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**Anomalies and ways of improvement of vocational
education and labour market in South-Transdanubian
Region in Hungary**

Summary of PhD thesis

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1. INTRODUCTION

In developed countries vocational education has gained a strategic importance and is based on local characteristics. There are several vocational education systems in the developed countries of the EU. They are evolved and keep up permanent cooperation with the economy and function in a decentralized way based on the requirements of labour market as well as local sociological and geographical characteristics. The Hungarian system, though, is constantly changing, extremely expensive, keeps up with economy rarely and with a significant delay, centralized and hardly ever takes local characteristics into consideration. It is an urgent and important task to analyse its local characteristics and shortcomings.

One of the most important factors that restrain the development of Hungarian economy is the lack of high qualified professionals. As a result of this, several Hungarian and foreign investments have failed. At the time being, there is surplus or deficit in the education of certain professions. The education of professionals in Hungary does not accommodate to the requirements of economy in its quality, quantity and geographic structure. The vocational education system has to become effective in a few years otherwise the system will not be able to substitute the retired professionals. This situation is the most serious in the case of the most prosperous sectors of South-Transdanubian economy, mechanical and building industry, both requiring high qualified professionals. Although half of the skilled toolmaker, welder, locksmith and mason workers is going to retire in a decade, vocational educational institutions produce only 10 % of the required number of these professions. This situation is caused by the fact that educational decision makers, as well as educational organizations and researchers do not take regional, sociological, social and economic characteristics into consideration. The main objective of this dissertation is to explore and analyse these extremely important geographical features.

Due to the peculiarities of different areas, the regions have different economic conditions and labour market requirements. In spite of the fact that South-Transdanubian Region has advantageous natural, commercial and cultural conditions, it has declined significantly in the last 5 or 8 years as related to other regions. After the change of regime agriculture and light industry – former prosperous sectors of the region – declined, mining was ceased completely. After the turn of the century, though, the sectors of machine industry, building industry, trading and tourism started to improve. These sectors do not have enough skilled workers. It is characteristic of the improper system that the vocational schools of the region concentrate on professions that are not in accordance with the requirements of the economy.

Vocational education is a complex process and has a significant impact on social welfare. Beside the economic problems of South-Transdanubian Region, the large, rapidly increasing and almost entirely unemployed roma population is causing a growing social tension. It is an important challenge of vocational education in the future to manage their integration, with special regard to rare qualifications. The research carried out in previous years point out that they are the bases of vocational and adult education of the region in the near future. The dissertation attempts to emphasize their role and explore their regional and demographic characteristics, as well as their attitudes and the opinion of others about them.

There have been huge government efforts implemented in the last ten years to develop vocational education. New education management procedures have been introduced and regional integrated vocational centres were founded. Despite the undoubtedly positive changes the interest representation in economy is still weak.

This dissertation focuses on a geographic and statistical approach of the above described phenomena and problems, the analysis of the reasons, the opinions of organizations, schools, enterprises and roma organizations. It also attempts to present possible solutions specifically in

the South-Transdanubian region. The main area of interest is vocational education. Due to the given length of this work, I am only going to touch upon adult education. It is also necessary to assess government organizations, local governments and schools and show their mistakes and responsibility. The investigation is based on the analysis of statistically definable economic and labour market data as well as the examination of their geographic and chronological differences. On the foundation of this analysis I am going to present the geographic and critical inspection of Hungarian vocational educational system, the investigation of its international context and the overview of economic and educational organizations and the most significant scientific researches.

2. SCIENTIFIC PREMISES

After the change of regime several researches were carried out to investigate the situation and characteristics of vocational education. They all approach the problem on state level neglecting the regional peculiarities. Government leaders and employees focused on the most urgent tasks, the financial, economic and pedagogical aspects of changing vocational educational system. (A. BENEDEK 1997 a).

It is a common feature of the published researches that they failed to analyse two important, but rather uncomfortable questions. One neglected area is the investigation of government responsibility. We can assert that the government must force the institutions to conform to the requirements of labour market. It has not happened since the change of regime. The other area that is missing from the published works concentrates on the regional and geographical characteristics of educational policy. Similarly to the economy, the requirements of education and labour market are not homogenous in Hungary (L. FUTTERER 2007). The regions, counties and cities have different economic, social and ethnic characteristics. Without taking them into consideration it is impossible to implement a successful educational system.

The main problem of the research of Hungarian vocational education is the fact that most of them are launched by the government or are carried out by employees of government institutions. It is a major disadvantage of the studies that they are carried out on state level and they explore only one segment of vocational education, from the point of view of one discipline. They do not present a complex analysis and they fail to include the criticism towards regional and state level education policy. This is one of the reasons why government decisions in many cases are not effective enough. There are only a few researches that deal with regional characteristics and even less that contain scientific criticism on government actions.

The government lead research activities are under the influence of central economic and educational policy. The researches carried out by most of the scientific institutions and universities are affected by these principles. Locality and multidisciplinaryity was not present in these approaches. As an exception, the results presented by the research team of University of Pécs, Institute of Geography, and University of Pécs Doctoral School of Earth Sciences are innovative and can be considered a breakthrough. Their area of interest was the research of Hungarian cultural environment that determines education, based on regional specialities. The publications of JÓZSEF TÓTH, ANDRÁS TRÓCSÁNYI, ZSUZSANNA M. CSÁSZÁR and RÓBERT TÉSITS were outstanding and broke fresh ground. Based on their works it is obvious that it is impossible to understand and plan social processes without taking local characteristics into consideration.

The publications on Hungarian and regional vocational education can be divided into four groups according to their time of release. These four periods are characterized by

different social and economic changes. We can talk about publications in the years of the change of regime (from 1990 to 1994), the period of consolidation (from 1995 to 2003), the years of EU integration (from 2004 until 2005) and the reform period which means the complete transformation of Hungarian educational system (from 2006). During these periods the scholars examined the complex social changes, the most important studies were published by ANDRÁS BENEDEK, ILDIKÓ HRUBOS, LAJOS BAGICS, MÁRIA FREY and KATALIN KONCZ. Their works present useful analyses on vocational education in general, exploring its pedagogical and social correspondences but do not elaborate on regional specialities.

Researchers who concentrate on roma ethnic group and their education pay attention to the investigation of geographic differences. The findings of ILONA LISKÓ, MIHÁLY ANDOR, ISTVÁN POLÓNYI, TAMÁS KOZMA, KATALIN FORRAY R. and TIBOR CSERTI CSAPÓ bear out the most important concept of this dissertation: the improvement of vocational education and the social-economic conditions of South-Transdanubian region depends on roma youth.

3. OBJECTIVES

The constant decay of vocational education in Hungary was not stopped by the methodological, pedagogical and financial aid received after the accession to the EU. Due to the various economic, social and geographic environment of the regions, the failures of professional education can be dealt with differently. Through the analysis of South-Transdanubian Region, this dissertation aims at exploring the reasons of the contemporary situation and finding the possible solutions.

The objectives of the thesis:

- *To determine the shortcomings of Hungarian vocational education system and government education policy and compare it to more successful vocational education systems in member states of the European Union*
- *To explore the economic, labour market and demographic characteristics and processes of South-Transdanubian Region*
- *To analyse the roma ethnic characteristics of the region, as well as assert their key importance in fostering the vocational education and social development of the region*
- *To explore the educational system, as well as the structure of vocational education and school funding in South-Transdanubia and present the opinion of the institution leaders about their operation*
- *To investigate the characteristics of vocational education costs and funding system of the region*
- *To summarize the opinions of the most significant enterprises of the region about vocational education, the development of education and their requirements of workforce and education.*

In the course of the analysis of above mentioned objectives the dissertation attempts to find out the reasons of deficit of skilled workers in certain professions, the rigid educational and adult educational structure and the low quality of education despite the high costs. The

work also tries to find the possible ways to accommodate to the requirements of economy. The thesis is going to elaborate on the possible ways to facilitate the social and economic integration of the roma ethnic group, which is an extremely important social problem in Hungary and especially in the South-Transdanubian Region. The majority of the significant roma populatoin of Somogy, Tolna and Baranya counties are unemployed, unqualified and couse serious tension in the society. The proportion of roma students is high and constantly growing in the vocational schools of the region.

Based on the thorough analysis of regional characteristics, the ultimate objective of the thesis is to draw attantoin to the most urgent problems of vocational education and define the qualifications most required by economy, the shortcomings of education, the most important tasks of improvement and the role of the roma population in this process. It is also necessary to touch upon the critical analysis and evaluation of governmental and local education management organizations.

As a result of these the dissertation will hopefully present a concept on social and economic improvement of the South-Transdanubian Region by the transformatoin of vocational education system.

4. RESEARCH METHODS

The dissertation is closely related to two formerly started and still ongoing research projects. One of them has been carried out by the author of this work and explores the situation of vocational education in the South-Transdanubian Region with special regard to the cities of Kaposvár, Pécs and Szekszárd in the school years 2004-2005, 2005-2006 and 2007-2008. It examines the capacities of local skilled worker training and the most important economic and demographic characteristics as well as the educational policy of the region. This research project also elaborates on how the major enterprises of the region evaluate vocational education.

The other project was carried out by the team lead by RÓBERT TÉSITS, PÉTER GARAI and GÁBOR JUHÁSZ between 2005 and 2007, exploring the possible ways of implementing atypical forms of employment in the region for enhancing social welfare and the emerging of local roma population.

As a summary of research findings it has been stated that the problems of certain regions can be solved differently because of the specific local conditions. Improvement of vocational education and expansion of employment in Hungary can be attained by the implementation of special education and employment policy based on local geographic, economic, social and ethnic characteristics. Roma students are the major target group of vocatoinal education in South-Transdanubian Region.

In the course of this and the previous works we have used three research methods. The first includes the analysis of results of previous researches as well as the assessment of officially documented economic, social and educational data. The second method is based on the evaluations given by significant economic, educational and social organizations of the region. The third method comprises the simultaneous application of the previous two methods in the analysis of a given problem.

Secondary method of non-interventional research (research of publications and statistical analysis)

In chapter „5.1. *Critical analysis of vocational educational system in Hungary and in the most influential countries of European Union*” the prosperous British, German and Irish vocational educational system will be compared to the Hungarian system. The method of research was the secondary analysis of available publications and legal regulations. The Hungarian and international analyses of the Hungarian Chamber of Commerce and Industry, that keeps on fruitful international relations, turned out to be the most significant sources.

The researches in chapter „5.2. *Exploration of economic, labour market and demographic conditions and processes of South-Transdanubian Region*” concentrate on local characteristics, primarily on those, which are relevant in examining vocational education. The economic and labour market tendencies of the decade, as well as the statistically prognosticable processes are especially important. The method of research is based on the processing of official economic, employment and demographic statistical data on state and regional level. For the collection of data primary sources were provided by Hungarian Central Statistical Office, the regional Labour Centres, the Ministry of Social Affairs and Labour, the Ministry of Economy and Transport and the Prime Minister’s Office. Other significant sources were offered by regional chambers of economy, including the Somogy Chamber of Commerce and Industry, the Pécs-Baranya Chamber of Commerce and Industry and the Chamber of Commerce and Industry of Tolna County.

Chapter „5.5. *Exploration of financial system and vocational educational costs of of South-Transdanubian Region*” provides the examination and comparison of costs of vocational education in the European Union, Hungary and the South-Transdanubian Region. The primary method was the processing of budgetary and financial data as well as the analysis of available Hungarian and international data and reports. Most important sources include the documents of the National Institute of Vocational and Adult Education, the Educational Authority and the Hungarian Chamber of Commerce and Industry.

It is necessary to mention that the dissertation contains data taken from different years, including the latest possible, which is from the year 2008. It must be taken into consideration that the comprehensive official statistics, such as ones coming from census or ethnic research, are not available from each year and the results are published more than one year after the time of research.

Combined methods based on statistical data and personal opinions

The chapter named „5.3. *Examination of roma ethnic characteristics in South-Transdanubian Region with regard to the present and future of vocational education*” I am going to analyse the situation of Hungarian and South-Transdanubian roma population. This section concentrates on two main areas: the size and characteristics of the roma ethnic group, and their future role in vocational education. The source and analysis of the data is different from the traditional statistical methods. The official data of the census in 2001 as well as representative academic, government and labour market statistics, the data taken from publications are available. As an addition to these, the estimations of 10 main roma organizations – representing 78 registered roma minority local governments - have been used, as well as the evaluations by heads of vocational schools, which were taken in the course of personal interviews. Beside demographic estimations, roma ethnic leaders were asked about the situation, the opportunities and qualifications of roma people and how they plan to foster

their integration and education. In order to collect information on the number and characteristics of roma students, the data, experiences and opinions of 64 vocational schools and labour centres of the region were collected.

The collection of information required special care to respect the ethnic distinctiveness and self-esteem of roma minority group. Legal orders allowed the processing of only a small number of official sources in this chapter, consequently the role of subjective research methods was more significant. These methods – complementing and supporting each other – eliminate the inaccuracies.

Chapter „5.4. *The examination of data on education, vocational education and information on vocational schools in South-Transdanubian Region*” contains the analysis on vocational schools, educational organizations, number of students and expectable changes in the region. The methods of research are the secondary analysis of data on vocational education and the processing of personal interviews given by heads of 12 labour centres and 64 vocational schools of the region.

The majority of the processed statistical data come from the Hungarian Central Statistical Office, the regional Labour Centres, the Ministry of Education and Culture, the National Institute of Vocational and Adult Education, the Educational Authority, the supporting local governments, foundations and vocational schools.

Primary methods: questionnaires and interviews

Chapter „5.6. *The evaluation of major enterprises of South-Transdanubian Region about vocational education*” describes the labour requirements of enterprise leaders, their experiences on education, students, the quality of education, local economy and roma youth. The research methods were questionnaires, structured interviews and asking personal opinions based on constant cooperation. The basic form of collecting information was personal conversation with heads of significant enterprises in bigger cities and their surrounding villages. The conversations were carried out by direct information collecting method and by telephone calls. In most of the cases the answers were provided by the head of the institution, or – in the case of enterprises – the manager, the owner or the head of Human Resources Department. The interviewed organizations were given several types of questions according to the function of the institutions. The enterprises received a questionnaire with 10 groups of questions. Altogether 200 enterprises were asked, 50 of them come from Pécs, 50 from Kaposvár, 40 from Szekszárd, 10 from Dombóvár, 10 from Szigetvár, 10 from Siófok and 30 from smaller cities in the region. The conversations and structured interviews took place between the spring of 2006 and 2008. The interviewed enterprises are employers and take part in the practical training of students of vocational schools. The students receive qualification in one of the 16 economically most significant professions, supervised by the Hungarian Chamber of Commerce and Industry from the 2004/2005 school year. Their size range from micro-enterprises employing only one person and companies with 2000 employees. 85 enterprises employ 1 to 10 people, 70 enterprises have 11 to 100 employees, while 45 organizations have more than 100 employees.

The interviewed enterprises primarily train professions in building industry, catering, machine industry and services sector. The firms and other organizations were asked at least once a year. These answers have been summarized and processed in the dissertation.

Besides the methods of research it is necessary to describe the way of data processing. In the dissertation big amount and several kinds of information was processed. The least important ones are listed in the annex. Most of the times the data are presented in tables using Microsoft Excel programme. Some of the figures and diagrams have also been drawn in Microsoft Excel. The maps and cartograms were prepared with Corel Draw and Adobe Photoshop graphic design softwares.

The graphic representations (altogether 67 figures, 19 tables, 26 tables in the attachment) show the processes in time and space as well as the regional differences. The main function of thematic maps is the representation and demonstration of regional differences.

The raw data represented in tables, diagrams or maps always belong to a certain part of the analysis. Nevertheless, they can represent regional differences, temporal and spatial tendencies by themselves.

5. THE SUMMARY OF RESEARCH RESULTS

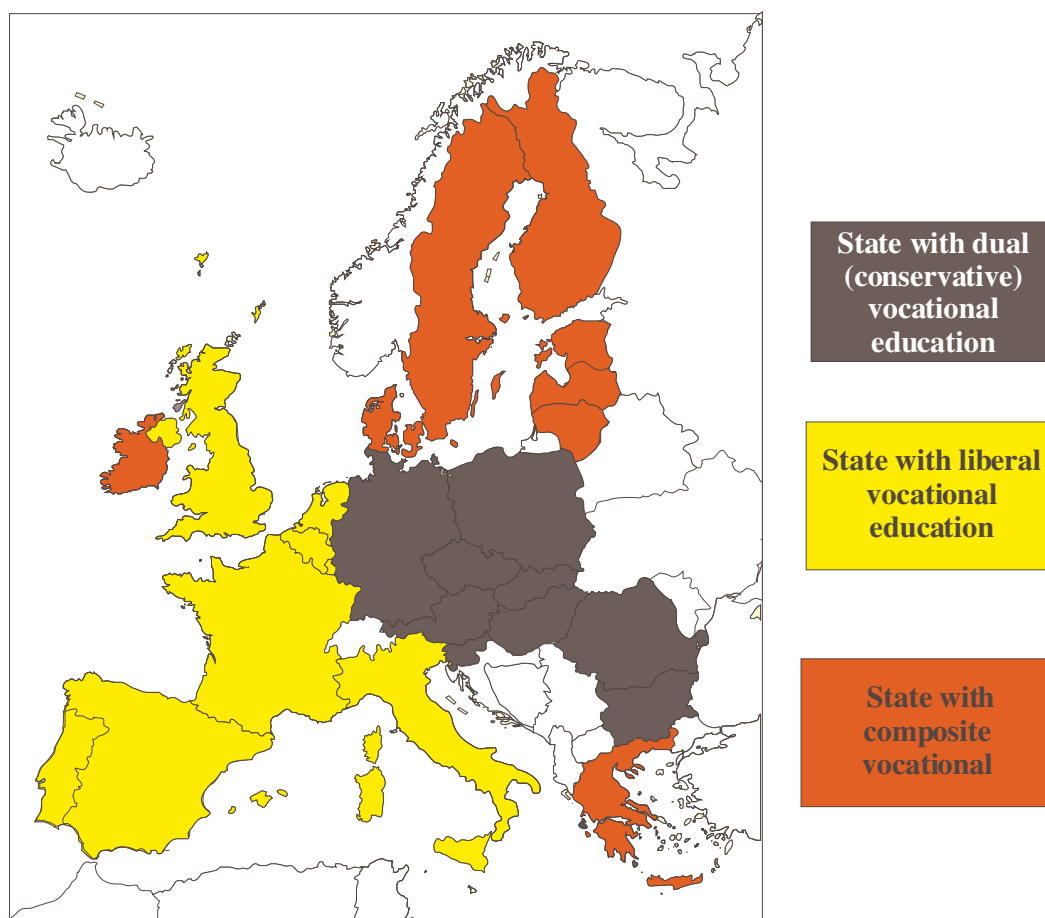
In the course of the research I had to face the fact that education and its factors have a complex structure in modern societies. Based on the research about vocational education of South-Transdanubian Region it can be asserted that working out methods and directions of improvement can be successful only when all components are examined simultaneously. Complex systems can be analysed by simultaneous application of different disciplines but one of them has to be the core providing the framework or starting point for the examination. The basis of this essay is geographic diversity.

Without the scientific framework of human geography the dissertation would have contained only distinct statements on vocational education, economy, labour market, education management and the corresponding organizations. It would have been impossible to find out the significant regional differences, the characteristics of Hungarian legal structure or the anomalies of financial support. The realization of the significance of roma population in facilitating the economic and social development of the region would have not happened. Based on these principles, the major results of the research can be summarized as follows:

The research of geographic and structural bases of vocational education in Hungary and the European Union

There are basically three different vocational educational structures in the European Union. The dual (conservative) model was developed in Germany and is mainly present in the central and eastern countries of Europe. Hungary intends to implement this model. The liberal model is completely different and it is successful in the United Kingdom and in BENELUX states. The third system is called composite model. It is characterised by the presence of state providing the social background as leader, decision maker, executor and supporter, as well as the market, or the economic sector. The best example for this system is Ireland.

Figure 1. The geographic diversity of vocational educational system in the European Union.



Ed.: P. Garai, 2008.

Based on the comparative analysis of Hungary and the economically developed member states of EU we can assert that the Hungarian system is more complicated, rigid and can respond to the needs of labour market slower. It also consists of a lot more official institutions and schools, more bureaucratic and centralised than the prosperous systems of Western-European countries. In the last few years Hungary has taken over modern educational guidelines from the European Union, such as learning material with modular structure, the foundation of central training locations that are equipped with the latest technology, as well as the expansion of Regional Development and Educational Committees. Since these measures were accommodated to the existing complicated and rigid system, they are less effective than in the model states. The reason for this failure is the fact that the role of economic organizations is insignificant in the management of vocational education.

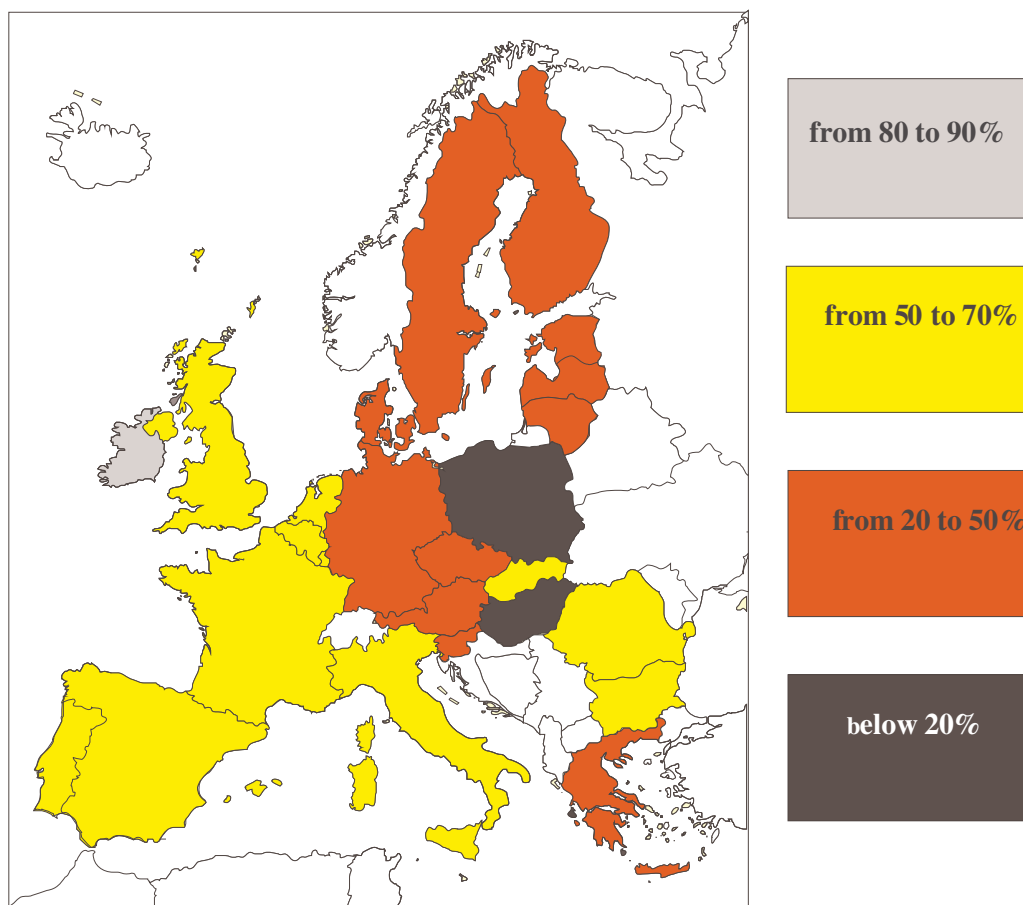
The main guideline of vocational educational system in Western Europe is the following: the subject and method of education depends on the requirements of economy. The regional requirements are entirely taken into consideration. The legal orders are flexible, there is little restriction and bureaucracy. As a result of these local educational systems were founded lead by enterprises. In Hungary, though, vocational education is controlled by the state, the requirements of economy and local needs are hardly ever considered and most of the arrangements are only partially successful.

In the more developed states of European Union strong and well-organised public bodies represent the requirements of economy. These bodies are in most of the cases

chambers that are aware of the labour market needs of the given territory. These chambers control vocational education. Their organizational structure incorporates regional bodies, their members are enterprises of the given region, consequently they well represent the interests of local vocational education. Hungarian chambers are granted only minor authority, primarily the right to monitor the practical training. Besides their activities as an advisory body they should have given a bigger role in the transformation of Hungarian vocational educational structure, the management of vocational education and in the schools and vocational training centres. By defining the qualifications in lack and the corresponding additional resources and the active control of schooling and examination system they could effectively represent the interests of enterprises.

The best indicators of the effectivity of vocational education are employment rates. Beside the centralised control, the most important restraining force of Hungarian vocational education is the lack of employment tracking system. In the course of the research it has revealed that neither the schools, nor the supporting local governments or foundations do not carry on employment tracking activities. In the European Union, though, there are strict regulations in effect to accurately measure the employment opportunities of young people.

Figure 2. Employment rates of career-starting skilled workers in the member states of EU in 2007.



Ed.: P. Garai based on data of the Hungarian Chamber of Commerce and Industry 2008.

The Hungarian Chamber of Commerce and Industry, the National Institute of Vocational and Adult Education together with the author of this dissertation has elaborated on the employment of career-starters by carrying out corporate interviews and processing labour market statistical data. It is impossible to obtain accurate data on employment in Hungary,

since most of the graduates do not get employed and do not register in labour centres. They either work illegally or work abroad, consequently they are not included in Hungarian statistics. According to representative and estimation-based studies only 10-20 % of the career-starter skilled workers is employed (adequately to his or her qualification), while in Western parts of the EU this rate is 40-50%. The more developed economy an area has, the higher the employment rates are. Hungarian statistics are the worst in South-Transdanubian and North-Hungarian Region, while the best data come from the states of Northern and Central Europe. (Germany, Scandinavia) (STUDY...MKIK 2007).

Figure 3. Employment rates of career-starting skilled workers in Hungary in 2007



Ed.: P. Garai based on data of the Hungarian Chamber of Commerce and Industry and Ministry of Education and Culture and on surveys carried out by the author in 2008.

It is of primary importance to work out standardised procedures for the situation in Hungary. Vocational schools training mainly unemployed skilled workers should be sanctioned by means of decreasing or terminating normative support. The chambers could carry out employment tracking effectively and impartially.

By the implementation of these changes Hungary would be able to follow Western European vocational educational models and the Hungarian training system could be simplified, decentralised and become more effective. From the most prosperous vocational educational systems in the European Union Hungary should take over the following: the role of chambers from Germany, the liberal educational system from the United Kingdom and the complexity and self-supporting from Ireland.

Geographic, economic and labour market analysis of the region

In order to carry out research on vocational education of the region it is necessary to explore the factors that influence and determine local economy. In the course of the analysis it has become obvious that the conditions are disadvantageous as compared to other regions of the state, especially other parts of Transdanubia. Employment rate is low, the proportion of unemployed is high, the majority of them is unqualified.

Figure 4. Unemployment rate in % in Hungary in 2007.



Ed.: P. Garai based on data from the Hungarian Central Statistical Office in 2008.

Figure 5. Unemployment rate in % in South-Transdanubian Region in 2007.



Ed.: P. Garai based on data from the Hungarian Central Statistical Office in 2008.

The traffic of the region is underdeveloped, the number of small villages with undeveloped infrastructure is high. This situation has a negative impact on the foundation and competitiveness of enterprises, consequently local employment opportunities are weak, travelling to cities is difficult due to the lack of proper public transport. It is characteristic of the general level of improvement in the region that among its 25 subregions 8 belongs to the most underdeveloped subregions of Hungary, 10 other are still under the Hungarian average.

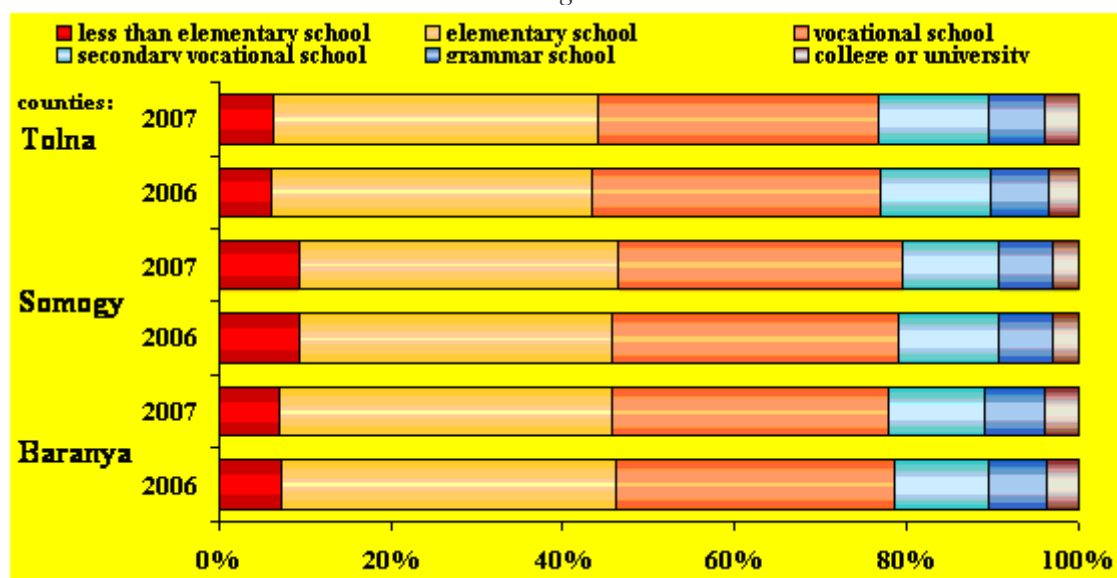
The age structure of the population is also disadvantageous: ageing of the population has been in progress for years. The decrease of population is intensified by migration. The GDP per head in the region is only two thirds of Hungarian average. The region is not attractive for foreign investors, the amount of invested capital of foreign enterprises is the less among Hungarian regions. The value of industrial products per head is only 44 % of Hungarian average.

The serious educational problem of the region is highlighted by the fact that many of the region's unemployed have the same qualifications as the vacancies available at labour centres of the region. This situation is caused by the low quality of formerly attained qualifications. According to the data recorded at labour centres the employers of bigger cities in South-Transdanubian Region seek workers qualified in modern machine industrial and building industrial professions. In the cities near lake Balaton, in Pécs and in tourism centres around spas workers trained in catering are needed. There is a constant deficit in skilled workers such as locksmith, welder, toolmaker, mason, carpenter-rigger, waiter and cook. This data are backed up by the opinion of companies interviewed during the research.

The filling of vacancies and the hiring of unemployed is difficult since most of the employers are located at bigger cities of the region. Other reasons include the high number of small villages, the underdeveloped road system and public transport and lack of experience of career starters.

The employment and educational data of the region contains a special disproportion. There are twice as many full-time first-year students in higher education institutions of the region as students in the first year of vocational schools. As a result of this, the number of career-starter unemployed with university or college degree in the region is high, almost the double of the Hungarian average. The interviewed company leaders also agree that the number of career-starters with college or university degree is too high, they plan to hire ten times as many skilled workers as people with university degree.

Figure 6. The proportion of unemployed according to qualification in the South-Transdanubian Region in 2006 and 2007



Ed.: South-Transdanubian Regional Labour Centre-P. Garai in 2008 based on data from South-Transdanubian Regional Labour Centre and Hungarian Central Statistical Office (2007-2008)

The educational structure of the region

Similarly to the decay in economy there is a significant decrease in vocational educational data, as well as in the number of schools and students in the region. It is necessary to assert that the series of wrong decisions on government and local government level are responsible for the fact that since the change of regime the number of vocational schools has decreased by two thirds, while the number of grammar schools and secondary vocational schools has been doubled. The number of vocational school students has decreased even more

rapidly. As a result of the changes in the number of birth per year, in the next 12-16 years there will 3-4% less elementary school and secondary school students every year.

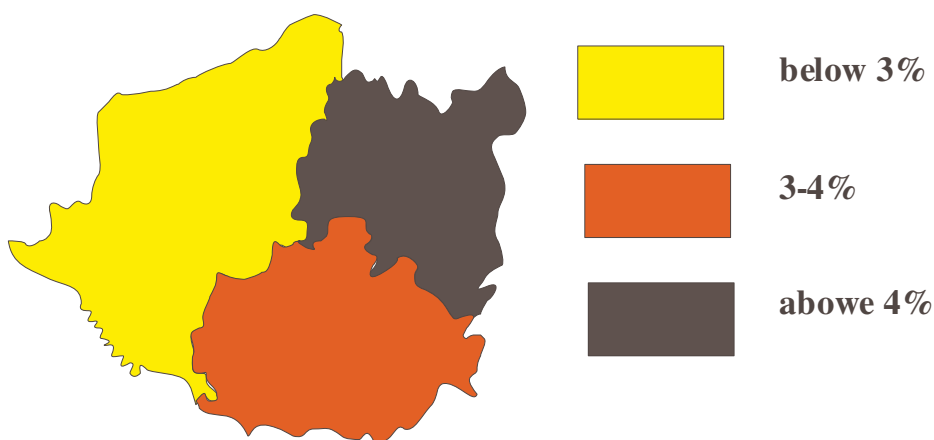
Figure 7. Decrease in the number of vocational school students by regions in Hungary, between 1990 and 2008



Ed.: P. Garai based on data from South-Transdanubian Regional Labour Centre and Hungarian Central Statistical Office 2008.

The rate of decrease in the number of elementary school learners is different in the regions and is varying in smaller and bigger cities. While in the school year 2006/2007 the number of first-year learners was 92,34% of eighth-year learners in Hungary, in the region this rate was 87,94%, in Tolna county it was only 85,56% (PUBLIC EDUCATION INFORMATION 2006/2007). The rate of decrease is in inverse proportion to the size of settlements similarly on state, region and county level. The decrease is larger in cities and smaller in towns and villages. The difference is between 12% and 21%, the latter number has been approached in county Baranya.

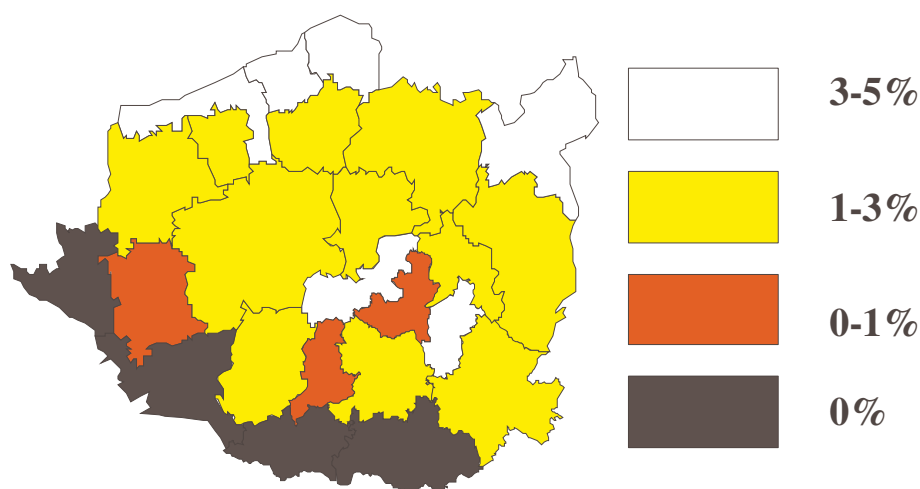
Figure 8. Decrease in the number of elementary school learners in the counties of South-Transdanubian Region between 2006 and 2007



Ed.: P. Garai based on Public Education Information, Hungarian Central Statistical Office and on surveys carried out by the author 2008.

It is an interesting phenomenon that – similarly in the case of state-level and regional context – in smaller villages and less developed areas the rate of decrease in number of children is smaller, in other words the willingness to raise children is bigger. People who live under worse financial conditions tend to have more children. The majority of roma people live in this region, mainly in the South of Somogy and Baranya counties. Roma families usually have more children. Based on the opinion of interviewed local government leaders it is characteristic of roma people that children are considered a gift of God. According to their estimations the average number of children in roma families living in villages is 4-5, in families living in cities it is 2-3. The expansion of roma population only moderates the decrease of the number of birth per year in Hungary.

Figure 9. Decrease in the number of elementary school learners in the subregions of South-Transdanubian Region between 2006 and 2007



Ed.: P. Garai based on Public Education Information, Hungarian Central Statistical Office and on surveys carried out by the author 2008.

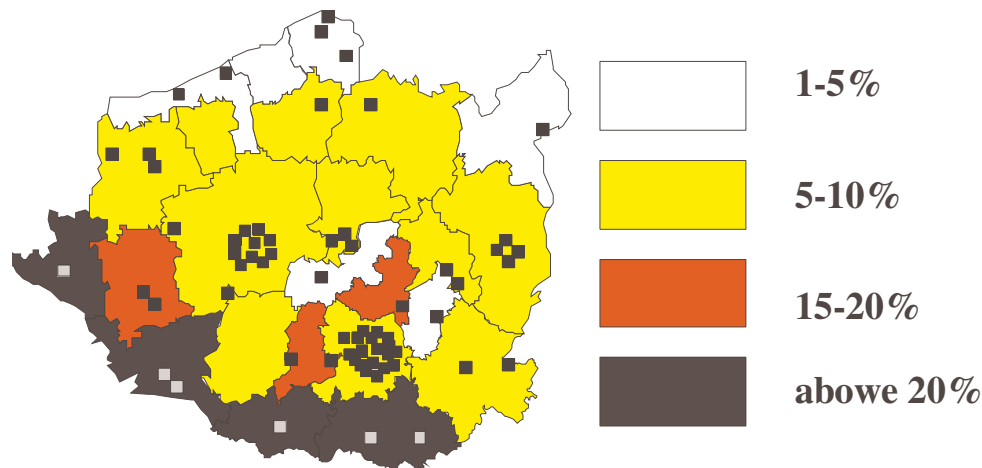
Beside the anomalies in the number of students the selection of trained professions is also a failure. At least half of the vocational school students will be qualified in professions that are not among the ones required by the enterprises of the region. This is caused by the fact that educational institutions choose those professions that they have the necessary human and material resources for. The change requires extra cost and work. Under the current operational and financing regulations educational institutions are not motivated to implement any changes. There are vocational schools in the region that offer almost entirely outdated or useless qualifications. It would be reasonable to merge or close down these schools but the local governments in most of the cases are unwilling to do that due to the strong social and political pressure.

For several years, the majority of students has been studying catering and tourism, commerce, mechanics, agriculture, informatics and economy. Qualifications in building industry and machine industry though, that are valuable and frequently searched for on labour market, is taught to only 5-10% of students. The overrepresentation of food industry, services and light industry among taught professions is also unreasonable.

There are relatively many, almost 100 vocational schools in the South-Transdanubian Region, which is sufficient in relation to the number of students. Nevertheless, the geographic distribution of schools is problematic. 60% of the vocational schools are in Pécs, Kaposvár and Szekszárd. The majority of other schools is in more developed regions. The number of schools is the less in those regions, where the roma population – the potential students – is the

larger. These children live under bad financial conditions, consequently costs of travel and dormitory cause serious problems to their parents. This is one of the main reasons of quitting their studies before graduation. It would be necessary to develop the vocational schools at the Southern part of the region where the roma population is larger. Founding new schools and moving existing ones from county seats would also be reasonable. Primarily education in building industry and wood industry are needed, catering and commerce qualifications would also be useful.

Figure 10. Locations of vocational schools and the proportion of roma inhabitants of South-Transdanubian Region in % in 2007



Ed.: P. Garai based on data from Educational Authority, Hungarian Central Statistical Office, representative surveys and on surveys carried out by the author in 2008

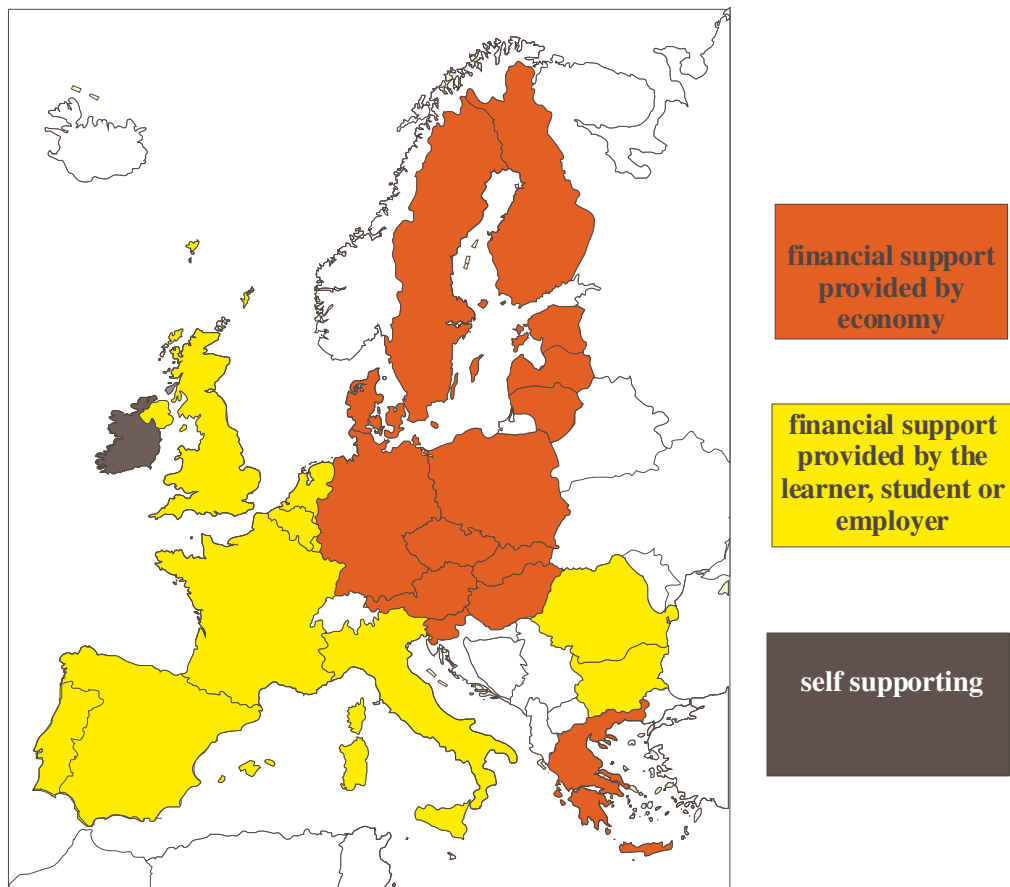
When investigating adult education, which is supported mainly by the government, we encounter similar problems. Most of the trainings launched by Labour Centres provide qualification in information technology, public service and language. This is due to the fact that most trainers offer computer and language courses since the necessary infrastructure of these qualifications is easy to obtain and cheap.

Based on the results of the research, the antagonism between education and economic requirements is caused by the same reasons as in the case of vocational education. On one hand the cost of modern machine industrial and building industrial trainings is higher, on the other hand the participants of education in the region have serious information deficit. Learners, students, parents, schools, education supporters, trainers and sometimes the labour organizations themselves do not have proper information on the requirements of labour market. Lack of students' interest and motivation is another serious problem. Since the government supports each qualification equally, education leaders and institutions are not motivated to offer qualifications required by economy. The solution could be a differentiated support system based on the type of qualifications, and the implementation of a sort of quota system in adult education.

Analysis on the financial support of vocational education in the region

Financial support of vocational education, especially practical education, requires huge expenditure from the government. In Hungary vocational education is government supported, while in the European Union the costs are paid by the private sector.

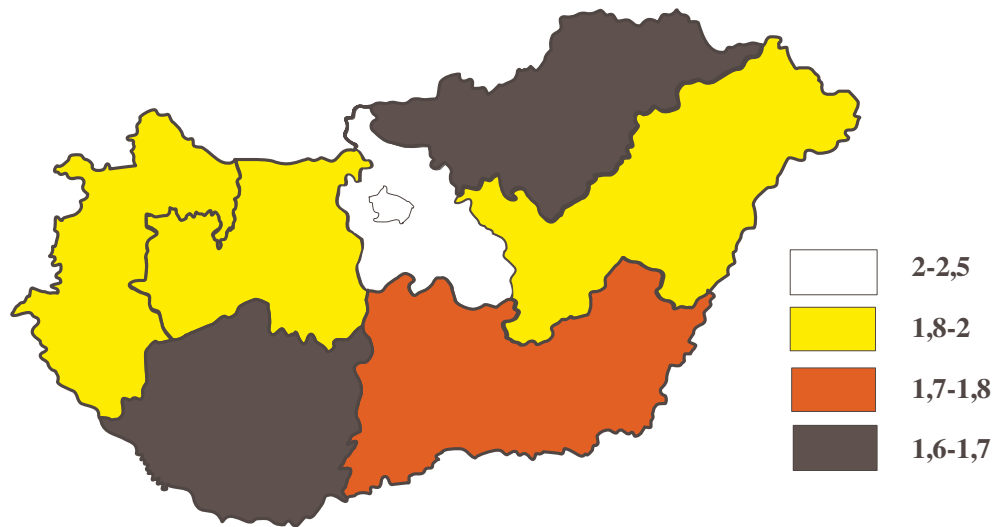
Figure 11. Financial support systems in member states of the European Union



Ed.: P. Garai 2008.

In 2007 the government, as well as the local governments and enterprises of South-Transdanubian Region invested altogether an average of 1,7 million HUF in one student of vocational school. This cost is extremely high, since higher education institutions providing the most expensive education, medical faculties and universities spend the same amount on one medicine student. In addition, this amount of money is paid for qualifications that are useless for the labour market, since most of the career starter skilled workers are unemployed or employed not according to their qualification. With regard to cost of education, there are significant differences between the regions. In the Central Region the costs are 20-30% higher than in South-Transdanubian Region.

Figure 12. Total cost per student in million HuF in Hungary in 2007 in the case of practical training



Ed.: P.Garai based on surveys carried out by the author and data from National Institute of Vocational and Adult Education, Hungarian Tax and Financial Control Administration (tax forms 2007.) in 2008.

When investigating regional costs it reveals that maintaining many small-size vocational schools is costly, but practical training carried out by small enterprises turned out to be the most expensive element of education. The educating economic organizations receive different sorts of allowances and additional resources. They are granted significantly higher financial support than their costs and in addition they dispose of the values their students produce. These practical trainings are advantageous for the enterprises. All of the interviewed enterprises in South-Transdanubian Region intends to carry on the practical trainings in the future and they try to attract more students by offering extra benefits. They attempt to agitate in schools and in press. The education can become economical only by reduction of financial support, integration of institutions and the improvement of central training locations instead of individual training places.

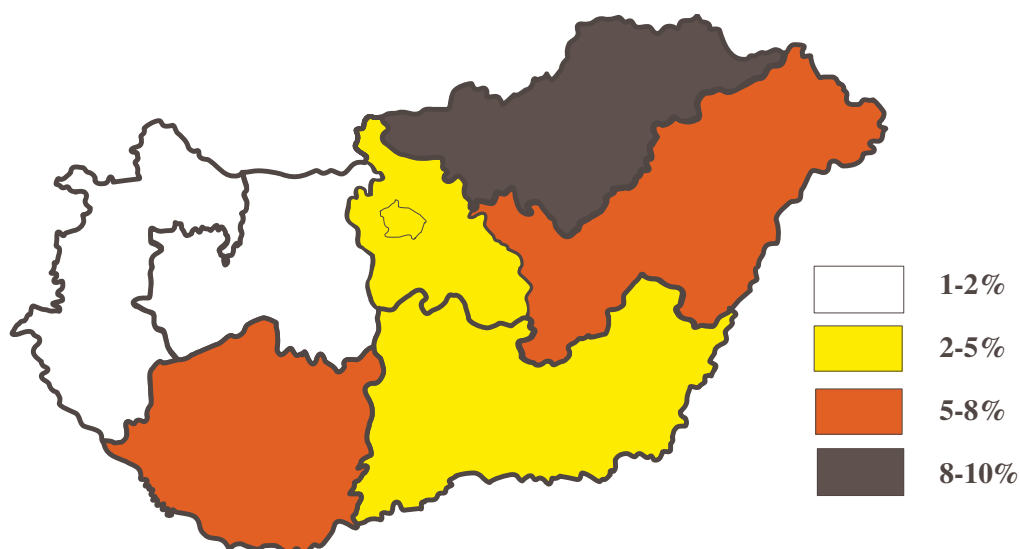
Analysis of roma population of the region and their vocational educational correspondences

When elaborating on vocational education, besides the thorough knowledge on economic, social and labour market conditions the student itself is an important factor. In the course of the research this dissertation is based on, it became more and more obvious that without taking the geographic aspect into consideration, the analysis of statistical data would have resulted in the presentation of mere numeric data. Research based on regional characteristics revealed the ethnic conditions of the region and it became obvious that the successful education of professionals and the corresponding economic growth depends on roma students.

The region has a significant roma population. Their proportion is particularly high in the Southern territories of Somogy and Baranya county. Their social and employment conditions are disadvantageous and their situation does not get better despite the efforts taken by the government. At the same time their number and proportion are constantly increasing. Their

integration can be facilitated permanently only by employment, which could be the result of getting qualifications. This objective is supported by the transformation of Hungarian educational structure and the raising of the upper limit of compulsory school age to 18.

Figure 13. The proportion of roma nationality inhabitants by region in Hungary in 2007



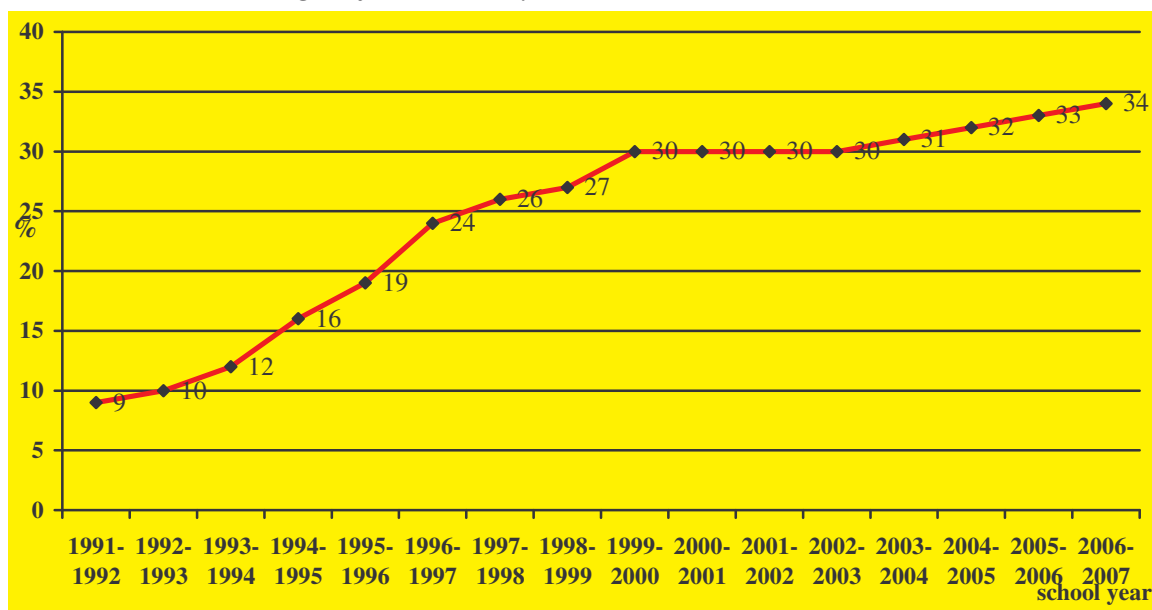
Ed.: P. Garai based on data from Hungarian Central Statistical Office, representative surveys and on surveys carried out by the author in 2008

Based on research results at least half of the vocational education students belongs to roma ethnic minority in the case of physically exhausting qualifications including the subject areas of building industry, machine industry and catering. Their proportion is the highest among learners of professions requiring lower qualification, such as mason, painter and decorator. The most frequently chosen qualifications of romas are the same in adult education. It facilitates the emerging of the roma people that the labour market requirement is high in these professions.

Teachers, enterprises that perform practical training, roma organizations and labour centres agree that roma employees seek professions allowing a bigger extent of liberty and they are willing to keep these jobs for a longer time. Professions in building industry are usually convenient for them but owing to their awful social conditions and more liberal cultural traditions only half of the students study until the acquisition of certificate. Based on the opinion of roma organizations, schools and enterprises that conduct their practical training roma students require practice-oriented learning material that allow creativity. In addition positive discrimination must be implemented in the financial support of students. Higher amount of support should be given to students with better marks. These changes would motivate roma students to finish school, thoroughly learn the profession, get higher self-esteem and integrate into the society.

If the proportion of roma students in South-Transdanubian vocational schools grows according to the prognose based on the tendencies of previous years, their rate will be 80-90% of total students in ten years. Their present proportion is more than 30%. The development of educational system according to their special educational needs, the preparation of teachers and the practice-oriented transformation of learning material must be commenced immediately.

Figure 14. The proportion of roma vocational school students in the South-Transdanubian Region from school year 1990/1991 to 2006/2007



Ed.: P. Garai based on data from the Ministry of Education and Culture, the Hungarian Central Statistical Office, roma surveys and estimations carried out by local governments and schools in 2008

With regard to roma people, the german example is worth mentioning, where mainly in Western regions, Turkish workers and their children are the future of vocational education. Their social status and integration efforts are similar to roma people in Hungary. By implementing special educational methods and financing processes their education became particularly successful. The adaptation of these principles would be advantageous for the roma people in Hungary.

Analysis of the evaluation of enterprises

As an addition to research results it is necessary to note that enterprises participating in the practical training of vocational school students revealed two other serious shortcomings of the region's vocational educational system. According to the opinion of each interviewed company leader the study materials focus on theory, there is little time for practice, while this should be the most important part of the education. Students are not furnished with adequate practical knowledge at the end of their studies. It has turned out that the learning material is compiled almost exclusively by government organizations and teachers of theoreticians. Like in Western states of the EU, participants of economy should be responsible for designing the learning material in Hungary. The proper solution would be to grant more authority to local chambers.

The other problem is that due to the significant government support, enterprises are ready to provide practical training for students of any profession but employ only those that have qualifications needed by labour market. These rare professions include qualifications such as toolmaker, locksmith, welder, mason, carpenter and cook. Enterprises notify schools about their needs to train students but they do not communicate their further education intentions. This attitude is deceiving since they motivate schools to keep on educating qualifications that are not required by labour market. A significant amount of schools prepare their schooling strategy based on the enterprises' needs concerning practical training of students. Since government controlled education system does not make difference in the

financial support of different qualifications, it is the responsibility of educational institutes to obtain information on local economy and its requirement of certain professions.

6. SUGGESTIONS FOR SOLVING THE PROBLEM

As a conclusion of the above described experiences of the dissertation we can state that the government must make some unpopular decisions. It is necessary to implement differentiated financial support depending on type of qualifications, reduce the education of economically useless professions and at the same time decrease the number of schools educating those professions. This conclusion was revealed by region-based research

The other most important result of the research is the fact that the key factor of the improvement of vocational education in South-Transdanubian Region is the motivation and assistance of roma people to get the economically required qualifications. This solution is also important in North-Hungarian Region, the other regions must find different solutions to develop local basis of professionals.

Based on these local characteristics the following tasks can be pointed out:

- *Granting bigger support for students and schools in the case of economically required qualifications.*
- *The economically useless qualifications must receive lower government support, or should be eliminated.*
- *For the most effective use of existing capacities vocational schools must undertake adult education based on the requirements of market*
- *The roma students who are studying economically needed qualifications must get additional financial support (positive discrimination, travel or a place in dormitory free of charge)*
- *The development of special practice-oriented learning material and examination system for roma students*
- *Foundation of new vocational schools in Southern parts of Somogy and Baranya for roma students. (With the following subject area: wood industry in Csurgó, building industry in Szigetvár and Sellye, catering in Barcs, Siklós and Villány.)*
- *Expansion of machine industrial education in Kaposvár, Pécs and the centre of the region, reduction of education in food industry, light industry and services.*
- *In the Northern part of the region (near lake Balaton) the expansion of education in commerce and catering and reduction of the training of technicians.*
- *The vocational educational system must be controlled by the most important participants of local economy (such as chambers).*

7. OPPORTUNITIES TO APPLY THE RESULTS OF RESEARCH

There has been no such research carried out before that is independent from the interests of the initiating organization and provides a complex analysis of the vocational education of a region. Some of the factors have been investigated but an overview of all factors has been

missing. The statements in this dissertation take into account all participants of vocational education in the South-Transdanubian Region. It can be useful for the participants to learn from the description of their characteristics and shortcomings and at the same time from the example of more prosperous states and regions. Their work can be made more effective on the basis of the presented information but the conclusions and suggestions can be even more useful.

It has been suggested to central education management organizations that they need a more simple, decentralised and liberal legal, education and examination system. The presented labour market requirements, economic and social processes, characteristics and researches are useful for students and schools. The development of vocational education has an important role in responding the current economic crisis through providing economically required qualifications on a higher standard and capacity.

The findings of the research provide a concept on the education of the growing roma population in the region. Facilitation of their integration and improving their financial conditions is possible by taking their opinion, skills and requirements into consideration.

Based on the experience of publication of previous results (two books, nearly fifty articles) we can state that even the criticised organizations had a positive attitude towards the remarks. This is obvious from the fact that several schools have changed their education structure according to the requirements of economy. The major objective of this dissertation is the support of this process and attain the economic and social development of the region by means of enhancing vocational education. In order to achieve this, the results of the research must be disseminated. The research will be available in printed form at the Prime Minister's Office and by the Education Authority for each school, roma ethnic organization, bigger enterprises and organizations of social-economic interest representation.

8. FURTHER DIRECTIONS OF RESEARCH

The development of vocational education requires constant research. The economic and social environment, the legal regulations and political guidelines are subject to changes at any time. For this reason it is impossible to prepare a long-term education development concept. Major principles and objectives can be set out but the methods of execution must accommodate to the changing conditions.

The dissertation is based on ten years of theoretic work and six years of permanent research. The researches on improvement of vocational education of the region have not been ceased. The elaboration on and processing of statistical data of school year 2008/2009, as well as data of vocational schools, local governments, enterprises, labour centres and roma organizations is continuous. The continuation of the research is extremely important since the results of several education reforms will reveal in the autumn of 2009.

In September 2008 regional integrated vocational education centres and associations of vocational education management have been launched. Their achievements can be evaluated in the end of 2009. The new modular learning materials and examination requirements are also implemented in school year 2008/2009. The new system must be improved and finalised based on the experiences of schools, teachers, enterprises and students. The new areas of responsibility and decisions of the Regional Development and Education Committee can be first assessed in this school year. The effects of investments supported by the Labour Market Fund must also be evaluated, as well as the effectivity of the committee in determining professions required by the labour market. The preparation of mid-term vocational education development strategy and the suggestion on the number of prospective vocational students is in progress.

The above mentioned activities is coordinated by the author of this dissertation as the secretary of Education Authority and committee. The expectations of economy, schools and the government are high towards the organization. The execution of the task is restrained by several opposing interests, this scientific research will hopefully harmonise these interests.

The above described changes are in progress and they have the capacity to be successful. Nevertheless these changes by themselves do not enable the complex innovation of educational structure. The research of roma population, which has a key importance in the region's vocational education, must be continued. With the active participation of minority organizations of Hungary and the European Union the research will be in progress in 2008/2009. The future objective of education policy is not only the satisfaction of labour market but the launching of a new, regional, social and economic development on the basis of facilitating roma integration.

8. PUBLICATIONS

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