Income Expectations of University Students: Sample of Selected Economic Universities in the Czech Republic, England and Poland

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Abstract

The objective of the paper is to analyze students' perceptions and expectations of their future incomes. By doing so, authors bring a possible quantitative argument about the rate of return of investment into higher education based on data from selected economic universities, and thus open space for discussion about financing of Czech public universities from public or private sources. The authors used data from a large survey among students of selected faculties of economics and compared the results from Czech, Polish and English respondents. All the performed tests have indicated and identified one critical finding that confirmed results of previous surveys: the value of the spot expected rates of return on investment to tertiary education for the Czech Republic never falls below 8.45 per cent, even when allowed for gender of respondents, knowledge about income of respondents' friends, or level of education of respondents' parents.

Keywords	JEL code
Tertiary education, rate of return, income, tuition fee, investment	*I22, H52*

INTRODUCTION

The economic situation in many countries all around the world is forcing their governments to consider some alternative (private) sources of financing for ever more important and also more demanding public universities. One of the possibilities on side is tuition fees. This article provides new facts and figures casting some light on the willingness or readiness of the students themselves to pay for their tertiary education. It compares the data from three different countries and introduces a couple of factors ("agents")

influencing students' income expectations. These are used due to a lack of data about real earnings classified according to the field of study in each county.

Technological advance has driven up the demand for skills; human capital is nowadays even more important determinant of economic competitiveness than in the past – a core argument underpinning increased education spending in the USA, the crisis notwithstanding. To compete internationally, countries need mass high-quality systems of tertiary education. But public budgets face competing imperatives such as population ageing and increased pressures on medical spending. Countries typically pursue three efficiency goals in higher education: larger quantity, higher quality, and constant or falling public spending. Systems that rely on public finance can generally achieve any two of the goals, but only at the expense of the third one: a system can be large and tax-financed, but with doubts about quality (France, Germany, Greece, Italy); or high-quality and tax-financed, but small (the UK until 1990); or large and high-quality, but fiscally expensive (as in Scandinavia). There is nothing illogical about the last option, but it has been unsustainable in most countries. The only realistic route – by which tertiary education could avoid being starved of funds – has been or could be (in some countries as the Czech Republic) supplementing the public spending on a significant scale with private finance (Barr, 1993).

According to Barr, tertiary education creates benefits beyond those to the individual – social benefits in terms of growth, the transmission of values, and the development of knowledge for its own sake. All these justify continuing taxpayer support. However, graduates typically also receive private benefits – higher earnings, more satisfying jobs, greater enjoyment of leisure – making it efficient and fair they cover a part of the costs. However, they should bear these costs when they can afford it, when they receive the private benefits of their university degrees, i.e. as graduates, not already as students (Barr 1993, 2010).

According to the theory of human capital, the choice of level of education, its length and field of study depends on returns to this investment (Becker, 1993). Also people's choice of an educational path is based on what they see as the optimum financial return derived by them from such a choice (Wolter, Weber, 1999). Barr (2010) points out a set of four objectives for tertiary education. Policy should seek to:

- Widen participation, both for equity reasons and on efficiency grounds, since any country cannot afford to waste a talent.
- Strengthen the quality of teaching and research.
- Protect the autonomy of universities, which is desirable both for its own sake and, more instrumentally, because autonomy and quality are strongly linked.
- Protect the fiscal background.

1 RESULTS OF THE SURVEY

The idea is rather fundamental: a rational student is not willing to pay for his/her university studies more than how much the additional value – the degree brings to him / her – is. The results of research made in previous years show that students perceive the investment into the higher education as something very expediential (Urbánek et al., 2009).

To find out students expectations, a questionnaire survey has been conducted to collect the data from the first year students at different universities, but all at selected faculties of economics, representing both Prague and regional ones. Students were asked about their expected income after graduation and after ten years of working experience in both cases – with a high-school degree only and with a master degree. They also provided the information about education and earnings of their parents and about earnings of their friends if they knew it. The first year students were chosen, hence they are very close to the point of decision whether to start working with a secondary degree only or to postpone their earnings and go to the university. With most of them, one can expect they chose the tertiary education for additional gains (higher income) in the future.

As was proved in many previous research studies, the rates of return to higher education are high enough to "compete" with other forms of investment and to be able to cover some form of tuition fee

(see e.g. Belfield, 2000, Psacharopulous, 1995, or Psacharopulous, Patrinos, 2004). Discussions about implementation of tuition fees have been published in a number of papers and articles. An interesting approach is represented e.g. by Cahlík, T., et al. (2006) and can be taken for a good warning for proponents as well as opponents of tuition fee implementation.

The analysis described in this paper is based on the data from questionnaire surveys carried out during autumn 2009 at several faculties of economics at universities in the Czech Republic (Liberec, Pardubice and Prague), in Poland (Lublin) and in England (Huddersfield). Each of these countries has been using a different system of financing for tertiary education. All the data were collected personally which ensured high feedback from the students. The data analysis in the paper is a part of a long-term survey that has started in 2001.

For the purpose of this article, there are four key factors ("agents") to classify the respondents by: country of the survey, gender of the respondent, respondent's awareness of his/her friends' income, and the highest level of education of respondent's parents.

The distribution of respondents among the three countries is not uniform. Almost a half of all the respondents study at the Czech universities (CZ; 572 students; 49 per cent of all), less than one third were Polish (PL; 367 students; 31 per cent) and about one fifth were English respondents (UK; 234 students; 20 per cent). This imbalance is a consequence of a limited number of cooperating institutions outside the Czech Republic and will be taken into account during the research.

The major differences in the distribution of respondents by gender are shown in Figure 1. At the English faculty of economics the majority of students are men, while in the Czech Republic as well as in Poland, the young women constitute more than two thirds of students.

Rather surprising is the classification of respondents to those who are familiar with income of their friends and to those who are not. In the Czech Republic, the respondents are divided into these two groups almost half-and-half, while almost three quarters of Polish students have the information about salaries of their friends. On the other hand, nearly 80 per cent of English respondents did not admit they are familiar with incomes of their friends (see Figure 2).

The classification of respondents by the highest level of education of their parents seems also very interesting. The share of students coming from families where at least one of the parents earned university degree is in the Czech Republic and also in Poland higher than 40 per cent, while in the England, it is less than 30 per cent (see Figure 3).

One has to be very careful when making general judgments, since the number of English and also Polish respondents is much lower than the number of Czech ones and only one university

Figure 1 Classification of Respondents by Their Gender in 2009
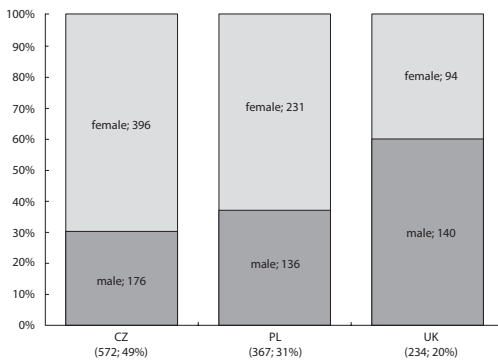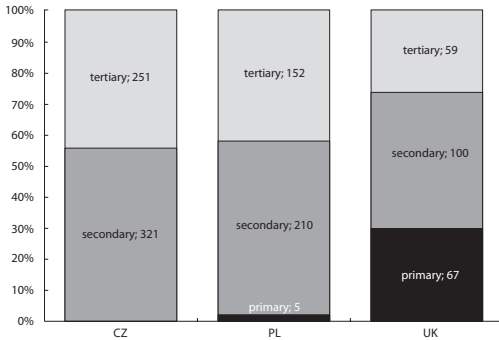

Source: Authors' calculations, Survey of expectations 2009

Figure 2 Classifications of Respondents by Their Awareness of Their Friends' Income
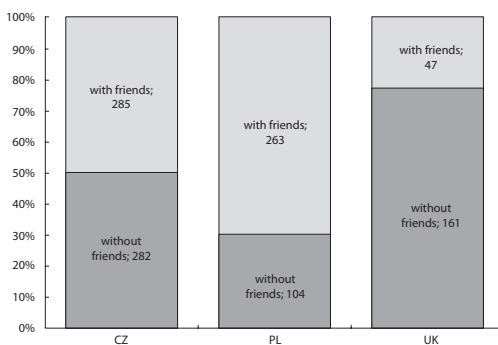
Source: Authors' calculations, Survey of expectations 2009

Figure 3 Classifications of Respondents by the Highest Level of Education of Their Parents

Figure 3 Classifications of Respondents by the Highest Level of Education of Their Parents

Source: Authors' calculations, Survey of expectations 2009

in the UK and one university in Poland took part in the survey. Therefore, generalizing about English or Polish students and their income expectations may not be as robust as for the Czech Republic. However, it is not the main task of this article to make conclusions about the English or Polish tertiary education students, but rather about the Czech ones. The English and Polish respondents will serve only for an etalon here.

The authors of this paper intend to calculate the rate of return on each year of the tertiary education (section 2) and then test the results of sensitivity to a couple of "agents" (such as gender, information about income of respondents' friends, and education of respondents' parents) that could possibly affect the rates of return the respondents expect to receive from their university degree. These tests will be performed in following sections. Their respective conclusions will be summed up in the last part of the paper.

2 RESEARCH METHODS

Following the method published by Psacharopoulos and Patrinos (1995, 2004), the expected returns on investment to tertiary education can be calculated using the formula of the short-cut method (1):

$$r = \frac{W_N - W_{wN}}{t \times W_{wN}}, \tag{1}$$

where r is the expected percentage rate of return on investment to tertiary education, W_N represents the expected income immediately after completing the university studies, W_{wN} stands for expected income the respondent would earn without the university degree, and t is a number of years of tertiary education ($t = 5$ for a master degree).

The main presumption for using such an equation is the constant shape of income curve for each respondent. It is almost certainly an overgeneralization and oversimplification, but authors of this article hope, for the purposes of this paper, this method is fairly justifiable and very useful especially for its clarity and easiness.

Nevertheless, some minor modifications have been done to calculate more precise and more easily interpretable rates of return. The equation (2) is using rather geometric than arithmetic average, as it is more suitable to determine the average annual rate of return of continuous valuation of expected incomes. Still, the main philosophy behind remains the same. For the purpose of the paper, we use the same equation even for England, abstracting from the fact, the English students have to pay tuition fees after finishing their studies. The range of tuition fee is dependent on the income of the former student. Therefore, the data available do not provide the information of the real value of tuition fees paid by each respondent. What will be calculated for the UK is not the real expected rate of return on investment in tertiary education, but a model expected rate under the circumstance of no tuition fees. On the other hand, it is also necessary to consider the question if the students' perception does or does not include the fact that they probably will have to pay some fee in the future (results including tuition fees in formula see Anchor et al., 2011, where level of tuition fees of English students expectations was included).

$$r = \sqrt[t]{\frac{W_N}{W_{wN}}} - 1. \tag{2}$$

Since the data received from the survey enable such a procedure, not only one rate of return on investment to tertiary education (*r*) was calculated for each respondent. The authors used minimal (the lowest), mean (the most probable), and maximal (the highest) values of expected spot incomes with and without university degree and calculated three levels expected spot rates of return: minimal (*minRn*), mean (*averRn*), and maximal (*maxRn*). Utilizing the expectations of respondent about their income in ten-year perspective (again with and without university degree), also the rates of return with ten-year-long working experience have been constructed – again at three levels: minimal (*minRt*), mean (*averRt*), and maximal (*maxRt*).

With these six levels calculated for each respondent, the next natural step would be to aggregate the numbers for all the respondents. The basic and obvious option would be an arithmetic average, however, it can be easily demonstrated the arithmetic average of the rates of return is not very suitable measure of central tendency. There are at least three important reasons for rejecting the method of arithmetic average: Arithmetic average – unlike modus or median – is an "artificial" statistical value; it does not necessarily have to represent any real number from the data set. The value of arithmetic average is predisposed to be biased by outliers (Seger, Hindls, 1995).

As the Figure 4 illustrates on the example of the lowest expected spot rates of return (*minRn*) of Czech students, the distribution of their responses is far from normal. We have chosen the Czech respondents and variable *minRn* for an example since the number of data is in this case by far the largest and the distribution of them should be therefore most probably the nearest to the normal distribution. Arithmetic average, median, and modus will therefore probably record significantly different values.

Figure 4 Histogram and Density Trace of Expected Minimal Spot Rates of Return on Investment to Tertiary Education (CZ minRn)
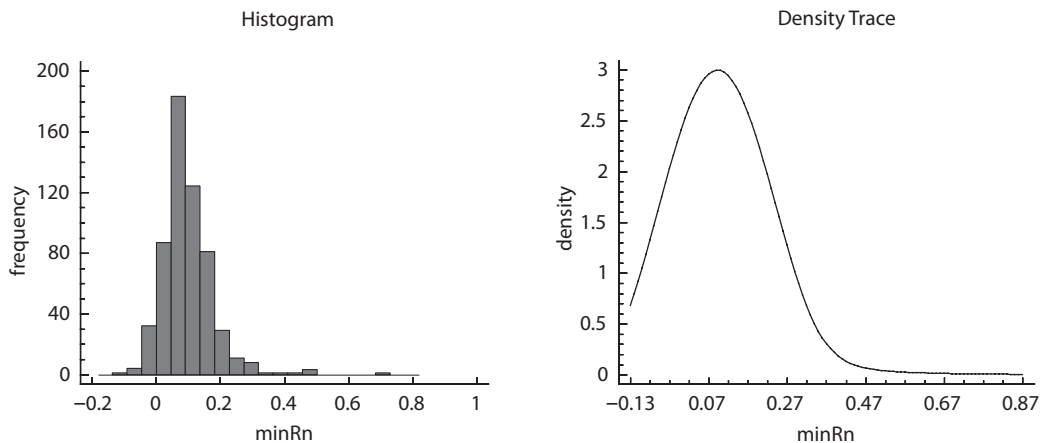
Source: Authors' calculations, Survey of expectations 2009

This simple "eye-ball test" can be supported by calculating the rate of skewness of the data sets. The standardized Fisher's skewness γ (3) should according to Wuensch (2005) fall into the confidence interval of <−2; +2> , if the distribution was normal or not significantly different from normal. The summary statistics for all three countries and all six calculated variables are shown in Table 1.

Table 1 Summary Statistics of the Data Sets

	minRn	*averRn*	*maxRn*	*minRt*	*averRt*	*maxRt*
Czech Republic						
Count	567	563	563	561	558	548
Average	0.099809	0.099242	0.106710	0.115353	0.119497	0.161108
Median	**0.084472**	**0.084472**	**0.095654**	**0.101972**	**0.107566**	**0.138633**
Mode	0.084418	0.107566	0.148698	0.148698	0.148698	0.148698
Skewness	21.3154	36.8485	28.8759	12.2525	16.1112	22.878
Poland						
Count	367	366	367	364	364	365
Average	0.107441	0.105439	0.149025	0.143985	0.145008	0.194043
Median	**0.084472**	**0.089613**	**0.110953**	**0.139723**	**0.118427**	**0.148698**
Mode	0.084472	0.107566	0.107566	0.148698	0.148698	0.148698
Skewness	14.7371	18.2828	22.3944	20.5429	23.0698	37.6907
United Kingdom						
Count	208	200	201	198	193	184
Average	0.105404	0.091221	0.067757	0.134843	0.134002	0.151379
Median	**0.089977**	**0.084472**	**0.069610**	**0.119364**	**0.118427**	**0.135471**
Mode	0.084472	0.84472	0.107566	0.148698	0.107566	0.148698
Skewness	8.15915	3.33054	−1.92432	9.1898	5.90539	6.0375

Source: Authors' calculations, Survey of expectations 2009

$$\gamma = \frac{\sum\limits_{i=1}^{N}(X-\mu)^3}{\sigma^3 \times \sqrt{6 \times n}}, \tag{3}$$

where n is the count of the data set, X_i are the data values, μ is the average of these data, σ is their standard deviation.

There are three remarkable moments resulting from the Table 1:

Only in one case (UK *maxRn*) the calculated skewness fell below zero, suggesting the distribution of the variable is skewed to the left. But in this sole case the value of the skewness fits the confidence interval and the difference between the average and median is insignificant. Mode of UK *maxRn* seems to be considerably higher than average and median.

The fact the values of the rates of return with ten-year-long working experience are generally higher than the values of the spot rates of return (see Figure 4) only proves how naïve is the above postulated presumption of constant income function. Nevertheless, the authors still believe the method described above is sufficient and will serve their purposes effectively.

One should not be surprised by the fact, average and median values of *minRn* in the UK is higher than *averRn* and the values of *maxRn* are the lowest of these three. This merely suggests the British respondents expect the university degree can bring the highest increase to the lowest expected incomes. The higher levels of income these respondents allow for, the lower the expected rate of return on investment to tertiary education.

As a result of the section 2, authors decided to use median for a mean value estimate of the rates of return on investment to tertiary education. Its advantages over arithmetic average and mode have been sketched by Figure 4 and Table 1. Substantial skewness of distributions of basically all the levels of rates of return significantly deviates the values of average from the values of median and mode. Median shows better and more useful interpretability than mode regarding the aims of this article. Since the median value of *minRn* and *averRn* for the Czech students of faculties of economics reaches approximately 8.45 per cent (and *maxRn* is by one percentage point higher), we can conclude that at least half

of the students expect their income after university graduation will be by no less than 50 per cent higher than without the master degree.[3] For mode would be such an interpretation impossible or very awkward.

This simple conclusion of the research will be tested in the following sections for its sensitivity on several "agents" (country and gender of respondents, information about incomes of respondents' friends, highest degree of education of respondents' parents). All of these "agents" will be tested for having a significant influence on variance and especially on median of the analyzed factors (*minRn, averRn, maxRn, minRt, averRt,* and *maxRt*).

Since the skewness of the distribution of nearly all the factors has been proved, it is obviously not possible to use statistical methods based on the presumption of normal distribution of the data (such as *F*-test of variance homogeneity or *t*-test of mean value equality). For highly skewed distributions, Levene variance check (Levene, 1960) has been the most suitable (unlike Bartlett test or Cochrane test), esp. with the Brown-Forsythe modification (Brown, Forsythe, 1974). Its test statistic with distribution $F\,(\alpha, k-1, N-k)$ is defined as (4).

$$W = \frac{(N-k) \times \sum_{i=1}^{k} N_i \times (Z_{i.} - Z..)^2}{(k-1) \times \sum_{i=1}^{k} \sum_{j=1}^{N_i} (Z_{ij} - Z_{i.})^2}, \tag{4}$$

where W is the test statistics, k is the number of different groups the samples belong to, N is the total number of samples, N_i is the number of samples in the i-th group, $Z_{ij} = |Y_{ij} - \tilde{Y}_{i.}|$, $Z_{i.}$ are the group means of Z_{ij}, $Z..$ is the total mean of all Z_{ij}, Y_{ij} is the value of the j-th sample from the i-th group, $\tilde{Y}_{i.}$ is the median of the i-th group, and α is the level of significance (here 5 per cent).

The variance check will be used to indicate whether the variance of the analyzed factors differs significantly when allowing for various "agents". But this test and its results are not of the central focus of the authors. The main task is to test the median sensitivity to different "agents" (median robustness). For this purpose, authors decided to use Mann-Whitney-Wilcoxon (MWW) median test as it is more sophisticated and robust than today rather obsolete Mood median test (Mann, Whitney, 1947). The MWW test statistic has for large samples approximately normal distribution. The formula of the test statistic can be written as (5):

$$U = n_1 \times n_2 + \frac{n_2 \times (n_2 + 1)}{2} - \sum_{i=n_1+1}^{n_2} R_i, \tag{5}$$

where n_1 and n_2 are the size of the samples and Ri are the ranks.

The standardized z value can be formulated as (6):

$$z = \frac{U - \mu_U}{\sigma_U}, \tag{6}$$

where the average of U is defined as:

$$\mu_U = \frac{n_1 \times n_2}{2}, \tag{7}$$

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[3] If each year at the university yields 8.4472 per cent to the expected income, then after five years of master studies the students expect $(1 + 0.084472)^5 = 1.5$ higher income.

and the standard deviation of U can be written as:

$$\sigma_U = \sqrt{\frac{n_1 \times n_2\,(n_1 + n_2 + 1)}{12}}\,. \tag{8}$$

3 COUNTRY COMPARISON OF THE EXPECTED RETURNS ON INVESTMENT IN TERTIARY EDUCATION

The first question, the authors had asked after calculating the median values, was how significantly differ these expected rates of return on investment in tertiary education across the triplet of analyzed countries. Or: Is the country where the survey has been carried out an important "agent" affecting significantly the median value of the rate of return?

The country differences have been illustrated in the graph (see Figure 5), backed up by the Lavene and MWW statistical procedures.

Figure 5 Country Comparison of the Expected Rates of Return on Investment in Tertiary Education
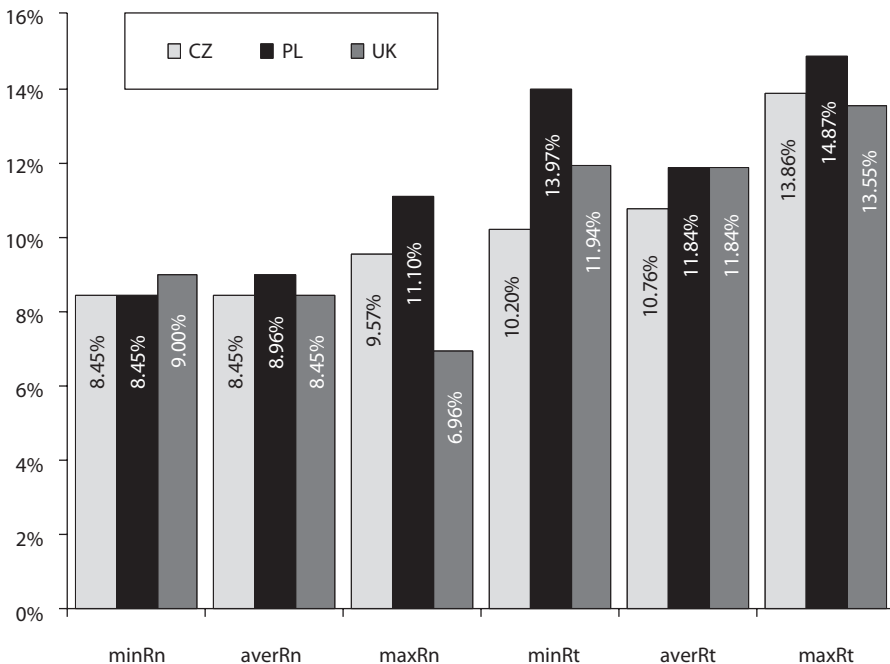
Source: Authors' calculations, Survey of expectations 2009

The variances of all factors were found significantly lower in the Czech Republic against Poland, while variances of all Polish results proved to be significantly higher than in the United Kingdom. The UK *minRt* variance proved to be higher than the Czech one, while the UK *maxRt* variance was found lower than its Czech counterpart.

A quite interesting fact resulted from the median testing: The medians of *minRn*, *averRn*, and *maxRt* were not found significantly different. All three countries recorded similar values of medians of these three levels of expected rates of return. When testing the medians of *maxRn*, the British value was proved to be the lowest, the Czech one significantly higher, and the Polish even higher. The country also matters when discussing the values of *minRt* and *averRt*. The Polish respondents expect significantly higher *minRt*, while the British students are more modest in their expectations, and the Czech ones lag even

behind their British colleagues. And at last: The British and Polish respondents expect approximately the same rate of return on the level *averRt*, while the Czech students expect significantly less.

Obviously, one has to be very careful when generalizing this conclusion, especially because of the limited number of respondents in Poland and mainly in the UK, who – to make things even less satisfying – all come from one university. Yet, what seems undoubted is the fact, that minimal and mean expected rates of spot return do not differ significantly among the three countries (just the same can be concluded about the maximal expected rates of future return with ten-year-long working experience).

Authors took into account the restrictions and problems arising from smaller number of respondents and cooperating institutions in Poland and in the UK and decided to continue in their tests only with the data from the Czech Republic.[4]

4 SENSITIVITY OF EXPECTED RETURNS ON INVESTMENT IN TERTIARY EDUCATION TO THE GENDER OF RESPONDENT

Next question the authors had asked was focused on gender differences in the expected rates of return. It should be pointed out again the interest of the authors was not in the expected absolute values of in-

Figure 6 Sensitivity of Expected Rates of Return on Investment in Tertiary Education to the Gender of Respondent
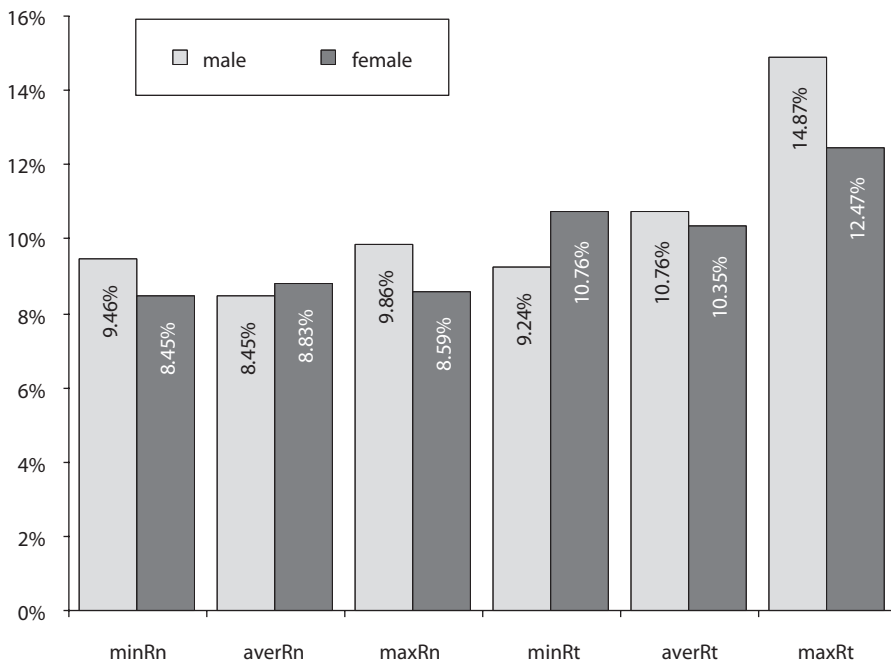
Source: Authors' calculations, Survey of expectations 2009

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[4] Authors carried out all the steps following in sections 4, 5 and 6 also with the data from Polish and British surveys, but the results (esp. the range of the confidence intervals) were negatively affected by the insufficient and incomparable numbers of respondents in particular subgroups which led to the conclusion to describe in this article mainly the results of the remaining sensitivity tests for the Czech Republic.

come, but in the expected relative increases due to university studies. The fact women expect significantly lower incomes even with the university degree was identified and tested in Urbánek et al. (2009).

An interesting thing to comment on may be the variance of expected rates of return in the Czech Republic. The Levene variance checks proved basically for all the analyzed factors significantly higher variance for male respondents than for female (with the only exception in *minRt*, in this case the variances do not seem to differ significantly).

Nevertheless, the sensitivity of expected rates of return on the tertiary education to the gender of respondents was found surprisingly weak. The gender of Czech respondents does not make much difference and the diversity between the genders at the particular levels of rates of return (namely for *minRn*, *averRn*, *maxRn*, *minRt*, and *averRt*) was not found significantly strong. The only exception to this conclusion represents *maxRt*. In this case, the male respondents showed significantly higher imagination about their future incomes while females stuck closer to the ground (see Figure 6).

5 SENSITIVITY OF EXPECTED RETURNS ON INVESTMENT IN TERTIARY EDUCATION TO THE INFORMATION FROM RESPONDENT'S FRIENDS

The authors also suspected the information about friends' income situation may affect the expected rates of return (for broader analysis, see e.g. Urbánek et al., 2010). Analogically to the routine followed in section 4, authors divided the data set into two groups: one made up from respondents who submitted the information about their friends' incomes and the other one containing the rest of the respondents. Then, the authors ran again the testing procedures described in section 1.

The results of variance check are again the first interesting point worth mentioning. The information about the income of respondents' friends raises significantly the variance of the expected rates

Figure 7 Sensitivity of Expected Rates of Return on Investment in Tertiary Education to the Information from Respondents' Friends
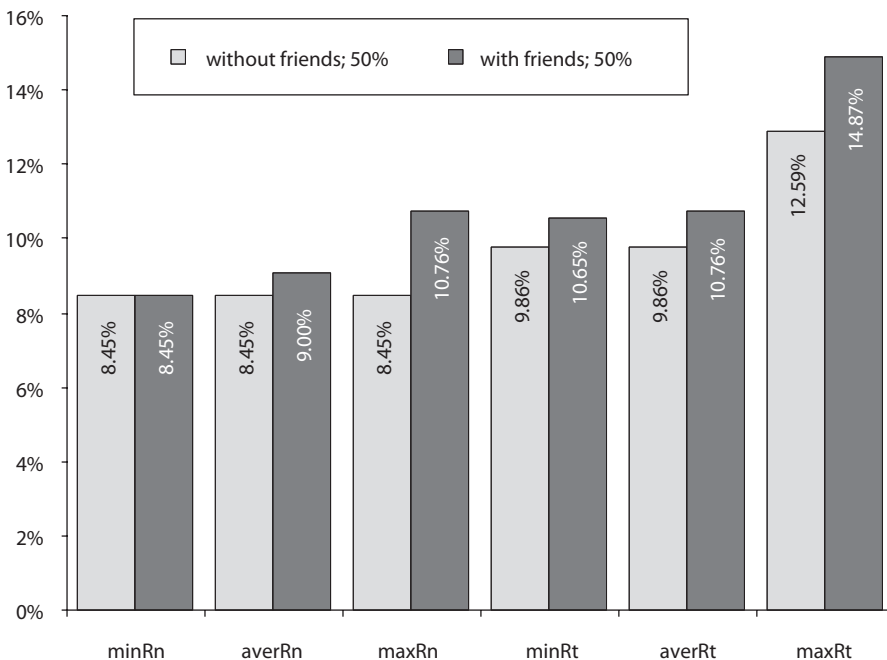
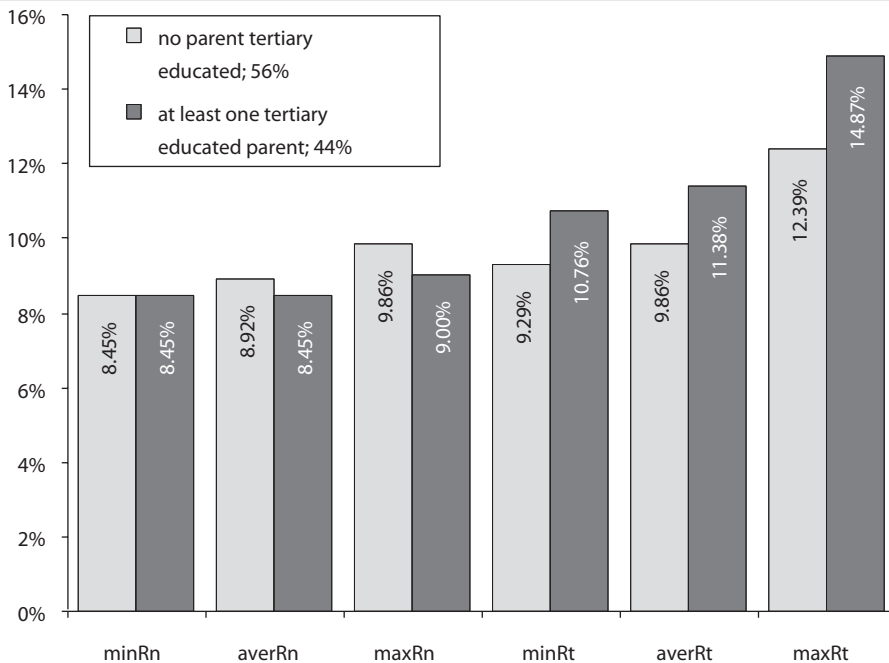**Source:** Authors' calculations, Survey of expectations 2009

of return at basically all levels. The only exception to this is represented by averRn. In this case, the variances between the two groups of respondents (with and without knowledge on their friends' income) do not differ significantly.

Unlike the gender, the information about income of their friends seems to be a strong factor influencing the expectations of the respondents. While the lower levels of expected rates of return (*minRn* and *minRt*) were not proved to be significantly sensitive to the friends' income of respondents, the conclusions are quite the opposite for the higher levels (*averRn*, *maxRn*, *averRt*, and *maxRt*). The MWW tests discovered that respondents who are familiar with their friends' incomes tend to expect significantly higher returns on investment to tertiary education on the mean and maximal levels not only on spot but also after ten years of working experience. The minimal expectations are not affected by the information from friends to evincible extent (see also Figure 7).

6 SENSITIVITY OF EXPECTED RETURNS ON INVESTMENT IN TERTIARY EDUCATION TO THE DEGREE OF EDUCATION OF THE RESPONDENTS' PARENTS

The last testing section of the paper discusses the sensitivity of expected rates of return to the highest degree of education achieved by any of the parents. The respondents were again divided into two samples, one containing those whose parents (at least one of the parents) received the university degree, the other sample consists of the rest of the respondents (none of their parents has university degree). The differences between the two samples measured by the median of the expected rate of return are demonstrated by Figure 8.

Figure 8 Sensitivity of Expected Return on Investment in Tertiary Education on the Highest Level of Education of the Respondents' Parents

Source: Authors' calculations, Survey of expectations 2009

The results of the MWW tests proved once again the robustness of the conclusions in the section 2 only partially. The spot expected rates of return (*minRn*, *averRn*, *maxRn*) remained unbiased by the level

of education of the parents, while the expected rates of return after ten-year-long working experience were recorded significantly higher for respondents with tertiary educated parents. The Levene variance checks on the other hand discovered, the responses of students with at least one tertiary educated parent tended to record significantly higher variance at the mean and maximal levels of expected rates of return (spot as well as with ten-year-long working experience, i.e. *averRn*, *maxRn*, *averRt*, and *maxRt*).

CONCLUSION

The findings of this paper and other studies (see e.g. Anchor, 2011, Psacharopoulos, 1995 etc.) indicate that there is a significant expected pay off to higher education. Moreover, the expected returns increase with work experience which suggests that the benefits from higher education are larger in the medium term than immediately after graduation. To discuss financial participation of individuals at public tertiary education, it is crucial to know the earnings expectations of university students. All the tests performed in the paper showed and proved one critical piece of information: the values of the spot expected rates of return on investment to tertiary education calculated for the Czech Republic never fell below 8.45 per cent (and the rates with ten-year-long experience never fell below 9.29 per cent). Whatever the gender of respondents, whatever information about their friends' incomes they dispose of, whatever the degree of their parents' education, the majority of Czech students at faculties of economics expect their income will increase at least by 50 per cent[5] after they receive their master degree. This conclusion supports also the findings of Filer et al. (1999) who calculated very similar values of the expected rates of return on investment to tertiary education twelve years ago, although they used a rather different methodology. The Czech results also do not differ much from the outcomes of surveys in Poland and in the United Kingdom.

The results show that students expect a higher wage premium to compensate for the perceived costs. We can argue if even tuition fees (also deferred fees), which will eventually act as a disincentive to enter higher education since students will not expect indefinitely that their future employers will be able to offer them a wage premium high enough to compensate for the expected costs of higher education (for results see Anchor et al., 2011, Barr, 2010). Private participation on financing of tertiary education should not be meant as a response to fiscal constraints only. It is necessary to consider a parallel microeconomic argument: the tertiary education has significant private benefits, justifying a contribution from the beneficiary on both efficiency and moral grounds. Thus the case for some private finance might be robust, but policy needs to be designed carefully so that it does not harm efforts to widen participation and does not discriminate people from poorer social conditions.

ACKNOWLEDGEMENTS

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[5] This result is based on the most moderate expectations of majority (or at least one half) of Czech respondents, i.e. on the annual rate of return at 8.45 per cent for every year of master studies.

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