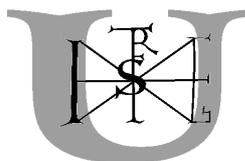


SZENT ISTVÁN UNIVERSITY
GÖDÖLLŐ



DOCTORAL (PhD) DISSERTATION

THE ANALYSIS OF THE SITUATION OF THE GRADUATE LABOUR FORCE

- THESIS OF PhD DISSERTATION -

Consultant:
Dr. László Hajós
professor univ

Written by:
Ilona Eszter Bakos-Tóth

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Name of the PhD school:
PhD School of Management and Business Administration

Scientific branch of the PhD school:
Management and Business Administration

Head of the PhD school: Dr. István Szűcs
professor univ, CSc in Economics,
head of institute SZIE Faculty of Economics
and Social Sciences, Institute of Business
Methodology

Consultant: Dr. László Hajós
professor univ, CSc in agricultural sciences,
head of institute SZIE Faculty of Economics
and Social Sciences, Institute of Humanities,
Languages and Teacher Training

.....
signature of the head of the PhD
school

.....
signature of the consultant

1. INTRODUCTION

One of the key points of the social-economic development is the proper management of resources, namely human resources as their role and significance are outstanding with special regards to the graduates. To maintain the present level of the economy, labour market policies and measures must be made that can manage human resources in a sensible way and, at the same time, highlight the importance of the graduate labour force not only by maintaining but also improving their situation as they are the key factors of the future.

2. TOPIC

An outstanding feature of the Hungarian labour market is the low rate of employment. According to the report of the European Commission, our country is one of the EU members where the employment among rate of those at working age is the lowest. In the summer of 2008 the EU average was 63% - this only amounted to 57% in Hungary so at least an increase of 400 000 employees should have needed to reach the employment rate expected. At present, at the beginning of 2009 the value of the referred indicators has been decreasing due to the great amount of layoffs as a repercussion of the global crisis. The issues that are in close contact with employment mean a heavy burden for the individuals and the whole society alike. The permanent lack of workplaces and salaries can lead to impoverishment, amortisation of specialist knowledge and, among others, health concerns both physically and mentally. The low rate of employment decreases the number of those who are subject to taxation and other contributions, which can result in the collapse of the social network.

The European Union places a great importance on the growth of employment rate. The common Union guidelines designate tasks in four main areas, among which decreasing unemployment and increasing the rate of employment as well as developing the adaptability of enterprises and employees can be found. Solving the problem of increasing employment cannot exclusively be left to Hungarian and foreign businesses, so the efficient intervention of the state is necessary by all means. All this can be reflected in creating new and more places of work, encouraging this process, improving the training of the employees, meeting the needs of the real labour market needs etc. In this present economic climate, part of the concepts applied so far will temporarily be pushed in the background and instead, slowing down the process of layoff and preserving the places of work will be the task of vital importance.

Regarding the situation of the graduate labour force, the present national rate of employment is 83% lagging 1-2% behind the Union average. To improve employment, a national scheme was introduced that shows a real

picture how the graduates in education are getting on in the labour market depending on their qualification. Although the proportion of the graduates has been rising in the past few years, it is still under the OECD's 26% average with its 17%.

Several studies were written about the dangers of the "overproduction" of the graduates and the devaluation of the higher education degree but obtaining a degree can still be regarded as a beneficial investment according to the statistical data. The surveys stress that an advantage in terms of payment can also be linked to the degree.

Educational reform is still important with respect to both bachelor courses and andragogy for the further training of the labour force. Based on some examinations practical knowledge has the greatest value in the labour market so knowledge imparted in the domain of applied sciences can be best used in economic life. That is why building this knowledge in education should be encouraged.

I have chosen the topic connected to labour force as I think human resources should not be treated as homogenous and individuals cannot be described in a uniformed way. In my opinion individuals serving as labour force to society should be handled free from stereotypes and as a segment with only a few members. That is why finding the indices by which certain individuals or groups in the labour force should be best described and characterised is essential.

With special regard to the guidelines listed above during the preparation of my dissertation, I intended to carry out the analysis of the situation of the graduate labour force. My objective is to explore and highlight the main issues and thus to contribute to make the situation of this stratum of society better on a permanent basis.

3. THE PRECEDENTS OF MY RESEARCH

The history of my research topic goes back as far as 1996 when, as the student of Economic Engineering at the Faculty of Economics and Social Sciences of Gödöllő University of Agriculture, my thesis was also written about a similar topic. The preparation of this paper was primarily induced by the fact that the topic chosen has always been in the focus of my attention. On the other hand, it is very topical, raising a lot of questions in connection with which several paradox statements can be formed.

I chose the topic of my present PhD dissertation in 2000 when I examined the situation of graduates in Heves and Borsod-Abaúj-Zemplén counties as well as in the area of Budapest. After the specialist literary review, my questionnaire serving as the basis of my research was compiled in 2006 and sent to the respondents living in the areas involved and randomly chosen in 2007. After that I started processing the questionnaires that were

filled in and returned, and my recording and assessing activities came to an end in 2007.

Due to the constraints of extent of the present paper, my dissertation does not contain the results of the surveys in details. The data which were not published in details were made use of when assessing the tendencies and exploring the reasons, of course.

4. OBJECTIVES

The objectives and partial objectives of my dissertation are the following:

- To lay my dissertation on a scientific basis, my intention is to review, study and evaluate all the relevant **national and international specialist literature**. Literary assessment is of primary importance for my paper as this made it possible to compare them with the results of my questionnaires, to synthesise and then draw the necessary conclusions. Literary review was carried out by studying the following scopes: the general presentation of the labour market during which, with the help of a micro-and macroeconomic approach, I have reviewed the main topics. I have detailed the factors of production, the analysis of wages and the broad spectrum of literature on employment and unemployment has also been dealt with together with an outlook to the situation of the graduates on the labour market.
- I have chosen **the methodology of processing** in which I have detailed the geographic and economic features of the areas concerned. Furthermore, in connection with methods applied in my own research work, databases used are also mentioned together with the detailed analysis of the personal questions in the questionnaire projecting the general description of the sample.
- In my **secondary research** I intend to assess the level of economic development in the Hungarian counties with the help of the indicators chosen.
To lay my primary research on a scientific basis, I regard it necessary to analyse and compare the changes in the number of employees and their net salaries both on the level of the national economy and the counties.
- By means of my **questionnaire survey** my intention was to examine the education, further training, employment and unemployment situation of the college/university graduates who had filled in the questionnaire. By summarising the data received and by means of statistical methods I wish to explore relations with the help of which new and novel results and

conclusions are drawn as well as proposals are made to make headway. My partial results are defined as follows:

- Regarding **college and university studies** I conclude it is important to examine the time and the type of the first degree together with the qualification they provided. Furthermore, exploring the proportion of theory and practice of the scientific subject taught is also an area to be examined.
 - Of **the questions directed at further studies** one of the most important is if the respondent went on studying after having obtained the first degree. If so, the type of the further qualification, the direction and objective of the further training together with the reason for studying further and the number of the degrees possesses at the time of the survey are also essential. By this way, the labour market value of further studies can be defined.
 - **With my questions about the place of work** my intention was to explore which national sector and branch the respondents were involved in as well as to analyse and evaluate the number of their workplaces, the positions filled, the easiness and speed of finding a job and the role of skills and knowledge with that of foreign languages and further trainings.
 - **Regarding unemployment** a special attention was paid to the labour market situation of the respondent: if they were not unemployed, how they managed to avoid it or if so, I was searching the way out.
- In connection with these, **recommendations are made** to assist in making decisions founding their future better and to make the labour market status of the graduates stable.
To reach the objective desired recommendations concerning the treatment of people, self knowledge, personality development, practical training, retraining and further training are also made.
Considering wages and salaries, my recommendations are about the number of workplaces, discrimination based on gender, the decisive role of age, the settlement type of the residence and workplace and the protection of the private sector.

5. REVIEWING THE SPECIALIST LITERATURE

Having my objectives in mind and to lay my dissertation on a scientific basis I have reviewed, studied, utilised and evaluated all the relevant national and international specialist literature. Literary assessment was of primary importance for my paper as this made it possible to compare them with the results of my questionnaires, to synthesise and then draw the necessary

concussions. During the literary review I have classified the general criteria of the labour market during which I have reviewed the main topics with the help of a micro-and macroeconomic approach. I have detailed the factors of production, the analysis of wages and the broad spectrum of literature on employment and unemployment has also been dealt with together with an outlook to the situation of the graduates on the labour market.

205 pieces of literary works have been consulted while preparing my paper with a concrete reference. Of course, this topic needs a broader scope of information which has been covered during my research and publication activities. When reviewing specialist literature I have been looking for problems arising day by day and the situations to be solved with the help of several renowned professionals, sometimes analysing their works critically.

6. THE METHOD OF PROCESSING

In my paper I have presented and reviewed the methodology of assessment during which I have detailed the geographical and economic features of the areas concerned, namely Heves and Borsod-Abaúj-Zemplén counties as well as Budapest. During my research work I have carried out depicting the general features of the sample examined by secondary processing several publicly accessible databases and analysing personal questions of the questionnaires from the primary basis based on own compilation in details.

In my secondary research I have examined the level of the economic development in our counties with the help of four prosperity indices. To lay my primary research on a more solid basis, I have analysed and compared it with the changes in the number of employees as well as their net salary on both the level of the national economy and that of the counties.

Collecting and summarising the data relevant for the scientific results of the research was a demanding and time-consuming task meaning hard research work. For this purpose the properly selected and defined research sample as well as the methods suitable for processing the summarised data were necessary, which I detail as follows.

My questionnaire was based on the eight steps determined by Scipione (1994). Editing the questionnaire was based on the presented theoretical background following the strict subsequent steps suggested by the experts. After having prepared the questionnaire, a trial was made as suggested by Scipione (1994) during which the questionnaire was corrected after having explored its shortcomings. In my final examinations this corrected version was used.

The data used for the secondary research were collected from the base of the Central Statistical Office.

A questionnaire was used to collect data about the further training, workplace and unemployment of the graduates.

Several statistical methods were used to evaluate specialist literature, to carry out the secondary research and to process the returned questionnaires such as:

- statistical progressions,
- statistical tables,
- arithmetic means,
- incidence,
- relative numbers (spread-, laced- and base-),
- indices,
- scattering examinations (minimum, maximum, variance) and
- cross tables.

Preparing, sending and returning the questionnaire

The questionnaire was being prepared since the end of 2006 and gained its final form in January 2007. Editing the questionnaire was based on the steps recommended by Scipione (1994). To define the objective and the subject of the questionnaire, the studies, ambitions to further studies, labour market situation (especially questions on the workplace and unemployment) and personal particulars of the graduates were asked. I preferred the written form as the oral one is rather costly, complicated and be it effective, questioning the experts did not seem relevant for my survey. Consequently, regarding the type of the questionnaire the one designed to be filled in on their own proved to be appropriate and was sent to those concerned by email. Among the question types open, closed and filtering questions were also used. The proportion of open and closed questions is 10-90% in my questionnaire, respectively. Binary, multi-variable, selective and partly dialogue questions were asked as closed ones.

When formulating the questions special care was taken that they should be clear and unambiguous but should not convey the answer or be unreal. Scales were used to make answering and processing easier. In the case of closed questions nominal, interval and proportional scales were the most common. A measure scale of quantity was also incorporated into the questions to define the number of degrees and places of work.

The questions were grouped into five main areas:

- college/university studies,
- further studies,
- places of work,
- unemployment and
- personal particulars

and the chronological order was also fixed. According to the methodology of questionnaire compilation, personal questions were asked in the final section of the questionnaire. While making the questionnaire, attention was paid to separate the single questions distinctively.

The questionnaire was tested first as a trial one with the help of the correspondent students of Károly Róbert College during which the length was tested together with the facts if the questions were understandable, the range of the alternatives to the closed questions were satisfactory and the order of the questions was proper. After the processing and evaluation of the questionnaires, modifications were carried out and the questionnaire was finalised.

The first day of sending the finalised questionnaires was 22 January 2007. The sample was taken at random and as such, it cannot be regarded as a typically representative one.

After returning the questionnaires, the conditions of being anonymous were ensured and supplying data was voluntary. The objects of the sample were persons with a degree- according to their self assessment.

Returning the questionnaires was closed on 28 February 2007. The size of the given sample was 1 303 persons 1 011 of them in the form of emails and 292 on paper. Altogether 1 022 could be evaluated for my research. On the basis of residence, 658 came from Heves, 193 from Borsod-Abaúj-Zemplén county and 171 from Budapest. The remaining 281 questionnaires derive from other counties or could not be assessed.

As the first step of processing cells were formed and their shape was set in SPSS for Windows. After that the continuous recording of data to the existing database was carried out.

During the processing there were questions to which the number of possible answers should have been extended, e.g. some respondents did not give a relevant answer about gross salary so when encoding it, the alternatives were supplemented by the possibility of “no response”.

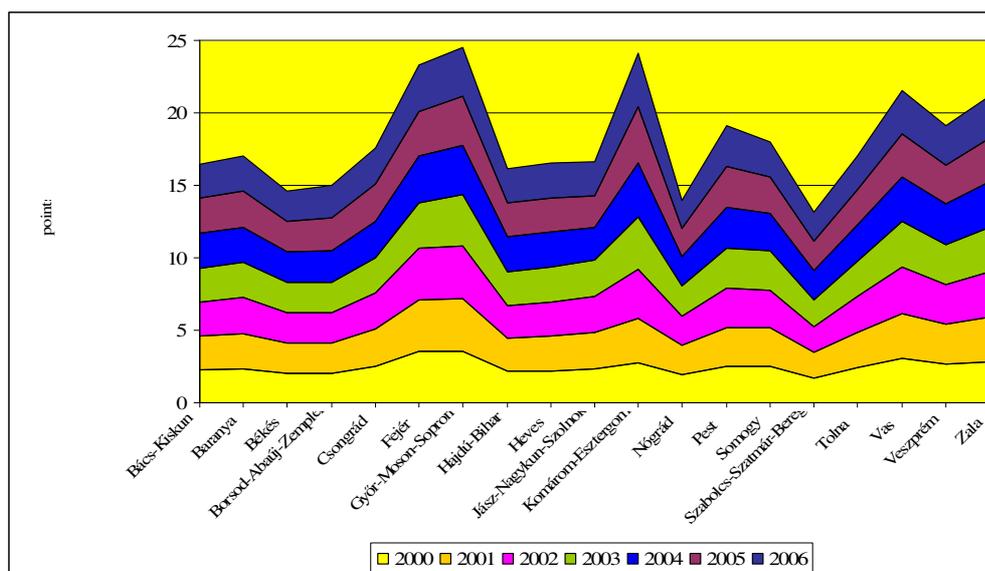
The general description of the examination sample of the questionnaire was made possible by the responses to the personal questions. The proportion of the respondents providing an assessable answer by gender is not typical as the ratio of females and males was $\frac{2}{3}$ - $\frac{1}{3}$, respectively. Regarding age, young graduates (aged 25-39) were overrepresented (64%) in the full sample while the number of fresh graduates and those above 60 were in minority 8(%). The proportion of the young was dominant (84%) among the Borsod-Abaúj-Zemplén county respondents. Regarding the examination of the highest qualification the sample can be considered as typical as the most questionnaires were filled in by respondents with a college degree (59%). Regarding the type of employment 94% of the respondents were employed and subordinates dominated while only 3% of them worked as an entrepreneur. 1% of the respondents in the sample were unemployed. Surveying the amount of gross salary 60% of the respondents earned the average salary or a bit under it. Considering that it involves only graduates with a degree, we cannot say that their knowledge is appreciated. In terms of residence and workplace, working in locally was typical in 86-95%.

7. RESULTS

The results of the secondary and primary research of the dissertation founded on scientific literary background research are summarised as follows.

7.1. The results of the secondary research

Regarding **the level of economic development** I have pointed out that an economic revival could be experienced in the years of 2001, 2004 and 2005 on the basis of the common impact of the four indicators examined while in the other years stagnation was typical (Figure 1).



(Source: own calculation based on the 2008 data of the Central Statistical Office (hereinafter referred to as CSO))

Figure 1: The tendency of economic growth in the Hungarian counties (without Budapest)

Although economic growth is the objective of all governments and the European Union, the steepness of this indicator was significantly reduced in 2007 based on the CSO report-mainly due to the decrease in the industrial production. In the development of the two counties where the surveys were carried out basically a favourable tendency could be noticed. During the assessment Budapest had to be discarded due to its distorting impact similarly to other examinations and research on regional differences. If Budapest had been included in the examination of economic development, it would be at the first place.

Concerning **the number of employees on a national economic level**, it fluctuated in the examined period (Table 1). In 2003 both in the private and in the budgetary sector a growth could be experienced but later a contrastive shift took place. In the private sector growth went on while in the budgetary sector redundancies were started as one of the possible sources of budgetary savings is savings on salaries. The main part of those with a higher education qualification is engaged in education, healthcare, social services and public administration but the number of those employed in industry and agriculture is low.

Table 1. The base relative number calculated on the basis of the average statistical number of those employed in Hungary (%), 2001 = 100%

National economic branch	2001	2002	2003	2004	2005	2006	2007
Total national economy	100.00	100.16	101.14	102.48	102.37	102.51	101.42
of which: private sector	100.00	99.32	99.58	101.38	101.61	102.20	102.14
budgetary	100.00	101.50	103.82	103.55	102.19	99.96	94.93

(Source: own calculation based on CSO 2008)

The breakdown of wage earners in the average of 15 European Union countries is the following: agriculture 4%, industry 25% and services 71%, in Hungary in 2006 the proportion was the same with a slight difference of 1-2%. In the **net salary** of the employees a total 76% increase could be experienced in the examined period between 2001 and 2007. (Table 2).

Table 2. The base relative number calculated on the basis of the net salary of those employed in Hungary (%), 2001 = 100%

National economic branch	2001	2002	2003	2004	2005	2006	2007
Total national economy	100.00	119.58	136.73	144.37	158.90	170.92	176.05
of which: private sector	100.00	116.03	130.35	140.79	152.62	165.68	172.08
budgetary	100.00	127.50	150.43	152.14	172.97	183.30	186.43

(Source: own calculation based on CSO 2008)

The private sector lags behind the average by 4% in growth while the budgetary sector surpassed it by 10%. The biggest growth in net salary took

place in 2007 in relation to the base year of 2001 in healthcare, education and other social services. In the private sector salaries below the average while in the budgetary sector salaries above it were typical.

The correlations of the number of employees and the changes in net salaries were examined by laced relative numbers. The analyst usually awaits the growth in the number of employees one or two years after the net salary growth and this was the case in most branches. It is the branch of financial services that contradicts all rules set so far- as contrary to the continuous increase in salaries there was a decrease in the number of employees which started to grow by 2005 followed by the dramatic drop in net salaries by 2007.

Regarding **the average number of employees by counties** a drop could be seen everywhere from 2004 with the exception of five counties including Borsod-Abaúj-Zemplén and Heves. The number of employees took a reverse course in the areas included in the primary research, namely in Borsod-Abaúj-Zemplén county and Budapest: it decreased in the former and increased in the latter one. In Heves county a growth could be experienced with the exception of 2004. Regarding the number of employees per square km, Budapest takes the lead. Among the counties subject to the primary research Heves and Borsod-Abaúj-Zemplén county are in the middle of the ranking. By the end of the examined period Heves county took two steps forward while Borsod-Abaúj-Zemplén county went one place back in the ranking.

Regarding the situation of the counties, no tight correlation can be noticed between the formation of **net salaries** and the number of employees as while net salaries were more or less on the rise continuously, the number of employees in certain counties increased, in others decreased or turned into hectically alternating directions. Based on the comparison of the net salaries of those employed to the base relative number, Borsod-Abaúj-Zemplén county ranked 5, Heves county 12 and Budapest 18 on the county ranking of net salary growth in 2005. The extent of growth was basically determined by the level of salaries the area concerned started from during the examined period. This is how Budapest could gain one of the last places as surpassing the so-high salary is a difficult task.

7.2. The results of the primary research

In the life of those with a **higher education** qualification the time when they obtained their degree is decisive. The number of the years passed after obtaining the first degree is 14 on the average in the whole sample. In Heves county the survey says 16, in Borsod-Abaúj-Zemplén county only 9 while in Budapest an average of 11 years. In most of the cases the graduates in Heves county stayed in the neighbourhood while outflow was the greatest from Borsod-Abaúj-Zemplén county. Among the respondents of the questionnaire regarding the breakdown of the type of training after the first degree almost

$\frac{3}{4}$ had a college while $\frac{1}{4}$ a university degree with regard to both the total sample as well as Heves and Borsod-Abaúj-Zemplén counties. In Budapest the ratio of college and university graduates was slightly different ($\frac{2}{3}$ - $\frac{1}{3}$). When examining the branches of sciences of the graduates' degree I concluded that those with economic and agricultural qualification were represented equally, altogether amounting to 56-75% of the respondents.

The knowledge and information imparted by higher education is rather theoretical (70%) than practical (30%) according to the opinion of the respondents (Table 3).

Table 3. The proportion of theory and practice (%)

Sample	Practice	Theory
Total	29.67	70.29
College graduates	31.14	68.76
University graduates	25.77	74.32

n = 1 022 n ⇨ college graduates = 741; university graduates = 281

(Source: own compilation, calculation)

The college graduates considered their alma mater to be 6% more practical than their peers graduating from a university. In my opinion theoretical knowledge is of great importance in meeting the demands of the labour market although the respondents put it to the fifth place of the seven possible answers. Higher education is dominated by theoretical trainings.

In our information-centred society developing at a high speed lifelong learning is essential. I also concluded a similar result in my own research carried out on the graduates obtaining a degree between 1965 and 2007 to Mile et al. (2007), who stated that more than half of those graduated in 1998-1999 obtained another degree till 2004 right after getting their first one. In my research 64% of college graduates and in contrast with the expectations, 77% of university graduates carried on studying (Table 4).

Table 4. The number of those who opted for further trainings after obtaining their first degree

Sample	Further training with a college degree		Further training with a university degree	
	number	* %	number	* %
Total	471	63.56	217	77.22
Heves county	302	62.40	154	88.51
B-A-Z county	90	63.83	25	48.08
Budapest	79	68.10	38	69.09

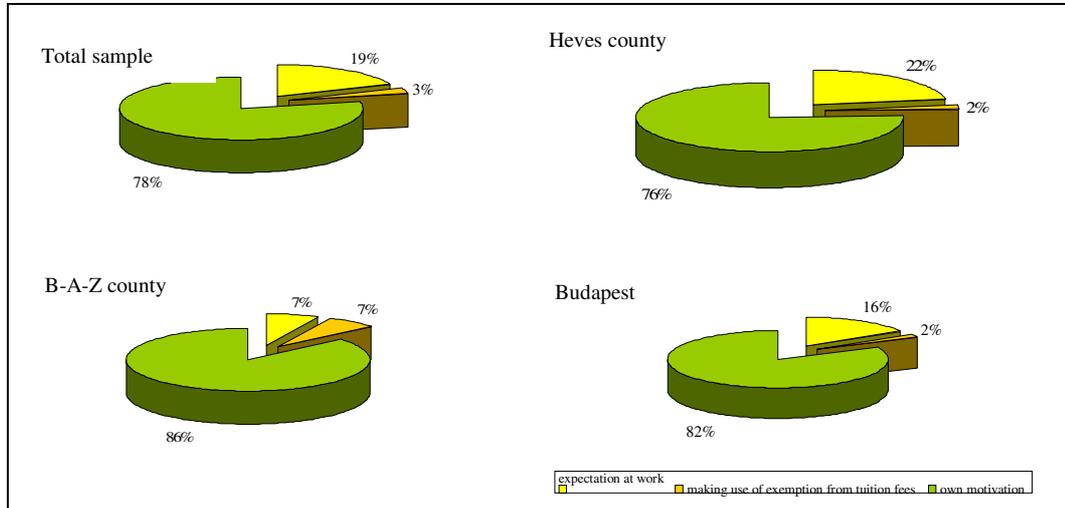
* in relation to the respondents living in the given county and graduating from all colleges and universities

n = 1 022 n ⇨ college graduates = 741; university graduates = 281

(Source: own compilation, calculation)

The high proportion of further studies could be experienced in every county examined, which can be regarded as very favourable. On the basis of

the type of the first degree obtained the proportion of higher studies was the highest in the university graduates in Heves county while in Budapest the proportion was fairly high in the case of both types of degrees. The figures suggest that to be trained in a certain profession is not enough for a lifetime; the graduates are forced to go on studying. In most cases it was their own motivation that encouraged most respondents to carry on studying (Figure 2).

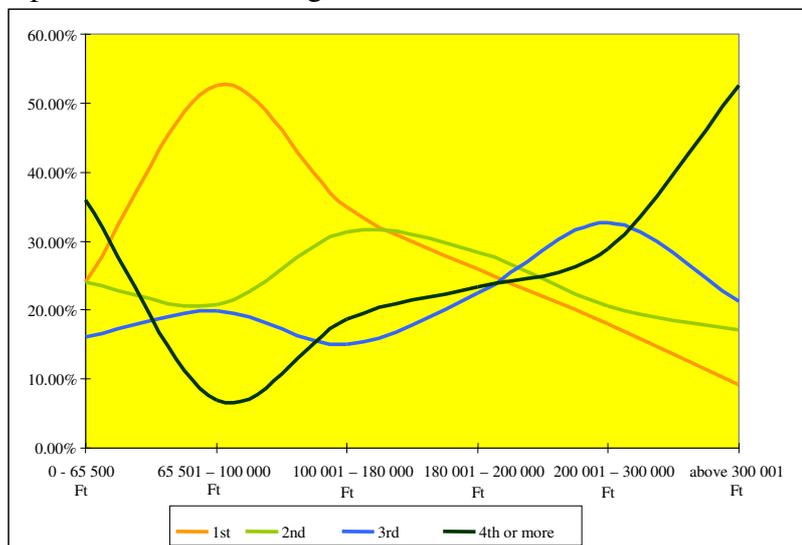


n = 1 022 n ⇨ B-A-Z county = 193; Budapest = 171; Heves county = 658

(Source: own compilation)

Figure 2. Breakdown by the reasons for further studies

Expectation at work is 22-7-16% in Heves, Borsod-Abaúj-Zemplén counties and in the capital, respectively, which does not necessarily suggest that workplaces have such a slight demand for further studies.



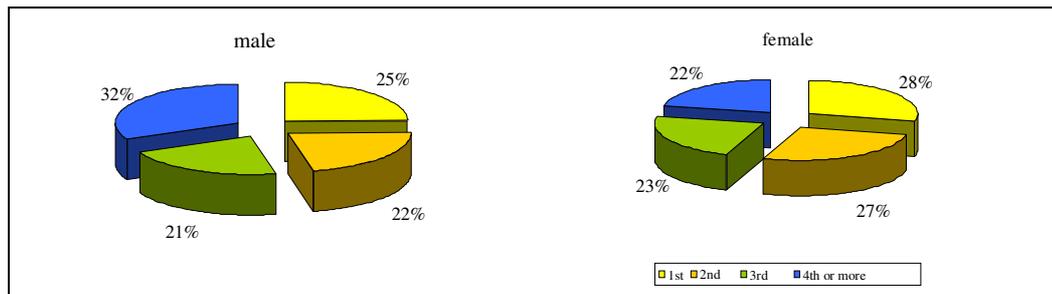
n = 1 022

(Source: own compilation)

Figure 3. The connection between the number of workplaces and gross salary

More than 50% of those working at their **first places of work** earned money somewhere between the minimal and graduate minimal salary. The more places of work the employees had, the higher payment category they are in. More than 50% of those working at the fourth or more workplaces earned more than 300 thousand Ft.

As a result of the comparison based on gender and the number of workplaces I experienced that while most women were working at their first, second or third places of work, men are engaged in at least their fourth or more places of work.



n = 1 022

(Source: own calculations)

Figure 4. The correlations between the number of workplaces and gender

Regarding the connection between the rapidity of finding employment and the national economic sector 48% of those employed in the budgetary sector found a job within three months after the graduation while it was only 33% in the private sector. Those who intend to go to the private sector are more exposed to the difficulties of finding a job. To sum it up, it can be stated that the budgetary institutions obey the existing laws in a stricter way than in the private sector. This is how a strange situation can arise: while the public opinion regards that salaries are lower in the budgetary /public/ sector and those employed in the private sector earn more, according to the CSO data in 2007 the gross average salary of those in the public sector was 206 thousand Ft/person/month (a net of 124 thousand Ft), and in the private sector it was 177 thousand Ft/person/month (a net of 111 thousand Ft).

Regarding the quick placement after the graduation (within three months) the situation is the most critical in Borsod-Abaúj-Zemplén county (27%) where 32% of the graduate labour force could find a job only after six months. These are part of the factors why Borsod-Abaúj-Zemplén county is regarded to be of disadvantaged situation in Hungary.

The main reason for not finding a job was obviously the lack of workplaces in the region-according to the respondents as indicated by more than 60% of them in both counties. Overqualification was also mentioned as the second reason (15-19%) by the respondents.

In my questionnaire I also asked what skills among those I had chosen they made use of the most to meet the demands of the labour market by the respondent. In Heves county dealing with people, cooperation, empathy and theoretical knowledge were indicated as important ones. In Borsod-Abaúj-Zemplén county practical knowledge, cooperation and managerial attitude were highlighted while in Budapest none of them.

In my research work experience, i.e. practice ranked the first place (Table 5) so we can see that the employees of the labour market know the requirements of the employers well and they are also aware what they have to possess if they want to change or keep their places of work.

Table 5: The mean values of the importance of skills (from 1 to 5)

skills	total sample	Heves county	B-A-Z county	Budapest
Practice	4.28	4.29	4.46	4.07
Theory	3.88	3.98	3.80	3.59
Cooperation	4.25	4.25	4.25	4.20
Empathy	3.77	3.91	3.54	3.45
Professional development	4.05	4.09	3.96	4.00
Managerial attitude	2.76	2.72	2.96	2.70
People skills	4.23	4.34	4.07	3.98

n ⇒ B-A-Z county = 193; Budapest = 171; Heves county = 658

(Source: own calculation)

Regarding knowledge the opinions reflected a very interesting picture (Table 6). The respondents in Budapest preferred foreign languages and IT skills unanimously with the employers who highlighted the same ones.

Table 6. The mean values of the importance of knowledge in the counties examined

knowledge	total sample	Heves county	B-A-Z county	Budapest
Foreign languages	4.26	4.24	4.20	4.39
IT	4.52	4.49	4.52	4.64
EU	3.13	3.13	3.13	3.12
Finance	3.25	3.26	3.34	3.08
Self knowledge	4.11	4.09	4.24	4.03
Environment	2.74	2.81	2.77	2.46
Labour market	2.99	2.96	3.25	2.84
Law	3.17	3.14	3.23	3.19
Taxation	3.21	3.26	3.27	2.92
Agricultural	2.29	2.25	2.52	2.19
Technical	2.35	2.35	2.57	2.12

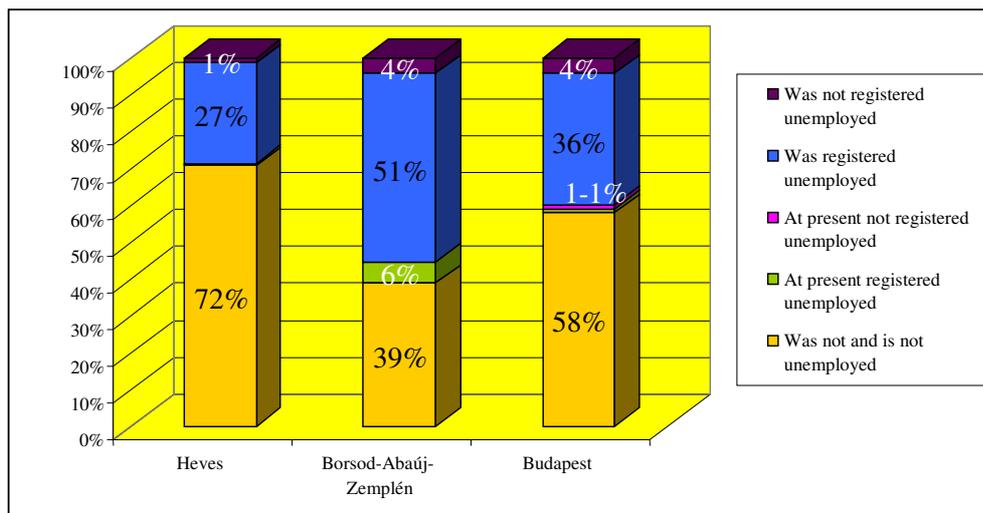
n ⇒ B-A-Z county = 193; Budapest = 171; Heves county = 658

(Source: own calculation)

From the specialist literature reviewed for my paper for more than a decade I miss the emphasis on people skills and the role of empathy. People skills were ranked high in both counties as well as in Budapest while empathy was ranked lower. In my opinion this skill is very important with which we can be in the situation of the other people so it helps a lot in understanding others. I think this skill should mostly be possessed by the managers.

The decisive part of those filling in the questionnaire (85-90%) regarded further-or retraining necessary. This was thought important in the greatest proportion in Borsod-Abaúj-Zemplén county, which can be due to the typically grave labour market situation of the county. Based on the answers about the areas of further-or retraining it became obvious that the great bulk of the respondents regarded it important in their own specialist area. An expressively negative fact is that only 15-22% of the respondents considered personality development necessary. I think it is essential for the graduates to get to know and develop themselves by different trainings.

One of the gravest problems of the market economy is **unemployment**, which is made even much worse by the present economic crisis. Regarding the labour market status of the respondents I have concluded that Heves county had the fewest and Borsod-Abaúj-Zemplén county had the most unemployed in its proportions (Figure 5).



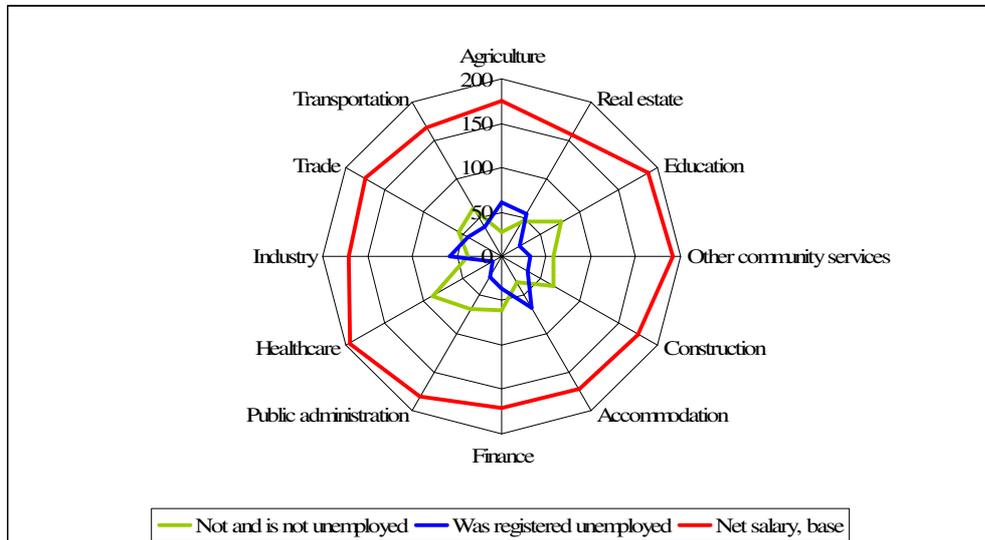
n = 1 022 n ⇒ B-A-Z county = 193; Budapest = 171; Heves county = 658

(Source: own compilation)

Figure 5. Presenting the labour market situation of the respondents

Examining the correlations between the labour market status and net salary by national branches (Figure 6) we can conclude that it is the budgetary branches where net salaries were increased to the greatest extent by 2007 and here also the number of those who have never been unemployed

is also the highest. In contrast with this, in certain branches of the private sector net salaries increased to a significantly smaller extent and in parallel, the greatest proportion of unemployed came forward from these branches. Based on my research, the reasons behind the formation of the stable workforce basis in the budgetary sector can be found in higher than average salaries and the greatest volume of net pay rise compared to the base period besides the decrease of the employees resulting in the increase of salaries.



Net salary, base = secondary research, Table 22 (CSO 2008)
n = 1 022 n

(Source: own compilation)

Figure 6. The correlations between labour market status and net salary per national economic branch

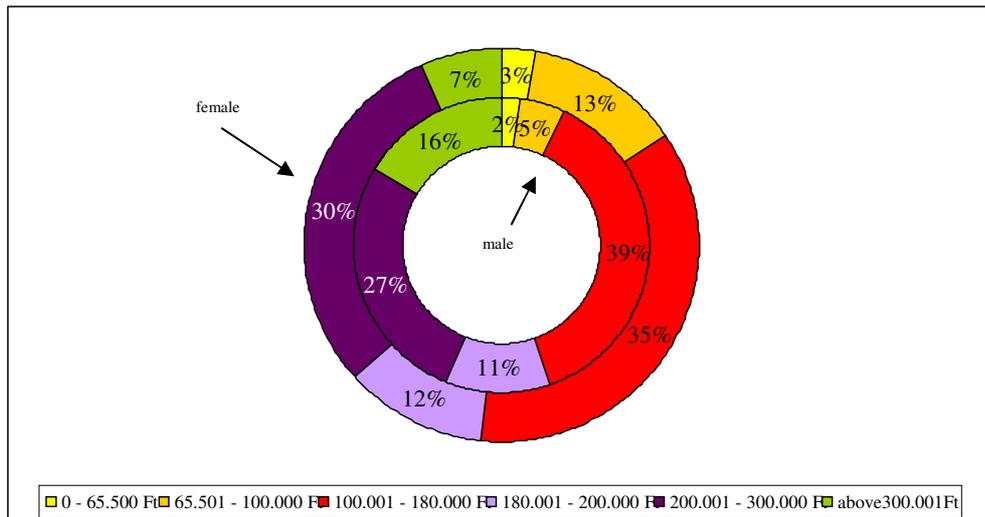
In my survey I have experienced the greater exposure of those employed in the private sector to unemployment and net salaries below the national average. The increase of these net salaries compared to the base period was smaller than in the budgetary sector, which can also be justified by the statistical growth in the number of employees of the private sector. The respondents regarded competitive professional knowledge as the main factor of avoiding unemployment and they also highlighted connections. Proper personality traits were also indicated in nearly 25%.

Obtaining a higher education qualification is a long-term investment and as such, its returns are reflected in the amount of **salaries and wages**. Concerning the connection between the average gross monthly salary and the highest qualification the survey reflect that the greatest proportion of college and university graduates (36.6-36.2%, respectively) fall into a category between 100 and 180 thousand Ft. This, compared to the 2007 data of the CSO, means that the college graduates earned 136-216 thousand Ft and the university graduates 265-345 thousand Ft less than the participants of my

research in 2007 including Heves and Borsod-Abaúj-Zemplén counties as well as Budapest.

I have compared the national branch of the workplace existing at the time of the survey of the respondents with their gross salary and it turned out that on the whole, gross salaries between 100 001 – 180 000 Ft are typical on the level of the national economy.

The question of salaries and gender is an all-time problem. In my survey 16% of those with less than 100 thousand Ft are women while only 7% of men fell into this category (Figure 7). There are twice as many men than women in the category of those earning more than 300 thousand Ft.



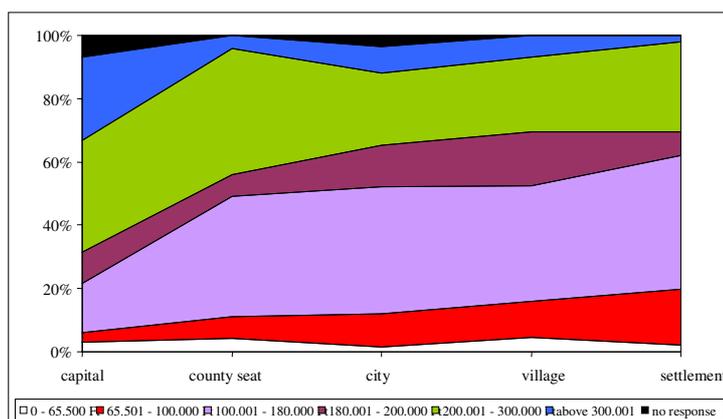
n = 1 022

(Source: own compilation)

Figure 7. The correlation between the average gross salary and the gender of the respondents

Besides qualification, age can also significantly influence salary. While those aged between 21 and 24 mostly earn 65-180 thousand Ft, the zones of higher salaries have become broader with ageing and those aged between 50 and 59 exclusively have a salary of more than 100 thousand Ft.

Reviewing salaries by residence I have concluded that the bigger the settlement, the broader the categories of higher salaries are (Figure 8).



n = 1 022

(Source: own compilation)

Figure 8. The relationship between the average gross monthly salary and the type of settlement of the residence of the respondent

8. NEW AND NOVEL SCIENTIFIC RESULTS

Based on the secondary and primary research founded on the scientific literary background research work in the dissertation, the following new and novel scientific results have been explored:

1. Regarding the extent of the net pay rise and the change in the number of employees, a contrastive tendency prevails.

Concerning the counties, an opposite correlation was experienced between the two examined factors. While in Nógrád county the number of the employees decreased most dramatically, the growth of net salary was the highest in this county and in Pest county The number of the employees increased to the greatest extent but pay rise was of the slightest extent there.

2. Nowadays it is true that the longer the employee stays in employment, the higher their average monthly salary is.

In 2007 more than 50% of those employed at their first workplaces had a salary between the minimal and graduate minimal salary. The more places of work they had, the higher payment category they fell in. More than 50% of those who had at least their fourth places of work at questioning earned more than 300 thousand Ft.

3. Nowadays people skills are of great importance. However, the fact that employees do not regard the development of their own personalities so essential is a serious contradiction.

The respondents highlighted people skills, cooperation, empathy and theoretical knowledge. An expressively negative fact is that only 15-22% of the respondents considered personality development necessary. I think it is essential to solve this contradiction as without personality development improving people skills cannot be achieved, which is one of the most important pillars of good work.

4. The budgetary sector ensures the safest places regarding payment and the most stable ones regarding job security. Those in the private sector are more “exposed”.

Based on my research, the reasons behind the formation of the stable workforce basis in the budgetary sector can be found in higher than average salaries and the greatest volume of net pay rise compared to the base period besides the decrease of the employees in the budgetary sector but still resulting in a more stable situation and the increase of salaries.

In my survey I have experienced the greater exposure of the employees in the public sector to unemployment as well as net salaries lower than the national average for those concerned. The extent of the rise of these net salaries compared to the base period was smaller than in the budgetary sector.

5. The bigger the settlement, the higher the salaries are.

Reviewing salaries by residence I have concluded that the bigger the settlement, the broader the categories of higher salaries are.

9. CONCLUSIONS AND RECOMMENDATIONS

It is a fact that the rate of employment in Hungary is extremely low. At present this problem means one of the gravest ones of the Hungarian economy and to make matters even worse, the number of those employed has not been increasing. On the contrary, the group of people made redundant through no fault of theirs is on the rise to such extent that separate measures have been taken like the introduction of state guarantee on the existing mortgage loan instalments.

In my PhD dissertation I have examined the situation of the graduate labour force in Heves and Borsod-Abaúj-Zemplén counties as well as in the area of Budapest.

Having the objectives of my paper in mind, the scientific conclusions and the objectives set in my dissertation are the following:

In my **secondary research** I have examined the level of **economic development** in our counties with the help of four indicators and as their

joint impact, a revival could be experienced in economy in the years of 2001, 2004 and 2005 while during the further years of the examined period stagnation took place. When reviewing the **number of employees** on the level of the **national economy**, it showed fluctuations in the examined years. Regarding the **net salaries** of the employees a growth of 76% on the national economic level could be seen. Concerning the **number of employees by counties** a drop could be seen everywhere from 2004 with the exception of five counties including Borsod-Abaúj-Zemplén and Heves. Regarding the formation of **net salaries** and the number of employees, no tight correlation could be noticed. The extent of the growth was basically determined by the starting level of salaries in the area concerned.

As a result of **my questionnaire** I have concluded that almost $\frac{3}{4}$ of the respondents with higher education qualification graduated from a college while $\frac{1}{4}$ of them finished a university where economics or agricultural sciences were decisive. College qualification was regarded to be more practice-oriented. 64-77% of the fresh graduates continued studying and nearly 50% of the respondents gained new, ancillary knowledge in which individual motivation was of primary importance. Approximately 30% of those working in the private and 46% of those engaged in the public sector possessed two or more degrees. Regarding the living of the employees it is not the same which sector and within the sector which branch of the national economy they are employed. Furthermore, the more places of work they had the higher payment category they fell in but this only held true for men. After graduating those employed in the public sector could find placement in the quickest way and the legal frames of employment and a contract were ensured far the best there, as well. Moreover, salaries proved to be higher than in the private sector. Work experience, foreign languages and IT skills are those that could help finding employment the best.

One of the gravest problems of the market economy is unemployment, which is made even much worse by the present economic crisis. Among the respondents most of them were unemployed in Borsod-Abaúj-Zemplén county, and in the greatest proportion in the branches of accommodation, agriculture, industry and real estates. To avoid this situation, the respondents mentioned competitive specialist knowledge and connections. I could experience that those employed in the private sector are more exposed to unemployment and net salaries were below the national average. Acquiring qualification in higher education is a long-term investment and as such, its returns are realised in the extent of payments. Mainly in the case of those working in public administration and men, especially senior managers, age and domicile (e.g. Budapest) can also affect the extent of salaries to a great extent besides education.

The fact that the employees should possess updated knowledge also serves the interests of the employers. That is why I **recommend** setting up an

Employee Training Construction (ETC) similar to that of the pension scheme in which a fixed slight percentage of the employees' salary should be transferred to their personal training account whose payment can be made discretionary for the employer. This sum could be at the disposal of the individuals exclusively for the purposes of trainings and retraining. I would also suggest attaching tasks of public interest to the activity of this construction so a tax relief could be claimed after the amount paid.

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