THE HUMAN RESOURCES SITUATION
OF THE SOUTHERN TRANSDANUBIAN REGION
WITH REGARD TO REGIONAL COMPETITIVENESS

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ABSTRACT
At no time in history has competitiveness and economic growth been as important as it is nowadays. In this study I have analysed some of the most important factors at NUTS2 level in the Southern Transdanubian planning and statistical region. I have defined human capital, the basic skills according to the Memorandum, and studied the economic indicators, the economic activity of the population, the employment, education and qualification in Baranya, Somogy and Tolna counties. Finally, I have gathered the most important findings in a SWOT analysis.

Keywords: human capital, employment, education, skills, labour market

INTRODUCTION
The competitiveness and economic growth of regions is a major research area nowadays. Regional policy can be defined as an intervention to influence the economy, to reduce social and economic disparities between regions. It is typically a reactive, subsequent policy which has attempted to reduce the already existing regional disparities, instead of preventing new differences from arising. Regional policy can serve a wide range of different objectives but in every case its main task is to mobilize the unused resources of the given region, to attract investment from other regions and ultimately to increase production and wages (Sarudi, 2010).

The liberalization of trade and economic integration lead to the need to adapt. Increased competition forces regions to reallocate their human resources from loss-making industries to profitable economic development. Experience shows that integration is most profitable for those countries that are at similar levels of economic development and have similar economic structures (Sarudi, 2010).

The integration area of the European Union is characterized by cooperation and trade typically within industries and not among them. Among fierce competition only those regions can succeed which have a diversified economic structure. The more diverse the level of economic growth and structure of the member states, the more polarised the integration process is. Without the use of effective compensation, integration rather accentuates the difference in levels of development between the partners instead of compensating.

In the case of economic integration, tackling regional disparities is one of the biggest problems, as the countries which are lagging behind find it difficult to accept this situation for long. There are numerous arguments for active regional
policy. As opposed to the adequate effect of spontaneous adjustment to the market, in active regional policy as an intervening policy we have structural weakness as an argument, the causes of which can be attributed to market inflexibilities, market access criteria and production structures.

Reasons for intervention include the problem of the utilization of production factors. Neoclassical trade theory presupposes the free movement of production factors, which ensures full utilization and employment. The low mobility of a work force prevents the elimination of disparities within the economic union. The reallocation of human resources happens at a low pace.

A further reason for intervention is the fact that capital moves to the already more developed regions. Here, private investors can expect quicker returns and save on their resources, which should have been spent on infrastructure development elsewhere.

In assisted regions, state subsidies and public expenditure can be reduced in the long run. State incentives and supporting economic activities can give a boost to the development of the given region. Unemployment can be reduced, social expenditures can be cut down and tax revenue may increase. Regional policy has a positive effect not only on the target region; its advantages can partly be enjoyed by other regions. Integration is deepening and production factors are better utilized.

Furthermore, in every social community solidarity and tolerance are determining factors.

In the past decades, regional policy assisted the underdeveloped regions’ society and economy catch up, while today its main objective is the strengthening of economic growth based on the regions’ human resources. Traditionally, the regions’ economic growth is defined by the population’s (labour) capital, natural resources and technical advancement (innovation).

The objective of this paper is to present those factors by analysing statistical data of the Southern Transdanubian Region that determine the level of human resources and the possible development opportunities (Lengyel and Rechnitzer, 2004).

I have analysed the NUTS2 planning and statistical region – the Southern Transdanubian region – more precisely the important indicators of human resources of the third level Baranya, Tolna and Somogy counties and have drawn my conclusions in accordance with my findings.

**DEFINITION OF HUMAN RESOURCES**

To define this notion is rather difficult as it can be given a broader interpretation. Human Resources must include individual competencies and the minimal social set of conditions which are necessary for social life - in which not lexical, but user knowledge, problem-solving, cooperativeness, openness, ability to change, human relations and the quality of life, physical and mental health and a stable social situation all play their part.

It can also mean the whole individual, the potential and real actors of the labour market.

In the last decade the development of human resources became one of the major development issues in Hungarian society. It plays a major part in regional
performance, and in strengthening the social cohesion of the area. A wide range of
different social activities contribute to the development of human resources, but
these are organized in an industrial structure. For successful human resources
development, the synchronized operation of industries and a synoptic approach, in
coordination, are necessary.

According to the economics-based approach, human capital can be defined as
follows: the skills and technical knowledge of a given country’s workforce that was
acquired in organised training or at work. With investments into human capital,
return is also expected. Investment includes expenses spent on health care,
obtaining information about the labour market, migration to secure employment,
plus the costs of commuting (Oroszi, 2005).

The perhaps most important phase of human resource development (HRD)
starts with young adulthood, and also this is the venue of intermediate (secondary)
education, higher (university) education and adult education programmes. During
the analysis of the most important documents on adult education, the social and
economic functions of human resource development can be closely monitored. The
Hamburg Declaration on adult learning adopted at the UNESCO’s Fifth
International Conference on Adult Education in Hamburg (The Hamburg
Declaration – The Agenda for the Future) defines the objective of adult learning as
follows:

Adult education denotes the entire body of ongoing learning processes, formal
or otherwise, whereby people regarded as adults by the society to which they
belong develop their abilities, enrich their knowledge, and improve their technical
or professional qualifications or turn them in a new direction to meet their own
needs and those of their society. Adult learning encompasses formal and continuing
education, non-formal learning and the spectrum of informal and incidental
learning available in a multicultural learning society, where theory- and practice-
based approaches are recognized. (Zachár, 2003)

In October 2000 the European Commission issued a „Memorandum on
Lifelong Learning” which served as a working document on lifelong learning in the
EU Action Programme (Commission of the European Communities, 2000).

The basic presumption of the Memorandum is that Europe has to set an
example to achieve dynamic economic growth and strengthen social cohesion, and
lifelong learning is an essential policy for education and training. This
Memorandum contains key messages highlighting the principal elements:

- New basic skills for all – 6 key skills
  - IT skills
  - foreign languages
  - technological culture
  - entrepreneurship
  - social skills
  - competencies
- More investment in human resources
- Innovation in teaching and learning
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- Valuing non-formal and informal learning
- Ensuring access to guidance and counselling on learning opportunities for all
- Bringing learning closer to home (Zachár, 2003).

The 1990s saw the re-discovery of lifelong learning in European countries, which was initiated by the increasing economic changes. Declining unemployment did not bring about the desired results. The creation of new jobs did not happen in accordance with the timetable and, thus, became the biggest problem of the society. Education and training acquired a special role in tackling the employment problems. Significant results can only be expected from a workforce with higher education and better skills.

Learning is essential for the individual to advance in society and at the same time the reproduction of underprivileged and marginalised classes poses a danger for the society (Zachár, 2003).

**ECONOMIC INDICATORS OF THE SOUTHERN TRANSDANUBIAN REGION**

The Southern Transdanubian Region covers 15% of Hungary and includes the following counties: Baranya, Somogy and Tolna. It ranks as the third biggest region in Hungary but has the smallest population (968 thousand inhabitants) among Hungarian regions.

The Southern Transdanubian Region is sparsely populated, with the lowest population density in Hungary, however with respect to total area, it ranks third among Hungarian regions. There are 65 persons per square kilometre as opposed to the national average of 107 persons per square kilometres.

The population of the region has been declining for years but this simply follows the national trend.

The difference in natural population growth/decrease in the region in 2001 was – 4025, in 2011 -5107. Apart from the natural decline in population, if to a smaller degree, migration from the area also reduced the number of inhabitants. Depopulation process can be observed in small villages (Table 1).

The level of economic development of a region is characterized by the production of Gross Domestic Product (GDP), which was the lowest in this region among the Hungarian Statistical Regions.

In 2011 the gross domestic product (GDP) per capita was 1773 thousand HUF in Baranya county, 1758 thousand HUF in Somogy county and 2088 thousand HUF in Tolna county. Southern Transdanubia ranked 4th among the regions in 2011, Hungarian GDP per capita was 2771 thousand HUF (Table 2).

The low level of economic development shows that various measures need to be taken to improve the situation; most significantly an analysis of HR management and development is required.
Table 1

Regional distribution of some important data of the Southern Transdanubian Region (Hungary equals 100) (%)

<table>
<thead>
<tr>
<th>Name</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>15.2</td>
<td>15.2</td>
<td>15.2</td>
<td>15.2</td>
<td>15.2</td>
<td>15.2</td>
</tr>
<tr>
<td>Population (as of 1 January)</td>
<td>9.61</td>
<td>9.56</td>
<td>9.50</td>
<td>9.47</td>
<td>9.42</td>
<td>9.38</td>
</tr>
<tr>
<td>Employed people</td>
<td>8.08</td>
<td>7.84</td>
<td>7.67</td>
<td>7.81</td>
<td>7.91</td>
<td>7.70</td>
</tr>
<tr>
<td>Jobseekers</td>
<td>13.36</td>
<td>12.97</td>
<td>12.09</td>
<td>11.92</td>
<td>12.09</td>
<td>12.10</td>
</tr>
<tr>
<td>Student in higher education *</td>
<td>8.72</td>
<td>8.84</td>
<td>8.77</td>
<td>8.52</td>
<td>8.16</td>
<td>7.79</td>
</tr>
<tr>
<td>Registered businesses</td>
<td>8.82</td>
<td>8.88</td>
<td>8.92</td>
<td>8.90</td>
<td>8.83</td>
<td>8.85</td>
</tr>
<tr>
<td>Gross Domestic Product**</td>
<td>6.52</td>
<td>6.53</td>
<td>6.58</td>
<td>6.45</td>
<td>6.26</td>
<td>6.52</td>
</tr>
</tbody>
</table>


*by venue of institution; **at last year’s purchase price

Table 2

Gross domestic product per capita

<table>
<thead>
<tr>
<th>County, region</th>
<th>In percentage of the national average</th>
<th>Ranking by GDP per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baranya</td>
<td>71.1</td>
<td>70.6</td>
</tr>
<tr>
<td>Somogy</td>
<td>62.8</td>
<td>63.5</td>
</tr>
<tr>
<td>Tolna</td>
<td>70.1</td>
<td>72</td>
</tr>
<tr>
<td>Southern Transdanubian region</td>
<td>68</td>
<td>68.6</td>
</tr>
</tbody>
</table>

Source: Based on Hungarian Central Statistical Office

THE ANALYSIS OF THE SOUTHERN TRANSDANUBIAN REGION’S HUMAN RESOURCES SITUATION

Demographic situation
The potential human resources of the economy, the society’s carrying capacity and public welfare (healthcare, education and social sphere) are determined by the development and composition of the population.

The population of Southern Transdanubia decreased by 20,600 persons from 1980 to 1990, and by 72,491 persons between 2001 and 2013 as a result of the natural population fluctuation. The decrease was mainly caused by the declining birth rates (Hungarian Central Statistical Office).

In the previous decade (1980-1990) the average annual birth rate was 12,800, as opposed to this in the next decade only an average of 10,760 babies was born per
year, whereas between 2000-2005 the annual birth rate fell to 8092. Then again in the period between 2006-2011, the average annual birth rate was 8312. So the distribution of the population shows that there are five times more inhabitants over 65 that live in the region than those from 15-16. Altogether the youngsters (0-14) and the older generation are twelve times more than the inhabitant in active ages (15-66) (Figure 1).

**Figure 1**

**Distribution of the population in the Southern Transdanubian region by age group in 2013, head**

Source: Based on *Hungarian Central Statistical Office* data

**Main characteristics of the employment situation**

The most important characteristic of a labour market situation is employment, namely the participation of the workforce in the labour market. It can safely be concluded --not only for the country but also for the region – that the unemployment rate is lower than the average EU rate; however, the rate of inactive population is high. This is particularly true of the employment situation of men and the older generations. The labour market situation of the workforce is greatly influenced by low school qualification. Looking back to the period since the system change, a number of social and economic processes can be detected that had a major influence on the activity of the economy. The large-scale privatization of the 1990s, the compensation, the major redundancies, the closure of firms and factories, the winding up of non-profitable businesses, the closure and transformation of huge agricultural holdings and farms, economic recession - all these factors resulted in the drastic loss of jobs and huge increase in unemployment.
The population can be divided into two categories while analysing and evaluating the labour situation: those economically active and economically inactive (Figure 2).

The economically active population includes those in employment and the jobseekers, while the economically inactive population includes those receiving maternity allowances, pensioners, annuitants, full-time students, plus the economically non-active group compiles other dependants.

**Figure 2**

Economic activity of the population aged between 15-74 at a national level and in the Southern Transdanubian region in 2013 (1000 persons)

![Economic activity chart](image)

Source: Based on Hungarian Central Statistical Office data

**Employment**

In the Southern Transdanubian region the employment figures have not changed significantly in the past 10 years. In 2003, the figure was 357.9 thousand persons, as the major decrease in employment was characteristic of the previous decade (1990).

At the 1990 census 12,000 persons declared themselves to be unemployed and this number was 29,600 in 2001, and according to the data of the Central Statistical Office, it increased to 48,500 in 2011. In 2013, recovery from the world-wide recession was already felt but the unemployment rate dropped significantly to 35,100 in the region only when public work programmes were introduced.

The employment rate is slightly increasing and the number of inactive workers continues to fall. In 2005 only 51.6% of the region’s population aged 15-74 was active; this rate has risen by 1% compared to year 2000, in 2013 it was 53.8% as opposed to the national average of 57.5%.

The region’s employment rate in 2013 was 48.8%, which falls behind the national average by 2.8%. The difference between the region’s counties is a lot more pronounced – Somogy county has the lowest employment rate in the region,
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46.6% whereas in Baranya it is 49.7% and Tolna county boasts 50.5% (Hungarian Central Statistical Office).

**Number of people in employment**

Among the various age groups the employment rate grew only in the age group of 60+ - their numbers have more than doubled. The reason for this can be explained by the increase in retirement age and the fact that more and more people work after early retirement and superannuation (Table 3).

**Table 3**

<table>
<thead>
<tr>
<th>County Region</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15-29</td>
<td>30-39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baranya</td>
<td>23.9</td>
<td>25.7</td>
</tr>
<tr>
<td>Somogy</td>
<td>23.7</td>
<td>24.6</td>
</tr>
<tr>
<td>Tolna</td>
<td>23.1</td>
<td>25.1</td>
</tr>
<tr>
<td>Southern Transdanubian region total</td>
<td>23.7</td>
<td>25.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-29</td>
<td>30-39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baranya</td>
<td>16.5</td>
<td>28.7</td>
</tr>
<tr>
<td>Somogy</td>
<td>16.0</td>
<td>28.6</td>
</tr>
<tr>
<td>Tolna</td>
<td>17.1</td>
<td>28.1</td>
</tr>
<tr>
<td>Southern Transdanubian region total</td>
<td>16.5</td>
<td>28.5</td>
</tr>
</tbody>
</table>

Source: Based on Hungarian Central Statistical Office data [http://www.ksh.hu/nepszamlalas/tablak_teruleti_02](http://www.ksh.hu/nepszamlalas/tablak_teruleti_02)

In the counties of the Southern Transdanubian region, the change in the number of people in employment does not significantly diverge from the regional average. If we take a closer look at the changes in the employment numbers by settlement, major differences can be observed. The smallest decrease in employment numbers was registered in the county seats. According to the data of the last two censuses, the employment numbers rose in the case of Szekszárd and Kaposvár by 5%, in the case of Pécs by 1%, which corresponds to the regional employment rate of 3%. With the evolution of district centres, in the case of other towns the growth is below the regional rate (In Somogy 13%, in Tolna 2% and in Baranya 13%). In the villages of Somogy and Tolna, the employment numbers dropped by 2-4%, but in the Baranya villages the numbers rose by 5%. The loss of jobs in the villages is caused by the closure of agricultural factories and holdings, mainly affecting those involved in core activities, supplementary activities and branch workshops (Table 4).

**Unemployment**

In the Southern Transdanubian region, the number of unemployed is higher than the national average. In 1990 it accounted for 3% of the economically active population (total number of employed and unemployed) but by 2005, it rose to 8.8%. From year 2000, the employment number increased by 1.0% as opposed to
the rise in the unemployment numbers by 14%. The last 5 years saw a slight shift within the region, among the counties with regard to the unemployment rate. At the beginning of 2000, the highest unemployment rate was registered in Somogy county (8.3%) but by 2013 the situation was altered and Baranya county produced the highest rate of 10.4% (Table 5).

Table 4

The population’s economic activity by gender in the Southern Transdanubian region (head)

<table>
<thead>
<tr>
<th>Name/designation</th>
<th>2001</th>
<th></th>
<th></th>
<th>2011</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>male</td>
<td>female</td>
<td>total</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>Employed</td>
<td>336 796</td>
<td>181 798</td>
<td>154 998</td>
<td>342 915</td>
<td>183 535</td>
<td>159 380</td>
</tr>
<tr>
<td>Unemployed</td>
<td>45 007</td>
<td>27 668</td>
<td>17 339</td>
<td>57 515</td>
<td>30 622</td>
<td>26 893</td>
</tr>
<tr>
<td>Inactive workers</td>
<td>338 987</td>
<td>131 220</td>
<td>207 767</td>
<td>301 060</td>
<td>112 048</td>
<td>189 012</td>
</tr>
<tr>
<td>Dependants</td>
<td>271 578</td>
<td>131 618</td>
<td>139 960</td>
<td>231 449</td>
<td>116 052</td>
<td>115 397</td>
</tr>
<tr>
<td>Total</td>
<td>992 368</td>
<td>472 304</td>
<td>520 064</td>
<td>932 939</td>
<td>442 257</td>
<td>490 682</td>
</tr>
</tbody>
</table>

Source: Based on Hungarian Central Statistical Office (KSH) http://www.ksh.hu/nepszamlalas/tablak_teruleti_02

Table 5

Unemployment

<table>
<thead>
<tr>
<th>County, region, country total</th>
<th>Number of unemployed, thousand persons</th>
<th>Unemployment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baranya</td>
<td>15.7</td>
<td>18.8</td>
</tr>
<tr>
<td>Somogy</td>
<td>13.1</td>
<td>14.1</td>
</tr>
<tr>
<td>Tolna</td>
<td>9.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Southern Transdanubian Region</td>
<td>38.6</td>
<td>41.8</td>
</tr>
<tr>
<td>Country total</td>
<td>329.2</td>
<td>420.7</td>
</tr>
</tbody>
</table>

Source: Based on Hungarian Central Statistical Office data

In 2000, 45% of the total registered unemployed had completed full primary education or lesser qualifications, and almost 1000 people held college or university degrees. Out of these 141 people were new graduates. By 2003, the number of those having lower education rose by 19% and at the same time the number of those unemployed having secondary education also increased by 4.4%. The number of unemployed with higher qualifications increased by 35%, which highlights the
controversies between education, training, and the demands of the labour market (Hungarian Central Statistical Office).

**The economically non-active population**
The participation rate is one of the lowest in Hungary among all EU countries and in the Southern Transdanubian Region among all Hungarian regions.

In 2012, the economic activity of the population aged between 15-75 years corresponded to 57.5% at national level and to 53.8% at regional level. At the same time, the rate of economically non active population is 42.5% at national level and 47% in the Southern Transdanubian Region. The least economically active age group is those between the ages 15-24 years. In 13 years, the number of economically non active population grew at first, then by 2013 it dropped by 12% (Hungarian Central Statistical Office).

The dependency rate with regard to the child population is 20.2%, and 26% for the elderly. No significant differences can be observed among the counties.

Recently, the jobseekers’ social security scheme has undergone some changes, more importantly the work incentives were strengthened and new programmes, support schemes were launched – their effect can only be evaluated in the next period.

**Changes in the level of education and qualification in the region’s population**
According to the census data, the educational level of the population – apart from smaller fluctuations – did increase in the past decade *(Table 6)*.

**Table 6**

<table>
<thead>
<tr>
<th>County, Region</th>
<th>0 class</th>
<th>at least 8 classes</th>
<th>at least secondary</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>corresponding age group of population in %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baranya</td>
<td>0.6</td>
<td>95.2</td>
<td>45.2</td>
<td>16.8</td>
</tr>
<tr>
<td>Somogy</td>
<td>0.8</td>
<td>93.6</td>
<td>40.6</td>
<td>13.8</td>
</tr>
<tr>
<td>Tolna</td>
<td>0.7</td>
<td>93.5</td>
<td>38.9</td>
<td>13.3</td>
</tr>
<tr>
<td>Southern Transdanubian region</td>
<td>0.7</td>
<td>94.1</td>
<td>41.6</td>
<td>14.6</td>
</tr>
</tbody>
</table>

Source based on KSH http://www.ksh.hu/nepszamlalas/tablak_terulet_17

**Changes with regard to school qualification**
From *Table 6* we can draw the following conclusions: at the regional level 0.7% of the population did not complete primary education; this number is 0.1% higher in county Somogy. Also, 41.6% of the 18 years old and older age group are high-school graduates. In county Baranya – mainly because of the city of Pécs – 45.2%
of the population graduated from high school, while only Tolna county is under the regional average with 38.9%.

Almost 10% of those over 25 years old have completed their university educations; here also Baranya county has the highest education index, exceeding the regional average by 2.2%. The difference in this respect between the counties Somogy and Tolna is not significant.

The qualifications (census data) shown on the table reflect the situation in year 2011 (the year of the census), since then there has been significant increase in the level of education, especially in the numbers of university graduates.

**Vocational and secondary schools - Terms and conditions**

The number of education venues increased in 12 years, from 140 to 245, by 57%. These institutions mostly provide a range of educational and training courses to meet the demands of the given area. In 2012/13 vocational education was carried out in 89 schools, vocational technical education in 77 schools and secondary grammar education in 79 schools (*Hungarian Central Statistical Office*).

Since 1990 there has been a 62% increase in the number of vocational schools, 68% in the number of vocational technical schools, whereas the number of grammar schools rose only by 42%, which is explained by the fact that skilled workers became more sought after and technical and vocational trainings meet the demands best. The growth in numbers of education venues is contradictory to the continuing trend of falling birth rate, and despite the increasing training costs, no improvement can be detected in the professional standards.

In the vocational technical schools of the region, health education and economic education are highly represented. Since the first decade of the new millennium, training in mechanics and electronics has fallen below the average, only education in economics maintained its position.

In the training of skilled workers there was a shift to meet the demands of the labour market, with the introduction of the dual system of vocational training, but according to the reports of the job centre, there is a shortage of skilled workers in certain professions (welder, assembly operator, tiler, etc.).

The past years saw a restructuring in vocational technical training. In Somogy county there are 30 institutions for vocational, 29 schools for vocational technical training. For those with agricultural training – with most big agricultural holdings having closed down – the chances of finding work placement became rather slim. Those technical and vocational schools are gaining ground that train skilled workers for the food industry, trade and commerce, catering and economics. However, the machinery industry struggles to find enough skilled workers. Besides meeting the demands of Lake Balaton for waiters and waitresses - which is also influenced by seasonal work – the offer is higher than the demand in the trade and catering sectors.

The number of schools providing secondary education is 22; the past years saw a significant falling behind in Baranya. In Somogy county education is fragmented and too numerous.
19 institutions for vocational, 17 schools for vocational technical training operated in 2012/13 in Tolna county. The structure of education has changed only slowly, which the experts explain by the fact that the economy undergoes a slow transformation. The human resources are modest and also fragmented.

Secondary education is lower than the national average with regard to the proportion of the population. Within the framework of vocational technical training, training courses in economics, management and trade became popular within a short period of time, which helped provide better services for the locals. There are 19 secondary schools, but most of the talented students go on to complete their higher education out of the county.

Because of its settlement patterns, the range of post-secondary vocational courses is rather limited, which puts county Tolna in a disadvantaged position. This might be remedied with the extension of vocational courses organized at the vocational schools.

In general we can conclude that the restructuring of vocational technical training – which equals the human resources of the Southern Transdanubian region – continues to be tailored to the needs and demands of the labour market but its efficiency varies by profession.

The number of schools providing the venue for training of employees for the business and public sectors and in other areas is very high, scattered and running them is very expensive no matter who finances their operation, the state or businessmen (Cséres-Gergely and Szőke, 2014).

**Higher education**

In the area of human resources management, one of the most controversial subjects is higher education. The last 15 years saw a dynamic increase in the numbers and the whole scale of education underwent substantial changes. Besides the integration of institutions (January 2000) a competition started for students, new faculties and courses were launched parallel with the already existing ones and, in many areas, the demands of the labour market were not taken into consideration (Szép, 2004). Over-education resulted in the growing number of graduate unemployed. This negative tendency has also affected the Southern Transdanubian Region, the number grew by 35% between the 2000/2001 and 2005/2006 school years, but by 2012/2013 the numbers were reduced by 2% (Hungarian Central Statistical Office).

Besides university and college education, different forms of adult education programmes are gaining ground. Obtaining the first degree, then participating in specialization programmes (second degrees) – the result was that the distribution of students shifted. In 1990, 80% of students were full-time students and 20% were in adult education, now it changed to 72%-28%.

The new Act on Higher Education entered into force on March 1st, 2006 complying with the principles set out in the Bologna Declaration – adapting to the European education system – which regulates the structure of higher education and takes legal steps to start broad reforms. The transition to three-cycle education was introduced and interoperability between institutions became possible.
There are approximately 206 research & development units, most of them operate within the institutional system of higher education. The most complex of these is the University of Pécs, with high-profile teaching activities closely linked with research. In Somogy, the results of Kaposvár University can be mentioned especially in the field of agricultural research.

CONCLUSIONS

Strengthening the region’s human resources is the most important requirement for the continuous and comprehensive modernization of the education and training system. It can be concluded that the education level of the working age population and the number of secondary and higher education students are growing, which is considered to be the greatest strength of the region. However, there’s a low level of employment, which weakens the social and economic performance of the region in addition to positive indicators of education. The obstacle to further development is the unfavourable age structure of the population. Much more of the population consists of youngsters and the elderly than those in active ages. The population of the region has been declining for years, but it is a national trend. During the last years the unemployment rate is decreasing. Recently the jobseekers’ social security scheme has changed, but the program will be evaluated in the future.

The revealed processes are evaluated in the following SWOT analysis (Table 7).

Table 7

**Most important findings of the analysis of the Southern Transdanubian Region human resources SWOT analysis**

<table>
<thead>
<tr>
<th>Strengths:</th>
<th>Weaknesses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous increase in the education level of the working population in the region</td>
<td>Level of employment in the Southern Transdanubia is below the average regional level, which has a fundamental impact on the social and economic situation of the region</td>
</tr>
<tr>
<td>Growing number of participants in secondary and higher education contributed to meeting the demands of the labour market</td>
<td>High number of people receive various unemployment benefits</td>
</tr>
<tr>
<td>The new Act on General Education created the conditions for the restructuring of higher educational programmes and for altering the structure and content of training</td>
<td>Low level of contribution to the national GDP, regional GDP per capita corresponds to 67% of the national average</td>
</tr>
<tr>
<td>In education the restructuring started in accordance with the National Qualifications Register</td>
<td>Net wages of those in employment are below the regional average (2012 data)</td>
</tr>
<tr>
<td>Improvement in mobilizing EU and national funding</td>
<td>Fragmented network of vocational and training schools, too many small institutions</td>
</tr>
<tr>
<td>Basic health care ensured</td>
<td>Many parallel courses</td>
</tr>
<tr>
<td></td>
<td>In many fields education does not adapt to the needs of the labour market</td>
</tr>
<tr>
<td></td>
<td>In certain areas higher education is oversized, not enough jobs going around and graduates have difficulty finding employment, which results in graduate unemployment</td>
</tr>
</tbody>
</table>
### Opportunities:

- Regional infrastructure can be improved by using EU Funds and national co-financing in the period between 2014-2020, therefore, the chances are greater that new businesses will be launched or already existing ones will be attracted to the region, which can lead to the greater mobility of the workforce.
- Central measures improve the chances of those in a disadvantaged position to find new jobs.
- The Regional Employment Service improves the chances of finding employment and helps raise the level of employment by coordinating the collaboration of institutions and businesses more effectively.

### Threats:

- Unfavourable age structure and continuing low birth rate might be a problem in the long run and it can pose a threat to the supply capacity of the region in the labour market.
- Small villages have limited means to encourage economic development, which prevents the creation of new jobs. This is especially dangerous when there is no cooperation at the level of micro regions or cooperation is only formal.
- Migration of highly qualified work force due to the limited work options to other regions or even abroad.

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Hungarian Central Statistics Yearbooks of Somogy, Tolna, Baranya from 2000-to 2012 years

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