EDUCATION AND GENDER EQUITY: EVIDENCE FROM THE CZECH REPUBLIC AND UK

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ABSTRACT

A network of public services, Social Watch, has created alternative indicators for the measurement of equity between men and women called Gender Equity Index, GEI), and the satisfaction of basic human needs called Basic Capability Index, BCI. This paper focuses on gender inequity in education, participation in the economy and empowerment. Primary attention is devoted to education, specifically tertiary education. The question of tertiary education is approached not only from the global viewpoint, but also at national level, i.e. from the view of the Czech Republic. This republic is one of the leaders of the theoretical ranking within the education GEI dimension. The situation is not so positive in the remaining two dimensions, participation in the economy and empowerment. It is necessary to find solutions leading to the improvement of the current position.

JEL: I21; I23

KEYWORDS: Higher education, gender equity, rate of return

INTRODUCTION

At the United Nations conferences about Social Development in Copenhagen (1995), and about Women in Peking (1995), the removal of poverty and gender equity were identified for the first time as a collective global target: one of the main targets alongside peace and human rights. The inter-relations at national and global level plays a very important role by creating various indices and statistical comparisons. They provide comparable international information and a macro-perspective. They also offer data about the situation of individual countries. The network of public services, Social Watch, found indicators for the measurement of the status of development (regresssion or improvement) in terms of equity of men and women, Gender Equity Index (GEI) and satisfaction of basic human needs, Basic Capability Index BCI (Silná, 2008).

The main goal of this paper is to combine our research results with the gender conditions described by the Gender Equity Index. The first part of this paper is devoted to gender equity worldwide. All three GEI dimensions are compared in this section in individual regions. The next part is aimed at the first GEI dimension: education; again first by worldwide regions and then in the Czech Republic. The last chapter focuses on our research: rate of return to higher education – its data, methodology, results and concluding comments.

LITERATURE REVIEW AND BACKGROUND

The literature on returns to investment in education is now substantial. It examines all levels of education – primary, secondary, and higher. These issues have been explored at both micro and macro levels (see Psacharopoulos, 2004; Kruger, 2001). Micro level approaches have generally been concerned with evaluating the returns individuals and society as a whole obtain from investment in higher education, whether this investment is public or private in origin (see Arrozola, 2003; Maani, 1991; Nonneman, 1997; Sakellariou, 2003; Wolter, 1999). The returns individuals obtain are generally refered to as private returns. The returns which society as a whole obtains are generally refered to as social returns. Macro

level studies, by contrast, have been concerned with the relationship between investment in education, by both private and public investors, and its pay off in terms of economic growth (Kruger, 2001).

These studies – both micro and macro – have been undertaken in a variety of countries and have focused sometimes on development related issues in so-called less developed countries (see Glewwe, 1996; Maani, 1991). In other cases, advanced economies have been the focus of investigation. In both cases it is important that finite resources are allocated efficiently and effectively often leading to a strong policy orientation in these studies. Machin (2004) Measured returns to investments in education reflect under-investment in this activity which results in a cost for the individual and for society. (Llears, 2004) The optimal level of investment in education occurs when the returns to investment in education equal the returns to other kinds of investments with similar characteristics e.g. small manufacturing enterprises. Investment in education has a high risk and low liquidity (Psacharopoulos, 1994) mainly because it cannot be sold. (Becker, 1964)

Most studies of returns to education at the macro level have demonstrated a positive association between investment and outcomes (Blundell, 1999). The same is true for studies at the micro level, although there are significant differences between the returns obtained from different levels and types of education. Most studies show higher levels of returns for primary education than for secondary education (see Barr, 1998; Clare, 2005; Psacharopoulos, 1973, 1981, 1985, 1999).

A large number of academic studies have demonstrated quite conclusively that there are substantial private and social returns to higher – as well as primary and secondary – education (see Blundell, 1999; Psacharopoulos, 1981, 1985, 1999). As a consequence governments in developed economies have accepted that there is a very strong case for the public subsidisation of higher education. Indeed in many countries the government has been the major sponsor of higher education. That is to say, the costs of higher education have been borne by taxpayers for the most part.

The rates of return at each level of education have been found to vary by gender, with females generally experiencing higher rates of return than males at all levels (see Blundell, 1999; Maani, 1991; Nonneman, 1997; Psacharopoulos, 1985, 1999; Daoud, 2005).

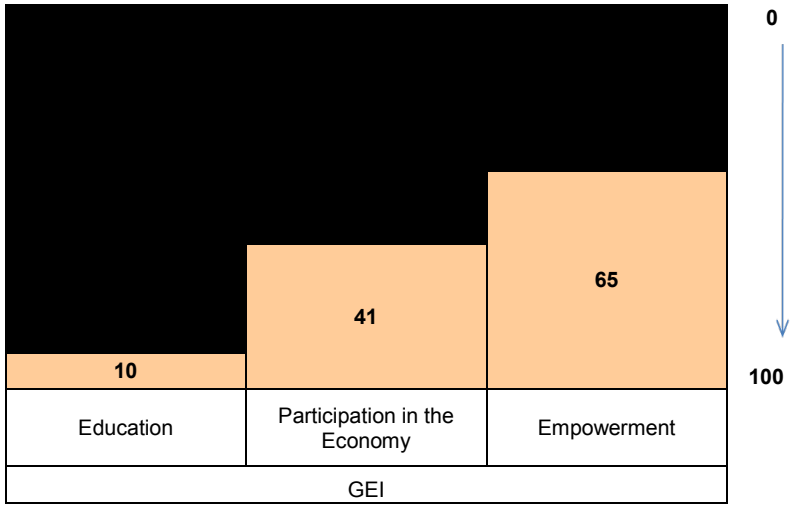
DATA AND METHODOLOGY

Gender Equity

The Gender Equity Index is based on internationally available comparable data that makes it possible to position and classify countries according to a selection of indicators relevant to gender inequity in three different dimensions: education, participation in the economy and empowerment (see Figure 1 and Table 1).

In 2008, GEI ranks the present situation of 157 countries, based on the most recent statistics available, and is able to determine evolution trends in the near future. The index has a maximum possible value of 100, which would indicate no gender gap in each of the three observed dimensions. The GEI measures the gap between women and men, not their welfare (i. e. the total level of education, participation in the economy and empowerment).

Figure 1: The Stairway to Gender Equity



This figure shows the points achieved in each of the GEI dimension (grey colour = equity; maximum is 100 points): 90 points in Education, 59 points in Participation in the Economy, and 35 points in Empowerment. The orange gaps measure the inequity of individual GEI dimensions. Source: own elaboration of the data provided by (Bissio, 2008)

Table 1: GEI Regional Average by Component

DIMENSION	1. DIMENSION EDUCATION	2. DIMENSION ECONOMIC ACTIVITY	3. DIMENSION EMPOWERMENT
WORLDWIDE	**90**	**59**	**35**
Central Asia	**92**	65	30
East Asia	**94**	62	37
Europe	**99**	68	49
Latin America and Caribbean	**99**	57	45
Middle East and North Africa	**90**	35	19
North America	**100**	73	53
South Asia	**80**	47	20
Sub-Saharan Africa	**73**	61	24

In this table there are points achieved in all GEI dimensions within individual regions. The best situation in „Education" is in the North America (100 points), in „Economic activity" in Europe (68 points), and in „Empowerment" in the North America (53 points) again. Source: (Social Watch, 2008)

Education is the only component in the index where many countries have actually reached parity level. Indeed when education is not available to a great number of children and the gender disparity in access to education has decreased. When parity has been reached, obviously no further progress is possible. But beyond the fact that many countries do not progress, the GEI education component reveals that many of them are regressing. In the two other dimensions, related to women's integration into economic and political life, no country shows complete parity yet. The GEI shows that income differences between countries are no justification for gender-based inequities. Many poor countries have achieved a high level of equity, which is a positive achievement, even when that means an equitable distribution of poverty. In fact, the reverse is often true: many countries that have acceptable average figures in social indicators frequently hide behind those averages enormous disparities between men and women. The elimination of gender disparities can be achieved with active policies and does not require that countries improve their income levels in order to succeed.

Sweden, Finland and Norway continue to have the highest rankings in the 2008 GEI (see Table 2). Although the three countries do not lead in all the dimensions that make up the index (see gaps in Education, Economic Activity and Empowerment) they have good performances in all of them. Germany ranks fourth and Rwanda – one of the poorest countries in the world – takes the fifth place. In all these cases, gender gap has been reduced through active policies, including gender quotas for political participation in elected bodies and pro-equity regulations in the labor market (on behalf of major equity).

The Czech Republic is in 52nd position according to the GEI for 2008, with a value of 69, together with Cyprus, China, Honduras, Peru and Brazil. It is also one of the countries with a decreasing index value. It is ranked among those countries where inequalities and disproportions in general social status of men and women are increasing. This result confirms regressive development in the area of gender equity, though only in the context of international comparison. The non-profit sector and the scientific community have been drawing attention to this situation for some time. Not-surprisingly, the Czech Republic has it's worst index value (43) in women's empowerment (i.e. women's representation in political and other top management and technical positions). However, women´s participation in the Czech economy is also a long way from reaching gender equity (64).

In education, the Czech Republic reaches index value 97, which is almost parity with men´s and women´s education. Comparing the Czech Republic with other countries is also quite interesting, because these countries are often stereotypically presented by Czech media as gender oppressed. For example, it has the same index value as China. Better index value results can be found in countries like the Russian Federation, the Philippines, the Ukraine and Cuba. Although we cannot apply this comparison to the whole social situation, it does offer us a measure of women´s and men´s position in the economy and it highlights the negative social development in the Czech Republic. This includes the level of non-democratization in the social configuration when viewed from the gender perspective. (Uhde, 2009)

First Dimension – Inequity in Education

Inequity in education is derived from the gender difference in 4 indicators: level of literacy, participation in primary school, participation in secondary school and participation in tertiary education. Education is the GEI dimension with the highest number of countries attaining a satisfactory level of equity. Nevertheless, the situation is alarming and in 40 % of countries it appears to be getting worse. According to the United Nations Population Fund (UNFPA), while in 2000 31 % of women lacked school education, only 18 % of men were in the same situation. So, what is the overall development in the sphere of education? The proportion of improving and worsening countries is disquieting. The cases of regression outnumber the cases of improvement by more than 2:1.

Education and Worldwide Regions

Inequity of access to education for reasons of gender is concentrated in only a few regions and therefore becomes invisible or at least 'opaque' when analyzed in combination. At the regional level, major differences are found in North Africa and minor differences in South Asia, Latin America and Central Asia (see Figure 2). On the other hand, gender discrimination mechanisms in the area of education do not only refer to access, but also operate within the system itself, making access to the education system an important element but not the sole one. These mechanisms are very often reiterative and become more elusive. For this reason, it is crucial to pay attention to the approaches to education and the running of educational organizations. In many cases it is precisely the teaching materials that perpetuate models of behaviour that reproduce negative gender stereotypes. (Řehořová, 2007, 2010).

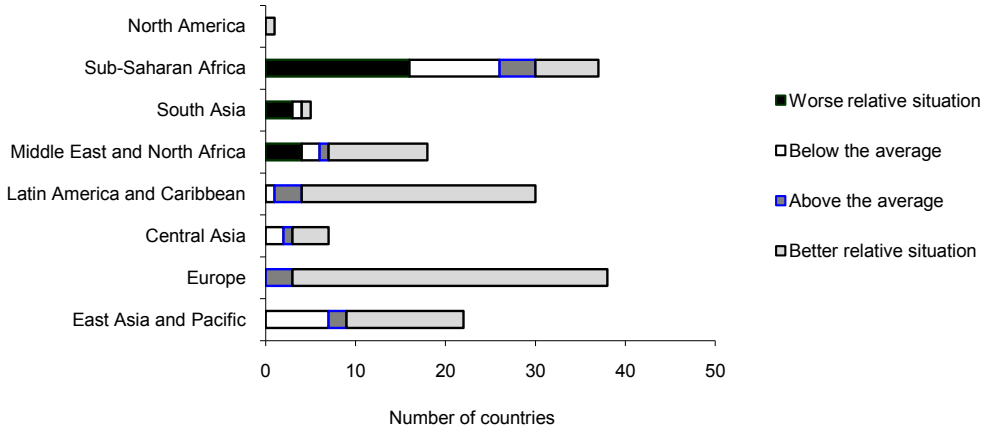
Table 2: Gender versus Tertiary Education and Incomes (selected countries by GEI 100-75)

Countries (BCI value ♣, 0-100)	Achieved GEI Level	Gross Tertiary Enrolment Ratio Gap (men/women) •	Estimated Earned Income Ratio (women/men) ♠
Australia (99)	76	1.25	0.7
Barbados (99)	77	2.46	0.6
Denmark (98)	80	1.39	0.7
Philippines (77)	76	1.23	0.6
Finland (100)	85	1.21	0.7
Iceland (100)	78	1.91	0.7
Canada (99)	76	1.36	0.6
Kazakhstan (98)	75	1.43	0.6
Columbia (90)	75	1.09	0.6
Congo (79)	78	1.91	0.5
Lithuania (99)	77	1.56	0.7
Latvia (99)	76	1.79	0.7
Netherlands (100)	78	1.07	0.6
Norway (100)	84	1.53	0.8
New Zealand (98)	78	1.49	0.7
Russian Federation (98)	76	1.37	0.6
Rwanda (23)	80	0.62	0.7
United Kingdom (99)	75	1.39	0.7
United States (99)	75	1.41	0.6
Spain (99)	77	1.22	0.5
Sweden (100)	89	1.55	0.8
Uruguay (96)	75	2.02	0.6
... Czech Republic (99)	… 69	1.16	0.5

This table shows the situation in tertiary education and incomes in the selected countries by GEI 100-75. This GEI level is mentioned in the second column. In the third column there is the gross tertiary enrolment ratio gap (i.e. men/women); the worst situation is in Barbados (2.46), Uruquay (2.02), and Iceland (1.91). In the last column there is the estimated earned income ratio (i.e. women/men); the situation is almost similar in these countries. Note: ♣ BCI = Basic Capabilities Index, • proportion of gross percentage of women registered in schools offering tertiary education, to gross percentage of men registered in schools offering tertiary education. ♠ proportion of estimated women´s incomes to estimated men´s incomes; inasmuch as all the data structured by gender are not available – the United Nations Development Program prejudged the incomes of women and men on the basis of the following data: rate of non-farm women´s wages to non-farm men´s wages, proportion of women and men in economically active population, total women and men population, and GDP per capita (in purchasing power parity, in USD) Source: own elaboration of the data provided by (Social Watch, 2008)

When we measure equity in education, the gender gap varies with respect to access to the different levels of education. The literacy gap indicator shows categorical differences between countries. In those countries with the worst situation, there are two illiterate women for every illiterate man. Whereas in those in a better situation the impact of illiteracy by gender is more evenly distributed though still not entirely equal. This is because in countries in a relatively better situation illiteracy is found in older generations, which were educated when equal opportunities for men and women had not been implemented into the education systém. This demonstrates the inherent inertia that distinguishes gender inequity: a fact that alerts us to the importance of starting equity measures early on and, in particular, to keep them going over time. This conclusion is validated when we consider enrolment gaps in primary, secondary and tertiary education. Equity measures not only protect women from discrimination, but also lead to women having a higher enrolment rate than men. (Bissio, 2008) This tendency in countries in better situations becomes particularly striking at tertiary level, where, for every five people enrolled, three are women and only two are men.

Figure 2: Current regional situation of gender inequities in education



This figure shows the current regional situation of gender inequities in education. The scale measures the current situation in the countries of individual regions (i.e. from the "worse relative situation" to the "better relative situation"). The best situation is in the North America and in Europe (almost all countries achieved the better relative situation), the worst situation is in Africa. Source: (Global Education Digest, 2008)

Education in the Czech Republic

The Czech Republic started struggling to meet the European strategy targets in the area of education and employment in the first half of the nineteen nineties. The Lisbon strategy targets are included in all fundamental strategic documents and policies adopted by the Czech Republic even before EU admission (e.g. National Action Plan of Employment, National Development Program of Education in the Czech Republic, Development Strategy of Human Resources for the Czech Republic, Long-term Plan of Education and Development, etc.).

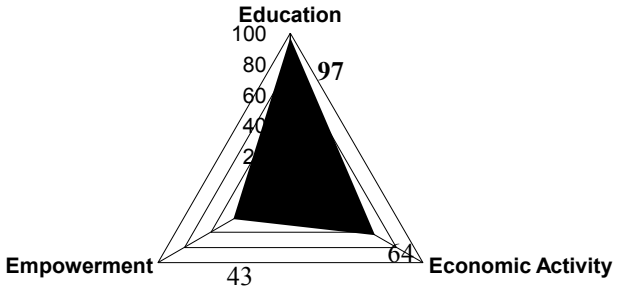
As already mentioned, the Czech Republic almost reaches gender equity in the first GEI dimension, i.e. "Education" (index value 97 – see Figure 3). However, this does not mean that there is no room for improvement, in fact, just the opposite. So, at the end of year 2008 the long-discussed reform of tertiary education was launched.

There are five main reasons for this reform (Reforma terciárního vzdělávání, 2008). First, the system of tertiary education was under-financed because sources of public finance are limited and private sources are minimal. Second, the system was not so diversified. Expansion might threaten quality so it is necessary to move ahead from quantity to quality. Third, the system was managed by methods which do not correspond to the new role of tertiary education in society or the economy. The weak role of management in the institutions of tertiary education. Fourthly, the system was not very efficient. That is, participants have the tendency to maximize inputs without any responsibility for results. And finally, competition is also lacking in the system.

The main characteristics of tertiary education reform are: autonomous recruitment; the recruitment of executive council powers; the establishment of a Council for Tertiary Education; the formation of dedicated research universities (faculties), i.e. centres of research excellence, with the emphasis on the education and training of Ph.D. students; basic and applied research; the creation of innovative potential; the existence of a department providing professionally-oriented education (links to the labour market and cooperation with employers); a central system of accreditation for all institutions of tertiary education (academic and professional); the existence of an internal system for assessment and quality management;

an emphasis on "LLL – Life Long Learning" and individual national projects – Operational Programme, Education for Competitiveness and Tertiary Education Reform.

Figure 3: Gender Equity Index in the Czech Republic



In this figure there are all three GEI dimensions in the Czech Republic. In „Education" it is almost parity of men´s and women´s education (97 points), the worse situation is in „Empowerment„ (43 points), the worst problem is in „Economic Activity" (only 64 points). Source: (Global Education Digest, 2008)

RESULTS

Descriptive Analysis of the Data

There are differences between higher education systems all over the world, including Europe. In many countries, the government has been the major sponsor of higher education. In the Czech Republic there is free entry for students to public universities as well as support of private universities with fee payments in the last couple of years. So why do people study at private schools when they have to pay much more? On the basis of human capital theory, we can infer that these students expect higher salaries and other forms of profit from their education than those from public universities. Can we confirm this hypothesis on the basis of data we gathered from a questionnaire? (Urbánek, 2003, 2005)

During the academic years 2004/2005 – 2007/2008 a survey of earnings expectations was undertaken of first year students at three Czech economics universities (Technical University of Liberec, University of Economics Prague and University of Pardubice) and at the University of Huddersfield Business School (UK). This research is an ongoing project continuing into 2008/2009 and 2009/2010 (development project No. 402/09/1123. Students completed questionnaires in Czech (Prague, Liberec and Pardubice) or English (Huddersfield). Altogether there were 2,609 respondents. First year students were surveyed during their first term because their decision to enter higher education had been a recent one. The questionnaire began with general questions relating to gender and age in an attempt to categorise the data. In the second part, the students were asked about their expectations of income immediately after graduation in their first job and then after ten years of work experience, at a minimum, average and maximum level. They were also asked about the level of earnings they would expect if they had only secondary-level education. They should also estimate the income of their possible acquaintances including graduates with and without work experience. The last questions concerned their family background, education and the income of their parents.

Table 3 presents several quantiles of the empirical distribution of the central tendency of respondent's earnings expectations, as expressed through the subjective median. It shows findings for both groups of respondents divided by gender. We find that earnings expectations vary little between the groups, but

significantly within each group. We can elicit from the level of different quantiles slightly higher level of earnings expectations at private schools for both male and female. This tendency can be seen in nearly all cases. There is also some correspondence between the earnings expectations of male and female, but we can say that male expectations are higher in all quantiles in both groups.

Table 3: Quantiles of Respondent´S Earnings Expectactions

Respondent Group	Empirical Quantile		
	0.1	**0.5**	**0.9**
Public Univ. Male Graduates	18000	20000	33000
Private Univ. Male Graduates	16000	19000	32150
	0.1	**0.5**	**0.9**
Public Univ. Male10-years experience	20000	35000	75000
Private Univ. Male 10-years experience	26000	35000	80000
	0.1	**0.5**	**0.9**
Public Univ. Female Graduates	10000	15000	27500
Private Univ. Female Graduates	13000	17000	35000
	0.1	**0.5**	**0.9**
Public Univ. Female 10-years experience	18500	27250	50000
Private Univ. Female 10-years experience	23000	28000	50000

In this table there are eight respondent groups (public univ./private univ. male/female graduates, public univ./privat univ. male/female 10-years experience) and three empirical quantiles (0.1, 0.5 and 0.9). The quantiles show the average values of expected minimum, most likely and maxium salary (CZK/month). Source: own calculations

One Way Analysis of Variance

Next, we conduct a one way analysis of variances using the usual techniques as follows:

$$s^2 = \frac{\sum_{i=1}^{k}\sum_{j=1}^{n_i}(x_{ij} - \bar{x}_i)^2}{n-k} \qquad s_0{}^2 = \frac{\sum_{i=1}^{k} n_i(\bar{x}_i - \bar{x}^2)}{k-1}$$

k - number of groups, which is in our research k = 2

The test criteria: $$F = \frac{s_0^2}{s^2} \qquad (1)$$

If the hypothesis H_0 is valid there is a distribution F where k-1 and n-k are the degrees of freedom. $F \geq F_{1-\alpha}[k-1; n-k]$, in our case $F \geq F_{1-0,05}[1; 3601]$. We find the value for this distribution F [1;3601] = 3.844. Table 4 shows the level of a test criteria = 5.318. There is an F-critical value 3.844 on the level of significance 0.05. Here we see that 5.318 > 3.844, therefore we reject hypothesis H_0 about independence. The calculated value is higher than the F-critical value, therefore we can say that the level of earnings expected by the students after graduation in this case is dependent on the type of school. In this part we proved statistically significant dependence.

If we look at expectations after 10 years of experience the situation is different. In this case, we cannot prove a significant dependence on the type of school. Table 5 shows the level of test criteria = 2.997. There is an F-critical value of 3.844 at the level of significance 0,05. Now we have 2.997 < 3.844, therefore we can accept hypothesis H_0 about independence. The calculated value is lower than the F-

critical value. We can say that the level of earnings expected by the students after 10 years of experience is independent of the type of school. In this case, we did not prove statistically-significant dependence. Because the results of these two groups are different, we did not confirm unambiguously a significant dependence of level of earnings expectations on type of school. (Urbánek, 2008)

Table 4: Expectations of earnings of graduates Single Factor Anova

Panel A: Summary						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Public	3,214	63,091,000	19,630.06	100,821,586		
Private	389	8,121,850	20,878.79	109,396,901		
Panel B: Anova						
Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	541,093,498	1	541,000,000	5.318104387	0.021161488	3.844036
Within Groups	36,638,600,000,000,000	3,601	120,000,000			
Total	36,692,700,000,000,000	3,602				

This table measures the Anova analyses, i.e. variation between groups and within groups (public and private universities). The degrees of freedom are 1 and 3,601. The value for this distribution is F 3.844. The level of a test criteria is 5.318, so we can say that the level of earnings expected by the students after graduation in this case is dependent on the type of school. Source: own calculations

Table 5: Expectations after 10 years of experience Single Factor Anova

Panel A: Summary						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Public	3,214	121,246,600	37,724.51	3,445,853,579		
Private	389	17,384,300	44,689.71	23,585,954,482		
Panel B: Anova						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	16,834,426,684	1	16,834,426,684	2.997633217	0.083472	3.844036
Within Groups	2,022,290,000,000,000,000	3,601	5,615,906,106			
Total	2,023,970,000,000,000,000	3,602				

This table measures the Anova analyses, i.e. variation between groups and within groups (public and private universities). The degrees of freedom are 1 and 3,601. The value for this distribution is F 3.844. The level of a test criteria is 2.997, so can say that the level of earnings expected by the students after 10 years of experience is independent of the type of school. Source: own calculations

Rate of Return to Czech Higher Education

For the calculation of perceived returns from an additional educational qualification (economic university degree) the following short-cut method can be used:

$$r_s = \frac{AE_i - AE_j}{k \cdot S \cdot AE_j} \qquad (2)$$

where,

AE_i = average gross income of people with a university degree,
AE_i = average gross income of people with secondary level education,
k = coefficient equal 1,
S = number of years spent at university,
r_s = percentage perceived change in salary per additional year of HE study. (Mincer, 1993)

The results are presented in Tables 6 and 7. The results of the surveys of Czech and British students show that students are very well aware of their expected earnings. There are some differences among male and

female expectations, especially in relation to expected returns immediately after graduation (see more in Urbánek, 2003, 2005, 2008). We hope to replicate the results of this research by obtaining further samples in England to gain additional insights. It would be especially useful to include at least two more Business Schools to provide direct comparability with the Czech data. It may also be beneficial to extend the geographical scope of this study of student perceptions of the financial returns to higher education. Although the results of this study show a striking similarity between student perceptions in the Czech Republic (GEI 69) and United Kingdom (GEI 75), this does not automatically mean that the same will be true in other countries.

Table 6: Rates of Return (in %)

Academic Year	Huddersfield (UK)				Czech Republic			
	Graduates		10 Years Experience		Graduates		10 Years Experience	
	Male	Female	Male	Female	Male	Female	Male	Female
2004/2005	14.64	19.38	22.53	29.20	11.72	11.39	15.12	13.85
2005/2006	12.66	15.38	17.76	18.02	13.45	11.86	22.30	7.19
2006/2007	9.95	15.18	18.50	14.77	12.26	11.65	23.65	17.62
2007/2008	13.48	13.00	18.12	29.67	12.72	10.59	22.69	18.10
Total Average	12.68	15.74	19.23	22.92	12.54	11.37	20.94	14.19

Table 6 presents a break-down by gender of rates of return from the Czech Republic and Huddersfield. For Huddersfield the results reflect the result of other studies focused on current returns i.e. women expect a higher rate of return to higher education than men. On the other hand, the data from Czech universities provide different results. Male respondents expect higher rate of return than females. It is also interesting to see that female students in Huddersfield expect higher rates of return than those from the Czech Republic whereas male students from Huddersfield expect lower returns than their Czech peers. Source: (Urbánek, 2008)

Table 7: Rates of Return According to Age and Gender

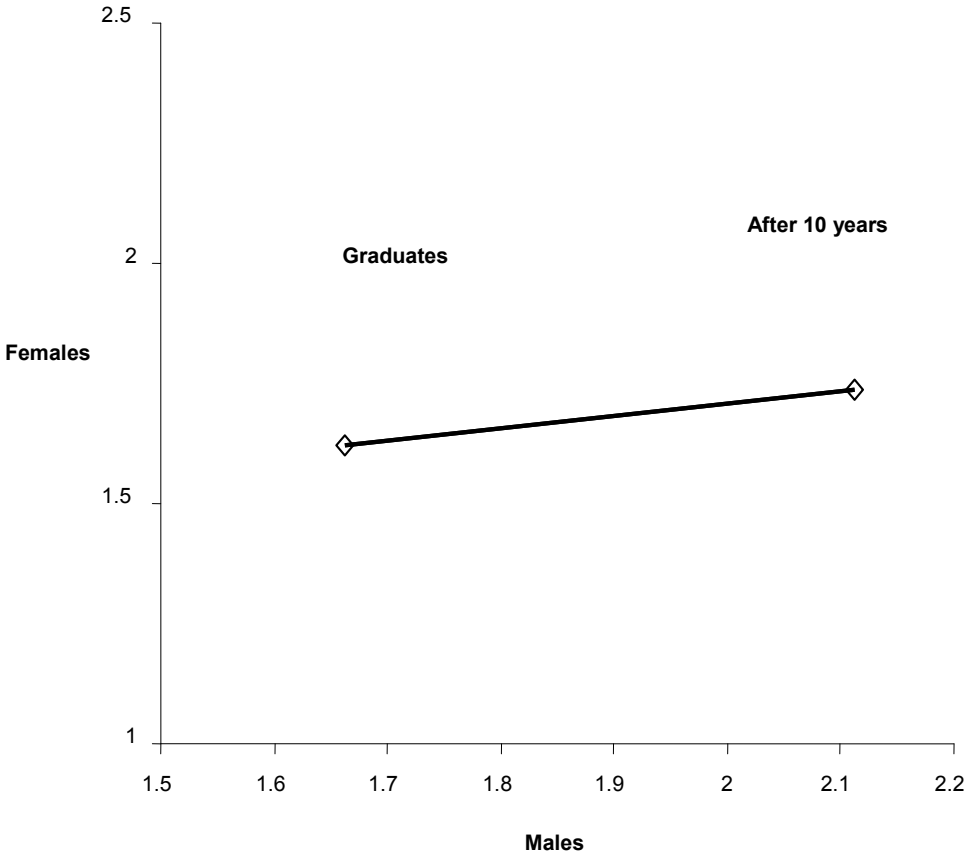
				Rates of Return (in %)	
Age	**Percent Occurrence**	**Gender**	**Rate in %**	**Graduates**	**10 Years Experience**
19	42.83	Male19	17.14	20.08	8.63
		Female19	82.86	10.69	14.00
20	**34.41**	**Male20**	**36.55**	**12.80**	**20.72**
		Female20	63.45	12.46	14.18
21	13.12	Male21	41.33	14.42	18.77
		Female21	58.67	12.00	18.51
22	5.07	Male22	58.62	10.67	20.24
		Female22	41.38	12.77	25.72
more than 22	4.57	Male more than 22	53.85	20.28	10.75
		Female more than 22	46.15	8.72	10.31

This table shows the rates of return according to age and gender. The most respondents are 19 and 20 years of age, most of them are females. There are differences in rates of return among students after graduation and students after 10 years of experience: e.g. Male 19 (graduates) = 20.08 % compared to Female 19 (10 years experience) = 14.00 %; Male 22 (graduates) = 10.67 % compared to Female 22 (10 years experience) = 25.72 %; etc. Source: own calculations

Regression of Data

There was a lot of regressions on the Higher Education data in Europe and in the world. Mincer's equation is one of the most often calculated regressions and the resulting returns to education are published in many books, articles, working paper etc. (see Cohn, 2003; Harmon, 2001 and many others).

Figure 4: College Wage Gain by Gender and at Labor Market Entry and 10 Years After Entry



Similarly to Brunello et al. (2001), we calculated the college wage gain by gender and at labor market entry and 10 years after entry. The results are in this figure: males (graduates and also students after 10 years experience) expect higher wages than females. Source: own calculations (scan from IS Statgraphics program)

CONCLUDING COMMENTS

Attention is shifting from national to multinational levels within the various studies with progress in globalization. Tariq Banuri recommends viewing the world as an "Earthland". On the global level, we find more inequalities today within and between every country of the world. Therefore, it is possible to consider the world as just one managed developing country (Banuri, 2008). "North" and "South" are being drawn apart faster: in developing countries we may find pockets of extreme wealth and in developed countries there are large pockets of poverty. Undoubtedly poverty is by far the most important negative issue for men and women, therefore it is necessary to categorize it strictly by gender, type, ethnicity, etc. People who are fighting against global poverty are not taking into account the inequalities between men and women; and people who are fighting for women´s rights without any interest in poverty are not basing their views on solid research. They would not study all poor humans and all women, but they would conduct their research only within the framework of narrow interest groups, i.e. rich women of the "North" or poor men of the "South".

The main goal of this paper was to combine our research results, rate of return to higher education survey, with the gender conditions described by the Gender Equity Index. We added data from the questionnaire, which was aimed at students of the first year at public and private universities. We took a random sample of two groups of universities - private and public, which specialized in economic studies and one of them

in economics of hotel services area. We used one way analysis of variance to prove the independence of earnings expectations on type of school. Then we calculated the rate of returns to higher education in the Czech and British schools. For Britain, the results reflect the result of other studies focused on current returns. That is, women expect a higher rate of return to higher education than men. On the other hand, the data from Czech universities provides different results. Male respondents expect higher rates of return than females. It is also interesting to see that female students in Huddersfield expect higher rates of return than those from the Czech Republic, whereas male students from Huddersfield expect lower returns than thein Czech peers. In the future, we would like to replicate the results of this research by obtaining further samples in England. It would be especially useful to include at least two more British schools to provide direct comparability with the Czech data. It may also be beneficial to extend the geographical scope of this study of student perceptions of the financial returns to higher education (e.g. France, Spain, Germany).

As was mentioned in the introduction, it is possible to see gender inequity in three different dimensions: education, participation in the economy and empowerment. According to GEI index, 2008, many countries have actually reached gender parity within the component of education (100). In the other two components, related to women's integration into economic and political life, there is a much more serious situation and in most countries the components´ index values move only at the level or even under the level of the medial value (50). Currently it is not possible to determine the time period necessary for reaching parity level within the second and third GEI dimension, i.e. within economic activity and empowerment. Furthermore, the research carried out at Liberec university (see Chapter: Rate of Return to Czech Higher Education - Survey) concerning the rate of return to higher education does not give us any closer answer as yet.

APPENDIX

Appendix A: Questionnaire on Students' Perceptions of Returns to Higher Education

Questionnaire on Students' Perceptions of Returns to Higher Education
When answering the following questions please do not include inflation in your salary expectations and consider them in current prices. Also all perception questions should be filled as honestly as possible and according to what *you* think, feel and expect.

1. You are: Female Male

2. Your age is: ……

3. What are *your* salary expectations immediately after you graduate from the university and get a job? Please specify your expectations regarding:
- Minimum salary CZK/month……
- Most likely salary CZK/month ……
- Maximum salary which you think you can earn as a 'fresh' graduate CZK/month ……

4. What are *your* salary expectations 10 years after university graduation? Please specify your expectations regarding:
- Minimum salary CZK/month ……
- Most likely salary CZK/month ……
- Maximum salary CZK/month ……

5. What salary would *you* expect if you now decided not to study at the university and to find a job? Please specify your expectations regarding:
- Minimum salary CZK/month ……
- Most likely salary CZK/month ……
- Maximum salary which you think you can earn now without a university degree CZK/month ……

6. What salary would *you* expect in 10 years if you decided not to study at the university?
- Minimum salary CZK/month ……
- Most likely salary CZK/month ……
- Maximum salary which you think you could earn in 10 years without a university degree CZK/month ……

7. What is your father's and mother´s highest level of education?
School College University
8. What approximately is your father's and mother´s salary a month?

CZK	0 - 10,000	≅	USD 0 - 555
CZK	10,000 - 20,000	≅	USD 55 - 1,110
CZK	20,000 - 30,000	≅	USD 1,110 - 1,665
CZK	30,000 - 40,000	≅	USD 1,665 - 2,220
CZK	40,000 - 50,000	≅	USD 2,220 - 2,775
CZK	50,000 and more	≅	USD 2,775 and more

9. Where do *you* intend (would like) to work after you graduate from the university?
Please tick max 2 options.
North England
Midlands
South England
London
European Union
North America
Australia or New Zealand
Elsewhere abroad ……. (please specify)
I don't know
I don't care

Thank you for your cooperation!

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