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Master Thesis

"Employability and Higher Education Institutions' graduates; The case of South East European University"

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ABSTRACT

Employability of graduates of higher education institutions has gotten the attention of researchers and institutions as the number of graduates from these institutions is growing rapidly. Graduates transition, placement and need of profiles in the job market are being analysed and put under the responsibilities of the universities, graduates themselves and/or governments. The approaches to employability, ways employability is measured, the skills that the job market demands the most from the graduates are analysed in this study. Employment rates of graduates are analysed as well. Some of the skills are more valued and demanded from the employers when recruiting new employees.

Various methodologies are used to address the objective of the study such as: the traditional research model and different quantitative and qualitative research methods. The data for the research are mainly from Eurostat, State Statistical Office of North Macedonia, Ministry of Education of North Macedonia and for South East European University mainly the data are from the Employability Reports from year 2007 until 2019.

The main results of the study are: There is substantial difference in the rate of employment for graduates of Higher Education Institutions in different countries. Demographic factors (age and gender) and success in education affects the graduate's employability. Some soft skills of graduates match the requirements of the job market and for South East European University more than 50% of SEEU graduates seeking for employment; get employed within the first year of graduation.

Keywords: employability, graduates, higher education institutions, employment rate.

ABSTRAKT

Punësueshmëria e të diplomuarve nga institucioneve të arsimit të lartë ka tërhequr vëmendjen e studiuesve dhe institucioneve, pasi që numri i të diplomuarve nga këto institucione po rritet me shpejtësi. Tranzicioni i të diolomuarëve në tregun e punës, pozicionimi dhe nevoja e profileve të caktuara të të diplomuarëve në tregun e punës, po analizohen dhe vihen nën përgjegjësitë e universiteteve, vetë të diplomuarve dhe / ose qeverive. Qasjet ndaj punësueshmërisë, mënyrat e matjes së punësueshmërisë, aftësitë që kërkon tregu i punës më së shumti nga të diplomuarit, janë analizuar në këtë studim. Analizohen gjithashtu shkalla e punësimit të të diplomuarve. Disa nga aftësitë vlerësohen dhe kërkohen më shumë nga punëdhënësit kur angazhojnë punonjës të rinj.

Metodologji të ndryshme janë përdororu për të arritur objektivin e studimit sikurse: modeli tradicional i hulumtimit dhe metoda të ndryshme kërkimore sasiore dhe cilësore. Të dhënat për hulumtimin janë kryesisht nga Eurostat, Enti shtetëror i statistikave të Maqedonisë së Veriut, Ministria e Arsimit e Maqedonisë së Veriut dhe për të dhënat për Universitetin e Evropës Juglindore kryesisht të dhënat janë nga Raportet e punësimit nga viti 2007 deri në 2019.

Rezultatet kryesore të studimit janë që: ekzistojnë dallime thelbësore në shkallën e punësimit për të diplomuarit e Institucioneve të Arsimit të Lartë në vende të ndryshme; faktorët demografikë (mosha dhe gjinia) dhe suksesi në arsim ndikon në punësueshmërinë e të diplomuarve; Disa aftësi të të diplomuarve përputhen me kërkesat e tregut të punës; për të diplomuart e Universitetit të Evropës Juglindore më shumë se 50% e të diplomuarve të UEJL-së që kërkojnë punësim, punësohen brenda vitit të parë të diplomimit.

Fjalë kyçe: punësueshmëria, studentët e diplomuar, institucionet e arsimit të lartë, shkalla punësimit.

АБСТРАКТ

Вработливоста на дипломираните од високообразовните институции го привлече вниманието на истражувачите и институциите бидејќи бројот на дипломирани студенти од овие институции брзо растеше. Нивната транзиција во пазарот на трудот, позицирањето и потребата од профили на пазарот на трудот се анализира и става под одговорност на универзитетите, самите дипломирани студенти и / или владите. Во оваа студија се истражуват пристапите кон вработливоста, начините на мерење на вработливоста, вештините што најмногу ги бара пазарот на трудот од дипломираните студенти. Анализирани се и стапките на вработеност на дипломираните студенти. Некои од вештините се повеќе ценети и се бараат од работодавците кога ангажираат нови вработени.

Различни методологии се користени за постигнување на целта на студијата, како што се: традиционалниот модел на истражување и различни квантитативни и квалитативни методи на истражување. Податоците за истражувањето се главно од Евростат, Државниот завод за статистика на Северна Македонија, Министерството за образование на Северна Македонија и податоците за Универзитетот на Југоисточна Европа, главно, се од извештаите за вработливост (*Employability report*) од 2007 година до 2019 година.

Главните резултати од истражувањето се: постои значителна разлика во стапката на вработеност за дипломирани студенти на високообразовни институции во различни земји. Демографските фактори (возраст и пол) и успехот во образованието, влијаат врз вработеноста на дипломираните студенти. Некои меки вештини на дипломираните студенти одговараат на барањата на пазарот на трудот. За Универзитетот на Југоисточна Европа истражувањето покажа дека повеќе од 50% од дипломираните студенти на ЈИЕУ кои бараат работа се вработуваат во текот на првата година после дипломирањето.

Клучни зборови: вработливост, дипломирани студенти, високообразовни институции, стапка на вработеност.

1 INTRODUCTION

Employment is one of the key objectives of graduates of Higher Education Institutions (HEI). Employment and the ability to help students gain employability skills are targets of universities and most governments as well.

Graduate employability is given more importance in recent years as students, universities and governments give more relevance to graduate placement in the job market.

Higher education institutions are coming under increasing pressure to ensure their graduates have relevant employability skills. Institutions are also being encouraged to help students develop enterprise skills so that more graduates have the confidence and knowledge to set up businesses. Senior managers and academics are looking for support at all levels to embed employability and enterprise into the higher education experience (Yorke, 2006).
Universities in addition to the attention on incorporating in their program the skills the job market needs and demands—also pay a lot of attention to what career services they currently offer students. They also seek to know whether students have access to interview preparations, internship opportunities and alumni connections.

Graduates are very interested in the chances of employment as the massification of higher education is the reason that many students choose this educational pathway to improve their chances for a job or a good job.

1.1 PURPOSE OF THE STUDY

The purpose of this study is to increase understanding and knowledge of employability and employment of university graduates, with a specific focus of the analysis for the case of North Macedonia and to analyse the employment of South East European University graduates through years.

1.2 OBJECTIVE OF THE STUDY

The specific objectives of the study are as follows:

- To investigate, and provide information about, the employment and employability of the graduates of Higher Education Institutions around Europe and in North Macedonia.
- To analyse the employment rate of the graduates of Higher Education Institutions.
- To analyse the employment rate of South East European University graduates.

1.3 SIGNIFICANCE OF THE STUDY

This research aims to fill the gap in the literature on the topic of employability and employment of university graduates which is at the beginning of research, especially for the case of North Macedonia.

The closer examination of the data of South East University employment with North Macedonia and European Union countries, gives the possibility to analyse, compare and have an overview of the evolution of its graduates' employment through the years.

This study will also add to the literature for employment of graduates and should prove to be a contribution for further research in the field, which can serve as a starting point for investigating factors that might be important when arguing about employability and employment of university graduates in North Macedonia and beyond.

1.4 RESEARCH QUESTIONS AND HYPOTHESES

1.4.1 Research questions

1.4.2 The study addresses the following research questions:

- What is the employability rate of the graduates of Higher Education Institutions in North Macedonia?
- What is the difference in the rate of employability in different targeted countries?
- How employable are the graduates of Higher Education Institutions?
- How much time is needed for a graduate to get a job?
- What are the skills of the graduates the labor market values the most?
- What can make the graduates more employable?

1.4.3 Hypotheses

H1: There is substantial difference in the rate of employment for graduates of Higher Education Institutions in different countries.

H2: Demographic factors age and gender and success in education affects the graduate's employability.

H3: Some soft skills of graduates match the requirements of the job market.

H4: More than 50% of SEEU graduates seeking for employment, get employed within the first year of graduation.

1.5 RESEARCH METHODOLOGY

In order to confirm the validity of the hypotheses and to put forward results with scientific confidence the research methods used are:

- narrative methodology - enabled with the analysis of the data of different years and countries related to employability of Higher Education graduates.

- comparative methods - in which case the employment rate, sectors of employment, period of employment after graduation are analysed.

- econometric models - to estimate the relationship between the degree they get and the job they get/ don't get.

The data used are mainly from: Euro Stat, Statistical office of North Macedonia, Reports from Higher Education Institutions, Agency of Employment of the Republic of North Macedonia and data from Employability Reports of South East European University.

1.6 OVERVIEW OF THE STUDY

Chapter 2 provides a review of literature related to the study, including the concepts of employability and employment, different approaches to employability, factors affecting graduate employability, employability skills, ways of measuring employability, Higher Education links with employability and labor marked demand for skills.

Chapter 3 gives an overview for North Macedonia's structure of higher education, employment and unemployment rates of graduates, and employment/unemployment by gender. Also, this chapter treats the employability of graduates of European Union countries and it gives a comparison of higher education graduates' employment rate within different age categories.

Chapter 4 consists of analysis and comparison of South East European University graduate's employment rates from 2007 until 2019. The chapter includes overall employment/unemployment rate, sectors of employment, the relation between Grade Point Average (GPA) and employment/unemployment, the time period of getting a job after graduation, school to work transition, employment rates within Faculties, study program rating from graduates and Career Center impact on employment of graduates.

Chapter 5 consists of comparative analysis of employment rate data between South East European University, North Macedonia and European Union countries.

Chapter 6 presents the findings, conclusions and recommendations for studies in the field. Furthermore, it addresses recommendations for North Macedonian government policy makers, South East European University and other universities in North Macedonia.

2 THEORETICAL ASPECT AND LITERATURE REVIEW

2.1 THE CONCEPT OF EMPLOYABILITY

Employability is a term that is defined and understood differently, depending on the perspective and point of view of the research and researchers. It is an ambiguous term, which in the literature is used in a variety of contexts and with a range of meanings. Employability tends to have a variety of meanings in use, ranging from the employment rates of graduates from an institution to a characteristic of an individual graduate (Harvey, 2004).

Researchers suggest that the meaning of employability has changed systematically over the last three decades or so, depending on the labor market conditions and government policies of the time (Grip, Loo, & Sanders, 2004).

There is a broad understanding of what qualities, characteristics, skills and knowledge constitute employability both in general, and specifically for graduates.(Lowden, Hall, Elliot, & Lewin, 2011).

In order to discuss the meaning of the term, initially we will present and elaborate three ways of defining employability: new graduates getting a job, a set of skills and a combination of factors.

2.1.1 Employability - New graduates getting a job

Generally, when we talk about employability we talk about new graduates and their capacity of getting a job. There are many research definitions that focus on this approach.

Employability refers to a new graduate possessing a set of skills and/or competencies that enable him or her to compete and secure employment, whether in formal employment, self-employment or any career (Harvey, 2004). Employability is frequently understood as being the same as graduates' establishment in the job market after graduation (Stiwne & Alves, 2010). Employability is about having the capability to gain initial employment, maintain employment and obtain new employment if required (Hillage & Pollard, 1998).

Employability is graduates' ability to sustainably hold one's own in the labor market (in employed or independent word, with national or private institutions, at home or abroad) (European Higher Education Area, 2020).

2.1.2 Employability - Set of Skills

Besides new graduates and their capacity of getting a job, depending of the context, when we talk about employability, we are talking about a certain type of skills. Several definitions from research are deployed in that direction.

Employability refers to a new graduate possessing a set of skills and/or competencies that enable him or her to compete and secure employment, whether in formal employment, self-employment or any career (Harvey, Locke, & Morey, 2002).

Employability is a set of achievements, skills, understanding and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupation (ESECT, 2020). The combination of skills, competencies enables the adaptation to changes occurring in the world of work (Andreas, 2018).

Employability can be understood as the possession of basic `core- skills', or an extended set of generic attributes, or attributes that a type of employer (discipline-linked, sector-related, company-type) specifies. Sometimes they get specified in detail or, more often, shorthand- `key skills', for example is used (Harvey, 2001).

While employers view employability as the skills looked for in new employees, universities view employability as the skills and attributes demanded of their graduates to enable them to be more employable and able to cope with change.

2.1.3 Employability - Combination of factors

Many other authors and policy makers approach employability as a set of different factors. Employability is the combination of factors which enable individuals to progress toward or get into employment, to stay in employment and to progress during their career (Perez, Garrouste, & Kozovska, 2010).

Employability can be defined as a synergic combination of personal qualities, skills of various kinds and disciplinary understanding (Knight & Yorke, 2002).

According to Hillage and Pollard, Employability is the capability to move self-sufficiently within the labor market to realize potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labor market environment) within which they seek work (Hillage & Pollard, 1998).

People are more employable when they have a more expanded basic education and training, basic and transferable high-level skills, including teamwork, problem solving ability, but also skills in information and communication technologies and communication and language skills (Andreas, 2018). This combination of skills, competencies enables the adaptation to changes occurring in the world of work (Andreas, 2018).

Employability is a set of attributes, skills and knowledge that all labor market participants should possess to ensure they have the capability of being effective in the workplace – to the benefit of themselves, their employer and the wider community (CBI 2011)(Trought, 2017, p. 22).

The European Centre for the Development of Vocational Training (CEDEFOP) also defines employability as a set of factors. Employability is a combination of factors (such as job-specific skills and soft skills) which enable individuals to progress towards or enter into employment, stay in employment and progress during their careers (EUROPEAN Centre for the Development of Vocational Training, 2020).

2.1.4 Other approaches to employability

The three approaches initially proposed for defining employability, reflect the complexity of meaning and understanding of the term. There are other approaches to define this concept. According to Harvey, there are two broad approaches to defining employability: job getting and individual attribute development (Harvey, 1997, p. 3).

- The Job getting approach defines employability as:

- The ability to secure a job after graduation through

- The ability to secure a graduate (or appropriate) job within a specified time after graduation to

- The ability to secure a graduate (or appropriate) job within a specified time after graduation, to retain the post and to develop and succeed within the chosen career

- Individual attribute development defines employability as (Harvey, 1997, p. 3):

- Developing a range of attributes employers want.

- Developing a range of attributes necessary for career progression.

- Exhibiting a range of attributes that employers anticipate will be necessary for the future effective functioning of their organization.

-Developing a range of attributes to become a critical lifelong learner.

Approach on defining employability also depends from the institutions/stakeholder that are giving the definition. Higher education institutions, employers and graduates have diverse ways of defining employability. Employers usually approach employability as the skills looked for in new employees, universities view employability as the skills and attributes demanded of their graduates to enable them to be more employable.

Employability is about making closer links between education and the world of work (Harvey, Locke, & Morey, 2002).

The European Commission constantly analyses, treats and stresses the importance of the issue of employability of graduates and gives information about it. In the Eurydice report of 2014 related to the approaches on employability it is written that: “Some countries conflate employability with employment by taking an employment-centred approach that focuses primarily on graduate employment rates. Others put the accent on skills development, emphasizing the competences relevant for the labour market that need to be acquired through higher education. Several countries combine these two perspectives”. (Eurydice Report, 2014, p. 11).

2.2 FACTORS AFFECTING GRADUATES EMPLOYABILITY

In this section, the factor affecting employability as found in literature are examined, thus answering the question "What makes a graduate employable of less employable?". Authors say that there are a lot of elements and factors that make a person employable.

Hillage and Pollard (1998) describe four elements necessary for one to be employable: 1) employability assets, 2) use and deployment of one's employability assets, 3) presentation of employability assets, and 4) the context within which one seeks work (Hillage & Pollard, 1998).

Brewer (2013) states that: "Individuals are most employable when they have broad-based education and training, basic and portable high-level skills, including teamwork, problem solving, information and communications technology (ICT) and communication and language skills. This combination of skills enables them to adapt to changes in the world of work". (Brewer, 2013).

Employability of graduates is challenging area and a developing topic in the European Union countries. For the European Commission, the issue of employability extends beyond the simple monitoring of graduate employment rates. The commission addresses many areas of actions and measures that can help countries on increasing youth employability (European Commission/EACEA, 2017). Figure 1 presents the structural indicators on Graduate Employability in Europe.

Figure 1. Structural Indicators on Graduate Employability in Europe – 2016 European Commission

Source: EACEA, European Commission 2016

2.3 EMPLOYABILITY SKILLS

Employability skills are a tightly linked concept to employability. A significant amount of research related to employability analyses employability skills. One key aspect of employability is the ability to demonstrate employability skills and present them to the market in an accessible way once a job is identified (Hillage & Pollard, 1998).

Employability skills are labelled and named in differently from different agencies and depending on the country (Brewer, 2013, p. 7), as given in Table 1.

Table 1. Employability skills in different countries/institutions

Terminology: a selection	
United Kingdom	Core skills, key skills, common skills
New Zealand	Essential skills
Australia	Key competencies/ employability skills/ generic skills
United States	Basic skills, necessary skills, workplace know-how
Singapore	Critical enabling skills
France	Transferable skills
Germany	Key qualifications
Switzerland	Trans-disciplinary goals
Denmark	Process independent qualifications
ASEAN	Employability skills
Latin America	Key competencies, work competencies
European Commission	Key competencies
OECD	Key competencies
ILO	Core work skills/ core skills for employability
EFA- GMR	Transferable skills

Source: Enhancing youth employability: What? Why? and How? Guide to core work skills (Laura Brewer)

Related to this, in the book *Graduate Attributes, Learning and Employability* is written: "*In a context there has been increasing educational attention paid to what are variously called 'generic skills', 'core skills' or 'basic skills', or, more recently, 'employability skills'. Sometimes they are referred to as 'competencies' rather than as 'skills'. The term 'generic skills' and its cognates are widely used to refer to a range of qualities and capacities that are increasingly*

viewed as important in all walks of life, though the main focus is usually on their role in work and in education viewed as a preparation for work. Typical 'generic skills' cluster around key human activities such as communication, working with others, gathering and ordering information, and problem solving" (Hager & Holland, 2007, p. 16).

According to the International Labour Organization, employability skills are: the skills, knowledge and competencies that enhance a worker's ability to secure and retain a job, progress at work and cope with change, secure another job if he/she so wishes or has been laid off and enter more easily into the labor market at different periods of the life cycle.

The skills are analysed in attempt to help higher education entities know better what profile of graduates the labor market values and needs the most. There are different researches that attempt to focus on identifying the skills employer seeks. Most of them consist of skills presented in the Dearing Report. Set of skills employers want every graduate to have: Communication, Numeracy, IT and Learning how to learn at a higher level (Dearing Report, 1997).

Another categorization of skills is the one done by Brewer, presented in Table 2. The core employability skills from the various matrices have been pooled under four broad skill categories: learning to learn; communication; teamwork; problem-solving (Brewer, 2013).

Table 2. Core Skills

Broad skill category	Core work skills/ abilities
Learning to learn	• think abstractly • use learning techniques to acquire and apply new knowledge and skills • organize, process, and maintain information • interpret and communicate information • pursue independent learning • conduct systematic inquiry; and follow through to find answers • take responsibility for own learning • spend time effectively • stay on task • select the best approach for tasks • begin, follow through and compete tasks • manage own learning • adaptable • works safely • is willing to learn • uses time efficiently without sacrificing quality
Communication	• competent in reading • write to the needs of an audience • write effectively in the languages in which the business is conducted • listen and communicate effectively • listen to understand and learn • read independently • read, comprehend and use materials, including graphs, charts, displays • understand and speak the language which the business is conducted • use numeracy effectively • articulate own ideas and vision
Team work	• interact with co-workers • understand and contribute to the organization's goals • work within the culture of the group • plan and make decisions with others and support the outcomes • work in teams *or* groups • respect the thoughts and opinions of others in the group • *coach,* mentor and give feedback • lead effectively • lead when appropriate • mobilize a group for high performance • manage oneself at work • accountability for actions taken • build partnerships and coordinate a variety of experiences • work toward group consensus in decision-making • value others' input

Source: Enhancing youth employability: What? Why? and How? Guide to core work skills (Laura Brewer)

The Internal Labour Organization distinguishes basic, technical and core skills described as in the tables 3, 4 and 5.

Table 3. Basic Skills

Indicators for basic skills			
Outcome	**Name of indicator**	**Description**	**Source**
Basic skills	Youth literacy rate	The ability to read and write. The OECD offers the Education and Skills Online Assessment, which provides individual-level results linked to the Program for the International Assessment of Adult Competencies (PIAAC). The assessment contains modules on literacy and numeracy, as well problem solving. The test can be taken from the age of 15 and therefore fits well with conventional classifications of young people as 15-24 (see http://www.oecd.org/skills/Esonline-assessment/). Enrolment in and/or completion of primary education can be used as a proxy for literacy, although certain individuals may have had some schooling but still be illiterate, while others may have had no schooling but may be literate. Basic literacy is an important prerequisite for many types of further learning.	OECD (2000)
	Youth numeracy rate	The ability to understand and work with numbers. See above for comments and sources.	OECD (2000)
	Youth oral communication rate (speaking and listening)	Oral communication is the dynamic process by which people exchange thoughts, ideas and messages. Listening is the act of interpreting sounds and/or visual stimuli and using those interpretations to give them meaning. The Children, Youth and Families Life Skills Project (CYFAR) developed the "communication scale" to assess the youth's ability to communicate by examining the frequency of use of the following skills that are necessary for effective communication practices: 1. Awareness of one's own styles of communication 2. Understanding and valuing different styles of communication 3. Practicing empathy 4. Adjusting one's own styles of communication to match others' styles (communicative adaptability) 5. Communication of essential information 6. Interaction management	Barkman et al. (2002)

Source: Concepts and definitions of employment indicators relevant to young people, International Labour Organization 2018

Table 4. Technical Skills

Indicators for technical skills			
Outcome	Name of indicator	Description	Source
Technical skills	Job-task measures of skill use at work	Calculated as the proportion of workers performing various job tasks (either in terms of frequency or at different levels of complexity). These job tasks would cover: reading, writing, numeracy, use of IT, communicating, and teamwork, learning new things, physical work and manual dexterity. These job-task indicators provide more direct measures of the board or generic skills required by employers than do educational qualifications of workers	Keese and Tan (2013).
	Participation in apprenticeships	Proportions of youth (aged 15-24) that are apprentices (in either modern or traditional apprenticeships). Needs to be obtained from primary sources. Provide a measure of an important source of learning and skills formation that is not captured by the other proposed indicators of participation in education and training.	Keese and Tan (2013).
	Employer-reported technical skills	Improved technical skills, as reported by the employer. Needs to be obtained from primary sources. This measure can only be used for programs with a practical component, such as internships or apprenticeships. Regular feedback on the technical skills of the participants can help to show which modules of the training are most readily assimilated by the participants.	
	Share of tertiary graduates (enrolments) in STEM subjects	The ratio of either graduates or enrolled students in STEM (science, technology, engineering and mathematics) subjects to all graduates or all enrolled students. Note that the relevance of this indicator depends on the skills requirements specified by employers. Provides and indicator of the focus of the tertiary education system on a key area of skills demand that drives economic growth as well as on the potential supply of new labour market entrants with science and technology skills.	Keese and Tan (2013).

Source: Concepts and definitions of employment indicators relevant to young people, International Labour Organization 2018

Table 5. Core Skills

Indicators for core skills			
Outcome	Name of indicator	Description	Source
Core skills	Self-esteem/ self-image	A positive or negative orientation towards oneself, evaluation of one's worth or value. The Rosenberg self-esteem scale is composed of ten items and assesses and individual's feelings of self-worth when the individual compares himself or herself to other people. It is a self-reported measure, aimed at the high-school age cohort.	Schwarzer et al. (1995).
	Self-efficacy/ confidence	Belief in one's ability to succeed in a particular situation. The "general self-efficacy scale" assesses a general sense of perceived self-efficacy with the aim of predicting how an individual will cope with daily stresses and their ability to adapt to different life situations. Self-efficacy is believed to positively affect goal-setting, assertiveness, persistence and effort.	Schwarzer et al. (1995).
	Communication skills	Ability to convey information effectively so that it is received and understood; appropriate verbal/ non-verbal communication with colleagues, managers and customers / others. The "communication scale" is designed for youth aged 12-18 and assesses youth's ability to communicate, focusing on the following skills: awareness of one's own styles of communication, understanding and valuing different styles of communication, practicing empathy, adjusting one's own style of communication to match others' styles, communication of essential information, interaction management.	Barkman et al. (2002)
	Problem solving	Ability to identify problems and devise solutions. The "solving problems scale" is a 24 item scale which assesses youth's problem-solving abilities by examining the frequency of use of the following skills that are needed to engage in problem solving: (1) identify/ define the problem; (2) analyse possible causes or assumptions; (3) identify possible solutions; (4) select best solutions; (5) implement the solution; (6) evaluate progress and revise as needed.	Barkman et al. (2002)

Source: Concepts and definitions of employment indicators relevant to young people, International Labour Organization 2018

One of the main difficulties with skills is the possibility to measures them. In study report of The European Commission, the skills measured in studies are classified as described below in Table 6 (Humburg, Velden, & Verhagen, 2013).

Table 6. Measurement of skills

Skill measured in study	**Definition**
Professional expertise (specific body knowledge)	Knowledge and skills needed to solve occupation-specific problems
General academic skills	Analytical thinking, reflectiveness, and the ability to see the limitations of one's own discipline
Not measured	
Innovative/ creative skills	Ability to come up with new ideas and to approach problems from a different angle
Strategic/ organizational skills	Ability to act strategically toward the achievement of organizational goals and priorities
Interpersonal skills	Ability to work in a team and communicate an cooperate effectively with diverse colleagues and clients
Commercial/ entrepreneurial skills (ability to turn an idea into a successful product)	Ability to recognize the commercial value of an idea and to search for and pursue opportunities to turn them into successful products
International orientation (both aspects)	Proficiency for foreign languages and intercultural skills, that is the ability to work with people from different cultural backgrounds and to adapt to new cultural contexts

Source: The Employability of Higher Education Graduates: The Employers' Perspective, European Commission 2013

In the report is underlined that General academic skills are a key element of being a graduate and are expected to be part of the skills panorama of university graduates.

General academic skills are, in other words, a key element of being a graduate and employers expect all graduates within a team to have a sufficient level of it. (Humburg, Velden, & Verhagen, 2013).

2.4 MEASURING EMPLOYABILITY

As discussed, employability has a range of definitions, consequently there are different ways and methods of measuring employability. The groups interested to measure employability except countries are universities, employers and policy makers.

According to (Hillage & Pollard, 1998) there are various methods of measuring employability: Input measures, Perception measures and Outcome measures.

Related to measurement of employability, Harvey finds that while going from the theoretical definition to any measuring index related to employability, approaches usually begin with measurement methods rather than with conceptual speciation. According to Harvey, the correct sequence is made of six steps. The table below shows how three different approaches to measuring employability can produce three different results (Harvey, 2001).

Table 7. Ways of Measuring Employability

Alternative	**1**	**2**	**3**
Stage1 : Theoretical definition	Employability is the ability to gain and retain fulfilling work (Hillage and Pollard, 1998)	Employability is the propensity of the graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organization (Harvey, 1999)	Employability is the ability of the graduate to get a satisfying job
Stage 2: Dimensions	Nature of employment, time after graduation, income, discipline	Range of attributes: team working, communication, risk taking, etc.	Financially rewarding, interesting, delegated responsibility
Stage 3: Indicators (examples)	Is the graduate employed? Is the employment linked to degree subject? Does it involve graduate skills? Does it have scope to be 'grown'?	Team working: experience of working in teams; experience of leading teams; ability to play different roles in different teams simultaneously, tec.	E.g. delegated responsibility: control over flexible working; specify direction; make strategic decisions…
Stage 4: Selection	Is the graduate employed within six months of graduating?	Set of key attributes, which may have a discipline-specific	Set of indicators of job satisfaction

		element	
Stage 5: Instruments	Survey of recent graduates' employment activity	Evaluation of graduates' abilities	Satisfaction survey of graduates in work
Stage 6: Decision	Simple indicator of employment	Complex set of indicators of graduates' abilities	Array of single indicators of graduate satisfaction

Source: Defining and Measuring Employability, Harvey Lee

Indicators of Individuals' employability developed in some schools according to (Hillage & Pollard, 1998) are: Employability Endorsement; Certificate of Employability; Employability Skill: Student Portfolio; Work Key System.

Very often, the employment rate is used in measuring graduate employability. The employment rate is the percentage of employed persons in relation to the comparable total population. For the overall employment rate, the comparison is made with the population of working-age; but employment rates can also be calculated for a particular age group and/or gender in a specific geographical area (for example the males of age 15-24 employed versus the total in one European Union (EU)Member State)[1].

It is important to underline there is a difference between employability and employment. Datta, Pellissery and Bino are of the view that becoming employed means having a job and being employable means possessing the qualities necessary to maintain a job, make a smooth transition from one workplace to another and progress in different workplaces (Datta, Pellissary, & Paul, 2007).

[1] European Unionhttps://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Employment_rate

2.4.1 Enhancing Employability

One aspect of the importance of measuring employability is the possibility of enhancing it. Employability is enhanced by: bringing employers into the course design process, modifying courses to match industry needs, using guest lecturers from business, and building links with local employers. (Harvey, Locke, & Morey, 2002, p. 7).

The importance and need of employability skills for enhancing employability is a topic treated and analysed by policy makers, and because the skills requirements of the job market are changing very fast; some studies even go on the approach of anticipating skills need change[2].

Four ways of enhancing student employability, according to Knight and Yorke (Knight & Yorke, 2003), are:

1. Work Experience

Employers generally prefer to hire people who have workplace experience, especially employability and those who can show what they have learned from it, so one way of increasing students' competitiveness in the labour market is to design work attachments into degree programs.

2. Entrepreneurship Modules

Although there is a lot of interest in adding entrepreneurship to the curriculum, this strategy is open to much the same objection as work attachments. Good enrichment strategies have most impact when the underlying curriculum stimulates those complex learning achievements that underlie entrepreneurship. Detached, one-off modules can be valuable, but they are also risk of being treated as marginal.

3. Careers Advice

If, as in the UK, employability is 'measured' in terms of the percentage of students in work 6 months after graduation, then an institution's contribution to student employability (and its performance in this respect) could be related to the quality of its careers service. The main problem is that many careers advisers do not usually have an input into program design and

[2] See "Enhancing employability" Report prepared for the G20 Employment Working Group, 2016 https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_563295.pdf

delivery, and may find themselves advising students whose programs have done little to help them make strong claims to employability. Good careers advice is of course a necessity, but it is no substitute for degree programs designed with the employability policy in mind.

4. Portfolios, Profiles and Records of Achievement

Portfolios (sometimes called profiles, sometimes records of achievement) should get students reflecting on their achievements; collecting and presenting supportive evidence; identifying and then acting on priorities for development. Significant problems may be that students have been indifferent, academic staff may claim that they have more important things to do than to wade through complex documentation, and portfolios cannot retrieve the situation for programs that pay no other attention to employability.

2.5 HIGHER EDUCATION AND EMPLOYABILITY

Higher education institutions seek to improve the employability of their graduates in/with different approaches (Mason, 2011). Since University performance is already measured against/with research and teaching quality (Lees, 2002), there is a discussion that employability should or should not be a factor when measuring University performance. The dilemma, and the complexity here, is how to measure the quality of employment? What work positions would mean successful employment for Universities? Despite the discussion and arguing about the doubt in the research world, some rankings include the employment rate of graduates when ranking universities (Topuniversities, 2020) (HESA, 2020).

There are also attempts when the employment rates of graduates, calculated in different ways, are used for promotional and advantage in the market (University of London, 2020). Related to this, Harvey states: If the notion of employability is to contribute to the quality of higher education, it is rather important to disentangle competing preconceptions about what it is, how it might be measured and promoted (Harvey, 2001).

Since the 1990s there have been increasing examples of HEIs working to address employability within their courses and systems. The literature includes examples and case studies of HEIs working to promote employability, often working closely with employers to provide placements

and work-based learning opportunities (Lowden, Hall, Elliot, & Lewin, 2011). Many universities now seek to attract students by promising to enhance their employability skills (Trought, 2017, p. 51).

After the massive and rapid growth of graduates in the past years employability stopped being taken for granted by HEI. In the EU countries, but also in the region generally, one contribution of Higher Education Institutions to employability is seen in the tendency of measuring graduate employment rates months after graduation. In the UK there is a (Treasury) view that HEIs' contribution to employability can appraised by looking at employment rates approximately 6 months after graduation (Knight & Yorke, 2003). HEFCE (2001) measures employability in terms of graduates getting jobs, any jobs.

In context of HEI and employability, it is important to mention that there is a discussion if employability is attributable to HEI or individuals. Harvey prefers the approach that employability is a propensity of the individual student to get employment (Harvey, 2001). On the other hand, there are researches that approach and give attributes for employability to HEI. For example (Hillage & Pollard, 1998) equates employability with the gaining and retaining of fulfilling work and entering in the job market. Related to this Harvey states that there are two interrelated problems with such pragmatic measures: first, the insistence that `employability' should be measured by outcomes in the form of recent graduate employment rates; and second, the tendency to slide into a view that employability is an institutional achievement rather than the propensity of the individual student to get employment (Harvey, 2001).

Some authors think that employability enhancing is the equal responsibility of the HEI and the individuals. In the book *Brilliant Employability Skills* it is stated: *The ability to think critically, to master information and to communicate the results of research should all be developed at university. But other employability skills, equally valuable at work – such as teamwork and problem-solving – are less obviously relatable to traditional academic study. And even when such skills should emerge from higher education, if they are not developed alongside a growing commercial awareness, they may not readily transfer to employment* (Trought, 2017, p. 51).

UKCES (2009a) state that opportunities such as placements and internships not only seem to offer an effective applied method of inculcating appropriate awareness, skills and abilities in graduates but can also promote productive collaboration and partnerships between HEIs and employers, building greater understanding between these stakeholders (Lowden, Hall, Elliot, & Lewin, 2011).

Today in the world the focus is more a collaboration between businesses and universities to identify the skills gap to ensure students jobs. Businesses need to work more closely with universities to make sure the right skills are being developed. Businesses have a role to play in defining the skills needed for the future in order to compete, but in order for universities to translate these skills into the curriculum there is a need for collaboration. Businesses are also required to provide opportunities for students to develop their skills in a live environment.

2.6 LABOUR MARKET DEMAND FOR SKILLS FROM UNIVERSITY GRADUATES

One of the main objectives of education in universities, colleges, institutes and graduate schools is to prepare people for more complex forms of work and employment by equipping them with the knowledge and skills needed by employers (Branine, 2008).

Recently, the concept of employability has become more important due to the changing nature of the graduate labor market. A skill gap is the gap between an employee's ability and an employer's expectations of an organization. A competency gap is the big issue that is faced by the both employees and employers in today's environment (Bano & Shanmugan, 2019).

In this discussion of skills possession/ lack of possession, there tends to be an overestimating value of skills possession by the graduates. The graduates tended to overestimate themselves, while the employers argued that graduates lacked the necessary skills (Matsouka & Mihail, 20016).

Analyses are being done related to the skills that employers and the job market want from the graduates. Some of the conclusions from different authors are presented in following. In 1997 in his study, Harvey came to a conclusion that employers want graduates with knowledge,

intellect, willingness to learn, self-management skills, communication skills, team-working and interpersonal skills (Harvey, 1997).

Another study conducted in 2011 measuring the expectations of employers related to graduates concludes: employers expect graduates to have technical and discipline competences from their degrees but require graduates also to demonstrate a range of broader skills and attributes that include team-working, communication, leadership, critical thinking, problem solving and managerial abilities (Lowden, Hall, Elliot, & Lewin, 2011).

Employers look for people who would 'fit in' and become a valued part of the organization and can start contributing to get the job done without delay. While the chances are high that most of the employers will be on the lookout for some job-specific skills, it is also true that at the same time they also want the *candidate* to have some general skills (Brewer, 2013).

A combination of technical and non-technical skills is demanded by the employers. Today's employers require employees to have soft or non-technical skills in addition to technical skills (Mansour & Dean, 2016).

Some researchers have found that the skills appreciated highly are the same in different career areas. The employers seek a range of skills or in other words the Employability Skills, which are sometimes referred to as the Generic skills, in a graduate during the hiring process. They are looking for a mix of skills, abilities, interests, values and personal qualities. Most of these skills are common to a number of different career areas (Rahman & Mehmood, 2014).

Knight and Yorke (2003) found that small and medium enterprises valued skill of oral communication, handling one's own work load, team-working, managing others, getting to the heart of problems, critical analysis, summarizing and group problem-solving. Valued attributes included being able to work under pressure, commitment and working varied hours (Knight & Yorke, 2003).

Branine (2008) while researching graduate recruitment argues that higher education institutions have prominent roles to play in preparing students for employment and that it is their duty to do so. But, he also brings forward the other side of the discussion, which is that higher education institutions are not employment and training agencies and that their role is to enhance knowledge and learning regardless of what employers require (Branine, 2008).

Employers while recruiting and hiring, value a lot the work experience of the graduates. The report of the European Commission, *The Employability of Higher Education Graduates: The Employers' Perspective*, present findings that employers' preference for graduates with a bachelor's degree and two years of work experience is comparable to their preference for graduates with a master's degree and one year of work experience, with the bachelor with the two years of work experience even having some advantage (Humburg, Velden, & Verhagen, 2013), a result perhaps not surprising given employers' rather modest preference of master's degrees over bachelor's degrees, and their strong preference of relevant work experience over no relevant work experience.

As for the skills employers want, in the report of the European commission the skills are rated from employers as follows (Humburg, Velden, & Verhagen, 2013) in Table 8.

Table 8. Skills importance from employers

Skill measured in study	**Definition**
Professional expertise (specific body knowledge)	Knowledge and skills needed to solve occupation-specific problems
General academic skills	Analytical thinking, reflectiveness, and the ability to see the limitations of one's own discipline
Not measured	
Innovative/ creative skills	Ability to come up with new ideas and to approach problems from a different angle
Strategic/ organizational skills	Ability to act strategically toward the achievement of organizational goals and priorities
Interpersonal skills	Ability to work in a team and communicate an cooperate effectively with diverse colleagues and clients
Commercial/ entrepreneurial skills (ability to turn an idea into a successful product)	Ability to recognize the commercial value of an idea and to search for and pursue opportunities to turn them into successful products
International orientation (both aspects)	Proficiency for foreign languages and intercultural skills, that is the ability to work with people from different cultural backgrounds and to adapt to new cultural contexts
➢ Professional expertise (19.5%) ➢ Interpersonal skills (19.1%) ➢ Commercial/ entrepreneurial skills (17.6%) ➢ Innovative/creative skills (16.0%) ➢ Strategic/organizational skills (14.2%) ➢ General academic skills (13.7%)	

Source: The Employability of Higher Education Graduates: The Employers' Perspective, 2013

Even though all parties involved in the discussion give different levels of importance to skills and employability, Higher Education representatives, employers, students and graduates agree that all overwhelmingly value work-based learning (such as placements and internships) as particularly effective approaches to promote the employability of graduates (Lowden, Hall, Elliot, & Lewin, 2011).

Higher education systems can increase human capital by improving the skills of its graduates (Knight & Yorke, 2003). Higher education should promote generic skills alongside subject-specific understandings and skills. We have difficulties with this skills-based account of employability. First, it is plain that the word 'skills' is not sufficient to capture the diverse social practices that employers have identified with employability (Knight & Yorke, 2003).

2.7 SUMMARY

The meaning of the term employability varies from graduates getting an initial job, the set of skills that helps getting the job, a combination of factors or personal attributes and similar factors. The target of universities, governments and graduates is to enhance the employability and employment of graduates.

Employability skills in some countries are called generic skills, core skills, key skills, key competences or transferable skills. According to the International Labour Organization they have the meaning of the skills, knowledge and competencies that enhance a worker's ability to secure and retain a job, progress at work and cope with change, secure another job if he/she so wishes or has been laid off and enter more easily into the labor market at different periods of the life cycle.

Employability is measured in different ways depending on the approach of the study. Some of the ways are the employment rate, transition from school to work, factors influencing employment, measuring the attributes of graduates, the nature of work gained, the level of work and other factors.

3 COUNTRY BACKGROUND

3.1 EMPLOYABILITY OF GRADUATES IN NORTH MACEDONIA

North Macedonia is one of the countries where employability is usually conflated with employment. The higher education system in North Macedonia—even though it has made important progress in some areas—still faces a lot of challenges. The main problem is the non-existence of a tripartite cooperation between the state, academy and businesses (Ministry of Education and Science of the Republic of Macedonia, 2018, p. 50).

An overview of the higher education challenges is given in the report of Ministry of Education funded by the European Union. The report states that study and subject programs do not match the labor market needs; there still occur such phenomena as plagiarism in the students' and professors' papers, and the system of practical training of students is improper (Education Strategy 2018-2015 and Action Plan, 2018, p. 49). Also, in the Higher Education system, expansion of study programs continues without proper analysis of the labor market demand and assessment of the implementation capacities (Ministry of Education and Science of the Republic of Macedonia, 2018, p. 50). In North Macedonia the systems for collecting labor needs data and for forecasting future skills needs are still at an early stage of development, which limits policy making in education.

One of the priorities in the Education system as stated by the government is improve professional orientation and career guidance services – for Primary, Secondary, Vocational and Higher Education (Ministry of Education and Science of the Republic of Macedonia, 2018, p. 57).

In the last years North Macedonia has started to give importance to the skills needed in the job market. Through the Employment Service Agency, the government in 2018 and 2019 has begun to consult and survey the employers and the job market in general relative to the skills needed

from the newly employed[3]. In the surveys conducted with representative companies and institutions, besides the need of employments for the next period of time, are provided data that reveals that employers expect specific skills from new employers, especially for the graduates from higher education institutions. In this report, besides work experience, employers most highly rated desirable skills as: knowledge of foreign languages, basic computer skills and also advanced IT skills. Other skills wanted are communication skills, ambition, responsibility, team work, trust, precision, skills for entry and reading of data, flexibility, skills for sales and marketing and management skills (Employment Service Agency of the Republic of Macedonia, 2018, p. 9). Only 8.8% of the all employments anticipated in this report should be for university graduates (Employment Service Agency of the Republic of Macedonia, 2018, p. 7).

The skills required from the eventual new employers in both reports 2018 and 2019 are similar. In the second survey we can see that IT skills are required in advanced levels with more specification for IT knowledge. Knowledge of foreign languages remains highly important for the market. Other skills wanted are communication skills, ambition, responsibility, team work, trust, precision, skills for entry and reading of data, flexibility, skills for sales and marketing and management skills (Employment Service Agency of North Macedonia, 2019).

In the Report of 2019 a slight increase in demand for university graduates is noticeable, with 9.3 % of the all employments anticipated in this survey being dedicated to be for university graduates (Employment Service Agency of North Macedonia, 2019, p. 4).

In the report for North Macedonia for European Training Foundation in 2019 about the skills mismatching of graduates and the labor market, the view is expressed that the main challenges in the area of higher education are ensuring quality and functioning of the accreditation and evaluation system, as well as ensuring that the skills and knowledge of graduates match those required in the labor market (Mojsoska-Blazevski, 2019).

In North Macedonia's higher Education System, teaching methods still place more emphasis on theory than on practice, leaving students limited opportunities to gain applied practical

[3] The last report on skills demand by the Employment Service Agency https://av.gov.mk/content/Dokumenti/Anketa%20za%20potreba%20od%20vestini%202020%20w.pdf

knowledge and experience. On the other hand, almost all open vacancies require practical experience and skills. In addition, universities fail to equip students with key interactive skills, which are not only needed for existing jobs but are also vital for adapting to a changing and increasingly flexible labor market (Mojsoska-Blazevski, 2019).

Initiatives have been taken in recent years at improving the skills of graduates; we would mention two that relate directly with skills matching and indirectly with employability. To enable students to gain some work experience during their studies, they are required to undertake a one-month internship every academic year. This requirement is not yet fully implemented in practice. Also, higher education institutions are required to ensure that 30% of the curriculum is taught by practitioners from the business sector. The goal is to introduce more practical learning and skills rather than just theoretical learning.

3.1.1 The structure of Higher Education in North Macedonia

In North Macedonia are 6 functional public universities, 1 private-public University and 9 private universities, and 2 high vocational schools. In the Education Strategy for 2018-2025 it is stated that universities had around 58 thousand undergraduate students (56% of them were female students). The gross enrolment rate of students was 34.2% (39.2% for females) and the net enrolment rate was 26.3% (30.9% for female students). In 2015/16 academic year, there were 3,034 master students and 58.9% of them belonged to the public institutions[4].

The number of graduates from HEI in North Macedonia in 2016, 2017 and 2018 is presented in Figure 1 bellow. There are 8247 graduated in 2016, 8545 in 2017, whereas in 2018 there is a decreasing number of 7689 graduates in North Macedonia.

[4] EDUCATION STRATEGY FOR 2018-2025 and Action Plan
http://mrk.mk/wp-content/uploads/2018/10/Strategija-za-obrazovanie-ENG-WEB-1.pdf

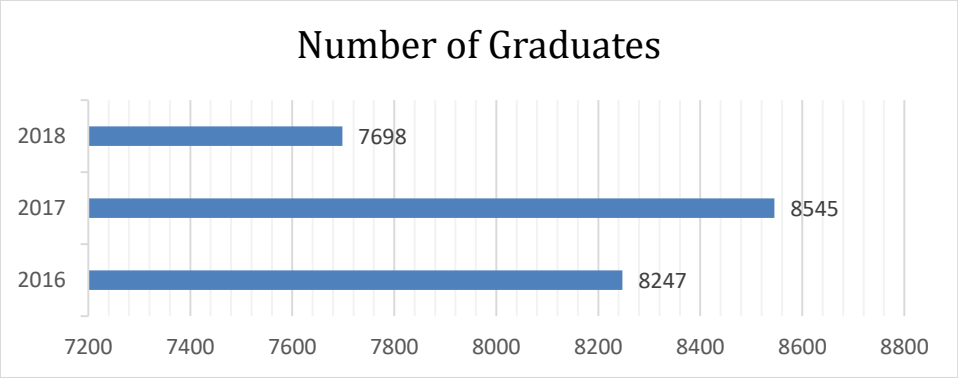


Figure 2. Number of graduates from HEI in North Macedonia

Source: State Statistical Office of North Macedonia

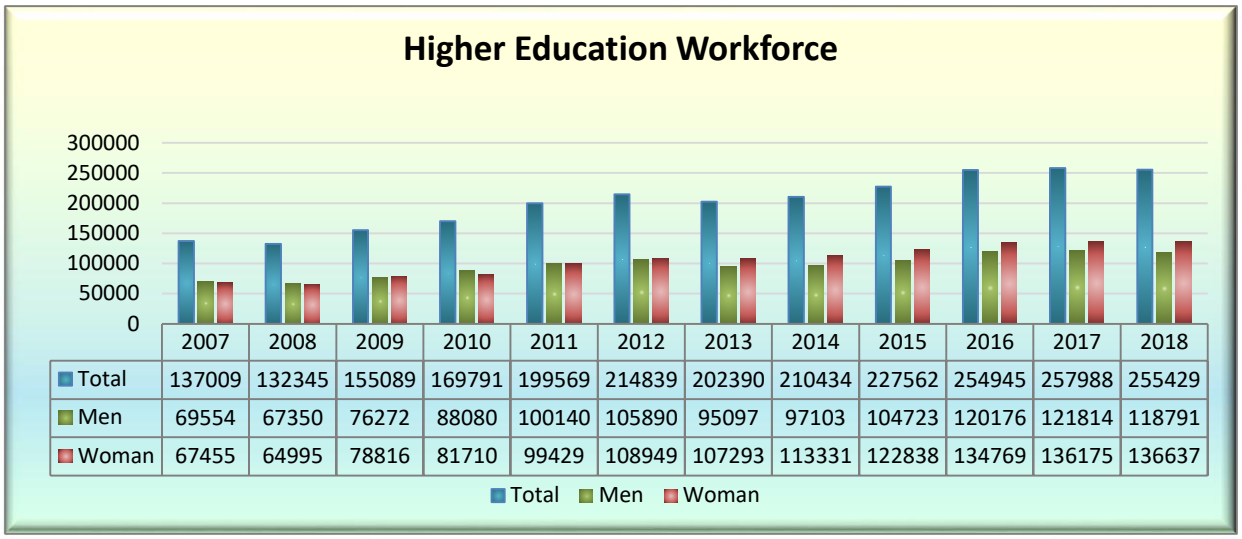
3.1.2 Higher Education workforce

Some of the challenges of the higher education system in North Macedonia were discussed in the previous section. It is also important to mention the youth low employment rates as well. The category of young people refers also to university graduates, especially the first years after graduation.

We have analysed and calculated the employment rate of Higher Education graduates from the data of the Statistical Office of North Macedonia. From the data of working age population with tertiary education we have calculated the employment/unemployment rate and several other calculations.

The total workforce with higher education presented below includes graduates from all cycles of graduates (undergraduate, master and PhD) in University and there is no age distinction in it.

The number of total work age population has increased from 2014 to 2017. The number of work age population slightly decreased in 2018, i.e. from 257,988 as it was in 2017 to 255,429 in 2018.The number of female workforce with higher education has increased in the last seven years and overcomes the number of male with higher education as work age population. Details are presented in the next figure (Figure 2).



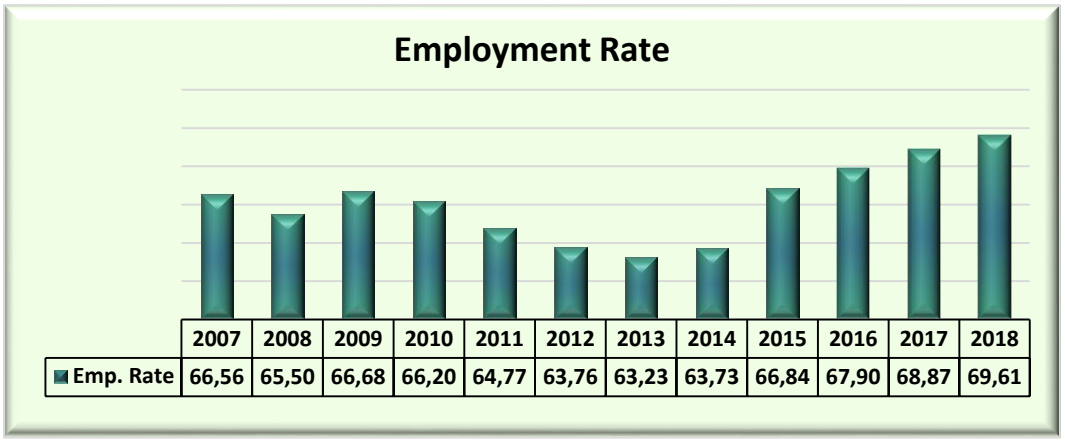
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	137009	132345	155089	169791	199569	214839	202390	210434	227562	254945	257988	255429
Men	69554	67350	76272	88080	100140	105890	95097	97103	104723	120176	121814	118791
Woman	67455	64995	78816	81710	99429	108949	107293	113331	122838	134769	136175	136637

Figure 3. Total workforce with Higher Education

Source: Authors work, data from State Statistical Office of North Macedonia

3.1.3 North Macedonia graduates Employment Rates

The employment rate of graduates from all levels of studies with higher education in North Macedonia from 2007 to 2018 is presented in the Figure 3.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Emp. Rate	66,56	65,50	66,68	66,20	64,77	63,76	63,23	63,73	66,84	67,90	68,87	69,61

Figure 4. Employment rate of graduates with higher education in North Macedonia

Source: Authors calculation based on data from State Statistical Office of North Macedonia

As can be seen in the figure above, in the past eleven years the employment rate of graduates has changed slightly. The highest employment rates are seen in the three last years with 67.70 %, 68.87% and the highest employment rate of all is in 2018 with 69.61%.

If we want to look at the unemployment rate of graduates, we can notice the highest unemployment rate is noticed in 2013 with 20.59% of unemployment through all higher education graduates. The lowest unemployment rate is in 2018 with 15.40%. The unemployment rate of graduates is calculated from the unemployed workforce with higher education and the total number of the workforce with higher education. In the data given from the statistical office, it appears that the graduates who don't seek work/are in the educational process are removed. See Figure 4 for unemployment in years from 2007 until 2018.

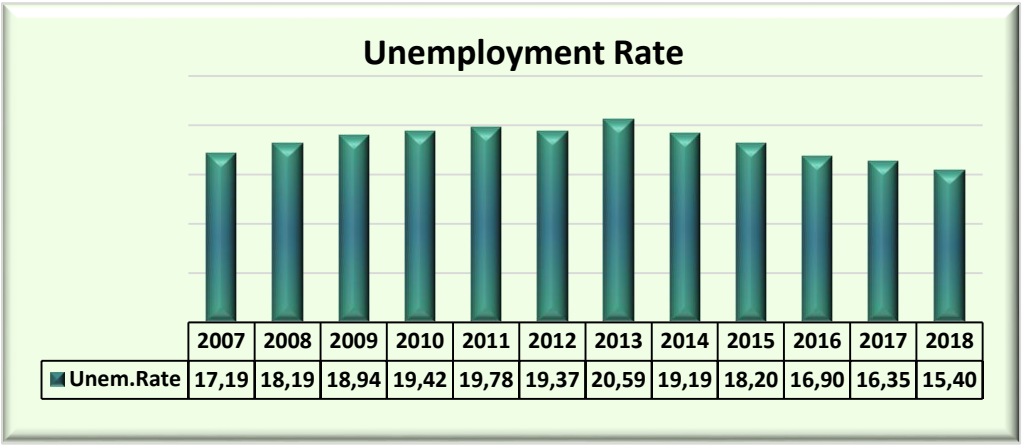


Figure 5. Unemployment rate of graduates with higher education in North Macedonia
Source: *Authors calculation based on data from State Statistical Office of North Macedonia*

When calculating the employment rates for undergraduate students, we considered the employment rates of category 20-24 years. These employment rates are significantly lower compared to the rates for all working ages with tertiary education. The categories 20-24 years are usually students who have a degree in undergraduate studies.

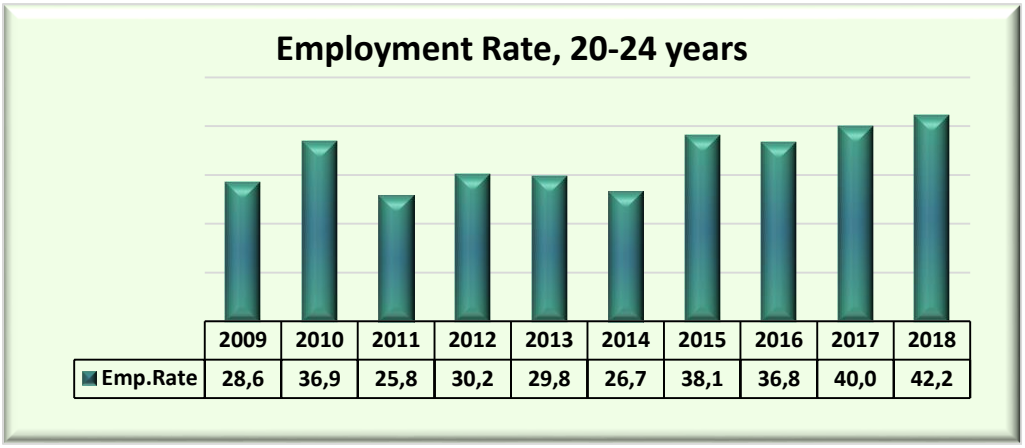


Figure 6. Employment rate of graduates with higher education age 20-24 in North Macedonia
Source: *Authors work based on data from Eurostat*

3.1.4 Employment/Unemployment by Gender in North Macedonia

If we want to look at the employment and unemployment percentages categorized by gender, the numbers are presented in the following figures 7 and 8. We mentioned above that the female work force with higher education has increased in the last years. Similarly, the percentage of employed woman with higher education has increased. Previously from 2007 until 2012 the percentage of employed men was larger. The shift looks to have happened in 2013.

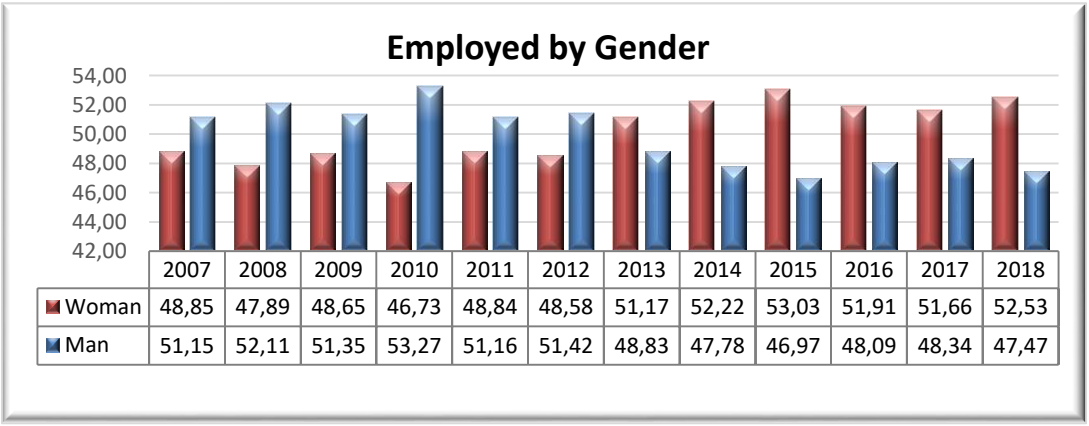
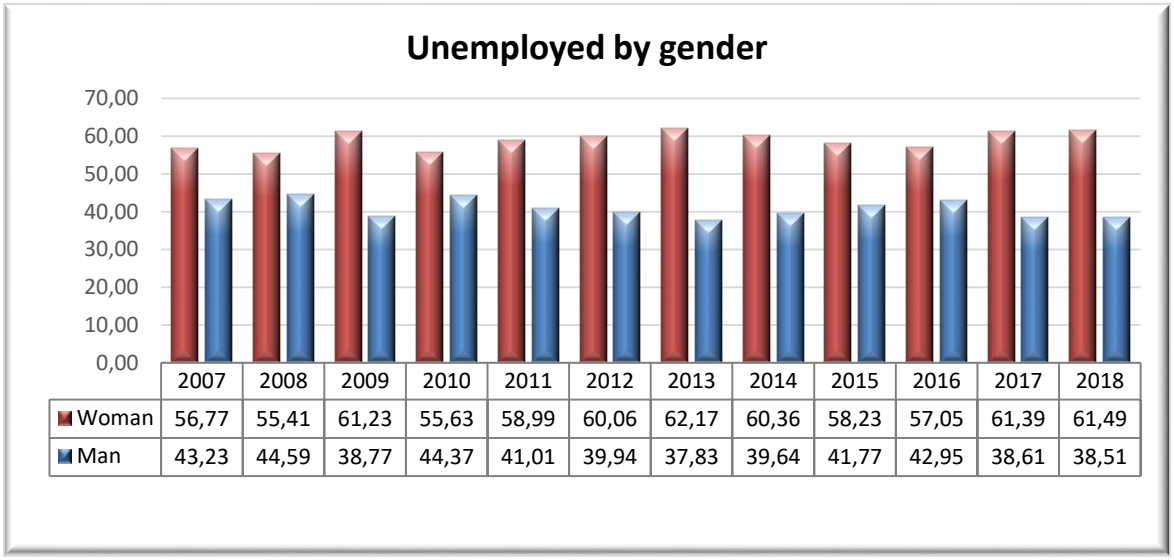


Figure 7. Employment by gender with higher education in North Macedonia
Source: *Authors work based on data from State Statistical Office of North Macedonia*

As for the unemployment percentage from the total number of unemployed with higher education women continuously have the largest unemployment rate. It important to mention that the total number of unemployed from which is calculated the percentage contains only the people who are seeking for job (not the total number of unemployed graduates with higher education).



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Woman	56,77	55,41	61,23	55,63	58,99	60,06	62,17	60,36	58,23	57,05	61,39	61,49
Man	43,23	44,59	38,77	44,37	41,01	39,94	37,83	39,64	41,77	42,95	38,61	38,51

Figure 8. Unemployment by gender with higher education in North Macedonia

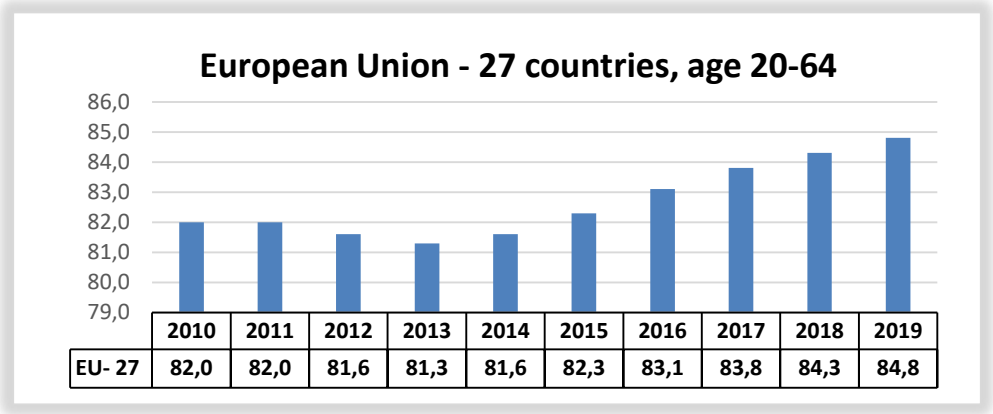
Source: *Authors work based on data from State Statistical Office of North Macedonia*

3.2 EMPLOYABILITY OF GRADUATES IN EUROPEAN UNION COUNTRIES

Enhancing the quality and relevance of tertiary education is key to tackle future skills mismatches, promoting excellence in skills development provision, and ensure a successful transition to the labor market (European Commission, 2019). Some of the agenda of the European Commission related to higher education is to broaden participation in higher education, increase completion rates and equip students with skills and competences relevant for the world of work.

The employment rates of graduates of European Union countries with tertiary education (ISCED 5-8) considering all working capable ages (20-64 years) tend to be increasing in the last five

years. From 2015 to 2019 there is an increase of approx. 2.5 percent. 2019 has the highest employment rate 84.8%.



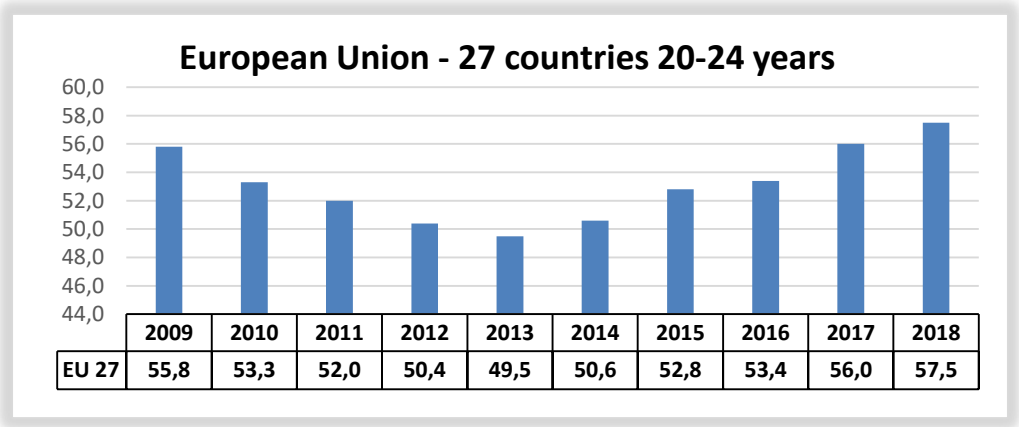
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EU- 27	82,0	82,0	81,6	81,3	81,6	82,3	83,1	83,8	84,3	84,8

Figure 9. Employment rates of EU with tertiary education (ISCED 5-8), age 20-64

Source: Authors work based on data from Eurostat

The number of people completing tertiary education is also increasing. 40.7% of population aged 30 to 34 successfully completed tertiary education (outperforming the Europe 2020 target) (European Commission, 2020, f. 14).

Trying to look at the rates of employment of undergraduate students, we analysed the employment rates of the age category 20-24 years and the results are as shown in Figure 10.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
EU 27	55,8	53,3	52,0	50,4	49,5	50,6	52,8	53,4	56,0	57,5

Figure 10. Employment rates of EU age 20-24 years

Source: Authors work based on data from Eurostat

There is a substantial difference in the employment rates of approximately 25% lower rates for ages 20-24. The employment rate for 20- 24 years is increasing as well, and the highest rate is recorded in 2019 with 57.5 %.

The trend for the ages 20-24 years and 20-64 years is shown in Figure 11.

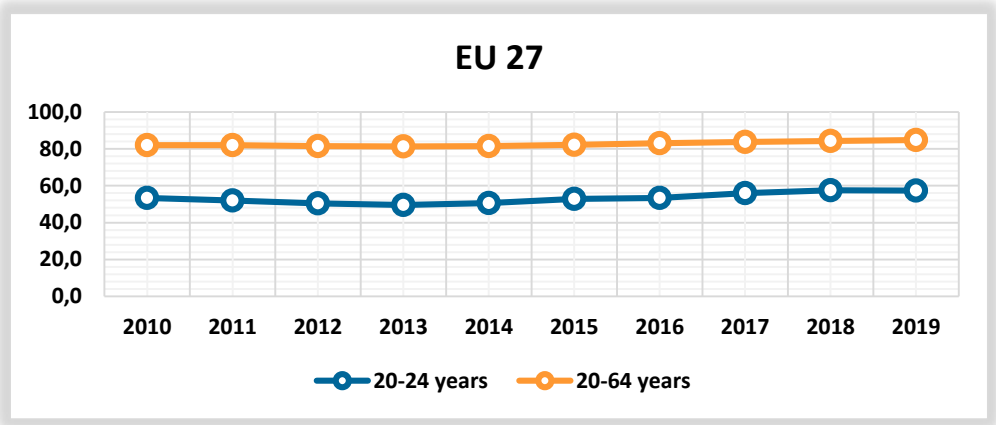


Figure 11. Employment rate of EU graduates age 20-24 and 20-64

Source: Authors work based on data from Eurostat

The trends for the employments rates for the countries part of European Union 27 for the category 20-64 years and 20-24 years is presented in Figure 12 and 13.

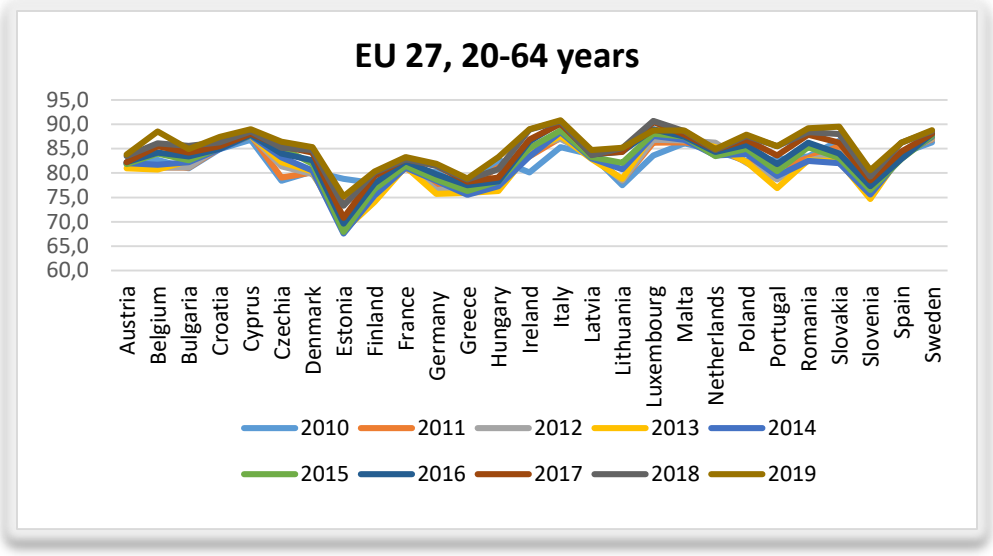


Figure 12. EU Countries employment rate age 20-64 years

Source: Authors work based on data from Eurostat

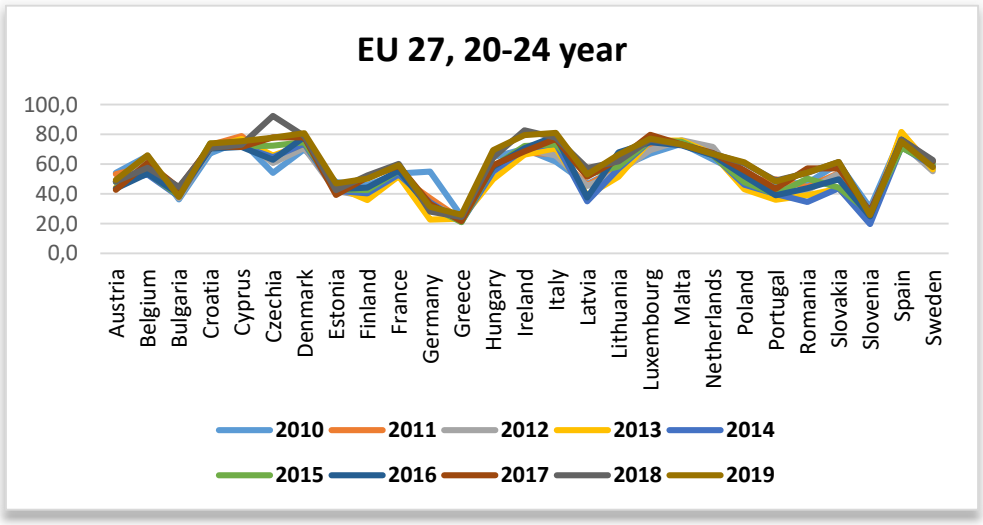


Figure 13. EU Countries employment rate age 20-24 years

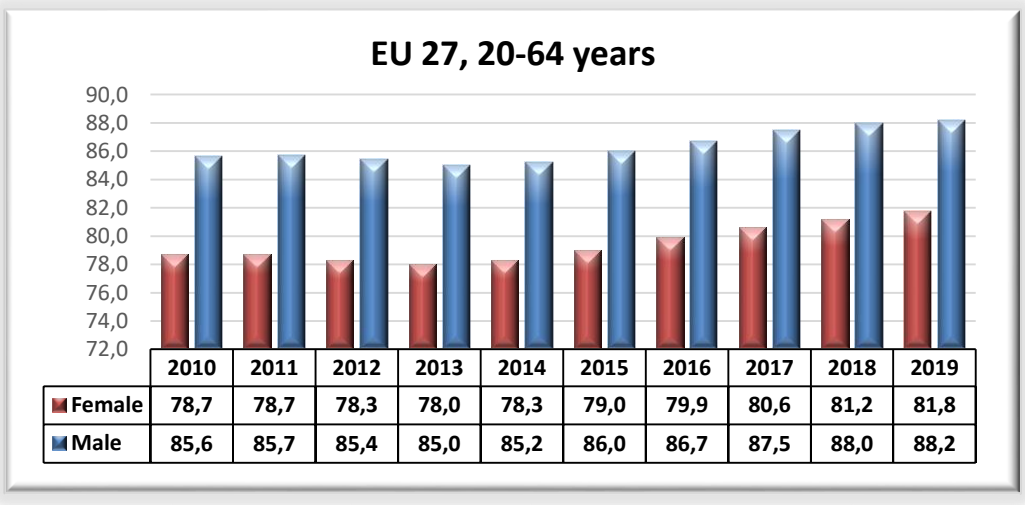
Source: Authors work based on data from Eurostat

If we look separately at the trends of countries part of European Union 27, we can notice there is no significant difference in rates of employment between the EU countries when measuring it through all age categories 20-64 years. But, there is a substantial difference between some countries in the employment rate for the category 20-24 years.

3.2.1 Employment /Unemployment by Gender in EU

The gender gap of workers with tertiary education seems to increase among older workers.

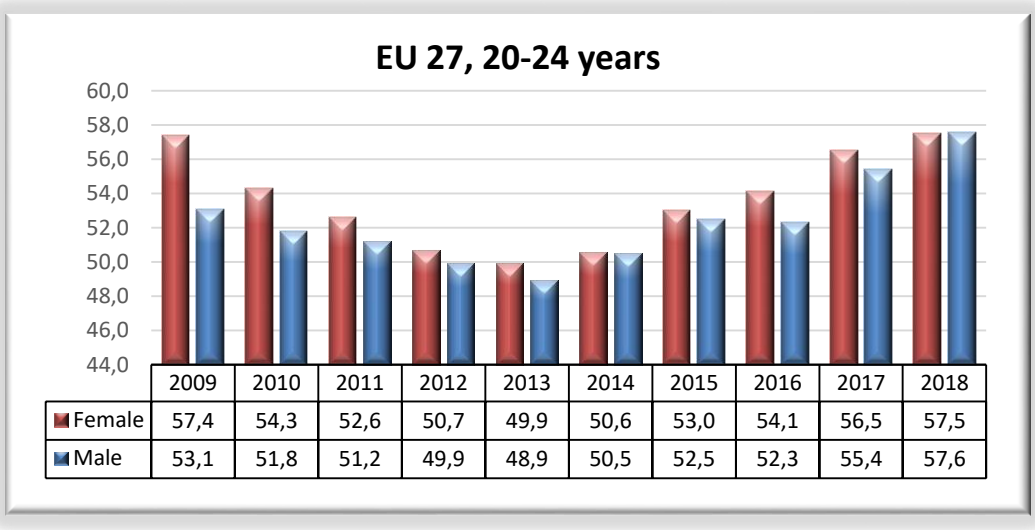
It is of interest to mention that according to the European Commission report for joint employment, employment gaps are wider for women with caring responsibilities (European Commission, 2020, p. 61). This is also confirmed with the calculation from the data we analysed and are shown in figure 14, 15 and 16.



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Female	78,7	78,7	78,3	78,0	78,3	79,0	79,9	80,6	81,2	81,8
Male	85,6	85,7	85,4	85,0	85,2	86,0	86,7	87,5	88,0	88,2

Figure 14. Employment by gender in EU age 20-64

Source: Authors work based on data from Eurostat



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	57,4	54,3	52,6	50,7	49,9	50,6	53,0	54,1	56,5	57,5
Male	53,1	51,8	51,2	49,9	48,9	50,5	52,5	52,3	55,4	57,6

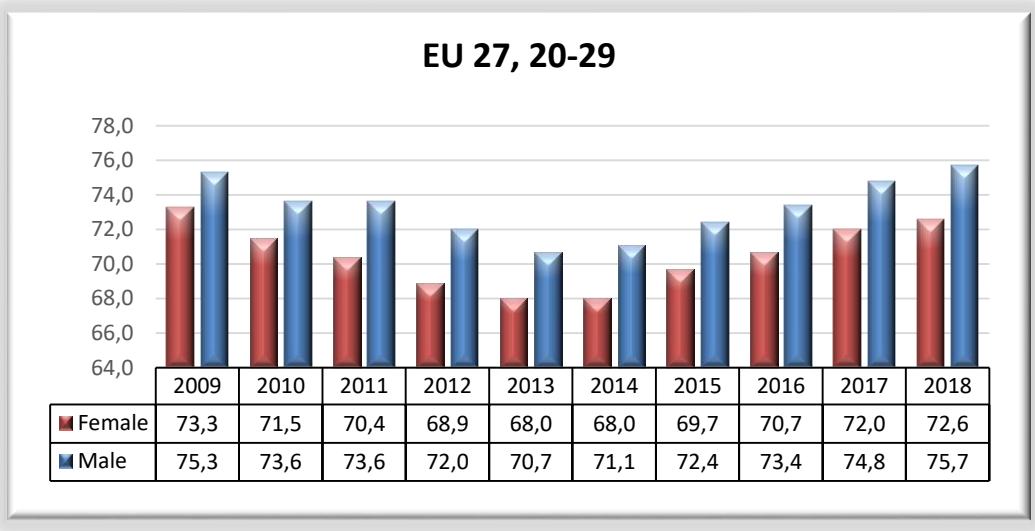
Figure 15. Employment by gender in EU age 20-24

Source: Authors work based on data from Eurostat

The female employment rates are increasing in both of the categories presented. For graduates of category 20-64 it is approx. 7 percent higher for male graduates.

Female graduates 20-24 have slightly higher employment rates against male graduates in all the years analysed except 2018 as are shown in figure 15.

The gap is increasing with the age as if analysing the category of age 20-29 as shown in Figure 16 the gap is larger than 20-24 years but smaller that of 20-64 years old.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	73,3	71,5	70,4	68,9	68,0	68,0	69,7	70,7	72,0	72,6
Male	75,3	73,6	73,6	72,0	70,7	71,1	72,4	73,4	74,8	75,7

Figure 16. Employment by gender in EU age 20-29

Source: Authors work based on data from Eurostat

For the category 20-29 years, the gender gap is approximately 3 percent in favour of male graduates employed. The final result that we get by analysing the gender gap in employment of graduates for EU countries, is that the younger the graduates (category 20-24 years) the percentage of employment for female and male is almost equal or in favour of female graduates. The gap is higher and in favour of male graduates around 3 percent when analysing the age category 20-29 of graduates. The gap continuous to increase and we get approximately a gap of 7 percent when analysing the category 20-64. This might be the result of the fact that female graduates are more engaged with family caring and keeping activities.

4 SOUTH EAST EUROPEAN UNIVERSITY EMPLOYABILITY

4.1 INTRODUCTION

South East European University (hereafter SEEU) is a public-private university existing from 2001. The University consists of five faculties and one research centre.

SEE University from the beginning has worked on analysing the profiles of graduates that where graduating and were ready to be part of the job market. This is done constantly with different methods and groups.

In this chapter we will analyse the employment rates and the developments from the Employability Reports of SEEU (from now and after ER) (South East European University-Career Centre, 2007-2019) through years 2007-2019.

The Employability Report of this institution is the main research that SEEU does in relation to the employment of its graduates in undergraduate studies. The survey is conducted only for undergraduate studies, not including master and doctoral studies. The report consists of measuring the employment rate of each generation and other employment parameters. The report is conducted on annual basis and the survey population is selected based on calendar year of graduation (1 January-31 December) of the previous year. So, before graduates are contacted for the Employability Report, 9 to 21 months have passed from their graduation (depending on the months they have graduated). The survey for the report is conducted by the Career Center of the University.

Measures have been made from the generation graduating in 2005 and continuously until now (2020). The first Employability Report 2007 has information for the employment of three generations 2005, 2006 and 2007. Other following reports measure the employment rate of the previous generation. Employability report of 2009 has the results of employment of the generation graduating in 2008, ER 2010 of the generation graduation in 2009 and so on. The survey sample of each year is selected based on calendar year of graduation.

The methodology used in the report is nearly the same in all years that the survey has been conducted. Through years, some questions on the survey have been added or other questions may have a minor change, so there might be small changes in the structure of the report. When analysing parameters throughout years, we will present the largest applicable analyses throughout years depending on data that the reports have.

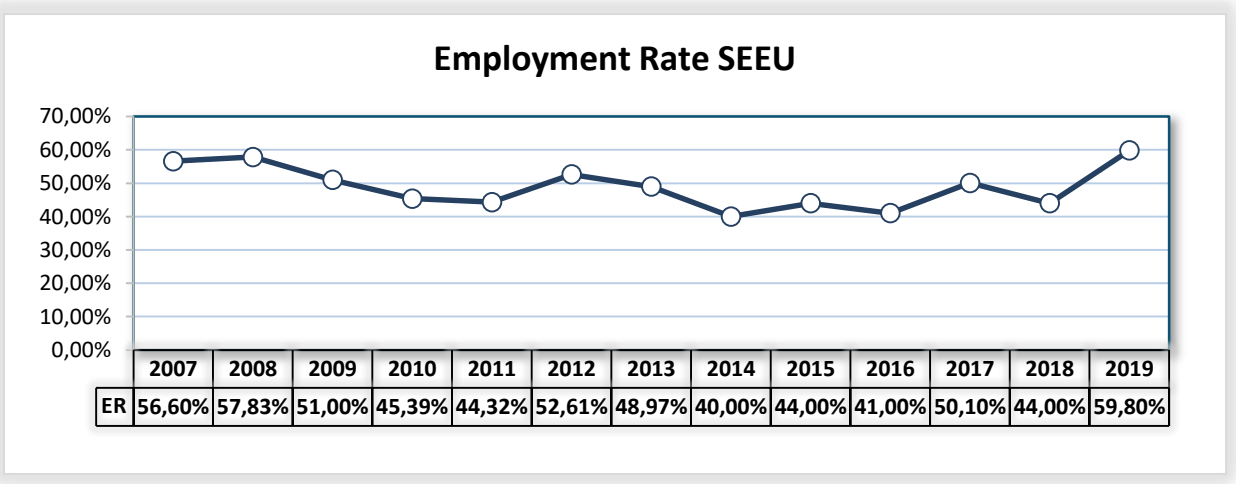
The response rate of the survey in every year conducted is higher than 60% every year so the data presented on the reports is believed to be reliable.

4.2 Overall Employment Rate of SEEU graduates over the years

The employment rate of graduates is calculated from the total number of employed graduates participating in the survey for the Employability Report in the year the survey is conducted (9 to 21 months after graduation, depending on the months they have graduated). The data presents the situation in the moment the graduates are surveyed and there is not follow up to track the possible changes.

The data shows the highest employment rate of SEEU graduates is among graduates in the year 2006 (ER 2007) 56.60%, 2007 (ER 2008) 57.83% and 2018 (ER 2019) 59.80%. The lowest employment rate is noticed thought graduates in year 2013 (ER 2014) with 40.00%.

Detail data from all Employability Reports are shown in the figure 17 below.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ER	56,60%	57,83%	51,00%	45,39%	44,32%	52,61%	48,97%	40,00%	44,00%	41,00%	50,10%	44,00%	59,80%

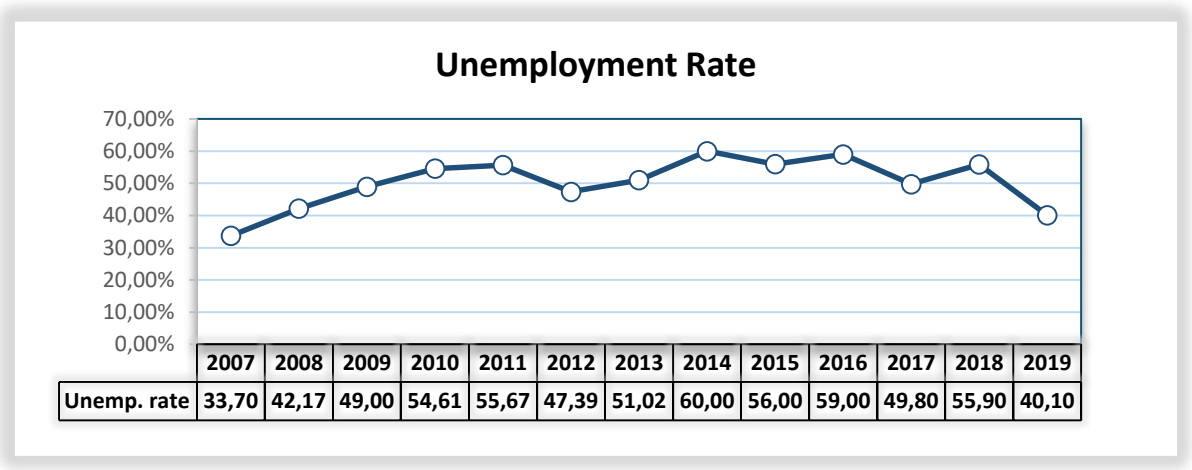
Figure 17. SEEU employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

4.3 Overall Unemployment Rate of SEEU graduates over the years

The data showed in this section is data from the Employability Reports of SEEU for each year separately from 2007 until 2019. The overall unemployment rate of graduates in the reports for each year is calculated from the total number of unemployed graduates participating in the survey in the year the survey is conducted (9 to 21 months after graduation depending on the months they have graduated). The data presents the situation in the moment the graduates are surveyed and there is not follow up to track the possible changes.

2007 and 2019 Employability Reports have the lowest unemployment rate calculated through years 33.70% and 40.10%. The highest unemployment rate is noticed in the ER 2014 which means that students graduating in 2013 were less employed at the time the survey is conducted, with a 60% unemployment rate. Other years are presented in the Figure 18.

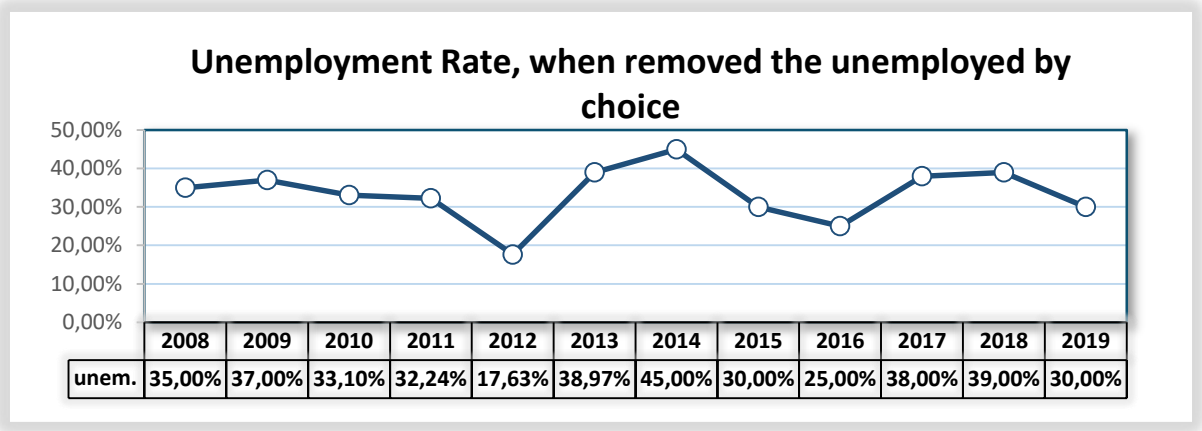


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Unemp. rate	33,70	42,17	49,00	54,61	55,67	47,39	51,02	60,00	56,00	59,00	49,80	55,90	40,10

Figure 18. SEEU unemployment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

From the total unemployed students, if we remove the students who were unemployed by choice (because of studying, personal reasons, maternity leave), the unemployment rate of SEEU graduates by year would be as presented in Figure 19.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
unem.	35,00%	37,00%	33,10%	32,24%	17,63%	38,97%	45,00%	30,00%	25,00%	38,00%	39,00%	30,00%

Figure 19. SEEU unemployment rate 2007-2019 removing the unemployed by choice

Source: Employability reports of SEEU 2007-2019

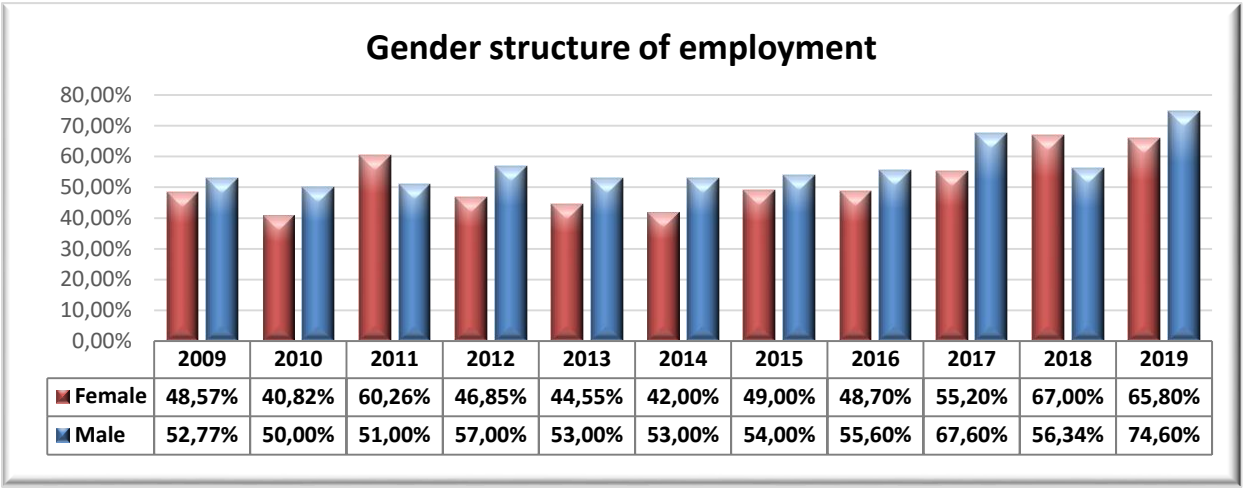
It is important to mention that the unemployment rate by choice in the ER 2014 is not stated clearly and we have doubts about the number shown in this table for ER 2014.

The lowest unemployment rate is noticed in 2012 with only 17.63 % of unemployment rate when removing the group of graduates that decided to not work by choice.

4.4 Gender structure of Employment/Unemployment

Looking at the gender structure in the employed graduates for each year in percentages, the table shows that there are not significant changes. The data is in relation to the employment rates calculated each year in the Employability Reports of SEEU.

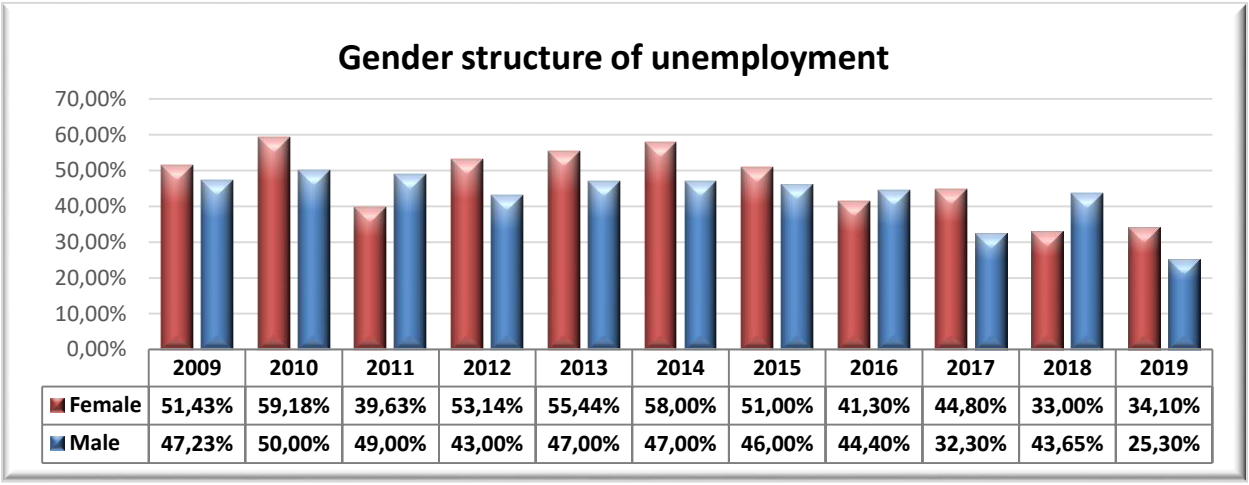
The male graduates tend to have a higher percentage of employment in most of the years from 2009 to 2019. However, since this measure is dependent on the number of male/female graduates that have participated in the survey and that number is not 50:50, we cannot conclude that this representation is true.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Female	48,57%	40,82%	60,26%	46,85%	44,55%	42,00%	49,00%	48,70%	55,20%	67,00%	65,80%
Male	52,77%	50,00%	51,00%	57,00%	53,00%	53,00%	54,00%	55,60%	67,60%	56,34%	74,60%

Figure 20. SEEU employment by gender 2009-2019

Source: Employability reports of SEEU 2009-2019



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Female	51,43%	59,18%	39,63%	53,14%	55,44%	58,00%	51,00%	41,30%	44,80%	33,00%	34,10%
Male	47,23%	50,00%	49,00%	43,00%	47,00%	47,00%	46,00%	44,40%	32,30%	43,65%	25,30%

Figure 21. SEEU unemployment by gender

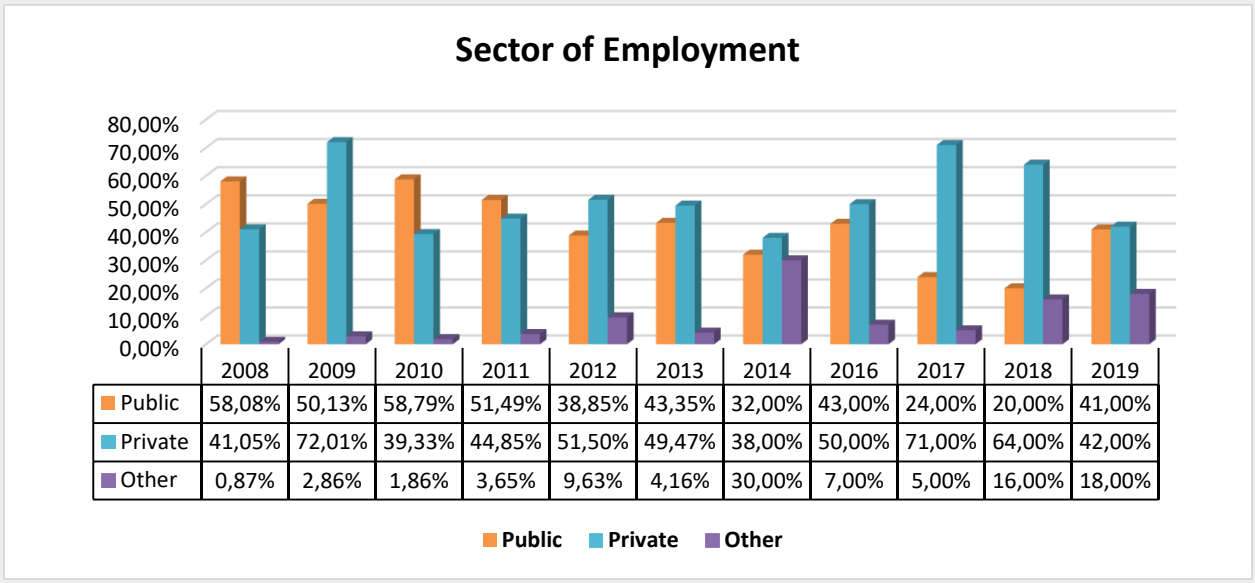
Source: Employability reports of SEEU 2009-2019

Analysing the data showed in figure 20 and 21 for gender employment and unemployment of SEEU graduates, we can see that the average gap between male and female graduates of SEEU is around 8.7 percent higher for male graduates.

4.5 Employment by Sector of Employment

Comparing public and private sector employment for SEEU graduates, no doubt they are mostly employed in the private sector. The data showed are from the ER of SEEU. The categorisation in the ER is: public, private and other. The category Other includes also the NGO sector. ER 2015 does not have data on this categorisation, that is why is not included in figure 22.

2017 and 2018 are years that especially are noticed high employment in the private sector versus the public sector, in 2017 71% of SEEU graduate are employed in the private and 24% in the public and ER 2018 gives data that 64% are employed in private and 20% in the public sector. It is interesting that in the last report ER 2019 we have an increase of 20% more employed graduates in the public sector compared to 2018 with 20% employed graduated in the public sector.



	2008	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019
Public	58,08%	50,13%	58,79%	51,49%	38,85%	43,35%	32,00%	43,00%	24,00%	20,00%	41,00%
Private	41,05%	72,01%	39,33%	44,85%	51,50%	49,47%	38,00%	50,00%	71,00%	64,00%	42,00%
Other	0,87%	2,86%	1,86%	3,65%	9,63%	4,16%	30,00%	7,00%	5,00%	16,00%	18,00%

Figure 22. SEEU employment by sector 2008-2019

Source: Employability reports of SEEU 2008-2019

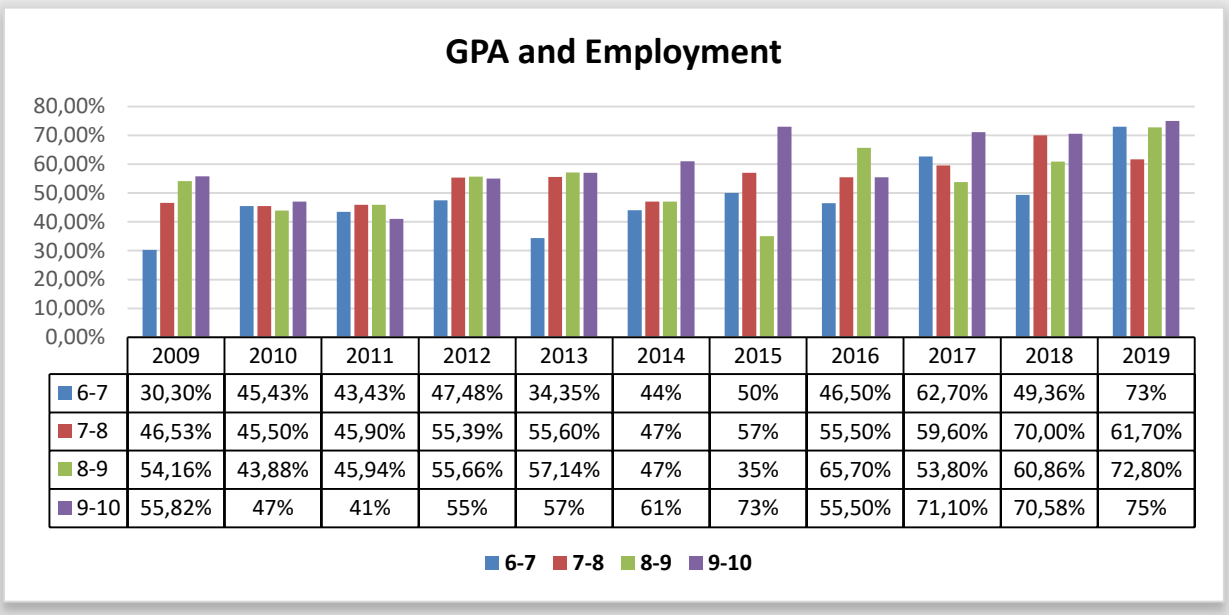
In years 2008, 2010 and 2011 employment of graduates of SEEU is higher in public sector compared to private. The category other meaning not public or private sector, is especially highly represented in ER 2014 with 30% of graduates employed. 2018 and 2019 are also years

when category other, is increased compared to previous years with 16% and 18% of graduates employed. In the Employability Report is not specified what category other means, we know that the Non-government sector is include there. This might indicate that SEEU graduates in the last two years are starting to be more employed in the NGO sector.

4.6 Grade Point Average (GPA) and Employment

The data showed in this section are data from the Employability Report of SEEY. From the total number of graduates participating in the survey within the categories of GPA is calculated the percentage of the employed and unemployed by survey.

The data from the Employability Reports of SEEU shows that graduates with higher Grade Point Average are more employed among graduates, this is especially witnessed in ER 2017 and ER 2018 when 71.10% and 70.58% are employed. Categories GPA 8-9 and GPA 7-8 looks to be good in getting job. Category GPA 6-7 in ER 2019 is 73% employed, this is the highest percentage that GPA 6-7 has from all reports. In ER 2018 GPA 6-7 was 49, 36% and in ER 2009 only 30%. This might be significant to be analysed in greater detail in the future.



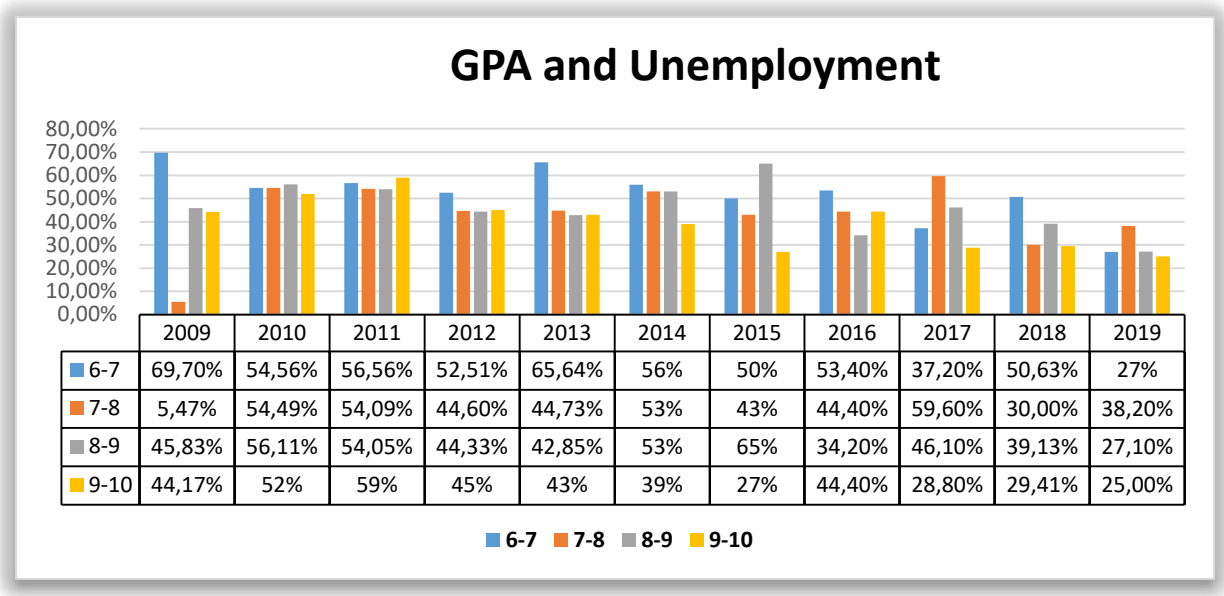
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
6-7	30,30%	45,43%	43,43%	47,48%	34,35%	44%	50%	46,50%	62,70%	49,36%	73%
7-8	46,53%	45,50%	45,90%	55,39%	55,60%	47%	57%	55,50%	59,60%	70,00%	61,70%
8-9	54,16%	43,88%	45,94%	55,66%	57,14%	47%	35%	65,70%	53,80%	60,86%	72,80%
9-10	55,82%	47%	41%	55%	57%	61%	73%	55,50%	71,10%	70,58%	75%

Figure 23. SEEU graduates employment and GPA 2009-2019

Source: Employability reports of SEEU 2009-2019

4.7 Grade Point Average (GPA) and Unemployment

The highest unemployment related to GPA for SEEU graduates when analysed can be noticed in all categories of GPA in different years. Unemployment for GPA 6-7 is the highest compared to other categories in six years (2009, 2012, 2013, 2014, 2016 and 2018) from eleven analysed. In the ER 2011 the highest unemployment is registered in the category GPA 9-10 with 59%.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
6-7	69,70%	54,56%	56,56%	52,51%	65,64%	56%	50%	53,40%	37,20%	50,63%	27%
7-8	5,47%	54,49%	54,09%	44,60%	44,73%	53%	43%	44,40%	59,60%	30,00%	38,20%
8-9	45,83%	56,11%	54,05%	44,33%	42,85%	53%	65%	34,20%	46,10%	39,13%	27,10%
9-10	44,17%	52%	59%	45%	43%	39%	27%	44,40%	28,80%	29,41%	25,00%

Figure 24. SEEU graduates unemployment and GPA 2009-2019

Source: Employability reports of SEEU 2009-2019

4.8 Time period of getting a job

The data presented in the section are from Employability Report. The report is conducted on annual basis and before graduates are contacted for the Employability Report, approx. 9 to 21 months have passed from their graduation (depending on the months they have graduated). The categories given for answers are in months, they start with the option for employment *before graduation* and finishes with *others* (that usually means more than one year). Measuring the school to work transition that SEEU graduates needed to get a job, in all the

years half of the students were employed six months after graduation (the category before graduation, 0-3 months and 4-6 months after graduation).

Another interesting fact is also the relatively high percentage of graduates who are employed before graduation. From the ER 2017 and ER 2018 the percentage of graduates that were employed before graduation is 34% and 33.33%. An exception from this pattern are the data from ER 2014 where there is an increase to 46.08% percent that are employed before graduation.

Details of categories and percentages through years are given in the Table 9 below and Figure 25.

Table 9. SEEU graduates timeframe of getting job 2009-2019

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Before Graduation	6,75%	16,56%	27,57%	46,08%	26,04%	26%	28%	22,60%	34%	33,33%	20,60%
0-3 months	29,35%	27,47%	16,27%	13,55%	10,41%	18%	15%	23,30%	28,10%	18,11%	29,30%
4-6 months	23,64%	14,07%	14,28%	9,93%	6,25%	13%	9%	8,90%	7,48%	14,49%	23,10%
7-9 months	13,77%	8,27%	4,98%	6,32%	8,85%	8%	4%	5,50%	4,08%	4,35%	8,70%
10-12 months	18,44%	30,02%	22,25%	13,55%	20,83%	34%	20%	21,90%	10,80%	12,31%	5,60%
Other	8,04%	3,31%	6,31%	10,54%	27,06%	1%	24%	17,80%	15,80%	17,39%	12,30%

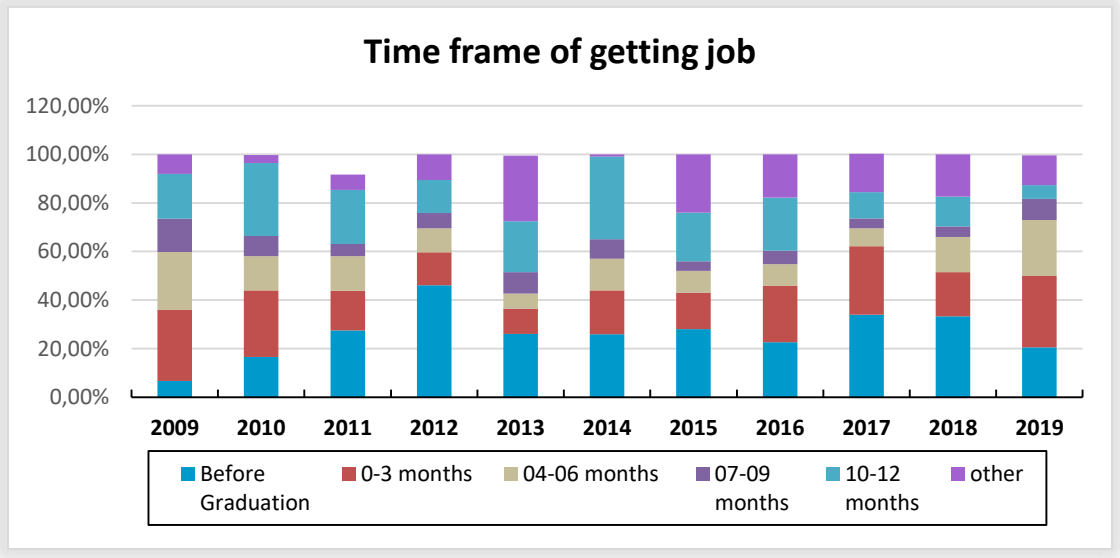


Figure 25. SEEU graduates timeframe of getting job 2009-2019

Source: Employability reports of SEEU 2009-2019

4.9 SCHOOL TO WORK TRANSITION

Considering the data presented in the previous section *Time period of getting a job* related to the time period SEEU graduates are employed according to the data from Employability Report, if we try to calculate the average time for transition from school to work the average time for school to work transition for SEEU graduates is seven months. Some graduates get a job before and some after, but the average is seven months. The standard deviation from the average in years is as follows:

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
St.dev.	5.10	5.27	5.94	7.11	7.93	5.47	7.75	7.04	7.21	7.26	6.20

4.10 EMPLOYMENT RATE BY FACULTIES

SEE University has five faculties and in the following we will present the employment rates of faculties through years. In this section we will only comment the data and the results from the Employability Reports from 2007 until 2019, without going to analysing the reasons for those results.

4.10.1 Faculty of Business and Economics (FBE)

In the ER 2019 we note the highest recorded employment rate of graduates from Business and Economics, 76.50 %.

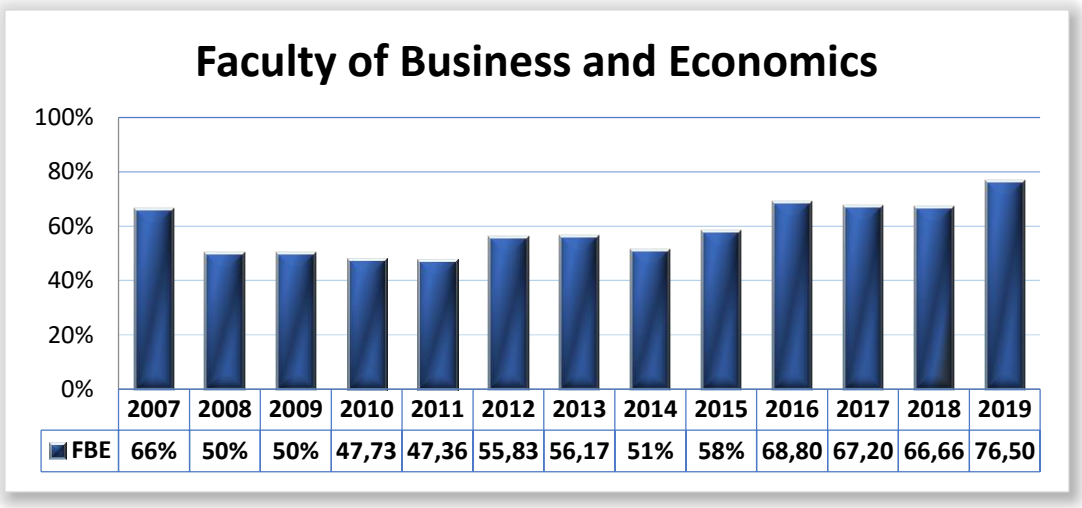


Figure 26. SEEU Faculty of Business and Economics employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

The lowest employment rates for Business and Economic graduates are noticed in ER 2010 and 2011 with around 47%. In all other years analysed graduates of Business are employed in more than 50%.

4.10.2 Faculty of Contemporary Sciences and Technologies (CST)

For Contemporary Sciences and Technologies Faculty graduates the years with most employment was 2007 (ER 2008) with 80% employment rate and 2018 (ER 2019) with 92.60%. The lowest employment rate is in 2013 (ER 2014) with 41% of employed graduates.

In most of the years analysed CST graduates have an employment rate above 62%.

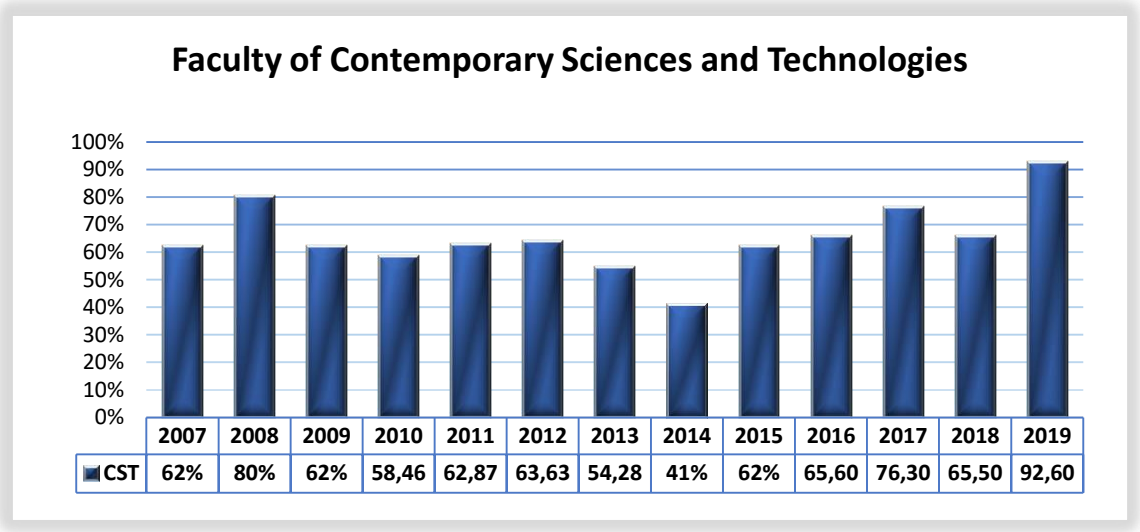


Figure 27. SEEU Faculty of Contemporary Sciences and Technologies employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

For graduates of Contemporary Silences and Technologies the results of ER year 2019 have an increase of 27% in employment rate from the previous year 2018.

4.10.3 Faculty of Law (LAW)

Law graduates witnessed the highest employment rate in ER 2014 with 64%, followed with 55.10% employment rate in ER 2019. The lowest rates are from ER 2008 and ER 2011 with 35% and 35.41%. Employment rates above 50% for the LAW graduates of SEEU are witnessed in ER 2015 and ER 2017.

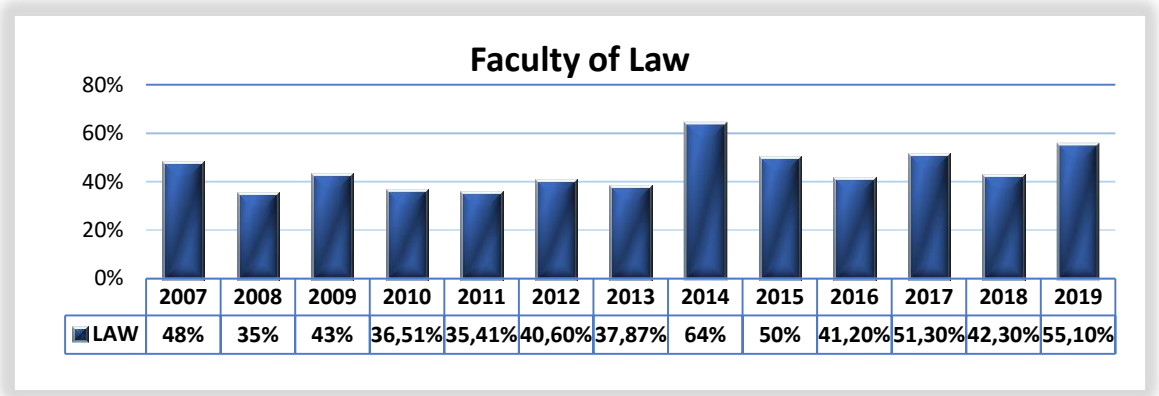


Figure 28. SEEU Faculty of Law employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

For graduates of Law when looking the employment rates through years, from ER 2013 to 2014 there is an increase of employment for 27%.

4.10.4 Faculty of Contemporary Social Sciences (CSS)

Within Contemporary Social Sciences (until 2017 the Public Administration Faculty) graduates the highest rate of employment rate is found in ER 2019. The lowest are 30% and 31.39% in ER 2007 and 2001.

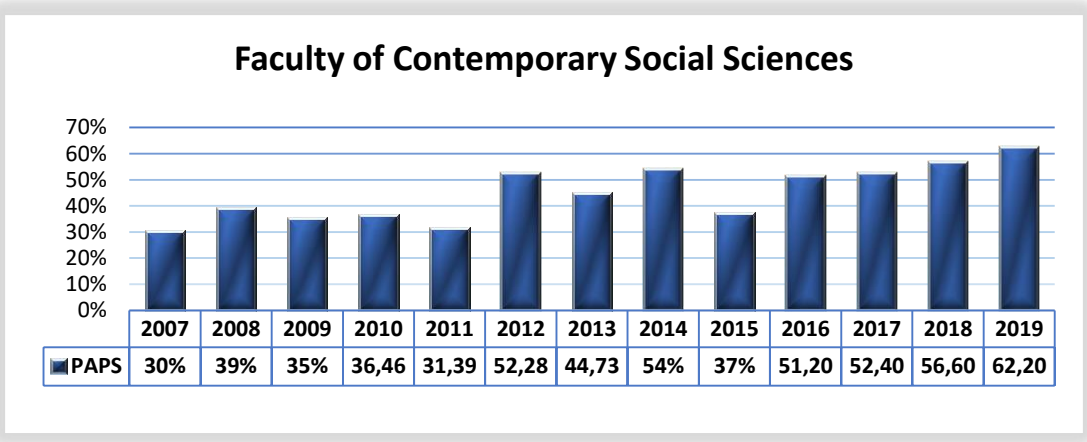


Figure 29. SEEU Faculty of Contemporary Social Sciences employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

The employment rate for graduates of this Faculty from 2007 with 30% has been increasing trough year and in the last year analysed is 62.20%

4.10.5 Faculty of Languages Cultures and Communication (LCC)

According to the data from the Employability Reports, graduates of LCC had the highest rate of employment 74% in 2017 (ER 2018). Lowest rates of employment are noticed ER 2010, ER 2011 and ER 2016. The data for this Faculty within years is presented in the Figure 30.

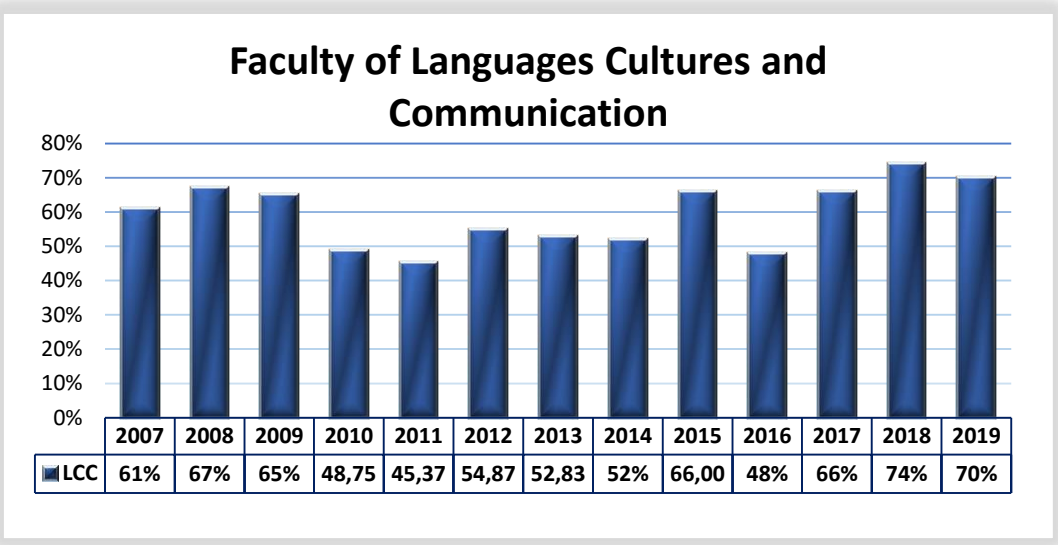


Figure 30. SEEU Faculty of Languages Cultures and Communications employment rate 2007-2019

Source: Employability reports of SEEU 2007-2019

If we compare 2007 as se first year analysed with 2019 as the most recent analysed, the difference is 9% highest percentage of employment in 2019, 61% in 2007 and 71% in 2019.

4.11 EMPLOYMENT RATE OF FACULTIES TOGETHER

The trend of employment over the years within all five faculties together is presented in Figure 31.

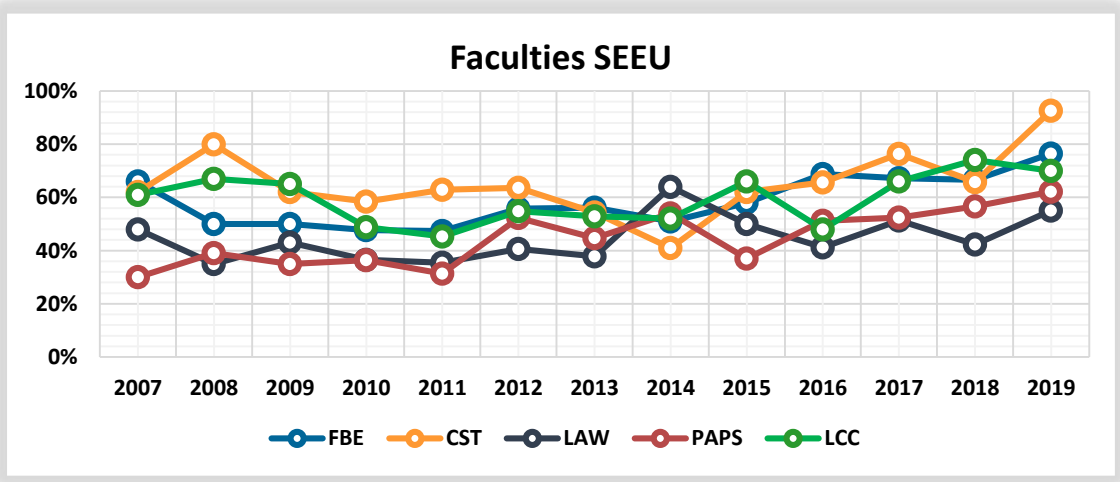


Figure 31. SEEU employment rate of Faculties 2007-2019

Source: Employability reports of SEEU 2007-2019

Data of the most recent ER indicates that CST graduates are the most employed, followed by FBE and LCC graduates. PAPS and LAW graduates are slightly less employed compared to LCC and FBE. CST and FBE faculty are also with highest employment rates if we look at the data of 2018, 2017 and 2016. For LCC graduates in 2016 is shown a decrease in employment rate.

4.12 STUDY PROGRAM RATING WITHIN FACULTIES

The SEE University trough the Employability Report tries to gather information related to the satisfaction of graduates with the knowledge gathered in studies. Both categories participating in the survey employed and unemployed graduate, give feedback related to the satisfaction from the programme they have completed and to give recommendations for improvements.

In the charts bellow we will show the satisfaction of graduates with the study program they have completed. The data showed is data from Employability Reports of SEEU. The satisfaction is measured with a rating scale from 1 to 5. The scale 1 shows the minimum and 5 shows the maximum satisfaction from the study program attended. The average of satisfaction in years for the faculties of SEEU is calculated and presented in figure 32, 33, 34, 35 and 36.

The data shows that for all faculties the rating with the maximum scale of rating 5 for satisfaction with the study programme is increased in 2018 (ER 2019).

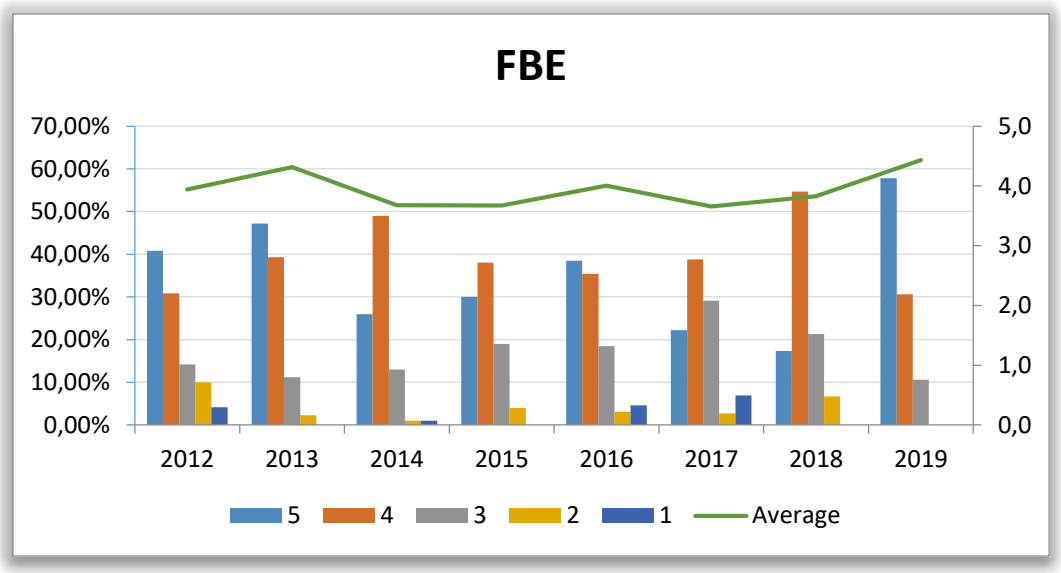


Figure 32. Faculty of Business and Economic study program rating

Source: Employability reports of SEEU 2012-2019

The feedback for FBE graduates when calculating the average of satisfaction shows that graduates of 2012 (ER 2013) and graduates of 2018 (ER2019) were most satisfied with the study programme and preparation for the job market. In the data from ER 2014, ER 2015 and ER 2017 the average of satisfaction is the lowest for this faculty and its around 3.5.

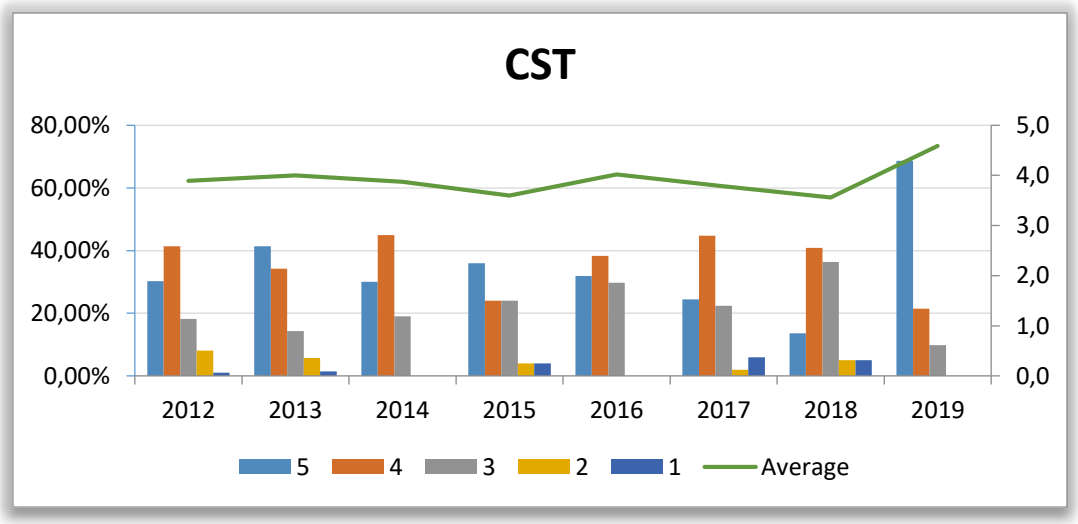


Figure 33. Faculty of Contemporary Sciences and Technologies study program rating

Source: Employability reports of SEEU 2012-2019

For CST graduates data shows that except 2018 (ER 2019), the satisfaction from the study programme does not change a lot and it's around 4 from the scales 1-5.

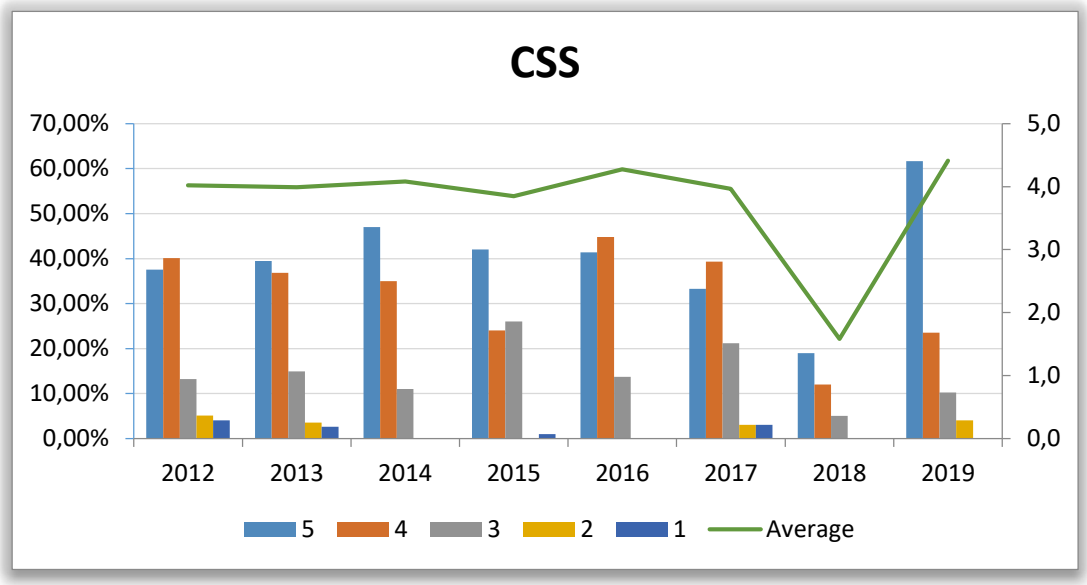


Figure 34. Faculty of Contemporary Social Sciences study program rating

Source: Employability reports of SEEU 2012-2019

For CSS graduates the data in the Employability Report of 2018 are not reliable (as the total value of all scales is not 100%) that is why that the significant decrease showed in figure 34 should not be considered as real. Otherwise the satisfaction from the study programme does not change a lot and for most of the years and it's under 4 from the scales 1-5.

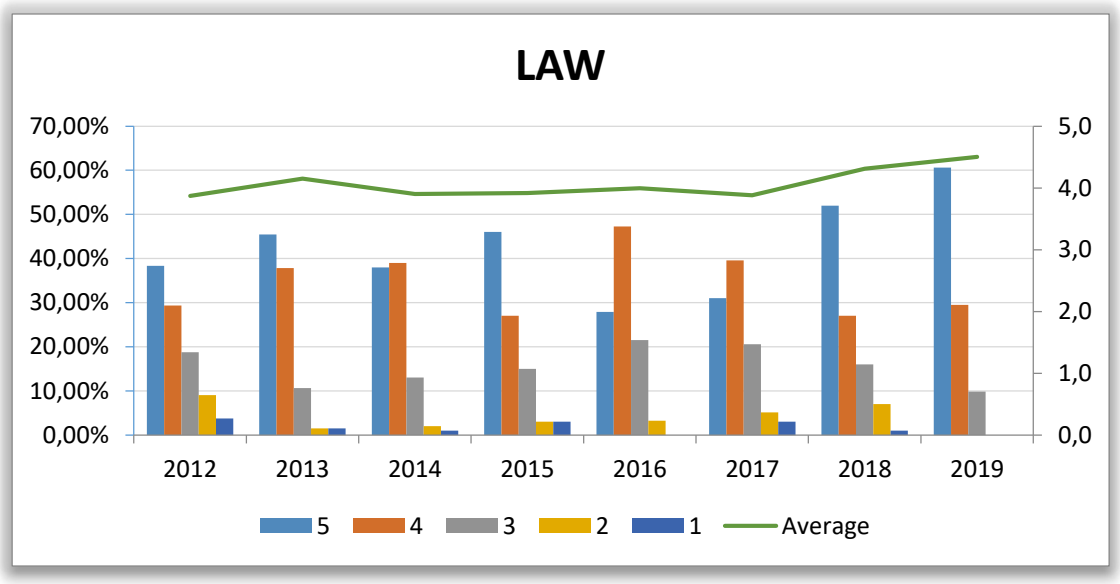


Figure 35. Faculty of Law study program rating

Source: Employability reports of SEEU 2012-2019

LAW graduates satisfaction from the study programme shows that graduates of 2012 (ER 2013) and graduates of 2018 (ER2019) were most satisfied with the study programme and preparation for the job market. In the data from ER 2014 until ER 2017 the numbers are the same. ER 2018 has an increase and ER 2019 higher one compared to previous years.

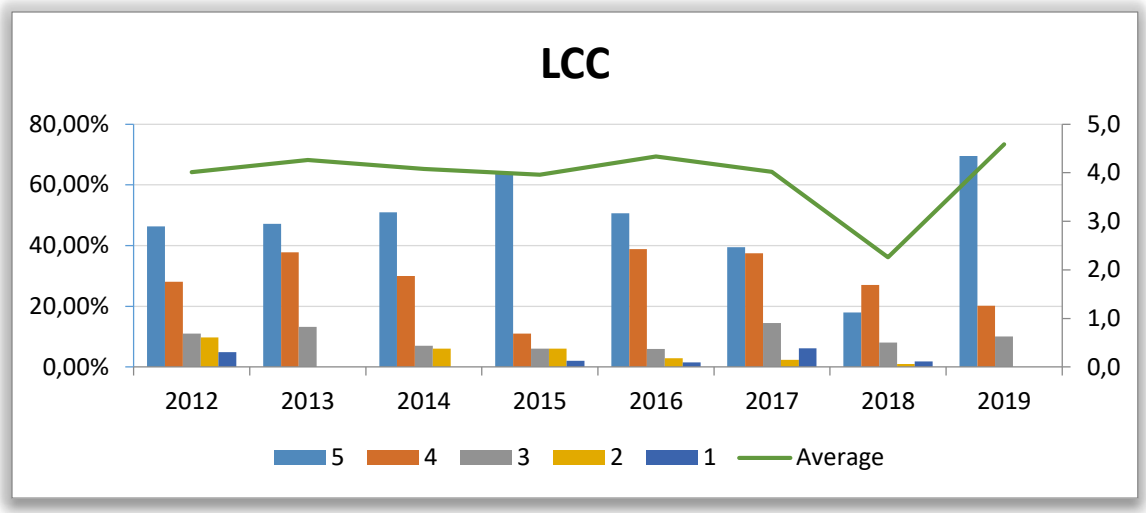


Figure 36. Faculty of Languages Cultures and Communications study program rating

Source: Employability reports of SEEU 2012-2019

For LCC graduates the data in the Employability Report of 2018 are not reliable (as the total value of all scales is not 100%) that is why that the significant decrease showed in figure 34 should not be considered as real. Otherwise the satisfaction from the study programme does not change a lot and for most of the years and it's above 4 from the scales 1-5

4.12.1 The trend for study program rate

If we see the trend of satisfaction of graduates through years divided in the five scales, we can notice the scale 5 (the maximum), is increased in ER 2019 and is the highest of all years for most faculties. It is interesting to see that the scale 5 of satisfaction has a substantial increase from previous year 2018.

Scale 1 (the minimum), has the highest rates in ER 2017 and it is not present at all in ER2019.

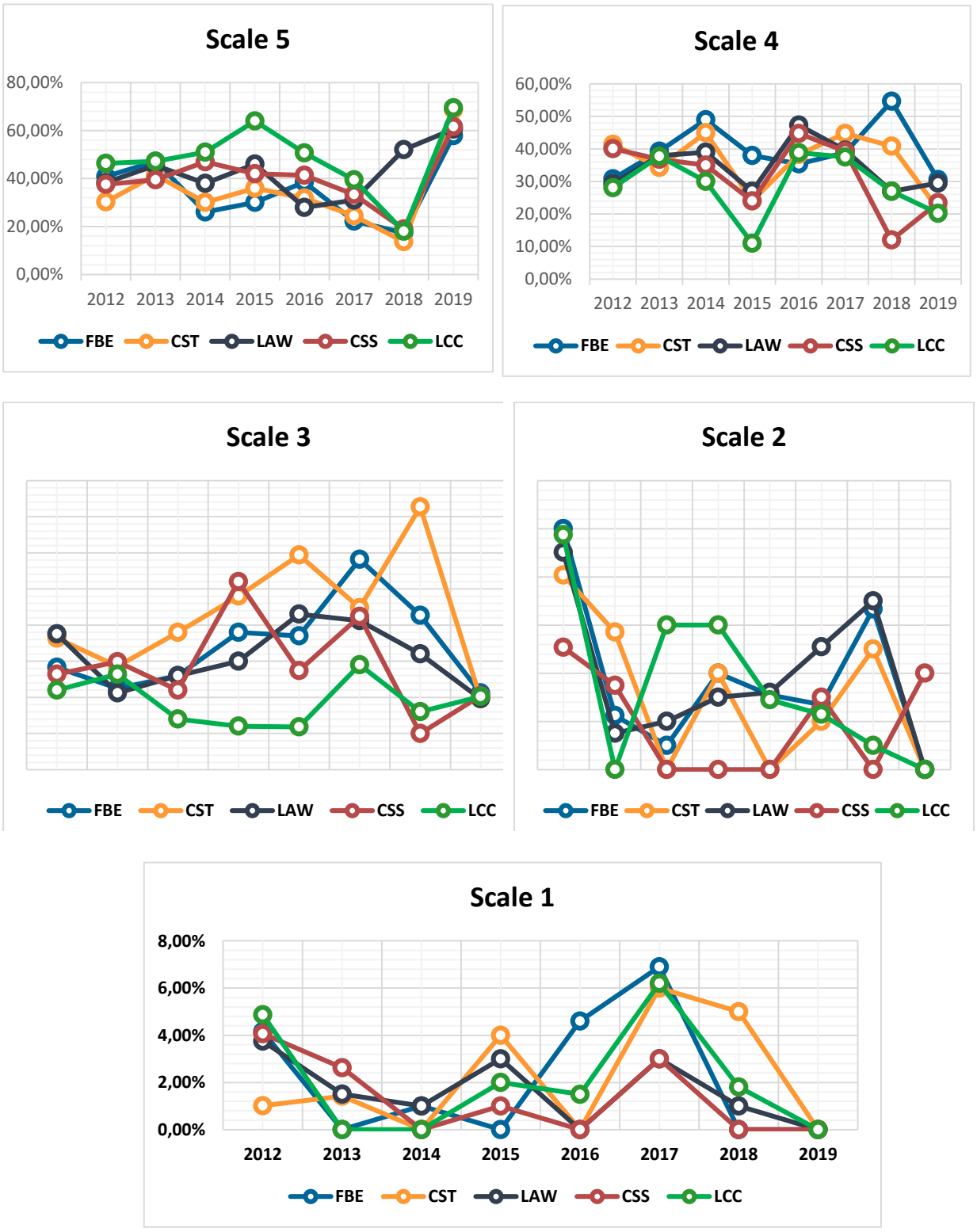


Figure 37. Trend of study program rating for all faculties 2012-2019

Source: Employability reports of SEEU 2012-2019

Scale 5 of satisfaction (the maximum) from the study programme of graduates, according to data from Employability Report, is considerably increase in 2019 compared to previous year 2018, but also 2017, 2016 and other years presented in figure 37. The increase is for all faculties with the distinction that LAW graduate maximum satisfaction was high in 2018 as well. LCC graduates in 2019 and other years (except 2018) have given the maximum rate 5 more than graduates of other faculties.

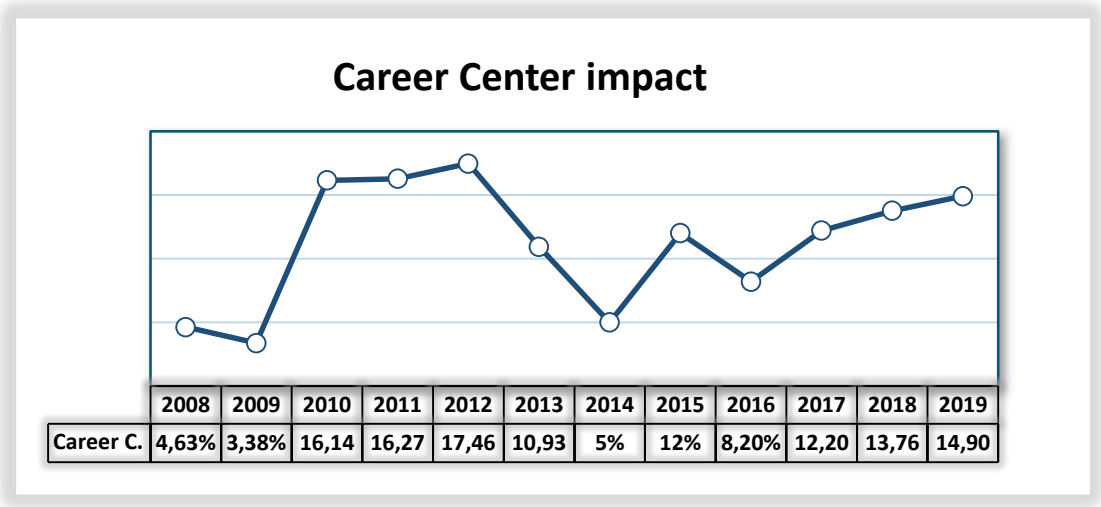
The less satisfied and rates with Scale 1 (the minimum) of graduates with the study programme is noticed within graduates of year calendar year 2016 (ER 2017). For graduates of CTS the study programme is low rated in ER 2018 as well. In the ER 2019 no graduate gave 1 (minimum) when rating the study programme, for CSS and FBE faculties graduates the same is in ER 2018.

4.13 CAREER CENTER IMPACT ON INFORMING FOR EMPLOYMENT

SEEU tries to help students and graduates progress in their careers with different career activities, trainings, courses and events. Most of them are organized by the Career Center of SEEU. Students can follow courses for Career Development, participate in session for CV and motivation letter writing, follow presentation from human resources department of companies participate in the annual Career Fair organised for graduated and current student. Also, to facilitate and increase the employment of its graduates, SEE University across Career Centre informs graduates about open job vacancies and other career upgrade possibilities. All these activities help graduates on preparing for the job market, but there are no data to measure the impact of all this activates in employment of graduates. However, the impact of Career Centre on informing graduates for jobs tends to be measured in the Employability report. The report has data related to graduates answer to the question “How did you learn about the job position”, were an option of answer is Career Center.

According to the data from the Employability Reports, Career Center has facilitated employed graduates in informing for job vacancies with percentages as shown in the Figure 38.

The lowest attained score is in 2008, 2009 and 2014 with 4.63%, 3.38% and 5% respectively. The highest is in 2012 with 17.46% of employed graduates that were informed of the job they had through the SEEU Career Center.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Career C.	4,63%	3,38%	16,14	16,27	17,46	10,93	5%	12%	8,20%	12,20	13,76	14,90

Figure 38. Career center informing for employment

Source: Employability reports of SEEU 2008-2019

For this data in ER 2014 there is a decrease of half of the percentage compared to data presented in 2013. Graduates in ER 2014 answered they were informed for the job they have from career center only 5% compared to 10.93% it was in 2013 or 17.46 % in ER 2012. It needs to be analyzed the fact that data in the ER for career center informing for job is so changing from 2019 to 2010 and 2013 to 2014.

4.14 COUNTRIES OF EMPLOYMENT

According to the data form the Employability Report, SEEU graduates by year are employed in countries as shown in Figure 39.

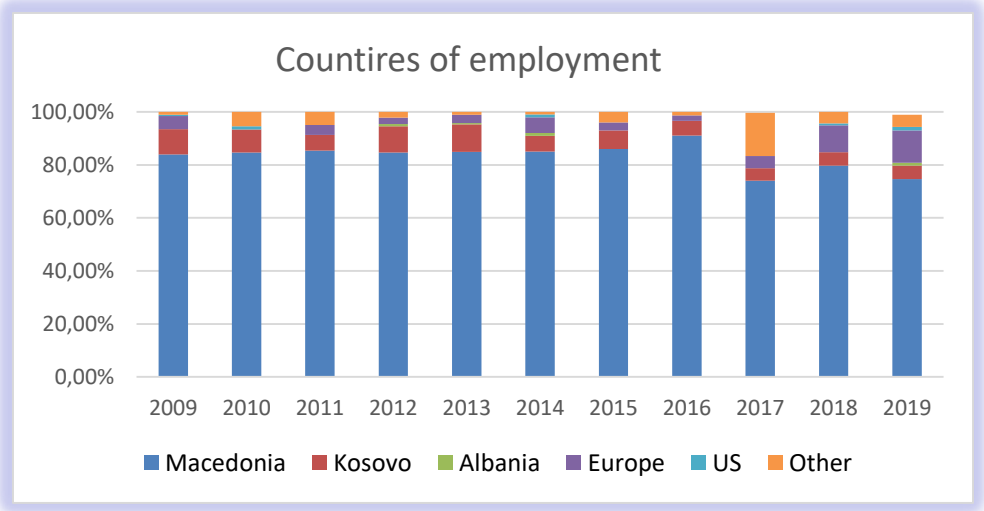


Figure 39. SEEU employment by country 2009-2019

Source: Employability reports of SEEU 2009-2019

Graduates of SEEU are mostly employed in Macedonia as most of them are from Macedonia. Kosovo is a country of employment highly represented as a considerable number of students/graduates are from Kosovo. The data shows that the percentage of graduates employed in European countries is getting higher in ER 2017, 2018 and ER 2019 compared to other years shown in figure 39. This matches the phenomenon of youth leaving the country within the last years in Macedonia.

5 COMPARING SOUTH EAST EUROPEAN UNIVERSITY, NORTH MACEDONIA AND EU 27 EMPLOYMENT RATES

5.1 INTRODUCTION

This chapter analyses the employment rates of graduates of SEEU, North Macedonia and EU countries. As explained in chapter four, SEEU measures employment rates of its graduates through the Employability report every year (undergraduate level students), and the data used for the comparative analyses in this chapter are data obtained from those reports.

The data for North Macedonia are pooled data for all Tertiary Education graduates (ISCED 5-8). Filter for only ISCED 5 (undergraduate studies) is not provided. In order to calculate only the undergraduate rates of employment we will analyse the category 20-24 years, as it is believed that from the given categories this age category falls in best for the undergraduate students.
Another aspect important to mention is that for the SEEU data, the graduates surveyed are believed to be of the same age category (until 24 years). This is because for the ER the survey population is selected based on calendar year of graduation (example: 1 January-31 December 2018). The survey is conducted one year after (last quarter of 2019), so all graduates are given time before the employment is measured of between 9-19 months (depending on the time they have graduated). The vast majority of graduates are at the age around 21-23 when they graduate and, after the one year interval to wait until the survey for employment is conducted, we assume the graduates are around 24 years old. This is why we will mainly compare the SEEU employment rates with employment rates of North Macedonia and EU 27contries with the age category 20-24 years.

For North Macedonia the data we will use for comparison is pooled data for North Macedonia taken from Euro stat Statistic[5].

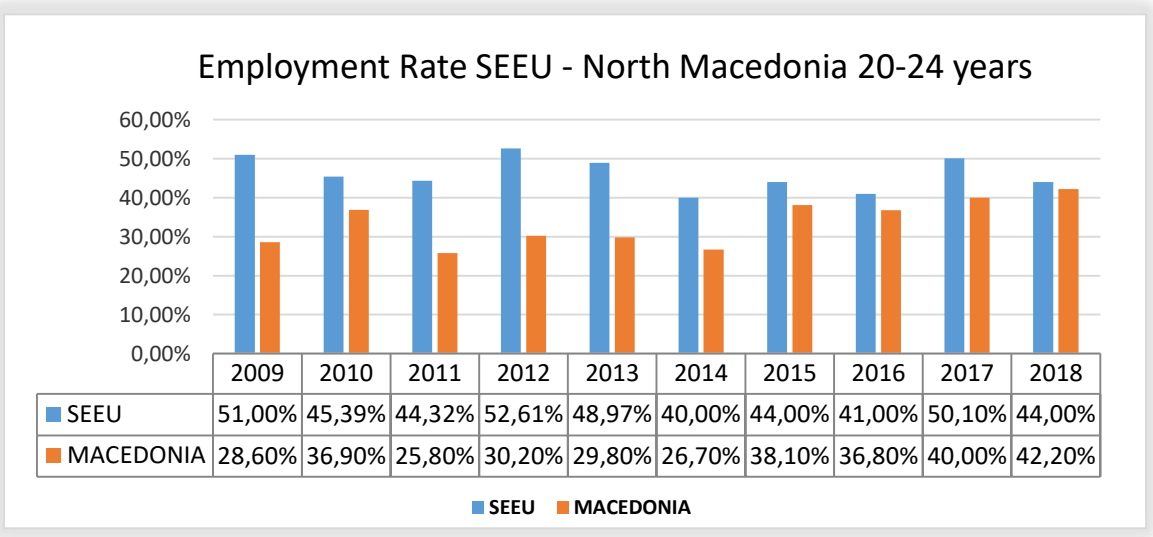
[5]In the State Statistical Office of North Macedonia, the pooled data was not available in such age and year segmentation

We will compare SEEU graduates employment through years with North Macedonia graduates' employment rates age 20-24 and age 20-29.

For European Union Countries (EU 27), the data used for comparison is pooled data taken from Eurostat Statistic. Comparison for the categories age 20-24 and age 20-29 is presented in this chapter.

5.2 SEEU COMPARED TO NORTH MACEDONIA IN TIME SERIES

5.2.1 SEEU and North Macedonia pooled data for graduates 20-24 years



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SEEU	51,00%	45,39%	44,32%	52,61%	48,97%	40,00%	44,00%	41,00%	50,10%	44,00%
MACEDONIA	28,60%	36,90%	25,80%	30,20%	29,80%	26,70%	38,10%	36,80%	40,00%	42,20%

Figure 40. Employment rate SEEU – North Macedonia age 20-24

Source: Authors work based on data from Eurostat and Employability Reports of SEEU

When compared the employment rates of SEEU graduates with the pooled data for North Macedonia for graduates 20-24 year, SEEU employment rates are higher in all the years compared. A big difference in rates is noticed from 2009 until 2014. In 2009 and 2012 the difference in rates is higher for SEEU for 20% and 18%. From 2015 until 2019 the difference in the employment rates between these categories becomes much smaller, as rates of employment of graduates of North Macedonia are increased significantly. According to this

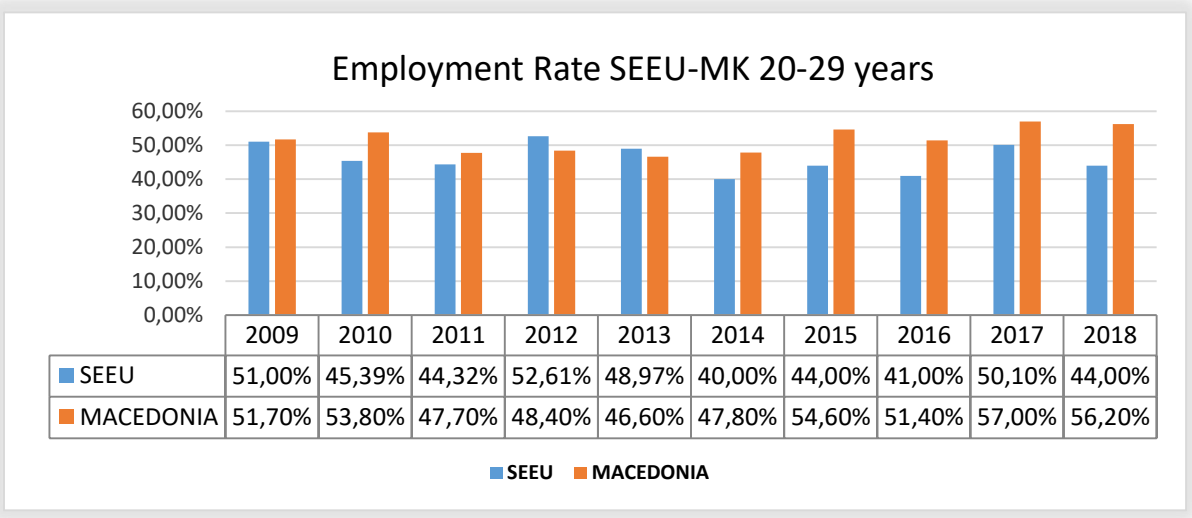
data, SEE University graduates seems to lose the advantage in employment rates compared to graduates of North Macedonia.

5.2.2 SEEU and North Macedonia pooled data for graduates 20-29 years

As expected, the results of comparing SEEU and North Macedonia pooled data for graduates at the age 20-29 are different from the ones we get by comparing the category 20-24 year. It is important to mention that data for SEEU graduates fits to the category 20-24 years, because measure of employment rates is done approx. one year of graduation for undergraduate students. SEEU does not have data on employment rates five year later (29 years) for the same category of graduates.

In this comparison North Macedonia employment rates are higher compared to SEEU in most of the years analysed. In the three last years compared, the difference in rates in advantage of North Macedonia is approx. 8% for 2018, approx. 7% for 2017 and 9% for 2016.

Despite the gap of years for the data analysed, years 2009, 2012, 2013 and 2014 are very similar in rates for both compared categories.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SEEU	51,00%	45,39%	44,32%	52,61%	48,97%	40,00%	44,00%	41,00%	50,10%	44,00%
MACEDONIA	51,70%	53,80%	47,70%	48,40%	46,60%	47,80%	54,60%	51,40%	57,00%	56,20%

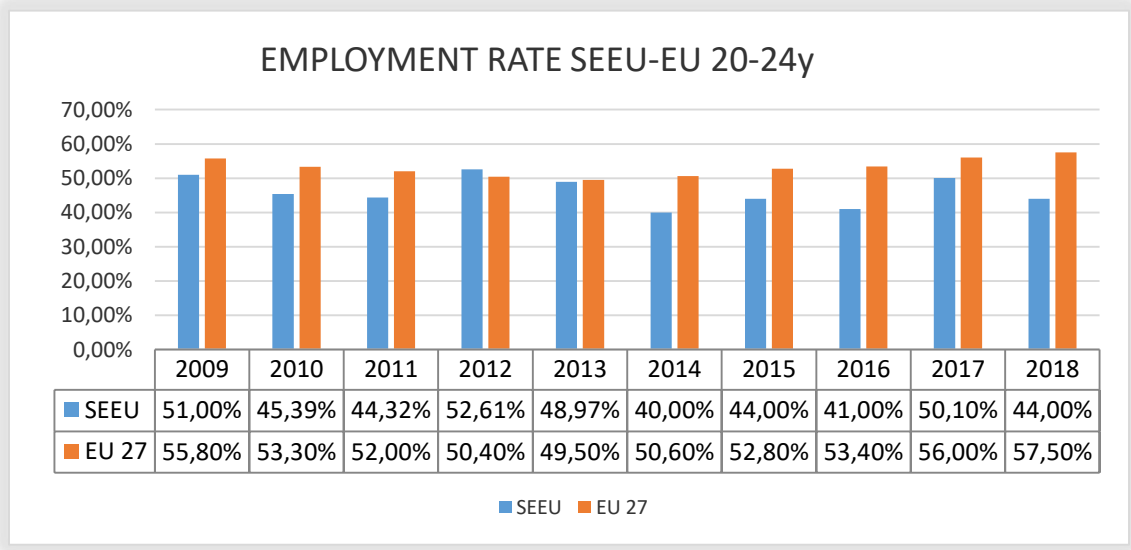
Figure 41. Employment rate SEEU – North Macedonia age 20-29

Source: Authors work based on data from Employability Reports of SEEU and Eurostat

5.3 SEEU COMPARED TO EUROPEAN COUNTRIES (EU 27) IN TIME SERIES

5.3.1 SEEU and EU 27 pooled data for graduates 20-24 years

Comparing the employment rates of SEEU graduates with the pooled data for European Union countries (EU 27) for graduates 20-24 year, we notice that EU 27 Countries' employment rates are higher in all years except 2012. Details are presented in Figure 42.

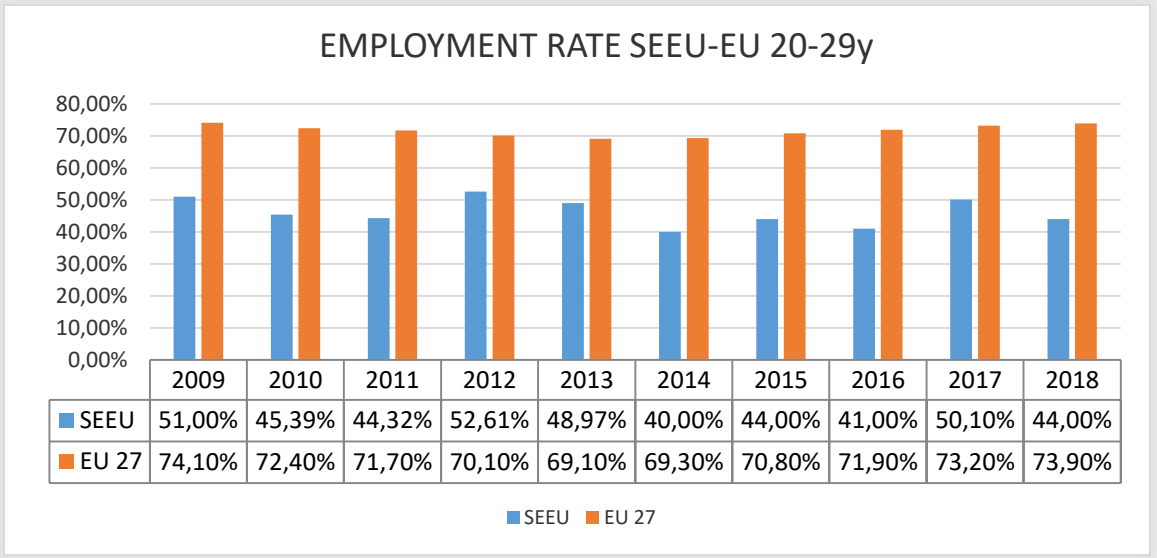


	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SEEU	51,00%	45,39%	44,32%	52,61%	48,97%	40,00%	44,00%	41,00%	50,10%	44,00%
EU 27	55,80%	53,30%	52,00%	50,40%	49,50%	50,60%	52,80%	53,40%	56,00%	57,50%

Figure 42. Employment rate SEEU – European Union age 20-24

5.3.2 SEEU and EU 27 pooled data for graduates 20-29 years

The difference in employment rates for SEEU and EU 27 for graduates 20-29 years are more pronounced for EU27 than for the category 20-24 years analysed above.



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SEEU	51,00%	45,39%	44,32%	52,61%	48,97%	40,00%	44,00%	41,00%	50,10%	44,00%
EU 27	74,10%	72,40%	71,70%	70,10%	69,10%	69,30%	70,80%	71,90%	73,20%	73,90%

Figure 43. Employment rate SEEU – European Union age 20-29

5.4 SUMMARY

South East European University graduates' employment rate is higher when compared to pooled data for North Macedonia for graduates age 20-24. For the category of graduate age 20-29 for North Macedonia, the rates are higher for North Macedonia and slightly lower for SEEU.

The rates of employment for graduates of the European Union 27 countries age 20-24 are higher than SEEU in years from 2009 to 2018, except 2012. EU 27 countries' employment rates for graduates age 20-29 are significantly higher than SEEU employment rates.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The results obtained from the comparative analysis confirm the hypothesis *H1: There is substantial difference in the rate of employment for graduates of Higher Education Institutions in different countries*. Different countries of the European Union have different rates of employment of the University graduates.

The hypothesis *H2: Demographic factors (age and gender) and success in education affects the graduate's employability* is also confirmed; factors such as age significantly affect the employment rates. Age and gender have a telling impact on employment rates graduates, this is confirmed when analysing the data for SEEU, North Macedonia and EU 27 countries. According to analyses to SEEU data, success in education is also a factors that has an impact on employment rates of graduates.

The hypothesis *H3: Some soft skills of graduates match the requirements of the job market* is confirmed. For this hypothesis previous work of authors and literature is analysed, due to lack of other data. According to previous studies this hypothesis is confirmed. In European Union countries soft skills such as the ability to work in a team, good communication skills, leadership, critical thinking and problem solving are the skills that are highly valued form the job market.

In North Macedonia the soft skills that match the requirements of the job market are communication skills, ambition, responsibility, team work, trust and precision.

The hypothesis *H4: More than 50% of SEEU graduates seeking for employment, get employed within the first year of graduation* is confirmed. Analysis on data related to the time SEEU graduates get employed showed that more that 50% of graduates that seek employment get employed. The average time for school to work transition of SEEU graduates is seven months.

6.2 RECOMMENDATIONS

Through this study we tried to analyse the employability of graduates of higher education institution, based on the research we can give the following recommendations:

- North Macedonia government/institutions

North Macedonia institutions should collect data related to the employability of university graduates such as: employment rates of graduates from universities, profiles of graduates employed with university degrees, and similar data. The Agency of Employment and Statistical office did not have data on from which universities the people have graduated who are employed in higher education in North Macedonia. The institutions responded that this data is not collected at that division. The Ministry of Education and Science of North Macedonia did not have data related to the rates of employments and placement in the job market for graduates of universities.

As stated, the Ministry of Education of North Macedonia in recent years has started to give importance to the skills need in the labor market, but the research showed the information needs to be more precise and specific, as they are very general. The Ministry should work more closely with the universities to make sure that the need and demand of the labor market for skills and profiles of university graduates is presented and taken into consideration by universities. The same should be applied when accrediting universities in this country. The government and the Ministry of Education should work closer with the universities and decide ways employability is going to be measuresd, besides

- South East European University

Compared to other universities, SEEU seems to be at an advantage related to the data of employment of their graduates and information for placement in the job market. SEEU keeps track of employment of graduates with a survey and calculates the employment rates of each graduated generation once. It can be useful that the unemployed graduates are tracked and contacted/surveyed once again after some time.

Some questions in the survey questions need to be reviewed. For example, the categorization in the question related to field of operation/industry should be revised. The options given should be the same as state or international categorization, for easier comparison. Other questions need review as well.

SEEU should consider that employment rates are just one kind of data and that does not define the employability of graduates. Qualitative data like data related to the level of jobs and positions the graduates get, the skills the graduates have for job seeking, the network that they use, data related to the support the graduates need to get a job, data related to the obstacles and difficulties are very much needed to define the employability of graduates and take steps for their enhancing.

- Universities in North Macedonia

In order to provide the job market with the profiles of graduates they need, the universities should consider the demand for profiles from the job market and/or the government. Graduates with the skills needed in the job market will be more employable.

The universities should consider training and helping students with the skill for getting a job such as: interview, CV, network, professional communication. The universities should keep track of the employment of graduates after they leave university.

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