Peer-reviewed and Open access journal
ISSN: 1804-5006 | www.academicpublishingplatforms.com
The primary version of the journal is the on-line version

BEH - Business and Economic Horizons
Volume 15 | Issue 1 | 2019 | pp.20-36
DOI: http://dx.doi.org/10.15208/beh.2019.2

The value of education in the labour market. How realistic are student expectations?

Alice Reissová, Jana Šimsová

Faculty of Social and Economic studies, Jan Evangelista Purkyně University, Ústí nad Labem, Czech Republic

corresponding e-mail: alice(dot)reissova[at]ujep(dot)cz
address: Jan Evangelista Purkyně University, Ústí nad Labem, Moskevská 54, 400 96 Ústí nad Labem, Czech Republic

Abstract: The study deals with student expectations associated with their placement in the labour market. In total, 437 students of the third and fourth grades of grammar schools and secondary schools teaching business and technical fields of study were interviewed as well as 257 potential employers of these students. The objective was to identify whether students appreciate the link between education and salary, whether salary expectations of students are realistic, and last but not least, whether such expectations differ in terms of gender. It was established that students appreciate the link between the level of education and the amount of gross salary, but only if they were employed. If they started their own business, they expect their income to be higher than if they were employed, regardless of their highest completed education. It was interesting to find out that students cannot see any links between future salary and what type of secondary school they study (technical schools, business schools or grammar schools). The key finding of the essay is the fact established using Friedman´s ANOVA and Kendall´s coefficient of concordance, i.e., that the salary expectations of students are higher than the realistic offer of employers, both in terms of salary after secondary school and that after university. There are statistically significant differences between boys and girls - boys expect a higher initial gross salary, both after secondary school and university. Salary expectations are the same concerning gender only in the event they would choose to start their own business.

JEL Classifications: M1, M5

Keywords: Expected salary, offered salary, educational level, gender differences
Citation: Reissová, A., Šimsová, J. (2019). The value of education in the labour market. How realistic are student expectations? *Business and Economic Horizons, 15*(1), 20-36.
http://dx.doi.org/10.15208/beh.2019.2

1. Introduction

The current labour market in the Czech Republic suffers from a distinct shortage of a qualified workforce. This does not apply only to university graduate experts. The shortage of employees is reported by businesses from a variety of industries looking for staff for all types of positions, including line employees. Many employers look at school graduates in order to find new personnel, i.e., by offering jobs to people who have just completed their studies. Students preparing for their future job, either at secondary school or university, have some expectations in terms of their placement in the labour market. These can vary in many ways - for example, if they are willing to commute to work, work in shifts or what benefits they expect from their future employer, etc. The expected salary is also one very important factor. It usually depends on the level of achieved education as well as on the field of study. Hence, salary expectations very closely relate to the choice of occupation.

The choice of occupation that students make can be influenced by what salary is expected in the specific job (Abbasi & Sarwat, 2014). Studying requires time and money but it usually improves labour-market prospects as well as salary prospects. In the main part of

our research, we initially look at whether students are aware of this relationship between education and pay and whether the expected salary is influenced by the type of secondary school the student is studying currently at. In the following part of our research we verify to what extent student expectations are realistic in terms of pay; accordingly, we compare student requirements with the offer of potential employers. In the last part of the research, we look into whether there are gender differences, i.e., if girls have different expectations than boys concerning future pay. In all the research phases, we work with primary data (written questionnaires), both in the group of students and the group of potential employers. This makes this study different from a number of other researches. Similar research often looks at student opinions without a subsequent comparison with reality (i.e., no comparison with the primary data from potential employers is made). We regard the established conclusions as important both for future employers looking for graduates and teachers who work with students and can prepare them for entering the labour market.

2. Existing research and approaches

Decisions made by students about the choice of career is a relatively complex process in which a number of factors is taken into consideration (Ozgur & Rogers, 2015; Oh, Weitz, & Lim, 2016). Abbasi & Sarwat (2014) divided these into five areas: growth opportunities, occupational charm, self-esteem, societal inspiration and work-related factors. We established that students show considerable differences in preferences depending on the studied field (management/ administration, agriculture, engineering, pharmacy and healthcare).

Work-related factors also comprise the salary. Some authors state that the salary is one of the most important factors (Ryzhkova, Pawlyszyn, & Rizun, 2016; Xia, 2016). Many surveys focused on establishing how realistic student expectations in terms of salary are, for example, Jerrim (2011), Alonso-Borrego & Romero-Medina (2016) or Simsova & Reissova (2016). These researches focused on university undergraduates and concluded that student expectations are not completely realistic, unlike Taylor (2007), who established that salary expectations of university students are comparable with the offer of employers. However, this research was carried out only on a group of students of engineering and life sciences. Similarly, Van der Merwe (2011) came to the conclusion upon a qualitative study that students can precisely forecast their initial monthly salary as well as medium- or long-term earnings. Jerrim (2015) found that university undergraduates have an even more realistic idea of their future salary and its growth than peers already working. Such different findings can be influenced by the financial situation of the specific country, but there are other factors as well. Wolter (2000) compared salaries in Switzerland and the USA. The differences he established are rather high (high equality of earnings in the USA, high homogeneity of earnings in Switzerland), overvalued by the subjective assessment of students.

The issue of the amount of expected salary has been a point of interest for many researchers for several years. Williams & Gordon (1981) established that students aged 16 already understand the relationship between education and salary. However, some authors (Rouse, 2004; Huntington-Klein, 2015) point out the considerable heterogeneity for secondary school students. The expected salary was confirmed by many authors as the main determinant influencing the decisions of students, as early as in the phase when they

choose their future occupation (Brunello, Lucifora, & Winter-Ebmer, 2004; Menon, 2008; Varga, 2006; Schweri & Hartog, 2017). However, Korkmaz (2015) states that the choice of occupation is influenced by additional factors such as gender, type of school, education of parents and family income.

Many authors try to identify factors influencing the amount of expected earnings. Betts (1996) established that the amount of the expected salary correlates with the income of parents, knowledge of the labour market and the years in education. The same conclusion has been reached by current researchers (Andonova & Mojsoska-Blazevski, 2015), however, one of the key factors influencing the expected amount of salary is gender. Dawson (2017) established that both genders show considerable inaccuracies in estimating their outlooks in the labour market, but in different ways. Women are less optimistic than men. Significant differences in gender, according to which salary expectations are lower in women than in men, have been established by other authors as well (Filippin & Ichino, 2005; Alonso-Borrego & Romero-Medina, 2016; Simsova & Reissova, 2016; Menon et al., 2012; Need & de Jong, 2008; Hogue, Dubois, & Fox-Cardamone, 2010 and others).

3. Methodology

The study has three objectives . The first objective is to identify whether students appreciate the relationship between education and salary and whether the expected amount of salary is influenced by the type of secondary school at which the student currently studies. The second objective is to compare salary expectations of secondary-school students with realistic offers of potential employers to answer the question of whether student expectations are realistic. Finally, the third objective is to identify whether there are gender differences, i.e., if girls have the same or similar salary expectations as boys.

Two groups were created. The first group of respondents, further named "students", comprised 437 students of secondary schools of business and technical fields of study. This group consisted of 195 boys and 242 girls. These were 3rd and 4th grade students, aged between 16-18. The second group, further designated as "employers", consisted of 257 personnel managers from organisations and businesses which are potential employers of the addressed students.

Written questionnaires were used as the selected research method. The questionnaire was prepared "mirror-like", i.e. the meritorious questions were stated analogically for both groups.

TABLE 1. SALARY CATEGORIES

CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4	CATEGORY 5	CATEGORY 6
less than CZK 15,000	15 - 19,999 CZK	20 - 24,999 CZK	25 - 29,999 CZK	30 - 49,999 CZK	CZK 50,000.-, and more

Source: Own.

Students stated what gross salary they expect if they start work after secondary school, what salary they would expect after university and what salary they would expect if they

started their own business. Employers were asked what initial gross salary they can offer graduates if they join the company after secondary school, and what initial gross salary after university. Three salary categories 1 - 6 were created (Table 1). Both groups, i.e., students and employers, replied to the questions within the specified salary categories.

MS Excel and the STATISTICA programme were used for statistical data processing. We used the following statistical methods: Mann-Whitney U Test, Cohen´s kappa, chi-square test, Friedman´s ANOVA, Kendall´s concordance coefficient and Goodman and Kruskal tau. Non-parametric tests were used for the examination because the monitored variables had no normal distribution.

4. Results

The first research question establishes whether students appreciate the relationship between education and salary (similarly to Williams & Gordon, 1981). They were asked what gross salary they expect if they start work after secondary school, what gross salary they would expect after university and what their gross salary would be if they started their own business. Students marked the expected amount of salary within the set-out salary categories (see Table 1).

TABLE 2. STUDENTS - COMPARISON OF EXPECTED SALARY

WHAT GROSS SALARY DO YOU EXPECT?	FRIEDMAN´S ANOVA AND KENDALL´S CONCORDANCE COEFFICIENT			
	AVERAGE RANKING ORDER	SUM OF RANKING	AVERAGE	STANDARD DEVIATION
If I start work after graduating from university	2.167048	947	3.363844	1.352155
If I start work after graduating from secondary school	1.224256	535	2.171625	1.125322
If I start my own business	2.608696	1140	4.084668	1.497603

Source: Own.
Note: ANOVA Chi-square (N = 437, sv = 2) = 496.1195, p =0.00000, Concordance coefficient = 0.56764.

Table 2 shows that the compliance of medians of expected salaries was denied based on Friedman´s ANOVA test. Table 3 displaying the results of the Wilcoxon paired difference test in the questions related to the expected salary shows that students appreciate the difference in gross salaries depending on the level of completed education.

TABLE 3. STUDENTS - PAIR COMPARISON OF EXPECTED SALARY

WHAT GROSS SALARY DO YOU EXPECT?	WILCOXON SIGNED-RANK TEST			
	NUMBER OF VALID	T	Z	P-ASSESSM.
After completion of university & if I start work after graduating from secondary school	385	4,966.5	14.73063	0,000
If I start work after graduating from secondary school & If I start my own business	387	1,128	16.53545	0.000
After graduating from university & If I start my own business	351	13,545.5	9.116219	0.000

Source: Own.

Cohen´s kappa coefficient was used to verify the agreement in responses to the specified questions.

TABLE 4. CONCORDANCE IN STUDENTS´ RESPONSES IN INDIVIDUAL CATEGORIES

QUESTION	COHEN´S KAPPA
Salary after university x salary after SS	-0.10032
Salary from doing business x salary after SS	-0.00622
Salary from doing business x salary after UN	0.026652

Source: Own.

Table 4 shows that students distinguished the expected gross salary in individual categories. In all three cases, the coefficient shows disagreement in the students´ responses.

We carried out a deeper analysis to establish whether the already identified difference in education-related gross salary (see Table 2) is always in favour of the achieved level of education, i.e., whether it is true that the higher the education, the higher the expected gross salary.

To express the change in the salary category, three new variables were created to express the expectations of students as to the salary advancement in the event of a change in education or business. New variables designated as *A, B and C* were created according to the following relationships:

$$A = Y - X \quad (1)$$

$$B = Z - X \quad (2)$$

$$C = Z - Y \quad (3)$$

Where *X* is the variable for the gross salary after completion of secondary school, *Y* is a variable for the expected gross salary after completion of university and *Z* is a variable which represents the amount of the expected gross salary earned in one's own business.

Aggregate descriptive characteristics are shown in Table 5. Table 5 shows that the highest average salary difference is expected by students between the gross salary after completion of secondary school and the gross salary if they start their own business. The highest variability in responses is, however, in the response concerning the change in salary after university and if they started their own business.

Table 6 shows the absolute frequency of the created variables *A, B, C*. Table 6 shows that the addressed students expect to have a higher initial gross salary after completion of university, usually often by one salary category. However, there are negative values as well, which show that the addressed students expect a lower gross salary after graduating from

university than after completion of secondary school (30 students). 52 students believe that their initial gross salary will be in the same salary category if they start work after secondary school as the gross salary after university.

TABLE 5. STUDENTS - COMPARISON OF DIFFERENCES BETWEEN INDIVIDUAL SALARY CATEGORIES DEPENDING ON EDUCATION OR DOING BUSINESS

A VARIABLE		B VARIABLE		C VARIABLE	
Average	1.19222	Average	1.913043	Average	0.720824
Median	1	Median	2	Median	1
Modus	1	Modus	2	Modus	1
Choice variance	1.311591	Choice variance	1.873155	Choice variance	2.100781
Minimum	-3	Minimum	-2	Minimum	-5
Maximum	5	Maximum	5	Maximum	5
Sum	521	Sum	836	Sum	315
Number	437	Number	437	Number	437

Source: Own.

TABLE 6. STUDENTS - EXPECTED CHANGE IN SALARY CATEGORY DEPENDING ON EDUCATION OR DOING BUSINESS

SALARY CATEGORY	A VARIABLE (FREQUENCY)	B VARIABLE (FREQUENCY)	C VARIABLE (FREQUENCY)
-5	0	0	1
-4	0	0	1
-3	1	0	4
-2	7	1	23
-1	22	16	57
0	52	50	86
1	214	102	144
2	93	114	79
3	34	101	32
4	12	44	9
5	2	9	1

Source: Own.

If students started their own business, they usually assume that their gross salary would be significantly higher than if they started work after secondary school, i.e., by one up to three salary categories. However, Table 6 shows that several students (17) believe that their initial gross salary would be lower if they started their own business than the salary paid to them if they started work.

University graduates consider doing business less financially attractive than if they only completed secondary school. Approximately one-third of the addressed students expect a higher salary in their own business; the increase is not so distinctive, however, just by one salary category. Almost one-third of students expect a higher increase of two and more salary categories. Nonetheless, a little more than one-third of the addressed students

expect their salary to be the same or higher (one salary category) if they start work rather than start their own business.

Friedman´s ANOVA test in Table 7 shows that according to student expectations, the salary increase will be influenced by the level of achieved education and business.

TABLE 7. STUDENTS - INFLUENCE OF EDUCATION OR BUSINESS ON EXPECTED SALARY INCREASE

VARIABLE	FRIEDMAN´S ANOVA AND KENDALL´S CONCORDANCE COEFFICIENT (GENDER X SALARIES)			
	AVERAGE RANKING	SUM OF RANKING	AVERAGE	STANDARD DEVIATION
A	1.879863	821.5	1.19222	1.145247
B	2.576659	1,126	1.913043	1.368633
C	1.543478	674.5	0.720824	1.449407

Source: Own.
Note: ANOVA Chi-square (N = 437, levels of freedom = 2) = 286.0701, p =0.00000, Concordance coefficient = 0.32731.

The given results show that students appreciate the value of education, particularly in comparison between the amount of expected salary after secondary school and university, and if they started work.

The second research question focused on whether the expected amount of salary is influenced by the type of secondary school at which students study. There were two categories of schools with different results expected between them. The first category included responses of students from technical secondary schools (n =161), the second category included responses of students from business and grammar schools (n = 276). We used the Chi-squared test for the calculation. The results are displayed in Table 8.

TABLE 8. STUDENTS - RELATIONSHIP BETWEEN TYPE OF SECONDARY SCHOOL AND EXPECTED SALARY

TYPE OF SCHOOL	CHI-SQUARE TEST P-VALUE
University	0,578577
Secondary school	0,966751
Doing business	0,89951

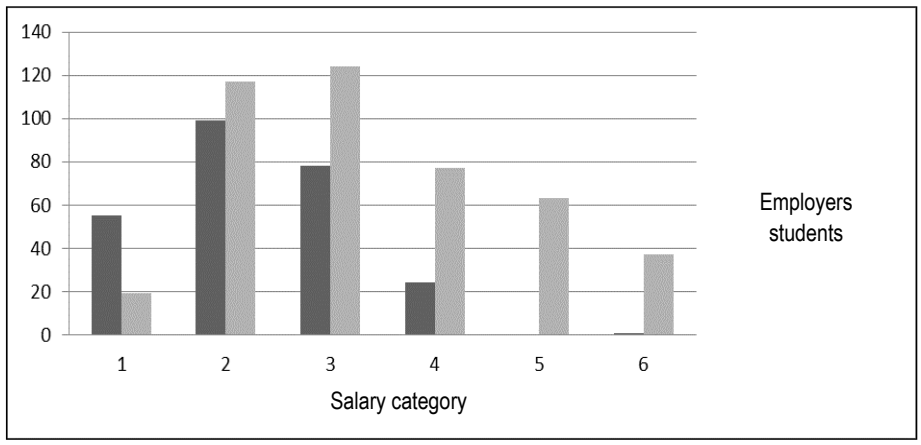
Source: Own.

Surprisingly, the results show that the type of secondary school (i.e., technical schools, business and grammar schools) has no influence on the expected salary. The P-value is higher than conventional levels of significance in all cases.

The main research question focused on how realistic student expectations are as to their salary.

Figure 1 below shows that there is a moderate difference between the expectations of the addressed students and realistic offer of employers. Firstly, attention will be paid to the gross salary after completion of university. The idea (expectations) of students and realistic offer of potential employers will be compared.

FIGURE 1. COMPARISON OF EXPECTED (STUDENTS) AND OFFERED (EMPLOYERS) SALARY CATEGORIES FOR UNIVERSITY GRADUATES



Source: Own.

Since neither group showed normal distribution, the meridian concordance was tested using the Mann-Whitney test (Table 9).

TABLE 9. TESTING OF THE CONCORDANCE OF MEDIAN SALARY CATEGORIES OF EXPECTED SALARIES AFTER GRADUATING FROM UNIVERSITY (STUDENTS VERSUS EMPLOYERS)

VARIABLE	MANN-WHITNEY U TEST								
	GROUP RANKING SUM 1	GROUP RANKING SUM 2	U	Z	P-VALUE	Z ADJUSTED	P-VALUE	N VALID IN GROUP 1	N VALID IN GROUP 2
Salary category	176 790.5	64,374.5	31,221.5	9.775900*	0.000000*	10.08314*	0.00000*	437.00	257.00

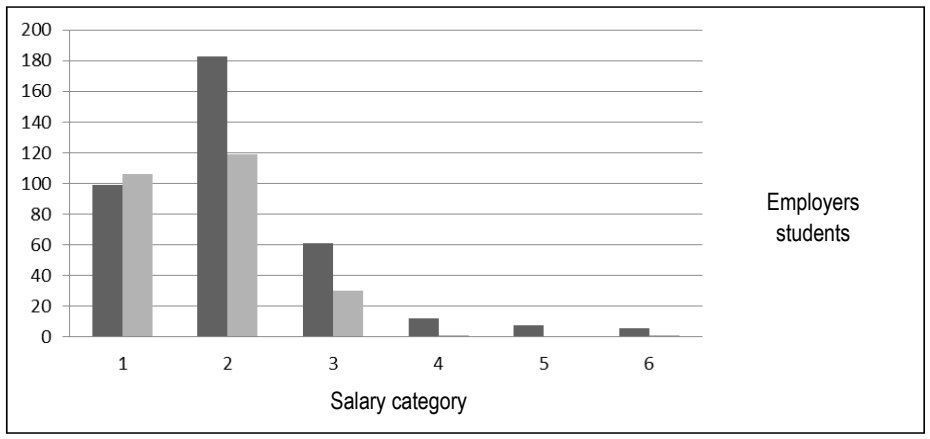
Source: Own.
Notes: Group 1 - students; Group 2 - employers. * - Designated tests are significant at the level of p < 0.05000.

We established upon the testing that student expectations and the offer of employers are not identical. Students expect a higher gross salary if they graduate from university than that offered by employers.

We also carried out an investigation out to see if student expectations as to the amount of salary if they start work after secondary school concord with the realistic offer made by employers.

Figure 2 shows the data on student expectations and offers made by employers. In this case, the largest difference is only in the second salary category. Generally, there aren´t any big differences here as in case of university graduates.

FIGURE 2. COMPARISON OF EXPECTED (STUDENTS) AND OFFERED (EMPLOYERS) SALARY CATEGORIES FOR SECONDARY SCHOOL GRADUATES



Source: Own.

We used the Mann-Whitney test to verify the hypothesis of median equality in both groups. The given p-values show that a null hypothesis is denied. It was validated that secondary-school students overvalue their idea of gross salary compared to the actual amount of money paid by employers.

TABLE 10. TESTING OF SALARY CATEGORY MEDIAN CONCORDANCE OF EXPECTED SALARIES AFTER GRADUATING FROM SECONDARY SCHOOLS (STUDENTS VERSUS EMPLOYERS)

VARIABLE	MANN-WHITNEY U TEST								
	GROUP RANKING SUM 1	GROUP RANKING SUM 2	U	Z	P-VALUE	Z ADJUSTED	P-VALUE	N VALID IN GROUP 1	N VALID IN GROUP 2
Salary category	164.072	77,093	43,940	4.789044	0.000002	5.170272	0	437	257

Source: Own.
Note: Group 1 = students, Group 2 = employers.

We carried out another comparison of salary categories to identify the offer of employers in connection with the level of completed education. Salary categories were established - similarly as in students. Hence, new variables *D, E, F* were created according to the following relationships:

$$D = K - L \tag{4}$$

$$E = L - M \quad (5)$$

$$F = M - N \quad (6)$$

Where *K* is the variable for the gross salary after completion of university, *L* is the variable for the gross salary after completion of secondary school, *M* is the variable for the gross salary after completion of training in a trade with A levels, and *N* is the variable for the gross salary after completion of a training course with O levels. The aggregate information is shown in Table 11.

TABLE 11. EMPLOYERS - COMPARISON OF DIFFERENCES BETWEEN INDIVIDUAL SALARY CATEGORIES DEPENDING ON EDUCATION

D		E		F	
Ar. average	0.64202	Ar. average	0.29572	Ar. average	0.272374
Median	1	Median	0	Median	0
Modus	1	Modus	0	Modus	0
Standard deviation	0.549114	Standard deviation	0.505923	Standard deviation	0.463234
Choice variance	0.301526	Choice variance	0.255958	Choice variance	0.214585
Minimum	0	Minimum	-2	Minimum	0
Maximum	2	Maximum	2	Maximum	2
Sum	145	Sum	76	Sum	70
Number	257	Number	257	Number	257

Source: Own.

TABLE 12. TESTING OF MEDIAN CONCORDANCE - SALARY CATEGORIES DEPENDING ON EDUCATION ACCORDING TO EMPLOYERS

VARIABLE	FRIEDMAN´S ANOVA AND KENDALL´S CONCORDANCE COEFFICIENT			
	AVERAGE RANKING	SUM OF RANKING	AVERAGE	STANDARD DEVIATION
D	2.262646	581.5000	0.564202	0.549114
E	1.896887	487.5000	0.295720	0.505923
F	1.840467	473.0000	0.272374	0.463234

Source: Own.
Note: ANOVA Chi-square (N = 257, levels of freedom = 2) = 49.21631, p = 0.00000, concordance coefficient = 0.09575

Table 11 shows that the highest average difference in salary categories is in salary after university and salary after secondary school. The initial gross salary is higher by one salary category in university undergraduates compared to secondary school graduates.

No significant difference was established in the comparison of secondary-school students and training in trades with A levels or in the comparison of training in trades with A levels

and training in trades with O Levels. As to the differences between the salaries of secondary-school students and training in trades with A levels, there were even employers who offered apprentices a salary one or even two salary categories higher than that offered to secondary school graduates. These findings were found in individual cases; however, they can indicate that the current labour market is oversaturated with secondary school graduates, and there is a shortage of people trained in a trade.

Testing of the meridian concordance (Table 12) established that the median concordance was denied. The salary increase offered by employers to university undergraduates compared to secondary school graduates is statistically significantly higher than in both other categories (training in trades with A Levels and training in trades with O Levels).

The last research question focused on gender. Our group of students contained 195 males and 242 females. We looked into whether the genders show different expectations in questions of initial gross salaries. We used the Chi-square test to get the answer and if the dependence was confirmed, the unilateral strength of dependence was measured using the Goodman and Kruskal tau.

TABLE 13. COMPARISON OF EXPECTED GROSS SALARY ACCORDING TO GENDER

GENDER VERSUS	CHI-SQUARE TEST P-VALUE	GOODMAN-KRUSKAL TAU
Salary after completion of university	8.20974E-05	0.227365
Salary after completion of secondary school	0.000858851	0.071287
Salary if they started their own business	0.298579486	---

Source: Own.

TABLE 14. COMPARISON OF EXPECTED GROSS SALARY ACCORDING TO GENDER

VARIABLE	MANN-WHITNEY U TEST								
	SUM OF RANKING GROUP MALES	SUM OF RANKING GROUP FEMALES	U	Z	P-VALUE	Z ADJUSTED	P-VALUE	N VALID GROUP MALES	N VALID GROUP FEMALES
After secondary school	47,503	48,200	18,797	3.655473*	0.000257*	3.927571*	0.000086*	195	242
After university	48,678.5	47,024.5	17,621.5	4.551149*	0.000005*	4.672306*	0.000003*	195	242
I will start my own business	44,877	50,826	21,423	1.654582	0.09801	1.688332	0.091348	195	242

Source: Own.
Note: * - the designated tests are significant at the level of p < 0.05000.

The results in Table 13 show that after completion of secondary school as well as university, boys expect different salaries than girls. Although the dependence rate of the salary - gender is weak, it is statistically significant if respondents start work after university and secondary school. It was statistically proved that boys expect different salaries than girls if they start work. The same salary expectations were established in

students (regardless of gender) if they started their own business. Medians in the groups of addressed males and females are the same, however, quartiles are different. The addressed females expect a lower salary in this case as well.

Both conclusions also prove the results of the Mann-Whitney U Test specified in Table 14. The table also shows that if they started their own business, both men and women expect the same salary.

5. Discussion

This study looks into whether students appreciate the value of education, i.e., if they expect a higher initial salary with a higher level of completed education. One of the latest studies (Feng & Graetz, 2017), carried out at the London School of Economics confirms that this dependence exists even at individual levels of university study. Anchor et al. (2011) made the same conclusions. They established that the fact whether students evaluate university education as a cost-effective investment depends not only on gender but also varies according to country and location of study. In countries with introduced school fees, prospective degradation of higher education in the eyes of students could result in a decline in interest in studying at universities. A very interesting finding is shown by Liu, Thomas & Zhang (2010). The research conducted in graduates of different universities established that there was no relationship between the quality of a university, job satisfaction and amount of salary. Completion of studies at elite universities does not necessarily bring job satisfaction and salary satisfaction.

One of the research questions of this article was whether there is a gender difference between the expected salaries. However, Need & de Jong (2008) point out that the difference is not only in gender, but also depends on the type of personality. They concluded that it is the artistic type of personality which influences the choice of field of study as well as the expected salary. Rode et al. (2017) examined empirically whether salary can also be influenced by another factor, specifically, emotional intelligence. They established that emotional intelligence corresponds with the amount of salary, but is reflected later (in a horizon of approx. 10-12 years of employment).

In some countries, the gender factor can even be magnified in connection with gender and race. Reynolds & Burge (2008) monitored changes in educational expectations in black, white and Hispanic secondary school students between 1972 and 1992. During this period, they recorded significant changes, particularly in white girls (they enrolled in preparatory courses at university more frequently than boys). Similarly, Free, Brown & Clifford (2007) identified persistent differences in salaries between men and women, as well as race salary inequality. Race salary inequality is eliminated by a higher educational level at a certain level, however. McMahon & Wagner (1981) established that black students expect comparable salaries to their white peers. Cuyler (2017) made completely different conclusions, i.e., that ethnic origin or sexual orientation has no influence on the amount of salary. Fortin, Bell, & Böehm (2017) conducted an extensive investigation in Canada, Sweden and the United Kingdom and drew the conclusion that differences in remuneration between men and women are connected with the fact that women have only a small representation in top positions. Although there are more and more women with university education, presumably there are also other factors (caring for family). Orazem, Werbel, & McElroy (2003) believe that if a woman expects wage discrimination

on the labour market, she reduces her salary requirements in the future employer after that, which actually reduces her salary.

In its main part, the article looked into whether salary expectations are realistic. We established that students tend to overvalue their price on the labour market and expect more than employers can offer. Carvajal et al. (2000) made similar findings as well. They also established different behaviour in men and women on the labour market and their expectations. Similarly, Frick & Maihaus (2016), who conducted comprehensive research in a sample of many thousands of students (74,000) and graduates (11,000), came to the conclusion that students overvalue their salaries and at the same time, they are not able to estimate the meaning of some activities which can help on the labour market (such as internships in renowned companies). On the other hand, Webbink & Hartog (2004) state that students can well estimate their future income and distinguish differences in income within individual fields of study (social sciences, economics, healthcare, agriculture and technology). Quite significant overvaluing of a commencing salary was only established in students of languages and high optimism was observed in students who came from families with a high income. According to Brankovic & Oruc (2016), students are well informed about the situation on the labour market, but they also identified significant gender differences as to the expected salary. They concluded that girls expect a lower salary than boys. Similar differences were also found according to the place of residence. People living in rural areas expect a lower salary than those living in big cities. It is apparent that the results of similar studies will be influenced by a number of factors. An important role will be played by the country, race, gender, field of study, education, residence, but also research methodology, for example. Some studies bring additional, unexpected factors which can influence the amount of salary. Kosteas (2012) established that regular exercise results in a salary increase of 6-10%, whereas the more frequent the exercise, the greater its influence.

6. Research limitations

Our study made a number of interesting findings, however, there are some limitations arising from the methodology. Considering the objective, we deliberately selected only secondary school students for the selection group who have an economic or technical background. It would be desirable to extend the study by other fields of study and identify differences in the expected real pay in the specific industry. Students realize that graduates of various fields may expect different salaries (McMahon, & Wagner, 1981). It is not obvious, however, whether the expected salaries in the specific industry are realistic.

7. Conclusions

We wanted to establish in this study whether students realize the relationship between education and income and whether the expected salaries are influenced by the type of secondary school at which they currently study. Friedman´s ANOVA test proved that students expect that the level of education can influence the salary, but only if they are employed by a company. We established that students expect to have a higher salary if they graduate from a university, rather than the salary paid to them if they only complete secondary school. About one-fifth of the addressed students think that even with completed university, their salary will be the same or even lower. A much higher gross

salary is expected by students in the event they would start their own business. If they did business after graduating from university, they most often expect a higher salary by one salary category. If they started doing business after secondary school, they most often expect a higher salary by one up to even three salary categories. However, a surprising finding was that the type of secondary school (technical, business or grammar school) has no influence on the amount of expected salary. Hence, secondary-school students do not believe that their future salary relates to the type of secondary school they attend.

The second objective was to identify whether student expectations are realistic, based on a comparison between salary expectations of secondary-school students and the realistic offer of potential employers. Friedman´s ANOVA and Kendall´s coefficient of concordance showed that student expectations and the offer of employers is different. Student expectations are higher than the realistic offer. There was a marked difference in salary both after secondary school and after university.

The last research question looked into whether there were gender differences concerning initial gross salary. The findings from the Chi-square test clearly show that these expectations differ according to gender when graduates start work after secondary school from graduates who start work after university. Unilateral strength of dependence was measured using the Goodman and Kruskal tau. Despite the ascertained value being quite low, it is statistically significant - both in terms of the expected initial salary after secondary school and after university. Gender differences disappear in case they started their own business, where boys and girls expect the same salary.

There has been a relatively large increase in salaries recently. Some industries offer very good pay (IT, automotive, technical professions), unlike other segments, where salaries remain at a relatively low level (culture, social services, education). We recommend conducting similar research that includes students of other fields of study and their potential employers to clarify whether students realize the significance of education as well as realistic future salaries in various industries. It is interesting to find out whether salaries grow more quickly or whether student requirements and expectations increase more quickly, considering the new findings as well as the perspective of employers.

References

Abbasi, M. N., & Sarwat, N. (2014). Factors inducing career choice: Comparative study of five leading professions in Pakistan. *Pakistan Journal of Commerce and Social Sciences*, *8*(3), 830-845.

Alonso-Borrego, C., & Romero-Medina, A. (2016). Wage expectations for higher education students in Spain. *Labour*, *30*(1), 1-17.

Andonova, M., & Mojsoska-Blazevski, N. (2015). Factors influencing the earnings expectations among Macedonian students: A comparative perspective with the EU students. *Croatian Economic Survey, 17*(1), 71-110.

Anchor, J. R., Fišerová, J., Maršíková, K., & Urbánek, V. (2011). Student expectations of the financial returns to higher education in the Czech Republic and England: Evidence from business schools. *Economics of Education Review*, *30*(4), 673-681.

Betts, Julian R. (1996). What Do Students Know about Wages? Evidence from a survey of undergraduates. *The Journal of Human Resources*, *31*(1), 27-56.

Brankovic, N., & Oruc, N. (2016). From VET School to the labour market in Bosnia and Herzegovina: Expected versus actual wages. *European Journal of Education*, *51*(3), 360-373.

Brunello G., Lucifora, C., & Winter-Ebmer, R. (2004). The wage expectations of European business and economics students. *The Journal of Human Resources*, *39*(4), 1116-1142.

Carvajal, M. J., Bendana, D., Bozorgmanesh, A., Castillo, M. A., Pourmasiha, K., Rao, P., & Torres, J. A. (2000). Inter-gender differentials between college students' earnings expectations and the experience of recent graduates. *Economics of Education Review*, *19*(3), 229-243.

Cuyler, A. (2017). The effect of diversity on U. S. arts managers' managerial level and salary. *American Journal of Arts Management*, *5*(1), 1-18.

Dawson, C. (2017). The upside of pessimism − Biased beliefs and the paradox of the contented female worker. *Journal of Economic Behavior and Organization*, *135*, 215-228.

Feng, A., & Graetz, G. (2017). A question of degree: the effects of degree class on labor market outcomes. *Economics of Education Review*, *61*, 140-161.

Filippin, A., & Ichino, A. (2005). Gender wage gap in expectations and realizations. *Labour Economics, 12*(1), 125-145.

Fortin, N. M., Bell, B., & Böehm, M. (2017). Top earnings inequality and the gender pay gap: Canada, Sweden, and the United Kingdom. *Labour Economics*, *47*, 107-123.

Free, R. C., Brown, J. L., & Clifford, M. T. (2007). Differences by race and gender in expected starting salaries of bachelor degree recipients in Connecticut. *Negro Educational Review*, *58*(3-4), 233-251.

Frick, B., & Maihaus, M. (2016). The structure and determinants of expected and actual starting salaries of higher education students in Germany: Identical or different? *Education Economics*, *24*(4), 374-392.

Hogue, M., Dubois, C. Z., & Fox-Cardamone, L. (2010). Gender differences in pay expectations: The roles of job intention and self-view. *Psychology of Women Quarterly*, *34*(2), 215-227.

Huntington-Klein, N. (2015). Subjective and projected returns to education. *Journal of Economic Behavior and Organization, 117*, 10-25.

Jerrim, J. (2011). Do UK higher education students overestimate their starting salary? *Fiscal Studies*, *32*(4), 483-509.

Jerrim, J. (2015). Do college students make better predictions of their future income than young adults in the labor force? *Education Economics*, *23*(1-2), 162-179.

Korkmaz, H. (2015). Factors influencing students' career chooses in science and technology: Implications for high school science curricula. *Procedia - Social and Behavioral Sciences*, 197(7th World Conference on Educational Sciences),*197*, 966-972.

Kosteas, V. (2012). The effect of exercise on earnings: Evidence from the NLSY. *Journal of Labor Research*, *33*(2), 225-250.

Liu, X., Thomas, S., & Zhang, L. (2010). College quality, earnings, and job satisfaction: Evidence from recent college graduates. *Journal of Labor Research, 31*(2), 183-201.

McMahon, W. W. & Wagner, A.P. (1981). Expected returns to investment in higher education. *The Journal of Human Resources*, *96*(2), 274-285.

Menon, M. E. (2008). The economic benefits of higher education in Cyprus: The expectations of prospective students. *International Journal of Educational Development*, 28(3), 259-267.

Menon, M. E., Pashourtidou, N., Polycarpou, A., & Pashardes, P. (2012). Students' expectations about earnings and employment and the experience of recent university graduates: Evidence from Cyprus. *International Journal of Educational Development*, *32*(6), 805-813.

Need, A., & de Jong, U. (2008). Personality traits and gender-specific income expectations in Dutch higher education. *Social Indicators Research*, *86*(1), 113-128.

Oh, H., Weitz, B., & Lim, J. (2016). Retail career attractiveness to college students: Connecting individual characteristics to the trade-off of job attributes. *Journal of Retailing and Consumer Services, 31*, 345-354.

Orazem, P. E., Werbel, J. D., & McElroy, J. C. (2003). Market expectations, job search, and gender differences in starting pay. *Journal of Labor Research*, *24*(2), 307-321.

Ozgur, C., Li, Y., & Rogers, G. (2015). Trends in selecting undergraduate business majors & international enrollment & expected salaries. *Journal of Education and Learning*, 4(3), 45-61.

Reynolds, J. R., & Burge, S. W. (2008). Educational expectations and the rise in women's post-secondary attainments. *Social Science Research*, *37*(2), 485-499.

Rode, J. C., Arthaud-Day, M., Ramaswami, A., & Howes, S. (2017). A time-lagged study of emotional intelligence and salary. Journal of Vocational Behavior, *101*, 77-89.

Rouse, C. E. (2004). Low-Income Students and College Attendance: An exploration of income expectations. *Social Science Quarterly*, *85*(5), 1299-1317.

Ryzhkova, H., Pawłyszyn, I., & Rizun, N. (2016). The future of logistical education in Poland and Ukraine: Comparative analysis of students' opinions. *Logforum*, *12*(4), 285-300.

Schweri, J., & Hartog, J. (2017). Do wage expectations predict college enrollment? Evidence from healthcare. *Journal of Economic Behavior and Organization*, *141*, 135-150.

Simsova, J., & Reissova, A. (2016). How much will i earn? Expectations versus reality. *Ekonomie a Management, 19*(2), 4-20.

Taylor, D. (2007). Employment preferences and salary expectations of students in science and engineering. *BioScience*, *57*(2), 175-185.

Van der Merwe, A. (2011). Earnings expectations of typical South African University of Technology first-year students. *Education Economics*, *19*(2), 181-198.

Varga, J. (2006). The role of labour market expectations and admission probabilities in students' application decisions on higher education: The case of Hungary. *Education Economics*, 14(3), 309-327.

Webbink, D., & Hartog, J. (2004). Can students predict starting salaries? Yes! *Economics of Education Review*, *23*(2), 103-113.

Williams, G. & Gordon, A. (1981). Perceived earnings functions and ex ante rates of return to post compulsory education in England. *Higher Education*, *10*(2), 199-227.

Wolter, S. C. (2000). Wage expectations: A comparison of Swiss and US students. *Kyklos*, *53*(1), 51-70.

Xia, X. (2016). Forming wage expectations through learning: Evidence from college major choices. *Journal of Economic Behavior and Organization*, *132*(Part A), 176-196.