

## Tertiary Education and Labour Market

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*Abstract.* The paper is based on qualitative research, studying and synthesising theoretical and empirical analyses. The research results illustrates and stress the importance of the connection and dependence of the governance of the TE on the national or system level, and management of TEIs with emphasis on providing employable graduates to economy and society. The main contribution of this research is an empirical analysis, which uncovers the attributes and weaknesses of TE labour market and their divergence, incoherence and failure. We found far more should be done to synchronize: TE policies, employment policies and TEIs management, which leads to the achievement of TE policies and objectives on an institutional level and would definitely contribute to better employability of graduates, satisfaction of social needs, higher quality of TE and better use of (public) funds.

*Keywords:* tertiary education, labour market, enrolment, unemployment, Slovenia

### 1 Introduction

Long term or strategic objectives of TE are:

- Achieve better responsiveness of TEIs to the development needs of society.
- Provide quality TE to all those who are able to finish their studies no matter their socio-economic status.
- Obtain transparent and rational usage of (public) funds for TE to contribute to the best possible outcome in relation to the amount of funds invested.

OECD research (Education at a Glance, 2017, p. 120-121), highlights that:

- man, with at least tertiary education, will on average receive \$252,100 net financial returns in their lifetime (\$60,900 total costs and \$313,000 total benefits) and
- via them, society will receive \$154,000 (\$54,900 total costs and \$208,900 total benefits), in relation to those without that level of education.

Naturally, these benefits are based on the assumption that individuals who finish their studies are also employed. For women, on average, net financial returns represent only two-thirds of those for a man. Lower benefits for women can depend on country-specific labour market outcomes, in particular higher inactivity and unemployment rates for women. On the other hand, public net financial returns are closely related to private returns, because where individuals benefit the most from pursuing TE are also those where governments gain the most financial returns (OECD, 2017, p. 120-121).

According to European Commission for the year 2014 in the EU, 4.5 million or 1 in 5 young people under the age of 25 are unemployed. Unemployment is +20%, which is twice as much as other age

groups and almost three times more than the +25s (<http://ec.europa.eu/social/main.jsp?catId=1036>). From 2008 - 2013, unemployment in Slovenia increased from 6.7% to +13%. In 2010, in the age group of 15 to 24 the level had already increased to +25%.

Until recently the labour market did not concern tertiary education institutions (TEIs) as graduates were employable. Thus, they did not monitor/examine the inclusion of graduates into the labour market, or if objectives, curricula and the expected study programme graduate competences were correctly set.

A pressing issue is that of unemployment among tertiary education graduates, a degree is no longer as valuable as assurance for a safe entrance into the labour market. (EU Youth Report, 2009, p. 30). In Slovenia the registered unemployment rate among tertiary graduates is still increasing as it was in 2016 1.9% (compared to 1.6% in 2011 and 0.8% in 2006) (Marjetič E. and D. Lesjak, 2013).

The current and future conditions of the labour market are sadly factors, which are not respected enough when designing the development and (annual) offers of study programmes and the number of enrolment places.

HE policies and HEIs are not suitably prepared for the unpredictable socio-economic and labour market conditions, especially because changing enrolment policies and the study programmes offered has an influence on the workload of their human resources. Therefore, it's about finding a balance between:

- what candidates want to study,
- assurance and appropriate use of teachers for delivering study programmes and
- the needs of society and labour market for appropriate (knowledge of) graduates.

As UNESCO (Education for a Sustainable Future, 1997) says, (inter)dependent operations and results of TE and the labour market are among one of the most important factors to highlight the issue of directing people into education and work. The field of directing people into education and work is the subject of different international legal instruments whose values are the base on which international and national education and employment policies are designed.

## **2 Research Objectives and Methods**

Objectives of the research stemmed from the needs of the society and TE labour market and theirs' analysis for the last 10 years and refers to:

- unemployed with TE with regards to their attributes (gender, age group, study area, first time jobseekers, duration of job-seeking)
- available job positions for TE on the Standard Occupational Classification (SOC) by activity and
- employability of TE graduates on SOC by activity.

The study is based on quantitative research approaches, studying and synthesising theoretical and empirical analyses.

The objectives of the research relate to demand, supply and enrolment in study programs as well as the characteristics of the TE labour market. Objectives were realized through the use of quantitative i.e. statistical methods, wherein the secondary data sources, which were thoroughly examined and in this way gained both the descriptive and numeric data, processed by the descriptive and comparisons methods. The data was retrieved from the Employment service of Slovenia and Slovenian Statistical Office.

A key feature of the research, which combines and integrates interpretative quantitative approach and methodology is that it wishes to accelerate the development of theory in the field of education, employment and management, and adds its contribution to science, which is defined as a basic research.

### 3 Higher Education Graduates' Unemployment in Slovenia

The share of unemployed people with at least TE has grown since 2006 when 9.4% of 78,303 were unemployed compared to 2016 when 17.7% of 99,615 were unemployed. Table 1 shows that the share of unemployed people with TE as well as the share of working age population with TE is increasing yearly. However, the share of registered unemployed with TE among working age population was highest in 2014 (7.3%), and has reduced by one percentage point in 2016 (6.3%).

Table 1: Registered unemployed people with TE and working age population

| Year | Registered unemployed |         |      | Working age population |         |      | Registered unemployed with (%) |                     |                   |
|------|-----------------------|---------|------|------------------------|---------|------|--------------------------------|---------------------|-------------------|
|      | all                   | with TE | %    | All                    | with TE | %    | tertiary education             | secondary education | primary education |
| 2006 | 78,303                | 7,391   | 9.4  | 911,306                | 186,817 | 20.5 | 4.1                            | 8.6                 | 16.7              |
| 2007 | 68,411                | 6,963   | 10.2 | 932,762                | 196,813 | 21.1 | 3.8                            | 6.9                 | 14.0              |
| 2008 | 66,239                | 6,435   | 9.7  | 996,000                | 238,000 | 23.9 | 3.2                            | 5.9                 | 12.6              |
| 2009 | 96,672                | 10,030  | 10.4 | 981,000                | 247,000 | 25.2 | 4.1                            | 8.1                 | 18.3              |
| 2010 | 110,021               | 12,791  | 11.6 | 996,000                | 253,000 | 25.4 | 5                              | 9.6                 | 22.2              |
| 2011 | 112,754               | 14,708  | 13.0 | 936,000                | 265,000 | 28.3 | 5.9                            | 10.7                | 24.5              |
| 2012 | 118,061               | 16,871  | 14.3 | 924,000                | 276,000 | 29.9 | 6.2                            | 10.7                | 26.0              |
| 2013 | 124,015               | 19,491  | 15.7 | 906,000                | 286,000 | 31.6 | 7.2                            | 11.9                | 28.4              |
| 2014 | 119,458               | 19,006  | 15.9 | 917,000                | 291,000 | 31.7 | 7.3                            | 12.8                | 26.4              |
| 2015 | 113,076               | 18,852  | 16.7 | 917,000                | 308,000 | 33.6 | 6.8                            | 11.8                | 26.8              |
| 2016 | 99,615                | 17,651  | 17.7 | 941,818                | NA      |      | 6.3                            | 10.6                | 26.7              |

Source: Employment Service of Slovenia, Statistical office of Republic of Slovenia

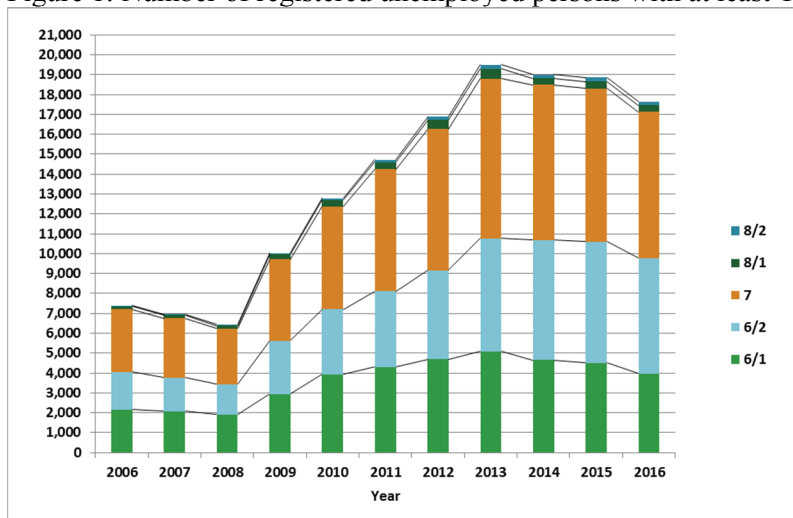
Number of registered unemployed people with TE increased the most in 2009 (by 55.9% compared to 2008 or by roughly 3,600 persons) and reached its maximum in 2013 when there were almost 19,500 persons with TE unemployed (see Table 1; Figure 1). Since then the numbers declined to 17,651 persons.

The fact that the number and the share of registered unemployed graduates increased in the last 10 years is more or less expected due to two main reasons:

1. the economic crisis which hit Slovenia to a great extend (-7.8% drop in 2009 (SORS)) and
2. the big increase of graduates with TE among all working age population – the number of graduates increased by almost two-thirds from 2006 to 2015, yet the number of working age population increased only for 3.3%.

What is unexpected is the fact that the percentage of registered unemployed with TE degree among working age population with TE is relatively stable and it varies from 3% to 7%. When comparing with the registered unemployed with the primary education, it varies from approx. 12% to close to 30%, despite the fact that we have more than 1/3 of working age population with the TE education.

Figure 1: Number of registered unemployed persons with at least TE (Klasius –SRV)



As we could see from the Figure 1, the largest increase among the registered unemployed TE graduates according to Klasius – SRV belongs to 7 which represents bologna master (second cycle) or equivalent and its number increased from 3,152 in 2006 to 7,352 in 2016, while their number increased the most in 2013 to 8,027.

The transition to the labour market is particularly difficult for women with TE. Two thirds of all unemployed TE graduates are females (Figure 2). As we will see later that is mainly due to the study fields which are more popular among women and for which unemployment rate is much higher than for the others.

Figure 2: Unemployment TE graduates by gender

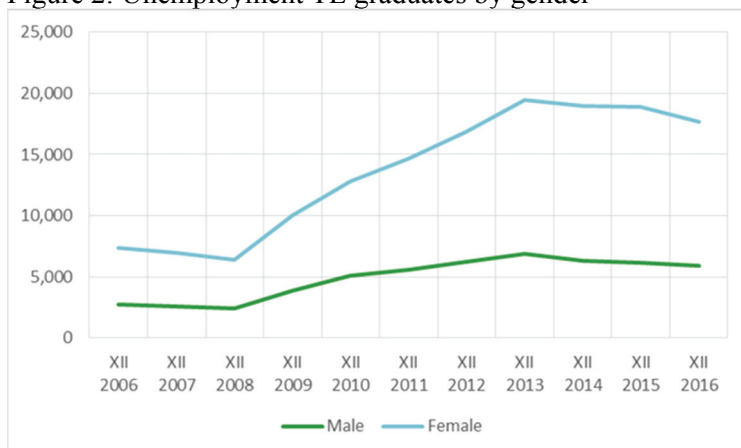
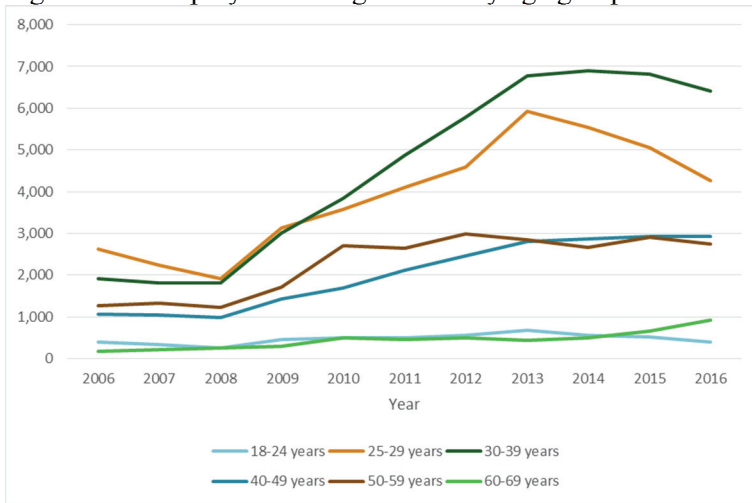


Figure 3 clearly shows that the most vulnerable age groups were young TE graduates between 25 and 39 years. Share of unemployed TE graduated aged between 25 to 29 years was 30% and between 30 to 39 years 35% in 2013 totalling to 65% of all unemployed TE graduates. This is quite expected, since having a degree without any working experience is a big weakness of this age group. In 2016 their share dropped to 60%.

Figure 3: Unemployment TE graduates by age groups



In 2016, as in years gone by on the labour market, the most registered unemployed with at least TE, came from the following study areas (KLASIUS-P) (Figure 4):

- 3 – Social sciences, business and law 43.2%
- 5 – Engineering, manufacturing and construction 14.5%
- 2 – Humanities and arts 11.0%
- 1 – Teacher training and Education science 9.8%

The smallest share of the unemployed graduates was in area 6 – agriculture, forestry, fishery and veterinary 3.7%.

That to a great extent reflects the fact that the most popular study area are social sciences business and law (27.8 % of all students were studying in this study area in 2016/2017 and 34.6 % of all graduates in 2016 were graduates from this study area).

Figure 4: Registered unemployed TE graduates by study area (in %)

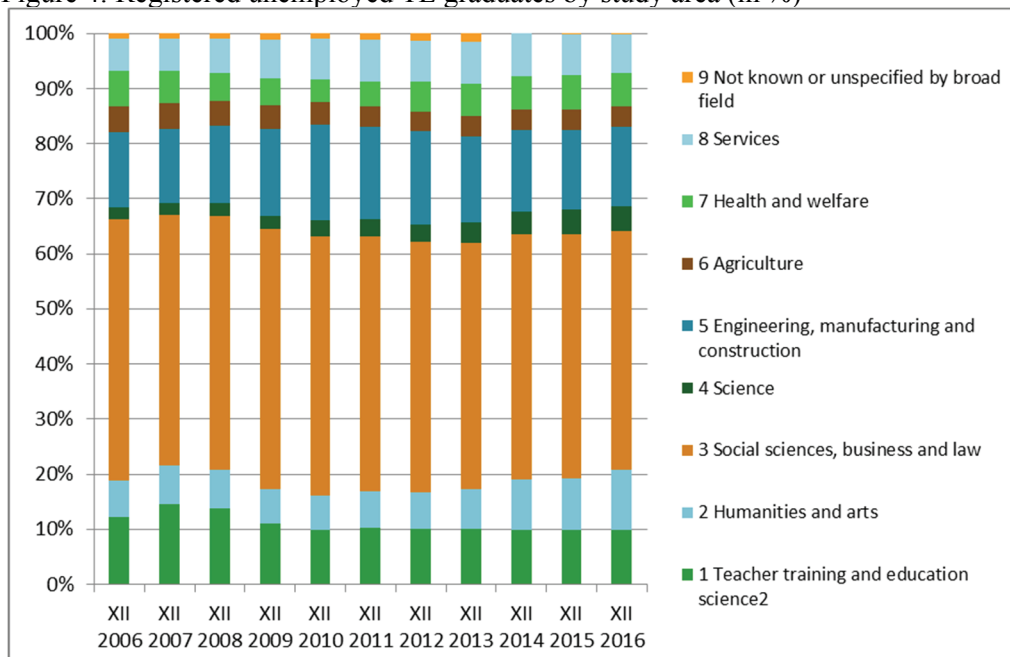
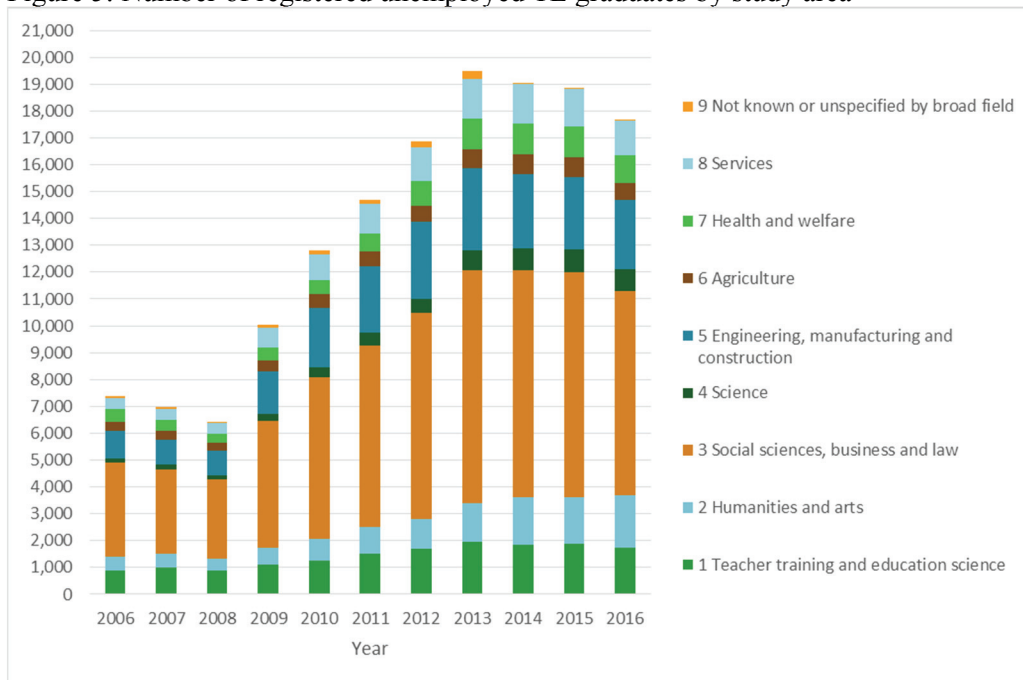


Figure 5: Number of registered unemployed TE graduates by study area



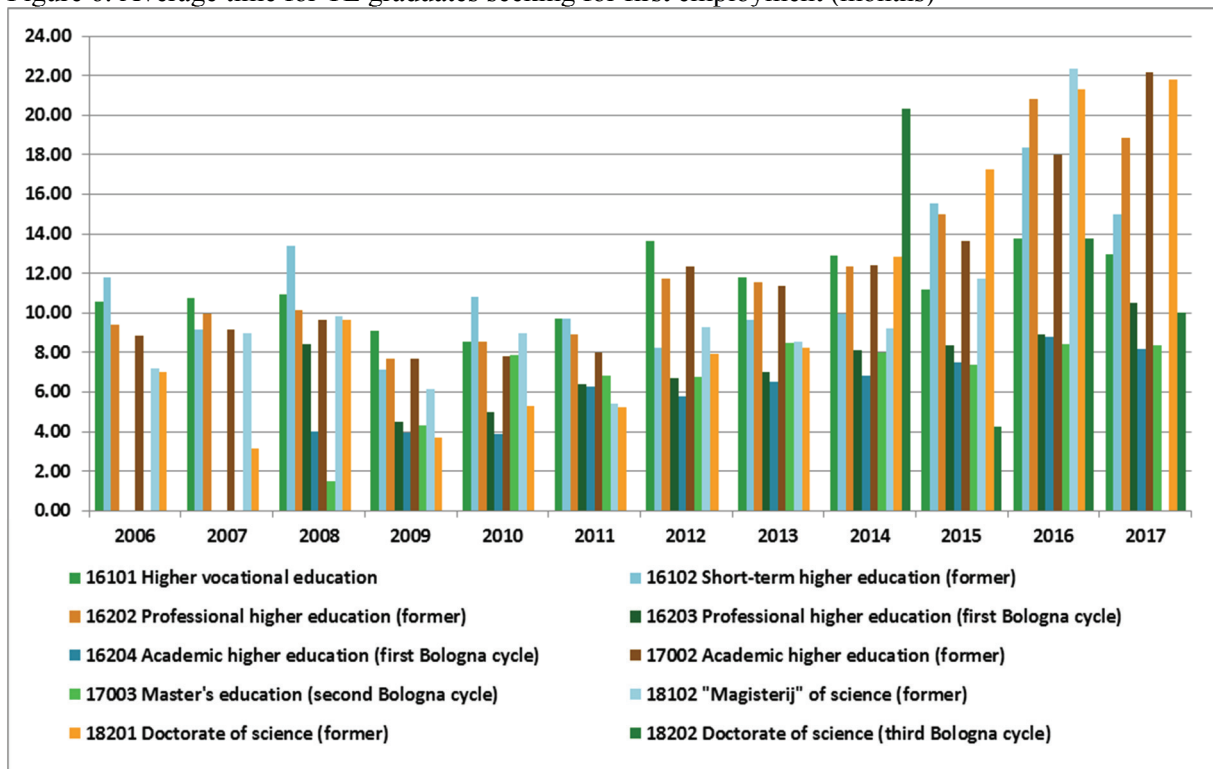
Number of first time jobseekers having TE was 2,072 in 2006; almost 4.800 in 2013 and it decreased in 2016 to roughly 4.200. Share of first time jobseekers having TE among all first time jobseekers continuous to grow from 12% in 2006 to 24% in 2016.

In 2016, most first time jobseekers came from the following areas:

- 3 – Social sciences, business and law 35.9%
- 2 – Humanities and arts 17.5%
- 5 - Engineering, manufacturing construction 12.4%
- 1 – Teacher training and education sciences 10.6%

In 2016, first time jobseekers at the Employment Service of Slovenia the longest i.e. 17.2 months, came from the following study areas: 5 – Engineering, manufacturing and construction and 6 – Agriculture, forestry, fishery and veterinary, the least, i.e. 12.5 months came from 7 – Health and welfare. From 2009 to 2014, the number of months increased by 6.5 months: but mostly in area 3 – Social sciences, business and law, where it is 7.8 months.

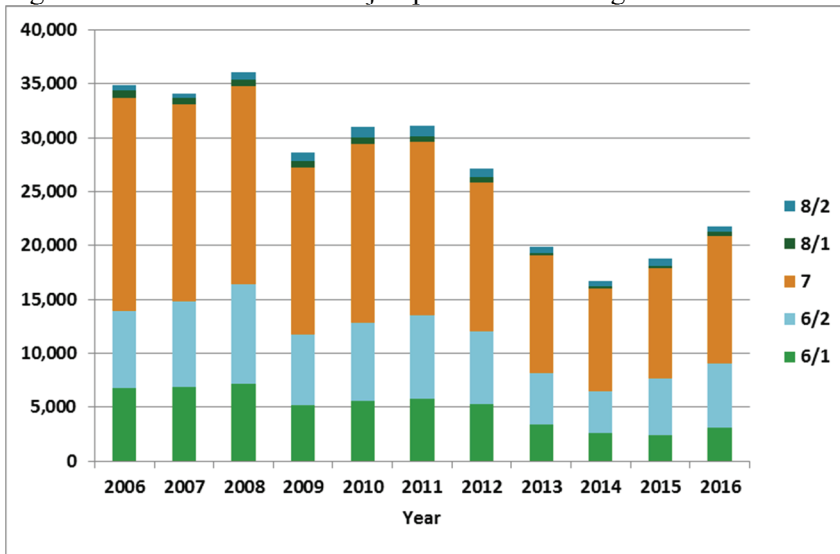
Figure 6: Average time for TE graduates seeking for first employment (months)



Average time for TE graduates seeking first employment is prolonging every year. On average in 2016 for a TE graduate seeking for his first employment lasted 14.4 months. Doctoral graduates were among those with the longest average time seeking for the first employment (21 months).

Changes in number of available job positions for TE graduates (see Figure 7) reflect the impact of economic crisis from 2008, which hit Slovenia the most in 2009 and for the second time a few years later (in 2012 GDP growth rate was -2.7 % and in 2013 -1.1%). In addition, amendment of Labour Market Administration Act from 12 April 2013 abolished the mandatory registration of a vacant post at the Employment service. Registration of a vacancy is still compulsory for the public sector and state-owned companies, while other employers may or may not publish the vacancy through the services of the Employment service. Therefore, the data presented in Figure 7 from 2006 to 2012 is not comparable with the data from 2013 to 2016.

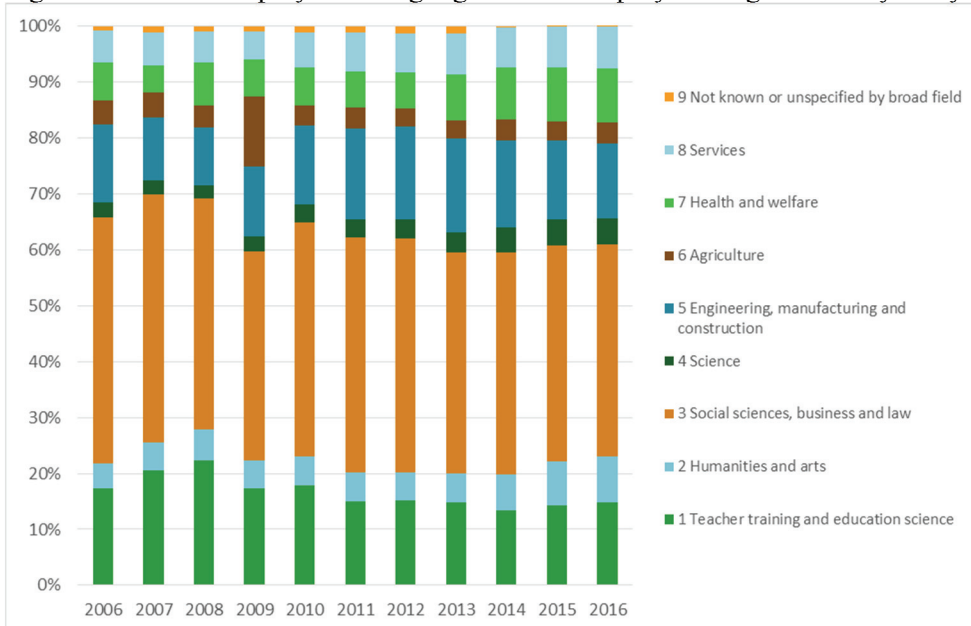
Figure 7: Number of available job positions for TE graduates



Available job positions are monitored by the SOC system. In 2016 number of available job positions increased to 21,822 (Figure 7); 20.2% on social sciences, 19.6% on health and welfare and 16% on education.

Considering also the number of employed persons among those who were previous registered as unemployed with TE (Figure 8), it can be observed that the numbers are increasing yearly. In 2016 there were 17,762 persons with TE who found an employment - which is 22% increase compared to year 2013 (14,460 persons) and more than double increase since 2006 (8,735 persons).

Figure 8: Share of employed among registered unemployed TE graduates by study fields



As we can see from the Figure 8, the largest share of employed among registered unemployed TE graduates belong to the social sciences, business and law study field, more precisely business,



management and economics. The most wanted are second cycle/ master graduates (or equivalent) comprising 47% of all employed among registered unemployed TE graduates.

#### **4 Discussion**

In our paper we focused on analysing the data on unemployed graduates with TE in Slovenia. We found that in the last 10 years the number of graduates with TE has been steadily increasing and the rate of unemployment as well.

This leads us to the fact that we have already reached the number of TE graduates, which the current labour market can assimilate. Especially the evidence for TE graduates seeking for the first employment are alarming.

The TE graduates employment rate is 84.4 % and is slightly above the EU average for 2015 (84.1%) (Evropska komisija, 2016).

When we compare the number of unemployed TE graduates and available jobs for TE, we find that the number of available jobs exceeds the number of unemployed TE graduates. However, when we take a closer look, we can observe that majority of unemployed are women, graduates aged 25 to 39 years and graduates with a social science degree, what all implies to a structural unemployment problem. Yet on the other hand, most employed TE graduates are from the social sciences study area – more precisely from the business, management and economics.

The Employment Service of Slovenia launched programmes, which have already taken into consideration the characteristics of TE graduates and prepared additional actions to decrease the structural imbalances. Currently, several ESS projects are targeted to decrease youth unemployment (e.g. *Opportunity for me* (sl. Priložnost zame), *Hire me* (sl. Zaposli me), *Permanent employment of young people* (sl. Trajno zaposlovanje mladih)), women unemployment (*Promoting women's entrepreneurship 2017* (sl. Spodbujanje ženskega podjetništva 2017)) and internships for first job seekers in the fields of law, economics, veterinary science, food technology or livestock (*Internships for young people seeking their first job* (sl. Pripravnštva za mlade iskalce prve zaposlitve)). Some actions are currently also targeted to employers, to refund first-employment contributions or exemption from payment of contributions, tax deductions or relief, etc.

#### **5 Conclusion**

The main contribution of this research is an empirical analysis, which uncovers the attributes and weaknesses of TE labour market and their divergence, incoherence and failure.

The research contributes to greater integration and to the achievement of strategic objectives of both TE and employment policies. Therefore, it can help defining the appropriate TE policies, objectives and particularly measures and mechanisms, which could encourage TEIs management to decrease graduate unemployment and thus contribute to greater TE success.

The development of study programmes, number of enrolment places and offers of TEIs are based mostly on the following key factors:

- Spatial, personnel and other capabilities. Human resources is proving to be an important factor in relation to social change in the quality of personnel and their motivation for creating work, which is dependent on the appropriateness and/or inappropriateness of working conditions and characteristics of TE teacher/researcher employment.
- Available funding and attributes of financing education.
- Interest of candidates to study, which to a certain extent is reflected in demographic movements.

But as the results of our research show, far more should be done to synchronize:

- TE policies, their objectives and measures and/or mechanisms
- employment policies, their objectives and measures and/or mechanisms
- TEIs management, which leads to the achievement of TE policies and objectives on an institutional level,

what would definitely contribute to better employability of graduates, satisfaction of social needs, higher quality of TE and better use of (public) funds.

Due to this, the TE enrolment policy should be seriously reconsidered, especially in study areas, which the labour market sets. Considering our finding, designing enrolment policies should essentially be within the context of co-operation between TEIs, employers and government as well as annual tenders for TE enrolment, which TEIs set forward to government to confirm. In addition, enrolment policies should be based on data and trends in TE and on the labour market, the strategic direction of the country as well as long-term development projections of Slovenia and the labour market.

## References

- Employment Service of Slovenia (ESS). Retrieved from: <http://english.ess.gov.si/>
- EU Youth Report (2009). Retrieved from [https://ec.europa.eu/youth/policy/implementation/report\\_en](https://ec.europa.eu/youth/policy/implementation/report_en)
- European Commission. (2009). *EU Youth Report*. 2009. Education and Culture DG. [http://pjp-eu.coe.int/documents/1017993/1406769/eu-youth-report\\_en.pdf/e792359c-e033-4625-8c1b-f17c6e695527](http://pjp-eu.coe.int/documents/1017993/1406769/eu-youth-report_en.pdf/e792359c-e033-4625-8c1b-f17c6e695527)
- Evropska komisija. (2016). *Pregled izobraževanja in usposabljanja 2016*. Izobraževanje in usposabljanje Slovenija. Retrieved from [https://ec.europa.eu/slovenia/Education\\_and\\_training\\_monitor\\_2016\\_sl](https://ec.europa.eu/slovenia/Education_and_training_monitor_2016_sl)
- Marjetič, E. and Lesjak, D. (2013). *Analiza trga dela in visokošolski razpis za vpis*. Ljubljana: MIZŠ.
- OECD. (2008). *Education at a Glance 2008: Highlights*.
- OECD. (2017). *Education at a Glance 2017*. Retrieved from: [http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2017\\_eag-2017-en#page1](http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2017_eag-2017-en#page1).
- Statistical Office of Republic of Slovenia. (SORS). Retrieved from: <http://pxweb.stat.si/pxweb/dialog/statfile1.asp>
- UNESCO. (1997). *Education for a Sustainable Future*. Retrieved from [http://www.unesco.org/education/tlsf/mods/theme\\_a/popups/mod01t05s01.html](http://www.unesco.org/education/tlsf/mods/theme_a/popups/mod01t05s01.html)