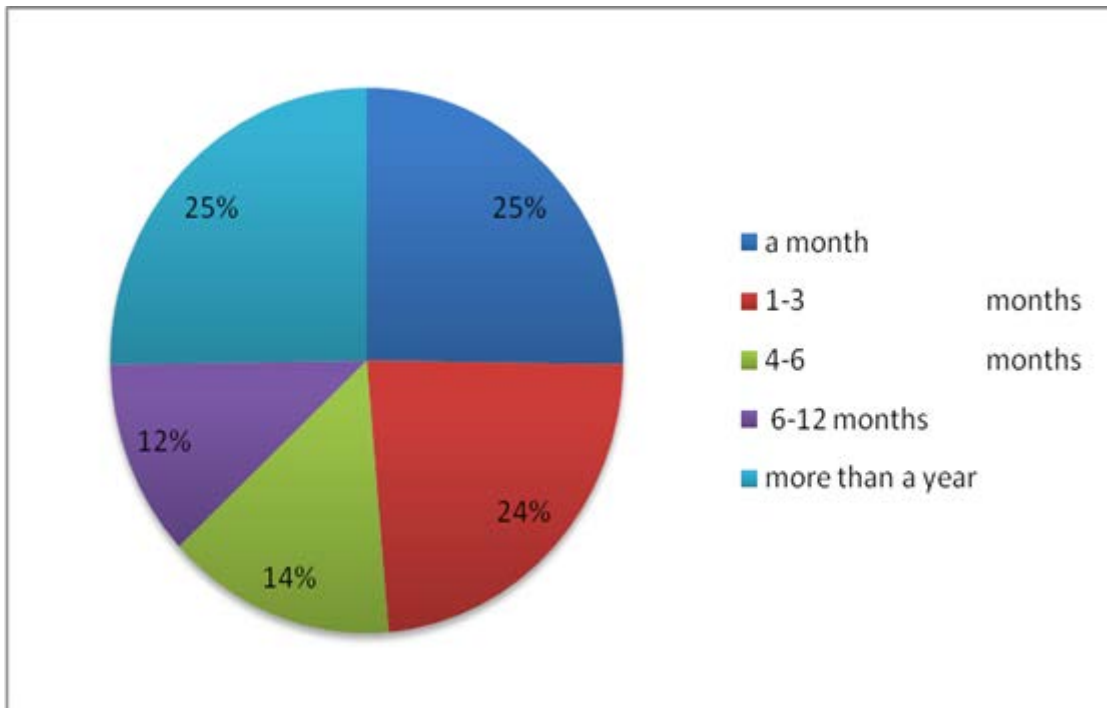
8.   Conclusions

The following conclusions could be considered as the results of the YSAFA graduates' survey executed for 2014:

• The sample includes 136 graduates' questionnaires, out of which 102 questionnaires were filled out by females and 34 – by males. It includes several specialties: fashion design, sculpture, design, computer graphic design, painting, applied arts, history and theory of fine arts. The 28% of the sample's graduates belong to the specialty of Fashion Design. The majority of the interviewed graduates are bachelor degree program students. 77% of the interviewed graduates have a secondary school diploma.

• For the majority of graduates (89%) Armenian language is the mother tongue and almost for all of them the first foreign language is Russian and the second is English. The significant part of the graduates doesn't own the third foreign language.

• The graduates interviewed are skilled mostly in web surfing and word processing.

• The majority of the respondents are satisfied with the training and learning methods used at the university during their study.

• Only 3,7% of graduates have an experience of studying abroad.

• 32% of sample's respondents are working currently. Graduates with knowledge of foreign languages (excluding Russian) have a higher level of employment compared to those, who know only Russian.

• 54% of sample's graduates want to continue their study. Graduates' intentions to continue study doesn't depend a lot on their parent's educational qualification.

• The 24% and 11% of the sample's respondents prefer respectively the public sector and private sector for their job, and 19% have a preference to be self-employed. The preferences regarding the kind of job differ in two Faculties. The majority of graduates from the Faculty of Fine Arts would like to work in the public sector (41%), while the answers of graduates from the Faculty of Design do not fluctuate a lot in the proposed options.

Yerevan State University (YSU)

Report
YSU Graduates' Profile
(Pilot Survey)

Created by: Mamikon Tosunyan, Arshaluys Hovhannisyan, Ruben Markosyan YSU HEN-GEAR Research Team

YEREVAN - 2015

Introduction

The YSU Graduates' Profile Report (hereinafter Report) is a pilot survey which was executed within the "Higher Education Network for Human Capital Assessment and Graduate Employability in Armenia (HEN-GEAR)" Tempus project. The project aims at uphold the higher education reforms and modernization process in the Eastern Neighboring Area, by addressing quality assessment and support of graduates' employability in Armenia.

The project supports Armenian Universities in identifying instruments and methodologies to improve the effectiveness of education system through the introduction of the graduates' database HEN-GEAR system, applying the model proposed by AlmaLaurea Interuniversity Consortium (Italy, Bologna), and has two main goals:

The aims of the introduction of HEN-GEAR system are the following:

- to support the effectiveness of quality assessment practices with reliable statistical evidence on graduates features, as indicated by ENQA (European Association for Quality Assurance in Higher Education),

- to fulfill gaps in existing statistics,

- to facilitate the access of graduates to the job market at national as well as at international level,

- to consolidate relations between universities and companies at national as well as at international level,

- to increase in value the National University system as a whole.

The Periodical Development of the Graduates Profile Report is an important element of the effective functioning of the HEN-GEAR system. The objectives of the Report development are:

- to introduce and analyze data on graduates' performances and outline their main features

- to provide the information to those, who are involved in YSU policy development for the university education system further progress,

- to provide a tool kit for the university study programs development and selection,

- to improve the HEN-GEAR system in general and graduates' questionnaire in particular.

The study can be focused on a number of variables coming out from the six sets of the on-line platform's questionnaire used for the graduates' interviews.

Particularly, the following six sets are included in the questionnaire:

- Personal information
- Education and training
- Information on the course that the graduate is completing now
- Evaluation of the course that the graduate is completing now
- Information about the family
- Future intentions and perspectives

The Report is the first analyses of YSU Graduates data provided by HEN-GEAR database system. This Report can be considered as a pilot activity, which also has am aim to exercise the HEN-GEAR database system data analyses. The overall and more relevant information on graduates profile is possible to get having high response of graduates (high percentage of registered graduates with properly filled questionnaires).

The Sampling of studied graduates was made by the list of essential questions specifically selected for this Report. Particularly essential questions for this report are:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

The eligible questionnaires for the Report were selected via applying the exclusion criteria on completeness to the questionnaires. Particularly, the questionnaire completeness criterion is satisfied, if the graduate presented comprehensive information at least for 3 questions of the above-mentioned 6 essential questions.

The Report contains an analysis of the features and performance of the 190 YSU graduates of the total 297 graduates registered in HEN-GEAR in 2014 (the 190 graduates profile was selected taking into consideration the above-mentioned criterion.

The report includes the following 6 chapters:

- Graduates' socio-demographic data
- Graduates' language skills
- Graduates' IT skills
- Information on the activities and awareness of the university and alumni
- Graduates satisfaction with the educational process
- Activeness of the graduates and their position towards education based on gender.

1. Graduates' socio-demographic data

The study was conducted using the data of 190 graduates who is eligible for this Report as it was mentioned in the introduction part. Among these 190 graduates 89.5% were female and 10.5% male (Figure 1).
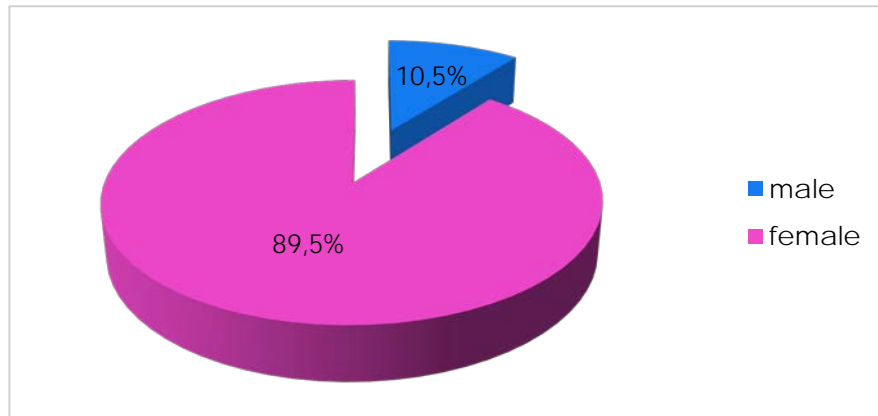
Figure 1. Graduates gender distribution.

The students/graduates gender distribution varies from faculty to faculty, but the above mentioned picture does not reflect the real gender distribution among graduates. This can be explained both by the factor that the faculties which graduates were more actively registered in platform are mainly occupied by females and generally female graduates are more active in registering process. They are more active also in YSU Alumni and Career Center programs and other university activities; the type of job which they are looking for from the first sight is more relevant to the HEN-GEAR platform potential employment opportunities. At the same time we have to mention that many male graduates have to serve in army and they do not consider the registration in the HEN-GEAR platform as priority (though this can be applied to the 10-15% of graduates who had right to postpone the military service).
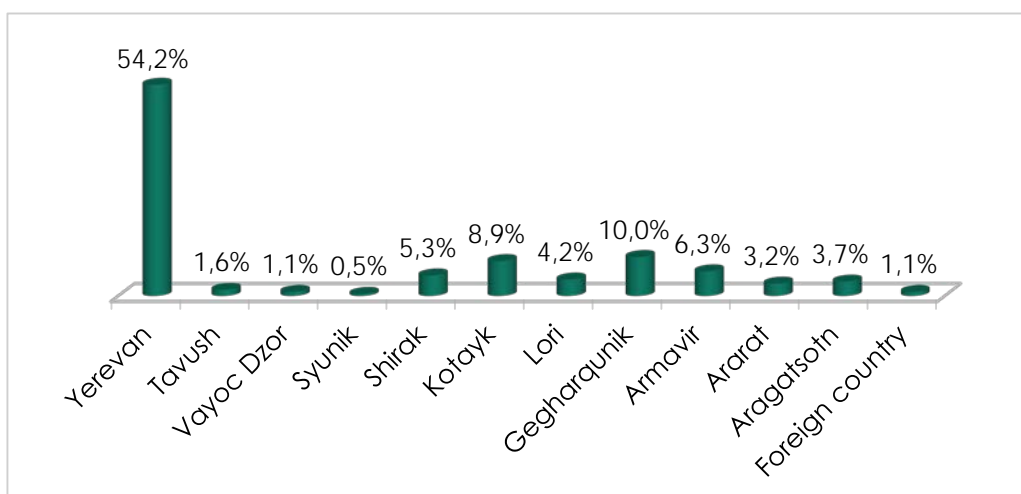
Figure 2. Graduate birthplace distribution

It is also interesting the figures on registered graduate's birthplace. Figure N 2 indicated that the significant part of the participants of the survey - 54.2% are residents of Yerevan, but students from different regions have also been involved in it: 10% of the respondents represent the province of Gegharkunik, 8.9% - Kotayk, 6.2% - Ararat, 1.6% - Tavush, 6.3% -Armavir, 3.7% - Aragatsotn, 5.3% - Shirak, 4.2% - Lori, 0.5% - Syunik and 1.1% -Vayots Dzor. The research has also involved foreign students (1.1% of the respondents).

The registered students from other cities are almost half of all students, but in reality they are less. This data indicates that graduates who are not originally from Yerevan are more interested in HEN-GEAR portal.

Graduates from 18 faculties of YSU have participated in this pilot research (the only missing faculty is the faculty of Informatics and Applied Mathematics).
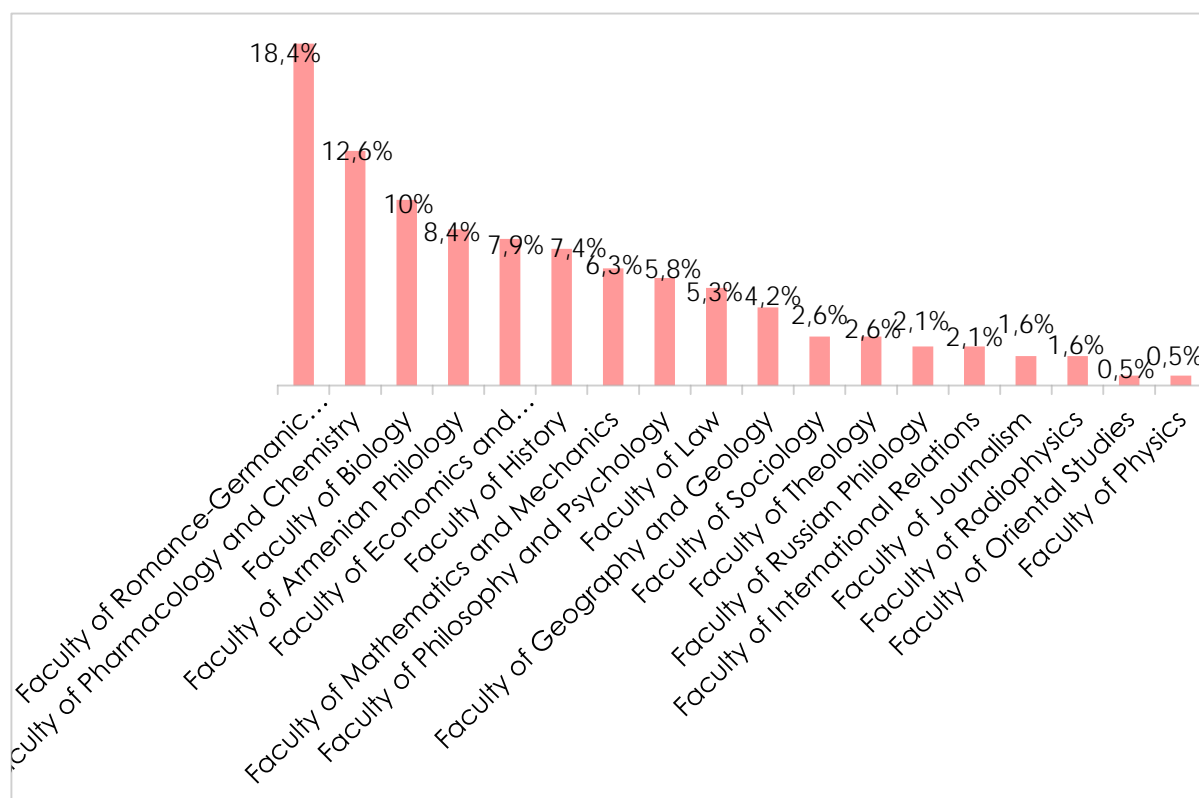
Figure 3. Graduates' distribution by faculties (percentage)

The distribution of studied graduates is presented in Figure 3. It is worth mentioning that there are some faculties which are one of YSU biggest faculties, but their graduates were not so active in HEN-GEAR platform (for example, the Faculty of International Relations, Faculty of Informatics and Applied mathematics, Faculty of Law) and we have to mention that according to expert evaluation the graduates from mentioned faculties relatively have less problems with employability.

2. Language skills of YSU graduates

The native language of the majority of graduates is Armenian (93.7%). 0.5% of the respondents noted Russian language as a native one, Albanian (0.5%) and Hindi (0.5%). These are foreign students, who study in the Republic of Armenia. There are many students (4.7%) who did not provided an answer (Figure 4).
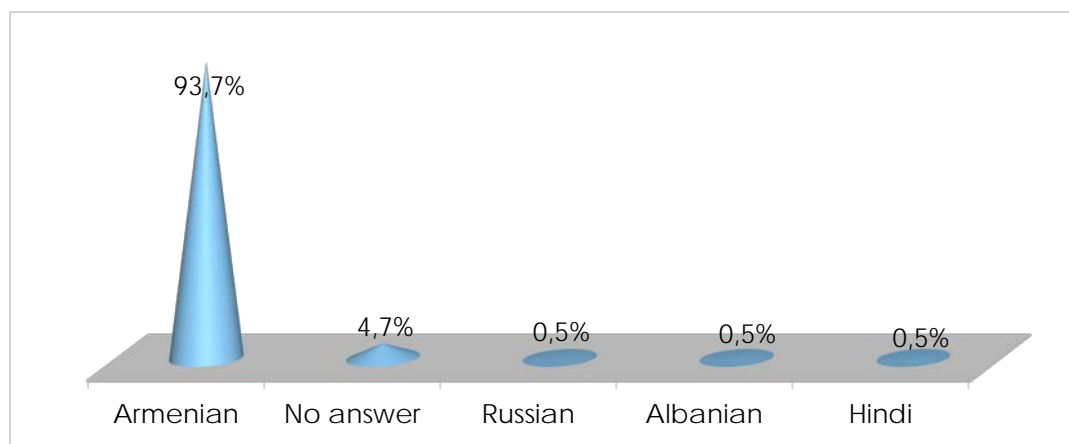
Figure 4. Native language of graduates (percentage)

The knowledge of the first, second and third foreign languages has also been considered during the survey. Table 1 shows the languages spoken by the participants of this study. Russian language was mentioned as the first foreign language by 56.8% of the respondents, English – 30.5%, Armenian is the second foreign language for 0.3% of the respondents, and French language for 0.5%. As for the second foreign language, as in case of the first foreign language, here also English and Russian languages dominate, but English was mentioned as a second foreign language by 55.8% of the respondents, while Russian by only 20.5% of students. For 5.8% of students, second foreign language is French, 5.3% - German language, 3.2% - Spanish language, etc. 10.5% gave no information regarding the knowledge of the first and second foreign languages.

This picture (no answer) is more dominated in case of the third foreign language – 56.3% of the total number of students. 11.1% of the surveyed students noted Russian as their third foreign language, 7.4% - English language, 7.9% - German language and 3.2% - French.

Knowledge of foreign languages is very important factor for Armenian labor market. Employers often require language skills and graduates with good knowledge of English have essential advantages.

Table 1. Knowledge of foreign languages (first, second and third foreign langauge)

	First foreign language	Second foreign language	Third foreign language
Russian	56,80%	20,50%	11,10%
English	30,50%	55,80%	7,40%
Germany	0,70%	5,30%	7,90%
French	0,50%	5,80%	3,20%
Armenian	0,30%		
Spanish	0,20%	3,20%	5,30%
Hindi	0,20%	0,90%	0,70%
Italian		1,60%	-
Turkish		0,50%	1,10%
Polish		0,50%	4,20%
Georgian	-	0,50%	1,10%
Arabic	-	0,50%	1,10%
Greek	-		2,60%
Farsi	-		2,10%
Japanese	-	-	0,50%
Bulgarian	-	-	0,50%
No answer	4,70%	5,80%	56,30%

It is also very important the level of knowledge of foreign languages. Graduates often have studied foreign languages, but in practice (oral and written communication) they have certain difficulties. The study focuses on the existence of the certificate on the knowledge of foreign language. Only15% of respondents have a document certifying the knowledge of the first foreign language, 10.5% - second foreign language and 3.6% - third foreign language.

3. Graduates' Information Technology Skills

The YSU graduates Information technology skills are presented in details in Figure N 5, 6 and 7. As shown in Figure 8, 88.4% of YSU graduates are skilled in web surfing (7.9% fairly good, 30% good, 50.5% excellent). As it was expected the graduates are more skilled in text processing (Figure

6); 83.2% (10 % fairly good, 35.3% good, 37.9 excellent) are skilled in text processing and 85.2% (18.4% fairly good, 40% good, 26.8% excellent) are skilled in spreadsheets (Figure 7).
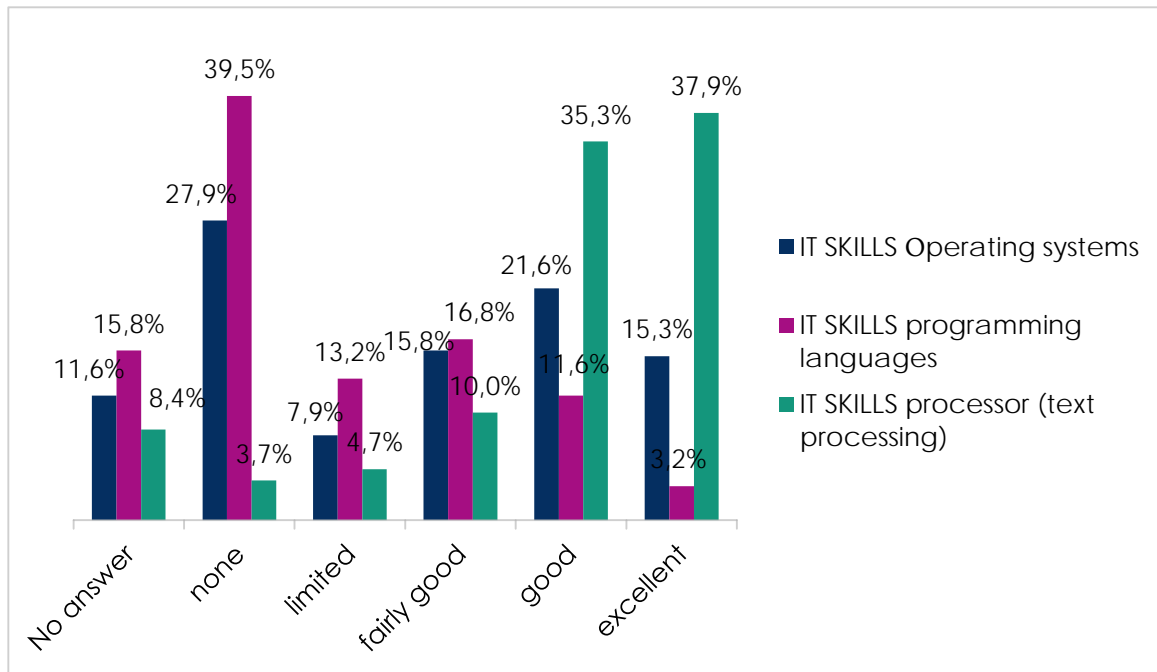
Figure 5. Graduates IT skills (Operating systems, programming languages, text processing).

At the same time the skills in data bases, operating systems, programming languages are very limited. It is worth mentioning that the self-evaluation of IT skills among graduates is also often overestimated. For example many graduates have very limited skills of work with spreadsheets (MS-Excel and other programs), but they think that they have relevant knowledge.
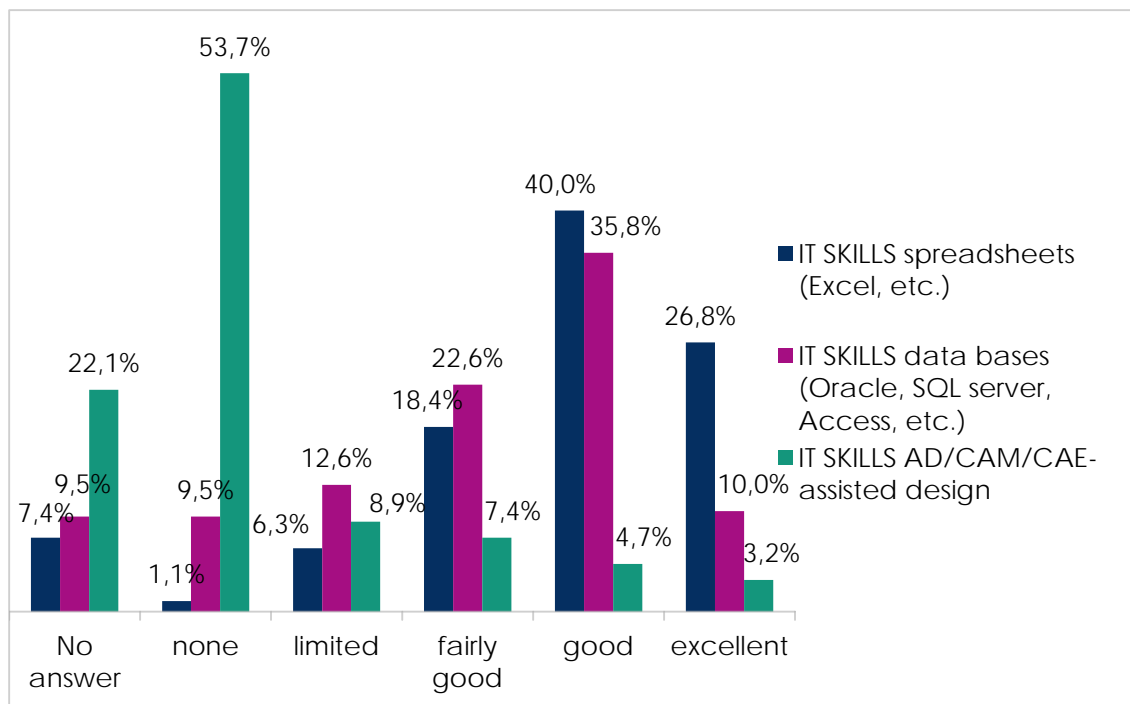
Figure 6. Graduates IT skills (spreadsheets, databases, AD/CAM/CAE design).

There are also concerns related to the picture of web-site creation skills. Only 23.1% of graduates have good and excellent web-site creation skills, while the labor market requires potential employees with such profile. The situation is similar with data transmission and multimedia skills (Figure 7).
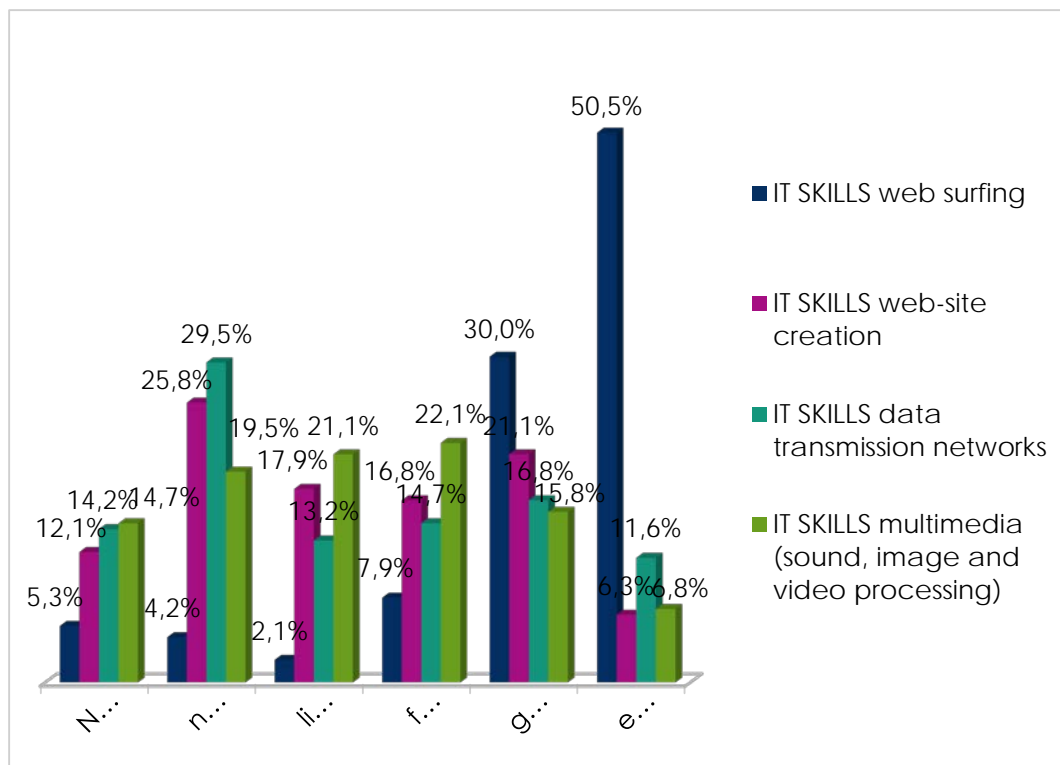
Figure 7. Graduates IT skills (web surfing, web-site creation, multimedia).

4. Information on the course that graduates are completing now

About the half of the interviewed graduates (54.2%) indicated that they have known before enrolling at the university what knowledge and skills they were going to acquire by the end of the chosen course of study. Particularly, 22.6% of the respondents answered "yes, definitely" and 31.6% answered "more yes than no" to the question "Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?" (Figure 8). At the same time it is worth mentioning that 30.5% of graduates answered

"more no than yes", which means that professional orientation process has certain problems and university should be more active in this regards.
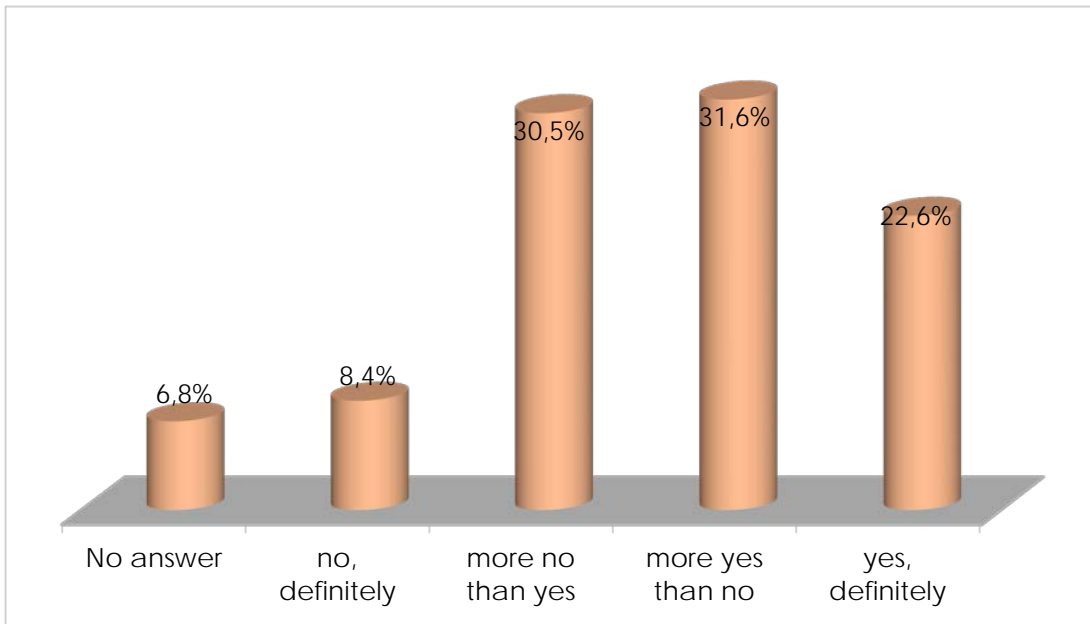
Figure 8. Before enrolling at the university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study? (percentage)

The majority of the studied graduates (79.54%) are satisfied with the training and learning methods used at the university during their study. 29.5% said they definitely agree, and 50% say that hey more agree (Figure 9).
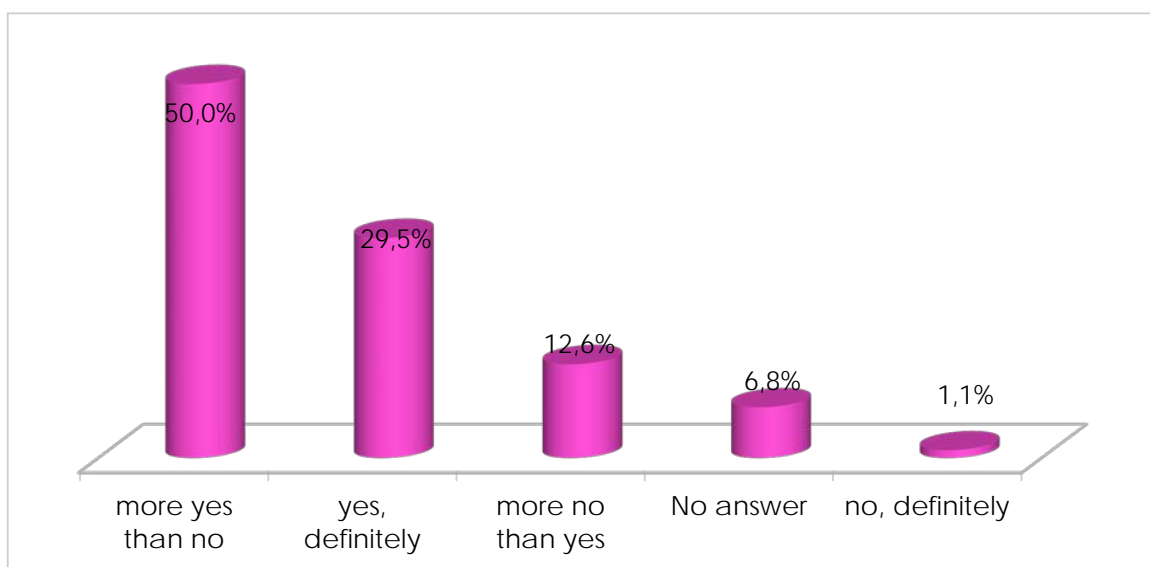
Figure 9. Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills? (percentage)

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The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following question of the Questionnaire: "Did you carry out a working activity while attending classes?"
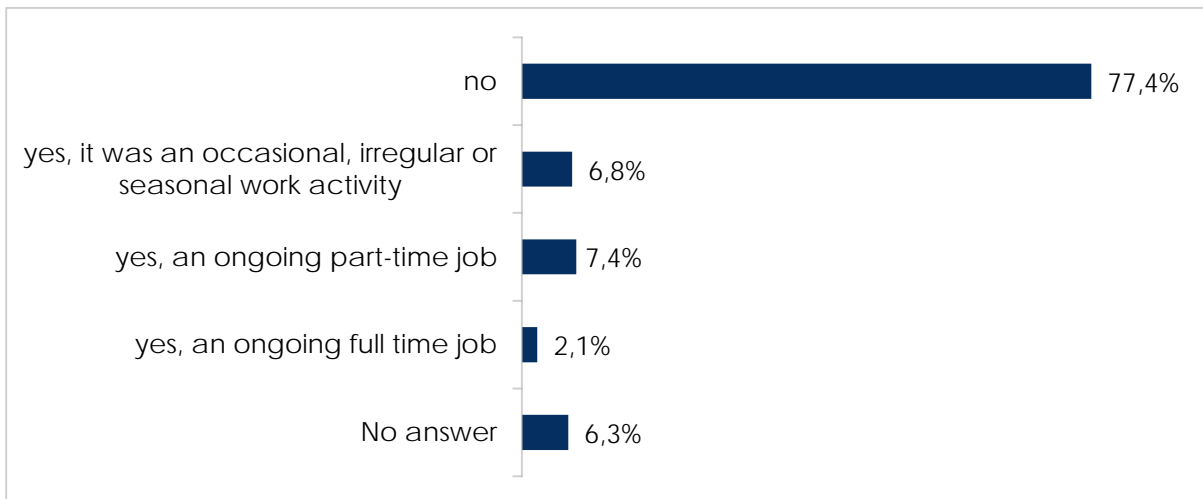
Figure 10. Did you carry out a working activity while attending classes?

Major part of YSU graduates (77.4%) has not worked anywhere in the process of education. Only 2.1% of students have worked full-time, 7.4% - part-time and 6.8% has not worked regularly or have chosen free schedule (Figure 10).

The employment of graduates is studied by the time of the graduation (1-2 months after graduation, when the questionnaire was filled). To the question if you have a job now, 65.8% of graduates answered negatively and only 27.4% gave a positive answer. The remaining 6.8% did not answer this question (Figure 11). While considering this picture it is necessary to have in mind that as it was
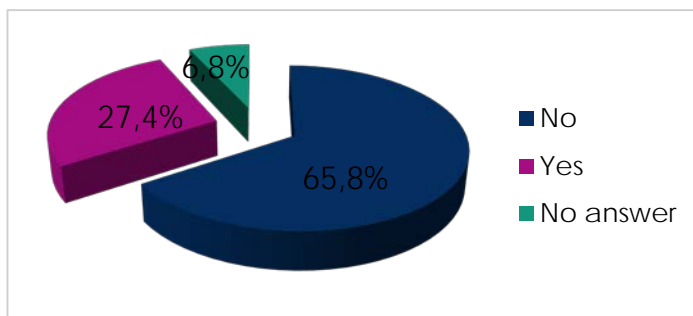
Figure 11. Are you currently working?

mentioned the information is provided just after graduation and graduates need more time to find a job, as well as many of graduates with bachelor degree continue their education.

5. Graduates satisfaction with the educational process

The graduates' overall evaluation of the university experience was analyzed based on the question "Are you on the whole satisfied with your course of study?" of the Questionnaire. The majority of the respondents answered to this question positively. Particularly, 44.7% answered "yes, definitely" and 38.9% – "more yes than no" (Figure 12). Only 1.1% of graduates said they were absolutely not satisfied with the educational process and 7.9% of graduates answered "more no than yes".
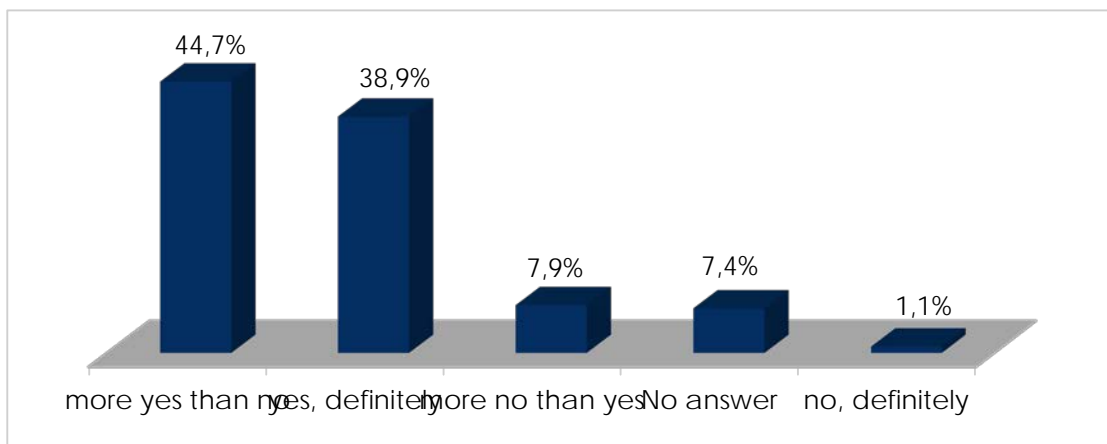
Figure 12. Are you satisfied with your course of study?

There are also gender distribution data on graduate's satisfaction with the education (Figure 13). Graduates are generally satisfied with the educational process, and the strong domination based on gender is not observed.
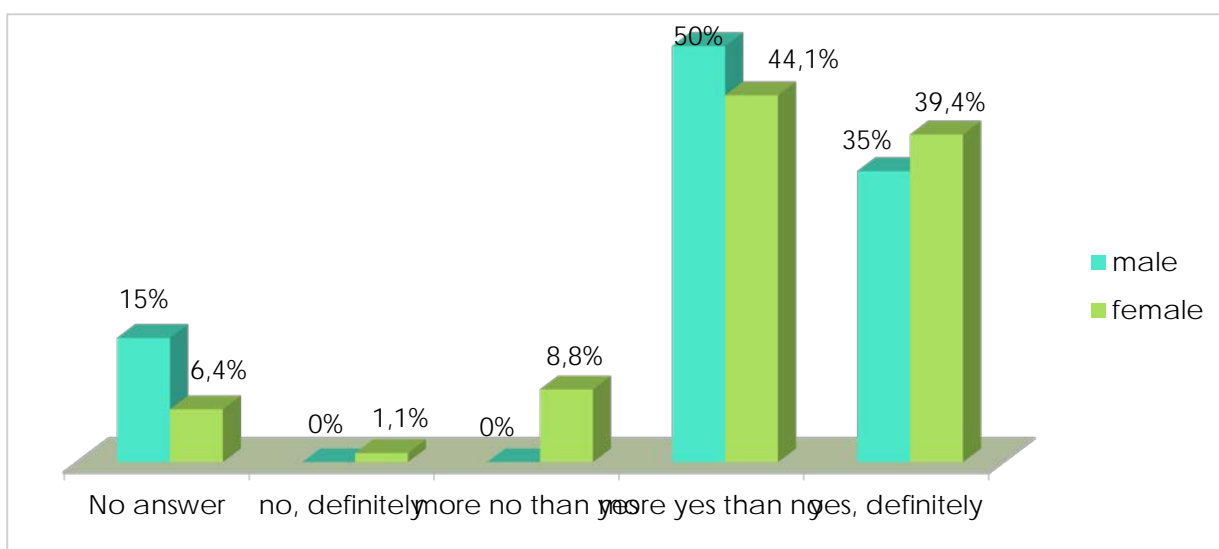
Figure 13. Gender distribution of the satisfaction with the course of study (percentage).

The satisfaction was statistically analzed both by the direct question ("Are you satisfied with your course of study?"), but also by the question "Are you satisfied with the examination, teachers, administrative staff and students of the university". The detailed distribution of satisfaction is very important to identify weak and strong sides of "general satisfaction". The major part of graduates is satisfied with their relations with students, lecturers and administrative staff, and again the percentage of absolutely not satisfied people is very small (Figure 14).

As it is indicated by the data provided the satisfaction with administrative staff has the minimal result (47.9% answered "yes, definitely", 30% answered "more yes, than no"). For example the same question related to the teachers had 62.1% and 25.3% correspondingly.

It is clear that the work of administrative staff has a place for improvement and often this element of satisfaction has a important role for the whole picture of satisfaction among graduates.
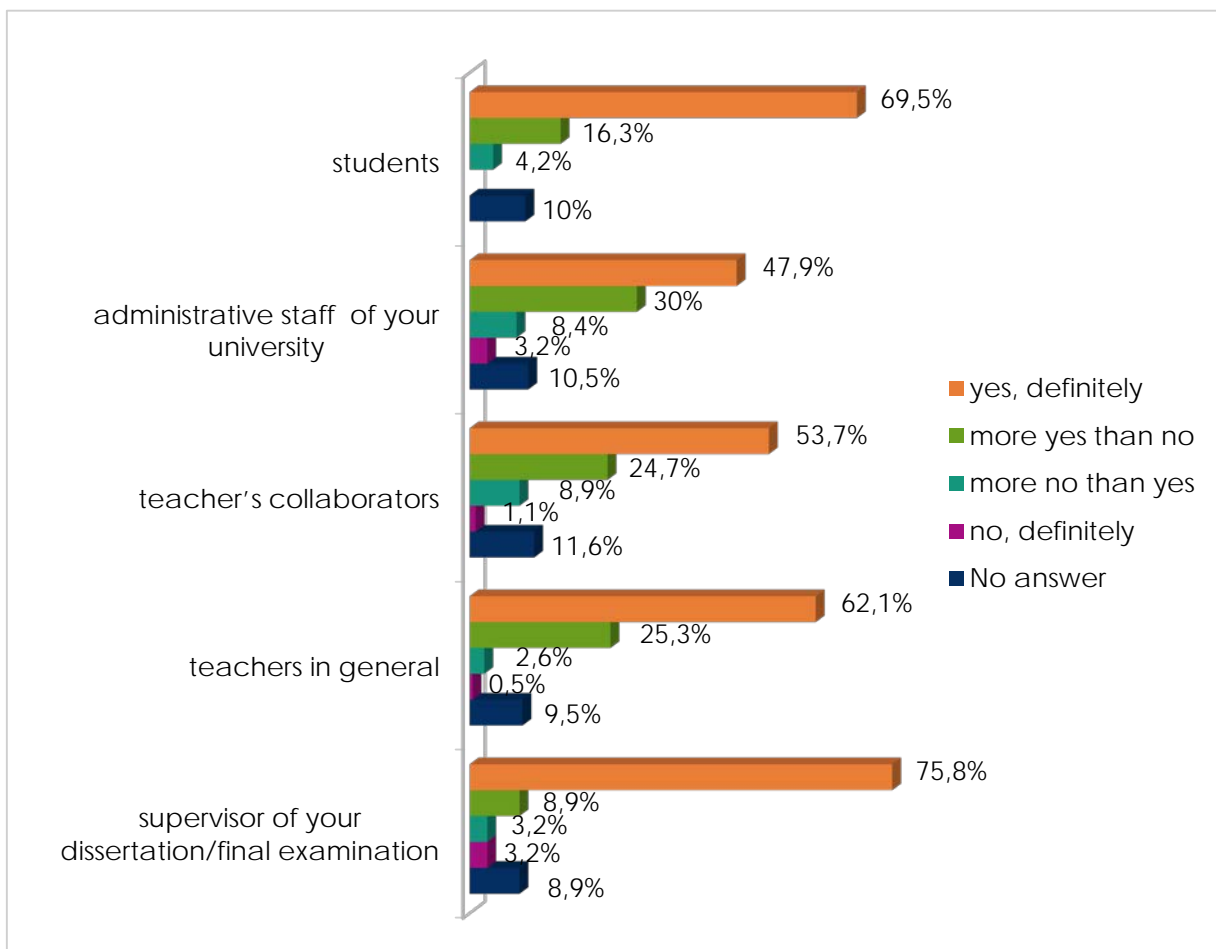
Figure 14. Are you satisfied with the relationship you had with...

The question "If you had the opportunity to enter university again, would you choose the same HEI again?" is also indirectly indicates graduates satisfaction. The fact that 63.7% of graduates gave positive answer to this question (same course of the same university) and 16.3% said they will try another course of the same university correlates with other data regarding graduates satisfaction. Only 11% of graduates would select another university (Figure 15).
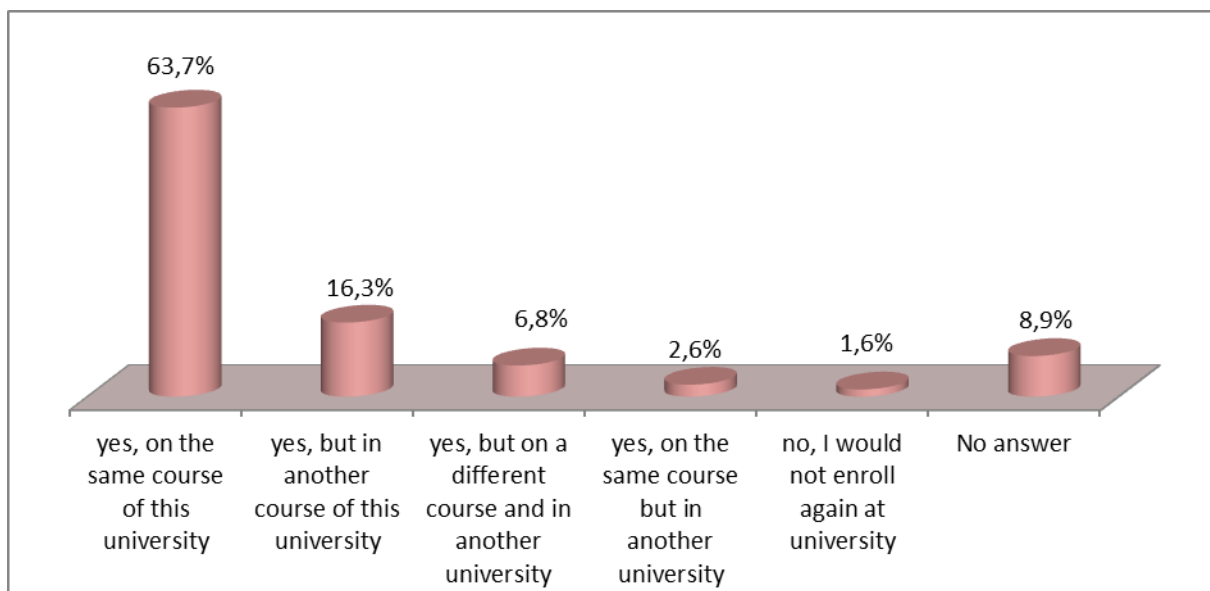
Figure 15. If you could go back in time, would you enroll again at university?

6. Information about family

As it is mentioned above, the question on parents' educational qualification was selected as one of the essential question among others. The statistical analysis shows that 66.3 % of graduates fathers and 64.7% of graduates mothers have degree (higher education). Graphical display of the statistical analysis of graduates' parents' educational qualification is presented below on the Figure 16.

It is important to find out how strong is a link between parental and children's education. The statistical analyses on correlation between parents' education and other questions can be very interesting, but our data did not indicate any interesting tendencies.
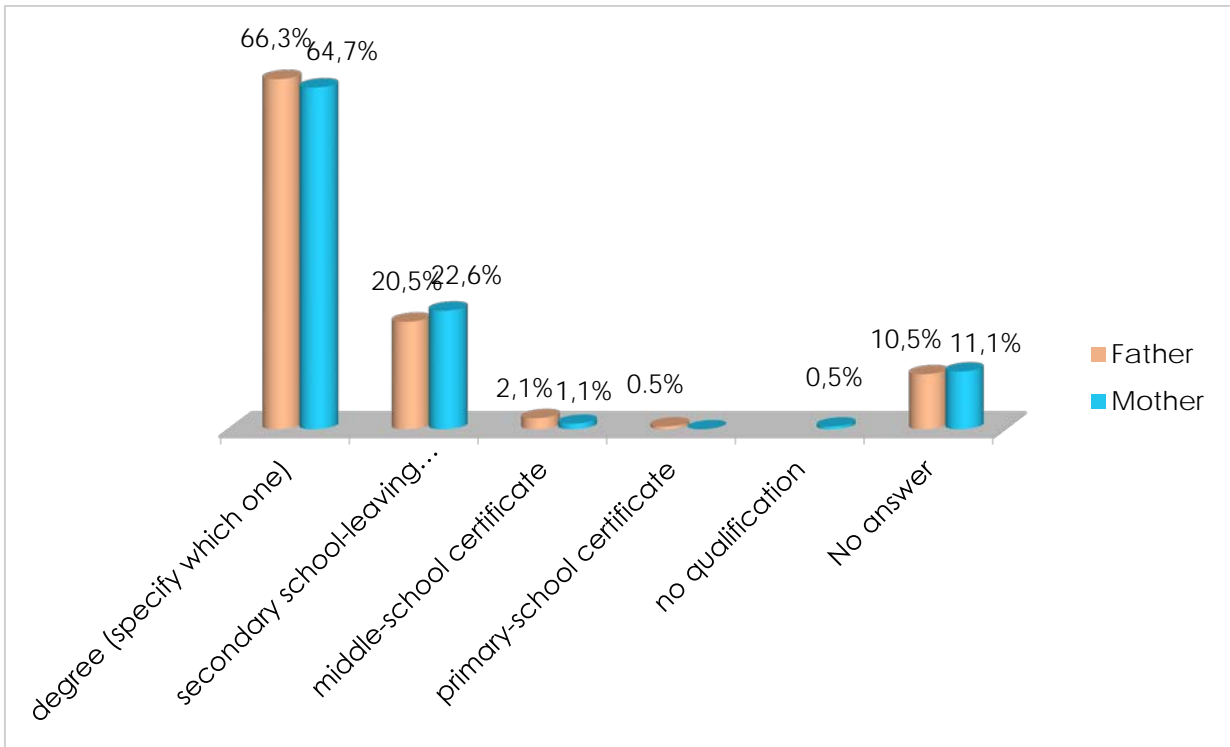
Figure 16. Graduate parents' education.

7. Future Intension and Perspectives

The graduates' intention to purpose postgraduate education was analyzed based on the information received from the answers of graduates given by them to the questions on the intention to continue study and intention to continue the same course or another. The data indicates that 83.2% of YSU graduates want to continue their education and only 6.3% gave a negative response *(Figure 17)*.
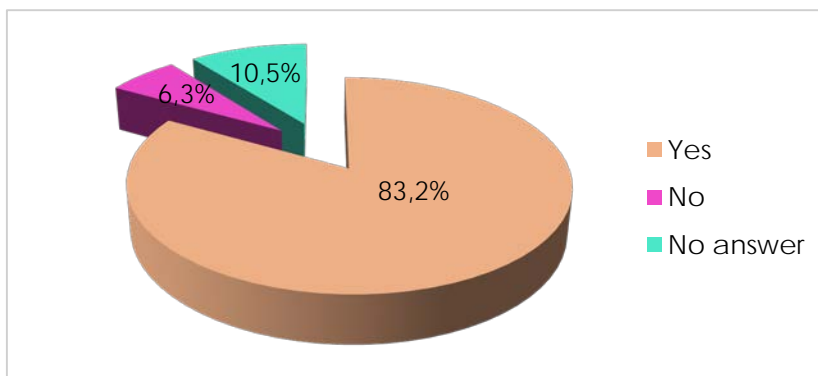
Figure 17. Do you want to continue study?

There are also gender distribution data on graduate's the intension to continue the study (Figure 18). The intension to continue the study is more active among female graduates (among female students 84.2% want to continue the study and among males 75% want to continue).
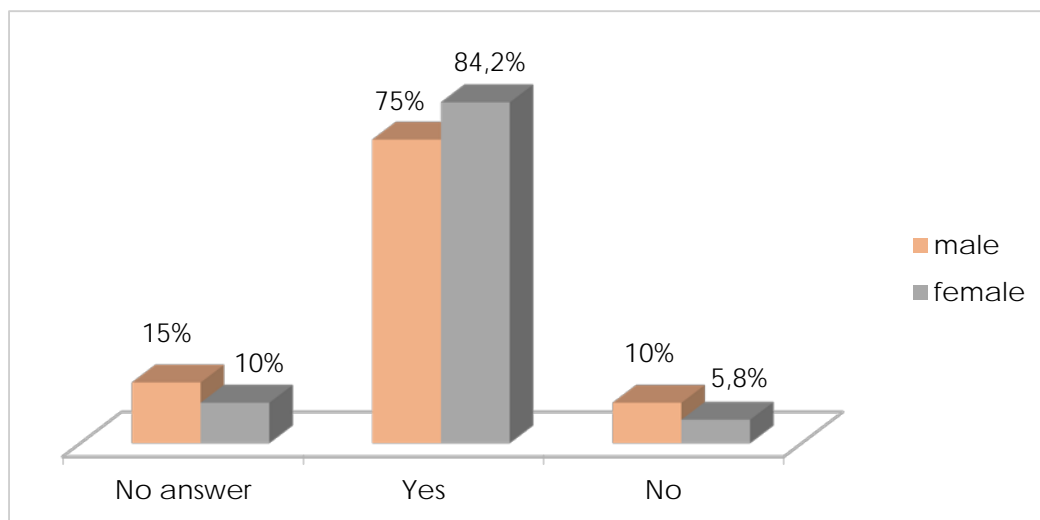
Figure 18. Gender distribution of the intension to continue the study? (percentage)

At the same time it is very interesting to know if the graduates want to continue the education in YSU. The provided data indicates that 58.9% of graduates wishing to continue their education responded that they wanted to continue their education at the same university (in this case means YSU). It is also very interesting data that 18.4% of graduates want to continue their studies abroad and only 3.7% of those who wish to continue their studies in the Armenia, said they would choose other university *(Figure 19).*
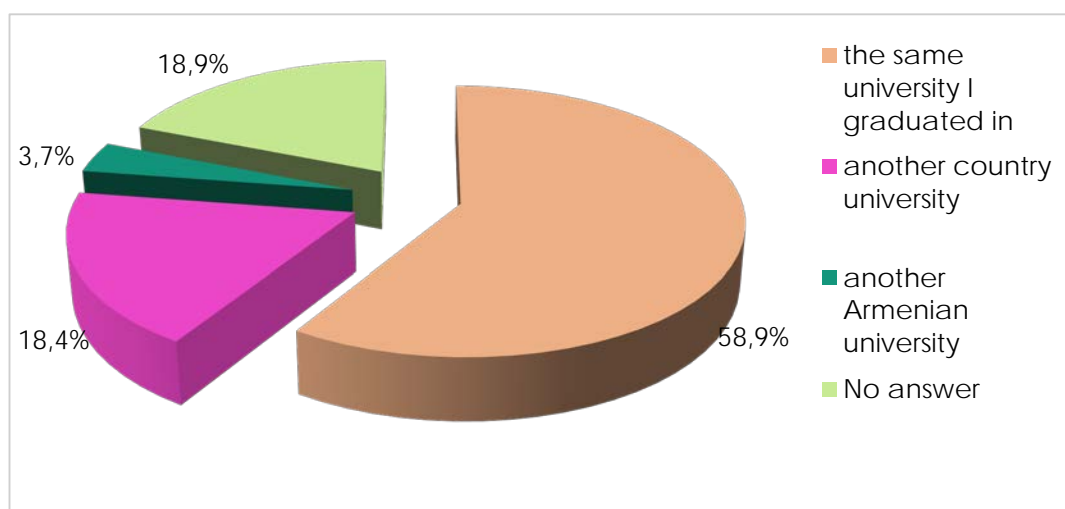
Figure 19. In which university you want to enroll in?

At the figure 20, we can see that among 163 respondents who indicated her/his interest to postgraduate education 60% of bachelors and 50% of masters answered that they would like to

enroll at the same university that they graduated, and 17.5% of bachelors and 37.5% of masters would like to continue their study at university of another country.
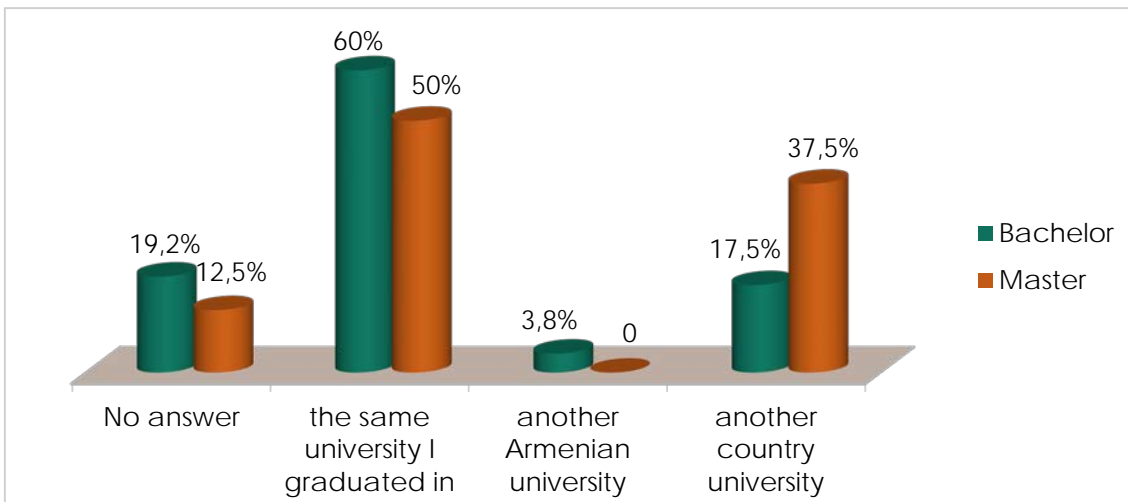
Figure 20. Bachelor/Master degree graduate's intention to continue education.

There is also information on other Armenian universities which YSU graduates prefer (to continue their studies). As a university, where they would like to continue their education they have mentioned the following ones: the American University of Armenia (2.1%), Yerevan State Medical University (0.5%), the Yerevan State Academy of Fine Arts (0.5%), the Public Administration Academy (0.5%). This data suggests that the change was mainly conditioned with the change of the field, as indicated by the universities, which have a distinct professional orientation, with the exception of the Armenian-American University, which is not unique with its professional orientation, but is a foreign one.
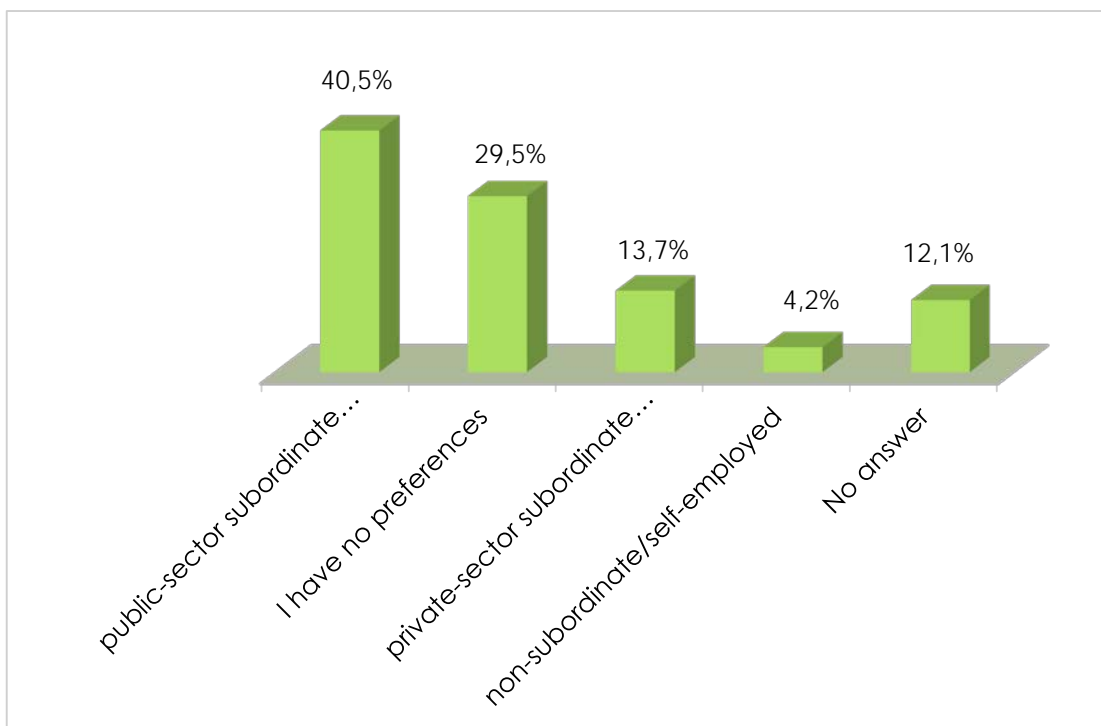
Figure 21. Graduates' preferences regarding the selection of the kind of job (percentage).

The preferred job is one of the most essential questions for graduates. The provided data shows that 40.5% of the graduates prefer to work in future in the public sector, 13.7% of the graduates prefer to work in private sector, 4.2% would prefer to be self-employed, or have their own business and 29.5% of graduates do not have any preference (Figure 21). The last group (no preference) is very big and it can indicate either graduates do not have enough knowledge on labor market or the high unemployment rate force them to have no preference.

The preferred economic sectors to a certain extend reflects YSU specialties and young employee preferences. The biggest group of graduates prefers the educational sphere (20%). The correlations also indicate that the majority of this group represents the graduates from regions and it is obvious that the teachers' work is one of the preferable and possible options. There is also a big number of graduates willing to work at international organizations (16.3%).Research, Industry, services, financial sector are among the preferable sectors we well (Figure 22).
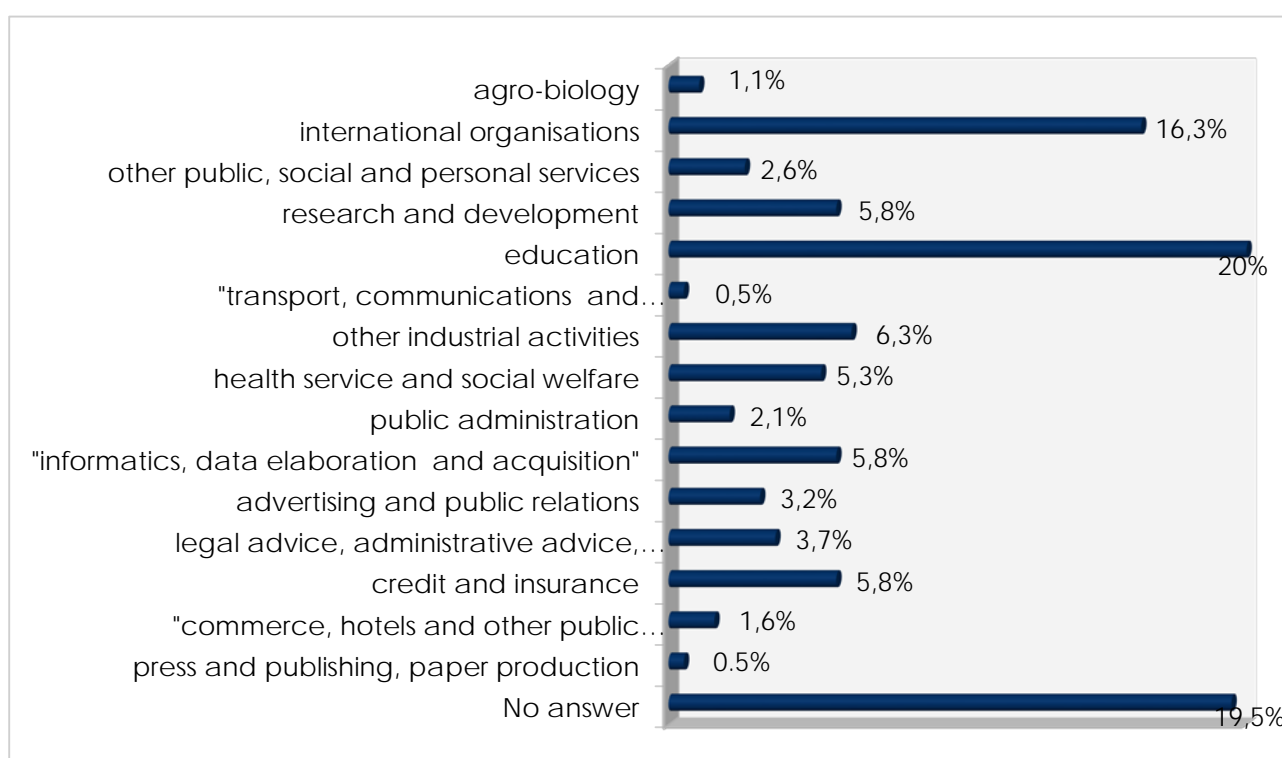
Figure 22. Graduates' preferences regarding the selection of the economic sector (percentage)

The time period of getting first job is very essential for graduates. The early entrance to job market positively influence on graduates motivation. The provided data indicates that 30.5% of graduates believe that having graduated they can find jobs after 1-3 months, 16.8% - more than a year, 15.8% - 4-6 months , 14.7% - in the period of 6-12 months and 8.9% - in one month (Figure 23).
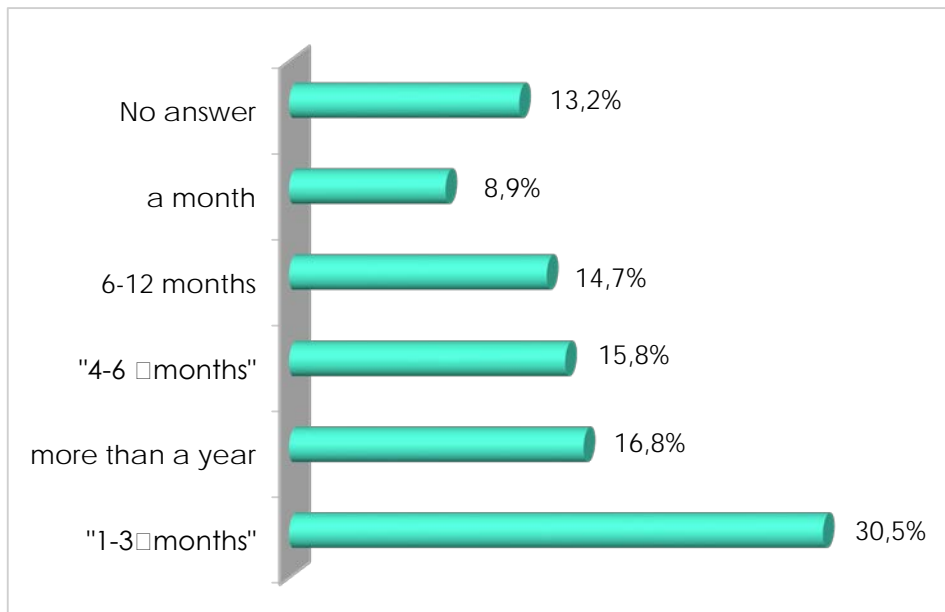
Figure 23. How long do you think it will take for you to find a job after the graduation from the University? (percentage)

Conclusion

The following conclusions could be considered as the results of the YSU graduates' survey executed for 2014:

- The major part of the participants of this pilot survey is females. Residents of Yerevan form the about 50% among the alumni.

- As for the language skills of the alumni, we can say that Armenian is the native language of the majority of graduates. Russian and English were mentioned as main first and second foreign languages and it should be noted that the Russian was more often mentioned as the first foreign language, while English – more often as a second language.

- In the field of the IT skills of the graduates the knowledge of the following programs on the excellent level dominates: web surfing, word processor (text processing) and spreadsheets. The graduates' other IT skills, such as web-site creation, data transmission and multimedia skills are weak.

- The data of the study suggest that the majority of graduates are satisfied with the process of education at YSU, as well as the relationship with their fellows and lecturers. The satisfaction with administrative staff can be improved. The key questions on the quality of education which were included in the questionnaires also prove this fact.

- The desire to continue education was expressed by the major part of graduates. Most of them have mentioned the same university, in this case YSU. Other university's preference is due not so much to the university, but special professional orientation, which can be seen from the listed universities.

- Female graduates are more active among those graduates who wish to continue education. There are also graduates who wish to continue their education in other university abroad. The majority of them are graduates with master degree.

- Major part of the graduates expects to find a job in the period of 1-3 months after the graduation. Some part believes that one year and more is required to find a job after the graduation.

- The preferred sector for future job for more than 40% of graduates is public sector. There is also a big number of graduates who prefer to work at international organizations. The fields of education, research, industry, services, finances and insurance are among the preferable sectors.

Chapter 3: Main Features of the Armenian Graduates in 2014

This chapter summarizes the results of the Graduate Profile Surveys conducted by each university and draws comparisons between their graduates. The report focuses on a number of variables including graduates background, human capital characteristics, such as IT and language skills, students labour market characteristics and class attendance levels, traineeships, graduates evaluation of the university experience, study and employment prospects after graduation, etc. The samples of this pilot survey are not representative, hence, its results cannot be generalized to each of the universities or the country. Section 1 of this chapter presents the personal information on the graduates. The second section, Education and Training, focuses on the education background and the language and IT skills of the graduates. Section 3 presents the reflections of graduates on the course they were completing as well as the working and training activity of the graduates. Section 4 provides information on the satisfaction of students from the various aspects of the course of study. Section 5 contains information about the family of the graduates. And section 4 describes the future intentions and the perspectives of the graduates.

3.1 Personal Information

The questionnaire included a number of personal characteristics of the graduate such as gender, study course characteristics, etc. From over 5000 graduates registered in AlmaLaurea platform in 2014 a sample of **2685** graduates was selected[8]. The samples of the graduate surveys varied between universities both in terms of the number and in terms of its structure. The samples of most universities include mostly females (See Table 6 for details). As for the type of degree received, the sample mainly consists of BA graduates. In all cases the survey includes mostly full-time students.

Table 6. Number of respondents in 2014

University	Number of respondents in 2014				
	Bachelor	Master	Female	Male	Total
YSU	182	8	170	20	190
YSAFA	-	-	102	34	136
NUACA	78	22	60	40	100
NPUA	59	12	42	29	71
GSU	235	88	116	207	323
GSPI	190	0	162	28	190
ASUE	727	288	694	321	1015
ANAU	660	0	300	360	660
Total					**2685**

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[8] Not all the registered graduates were included in the survey samples of universities. Certain criteria was applied for the selection of valid questionnaires by all universities, namely, at least 3 out of 6 answered questions, including parents' educational qualification, training and learning methods assessment, study abroad experience, work experience during university study, overall evaluation of the university experience, intention to pursue further studies.

Representatives of various faculties are included in the samples of the universities.

- YSU survey includes graduates mainly from Romance-Germanic Philology, Biology, Economics and Management, Pharmacology and Chemistry, History, Armenian Philology and other faculties.
- YSAFA sample of graduates interviewed includes graduates from Sculpture, Painting, Graphics, Fashion Design, Design, Computer Graphic Design, History and Theory of Fine Arts. The main part of the sample is from Fashion Design and Design faculties.
- The sample of graduates of NUACA includes several specialties, particularly, Computer Engineering and Management, Economics, Industrial and Civic Construction, Architecture and Design, etc.
- NPUA sample includes respondents from Transportation Systems, Computer Systems and Informatics, Electrical Engineering, Cybernetics, Mining and Metallurgy, Applied Mathematics, Power Engineering, Radio Engineering and Communication Systems, Chemical Technologies and Environmental Engineering and Machine Building faculties.
- GSPI sample includes graduates from existing 6 departments: Physics, Mathematics and Economics, Biology and Geography, History and Philology, Foreign Languages, Pedagogy, Physical Training and Primary Military Training.
- ANAU interviewed graduates are from several specialties, particularly, Economics, Agribusiness and Marketing, Foodstuff Technologies, etc.
- ASUA sample of graduates interviewed includes a wide diversity of economic specialties, particularly Management, Finance, Banking, Accounting, International Economic Relations, Architecture, etc.
- The sample of GSU graduates interviewed includes all five faculties: Philology, Natural Sciences, Humanities, Economics, Part-Time Education. The main part of the sample are the graduates of faculty of Economics.

3.2 Education and Training

The questionnaire also provided data regarding aspects such as graduates background, previous academic experience as well as the graduate's skills. The report will focus on the secondary education of the student received before enrolling at the university as well as foreign language and IT skills.

In case of all universities the vast majority of the students enter the university with a secondary school diploma. In case of YSAFA 14% of graduates had previous college diploma, presumably in most cases from a college of arts.

Table 7. Kind of High school diploma

University	Secondary school (1-12 years)	Craftsmen school	College	High school	Number of graduates
YSU	100%	0%	0%	0%	190
YSAFA	77%	4%	14%	5%	110
NUACA	85%	3%	5%	3%	92
NPUA	92%	0%	1%	7%	71
GSU	85%	0%	0%	15%	55
GSPI	88%	0%	0%	7%	159
ASUE	92%	1%	1%	6%	978
ANAU	96%	1%	1%	1%	566
Total sample	93%	1%	2%	4%	2221

As for the knowledge of foreign languages, as expected Armenian is the mother tongue for most students of the universities. Among these students Russian was mentioned as the first foreign language (75% of the aggregate sample), while English was mentioned only by 22% of the total sample. English is the second foreign language by the majority of the participants[9]. Compared to other universities, however, in YSU, ASAU, GSU, GSPI there are more students with English as the first foreign language.

Table 8. First foreign language

University	Russian	English	Other	Number of graduates
YSU	60%	32%	8%	181
YSAFA	83%	16%	1%	109
NUACA	86%	10%	3%	90
NPUA	86%	13%	1%	71
GSU	75%	25%	0%	53
GSPI	68%	27%	5%	177
ASUE	69%	28%	3%	978
ANAU	86%	10%	4%	625
Total sample	75%	22%	3%	2284

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[9] The questionnaire also measured the knowledge of the third foreign language, however, only a small number of graduates know a third foreign language (less than 10% in all universities).

Table 9. Second foreign language

University	Russian	English	Other	Number of graduates
YSU	22%	59%	19%	179
YSAFA	21%	74%	5%	81
NUACA	16%	79%	6%	83
NPUA	13%	80%	7%	71
GSU	20%	58%	22%	59
GSPI	25%	59%	17%	163
ASUE	27%	65%	7%	949
ANAU	13%	77%	10%	579
Total sample	21%	68%	10%	2164

The questionnaire measured the knowledge of the IT skills related to: operating systems, programming languages, word processor (text processing), spreadsheets (Excel, etc.), data bases (Oracle, SQL server, Access, etc.), CAD/CAM/CAE - assisted design, web surfing, web-site creation, data transmission networks, multimedia (sound, image and video processing).

Regarding the IT skills measured there is some variability between universities, which can be explained by the difference in their profiles.

The knowledge of operating systems is the highest among NUACA graduates (84% of the sample mentioned fairly good, good and excellent), while it is the lowest among YSAFA graduates (33% of the sample mentioned fairly good, good and excellent).

Table 10. Operating systems

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	32%	9%	18%	24%	17%	168
YSAFA	53%	14%	8%	14%	11%	99
NUACA	11%	5%	26%	37%	21%	87
NPUA	13%	16%	21%	27%	23%	44
GSU	10%	16%	18%	39%	18%	51
GSPI	33%	21%	18%	18%	10%	185
ASUE	15%	16%	18%	33%	18%	895
ANAU	0%	18%	10%	15%	58%	587
Total sample	15%	16%	16%	25%	28%	2116

As it is expected the gap in the knowledge of programming languages between universities is even more. Universities providing more technical education, such as the NUACA, NPUA, produce graduates with a better knowledge of programming languages. Nevertheless, even in case of these

universities, the number of graduates that assessed their knowledge good and excellent is not so high (around 30%), while only 11% of the students in these universities assessed their knowledge of programming languages as excellent.

Table 11. Programming languages

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	47%	16%	20%	14%	4%	160
YSAFA	68%	12%	8%	8%	3%	98
NUACA	24%	18%	26%	20%	11%	88
NPUA	15%	26%	30%	19%	11%	41
GSU	32%	32%	14%	16%	6%	50
GSPI	55%	20%	14%	6%	4%	179
ASUE	43%	21%	17%	15%	4%	876
ANAU	0%	33%	10%	20%	36%	628
Total sample	31%	24%	15%	16%	13%	2120

The knowledge of text processing skills was assessed by the graduates as quite good. Only around less than 10% of the graduates indicated none or limited proficiency. Compared to other universities YSU and NUACA graduates assessed their skills higher. The knowledge of text processing was the lowest among YSAFA graduates, which can be explained due to the specific profile of the university.

Table 12. Word processor (text processing)

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	2%	5%	11%	39%	41%	174
YSAFA	18%	12%	15%	32%	22%	99
NUACA	6%	3%	13%	26%	52%	86
NPUA	2%	4%	21%	31%	42%	38
GSU	2%	2%	14%	39%	44%	57
GSPI	11%	8%	21%	32%	28%	180
ASUE	4%	4%	11%	31%	49%	932
ANAU	0%	15%	9%	14%	62%	539
Total sample	4%	8%	12%	28%	46%	2105

The results of the assessment of knowledge of spreadsheets show that apart from YSAFA students the vast majority of graduates demonstrate good skills. In case of YSAFA 43% of the respondents mentioned none or limited skills in spreadsheets. YSU, NUACA, ANAU, ASUE and GSU graduates

indicated the highest levels of knowledge of spreadsheets: more than 90% of the students assessed their skills as fairly good, good or excellent.

Table 13. Spreadsheets (Excel, etc.)

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	1%	7%	20%	43%	29%	176
YSAFA	30%	13%	20%	22%	15%	100
NUACA	4%	4%	22%	38%	30%	89
NPUA	3%	14%	16%	26%	40%	46
GSU	5%	3%	12%	47%	32%	59
GSPI	10%	13%	22%	34%	21%	178
ASUE	3%	6%	13%	41%	37%	958
ANAU	0%	8%	12%	23%	57%	551
Total sample	4%	7%	15%	35%	39%	2157

The knowledge of data bases of Armenian graduates is lower compared to other IT related skills. The majority of YSAFA (84%) and GSPI (73%) students indicated none or limited proficiency, however, more than 70% of YSU and ANAU students indicated fairly good, good and excellent knowledge.

Table 14. Data bases (Oracle, SQL server, Access, etc.)

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	10%	14%	25%	40%	11%	172
YSAFA	74%	10%	6%	7%	2%	94
NUACA	22%	19%	21%	29%	9%	86
NPUA	37%	29%	10%	14%	10%	37
GSU	33%	16%	24%	25%	2%	51
GSPI	51%	22%	14%	10%	3%	175
ASUE	26%	27%	23%	18%	6%	866
ANAU	0%	21%	20%	35%	24%	620
Total sample	22%	22%	20%	24%	12%	2101

The knowledge of computer assisted design tools has been assessed as quite low, the majority of graduates from all universities indicated no or limited knowledge. In case of NPUA, however, 94% of 37 graduates who responded to this question mentioned they have a fairly good, good or excellent knowledge of computer aided manufacturing/design/engineering.

Table 15. CAD/CAM/CAE - assisted design

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	69%	11%	9%	6%	4%	148
YSAFA	74%	8%	7%	8%	4%	92
NUACA	38%	25%	13%	11%	13%	84
NPUA	2%	4%	21%	31%	42%	37
GSU	57%	15%	7%	15%	7%	46
GSPI	72%	10%	6%	8%	4%	172
ASUE	65%	13%	9%	8%	5%	839
ANAU	0%	39%	8%	44%	9%	632
Total sample	44%	21%	9%	20%	7%	2050

According to the vast majority of graduates of all universities they have fairly good, good or excellent skills in web surfing. YSAFA students have the lowest results in this regard, namely, 13% of the respondents indicated they have no or limited knowledge in web surfing, however, this difference is not large.

Table 16. Web surfing

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	4%	2%	8%	32%	53%	180
YSAFA	9%	4%	13%	25%	48%	99
NUACA	3%	1%	3%	27%	66%	93
NPUA	5%	2%	12%	12%	68%	46
GSU	2%	0%	2%	40%	56%	55
GSPI	5%	3%	9%	31%	52%	180
ASUE	2%	1%	4%	25%	67%	942
ANAU	0%	6%	9%	22%	64%	420
Total sample	3%	3%	6%	26%	62%	2015

As for the website creation, there is not much variability between the universities. Around half of the graduates in all universities that responded to this question, mentioned they have none or limited ability, and the other half chose categories fairly good, good and excellent. The only exception is ANAU graduates, where around 5 students in 10 mentioned to have good or excellent skills in web-site creation.

Table 17. Web-site creation

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	29%	20%	19%	24%	7%	167
YSAFA	47%	18%	11%	12%	11%	97
NUACA	33%	15%	18%	26%	8%	85
NPUA	46%	16%	14%	14%	9%	44
GSU	41%	19%	15%	17%	9%	54
GSPI	43%	19%	15%	16%	7%	181
ASUE	42%	24%	15%	13%	5%	867
ANAU	1%	30%	17%	46%	6%	644
Total sample	29%	24%	16%	25%	6%	2139

The knowledge of data transmission networks was the highest among NUACA and ANAU graduates.

Table 18. Data transmission networks

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	34%	15%	17%	20%	13%	163
YSAFA	36%	15%	16%	20%	14%	96
NUACA	11%	12%	33%	28%	16%	89
NPUA	36%	9%	21%	17%	17%	40
GSU	18%	16%	25%	27%	14%	51
GSPI	42%	15%	15%	19%	8%	177
ASUE	24%	16%	19%	25%	16%	860
ANAU	0%	19%	10%	54%	17%	607
Total sample	20%	16%	17%	32%	15%	2083

The knowledge of multimedia tools does not differ between universities. More than half of the survey participants in all universities have fairly good, good or excellent knowledge in multimedia tools. However, ANAU graduates assessed their knowledge of multimedia tools on average higher than that of other universities: 64% of the sample indicated good and excellent proficiency.

Table 19. Multimedia (sound, image and video processing)

University	None	Limited	Fairly good	Good	Excellent	Number of graduates
YSU	23%	25%	26%	19%	8%	162
YSAFA	24%	15%	21%	18%	20%	98
NUACA	13%	18%	26%	31%	12%	90
NPUA	29%	11%	27%	15%	18%	43
GSU	9%	28%	22%	31%	9%	54
GSPI	23%	20%	23%	23%	11%	181
ASUE	16%	18%	23%	29%	15%	890
ANAU	0%	20%	15%	49%	15%	626
Total sample	13%	19%	21%	33%	14%	2144

Overall, in 2014 the graduates were mostly skilled in word processing, spreadsheets and web surfing and least skilled in computer assisted manufacturing, design and engineering.

3.3 Information on the Course

The questionnaire collected data on various aspects of the course including teaching and learning materials provided, overall exam organization, training and learning methods, the workload, etc. The results of the university analyses show that 42% of YSU and NPUA graduates, 31% of GSPI and GSU graduates, 28% of NUACA graduates, 25% of ANAU graduates and 23% of YSAFA graduates consider they did not know what knowledge and skills they were going to acquire by the end of the chosen course before enrolling at the university.

Table 20. Before enrolling at university, did you know what knowledge and skills you were going to acquire by the end of the chosen course of study?

University	No, definitely	More no than yes	More yes than no	Yes, definitely	Number of graduates
YSU	9%	33%	34%	24%	177
YSAFA	6%	17%	22%	55%	132
NUACA	8%	20%	29%	43%	93
NPUA	18%	24%	20%	38%	35
GSU	9%	22%	41%	26%	54
GSPI	13%	18%	26%	43%	188
ASUE	14%	24%	31%	31%	945
ANAU	9%	33%	34%	24%	577
Total sample	12%	26%	31%	31%	2201

The questionnaire measured whether the training and learning methods used, were appropriate for ensuring the acquisition of the expected knowledge and skills. In this regard the results do not vary among universities. The majority of students were satisfied with the training and learning methods. Less than 20% of the graduates responded to the question negatively, apart from NUACA and ASUE graduates: 21% and 26% respectively mentioned "no definitely" or "more no than yes". Half of YSAFA, GSU and GSPI students mentioned they were definitely satisfied in this regard. Overall, in 2014 the majority (81%) of sample graduates assessed the training and learning methods positively, and the other 19% negatively.

Table 21. Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?

University	No, definitely	More no than yes	More yes than no	Yes, definitely	Number of graduates
YSU	1%	14%	54%	32%	177
YSAFA	6%	8%	35%	50%	130
NUACA	2%	18%	42%	37%	92
NPUA	4%	14%	44%	38%	35
GSU	0%	6%	40%	55%	53
GSPI	2%	11%	37%	50%	186
ASUE	5%	21%	40%	34%	966
ANAU	3%	10%	52%	35%	576
Total sample	4%	15%	44%	37%	2215

Academic performance can be influenced by the employment status: working students will spend more time out of class on a working activity, hence, resulting in low performance. On the other hand, in case the job carried out relates to the university studies, it can be a program success indicator. In this regard it is interesting to control for labour market characteristics of the graduates during studies, namely, whether the students carry out a working activity, the type of activity, is it related to the studies and whether it is at the expense of university studies. Table below demonstrates the results of the universities' surveys regarding the graduate's employment status, which vary a lot among universities. The majority (67%) of YSAFA and around half of NUACA and NPUA graduates had a working activity at the time of graduation. In case of GSPI and GSU the number of working students is the lowest, being 11% and 13% respectively, which can be explained by fewer job opportunities in the regions of Armenia.

Table 22. Are you currently working?

University	No	Yes	Number of graduates
YSU	70%	30%	177
YSAFA	68%	32%	136
NUACA	48%	52%	93
NPUA	51%	49%	71
GSU	88%	13%	56
GSPI	89%	11%	190
ASUE	63%	37%	975
ANAU	68%	32%	605
Total sample	67%	33%	2303

From those students who worked at the time of graduation the majority (63%) had a working activity partially or fully related to university studies carried out.

Table 23. Is your current working activity relevant to the university studies you carried out?

University	Yes	No	Yes, but only for a part of it	Number of graduates
YSU	28%	39%	33%	75
YSAFA	32%	30%	38%	49
NUACA	40%	30%	30%	96
NPUA	54%	32%	13%	71
GSU				
GSPI	38%	38%	25%	40
ASUE	41%	29%	30%	362
ANAU	33%	42%	25%	192
Total sample	39%	33%	28%	885

The graduates were also asked whether they carried out any working activity while attending classes. According to the results illustrated in Table 24, more than half of YSAFA and NPUA students and 54% of NUACA were engaged in some kind of working activity during university studies. In case of GSU and GSPU graduates this number is very small: only 93% and 90% of the graduates did not carry out any working activity while studying. Overall, survey data implies that among 2014 graduates 77% never carried out a job activity when a student, while the other 23% had occasional part-time or full-time jobs.

Table 24. Did you carry out a working activity while attending classes?

University	No	Yes, it was an occasional, irregular or seasonal work activity	Yes, an ongoing part-time job	Yes, an ongoing full time job	Number of graduates
YSU	83%	7%	8%	2%	178
YSAFA	41%	18%	15%	26%	100
NUACA	54%	11%	16%	19%	91
NPUA	49%	13%	32%	7%	71
GSU	93%	2%	2%	4%	56
GSPI	90%	5%	2%	3%	190
ASUE	77%	5%	5%	13%	974
ANAU	84%	6%	5%	5%	586
Total sample	77%	6%	7%	9%	2246

Table 25. At the time of your university studies did you spend time out of class on a working activity?

University	No	Yes, it was an occasional, irregular or seasonal work activity	Yes, an ongoing part-time job	Yes, an ongoing full time job	Number of graduates
YSU	61%	19%	13%	6%	171
YSAFA	29%	24%	17%	31%	131
NUACA	36%	30%	20%	14%	92
NPUA	49%	12%	32%	7%	71
GSU	77%	11%	4%	9%	56
GSPI	77%	13%	5%	5%	190
ASUE	16%	14%	11%	59%	974
ANAU	66%	9%	14%	11%	583
Total sample	41%	14%	13%	32%	2268

According to the results, in most universities only a small number of the graduates mentioned to have passed a job activity subsequently acknowledged by the course[10], if the student carried out a training, in most cases it was a practice organized by the degree. The exceptions are GSU and ANAU graduates.

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[10] Informal education is currently in the starting phase of incorporation in the Armenian education system.

Table 26. During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree course?

University	Yes, a training period/ training practice that was organized by the degree	Yes, but it was a job activity that has been subsequently acknowledged by the degree course	No	Number of graduates
YSU	54%	4%	41%	169
YSAFA	25%	6%	69%	65
NUACA	40%	4%	55%	94
NPUA	39%	17%	44%	71
GSU	69%	31%	0%	55
GSPI				
ASUE	56%	4%	40%	919
ANAU	23%	75%	3%	575
Total sample	44%	26%	30%	1948

3.4 Evaluation of the Course

The students were asked to assess their satisfaction with the relationships they had with the different actors in the university. In 2014, 68 graduates out of 100 stated that they were definitely satisfied with the relationship they had with the academic staff.

Table 27. Satisfaction with the relationship with the supervisor of dissertation/final examination

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	83%	10%	3%	3%	173
YSAFA	87%	9%	2%	2%	127
NUACA	91%	7%	1%	1%	90
NPUA	8%	6%	26%	60%	31
GSU	94%	6%	0%	0%	51
GSPI	65%	24%	5%	7%	150
ASUE	73%	17%	6%	4%	868
ANAU	66%	28%	4%	2%	660
Total sample	72%	19%	5%	4%	2150

The majority of graduates in all universities assessed the relationship they had with the teachers overall positively. In NUACA, the level of satisfaction was the lowest: only 39 (42%) out of 92 that responded to this question were definitely satisfied with the relationship with teachers in general.

Table 28. Satisfaction with the relationship with teachers in general

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	69%	28%	3%	1%	172
YSAFA	75%	18%	3%	4%	127
NUACA	65%	27%	6%	2%	89
NPUA	6%	2%	38%	53%	31
GSU	89%	11%	0%	0%	54
GSPI	66%	29%	4%	1%	179
ASUE	64%	29%	6%	1%	925
ANAU	64%	31%	3%	2%	653
Total sample	65%	28%	5%	2%	2230

Overall, as in the case of satisfaction with the relationship the graduate had with the lecturers, the relationship with teacher's collaborators were also assessed positively by the vast majority of sample student body in 2014.

Table 29. Satisfaction with the relationship with teacher's collaborators

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	61%	28%	10%	1%	168
YSAFA	48%	41%	6%	5%	82
NUACA					
NPUA	13%	15%	26%	47%	31
GSU	87%	11%	2%	0%	53
GSPI	59%	34%	4%	3%	179
ASUE	61%	28%	8%	3%	919
ANAU	52%	42%	5%	2%	653
Total sample	57%	33%	7%	3%	2085

Asked to evaluate their relationship with the administrative staff of the university, the graduates responded positively in all universities.

Table 30. Satisfaction with the relationship with administrative staff of university

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	54%	34%	9%	4%	170
YSAFA	69%	20%	7%	5%	127
NUACA	68%	17%	7%	8%	87
NPUA	6%	8%	23%	62%	31
GSU	85%	15%	0%	0%	54
GSPI	64%	29%	5%	2%	180
ASUE	60%	28%	8%	4%	918
ANAU	51%	43%	5%	2%	653
Total sample	58%	31%	7%	4%	2220

The graduates in all the universities stated to be satisfied from the relationship they had with other students.

Table 31. Satisfaction with the relationship with students

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	73%	17%	4%	0%	180
YSAFA	76%	20%	2%	3%	127
NUACA	88%	13%	0%	0%	88
NPUA	23%	13%	19%	46%	32
GSU	86%	14%	0%	0%	56
GSPI	85%	14%	2%	0%	183
ASUE	85%	12%	2%	1%	921
ANAU	66%	31%	3%	0%	660
Total sample	77%	19%	3%	1%	2247

The graduates evaluated the university experience through the question "would you enroll again at the university". In this regard, the majority of the graduates replied that they would enroll at the same university, whether on the same or another course. However, on average 2 out of 10 graduates mentioned they would choose another course in the same university. In case of NPUA 32% of the graduates mentioned they would enroll on a different course of another university and 23% mentioned they would not enroll again at the university.

Table 32. If you could go back in time, would you enroll again at university?

University	Yes, on the same course of this university	Yes, but in another course of this university	Yes, on the same course but in another university	Yes, but on a different course and in another university	No, I would not enroll again at university	Number of graduates
YSU	70%	18%	3%	8%	2%	173
YSAFA	66%	17%	3%	5%	9%	128
NUACA	46%	19%	15%	13%	6%	93
NPUA	25%	15%	3%	32%	23%	71
GSU	67%	24%	0%	7%	2%	54
GSPI	48%	21%	10%	18%	3%	190
ASUE	55%	21%	5%	15%	3%	954
ANAU	44%	18%	10%	20%	9%	575
Total sample	52%	20%	7%	16%	6%	2238

More positive feedback was received regarding the overall satisfaction with the course. Based on the feedback of the graduates it can be stated that in 2014 the majority are on the whole satisfied with the course of study: 1948 graduates (86%) out of 2255 replied positively. Only a small percent of graduates in all universities responded that they are definitely not satisfied with the course of study.

Table 33. Are you on the whole satisfied with your course of study?

University	Yes, definitely	More yes than no	More no than yes	No, definitely	Number of graduates
YSU	42%	48%	9%	1%	176
YSAFA	56%	27%	13%	5%	131
NUACA	42%	37%	16%	4%	92
NPUA	46%	37%	10%	6%	71
GSU	94%	6%	0%	0%	51
GSPI	57%	32%	9%	1%	188
ASUE	43%	40%	14%	3%	964
ANAU	40%	51%	7%	2%	582
Total sample	45%	41%	11%	3%	2255

3.5 Information about the Family

It is widely known that academic performances depend on many variables which have to do with the student's social background, including the previous academic experience, parent's educational level, etc. Hence, it is also important to account for these factors when assessing academic outputs. The majority of sample graduates in all universities have parents with an academic degree.

3.6 Future Intentions and Perspectives

In 2014 the majority of sample graduates indicated an intention to continue study. However, this is mainly explained by the fact that the majority of the sample are Bachelor students. The only exception are GSU graduates, where 73% mentioned they do not wish to continue studying?[11].

Table 34. Do you want to continue study?

University	Yes	No	Total number of graduates
YSU	93%	7%	170
YSAFA	66%	34%	110
NUACA	69%	31%	93
NPUA	85%	15%	71
GSU	27%	73%	52
GSPI	79%	21%	188
ASUE	77%	23%	964
ANAU	68%	32%	660
Total sample	74%	26%	2308

The graduates were asked in which university they would like to enrol in if they pursue further education. The results of 6 university graduates presented in the table below show that only a small percent of YSU students would choose a university in Armenia other than theirs, while for NPUA this number is 27%. It should be noted that the reasons underlying the choice of HEI for further is diverse and does not infer dissatisfaction from the current one.

The number of students that would like to enrol in a foreign country university differs among universities, being the most in NUACA and the least in GSU and GSPI, however, enter chances and barriers into these universities should be kept in mind when interpreting these results. Overall, it can be stated that the main part of Armenian graduates would prefer to continue education in the current university.

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[11] In case of GSPI two factors could have influence the small number of students wishing to continue study: the small sample size and the largest proportion of master students involved in the sample.

Table 35. In which university you want to enroll in?

University	The same university I graduated in	Another Armenian university	Another country university	Total number of graduates
YSU	73%	5%	23%	154
YSAFA	49%	4%	47%	72
NUACA	57%	11%	32%	62
NPUA	52%	27%	21%	71
GSU	76%	14%	11%	37
GSPI	71%	18%	11%	114
ASUE	70%	15%	15%	719
ANAU	68%	18%	13%	386
Total sample	68%	15%	17%	1615

Regarding job preferences, in 2014 the proportion of graduates who seek employment in the public sector is higher than in any other category. This is probably because contracts are perceived as more stable in that sector, despite the limited opportunities of finding a permanent position. The only exception is YSAFA and ANAU, where only every 3 graduates out of 10 want to enrol in the public sector. As expected the majority of GSPI graduates prefer public sector employment, namely, jobs in education. Overall, proportionally, fewer students stated a preference for the private sector.

Table 36. What kind of job are you looking for/will you be looking for?

University	Public-sector subordinate employment	Private-sector subordinate employment	Non-subordinate/self-employed	I have no preferences	Number of graduates
YSU	46%	16%	5%	34%	167
YSAFA	30%	14%	25%	30%	105
NUACA	42%	23%	14%	21%	95
NPUA	44%	13%	18%	25%	71
GSU	59%	14%	4%	22%	49
GSPI	78%	5%	3%	14%	190
ASUE	35%	39%	5%	21%	934
ANAU	31%	19%	4%	46%	576
Total sample	40%	26%	6%	28%	2187

The perceived success of the course in relation to its main outcome is measured through a variable on the expected job search duration (Table 39). In this regard there is variability between universities. The expected job search duration among 59% of GSPI and GSU graduates is more than 6 months, while only less than 10% of their graduates think they will find a job in less than a

month after graduation. This can be explained by the higher unemployment rates in the regions of Armenia compared to the capital. On the contrary, the majority of NUACA (76%) and NPUA (82%) graduates think they will find a job within 6 months after graduation. These results can be explained by the university profile, these universities provide graduates for technical specialties, where there are more job opportunities, especially for the ICT sector. In case of YSU, YSAFA and ANAU around 6 out of 10 graduates think they will find a job with half a year after graduation. Overall, 64 out of 100 graduates from the universities of Yerevan and 41 out of 100 graduates from regional universities expect to find a job within 6 months after graduation.

Table 37. How long do you think it will take for you to find a job after the graduation from the University?

University	A month	1-3 months	4-6 months	6-12 months	More than a year	Number of graduates
YSU	10%	35%	18%	17%	19%	165
YSAFA	25%	23%	14%	12%	25%	111
NUACA	19%	42%	16%	8%	16%	89
NPUA	18%	34%	30%	7%	11%	71
GSU	9%	14%	18%	16%	43%	44
GSPI	7%	17%	17%	18%	41%	190
ASUE	14%	37%	23%	14%	12%	895
ANAU	11%	27%	23%	23%	16%	568
Total sample	13%	31%	22%	17%	17%	2133

Chapter 4: Quality Assurance: Recommendation

The results of the analysis provide valuable information which can be used as an indicator when assessing university performance against ANQA institutional and program standards. [12]

ANQA institutional accreditation standards

1.1 The institution has a clear, well-articulated mission that represents the institution's purposes and goals and is in accordance with the Armenian National Qualifications Framework (hereafter ANQF).

1.2 The mission statement reflects the needs of the internal and external stakeholders.

1.3 The institution has formal mechanisms and/or procedures to evaluate the achievement

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In the framework of the survey the graduates evaluated the university experience through the question "would you enroll again at the university". In this regard, the majority of the graduates replied that they would enroll at the same university, whether on the same or another course. However, on average 2 out of 10 graduates mentioned they would choose another course in the same university, 16% of the graduates mentioned they would enroll in a different course in another university and a small part of graduates (6%) mentioned they would not enroll again at the university.

In 2014 the majority (74%) of sample graduates indicated an intention to continue study. However, this is mainly explained by the fact that the majority of the sample are Bachelor students.

ANQA institutional accreditation standards

3.2 The institution has a policy that promotes alignment between teaching and learning approaches and the intended learning outcomes and ensures effective learning.

3.3 The programme ensures impartial evaluation of students' level of achievement against the learning and educational objectives and promotes academic integrity

3.5 There are mechanisms in place ensuring academic programme approval, monitoring, and periodic review.

ANQA programme standards

3.1 The programme clearly defines the teaching and learning approaches necessary to achieve the intended learning outcomes.

3.3 There are set mechanisms evaluating quality of teaching and learning approaches.

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[12] A comparative analysis of Hen-Gear questionnaire and ANQA institutional and program accreditation standards has been performed previously by ANQA and Universidade do Minho (See Annex 3).

The questionnaire measured whether the training and learning methods used were appropriate for ensuring the acquisition of the expected knowledge and skills. In this regard the results do not vary among universities. Overall, in 2014 the majority (81%) of sample graduates assessed the training and learning methods positively, and the other 19% negatively.

ANQA institutional accreditation standards

4.1 The institution has set mechanisms for promoting equitable recruitment, selection, and admission procedures.

4.2 The institution has policies and procedures for assessing student educational needs.

4.3 The institution provides opportunities for extra-curricular activities aimed at supporting student learning.

4.4 There are special hours set for students to visit the faculty administrative staff for additional support and guidance.

4.5 The institution has special student career support services that prepares graduates for employment.

4.6 The students are actively involved in the research the university majors in.

4.8 The institution has a special body that promotes students' rights protection.

4.9 The institution has set mechanisms that ensure quality of the student services and the students are involved in the quality assurance practices.

ANQA programme standards

1.6 The programme learning outcomes meet the needs of the students and other stakeholders.

The results of the university analyses show that 42% of YSU and NPUA graduates, 38% of ASUE graduates, 31% of GSPI and GSU graduates, 28% of NUACA graduates, 25% of ANAU graduates and 23% of YSAFA graduates consider they did not know what knowledge and skills they were going to acquire by the end of the chosen course before enrolling at the university. Overall, 23% of 2014 sample graduates assessed their knowledge negatively. It can be concluded that there is an acute lack of information for those who want to enrol at HEI. Hence, HEIs should be more consistent in providing information on the course as well as learning outcomes to students and other stakeholders.

The graduates were asked whether they have carried out any training period/training practice subsequently acknowledged by the degree course during the studies. According to the results, in most universities only a small number of the graduates mentioned to have passed a job activity subsequently acknowledged by the course, if the student carried out a training, in most cases it was a practice organized by the degree. The exceptions are GSU and ANAU graduates.

The survey also assessed the relationship with university actors, which was assessed by the majority of students positively. 88% of sample graduates assessed the relationship with supervisors of dissertation or final examination as positive, 93% of the graduates were satisfied with the relationship with teachers, 84% were satisfied with the relationship with teachers' collaborators,

90% were satisfied with the relationship with administrative staff, and 95% assessed their relationship with students as positive.

ANQA institutional accreditation standards

7.2 There are well-established policies and procedures for programme internal quality assurance.

7.3 The programme provides an educational feedback system that examines it on the basis of the results of evaluation regarding the level of student achievement against the intended learning and educational objectives.

Based on the feedback of the graduates it can be stated that in 2014 the majority are on the whole satisfied with the course of study: 1948 graduates (86%) out of 2255 replied positively. Only a small percent of graduates in all universities responded that they are definitely not satisfied with their course of study.

Chapter 5: Conclusion

Currently Armenian higher education system is undergoing serious reforms to ensure the graduates entering the labour market are equipped with the necessary skills and competencies. In this regard HEIs have a lot of challenges to overcome to ensure a pro-active involvement of such important stakeholders in quality assurance as employers and alumni, building quality assurance mechanisms and tools promoting their involvement.

The data collected through the platform will supply reliable and timely information on the effectiveness and efficiency of higher education system for the member university governing bodies, quality assurance units, as well as bodies responsible for the teaching activities as well as career guidance (career centres, university-market cooperation units or alike).

It will foster the process of evidence based decision-making and reporting for the universities at the local level and policy makers at the national level.

Moreover, the received data will help assess the human capital of Armenian graduates, improving the university guidance, hence, increasing employment opportunities of graduates. On the other side it will provide the employers with a comprehensive tool to recruit qualified staff more easily, which will contribute to the country's economy.

The analysis of focused on the features of the human capital produced by the Hen-Gear university system in 2014. Some comparisons were drawn between universities and some main features were identified.

Among graduates, the majority has a secondary school diploma. Overall, 93% of HEN-GEAR graduates has secondary school diploma, 4% has a high-school diploma, 2% has a college degree, and 1% comes from a craftsmen school. As far as the knowledge of foreign languages is concerned, the majority of 2014 graduates (75%) consider Russian their first foreign language, 22% mentioned

English. Respectively, English is the second foreign language for 68%, and Russian is the second foreign language for 21% of HEN-GEAR graduates.

In 2014 the proportion of graduates who mentioned have good and excellent knowledge of word processing and web surfing is the highest. While programming languages, knowledge of databases, computer assisted design, website creation it is the lowest.

Based on the feedback that Hen-Gear graduates provided, it can be stated that overall they are satisfied with their study experience in different aspects. In 2014, 86 students out of hundred responded positively to the question whether they are satisfied with their course of study.

Asked to evaluate the university experience they were about to conclude – partly through the question "Would you enroll again on the same university?" – over two thirds of the whole graduate pool (72%) answered positively, 52% preferring the same course, while 20% another course of the same university.

An even higher level of satisfaction was recorded with regards to the relationship with various actors of the educational process, including the teaching and administrative staff as well as students. 91% of the graduates assessed their relationship with the supervisor of their dissertation or final examination as positive, 93% and 91% respectively were satisfied with the relationship with the teachers, and their collaborators, 89% gave a positive feedback on the relationship with the administrative staff and 96% assessed their relationship with other students as being positive.

Regarding the information on the course, the graduates provided feedback on the training and learning methods as well as their expectations before enrolling at the university. Whether the training and learning methods used were appropriate for ensuring acquisition of the expected skills and knowledge, 81% of the 2014 graduates responded positively, 37% mentioning yes, definitely, while 44% responded more yes than no. Before enrolling at the university 38% of the graduates didn't fully know what knowledge and skills they were going to acquire by the end of the chosen course.

In 2014 67% of Hen-Gear graduates was not employed at the time of graduation. From those who worked, 39% had a job relevant to their university studies, one third had a job irrelevant to their university studies, while 28% had a job that was only partly related to their studies. In 2014 32% of Hen-Gear graduates had an ongoing full-time job while attending classes. As for other types of working activity carried out by students, 13% had an ongoing part-time job, while 14% had a seasonal employment. 41% of Hen-Gear graduates in 2014 did not carry out a working activity while attending classes. As for whether they spend time out of class on a working activity only 9% of all the graduates mentioned they spend time on a full-time job, 7% mentioned to be having a part-time job, and 6% to spend time out of class on an occasional working activity. Therefore, around one third of students that carried out a working activity did it at the expense of class attendance.

Regarding the training carried out during university studies, 30% of Hen-Gear graduates never carried out training practice subsequently acknowledged by their degree course, one fourth of the

graduates carried out a job activity and 44% carried out a training practice organized by the degree. The majority of Hen-Gear graduates come from families with tertiary level of education.

In 2014, the main part of Hen-Gear graduates (68%) intended to continue study. Since the majority of the sample graduates are Bachelor students, it can be concluded that acquiring a Master degree is perceived as mandatory. 68% of students, who would opt for further education stated they would choose the same university, 15% intended to enrol in another Armenian university, while 17% wanted to enrol in another country university. This implies low levels of both internal and international mobility among graduates.

The main sector the graduates look at when seeking employment is the public sector (40% of graduates). This is mainly to the high level of security within that sector. 26% of graduates would like to enrol in the private sector, and only a small 6% would like to be self-employed. Regarding the expected job search duration, two third of the sample graduates (66%) believe they will find a job within 6 months after graduation. The rest of the graduates are less optimistic and are divided into two groups, each consisting of 17% stating that the job search will last 6-12 months and more than a year.

Annex 1. List of courses of HEN-GEAR universities

Figure 1.1 List of courses of HEN-GEAR universities: step 1

Source: HEN-GEAR platform (https://international.almalaurea.it/armenia/)

Figure 1.2 List of courses of HEN-GEAR universities: step 2

Source: HEN-GEAR platform (https://international.almalaurea.it/armenia/)

National Polytechnic University of Armenia (NPUA)
Survey-2015

Created by: Arpine Vahanyan, NPUA HEN-GEAR Research team leader

Co-funded by the
Tempus Programme
of the European Union

1. Introduction

The NPUA Graduates' Profile Report (hereinafter Report) is a survey which executed within the HEN-GEAR Tempus project (October 2012-October 2015) and it is based on the AlmaLaurea Interuniversity Consortium (Italy, Bologna) model. It contains an analysis of the features and performance of the graduates of the National Polytechnic University of Armenia (NPUA) in 2015. Particularly, the following six sets are included in the questionnaire:

1. Personal information
2. Education and training
3. Information on the course that graduate is completing now
4. Evaluation of the course that graduate is completing now
5. Information about the family
6. Future intentions and perspectives

The objectives of the Report development are:

- to introduce data on university and graduates performances,
- to outline the main features of the NPUA's graduates,
- to provide the information to those, who are involved in a policy development for the university education system further progress,
- to provide a tool kit for the university study programs development and choice.

In addition, we have focused our attention on the gender ratio, features of faculties and specialties and graduates' distribution in terms of qualification levels of study program in this Report. In those sets of the Questionnaire and in those questions where we found any differences between answers of male and female graduates or between bachelor and master degree program respondents we have presented results with appropriate ratio. Generally the interpretation of the results of statistical analysis has been done with taking these features into account.

2. Sampling of NPUA graduates surveyed

The Report contains a survey results based on the sample including 185 eligible questionnaires that were selected from 350 filled in questionnaires. The eligible questionnaires were selected via manner of applying the exclusion criterion on completeness to the questionnaires. Particularly, the questionnaire completeness criterion is satisfied, if the respondents replied to at least 3 of the essential questions and at least 25% of the questions they were asked.

Particularly essential questions for this report are:

- parents' educational qualification,
- training and learning methods assessment,
- study abroad experience,
- work experience during university study,
- overall evaluation of the university experience,
- intention to pursue further studies.

We have 75 (41%) questionnaires that were filled in by bachelor degree program's (four years study) students and 110 (59%) questionnaires filled by master degree program's (two years study) students. All of the sample's graduates are full time students which means that they have earned their credits through the class work achieved by the university attending (Fig. 1).

Figure 1. Graduates' qualification level of study program with female-male ratio
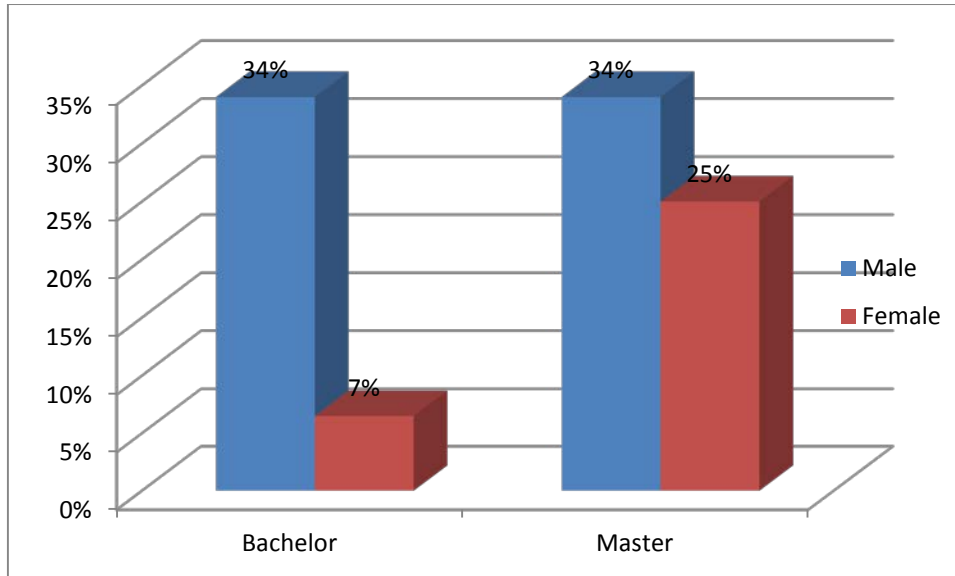
In Figure 1 female-male ratio shows that more than half of the respondents are males (68%) as it was expected (as a rule in the technical university majority of students are males).

The Republic of Armenia is divided into ten provinces (regions), with the city of Yerevan having special administrative status as the country's capital. In this sample we have representatives from all regions, except provinces of Nagorno-Karabakh Republic. Only 1% of respondents came from other countries (Georgia, Russian Federation) (Fig. 2).

Figure 2. Graduates' region of birth
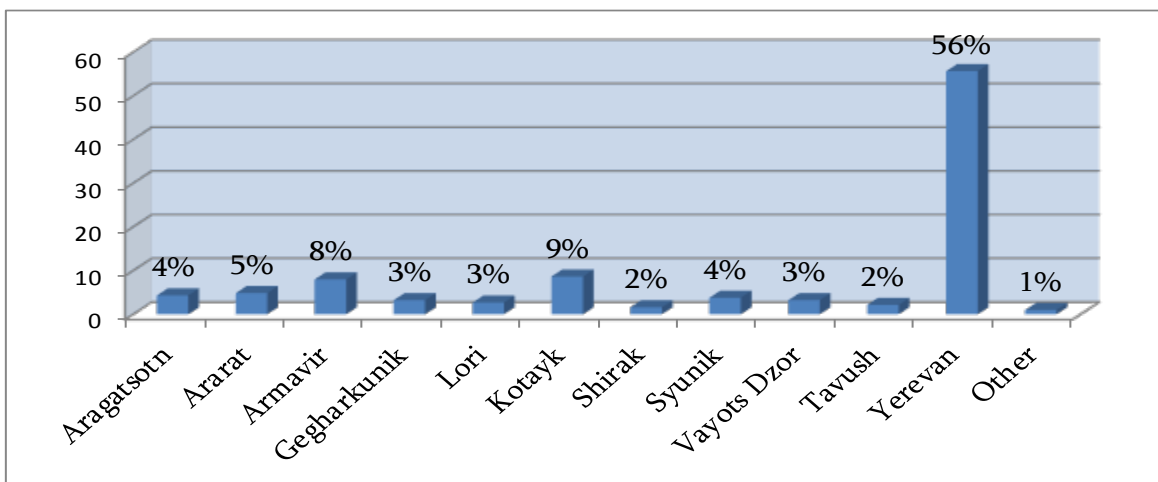
As it is shown in Figure 2, over half of the respondents are from Yerevan (56%), followed with Kotayk, Armavir, Ararat, Syunik, Aragatsotn, Gegharkunik, Lori, Vayots Dzor, Tavush, Shirak with decreasing percentages.

To make more detailed introduction of the sample's graduates we present the results of faculties inclusion in the survey by the qualification level of study program (Fig. 3).

Figure 3. The faculties of NPUA
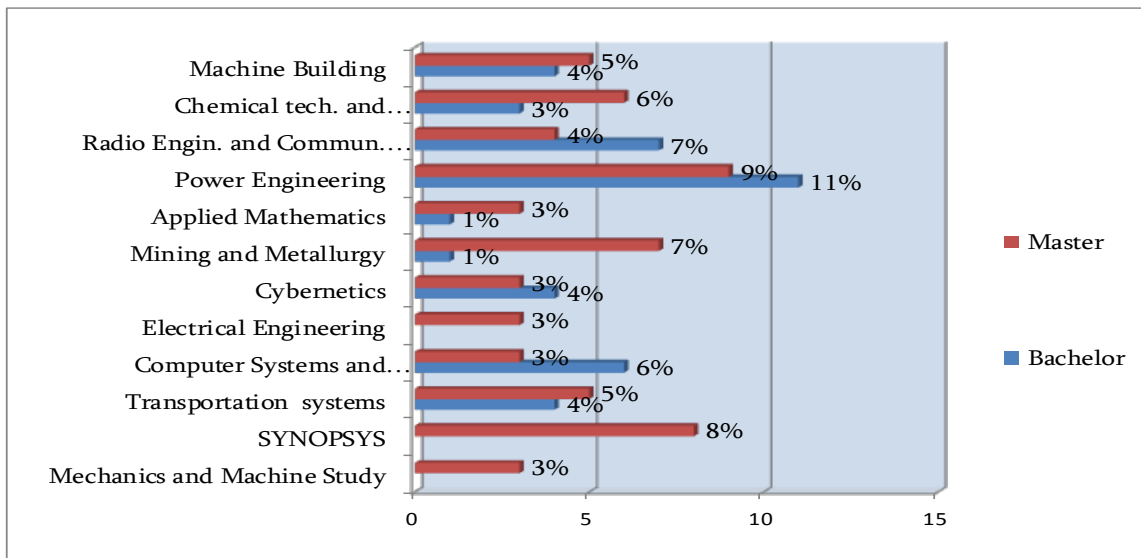
The results of statistical analysis displayed in the Figure 3 show that we have representatives from Transportation Systems, Computer Systems and Informatics, Electrical Engineering, Cybernetics, Mining and Metallurgy, Applied Mathematics, Power Engineering, Radio Engineering and Communication Systems, Chemical technologies and Environmental Engineering, Machine Building, Mechanics and Machine Study faculties and from Microelectronic schemes and Systems (SYNOPSYS). It means that the sample includes all faculties.

The main part of the sample (20% and 11%) make the graduates of **"Power Engineering"** and "Radio Engineering and Communication Systems" faculties.

3. Education and trainings of graduates

 "Education and trainings of graduates" set of the Questionnaire is represented with the analysis of graduates' language skills, which shows that Armenian language is mother tongue for 99% of the graduates and Russian for the rest 1% of graduates (Fig. 4).

Figure 4. Language skills of the graduates

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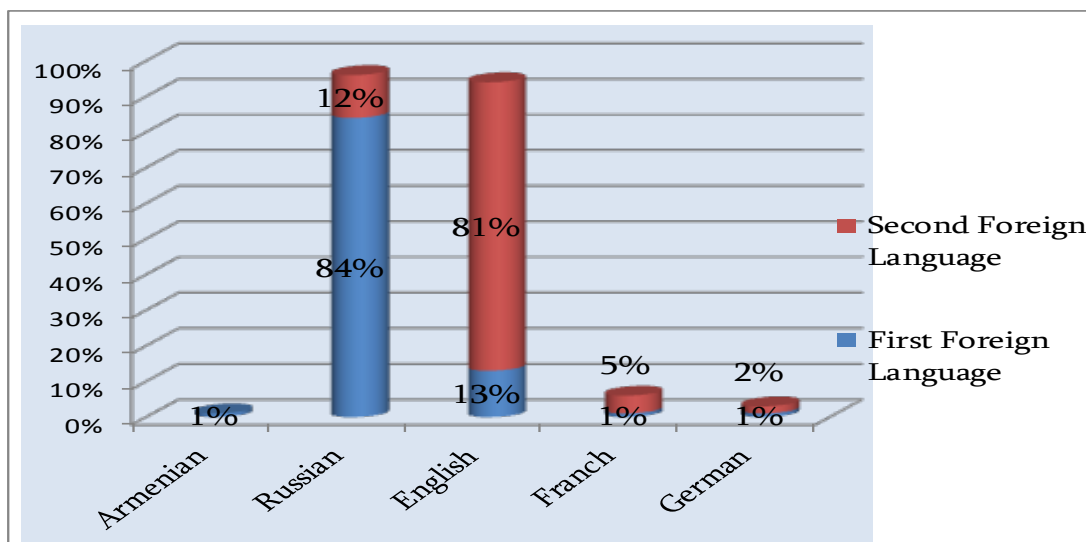
From Figure 4 it becomes clear that Russian, English, German, French are popular among foreign languages. Russian is the first foreign language for 84% and English - for 13% of respondents. 81% of respondents indicated that the second foreign language for them is English, and 12% mentioned Russian as a second foreign language. A few respondents (5% and 2%) have mentioned French and German languages as a second foreign language.

Figure 5. The third language skills of the graduates
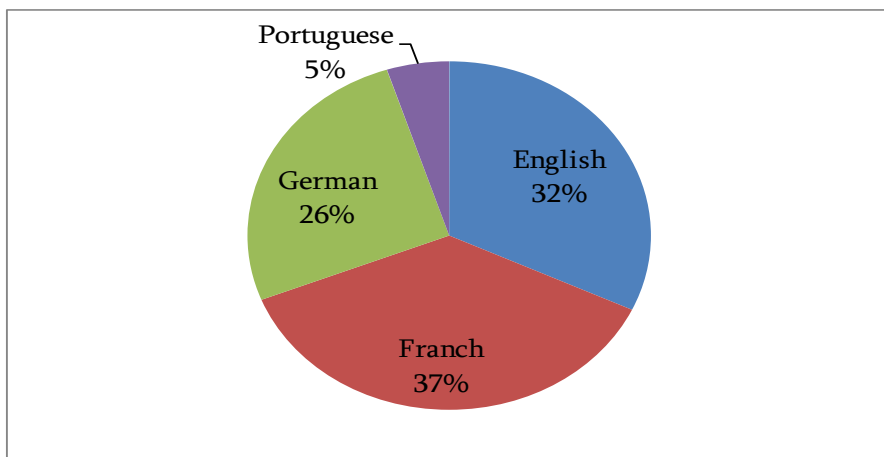
Among the respondents who indicated that they know third foreign language are popular French, English, German and Portuguese languages.

4. **Information on the course that graduates have completed**

The graduates' satisfaction with the training and learning methods was analyzed based on the information received from the answers of graduates given by them to the question on "Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?". This question was correlated with the question on "Do you want to continue to study?". The results are displayed in the Figure 6.

Figure 6. Graduates' satisfaction with the training and learning methods and intention to continue studying
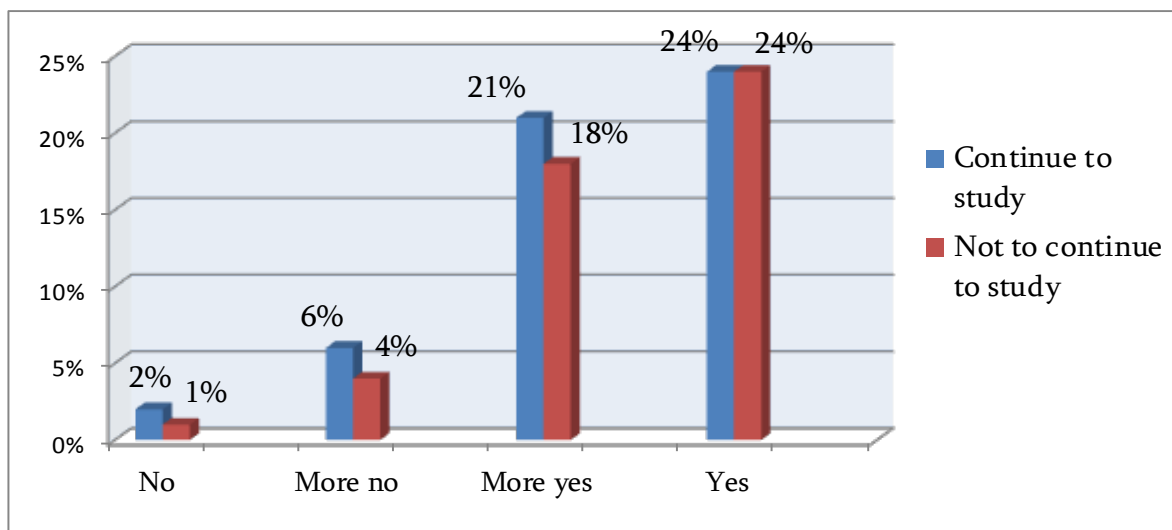
Figure 6 shows that the majority of the respondents (87%) are satisfied with the training and learning methods used at the university during their study. Over half of the respondents (53%) want to continue study. And it becomes clear that there is no relationship between satisfaction level of the training and learning methods and intention to continue to study as the percentage of positive answer to the second question ("Do you want to continue to study?") is higher than a percentage of negative answer to the first question ("Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?").

The work experience of graduates during the study was analyzed based on the information received from the answers given by the graduates to the following questions of the Questionnaire: "Did you carry out a working activity while attending classes?" and "Are you on the whole satisfied with your course of study?" (Fig. 7 and Fig. 8).

Figure 7. Graduates' working activity during the study at the university
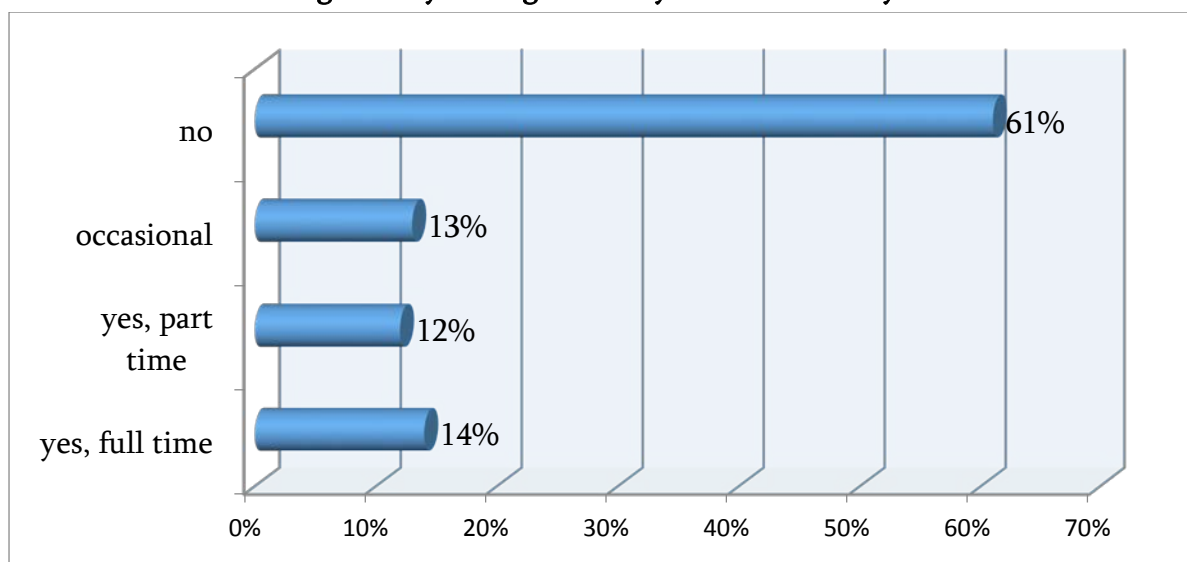
Figure 7 shows that 61% of respondents indicated that they did not carry out a working activity during their study. But among those who gave positive answer to this question, majority had occasional and part time job which make us suppose that they might succeed to get working skills while attending their classes.

Figure 8. Graduates' satisfaction with the course

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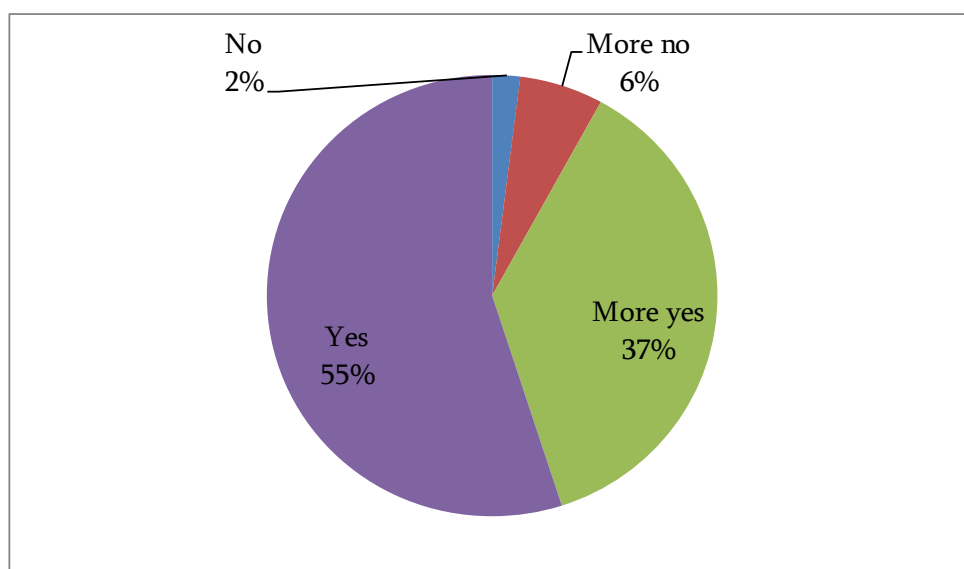
From figure 8 it becomes clear that the majority of graduates (92%) is on the whole satisfied with the course of study.

The crosstabulation of the results from the following questions of the Questionnaire: "Did you carry out a working activity while attending classes?" and "Are you on the whole satisfied with your course of study?" shows that there is no significant correlation between having a working activity during study and the level of satisfaction with the course.

The analysys of graduates' current working activity shows that about half of the graduates (51%) are currently working, from which 36% are Master degree program's students (Fig. 9).

Figure 9. Current working graduates of Bachelor and Master degree program
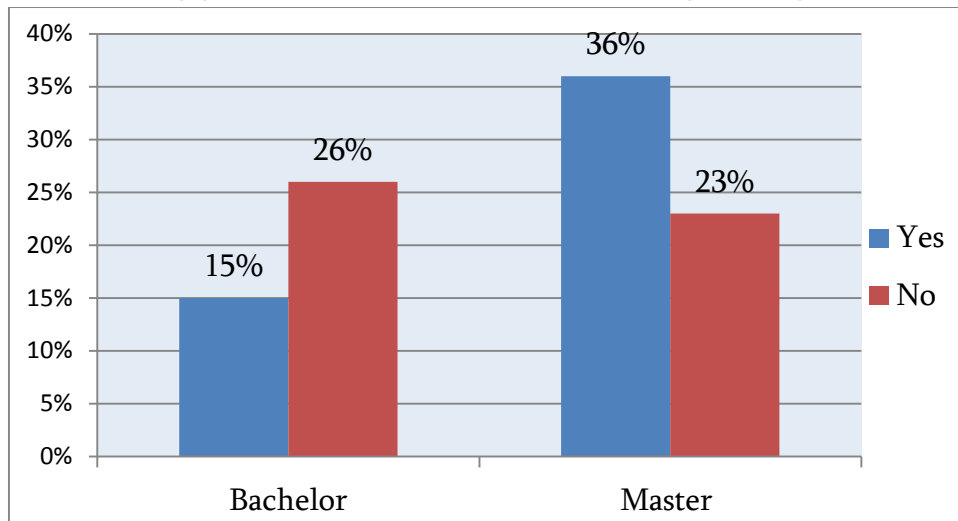
In the next figure we present the results of the statistical analysis of the graduates' answers to the question on "Was the working activity relevant to the university studies carried out?" (Fig.10).

Figure 10. "Was the working activity relevant to the university studies carried out?"
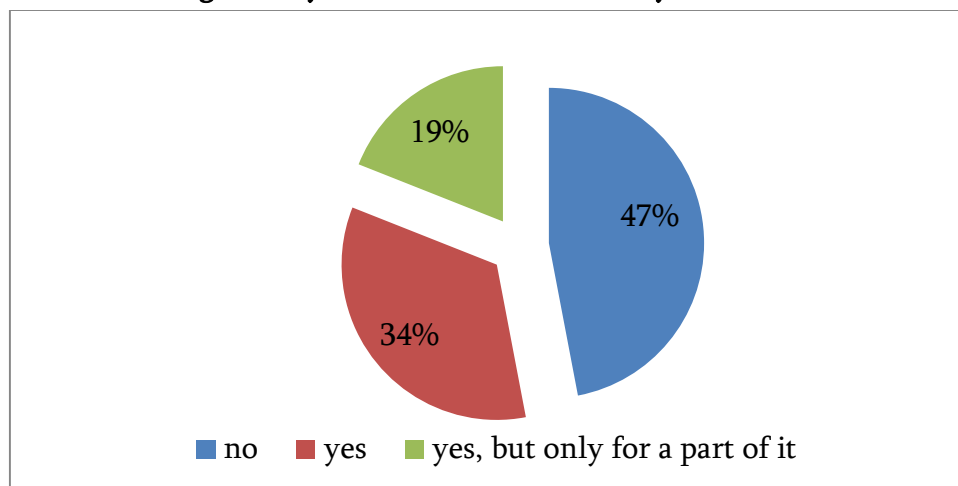
From Figure 10 it becomes clear that over half of the respondents (53%) have working activity relevant to the university studies. This can be assessed as a good result from the side of getting study-based practical skills apart their academic internships.

The database information collected from the 185 questionnaires indicates that only 2% of graduates have an experience of study abroad during their university study. This indicator allows

making an assumption on lack mobility among the students of the university despite the surveyed sample is not large enough to insist on that (Fig. 11).

Figure 11. Graduates' experience of studying abroad during their university study
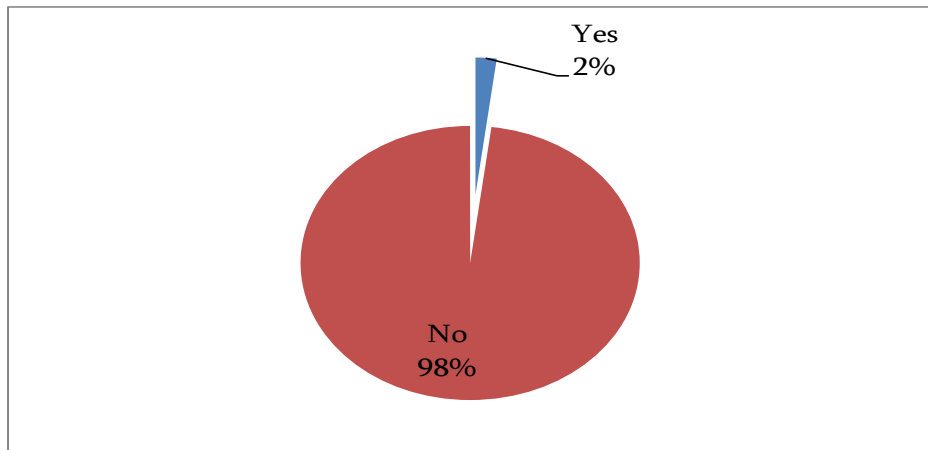
Figure 11 shows that the majority of the respondents (98%) do not have experience of studying abroad during their university study.

5. **Evaluation of the course that graduates have completed**

The graduates' overall evaluation of the university experience was analyzed based on the information received from the answers of graduates given by them to the question on "Are you on the whole satisfied with your course of study?". The majority of the respondents answered to this question positively (91%). Particularly, 54% answered "yes, definitely" and 37% - "more yes than no". The results of statistical analysis with the male-female ratio are displayed in Figure 12.

Figure 12. Graduates' satisfaction with the course with male-female ratio
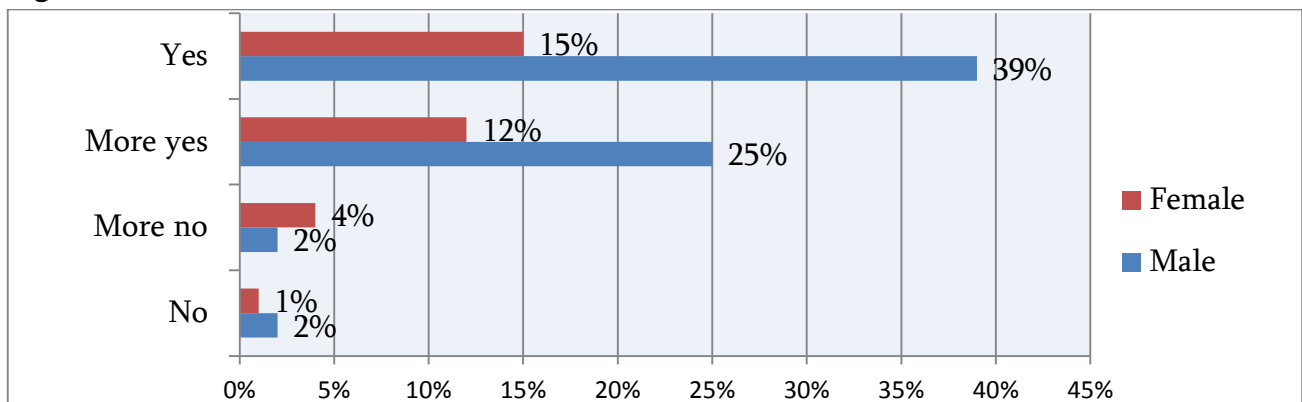
High percentage of positive assessment of the university course and accordingly satisfaction level with the study make us think that educational process in the university is organized in high level.

Figure 13. Graduates' intention to enroll again at university
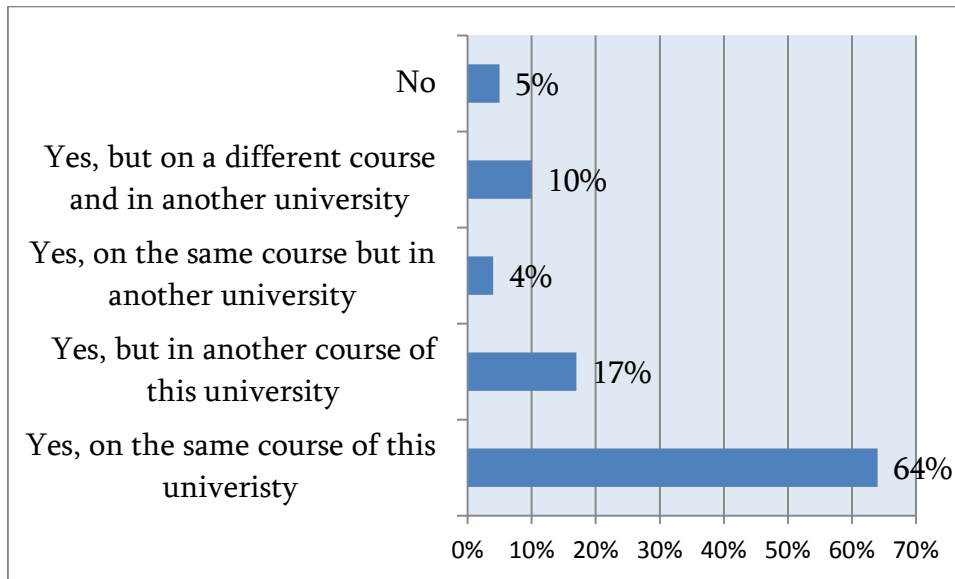
As figure 13 shows, 81% of the respondents is going to study at the same university which can be assessed as a positive evoluation of the university study programs.

6. Information about the family

The question on parents' educational qualification is selected as one of the essential questions of the Questionnaire. It is important to find out how strong is the link between parental and children's education. Statistical analysis shows that there is a positive correlation between both father's and mother's education and graduates' educational choice to continue the study. The results are displayed in Figure 14 and Figure 15.

Figure 14. Fathers' education and graduates' choice to continue their study
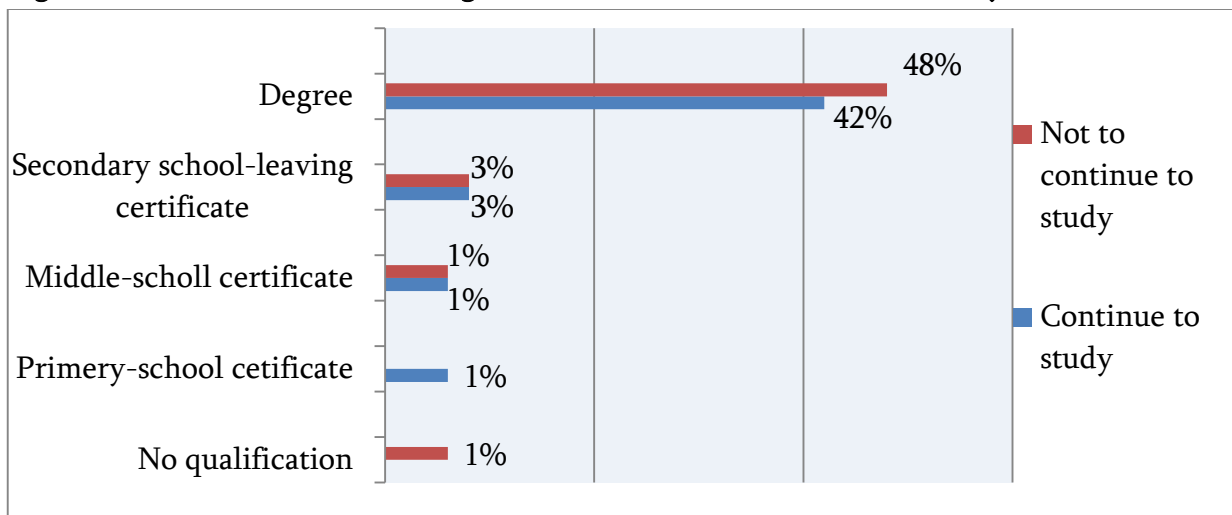
Figure 15. Mothers' education and graduates' choice to continue their study
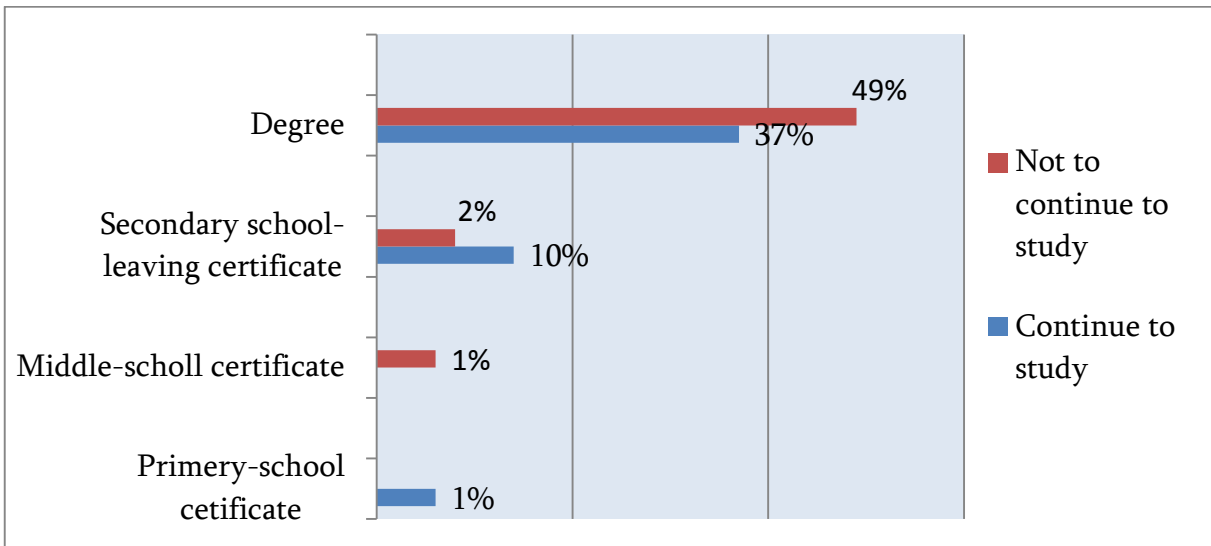
Figures above show that about half of the respondents, whose parents (42% of fathers and 37% of mothers) have higher education, choose to continue to study. We have very few parents with low education levels in this survey (2% of fathers and 1% of mothers). At the same time we have high percentage of negative answer to the the question on intention to continue to study. This can be explained by the fact that the majority of the sample make Master degree program's students.

7. Future intentions and perspectives

The graduates' intention to purpose postgraduate education was analyzed based on the information received from the answers of graduates given by them to the question on the intention to continue study (Fig. 16).

Figure 16. Graduates' intention to continue studying with female-male ratio
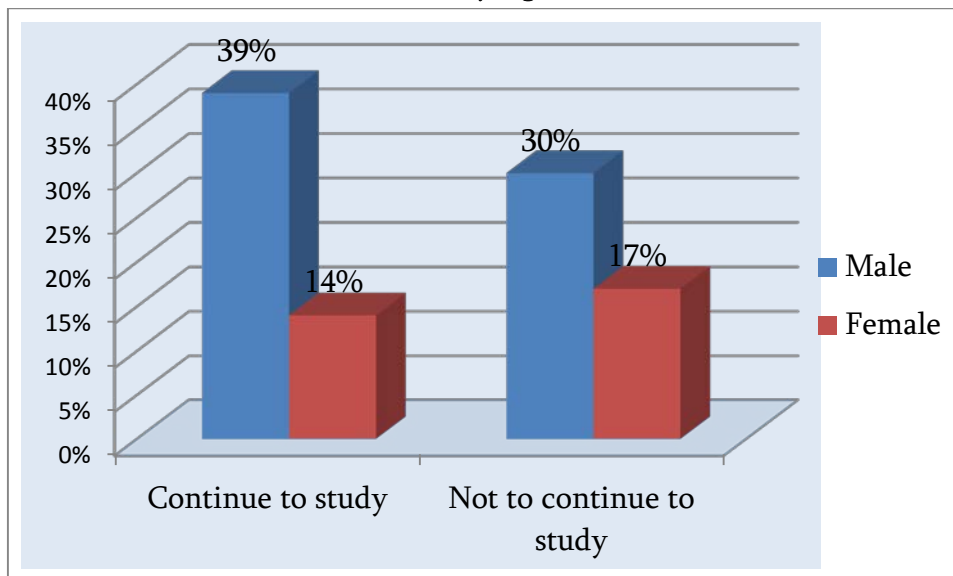
As Figure 16 shows, the majority of graduates (69%) are male and over half of them want to continue the study.

Graduates' future intentions where asked not only regarding their postgraduate education and the choice of the university but also regarding the choice of the field for the further job and the most

preferred economic sectors. Statistical analysis was done based on the choice of the sector of job (Fig. 17).

Figure 17. Graduates' preferences regarding to selection of the kind of job
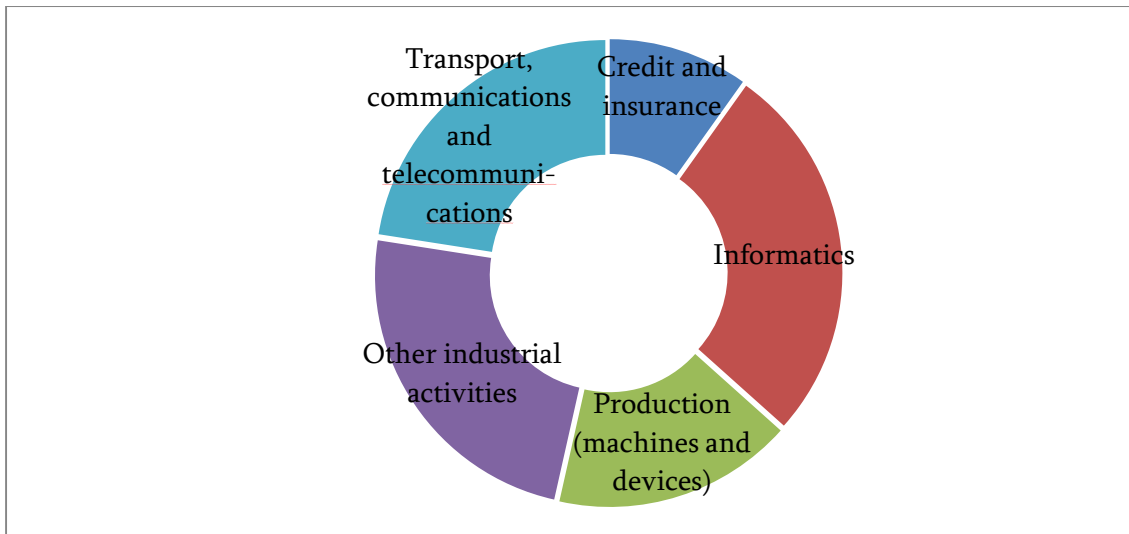
As Figure 17 shows, the majority of interviewed graduates mostly prefer five fields of further job, particularly Credit and insurance, Other industrial activities, Production (machines and devices), Information systems and Transport, communications and telecommunications.

Next question regarding graduates' future intentions was about the time they will need to find a job (Fig. 18).

Figure 18. Graduates' evaluation of the time to find a job
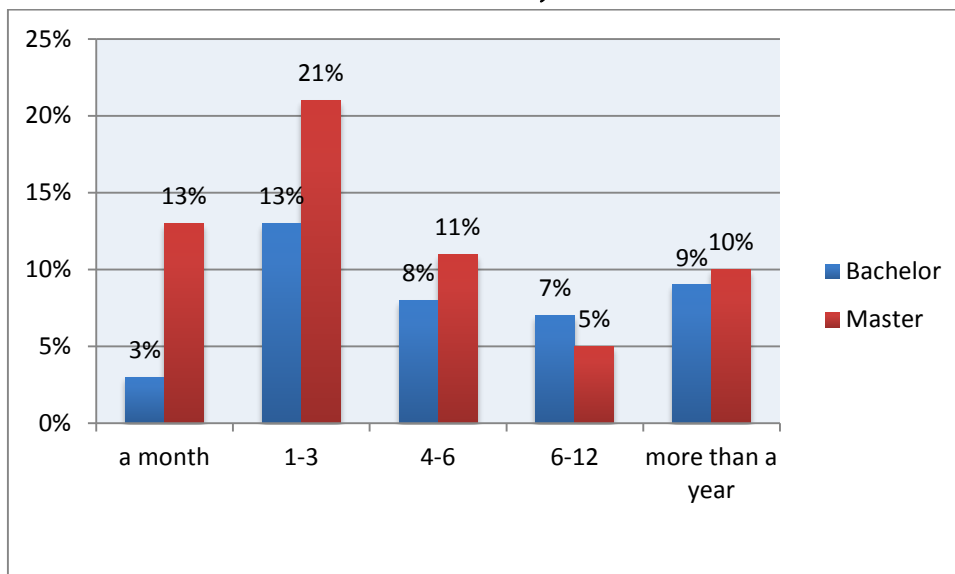
As we can see in Figure 18, 16% of the respondents believe that a month will make the time of looking for job after the university graduation. 34% of respondents think that they will need 1-3 months and 19% - 4-6 months to find a job. The rest 31% of graduates suppose that it will take them 6-12 months or more than a year for finding a job after the university graduation.

So the majority of the graduates has positive assessment of how long time it might take them to find a job as 69% of them think 1-6 months will be enough to find a job.

8. Conclusions

The following conclusions could be considered as the results of the NPUA graduates' survey executed for 2015:

- The sample includes 185 graduates' questionnaires, out of each 75 (41%) questionnaires were filled in by bachelor degree program's (four years study) students and 110 (59%) - by master degree program's (two years study) students. All of the sample's graduates are full time students which means that they have earned their credits through the class work achieved by the university attending

- 99% of the interviewed graduates are from different regions of the Republic of Armenia and over half of them are from the capital, Yerevan. Only 1% of respondents are from other regions (regions of Georgia and Russian Federation).

- Armenian is the mother tongue for 99% of graduates. Russian is the first and English is the second foreign language for the majority of respondents. Russian, English, German, French are popular among foreign languages.

- The majority of the respondents are on the whole satisfied with the course of study, especially they are satisfied with the training and learning methods used at the university during their study and are going to continue to study.

- Over half of the respondents did not carry out any working activity during their study. But those who carried out a working activity mostly had occasional and part time job.

- Parents' education level has a positive effect on graduates' intention to continue studying.

- The majority of working graduates, who have working activity relevant to the university studies, are Master degree program's students.

- The majority of the respondents do not have experience of studying abroad during their university study.

- The most preferred working business areas among NPUA's graduates are Credit and insurance, Other industrial activities, Production (machines and devices), Information systems and Transport, communications and telecommunications.

- The respondents have a positive evaluation of the time to find a job (1-6 month) after the graduation from the University.

We proceed to summarize briefly the NPUA Graduates' Profile Report the results of which are generally positive. These results will help NPUA to outline the main features of the graduates and can be used for further progress in university education system.

Annex 3. The HEN-GEAR Questionnaire and Quality Assurance: a Comparative Analysis

Questions from the survey	ANQA institutional accreditation standards	ANQA programme standards
As far as teaching and learning materials provided to you during the study were useful in preparing for the exam?	3.1 The academic programs are thoroughly formulated, according to the intended learning outcomes, which correspond to an academic qualification and are in line with the state academic standards.	4.1 The program evaluates students' level of learning outcome achievement against the intended learning outcomes in accordance with the evaluation methods and criteria described in the prospectus.
	3.2 The institution has a policy that promotes alignment between teaching and learning approaches and the intended learning outcomes and ensures effective learning.	4.2 The assessment of the achieved learning outcomes is based on clearly stated and transparent policies and procedures as well as standards.
	3.3 The programme ensures impartial evaluation of students' level of achievement against the learning and educational objectives and promotes academic integrity	4.3 There are set mechanisms for review and improvement of student assessment.
	3.5 There are mechanisms in place ensuring academic programme approval, monitoring, and periodic review.	4.4 The institution treats students fairly and equitably through policies and procedures, which address student conduct and grievances.
		4.5 The institution has clearly articulated policies promoting academic integrity and tracking for plagiarism
Was the overall exam organisation (dates and	4.2 The institution has policies and procedures for assessing student educational needs.	

timetable, information given, registration etc.) acceptable?	4.4 There are special hours set for students to visit the faculty administrative staff for additional support and guidance.	
	4.7 The institution has established policies and procedures that promote student active involvement in the institution's governance.	
	4.8 The institution has a special body that promotes students' rights protection	
	4.9 The institution has set mechanisms that ensure quality of the student services and the students are involved in the quality assurance practices.	
	4.2 The institution has policies and procedures for assessing student educational needs.	
Was the workload officially foreseen for classes acceptable?	3.4 The programmes are intellectually credible, designed coherently, and articulate well with other relevant programmes, promote mobility of students and staff as well as internationalization.	1.3 The academic programme is thoroughly formulated, according to intended learning outcomes, which correspond to an academic qualification.
	3.5 There are mechanisms in place ensuring academic programme approval, monitoring, and periodic review.	1.4 The learning outcomes of the programme are in line with the ANQF, national qualifications descriptors, and state academic standards.
Before enrolling at university, did you know what knowledge and skills you were going to acquire by the end of the chosen course	4.1 The institution has set mechanisms for promoting equitable recruitment, selection, and admission procedures.	1.6 The programme learning outcomes meet the needs of the students and other stakeholders.
	4.9 The institution has set mechanisms that ensure quality of the student services and the students are	

of study?	involved in the quality assurance practices.	
Were the training and learning methods used appropriate for ensuring the acquisition of the expected knowledge and skills?	3.2 The institution has a policy that promotes alignment between teaching and learning approaches and the intended learning outcomes and ensures effective learning.	3.1 The programme clearly defines the teaching and learning approaches necessary to achieve the intended learning outcomes.
	3.3 The programme ensures impartial evaluation of students' level of achievement against the learning and educational objectives and promotes academic integrity	3.3 There are set mechanisms evaluating quality of teaching and learning approaches.
	3.5 There are mechanisms in place ensuring academic programme approval, monitoring, and periodic review.	
Were the evaluation methods used during interim and final exams coherent with knowledge and skills acquired during the course of study?	3.3 The programme ensures impartial evaluation of students' level of achievement against the learning and educational objectives and promotes academic integrity	4.2 The assessment of the achieved learning outcomes is based on clearly stated and transparent policies and procedures as well as standards.
		4.3 There are set mechanisms for review and improvement of student assessment.
Did the teachers help and drive you in the acquisition of knowledge and skills related to your course of study?	4.2 The institution has policies and procedures for assessing student educational needs.	
	4.3 The institution provides opportunities for extra-curricular activities aimed at supporting student learning.	

	4.4 There are special hours set for students to visit the faculty administrative staff for additional support and guidance.	
	4.9 The institution has set mechanisms that ensure quality of the student services and the students are involved in the quality assurance practices.	
	5.2 The teaching staff qualifications for each programme are comprehensively stated	
Title of the dissertation/final examination Subject of the dissertation/final examination	3.3 The programme ensures impartial evaluation of students' level of achievement against the learning and educational objectives and promotes academic integrity	
Did you study abroad during your university studies?	3.4 The programmes are intellectually credible, designed coherently, and articulate well with other relevant programmes, promote mobility of students and staff as well as internationalization.	
	9.1 The institution promotes its external relations through sound policies and procedures aimed at creating an environment conducive to experience exchange and enhancement and internationalization.	
Did you take any exams abroad	9.2 The institution's external relations infrastructure ensures smooth flow of the process.	
Have you prepared a significant part of your	9.3 The institution promotes fruitful and effective collaboration with local and international	

dissertation/final examination abroad?	counterparts.
If you have attended part of your degree course abroad (and this activity has been acknowledged in your university e.g. through credits recognition) or if you have written your graduation thesis abroad, do you positively evaluate the support given to you by the university you attended?	9.4 The institution ensures the appropriate level of a foreign language for internationalization purposes.
During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree course?	4.2 The institution has policies and procedures for assessing student educational needs.
	4.3 The institution provides opportunities for extra-curricular activities aimed at supporting student learning.
During your university studies, have you carried out any training period/training practice subsequently acknowledged by the degree	4.5 The institution has special student career support services that prepares graduates for employment
	4.6 The students are actively involved in the research the university majors in.

course?	4.9 The institution has set mechanisms that ensure quality of the student services and the students are involved in the quality assurance practices.	
Are you on the whole satisfied with your course of study?		7.2 There are well-established policies and procedures for programme internal quality assurance.
		7.3 The programme provides an educational feedback system that examines it on the basis of the results of evaluation regarding the level of student achievement against the intended learning and educational objectives.
Are you satisfied with the relationship you had with: teachers, teacher's collaborators, supervisor of the dissertation/final exam, administration, students	4.2 The institution has policies and procedures for assessing student educational needs.	
	4.4 There are special hours set for students to visit the faculty administrative staff for additional support and guidance.	
	4.5 The institution has special student career support services that prepares graduates for employment	
	4.8 The institution has a special body that promotes students' rights protection	
	4.9 The institution has set mechanisms that ensure quality of the student services and the students are involved in the quality assurance practices.	

If you could go back in time, would you enrol again at university? • on the same course of this university • in another course of this university • on the same course but in another university • on a different course and in another university would not enrol again at university	1.1 The institution has a clear, well- articulated mission that represents the institution's purposes and goals and is in accordance with the Armenian National Qualifications Framework (hereafter ANQF).	
	1.2 The mission statement reflects the needs of the internal and external stakeholders.	
	1.3 The institution has formal mechanisms and/or procedures to evaluate the achievement	
What do you think about the classrooms in which lessons and exams took place?	7.1 The institution takes due care to create a learning environment appropriate to the academic programmes offered	6.1 The programme has its property and resources, which effectively support the implementation of its stated mission and objectives and create an environment conducive to learning.
	7.2 The institution endeavors to secure adequate financial resources and distribution of the latter to provide, maintain and operate the facilities and equipment as needed to achieve its mission and objectives	6.3 There are necessary teaching and learning resources to meet ensure achievement of intended learning outcomes.

	7.4 The institution's resource base supports the institution's educational programmes and its strategic plans for sustainability and continuous quality enhancement.	
	7.6 The institution ensures the environment is safe and secure through health and safety mechanisms that also consider special needs of students	
	7.7 There are special mechanisms in place that ensure quality of the resources, their effectiveness, applicability and availability.	
Assessment of IT workstation facilities:	7.1 The institution takes due care to create a learning environment appropriate to the academic programmes offered	6.1 The programme has its property and resources, which effectively support the implementation of its stated mission and objectives and create an environment conducive to learning.
Was the equipment for the other didactic activities (laboratories and other practical activities etc...) adequate?	7.4 The institution's resource base supports the institution's educational programmes and its strategic plans for sustainability and continuous quality enhancement.	6.2 The programme ensures that all students understand the requirements and receive timely, useful and regular information and advice about relevant academic requirements.
		6.3 There are necessary teaching and learning resources to meet ensure achievement of intended learning outcomes.
Give your opinion on meals/canteen services, accommodation facilities and scholarships supplied by the	4.8 The institution has a special body that promotes students' rights protection	

organization for the Right to University Study.	
Are you satisfied with the quality of the meals of the canteen?	7.6 The institution ensures the environment is safe and secure through health and safety mechanisms that also consider special needs of students
Are you satisfied with the overall organization of the canteen (maintenance, cleaning, client's overcrowding, distance from university etc.)?	7.6 The institution ensures the environment is safe and secure through health and safety mechanisms that also consider special needs of students
Are you satisfied with the other services supplied by the university? • international mobility incentives • books-borrowing • health service • services for disabled students • career center service	9.1 The institution promotes its external relations through sound policies and procedures aimed at creating an environment conducive to experience exchange and enhancement and internationalization. 9.2 The institution's external relations infrastructure ensures smooth flow of the process. 9.3 The institution promotes fruitful and effective collaboration with local and international counterparts. 9.4 The institution ensures the appropriate level of a foreign language for internationalization

	purposes.
	7.6 The institution ensures the environment is safe and secure through health and safety mechanisms that also consider special needs of students
Future intentions and perspectives	1.1 The institution has a clear, well- articulated mission that represents the institution's purposes and goals and is in accordance with the Armenian National Qualifications Framework (hereafter ANQF).
Do you want to continue study? Specify the most relevant activity: • Bachelor Degree • Master Degree • PhD • other kind of postgraduate or advanced • training • course (within university) • Other activity financed by scholarship or study	1.2 The mission statement reflects the needs of the internal and external stakeholders.
	1.3 The institution has formal mechanisms and/or procedures to evaluate the achievement of its mission and purpose and to further improve them.
	1.1 The institution has a clear, well- articulated mission that represents the institution's purposes and goals and is in accordance with the Armenian National Qualifications Framework (hereafter ANQF). 1.2 The mission statement reflects the needs of the internal and external stakeholders.
	1.3 The institution has formal mechanisms and/or procedures to evaluate the achievement of its mission and purpose and to further improve them.

allowance (within university) • internship/ practice (within university) • other activities aimed at the acquisition • of professional skills (within university)	
Are you prepared to business travels?	9.1 The institution promotes its external relations through sound policies and procedures aimed at creating an environment conducive to experience exchange and enhancement and internationalization.
	9.2 The institution's external relations infrastructure ensures smooth flow of the process.
	9.3 The institution promotes fruitful and effective collaboration with local and international counterparts.
	9.4 The institution ensures the appropriate level of a foreign language for internationalization purposes.

Annex 4. ANAU-Willingness to continue studying

-*Armenian National Agrarian University:* Empirical Specification-

To identify the variables influencing continue of study, a logistic regression model was estimated, where the binary dependent variable, which indicates whether the respondent is continue study (=1) or not (=0), is modeled as a function of a set of characteristics (variables). The empirical specification of the logistic regression model estimated in this study is as follows:

$$log\left(\frac{study\_yes_i}{1-study\_yes_i}\right) = \beta_0 + \beta_1 sex_i + \beta_2 age_i + \beta_3 stratum_i + \beta_4 agribusinessandmarketingr_i +$$

$$\beta_5 agriculturemechanization_i + \beta_6 agronomy_i + \beta_7 economics_i + \beta_8 hydromelioration_i +$$

$$\beta_9 foodstufftechnologies_i + \beta_{10} degreefinalmark_i + \beta_{11} russian_i + \beta_{12} english_i + \beta_{13} goodword_i +$$

$$\beta_{14} goodexcel_i + \beta_{15} employed\_yes_i + \beta_{16} satisfied\_yes_i + \beta_{17} mother_i + \beta_{18} father_i + u_i$$

Where, $log\left(\frac{study\_yes_i}{1-study\_yes_i}\right)$ is the natural logarithm of odds ratio of continue study of i-th respondent,

sex_i is dummy variable for gender taking on 1 for female and 0 otherwise for i-th respondent

age_i *is the age of* i-th respondent

$stratum_i$ is dummy variable for living place, for capital taking 1 and 0 otherwise for i-th respondent

$agribusinessandmarketingr_i$ is dummy variable for agribusiness and marketing faculty, for this its taking 1 and 0 otherwise for i-th respondent

$agriculturemechanization_i$ is dummy variable for agriculture mechanization faculty, for this its taking 1 and 0 otherwise for i-th respondent

$agronomy_i$ is dummy variable for agronomy faculty, for this its taking 1 and 0 otherwise for i-th respondent

$economics_i$ is dummy variable for economic faculty, for this its taking 1 and 0 otherwise for i-th respondent

hydromelioration$_i$ is dummy variable for hydromeloration faculty, for this its taking 1 and 0 otherwise for i-th respondent

foodstufftechnologies $_i$ is dummy variable for foodstuff technologies faculty, for this its taking 1 and 0 otherwise for i-th respondent

degreefinalmark$_i$ is GPA for i-th respondent

russian$_i$ is variable for Russian knowledge, for good its taking 1 and 0 otherwise for i-th respondent

english$_i$ is variable for English knowledge, for good its taking 1 and 0 otherwise for i-th respondent

goodword$_i$ is variable for Microsoft Office/Word knowledge, for good its taking 1 and 0 otherwise for i-th respondent

goodexcel$_i$ is variable for Microsoft Office/Excel, for good its taking 1 and 0 otherwise for i-th respondent

employed_yes$_i$ is variable for employability, for working its taking 1 and 0 otherwise for i-th respondent

satisfied_yes$_i$ is variable for satisfaction from study, for good its taking 1 and 0 otherwise for i-th respondent

mother$_i$ is variable for HE of mother, for educated its taking 1 and 0 otherwise for i-th respondent

father$_i$ is variable for HE of father, for educated its taking 1 and 0 otherwise for i-th respondent

u_i is the random error term, and βs are the parameters to be estimated.

The model was estimated using STATA 10 software package.

Table 1. Estimation Results from Logistic Regression

	Coefficient	% change in odds ratios
Gender		
(base: Male)		
Female	-0.44* (0.057)	**- 36 %**
Age		
Age	-0.09 (0.208)	- 10 %
Living place		
(base: Yerevan)		
Other	-0.16 (0.380)	- 15,6 %
Faculties		
(base: veterinary medicine)		
Agronomy	0.16 (0.035) **	**31,6 %**
Foodstuff Technologies	0.51 (0.288)	67,5 %
Hydro Melioration	0.04 (0.933)	4 %
Agriculture Mechanization	0.40 (0.44)	50,6 %
Agribusiness and Marketing	0.27 (0.537)	31.8 %
Economics	0.40 (0.358)	49,6 %
Education of parents		
Father	0.64 (0.038) **	**89,8 %**
Mother	0.52 (0.007) ***	**69,02 %**
GPA		
GPA	0.19 (0.000) ***	**21,8 %**
Languages		
Russian	-0.004 (0.98)	- 1%
English	0.699 (0.095)	101, 1 %
IT Skills		
Word	0.32 (0.255)	38,5 %
Excel	-0.26 (0.339)	-24 %
Employability		
Yes	0.42 (0.051) *	**53,1 %**
Satisfaction from course		
Yes	1.50 (0.000) ***	**351 %**

*indicates 10% significance level, ** indicates 5% significance level, and *** indicates 1% significance level

- ✓ **Gender**

For females, compare to males, the probability to continue study decrease by 36 %, ceteris paribus.

- ✓ **GPA**

Additional point in GPA increase the probability to continue study by 21.8 %, ceteris paribus.

- ✓ **Having job**

This factor increase the probability to continue study by 53,1 % times, ceteris paribus.

- ✓ **Satisfaction from course**

This factor increase the probability to continue study by 351 %, ceteris paribus.

- ✓ **Degree of parents**

Having degree for both parents increase the probability to continue study by 80 % (89,8 % father and 69,02 % mother), ceteris paribus.

EMPIRICAL SPECIFICATION

Employability

To identify the variables influencing employability of graduates, a logistic regression model was estimated, where the binary dependent variable, which indicates whether the respondent is employed (=1) or not (=0), is modeled as a function of a set of characteristics (variables). The empirical specification of the logistic regression model estimated in this study is as follows:

$$log\left(\frac{employed\_yes_i}{1 - employed\_yes_i}\right) = \beta_0 + \beta_1 sex_i + \beta_2 age_i + \beta_3 stratum_i + \beta_4 agribusinessandmarketingr_i +$$

$$\beta_5 agriculturemechanization_i + \beta_6 agronomy_i + \beta_7 economics_i + \beta_8 hydromelioration_i +$$

$$\beta_9 foodstufftechnologies_i + \beta_{10} degreefinalmark_i + \beta_{11} russian_i + \beta_{12} english_i + \beta_{13} goodword_i +$$

$$\beta_{14} goodexcel_i + \beta_{15} study\_yes_i + \beta_{16} satisfied\_yes_i + \beta_{17} mother_i + \beta_{18} father_i + u_i$$

Where, $log\left(\frac{employed\_yes_i}{1 - employed\_yes_i}\right)$ is the natural logarithm of odds ratio of continue study of i-th respondent,

sex_i is dummy variable for gender taking on 1 for female and 0 otherwise for i-th respondent

age_i is the age of i-th respondent

$stratum_i$ is dummy variable for living place, for capital taking 1 and 0 otherwise for i-th respondent

$agribusinessandmarketingr_i$ is dummy variable for agribusiness and marketing faculty, for this its taking 1 and 0 otherwise for i-th respondent

$agriculturemechanization_i$ is dummy variable for agriculture mechanization faculty, for this its taking 1 and 0 otherwise for i-th respondent

$agronomy_i$ is dummy variable for agronomy faculty, for this its taking 1 and 0 otherwise for i-th respondent

$economics_i$ is dummy variable for economic faculty, for this its taking 1 and 0 otherwise for i-th respondent

$hydromelioration_i$ is dummy variable for hydromeloration faculty, for this its taking 1 and 0 otherwise for i-th respondent

$foodstufftechnologies_i$ is dummy variable for foodstuff technologies faculty, for this its taking 1 and 0 otherwise for i-th respondent

$degreefinalmark_i$ is GPA for i-th respondent

$russian_i$ is variable for Russian knowledge, for good its taking 1 and 0 otherwise for i-th respondent

$english_i$ is variable for English knowledge, for good its taking 1 and 0 otherwise for i-th respondent

$goodword_i$ is variable for Microsoft Office/Word knowledge, for good its taking 1 and 0 otherwise for i-th respondent

$goodexcel_i$ is variable for Microsoft Office/Excel, for good its taking 1 and 0 otherwise for i-th respondent

$satisfied\_yes_i$ is variable for satisfaction from study, for good its taking 1 and 0 otherwise for i-th respondent

$mother_i$ is variable for HE of mother, for educated its taking 1 and 0 otherwise for i-th respondent

$father_i$ is variable for HE of father, for educated its taking 1 and 0 otherwise for i-th respondent

u_i is the random error term, and βs are the parameters to be estimated.

The model was estimated using STATA 10 software package.

Table 2. Estimation Results from Logistic Regression

	Coefficient	% change in odds ratios
Gender		
(base: Male)		
Female	-0.20* (0.056)	**-19 %**
Age		
Age	0.22 (0.006) ***	**25 %**
Living place		
(base: Yerevan)		
Other	0.71 (0.000) ***	**104 %**
Faculties		
(base: veterinary medicine)		
Agronomy	-0.09 (0.873)	-9 %
Foodstuff Technologies	-0.14 (0.770)	-14 %
Hydro Melioration	0.44 (0.409)	56 %
Agriculture Mechanization	0.65 (0.202)	93 %
Agribusiness and Marketing	-0.14 (0.757)	-14 %
Economics	-0.2 (0.558)	24 %
Education of parents		
Father	0.16 (0.530)	18 %
Mother	0.36 (0.200)	43 %
GPA		
GPA	-0.04 (0.146)	-5 %
Languages		
Russian	0.18 (0.544)	20 %
English	0.18 (0.666)	20 %
IT Skills		
Word	-0.11 (0.685)	- 12 %
Excel	0.16 (0.561)	18 %
Continue study		
Yes	1.54 (0.045) **	**54 %**
Satisfaction from course		
Yes	0.43 (0.213)	44 %

*indicates 10% significance level, ** indicates 5% significance level, and *** indicates 1% significance level*

✓ **Gender**

For females, compare to males, the probability of having job decrease by 19 %, ceteris paribus.

✓ **Age**

Every additional year in age increase the probability of having job by 25 %, ceteris paribus.

✓ **Birthplace**

Born and live in Yerevan increase the probability of having job by 104 %, ceteris paribus.

✓ **Willingness to continue study**

This factor increase the probability of having job by 54 %, ceteris paribus.