

## LABOR FORCE AS AN INDUSTRY LOCALIZATION FACTOR

Anna JUŘICOVÁ

VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU, [ajuricova@seznam.cz](mailto:ajuricova@seznam.cz)

### Abstract

Industry is a fundamental sector of the world and national economy. It is an indicator of country's development, the backbone of the national economy and it has a substantial impact on the regional structure. The conditions on the base of which specific industrial sectors develop are called localization factors. They include raw materials, energy, transport infrastructure and, last but not least, labor force, its qualification structure and the degree of its skills corresponding to labor market demand. Labor resources and labor market influence the changes in the regional concentration of industrial production and thus they significantly participate in the development of both industry and the region. Labor force becomes an important localization factor. Qualified workforce is one of the key tools of industrial production efficiency and stability, its volume and specialization. In order to activate such tools, it is necessary to interconnect labor market requirements and workforce resources provided by the regional vocational education. A well defined specialization structure of the regional education is one of the main workforce resources and has an impact on the efficiency and stability of the enterprise and its overall management system. The paper objective is to analyze mutual relations and conditionalities between industrial manufacturing, its localization and sufficient, high-quality human resources, as well as to draw attention to the specific issues, reduced rationality and functionality of the current system.

**Keywords:** Regional education, industry, workforce, localization factors

### 1. INTRODUCTION

In the economy of each country, consequently its regions, the level of workforce education and qualifications belongs to the most important localization factors for attracting investments. [1, 2]

To prevent the Czech Republic from becoming just an assembly workshop of Europe, to prevent a qualified technician from becoming an assembly line operator, education has to be a priority of government and industry executives. Because the transformation from a qualified worker to the unskilled one is quite rapid, however the transformation from an unskilled worker to the qualified one is, in terms of time and finance, incomparably more demanding.

If the Czech Republic intends to achieve economic growth and reduce unemployment, it needs to pay much more attention to education and its branch structure.

#### 1.1 Readiness of the Czech education system for the change of requirements

Enterprise demand for employees and job creation and loss is affected by a number of trends that often originate in the global economy. The requirements of companies for the labor market are changing depending on technology development whereby the economy innovation performance improves.

The changes in technology, production and markets result also in the significant changes in the nature of work, enterprise organization and labor force which also brings a substantial change in the requirements for the education system.

Enterprise requirements for the labor market largely reflect their current needs. The education system is not so flexible so as to react immediately to quickly changing requirements because the changes within it have inertia horizon of several years. The reason is the inadequate interconnection between the education system

and the employment system. Regional education systems do not reflect sufficiently employer's needs. A comprehensive system of mutual awareness is missing.

## 2. DISPROPORTION IN THE REQUIREMENTS OF LABOR MARKET AND EDUCATION SYSTEM

It is necessary to pursue mutual relationships and conditionalities between the requirements of industrial manufacturing for the education system as such relationships play a key role in the preparation of human resources for user target groups. [3]

Currently there is an interest in newly structured graduates who will be less specifically focused. It is an ambivalent attitude - in the one part, highly qualified workforce is necessary with professional abilities, however on the other part, cheap labor, a universal worker is sought who is able to quickly adapt to market requirements.

The education system, school network and number of graduates are not in accordance with the above requirements, in particular in the field of technical education where in the long term the lack of some occupations has been discussed. The branch structure of schools is inadequately set and there has been a long-term excess of economic and administrative fields, service fields and also some technical fields such as car mechanics, etc.

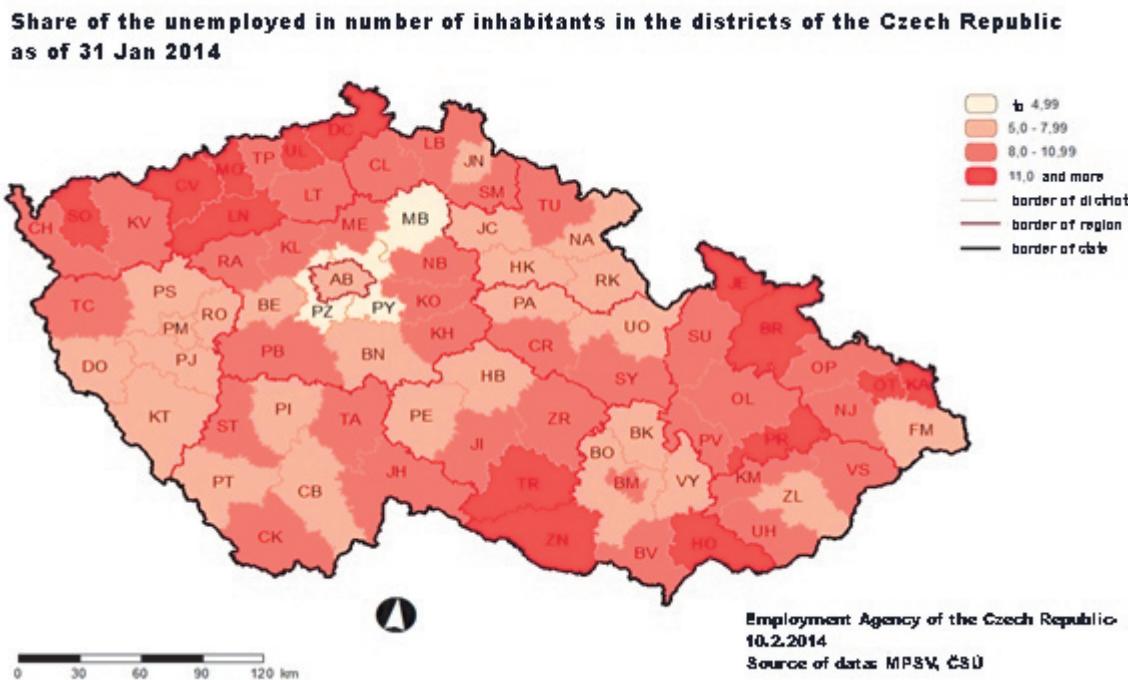
What is missing is system and systematic knowledge between companies and the institutions preparing the youth for their future occupations. Based on that, discrepancy occurs between planned needs of company workers and the need for more accurate, long-term and labor market-based planning in the area of youth preparation for their occupations - especially as to blue collar and technical professions.

What is also missing is a body in the education system that would keep market research information, would focus on and summarize labor market requirements for predictable development of individual branches, focus on expected trends in the development of occupation qualification requirements in the Czech Republic, and process expert suggestions for the changes in education. That would catch the trends in the development of profession groups and then in the changes of requirements for the objectives and content of vocational education.

They cannot be formulated by the ministry of education separately, but it needs permanent information supply from the outside, from the fields of work execution and the enterprise and entrepreneur sector. At present, the relationship between education institutions and business community is quite diffused and there is even reluctance on the side of business to provide such personnel information. [4]

The lack of such information results in non-employability of graduates on the labor market and subsequently large finance costs for requalification. Currently there are two seemingly contradictory trends on the labor market. Due to the economic crisis many people get unemployed, however at the same time businesses experience troubles when filling vacant positions, mostly technical professions. The reason for such imbalances on the labor market is a discrepancy between job qualification requirements and actual qualification of job seekers. [6]

The consequence is high unemployment in the Czech Republic. At the beginning of 2014, the number of unemployed amounted to 629 274 and was the highest in country's history (see **Fig. 1**). From the beginning of the year the rate of unemployment has been 8.6% and grew by more than 0.6 % year over year. In January 2013, the total number of unemployed graduates and young people was 34.4 thousand and the share of unemployed graduates in the total rate of unemployment reached 6.1 %. The prognosis for April 2014 is nearly 35 000 unemployed graduates.



**Fig. 1 Share of the unemployed in number of inhabitants in the districts of the Czech Republic as of 31 Jan 2014 (Employment Agency of the Czech Republic)**

At the moment, graduate unemployment is alarming not only across the whole Europe but also in our country. It reflects the economic crisis however some role is played also by bad planning when specifying structure and the ratio of taught fields of education, school capacities and their financing.

It is necessary to engage experts from practice for summarization and qualified estimates of the development of individual industries, to respond to expected trends in employment development and profession qualification requirements on the labor market in the Czech Republic, to include these themes to education supply and react in the form of education contents modification.

Graduate rate of unemployment affected all education categories, however even at the current economic problems there is a possibility of graduate employability, mainly in industrial production. Relative low rates of unemployment are reported for the graduates of secondary education with a trade certificate, secondary vocational education with graduation, and extension education.

### 3. PROMISING FIELDS OF EDUCATION FROM AN EMPLOYER PERSPECTIVE

The interest by employers in the area of technical branches that discuss the promising fields of education on the labor market has long been mentioning as a promising profession IT and computing technology expert - the field of informatics, information technology, computing technology and programming.

Good prospects can also be seen for machinery mechanists - locksmiths, welders, metal workers - turner, miller, mechanists setters - setup and operation of CNC machines, and electricians.

Also craftsmen are sought; they are not accurately specified, rather the requirements for quality and universal workers are mentioned enabling higher flexibility.

On the whole, employers expect the largest demand for group of trades such as 23 Engineering and engineering production, 36 Construction, geodesy and cartography, 26 Electrical engineering, telecommunication and IT as mentioned Bapna [7].

Professions and fields of education for which demand is and still will be in the coming years is given in **Table 1**.

**Table 1** Required professions and fields of education

Group of education field	Professions
Engineering and engineering production	machinery mechanist, locksmith, mechanist - setter, toolmaker, mechanist - repairer, machinist, operator of CNC machines, technician, technical worker, mechanical engineer
Construction, geodesy and cartography	bricklayer, tiler, carpenter, plumber, heating technician, roofer, joiner, tinsmith, house painter, civil engineer
Electrical engineering, telecommunication and IT	IT worker, computer professional, electrician, mechanic - electronics worker,

It is important to get practical experience during studies. Practical training of students lags behind the requirements for including new machines and technology into the training which requires closer and increased cooperation of schools with employers.

## CONCLUSION

One of the ways for making sure that the knowledge, abilities and skills of school graduates are better aligned with labor market demand is a closer linkage of employer and education spheres, i.e. the cooperation between business and schools.

Another possible measure is the change in financing - the lack of apprenticeship graduates. The modification of the financing system would put more emphasis on branch structure and the quality of education, would enable the system optimization of the school network, and to a certain extent would regulate setting up new schools the study field supply of which is fully covered.

It is necessary to create new functioning system and systematic cooperation between the enterprise and entrepreneur sector and the education system that would build accordance with labor market requirements and the study fields being prepared by the education system because this accordance has a significant impact on employment rate.

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