LABOUR MOBILITY – THE RISK OF FUTURE KNOWLEDGE SOCIETY

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Key words: l*abour, knowledge society, Republic of Croatia, development*

1. PRECONDITIONS FOR A "KNOWLEDGE SOCIETY"

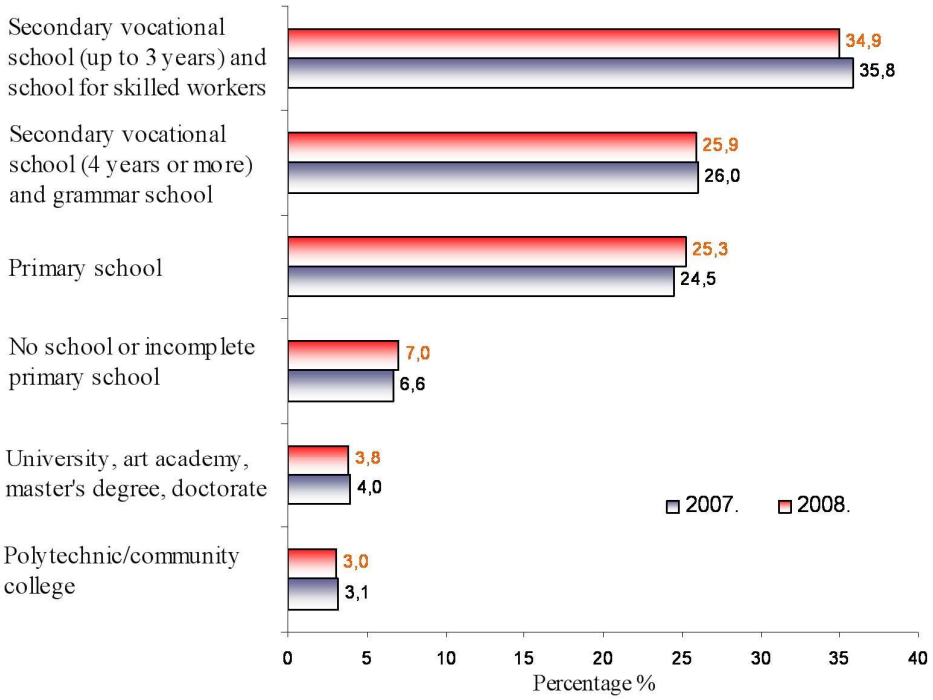
"Problem solving, creativity, communication skills and flexibility are the qualities that should be possessed by everybody in the labour market."[1]The Republic of Croatia ought to raise its competitiveness by creating a capable and agile work force, ready to think independently but willing to work as a team, quick to process information and solve problems. The issue, of course, is how to achieve this ideal situation. In Croatia, the process is under way.

One of the crucial goals in Croatia's long-term strategy is to work towards knowledge society and knowledge-based society as a basis for creating knowledge companies. In developed countries it is precisely knowledge that is the biggest and inexhaustible resource, and the basis of their competitiveness. The Republic of Croatia has historical, economic and status preconditions to achieve competitive advantage in the global market through knowledge.

Work force with a wide range of skills is created through an education system, whose reform (Croatian National Education Standard - CNES, the Bologna process) should provide different possibilities for all the target groups. We should strive for independent choice of profession by each individual and their increasing responsibility over the years.
There is a link between economy, or business, and knowledge called application. This refers to using knowledge and ideas in real time and real business situations. Successful application of the existing, ad even more importantly, newly acquired knowledge, skills and expertise will result in growing wealth of a national economy.

The overall educational structure in the Republic of Croatia and (un)employment levels are the basis for making forecasts about future development of a knowledge society in its most desirable form: the one that ensures higher productivity and competitiveness.

[1] http://www.poslovni.hr/24348.aspx (18.03.2008.)



Graph 1: The unemployed according to their education level, February 2007 and 2008 [2]

Level of education	2007.	2008.	Growth rate 2008/2007
Secondary vocational school (up to 3 years) and school for skilled workers	*107.100*	*90.899*	*- 15,1*
Secondary vocational school (4 years or more) and grammar school	*77.627*	*67.490*	*- 13,1*
Primary school	*73.064*	*65.790*	*- 10,0*
No school or incomplete primary school	*19.825*	*18.143*	*- 8,5*
University, art academy, master's degree, doctorate	*11.844*	*9.878*	*- 16,6*
Polytechnic/community college	*9.315*	*7.891*	*- 15,3*
TOTAL	***298.775***	***260.091***	***- 12,9***

Table 1: Changes in unemployment according to education level in 2007 and 2008

- *The highest decrease of unemployment took place with university educated people – 16.60 %*
- *Unemployment rates have been decreased in the groups with secondary and higher education*

The Croatian ministry responsible for education has emphasized that by the year 2010 a set of competences will have been defined that pupils or students need to have in order to be competitive in the labour market. We should mention here the minimum threshold of capabilities, which includes computer literacy of potential employees. Below we shall discuss the e-readiness of the Republic of Croatia using the United Nations Knowledge Base[3] referring to e-readiness.

[2] http://www.hzz.hr (18.03.2008.)
[3] http://www.unpan.org/egovkb (12.02.2008.)

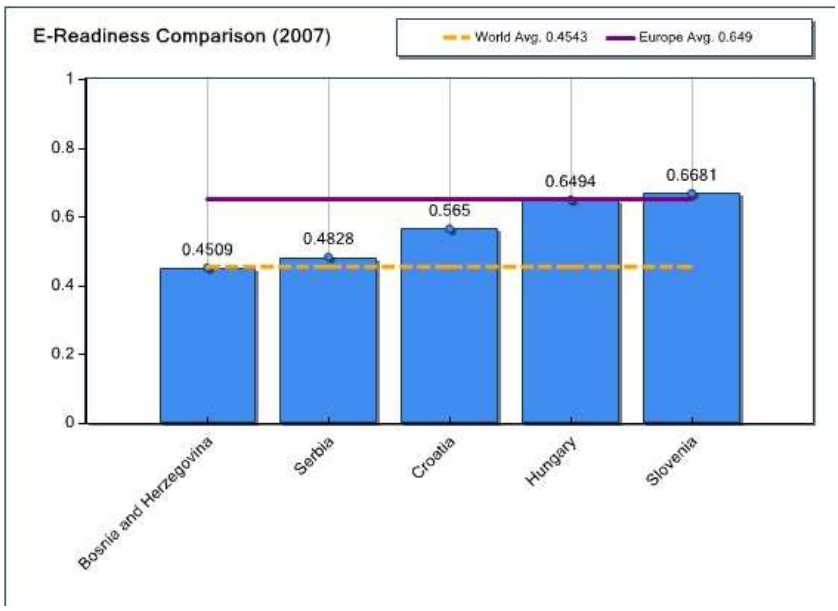
2. E-READINESS INDEX AND THE REPUBLIC OF CROATIA

In today's world, one of the most important conditions, i.e. criteria for employability of a person is computer literacy. In this part of the paper we shall analyze this segment and the current situation regarding computer literacy in the Republic of Croatia and neighbouring countries.

„E-Readiness Index“ is a tool for measuring the general population capacity in using information and communication technology, and it does so by establishing the number of people with these skills and how these skills are used. E-readiness in this sense represents the capability of a particular country to utilize its ICT structure for its own benefit, as well as the level of development of this infrastructure. It is assumed that the more transactions can be carried out on-line or through wireless communications, the more transparent and efficient the national economy will become.

According to the 2007 report published by the EIU (Economist Intelligence Unit), Croatia does not feature in any of the lists or rankings. The research and ranking method encompasses technological, economic, political and social aspects of 69 economies in the world.

The latest survey shows that Denmark is the world's most e-ready country, which is the position it also held the year before (2006). It should be noted that the USA ranks second, together with Sweden, which was in the fourth place the year before. As for Croatia's neighbours, Slovenia and Hungary are the only countries that can be found on this list.



Graph 2: E-Readiness Comparison [4]

The graph above indicates that the Republic of Croatia has exceeded the world average in e-readiness, whereas Serbia and Bosnia and Herzegovina are on their way of reaching the European average in e-readiness.

[4] http://www.unpan.org/egovkb/GraphIT1.aspx?c1=42&c2=151&c3=156&c4=22&c5=75&reg=2 (18.03.2008.)
Created by: Lamza – Maronić, Maja; Glavaš, Jerko

The Republic of Croatia has almost reached the European average in e-readiness, which is a huge step forward in creating knowledge-based competitive advantage. It is e-readiness that provides work force contactibility, faster and simpler transactions, easy exchange of knowledge and experience, and the basis for innovations; all these are today indispensable if we want to compete in a globalized market.

It should be pointed out that 2/3 of Croatian scientists (experts) live and work abroad. In a way, this work force mobility can be a threat to a knowledge-based society; however, the recent reforms and the forthcoming EU membership are expected to close this gap.

Human capital is a crucial element of competitiveness and economic development, but it is no guarantee for growth – a country with the best human capital will not necessarily develop most quickly, although the return on investment in knowledge is higher than any other returns.

The work force of a national economy has to be able to create, analyze and transform information, communicate effectively, organize and coordinate business activities. Employees need ICT skills (E-readiness), as well as the ability and readiness for continuous learning.

3. IMPACT OF DEMOGRAPHIC TRENDS ON KNOWLEDGE-BASED SOCIETY

Between the years 2000 and 2020 the total population of Croatia is expected to decrease by 5,1%, which is a drop from 4.380.000 in the year 2000 to 4.158.000 inhabitants in 2020.[5] Demographic structure is likely to change significantly, with the younger population expected to decrease in numbers. It is thus projected that by the year 2010 the age group 11-18 years will decrease by approximately 24% in comparison with the year 2000, and the falling trend will continue after the year 2010.

Age	2000.	2010.	Change 2000. – 2010. /%	2020.	Change 2000. – 2020. /%
7	47.000	43.000	-8,5	39.000	-17,0
8-10	198.000	178.000	-10,0	165.000	-16,7
11-18	479.000	365.000	-23,8	336.000	-30,0
Total number of pupils	724.000	586.000	-19,5	540.000	-25,4
Total population	4.380.000	4.285.000	-2,2	4.158.000	-5,1

Table 3: Forecast of school-age children for the period 2000 – 2020

By developing a knowledge-based economy there is a growing need for educated employees. Unfortunately, there is a certain proportion of young people who start but do not complete their secondary or higher education, as well as a certain proportion of those who do not continue their education after they finish secondary school. Efforts are made in the education system to keep the young people within the system after secondary school, as higher education will increase their employability.

[5] Svjetska banka, Statistički podaci o obrazovanju, 2004.

There are four ways in which the education system is trying to tackle the above mentioned problem:

- Increasing the number of secondary school graduates;
- Developing a service for vocational guidance and career counselling accessible to all user groups within life-long professional counselling;
- Encouraging adults with primary school education to continue training through adult education programmes;
- Investments into raising the quality of teaching and learning at all levels of education (Croatian National Education Standard, the Bologna process).

Inadequate numbers of work force can have a negative impact on the economic development. The projected difficulties in the labour market, resulting from demographic and economic changes, indicate that it is essential to raise the efficiency of the education system in such a way that young people can continue acquiring knowledge and skills after completing primary and secondary school in order to raise their employability. To achieve this goal, more people need to participate in adult education and training programmes.

4. CHANGES IN THE LABOUR MARKET

The need for knowledge will continue to grow. It is estimated that the demand for intellectual services will have the fastest growth, particularly in the area of information and communication technologies (ICT).[6] The most significant decrease is expected to happen in the demand for workers with lower education. A range of jobs will require a thorough familiarity with modern technologies, and the structure of professions will increasingly rely on the need for lifelong learning. The basic common competencies of the compulsory education and further training will be developed following the European standards. Compulsory education system, as well as further training system have some common goals, such as developing language and communication skills, ICT literacy, better understanding of mathematics and natural sciences, foreign languages, social competences and entrepreneurship, learning how to learn, together with general culture.

Given the rapid social and economic changes, which include changes in the labour market, it is necessary to coordinate and streamline pre-school, primary, secondary and higher education, as well as adult education and further professional training. Young people should be prepared for living and working in circumstances of fast-changing needs. It is therefore necessary to cooperate with social and economic partners in order to determine what type of professions will be required in the short-, middle- and long term.

4.1. Workforce mobility in the Republic of Croatia

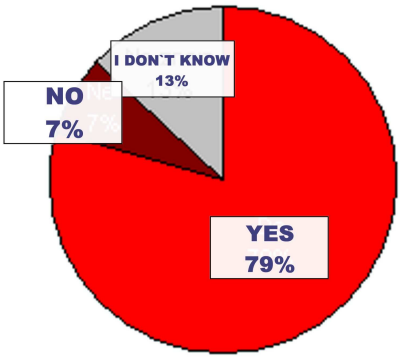
It is important to note that there has been research on workforce mobility, one of which was conducted by the company Selectio Ltd. (human resources management firm, www.selectio.hr), in cooperation with the web portal *MojPosao*[7], the hub of the Croatian labour market, as well as with the Croatian Employers' Association (*Hrvatska udruga*

[6] Source: The World Bank, Statistical data on education, 2004. National Competitiveness Council, "55 Reccommendations for Increasing Croatia's Competitiveness – Education for Growth and development ", 2004, http://nvk.multilink.hr/dokumenti/119___NVK%2055%20Preporuka.pdf.

[7] http://www.moj-posao.net/jseeker_wiki.php?wikiName=IstrazivanjeMobilnostRadneSnage (accessed on 28 April 2008)

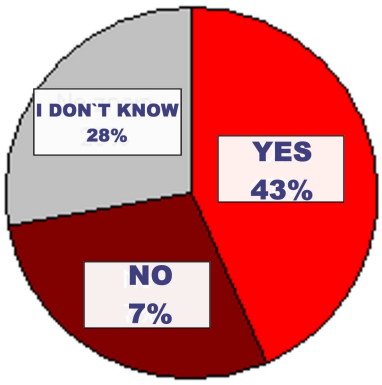
poslodavaca, HUP) in order to poll public opinion on Croatian citizens' readiness to move residence as a means to improve job opportunities.

Survey respondents were randomly chosen among the portal visitors. The majority of the 296 respondents were younger people, university graduates, single or married/in a permanent relationship without children. The sample contained equal numbers of men and women, with respondents from all Croatian counties, although the number of Zagreb residents was disproportionately high. As for the research results, the current state of certain segments should be pointed out, as they indicate workforce mobility as well as its causes. As many as 79% of all respondents would be willing to move residence for a better job opportunity.



Graph 3: Moving residence for a better job opportunity

On the other hand, when moving residence is a condition to retain current employment, the percentage of those willing to move is different. The respondents were asked if they would be willing to move in order to do the same job, for the same employer, with the same challenges and equal pay, but in another town. Only 43% of respondents would accept moving residence under such circumstances.



Graph 4: Moving residence as a condition to retain current job

The highest income respondents were least likely to move in order to retain their job (27%). On the other hand, the lowest income respondents (under 2,000 kuna per month, ca. 280 EUR) would accept moving in 50% of the cases, whereas others were undecided, but without outright refusal.

The research has established the main factors contributing to readiness to move, i.e. workforce mobility:

- Higher salary or additional financial benefits (15% of answers)
- Better quality of life (11% of answers)
- Opportunity for personal growth and development of competences (9% of answers)
- A more interesting job (9% of answers)
- Better interpersonal relations at work (7% of answers)

In conclusion, a large majority of respondents stated they would be willing to move residence; however, not everybody is ready to move far away. 56% of respondents are prepared to move to another country for career purposes, whereas 24% would move only within Croatia.

5. RELATIONSHIP BETWEEN WORK FORCE AND KNOWLEDGE

Expansion of new technologies accompanied by globalization helped to turn the economies of developed countries into knowledge based economies. The level of knowledge and expertise within the work force is an important aspect of competitiveness of any national economy. The Republic of Croatia is in possession of certain knowledge and capabilities required by modern competitive economy, whereas education and further training systems need to take measures to continue improving the current situation.

The work force in Croatia should be redirected to knowledge based jobs and industries, and to economic growth and progress fostered by innovation. Employees should be prepared for frequent changes of jobs, proficient in self-management, able to mange their work environment and willing to participate in lifelong education.

Throughout the social structure - pupils, students and employees should learn to work together, developing team spirit and adequate social sensitivity, which allows everybody to develop according to their own preferences and talents. As the paper discusses labour mobility and its impact on the development of knowledge society, it is important to note that targeted policies can mitigate the consequences of the stated problem. The Republic of Croatia has attempted to tackle this issue through education system reform. In this process, the system that used to emphasize fact memorization, discipline and traditional teaching methods has been evolving into one in harmony with the needs of a democratic society and globally integrated free market. Today there is growing demand for a range of skills: from problem solving at all levels, communication competence, computer literacy, to flexibility and creativity.

In the Republic of Croatia more funds are being allocated to education. Nevertheless, there is much work to be done, especially in improving the insufficient connection of education programmes with the requirements of the labour market and competences in demand today.

Table 4: Budget of the Ministry of Science, Education and Sport, in kunas (2003-2007)

Year	Amount	Increase in kunas	Increase in %
2003	7.785.778.384		
2004	8.376.332.479	590.554.095	7,59
2005	8.676.441.825	300.109.346	3,58
Revision 2005	8.920.285.053	243.843.228	2,81
Total 2005	8.920.285.053	543.952.574	6,49
2006	9.512.520.002	592.234.949	6,64
Revision 2006	9.558.330.002	45.810.000	0,48
Total 2006	9.558.330.002	638.044.949	7,15
2007	10.449.531.696	891.201.694	9,32
Revision 2007	10.740.416.665	290.884.969	2,78
Total 2007	10.740.416.665	1.182.086.663	12,37
Total growth 2003-2007		2.954.638.281	37,95

Source: Overview of achievements 2003-2007, Ministry of Science, Education and Sport, Zagreb, 2007, p.149

The new programmes and curricula should be more closely connected with the business world if we are to achieve knowledge society, knowledge companies, and competitive advantage in the region through knowledge. Taking into account the studies by the World Bank[8] and OECD, as well as comparisons with education systems of other European countries, we put forward the following proposals[9]:

- The education system should be changed from a supply-driven to a demand-driven system.
- The education system should become more flexible in order to achieve passability, i.e. to avoid 'dead-end streets' and reduce the number of students who drop out of higher education without a degree.
- It is important to develop and adapt teaching methods and techniques in schools and universities in such a way to make pupils and students responsible for their learning.
- Management of the education system should be decentralized, i.e. employment and curricula should be the responsibility of schools, local authorities and universities. At the same time, school and university management should be continuously developed to ensure sustainability and further advancement of the system.
- Higher university quotas should be implemented for scarce occupations, i.e. fields with noticeable lack of professionals.
- Finally, tuition fees should be increased to a certain degree, due to increased education costs, but also in order to achieve more equity and higher motivation. This increase should be balanced by a greater number of scholarships and grants to those students who apply themselves and achieve good results and continuity, thus increasing the overall quality of the education system.

[8] Berryman i Drabek, 2002.

[9] Bejaković, P.(2006):"Uloga obrazovnog sustava u postizanju zapošljivosti i konkurentnosti radne snage u Hrvatskoj, pregledni rad, Društveno istraživanje, Zagreb, god. 15(2006), br.3, str. 401-425

All the countries in the region, including Croatia, need to develop an action plan to introduce a cheaper, faster and safer Internet access, make investments into knowledge and skills required for an information society, and foster Internet and ICT usage, which was all demonstrated in the e-Readiness Index. Furthermore, authorities should encourage entrepreneurship, constantly improve and adapt regulations, work on intellectual property protection, and monitor the advancement which should be continuous.

6. CONCLUSION

The paper gas examined labour mobility and its possible adverse effects on the development of knowledge society. It should be emphasized that human capital development, i.e. further training of employees is necessary, but far from decisive or sufficient. The conclusions of the above discussion are as follows:

1. Education is a necessary element of work force competitiveness, but it is not decisive or the only one.
2. For the economy to be competitive in today's globalized conditions, it has to have well trained, capable employees.
3. The most important aspect in achieving the knowledge society and reducing the risks of excessive labour mobility is an adequate economic policy. Developing and maintaining strong, independent institutions, improving public administration (e-government), reducing corruption (which is a huge obstacle for competitiveness of Croatian economy), fostering entrepreneurship, together with a balanced economic growth throughout Croatia, are all prerequisites for the knowledge society.

It will not be easy to accomplish the above recommendations, but activities throughout the process will multiply, making each new step easier and motivating the stakeholders. The ability of any society to choose, adapt, produce and utilize knowledge is crucial in achieving a sustainable continuous economic growth, better living standards for general population, and decreasing poverty and inequality. Provided that employees can recognize prosperity in the activities and results of the above mentioned institutions, its motivational effects will raise people's awareness that knowledge is of greatest importance for the area they live and work in. This could result in decreased labour mobility and starting of some concerted efforts to position the Republic of Croatia as a competitive and recognizable future EU member through competitive, knowledge-based society.

BIBLIOGRAPHY:

1. Overview of achievements 2003-2007, Ministry of Science, Education and Sport, Zagreb, 2007.
2. Bejaković, P.(2006): "Uloga obrazovnog sustava u postizanju zapošljivosti i konkurentnosti radne snage u Hrvatskoj, pregledni rad, Društveno istraživanje, Zagreb, god. 15 (2006), No. 3, pp. 401-425
3. The World Bank, Statistical data on education, 2004.
4. Par, V.:"Rječnik pojmova iz ekonomije i definicije", http://www.agr.hr/cro/nastava/bs/moduli/doc/ag1179_pojmovnik.pdf (accessed on 12 February 2008)
5. The World Bank, Statistical data on education, 2004. National Competitiveness Council, „55 Recommendations to Increase Croatia's Competitiveness – Education for Growth and development", 2004, http://nvk.multilink.hr/dokumenti/119___NVK%2055%20Preporuka.pdf.
6. http://www.poslovni.hr/24348.aspx (accessed on 18 March 2008)
7. http://www.hzz.hr (accessed on 18 March 2008)
8. http://www.unpan.org/egovkb (accessed on 12 February 2008)
9. http://www.unpan.org/egovkb/GraphIT1.aspx?c1=42&c2=151&c3=156&c4=22&c5=75&reg=2 (accessed on 18 March 2008) Created by: Lamza – Maronić, Maja; Glavaš, Jerko
10. http://www.moj-posao.net/jseeker_wiki.php?wikiName=IstrazivanjeMobilnostRadneSnage (accessed on 28 April 2008)