

The Dynamics of the Change in Composition of University Graduates in the Czech Republic

Jolana Volejníková ^{a*} and Hana Kučerová ^b

^a *Department of Economic Sciences, Faculty of Economics and Administration, University of Pardubice, Pardubice, Czech Republic*

^b *Department of Business Economics and Management, Faculty of Economics and Administration, University of Pardubice, Pardubice, Czech Republic*

Abstract

The beginning of the 21st century is now underway, with signs of great changes in the labor market. These changes can be seen in both the approach of employers and in the success of job seekers. Changes in the national economy's structure are accompanied by changes in the composition of the positions filled and by increasing employer demands on the competencies of a university-qualified workforce. Knowledge of at least one foreign language and excellent computer and IT literacy is commonly required. However, knowledge and skills are becoming key experience requirements as well as the undergraduates' abilities to acquire and use this knowledge effectively. Great emphasis is also placed on time and space flexibility, proactivity, creativity, initiative, teamwork, and self-development. The paper's goal is to present the conclusions of research on the employability of university graduates in the Czech Republic's labor market. A comparative analysis of the labor supply of university graduates in relation to the current labor market's needs was carried out on statistical data from the past ten years for the Czech Republic. The evaluation and conclusions of this analysis demonstrate the existence of structural discrepancies and indicate the need for qualitative and quantitative changes in the composition of graduates' professions and hence the need to reorganize university education. The increasing university graduate failure rate also emerged as a serious problem.

Keywords: labor market; the supply of work; the demand for work; graduate; unemployment of university graduates.

JEL Classification: I23, I25, J21, J24, J42

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* Corresponding author: Jolana Volejníková, Department of Economic Sciences, Faculty of Economics and Administration, University of Pardubice, Studentská 95, 532 10 Pardubice, Czech Republic, email: jolana.volejnikova@upce.cz.

1 Introduction

The dynamically changing structure of the Czech national economy is causing significant transformation in the labor market, and employers' requirements for the knowledge, skills, and abilities of the work force are also changing. Changes in the composition of the jobs that are filled and the increasing tempo of transformation in required knowledge are primarily the result of implementing new technology and new managerial concepts. The importance of transferring knowledge, skills, and abilities is increasing at an astounding rate (Bock et al., 2012; Ritala, et al., 2015). According to the endogenous theory of economic growth, knowledge is projected back into technology and the qualifications of the workforce (Romer, 1990). The creation of knowledge also has a positive external effect. When one company gains a temporary advantage on the market because they have invested into research, development, and their workers' qualifications, their actions result in new or improved products, technology, and production processes. In time, these positive effects spread (spill over) to other companies in very diverse ways and are utilized by other workers. Next, these positive externalities result in increasing returns to scale, which have a fundamental impact on long-term economic growth (Stejskal et al., 2018; Hájek et al., 2018).

The changes taking place on the labor market also significantly influence educational system requirements and the actual trajectory of graduates' transition to the labor market. In this respect, higher education indisputably plays a key role. The labor market's inconsistent pattern of change and its requirements of the Czech tertiary educational system have become the subject of a number of discussions. Nonetheless, the conversation around altering higher education's existing legislative basis, which has been in effect since 2006, has not yet led to any fundamental reform. In the given context, the Higher Education Development Framework for 2020, which ties into the Strategy for Education Policy of the Czech Republic Until 2020 and the Strategic Framework for European Cooperation in Education and Training, has emerged as the key strategic document. These materials by the Ministry of Education, Youth, and Sports (MŠMT) place emphasis on the educational system's professional and hierarchical structure; on educational quality, including the effective combination of knowledge, skills, and competences; on effectively coordinating education with the labor market; and on securing cooperation between universities and employers (MŠMT, 2014). Currently, the starting point for creating a higher education study program is the National Qualification Framework, which has the goal of ensuring the level of quality that qualification provides (Volejníková, 2017). However, this procedural document only targets the results from being taught a specific curriculum, i.e., it defines the knowledge, skills, and competences expected of graduates (Young, 2003).

Tertiary education is indisputably an enormous competitive advantage on the labor market. In advanced societies, education is the most important factor for determining success in professional life. Employers utilize it when selecting workers for specific jobs, and individuals invest in it so as to improve their position in the labor market (Shavit & Miller, 1998; Dubcová, 2018). Even in the Czech Republic (CR), most young people are currently aware of education's importance, and 90% of secondary school graduates apply for higher education. In 2017, there were nearly 300,000 students studying at 64 private and public Czech institutions of higher education. In the vast majority of cases (90.2%), these were students at public tertiary institutions, which have long remained at a total of 26 in the CR. As in other advanced countries, higher education is not only the privilege of the elite in the CR. Whereas roughly 15% of the people born in a given year graduated from higher education at the beginning of this century, this number was over 40% in 2012. Czech tertiary education is thus undergoing steep massification of higher education, thus confirming Trow's theory of massification. This theory states that many European countries, after passing

through the elite and mass phases of higher education's evolution, cross over into a universal (general) phase, where more than half of the appropriate age group go to tertiary education institutions, and at least two fifths of the population hold higher education degrees (Trow, 2005). The number of tertiary students is growing, although many of those who begin higher education do not finish their studies. In addition to approaching class years with low populations, there is a marked decline in the number of graduates as a result of the sharply increasing rate of failure to complete studies. At all levels of tertiary education, the overall rate of failure was 76% in 2017. The following graph (Fig. 1) shows the changes in the number of graduates of Czech higher education according to their degree program for 2007 to 2017.

Figure 1 near here

In the context of the above, the main goal of our research was primarily to conduct comparative analysis of:

- the number of available higher education graduates and the composition of their qualifications;
- the failure rate of higher educational study programs; and
- the employability of the higher education graduates on the labor market and the evolution of unemployment in higher education graduates in the CR.

2 Material and Overall Methods

For the purposes of our research, it was first necessary to clarify terminology of the word "graduate." The Employment Act (Act No. 435/2004 Coll.) does not directly define the term "graduate," though they single out the job seekers who require increased attention when looking for employment, which includes individuals listed in the Unemployment Register for a continuous period longer than five months. According to the Labor Code (Act No. 262/2006 Coll.), a graduate is an employee beginning employment for work corresponding to their qualifications if their overall professional experience has lasted less than two years since they successfully completed their studies, with maternity leave and parental leave not counted into this period. In the context of this definition and in accordance with the definition according to Zelenka (Zelenka, 2017), the higher education graduate is defined as one who has successfully graduated from school no longer than two years before the date of identification, with the date of completion of studies being the day the last state examinations were undertaken with success.

When processing the comparative analysis's data on the composition of students and graduates of Czech higher education and the rate of failure of studies for students of Czech higher education according to degree program (bachelor's, combined bachelor's/master's, master's, and doctoral programs) and field of education, we used data published by the Czech Statistical Office and data from MŠMT's Development Yearbook of Tertiary Education for the years 2007/2008 through 2017/2018, which contain information on the number of students and higher education graduates for individual academic years.

2.1 Unemployment of higher education graduates

When processing information on tertiary graduates, we relied on the methodology outlined by Zelenka (Zelenka, 2017). Essentially, this methodology has been derived from two sources. The first is data processed by the labor offices (generally twice per year, always on April 30 and Sept. 30). Regarding official experience when compiling data on graduates, labor offices refer to the Labor Code (see above). An unemployed graduate is thus considered to be a registered job-seeker who has graduated from school no more than two years previous to the date of identification. This data thus concern registered unemployed graduates, and as of 2002, has been made publicly available at the integrated portal of the Ministry of Labour and Social Affairs (MPSV) in the file “Graduates by School and Field_MMRR2”.

Secondly, data on higher education graduates have been used from MŠMT’s SIMS database, Compiled Information from Student Registers. Data for this database have been taken directly from individual tertiary institutions, again always on April 30 and Sept. 30 to correspond with the deadlines for the labor offices’ data collection.

Using the data from SIMS and from graduates registered with the unemployment office, the unemployment level for tertiary graduates can be established on the basis of the following relationship:

$$\text{unemployment of u. g.} = \frac{\text{unemployed u. g.}}{\text{the total number of u. g. - continuing to study}} \quad (1)$$

The abbreviation “u. g.” used in the equation stands for “university graduate.”

The method listed makes it possible to record the actual chance of employment for higher education graduates on the labor market (Zelenka, 2017). We would like to add that it is also possible to acquire data on tertiary graduate unemployment from the data published annually by the National Institute for Education. However, the unemployment level for graduates is calculated here in relationship to the overall number of graduates without taking into consideration whether or not they are continuing in their studies.

Just as elsewhere, when taking our paper’s goal into consideration, it is necessary to evaluate results achieved using the acquired statistical data very cautiously, because the statistics are naturally cannot encompass situations linked to, for example, hidden tertiary graduate unemployment or cases linked to abuse of the qualifications achieved by the graduates when occupying available job positions.

3 Results

3.1. Analysis of the change in the composition of students and graduates of Czech higher educational institutions

During the period under examination, there were fundamental changes in the number and composition of higher education graduates in the CR. The overall number of individuals studying at Czech tertiary institutions decreased by nearly 45,000 during the given period. At the same time, the number of students at Czech institutions of higher education had been increasing up until 2010, when nearly 400,000 individuals were involved in studies; after this point, the number began

decreasing annually. Currently, the number has gone down by one quarter. The decline in the number of students mostly concerns bachelor's programs (these students comprise 57.6% of all tertiary education students, with their number having decreased by nearly one third compared to 2007. Master's program students (including combined bachelor's/master's programs, which comprises 35.7% of all tertiary students) is 15.7% less, and doctoral candidates (7.4% of the overall number of tertiary students) have declined by 14.4%. Parallel to this, the number of graduates has been declining since 2013; this number was 72,057 in 2017. At the same time, the greatest decrease in graduates is apparent within bachelor's degree programs, where the number of graduates reacts to a drop in newly enrolled students with an approximate delay of three-years, which corresponds to the length of a bachelor's program. From a long-term perspective, it can be stated that the number of students and graduates at all levels of higher education culminated in 2012, when a total of 94,090 individuals graduated from tertiary education. Beginning at this point, the number of graduates began to decline relatively quickly. According to Zelenka (Zelenka, 2017), the number of graduates will continue to decrease until approximately 2022, when the estimate indicates that around 54,000 people should be graduating from higher education annually, with roughly 33,000 of these entering the labor market.

During this time period, the composition of graduates also changed in relation to their chosen field. While the academic year of 2007/2008 had the greatest number of graduates in the fields of the engineering sciences (15,642 graduates overall), we recorded the highest number of graduates for the academic year of 2017/2018 in the economic sciences (overall 16,504). Over the long term, student interest has been strongest in fields in the group of business, administration, and law (20.2% of all higher education students), of which management and administration has the most students. At the same time, these fields nonetheless registered one of the greatest drops in students; they decreased by nearly one third (-32%). Technical fields from the group of engineering, manufacturing, and construction comprise 16.1% of the students; naturally, even these have encountered a recent decrease in students, which corresponds to the overall decline in tertiary students. In the last 7 years, these have dropped by nearly 17,000 (-26%). The number of students in the Education group is also distinctly decreasing. On the other hand, the field of health and welfare services has seen an increase in students over the period under study, and their percentage of the overall number of students is currently fluctuating around 11.9%. The number of students in the fields of natural science, mathematics, and statistics, which includes 6.3% of students, is also relatively stable; this also applies to the number of students in the fields of information and communication technology (6.7% of students) and agriculture, forestry, fisheries, and veterinary (4%). Graduates of higher education in the CR are primarily Czech citizens, though a gradual increase in international students can be seen (from 2.5% to 5.3%). Currently, there is a total of 43,800 international students studying at all the levels of tertiary education in the CR. A summary of the data acquired by analyzing the examined time period is contained in the following table (Table 1).

Table 1 is near here

3.2 The failure rate for higher education graduates

Above all, the considerable drop in the number of tertiary students and graduates is related to the fact that people born in the 1990s, which were years with low birth rates, have been completing their studies. A second, no less important reason is the increasing rate of failure of

higher education students, which is currently a serious problem for most tertiary institutions in the CR. Even though this is a long-term problem, it can be seen that that rate of educational failure has been slowly increasing at a constant rate in the CR, primarily in the first two years of bachelor's programs. The source data showed that currently less than half of the bachelor's programs that have been started are completed successfully. However, at the same time, most of those who leave the programs later re-enroll, either at the same or a different tertiary institution. The rate of failure is relatively low for the later years of degree programs; in combined bachelor's/master's programs, the rate has stabilized at around 64%. In contrast, doctoral studies are completed by only 10% of those who enroll. From the perspective of field of study, the rate of failure is greatest for studies in the fields of agriculture, engineering, and natural sciences with low rates of failure to complete studies seen conversely in prestigious fields such as law, medicine, and psychology. However, even within individual fields, there are large differences between individual schools, faculties, and programs. The following graph (Fig. 2) depicts the percentage of unsuccessful students among the overall number of students who began the given level of higher education in the given year. As is clear from the graph, the highest percentages were achieved by graduates of doctoral programs, where the percentage of failure in individual years fluctuated around 90%. This was primarily for the fields of health services, medicine, the humanities, and the social sciences. The second highest percentage of failure to complete tertiary studies is shown by master's program students (around 87%); this is followed by bachelor's programs, where a total of 80% of students do not complete their studies at all. The lowest rate of failure to complete studies during this time period fluctuates around 65% and concerns combined bachelor's/master's studies. Concerning professions, this mainly relates to the educational fields of cultural studies, the arts, the humanities, and the social sciences.

Figure 2 near here

In the CR, as in many other post-Communist countries, policy aimed at supporting tertiary students in successfully completing their studies largely reflects these countries' persisting conservative approach to the role of higher education. The opinion that education should be the exclusive privilege of the most capable still endures; however, the more demanding work of motivating students has also been distinctly neglected. In fact, not only are the less talented leaving, but also ambitious, capable, and self-confident individuals who criticize the educational system are not completing their education with increasing frequency. These individuals do not see the benefits they expected of higher education and leave to obtain experience, which, especially now, offers them relatively high salaries. Others opt for different academic fields, although they also often leave for abroad.

3.3 The labor market's requirements and tertiary graduates' unemployment rate

The labor market's structure has changed dramatically under the influence of modern technology; at the same time, strong economic growth and the current state of marked low unemployment has fundamentally influenced the balance of power between labor's supply and demand. This has resulted in reinforcing the structural discrepancy between the supply and demand for the labor of tertiary graduates. Problems related to the graduates' levels of preparedness are also constantly increasing. Both the young graduates' actual knowledge as well as the study programs' structure and content are continually lagging ever farther behind the labor market's requirements as seen by employers and companies. Comparative analysis of the data has confirmed the growing

social problem of tertiary graduates' employability in the labor market. As this concerns professions, employer interest in the technical professions and positions in the field of information and communication technology (ICT) dominates across all sectors. Regardless of their size, all companies in the CR are having problems filling ICT positions. The demand is primarily for professions that participate in software development and developers (programmers), as well as engineers, mechanics, testers, and managers for IT workers. An extensive lack of workers is also being seen among craftsmen, who no longer perform difficult manual labor but rather need to be highly qualified professionals such as programmers or developers. There is great interest in CNC operators. In these fields, however, the number of tertiary graduates has been below average over the long term. Moreover, as a result of above-average wages in IT fields, (in 2017, the median was CK 43,081 per month, which is 160% of the median wage for all employees in the CR), there is a new trend to begin work directly after secondary school and put off higher education – or to complete it in a combined form of study. The most alarming aspect of the current situation is in healthcare, where the demand for physicians is many times greater than the number of medical school graduates entering the Czech labor market. On the other hand, the excessive number of graduates in the fields of economics, the humanities, and social sciences is also reflected in the problem of their employment. Moreover, the average level of qualification needed for the work that these graduates will perform in the future has also decreased. Roughly one quarter of them work in places that do not require higher education at all, and another fifth use their education only partially.

The trend for tertiary graduate unemployment levels also underwent dynamic development during this period. Before the CR's entry into the EU, the unemployment level for all tertiary graduates was 8.4%. Afterwards, the indicator's value began a continuous decline. At the end of 2008, the graduate unemployment level began to increase again, primarily as a result of the economic crisis. Between 2010 and 2012, the values fluctuated between 4.0% and 4.6%. In line with the overall economic situation and the positive trend on the Czech labor market, the unemployment level of higher education graduates began to gradually decrease again in 2014, reaching 2.3% in 2017. As demonstrated in the following table (Table 2), we analyzed the unemployment trend for tertiary graduates according to both field of study as well as particular tertiary degree. Over the long term, the lowest unemployment level was seen for graduates in the fields of medicine, pharmacology, health/social work, and law. Primarily in recent years, there has also been a low unemployment level for graduates in IT, electrical engineering, and chemical engineering. Conversely, over the long term, the highest unemployment level was recorded for the fields of agriculture and the arts; there were also above-average unemployment levels for graduates in the natural sciences, humanities, social sciences, and theology. In the humanities, this is primarily concerned graduates in philosophy, cultural anthropology, social ecology, and gender studies.

Table 2 near here

4 Discussion

Today, it is clear that the future of the Czech labor market will be influenced by new technology, ongoing automation, digitalization, artificial intelligence, and robotics. Accompanying this will also be a transformation of the nature of careers and work methods. Technological advancement makes work easier, although school graduates will need to be able to quickly learn how to work with the latest devices and technology upon entering employment. The focus of human work will gradually shift to control, management, and more creative activities; it can also be

assumed that there will be an increasing role for supplementary lifelong education. Therefore, a necessary condition for ensuring the Czech economy's competitiveness is a realistic prediction of the labor market's demands for qualifications. The results of this should be specifications for the requirements of the individual fields in higher education and ensuring their flexible implementation within educational programs – as well as close cooperation between employers and higher education institutions, including individual faculties. Tertiary schools will also need to put greater emphasis on working with information, digital technology, and communication tools; on knowledge of mathematics and IT; and on the abilities to think logically, evaluate processes, make decisions, and seek better, more effective solutions.

The conclusions of our analysis confirm that, over the past ten years, the dynamics of the changing composition of Czech tertiary graduates does not correspond to the dynamic development of the Czech labor market. This is currently true for study programs at all academic levels. The most alarming aspect is the high rate of failure to complete tertiary studies, which somewhat reflects the disproportionate increase in the number of emerging tertiary institutions as well as the number of students that have been admitted in recent years. The existential dependence of institutions of higher education on student numbers and the problem of filling their capacity often lead these institutions to perhaps absurd marketing campaigns; focus is being put on the programs' feasibility rather than emphasizing the higher education's quality. However, higher education's quality is also dependent on the quality and motivation of the individual academic workers. Yet at many Czech tertiary schools, it can be seen that there is a phenomenon of unpropitious choices, which is the result of experts departing on account of higher education's low salaries.

Even though institutions of higher education always undertake more radical changes in their approach to education, students, and ancillary services only very slowly and carefully, they are currently facing a whole range of challenges. To a certain degree, the basic priorities for developing tertiary education in the CR as listed in the Higher Education Development Framework for 2020 do react to the current situation. Implementing the Framework successfully should lead to the goal of the CR's higher education institutions offering a wide spectrum of high-quality study programs in 2020 – ones that will reflect the needs and interests of both a diverse population of students and a modern innovation economy. The conclusions and recommendations of this strategic document can be supported; however, the question remains as to how much of a time lag there will be for it to have an impact on the Czech labor market.

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References

- Bock, A.J., Opsahl, T., George, G., Gann, D.M. (2012), "The effects of culture and structure on strategic flexibility during business model innovation", *Journal of Management Studies*, Vol. 49 No. 2, pp. 279-305. doi:org/10.1111/j.1467-6486.2011.01030.x.
- Dubcová, G. (2018), *The Social and Solidarity Economy – One of the Stabilization Ways of Human Capital in Slovak Business*, Verlag Dashöfer, Ljubljana, 112 p.

- Hájek, P., Stejskal, J., Prokop, V. (2018), “Determinants of firms’ innovation activities: A case study of German knowledge-intensive industries”, *Finance & Economics Readings*, Springer, Singapore, pp. 85-98.
- Ritala, P., Olander, H., Michailova, S., Husted, K. (2015), “Knowledge sharing, knowledge leaking and relative innovation performance: An empirical study”, *Technovation*, 35, pp. 22-31. doi: 10.1016/j.technovation2014.07.011.
- Romer, P.M. (1990), “Endogenous technological change”, *Journal of Political Economy*, Vol. 98 (5), Part 2, pp.71-102. doi:org/10.1086/261725.
- Stejskal, J., Hájek, P., Hudec, O. (eds). (2018), *Knowledge Spillovers in Regional Innovation Systems*, Springer Publishing, Cham, 286 p.
- Shavit, Y., Muller, W. (ed). (1998), *From School to Work: A Comparative Study of Educational Qualifications and Occupational Destinations*, Clarendon Press, Oxford.
- Trow, M.A. (2005), “Reflections on the transition from elite to mass to universal access”, *International Handbook of Higher Education*, MA, Kluwer Academic Publishers, Norwell.
- Volejníková, J. (2017), “The innovation of microeconomics course with a focus on the characteristics of the key descriptors to describe the attainments and skills”, *The 4th International Multidisciplinary Scientific Conference on Social Sciences and Arts, SGEM 2017 Albena, Bulgaria, Proceedings Book 3*, STEF92 Technology Ltd., Sofia, Vol. 3. pp. 657-665. doi: 10.5593/sgemsocial2017/34.
- Young M. (2003), “National qualifications frameworks as a global phenomenon: A comparative perspective”, *Journal of Education and Work*, Vol. 16 No. 3, pp 223-237.
- Infoabsolvent (2018), “Graduate unemployment, by educational field”, available at: <http://www.infoabsolvent.cz/Temata/ClanekAbsolventi/5-1-04/> Graduate unemployment /12 (accessed 14 April, 2019).
- MŠMT (2018), “Development of tertiary education”, <http://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi/vyvojova-rocenka-skolstvi-2007-08-2017-18> (accessed 22 January 2019).
- MŠMT (2014), “Higher Education Development Framework”, available at: <http://www.msmt.cz/vzdelavani/vysoke-skolstvi/ramec-rozvoje-vysokeho-skolstvi> (accessed 10 April 2019).
- MPSV (2018), “Statistical Yearbook 2018”, available at: <https://portal.mpsv.cz/sz/stat/stro> (accessed 10 April 2019).
- Zelenka, M. (2017), “Unemployment of university graduates”, available at: <http://www.strediskovzdelavacipolitiky.info/download/Nezamestnanost%20absolventu%20VS%202002-2017.%20SVP%20PedF%20UK%202018.pdf> (accessed 22 January 2019).

Tables with Captions

Table 1. The Number of University Students and Graduates by Degree and by Field of Study; source: author's own compilation acc. to (MŠMT 2018).

Academic Year / No. of Students	2007/2008	2017/2018
Total Number of Students; -by degree:	343,942	299,054
Bachelor's degree	207,803	172,365
Combined Bachelor's/Master's Degree	51,461	42,461
Doctoral Studies	23,962	22,192
Total Number of Graduates; -by degree:	63,793	72,057
Bachelor's Degree	32,981	37,141
Master's Degree	17,903	4,741
Combined Bachelor's/Master's Degree	10,770	27,911
Composition of Graduates by Field of Study:		
Engineering Sciences	15,642	16,230
Agriculture, Forestry, and Veterinary Science	2,656	2,992
Healthcare and Pharmacology	3,837	5,694
Humanities and Social Sciences	8,928	12,019
Economic Sciences	15,358	16,504
Education and Social Sciences	8,965	8,460
Cultural Studies and the Arts	1,485	2,272

Table 2. Unemployment of University Graduates; source: author's own compilation acc. to (Infoabsolvent 2018, MPSV 2018, Zelenka 2017).

Graduate Unemployment By Degree Program in %

	Bachelor's Degree	Master's Degree	Doctoral Degree	Total Graduates	Unemployment Rate
2007	4.2	2.6	< 1	2.8	4.97
2017	3.1	2.1	< 1	2.3	4.26
Graduate Unemployment By Field of Study					
2007	IT and Electrical Engineering, Chemistry and Engineering, Agriculture, Natural Sciences, Social Sciences and the Humanities, Theology, Economics, the Arts				
2017	Agriculture, Natural Sciences, Social Sciences and the Humanities, Theology, Economics, the Arts				

Figures with Captions

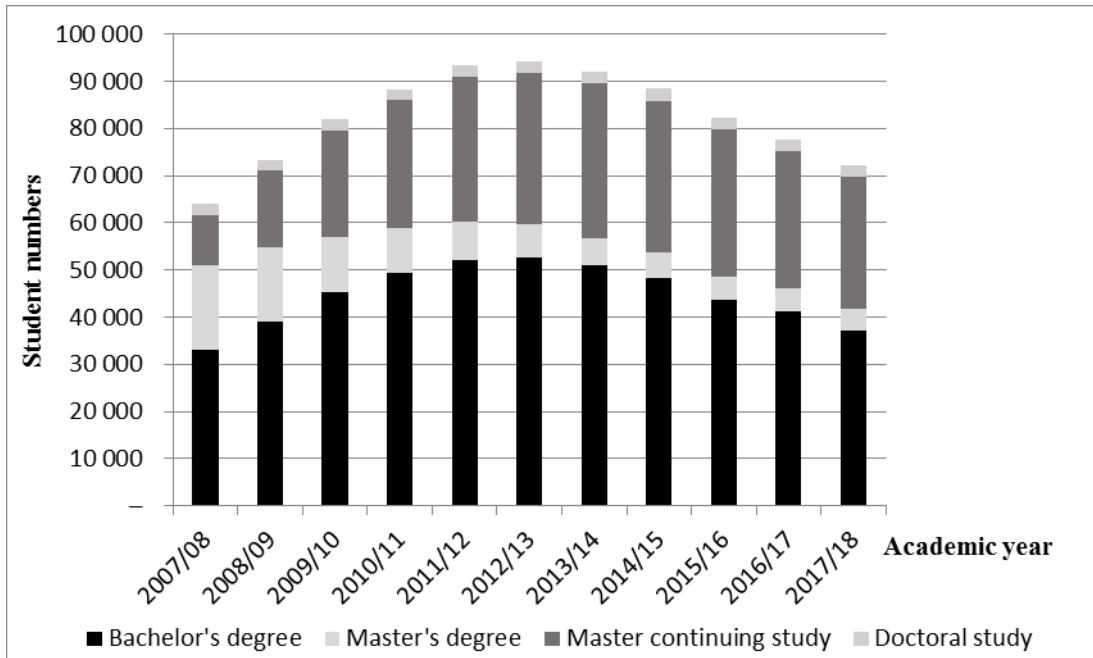


Figure 1 Composition of University Graduates by Degree; source: author's own compilation acc. to (MŠMT 2018).

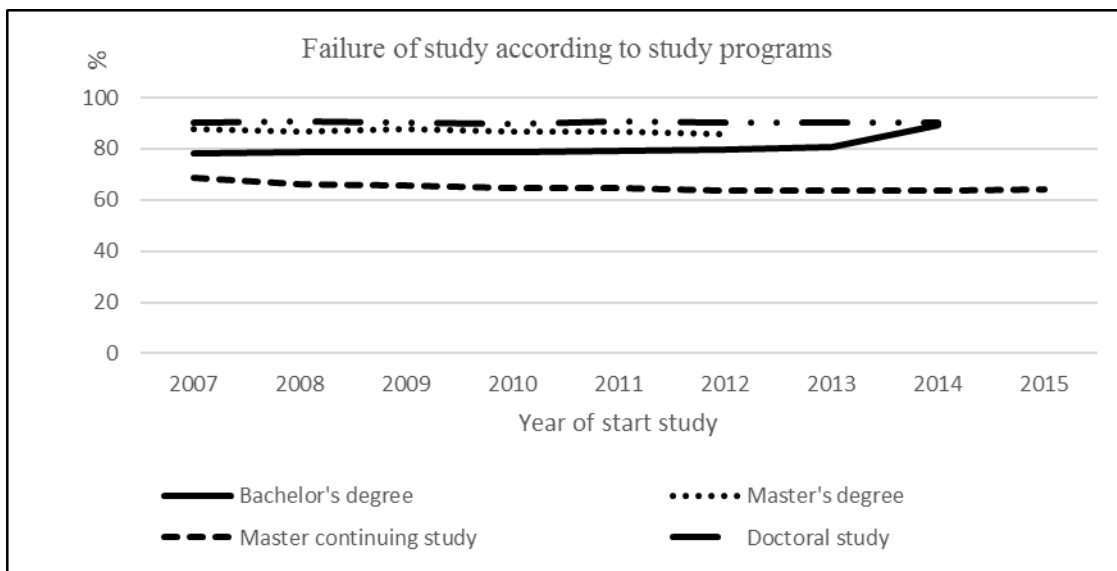


Figure 2 Incompletion of Studies According to Degree Program; source: author's own compilation acc. to (MŠMT 2018).