

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

**The Analysis of Unemployment Development in a
Selected Region**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Tomáš Roller

Economics and Management

Thesis title

The analysis of unemployment development in a selected region

Objectives of thesis

The main aim of the thesis is to analyze unemployment in the Usti region. Another objective is to evaluate the development of unemployment in the selected region and then compare it with unemployment in the Czech Republic and suggest possible solutions for decrease of unemployment.

Methodology

The theoretical part will deal with the explanation of terms that are important to clarify the issue of unemployment. At first there will be described how to measure unemployment, its types, relationship to inflation, natural rate of unemployment, causes, costs and tools of active labor market policy. To develop theoretical part there will be used professional publications, textbooks, books and websites dealing with unemployment.

The practical part will deal with the description of Usti region. The practical part will focus on tables and graphs, which will be made in MS Word and MS Excel. The thesis will include descriptive and comparative methods of research.

The proposed extent of the thesis

40 – 60 pages

Keywords

Unemployment, Labor market, Usti region, Inflation

Recommended information sources

FROYEN, R T. *Macroeconomics : theories and policies*. New York: Pearson/Prntice Hall, 2004. ISBN 0-13-143582-5.

HINDLS, R. – HOLMAN, R. – HRONOVÁ, S. *Ekonomický slovník*. Praha: C.H. Beck, 2003. ISBN 80-7179-819-3.

MANKIW, N G. *Zásady ekonomie*. Praha: Grada, 1999. ISBN 80-7169-891-1.

NORDHAUS, W D. – SAMUELSON, P A. – GREGOR, M. *Ekonomie : 18. vydání*. Praha: NS Svoboda, 2007. ISBN 978-80-205-0590-3.

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Declaration

I declare that I have worked on my bachelor thesis titled " The analysis of unemployment development in a selected region " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on 9. 3. 2016

Tomáš Roller

Acknowledgement

I would like to thank Assoc. Prof. Ing. Mansoor Maitah, Ph.D. et Ph.D. for being my supervisor, for consultations concerning my bachelor thesis and useful advices.

Analýza vývoje nezaměstnanosti ve vybraném kraji

The analysis of unemployment development in a selected region

Souhrn

Bakalářská práce s názvem analýza vývoje nezaměstnanosti ve vybraném kraji je zaměřena na aktuální problémy na trhu práce a analýzu nezaměstnanosti v období 2005 až 2015 v Ústeckém kraji. Jsou v ní použity komparativní a deskriptivní metody.

První část bakalářské práce popisuje problematiku nezaměstnanosti a charakterizuje trh práce z hlediska ekonomické teorie. Druhá část se zabývá stručnou charakteristikou Ústeckého kraje a následně vývojem nezaměstnanosti v kraji. Hodnocení vývoje nezaměstnanosti se provádí pomocí dat z oficiálních stránek Ministerstva práce a sociálních věcí.

V práci bylo zjištěno, že snížení nezaměstnanosti může být způsobeno zlepšováním ekonomické situace (růst HDP), sofistikovanějším školským systémem, větší kontrolou nad vyplácením sociálních dávek a příchodem nových investorů.

Klíčová slova: Nezaměstnanost, trh práce, Ústecký kraj, inflace, míra nezaměstnanosti, Česká republika, politika zaměstnanosti, úřad práce

Summary

Bachelor thesis titled the analysis of unemployment in a selected region is focused on current problems in the labor market and an analysis of unemployment in the period 2005-2015 in the Usti region. Comparative and descriptive methods have been used in the thesis.

The first part describes the problems of unemployment and characterizes the labor market in terms of economic theory. The second part deals with the brief description of the Usti Region and subsequently the development of unemployment in this region. Evaluation of unemployment development is performed by using data from the official website of the Ministry of Labor and Social Affairs.

In the thesis was found that decrease of unemployment can be caused by improvement of economic situation (GDP growth), sophisticated education system, increased control over the payment of social benefits and arrival of new investors.

Keywords: Unemployment, Labor market, Usti region, Inflation, Unemployment rate, Czech Republic, Employment policy, Labor office

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1. Introduction

Unemployment is a long-term, economic and social problem, which the society has been trying to solve since the Industrial Revolution. It is a negative phenomenon that affects all market economies, and it is still an actual issue.

Unemployment is caused by imbalances in labor supply and demand for labor and it is associated with a list of economic and social impacts. As a result of high unemployment caused by disturbance of the balance in the labor market means in economic terms, the decline in production, loss of revenue from taxes and unemployment benefits. Serious is the social impact of unemployment as well. This may affect the physical or mental condition of a man, which brings a lot of social problems such as alcoholism, vandalism, increased criminality, drug addiction and impaired social relationships and so on.

Especially in times of economic crisis, it is important to focus on unemployment in greater depth. Follow the changes in terms of development, comparing them and according these results suggest solutions leading to the reduction of unemployment. The government of each country adopts measures to reduce unemployment and maximize employment. In the Czech Republic, unemployment was engaged with the Ministry of Labor and Social Affairs. Structure and evolution of unemployment can affect passive and active employment policy. Active employment policy includes socially useful jobs, public works, retraining, protected jobs and investment incentives.

The topic of this thesis is to analyze the development of unemployment in the selected region in the period from 2005 to 2015. Subsequently, focused on different groups, their effect on total unemployment in the region and their development in the monitored period.

1.1. Objectives

The main aim of the thesis is to analyze unemployment in the Usti region. Another objective is to evaluate the development of unemployment in the selected region and then compare it with unemployment in the Czech Republic. These studies are needed to achieve the most important goal of this thesis, which is suggesting how could be situation in this region improved and unemployment decreased.

The thesis is divided into two parts - theoretical and practical. The theoretical part explains the basic terms related to unemployment and the labor market. It is focused on definitions, measurements of unemployment, types of unemployment and the causes and consequences of unemployment. In subsequent chapters is described the relationship between other areas of unemployment and employment policy. The practical part is the analysis of the development of unemployment in the selected region. It is also focused on detailed analysis of various groups, such as graduates, foreigners or people with disabilities.

1.2. Methodology

In the thesis are used comparative and descriptive methods. For the theoretical part of the thesis is used literature, which is listed in the bibliography at the end of the work. In the practical part there were primarily used information from statistical surveys published on the official website of the Ministry of Labor and Social Affairs. The analysis of unemployment is processed using tables and graphs, each data are described below.

2. Theoretical Part

2.1. Labor Market

2.1.1. Labor as a factor of production

Factors of production are used for the production of goods and services. Economic theory defines three basic factors of production, which are land, capital and labor. Labor and land are primary factors of production, because people appropriate them directly from nature. Labor and land have not been affected by process of production. On the other hand the capital is secondary factor, because it is product of a previous production.¹

Labor is not only abstract factor of production, it is more. Workers are people who want good jobs and earn high wages so that they are able to buy the things and services they want and need.² Labor is firstly a human activity. Executor of work is a man. Human is not born as factor of production, he is becoming production factor after integration into manufacturing process. Almost every person is able to work, but quality and quantity of work done is dependent on person's mental and physical properties. Nurture is an important factor which creates an overall attitude to work. The effectiveness of labor as a factor of production can be actively influenced. It is possible to increase quantity and quality of labor by upgrading of qualifications and by better equipment of workplace with production tools. Labor and productivity, most valuable economic resources, depend on education and preparation of human capital. Human capital passes through two stages in developed societies, which are period of preparation and acquisition of knowledge and skills and period, when acquired knowledge is used in the production of goods and services.³ People receive wages for their work and the price of labor is therefore wage rate.

2.1.2. Definition of labor market

Labor market could be defined as a place, where labor supply and demand meet. Demand side is represented by firms and suppliers are households. The labor market is specific market. Its specifics stem from the fact that labor is a function of workforce and it is therefore closely linked to the personality of man.

¹ MACÁKOVÁ, L., Mikroekonomie. Základní kurs, p. 17

² SAMUELSON, P. & NORDHAUS, W., Economie, p. 248

³ LIŠKA, V., Makroekonomie 2. vydání, p 61

In a market economy is expected from labor market, that it ensures workforce for economy in the required structure (professional, sectoral, educational or age). Labor market provides adequate resources to workforces, especially labor income to such an extent that reflects their contribution to production. Labor market solves these tasks simultaneously.⁴

Demand for labor means demand from companies' side. It is determined by the amount of work that the company hires at different wage rates. The company is trying to maximize their profits by hiring such a workforce, when the income of the marginal product equals marginal cost of labor. On the other hand supply of labor is created by households. Work is a factor of production, whose bearer is the human. Supply of labor means the number of hours that human works in a company. Human is a consumer and he demands on the market so many products and services that matches its income and cost of goods. The aim of customers is to maximize their benefits, and they decide how to divide time between work in the company and leisure time. The supply side of the market is mainly determined by demographic characteristics (population and its growth, population aging, population structure by gender and age, etc.), education system, labor mobility and social security system. The demand side is strongly determined by factors, which are labor productivity, economic structure, labor market regulation and total labor costs.⁵

The labor market is influenced by a variety of personal, social, political and cultural factors. The labor market is regulated by social institutions, norms and moral standards, rules of conduct and practice. Together it forms a framework that restricts freedom of choice, and it affects the supply of labor and the demand for labor in the labor market.⁶

2.1.3. Labor market segmentation

The labor market is not homogeneous. The labor market is strongly segmented, which means that there is not only one labor market. There is a considerable amount of markets arising from the diversity of professions, industries or geographic areas. Labor market is structured into many sub-markets among which there is no competition. Unemployment is therefore often seen as the result of a combination of market segmentation (in the context of high unemployment, there are available jobs) and high level of negotiated wages.

⁴ KREBS, V., Sociální politika, p. 310

⁵ MACÁKOVÁ, L., Mikroekonomie. Základní kurs, p. 160

⁶ MAREŠ, P., Nezaměstnanost jako sociální problém 3. upravené vydání, p. 54

Primary and Secondary Market

One of the most important segmentation theory is theory of dual market, which divides labor market on primary and secondary. *Primary market* is characterized by better and more preferred jobs with higher prestige, provides an opportunity for professional growth and better working conditions. There is low staff turnover, and the work is relatively well paid. *Secondary market* includes less prestige jobs with lower-wage. Its other characteristics are low stability of jobs, almost zero careers, zero possibility of increasing qualification, high staff turnover and limited opportunities for professional growth. Compared to the first sector it is easier to get a new job, on the other hand, workers in the secondary labor market are more often unemployed. These differences in the requirements for qualification in individual labor markets imply some barriers to movement of workers. The transition from the secondary market into the primary labor market is very difficult, and for most people practically impossible. Reason is the requirement for higher qualifications. In the secondary market there are mostly women, unskilled or poorly educated persons, the elderly and ethnic groups.⁷

Formal and Informal Market

Other segmentation theory distinguishes market into formal and informal. The *formal market* is called the formal labor market, which is controlled by social institutions. These institutions serve to regulate the labor market. By contrast, the informal market worth checking out these institutions (eg. tax offices). These include activities relating to illegal business and illegal work, which are included in the so-called gray or black economy. The informal market also applies to housework, neighborhood assistance and self-supply.⁸

External and internal market

Another possibility of division of labor market is on external and internal. *Internal market* refers to the labor market within the individual businesses. External market is place where these companies compete with each other. The internal market is not the market in the true meaning of the word, but it is based on the specific nature of the workforce (workforce have certain qualifications, experience, work habits, etc.), that companies need and arrange with the help of administrative mechanisms. Within the internal market of companies, there are

⁷ MAREŠ, P., Nezaměstnanost jako sociální problém 3. upravené vydání, p. 59

⁸ MAREŠ, P., Nezaměstnanost jako sociální problém 3. upravené vydání, p. 61

systems of motivation designed to ensure that investment in staff training and improving their skills are effective, it is used exclusively for the benefit of the company. When changing the manufacturing process, it is possible to move staff as needed and it do not lead to dismissal of the original staff. Staff loyalty to the company is one of the other effects of the existence of the internal market. Qualified and loyal employees enhance the company's competitiveness.⁹

2.2. Unemployment

2.2.1. Definition of Unemployment

Unemployment is one of the most discussed and the most watched events of the market economy. Economy considered only persons of working age for unemployed. For classification of people as unemployed, they must meet certain conditions: They do not have paid jobs neither income from employment. They search new job to which they are willing to take up. Together with employed people (those who have paid jobs, including those linked to employment - sickness, maternity, etc.) they form the economically active population. The issue of unemployment is one of the most monitored issues for many decades. Unemployment has several forms.¹⁰

2.2.2. Measurement of unemployment

Employed and the unemployed together form the economically active population (labor force). People who do not belong to any of these groups, for example students, pensioners and housewives are economically inactive population.

For measurement of unemployment is usually used unemployment rate indicator, which measures the number of unemployed in relation with economically active population. Expressed as a percentage and it is calculated according to this formula:

$$u = \frac{U}{L + U} \times 100$$

Source: BROŽOVÁ, D., Společenské souvislosti trhu práce

⁹ MAREŠ, P., Nezaměstnanost jako sociální problém 3. upravené vydání, p. 65

¹⁰ BUCHTOVÁ, B., Nezaměstnanost psychologický, ekonomický a sociální problém, p. 49

u - the unemployment rate (expressed in percentage)

U - the number of unemployed

L – the number of employed¹¹

Sojka and Konečný state formula, where the unemployment rate is the division of the unemployed who are actively seeking for a job and being able to really get on and the economically active population, expressed as a percentage.¹²

$$\text{Unemployment rate} = \frac{\text{Amount of unemployed} \\ \text{Actively seeking for job}}{\text{Economically active population}} \times 100$$

Source: KONEČNÝ, B. & SOJKA, M., Malá encyklopedie moderní ekonomie

The unemployment rate in our country calculates the Czech Statistical Office. It is called registered unemployment, which may differ from the actual unemployment. It does not include employees who work part time, even though they would prefer to work full time. Numerous of short-term unemployed are not logged at labor offices at all and the Office removes from the evidence of long-term unemployed those, who are no longer entitled to receive unemployment benefits. There are no recorded also those who have lost hope to find a job, and stopped looking for it. Therefore, it may be the reason why the real unemployment rate is higher than the registered rate. On the contrary, on the labor offices there are registered those who actually do not seek work, and they refusing all offered places. They prefer to live from social benefit. These people will overestimate the amount of registered unemployment.¹³

¹¹ BROŽOVÁ, D., Společenské souvislosti trhu práce, p. 77

¹² KONEČNÝ, B. & SOJKA, M., Malá encyklopedie moderní ekonomie, p. 82

¹³ BROŽOVÁ, D., Společenské souvislosti trhu práce, p. 77

2.2.3. Types of Unemployment

The main types of unemployment can be classified as frictional, structural, cyclical and voluntary unemployment

Frictional unemployment

At any moment, in the labor market on the supply side there are many people without paid employment, due to the mobility of workers. Between jobs is commonly used shifts of people. These movements are motivated by needs of people or the needs of economic development. It is mainly the normal changes in employment and duration of unemployment in most of these cases for the unemployed for only a short episode, during which you are looking for new job. In the case of new entrants to the labor market it is a time in which they are finding their first job.

Changes in frictional unemployment can be caused by voluntary changes in the time spent finding employment that the unemployed are willing to accept. They can be influenced by the structure of the labor market and conditions of unemployment. It is logical that the more favorable welfare state benefits are, the more prolonged is the time of finding work. Higher unemployment benefits lead to an increase in the level of earnings at which a worker is willing to accept the offered job.¹⁴

Structural unemployment

This unemployment rate is mostly indicated in a situation of lack of demand for goods and thus also for workers in certain sectors, where recession of production takes place attenuation (mines, heavy engineering, metallurgy, etc.). Attenuation is accompanied by an expansion of other sectors (some services, electronics, specialty chemicals, etc.). Unemployment is characterized by the fact that on the one hand, people are constantly losing their jobs, on the other hand, there are constantly created new jobs.¹⁵

Structural unemployment is the result of an imbalance between demand for labor and employee requirements. The main indicator of this unemployment is the appearance of a high number of unemployed and the high number of vacancies. Part of the structural unemployment is due to the movement of jobs between sectors that the workforce structure

¹⁴ MAREŠ, P., *Nezaměstnanost jako sociální problém 3. upravené vydání*, p. 71

¹⁵ HELÍSEK, M., *Makroekonomie: základní kurs*, p. 198

must adapt. The crossing of the workforce in new and emerging sectors occurs when some jobs in an industry are cancelled. Another part is people losing their jobs due to job abolishing and replace living labor force by technique. It is given by a drop in demand for workers due to technological and technical development.

The paradox of structural unemployment is that into it can fall the high-skilled workers because their qualifications in the labor market loses sense due to changes in production.

Cyclical and seasonal unemployment

If there is no use of existing capacity because of marketing difficulties and it causing unemployment, it is called cyclical unemployment. This is a classic model of unemployment, characteristic of the 19th century and early 20th century.

We can say that this is the unemployment of insufficient demand, everything can be explained as it is caused by a lack of demand for goods. If the cyclical unemployment is regular and associated with the natural cycle, it is called seasonal unemployment. For example in the past, there was very widespread winter seasonal unemployment in the construction industry. Services related to tourism and agricultural sectors could be also affected by seasonal unemployment.¹⁶

Voluntary unemployment

Voluntary unemployment is when voluntarily unemployed workers prefer free time or study, or other activities before working at the current wage rate. They can be also frictionally unemployed and move from college to their first job. In another case, it may be a mother or father who choose to care for their children. Voluntarily unemployed may have a job offers, but they are constantly looking for better job. Voluntarily unemployed can be recipients of social benefits who are abusing system of social benefits.

Involuntary unemployment

Involuntary unemployment is that unemployment, while unemployed people want to work, but they can not find the vacancy. They are willing to do work for a lower wage, which is offered on the labor market. This unemployment occurs when the number of jobs is lower

¹⁶ MAREŠ, P., Nezaměstnanost jako sociální problém 3. upravené vydání, p. 120

than the number of unemployed persons. Between the causes of origin belong high nominal wage rate and employment dependence on the level of demand for vacancies.¹⁷

2.2.4. Natural rate of unemployment

Natural rate of unemployment is in economic theory regarded as one of the most important indicators describing the labor market. This value represents the level at which the various labor markets in the country are in balance, in other words, pressures on wages and prices are about the equilibrium. The designation "natural" does not mean that it is inevitable and appropriate level of unemployment. It means that the actual unemployment does not deviate from this rate in the long term.

Natural rate of unemployment refers to the level of unemployment, which usually prevails in the economy in the long term. This is achieved as the economy moves at the level of potential output. Country in such a situation, optimally use its resources and if there is unemployment, it is a voluntary unemployment, which is the result of market forces. If we were to assign natural rate one type of unemployment, it would be frictional unemployment.

The concept of the natural rate of unemployment developed over time. Currently, the natural rate of unemployment is linked with the inflation developments in the economy. Then it is defined as a rate of unemployment at which inflation is stable and there is no stronger inflationary pressures in the economy. This condition is known as NAIRU, which stands for *non-accelerating inflation rate of unemployment*. Basically the natural rate of unemployment describes the situation where labor resources are optimally utilized and at given (equilibrium) wage rates are employed all the people who accept this level of wage rates.¹⁸

Factors affecting the natural rate of unemployment

The size of the natural rate of unemployment is influenced by many factors. One of them is motivation of people to look for a new job. During high levels of motivation will be low natural rate of unemployment. People could be motivated by financial issues, efforts to apply the acquired education, etc.

¹⁷ SAMUELSON, P. & NORDHAUS, W., *Economie*, p. 348

¹⁸ JUREČKA, V., *Makroekonomie*, p. 142

The greater the ability of labor offices to find and recommend the unemployed job openings and firms fitting candidate, the greater the awareness of subjects on the labor market situation and then the natural rate of unemployment decreases. The size and duration of support provided unemployment affects the natural rate of unemployment too. The longer and the higher support will people receive, they will develop less effort of finding a new job.

The demographic composition of the workforce - structure of the population by sex, age, education, etc. affects significantly the size of the natural rate of unemployment. Generally it can be said that younger and more educated people have fewer problems with unemployment, while the older age groups with a low level of education is quite difficult to apply in the labor market.¹⁹

2.3. The impact of unemployment

Unemployment is negative and undesirable phenomenon and it raises a number of other negative impacts. These are the effects of the economic and social impacts, or individual.

2.3.1. Economic impacts

Every increase of unemployment has an adverse impact on the economy of the state. The biggest problem is the loss of macroeconomic product. It means that the actual product is lower than the potential product. Potential product is a product that would be achieved using all available resources. Unemployed people, although they would like to, contribute to the production of goods and services, but they does not act in the process of creation of the actual product. This loss can be estimated based on Okun's Law. Potential product is equal to the natural product, if the actual unemployment rate equals the natural rate of unemployment. However, if the actual unemployment rate is higher than the potential, the economy does not use all of its resources and there is a loss of macroeconomic product. This size is estimated using mathematical methods.²⁰

Other negative effects include the non-utilization of factors of production. When involuntary unemployment there is not fully exploited labor factor and thus it remains outside of the manufacturing process. Other factors are consequently reduced. The unemployed do not receive wages, only the social benefits, thanks to this amount they are forced to reduce their

¹⁹ JUREČKA, V., Makroekonomie, p. 142

²⁰ BROŽOVÁ, D., Společenské souvislosti trhu práce, p. 45

consumption and also their savings are lower. It means decreasing the supply of loan capital for investment. If it is less consumption and less investment, there is a reduction of product again.

The state also loses tax revenue. Employees are not paying the taxes on income and firms as a result of reduced consumption produce lower amounts of goods and services, and they have lower profits. Therefore also tax on corporate profits are lower.

State expenditures are therefore in terms of high unemployment very high. The state must pay unemployment benefits and other social benefits. With growing unemployment, the growth range of negative factors is increasing and the state must again regulate this situation by higher expenses.²¹

2.3.2. Social impacts

Unemployment has a negative impact not only on the economy but also on society and individuals. Unemployed people are exposed to a number of pressures that have an adverse effect not only on their economic status, but also mental and social status.

Unemployed people do not have the opportunity through their job to expand knowledge and experience, and they not improve already acquired skills. They are losing a qualification. This leads to the degradation of human capital, which is an important and determining source of the economy. The problem of loss of qualification could be included in both the economic impacts, because due to the decline in the value of human capital entire economy loses, as well as to the social impact, because the people suffer from the mental and social site.

A big problem is long-term unemployment, the consequences which can affect the unemployed people have lot of negative effects. There is not only occur of the loss of living standards due to lower revenues. Unemployed people gradually loses their day and work habits, and there are changes in lifestyle. We must not forget the negative impact of unemployment on the human psyche, and the potential cause of psychosomatic disorders. Unemployed must face to a personal crisis, because of losing their value, not only in his own eyes but in the eyes of their relatives. There occurs reduces of their social position in society,

²¹ BROŽOVÁ, D., Společenské souvislosti trhu práce, p. 46

but also in the family. Unemployed people are due to these problems closer to social pathologies such as crime, alcoholism, gambling and more.

Among the undesirable social behavior belong social parasitism. Mainly affects long-term unemployed with no or very low qualifications, in which a possible wage would be comparable to their achieved social benefits. For this reason, this group loses the motivation to find work and get stuck in the trap of unemployment. This is a situation where for this group is more advantageous to live on social benefits and sometimes gain revenue from activity in the grey market economy. Social parasitism is a scourge on society and economy of the state, therefore it is necessary to actively prevent it. Among the necessary measures belong that the social unemployment benefits are lower than the minimum wage. This involves only actual amount of social benefits, but also the length of providing these benefits. Social benefit is designed to serve to bridge the period without a job, rather than replace the function of wages.²²

2.4. Unemployment relationship with other areas

2.4.1. Okun's Law

American economist Arthur M. Okun captured the relationship between unemployment and the rate of economic growth. It is a negative mutual relationship between the unemployment rate and the coefficient ratio of the product, it is the ratio of actual output and potential output. The actual product is a product that the economy actually achieved. Potential product is a product, which the economy could achieve with the maximum utilization of the resources. Validity of Okun's law was verified in practice on US data. According to this law, when real output falls by 2-3% below the level of potential output, unemployment will increase by 1% (time and place may eventually change).²³

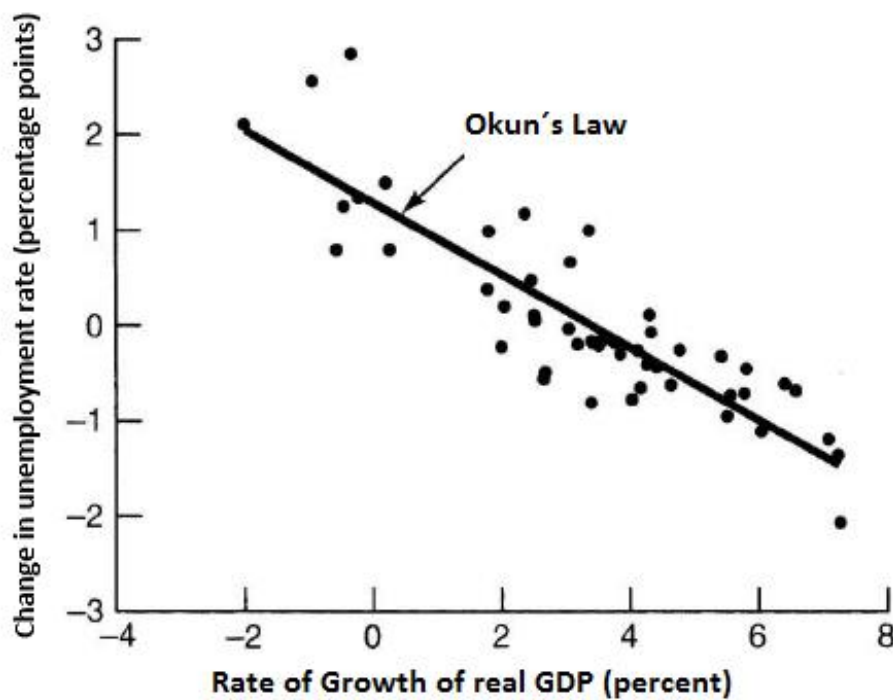
Therefore, if actual GDP grew at the same rate as real GDP, unemployment would remain the same. If unemployment is expected to fall, the real product must grow faster than potential product.²⁴

²² BROŽOVÁ, D., Společenské souvislosti trhu práce, p. 48

²³ BRČÁK, J. & SEKERA, B., Makroekonomie p. 190

²⁴ SAMUELSON, P. & NORDHAUS, W., Economie, p. 597

Graph No. 1: Okun's Law



Source: Samuelson P., Nordhaus W.: *Ekonomie*

Graph 1 illustrates the Okun's law - the relationship between changes in GDP and unemployment in the years 1955-2002 in the US.

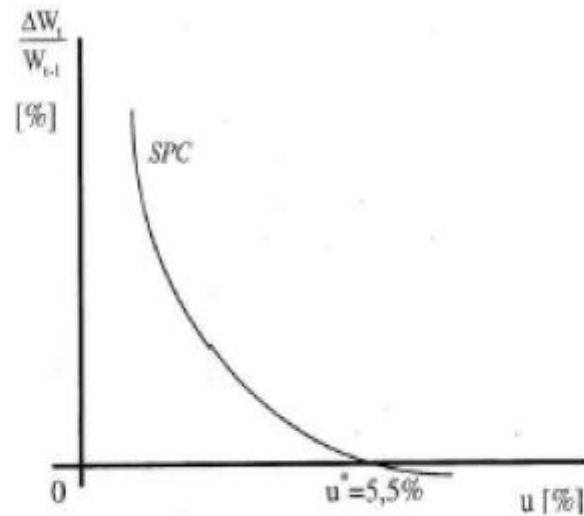
2.4.2. Phillips curve

Phillips curve describes the mutual inverse relationship between inflation (rate of change in nominal wages) and unemployment. It is called the original wage Phillips curve. This relationship show the graph 2.

On the x-axis is the rate of unemployment (u) and the y-axis is rate of change in nominal wages ($\Delta W_t / W_{t-1}$). The original wage Phillips curve has the shape of a hyperbola, the negative slope and crosses the x-axis. Intersection with the x-axis means that the unemployment is at its natural level (u^*) and the wage inflation rate is zero.²⁵

²⁵ MACH, M., Makroekonomie II: Pro magisterské (inženýrské) studium, p. 266

Graph No. 2: Original wage Phillips curve



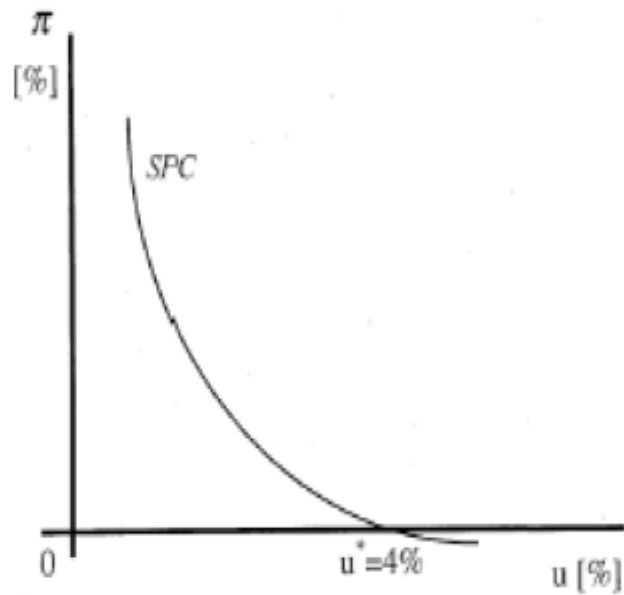
Source: Mach, Makroekonomie II: Pro magisterské (inženýrské) studium

From the graph it follows that the lower the unemployment rate, the higher the rate of wage inflation and vice versa.

P. A. Samuelson and R. M. Solow later replaced the wage inflation rate for price inflation. The curve is therefore called Modified Phillips curve, it describes a mutually inverse relationship between the rate of growth of inflation and unemployment rate. This relationship is shown in the graph 3.²⁶

²⁶ MACH, M., Makroekonomie II: Pro magisterské (inženýrské) studium, p. 268

Graph No. 3: Modified Phillips curve



Source: Mach, Makroekonomie II: Pro magisterské (inženýrské) studium

For this curve there is shown that low price inflation is maintained only if unemployment increases and vice versa.²⁷

²⁷ MACH, M., Makroekonomie II: Pro magisterské (inženýrské) studium, p. 268

2.5. The Labour Office in Czech Republic

The labor office in the Czech Republic is the administrative body with legal status, which is controlled by the Ministry of Labour and Social Affairs, as its superior authority.

Provided services of labour office:

- Mediates a suitable job
- Provides advice on choosing a profession or study
- Provides retraining
- Provides welfare benefits
- Monitors and evaluates the state of the labor market and taking measures to influence supply and demand
- Keeps records of job applicants
- Keeps records of vacancies
- Informs employers about free labor resources
- Keep records of work permits issued to foreigners and stateless persons
- Materially supports the creation of new jobs
- Decides about removing job seekers from the register
- Manages funds earmarked for the security of the state employment policy and for the operation of labor office

It also provides electronic communication in social security and employment among Member States of the European Union.²⁸

The Labour Office Czech Republic become part of the EURES network after joining the European Union. The task of this organization is to facilitate labor mobility within the EU. EURES provides its services in two ways: Through the database posted on the EURES - the European Job Mobility Portal, or through advisors working at regional offices and workplaces of labour office.²⁹

²⁸ MPSV [online]: The Labour Office Czech Republic. 2012. WWW: < <http://portal.mpsv.cz/upcr/oup> >

²⁹ EURES [online]: EURES services in the European Union. 2015.
WWW: < http://portal.mpsv.cz/eures/sit_eures >

2.6. Employment Policy

Employment policy can be defined as a set of measures that are helping to create the conditions for a dynamic equilibrium in the labor market and for the efficient use of labor. This is the result of efforts of government, employers, employees and branches. State employment policy is trying to utilize productivity of labor, ensuring the right of citizens to employment and mainly to achieve a balance between supply and demand for labor.³⁰

Importance of employment policy stems from its mission, which is to contribute to support the equilibrium in the labor market and reduce unemployment. Employment policy is considered as part of government's economic policy and it takes important place in the harmonization of supply and demand in the labor market.

Employment policy is seen on two levels. The first one is the macroeconomic level, in which the employment policy is perceived more or less extensively and its aim is eliminating the causes of excessive unemployment. The second is a regional level, where employment policy deals with implications of existing imbalances in the labor market and takes into account the regional aspects of unemployment.

Employment policy is differentiated into active and passive.

2.6.1. Passive employment policy

Participates in creation of socially acceptable conditions for citizens who are temporarily unemployed, by payments of unemployment benefits. It also provides the possibility of early retirement. Its expenses have therefore transfer characteristics.

Measures under the passive employment policy should not be so high that stop motivate the unemployed to find a new job. It would not act as an incentive for voluntary unemployment in any case. It is therefore obvious that with increase in the number of unemployed persons is increasing the volume of funds that are expended from the state budget for employment policy.³¹

³⁰ HALÁSKOVÁ, R., Politika zaměstnanosti, p. 123

³¹ JÍROVÁ, H., Trh práce a politika zaměstnanosti, p. 41

2.6.2. Active Employment Policy

The active employment policy emphasizes the creation of new jobs and preparation of the workforce for the labor market. It should be focused primarily on the long-term unemployed. It should be focused primarily on the long-term unemployed, since their problems both in the personal and the societal context are growing. Because they are in a position of unemployment in the long term, they begin to gradually become losing their skills and work habits.³²

The active employment policy is a set of measures aimed at ensuring the maximum possible level of employment. It is ensured by the Ministry of Labor and Social Affairs, together with the employment offices. According to the labor market situation, the Ministry of Labor cooperate with other entities. It is funded by the state budget and by contributions from the European Social Fund.³³

According to Act No. 435 Coll., about employment, the active employment policy instruments are:

- Retraining
- investment incentives
- Publicly beneficial work
- Socially useful jobs
- bridging contribution
- On training contribution
- Contribution to the transition to a new business program

Retraining

Retraining mean to gain new qualifications needed for employment or extension of existing qualifications of job seekers. In determining the extent of retraining we start from existing qualifications, skills, experience and health status of individuals to be retrained to acquire new theoretical knowledge and practical skills. It may be performed by an accredited

³² VÁCLAVÍKOVÁ, A.; KOLIBOVÁ, H. & KUBICOVÁ, A., Problematika trhu práce a politika zaměstnanosti, p. 97

³³ MPSV

educational or health facilities with accredited programs. Retraining is ensured by the labor office competent according to the place of residence of job-seekers.³⁴

Publicly beneficial work

Time-limited employment opportunities, which consist mainly of maintenance of public spaces, cleaning and maintenance of public buildings and roads, or other professional activities for benefit of municipality or state institutions. Such jobs are created by employers to job placement of job seekers for a maximum of twelve consecutive calendar months. An employer who creates these jobs, based on an agreement with the Labour Office is entitled to an allowance up to a maximum wage base actually paid for an employee placed in this job, including insurance.³⁵

Socially useful jobs

Social places that are established for candidates who can not find work by any other way. The applicant may this post create by himself for the purpose of self-employment. For socially useful jobs is provided allowance by employment office.³⁶

³⁴ ŠIMEK, M., *Ekonomie trhu práce A*, p. 116

³⁵ ŠIMEK, M., *Ekonomie trhu práce A*, p.121

³⁶ SIROVÁTKA, T. & MAREŠ, P., *Trh práce, nezaměstnanost, sociální politika*, p. 237

3. Practical Part

3.1. Characteristics of Usti region

Position

Usti Region is situated in northwest of the Czech Republic. Northwest border is also the state border with the Federal Republic of Germany, the Land of Saxony. In the Northeast Region's neighbors Liberec Region, west Karlovarský and partly the Plzeňský Regions in the Southeast and the Central Bohemian Region.

Picture No 1: Territory of the Usti region



Source: Regional informational service

Territory

The area of the region is 5,335 square kilometers, representing 6.8% of the Czech Republic. Agricultural land covers more than 52% of the Region's territory, forests cover 30% and water areas 2% of the territory.

Usti Region is varied as for natural conditions and in terms of economic structure, population density and the environment. The economic importance of the region is historically based on its raw materials, especially large deposits of brown coal, which lie close to the surface. Brown coal basin stretches under the Krušné mountains, stretches from Usti nad Labem to Kadaň. The other important raw materials, benefiting in the region are significant deposits of high-quality glass and foundry sands and building stone. The region can be defined by four areas, which differ significantly from each other. It is an area with highly developed

industrial production, which is concentrated mainly in the foothills (the Chomutov, Most, Teplice and partly Ústí nad Labem). From the industry has a significant position in energy, coal mining, engineering, chemical and glass industries. Another area of Litoměřice and Louny, which are known for their production of hops and vegetables. Especially the Elbe and Poohří are famous fruit growing regions, called Garden of Bohemia. There are excellent reputation wines grown in the Litoměřice.

Administrative division of territory

Usti nad Labem Region is divided into six districts (Děčín, Chomutov, Litoměřice, Louny, Most, Teplice and Ústí nad Labem), which are further divided into 354 municipalities of various sizes, of which 58 municipalities with the status of the city. Since 1. 1. 2003 entered the second phase of the reform of public administration, which established the decree administrative districts of municipalities with extended powers and municipalities with commissioned local authority including their seats. Since that date, originated in the Usti Region 16 administrative districts of municipalities with extended powers: Bílina, Děčín, Chomutov, Kadan, Litomerice, Litvinov, Louny Lovosice Most Podborany, Roudnice nad Labem Rumburk, Teplice, Usti nad Labem, Varnsdorf and Zatec and 30 administrative districts of municipalities with authorized municipal office.³⁷

³⁷ Businessinfo [online]: Characteristics of Usti region. 2011. WWW: <
<http://www.businessinfo.cz/cs/clanky/charakteristika-usteckeho-kraje-2245.html>>

Picture No. 2: Administrative division of territory



Source: Official website of Ustecký region

Population

At the end of 2014, the Usti Region had 823 972 inhabitants and thus it ranks fifth in the country. Population density (131 inhabitants / km²) is lower than the national average (133 inhabitants / km²). The most densely populated is area of podkrušnohorská basin, less inhabited is the area of the Krušné Mountains and the Louny District and Litoměřice District, in which are situated predominantly rural settlements. The largest municipality and the seat of the region is Usti nad Labem with 95,477 residents.

A characteristic feature of the region is relatively young population, the average age is 39.8 years. Region after the Central Region, together with the Liberec Region ranks second in the number of live births per 1 000 inhabitants (11.5), but there is one of the highest mortality rates in the country (10.6 deaths per 1000 inhabitants). Usti number of divorces per 1,000 inhabitants (3.4) and the number of abortions per 100 live births (47.5) ranks first nationwide comparison.³⁸

³⁸ Czech statistical office [online]: population changes. 2015.

Economy

The region is known for its focus on heavy industry and mining. The region is not only focused on those industries. From the perspective of the economy region can be divided essentially into two areas. While the southern region is characterized by agriculture. District Louny and Litoměřice are characterized by production of hops and vegetables. For podkrušnohorská pelvic is characterized by industrial production focused mainly on heavy industry, mining and chemicals. Podkrušnohorská pelvic area is known by the largest deposits of brown coal in the Czech Republic and represents about 75% of the production of this raw material. The mining industry is focused on the mining of brown coal, which is processed in the local coal-fired power plants. These include power Počerady, Pruněřov, Tušimice and Ledvice. In relation to the restructuring of economic sectors is one of the emerging sectors of vine growing on reclaimed dumps generated after smoothing mining activities.³⁹

3.1.1. Major employers Usti Region

Unipetrol

In the field of petroleum products represents a group Unipetrol one of the most important companies in our country. It employs nearly 4,000 workers at three refineries and owns more than 300 petrol stations. Unipetrol Group is engaged in the production and sale of petroleum products, chemical products, fertilizers and specialty chemicals in the Czech Republic and Central Europe.

Spochemie

Association for chemical and metallurgical production, joint-stock company (abbreviated Spolchemie) is a Czech manufacturing chemical company based in Usti nad Labem. Spolchemie is one of the leading manufacturers of synthetic resins in Europe and its basic product range consists of epoxy and alkyd resins, hardeners and solvents and other chemicals (sodium and potassium hydroxide, chlorine, epichlorohydrin, allyl chloride and others.). Holds primacy in the production of environmentally friendly synthetic resin.

WWW: < <https://www.czso.cz/csu/xu/pohyb-obyvatelstva-za-1-az-4-ctvrtleti-2014-v-usteckem-kraji-predbezne-vysledky>>

³⁹ Businessinfo [online]: Characteristics of Usti region. 2011.

WWW: < <http://www.businessinfo.cz/cs/clanky/charakteristika-usteckeho-kraje-2245.html>>

DELI Lovosice

One of the oldest food factories. It was founded in 1805 by August Tschinkel and his sons. Originally the company processed coffee substitute mixtures, confectioneries and later from 1956 until today manufactures example. Tatranky, Minonky, čokotatranky, Horalky, bebe Good morning, ripples. The company is part of the company Opavia. Products are exported around the world.

SETUZA

The joint stock company SETUZA Usti nad Labem today is a leading processor of oilseeds in the Czech Republic and the largest domestic manufacturer of mainly edible vegetable oils, which account for almost 70 percent of the company's production. In addition it supplies to the market range of consumer drugstores, including washing powder, toilet and washing soaps, colognes and lotions.

Considerable market share, about 15 percent have a technical oleochemical products, which are intended for further processing in industry or as key products for the production of environmentally friendly fuels and lubricants.

ČEZ group - Power plants Pruněřov

Power plants Pruněřov, Tušimice, Ledvice and Počerady is the largest coal-fired power station complex in the Czech Republic.⁴⁰

⁴⁰ Enviregion [online]: Notable businesses of the region. 2015.

WWW: < http://ucebnice.enviregion.cz/6_-prirodni-zdroje_-prumysl-a-tezba/vyznamne-podniky-v-regionu>

3.2. Analytical part

3.2.1. The methodology change of registered unemployment indicators

Under an agreement with the Czech Statistical Office Ministry of Labour and Social Affairs, starting in January 2013 transferred to the new indicator of registered unemployment in the Czech Republic called The share of unemployed persons, which represents the share of unemployed job applicants aged 15-64 years from all residents of the same age. This indicator replaces the previously released the registered unemployment rate, which measures every available job seekers only to economically active persons. Data from the month of October 2012 are published by both existing and new methodologies in parallel, from January 2013 only by the new calculation. In this case all data from time periods are recalculated according to the new method.

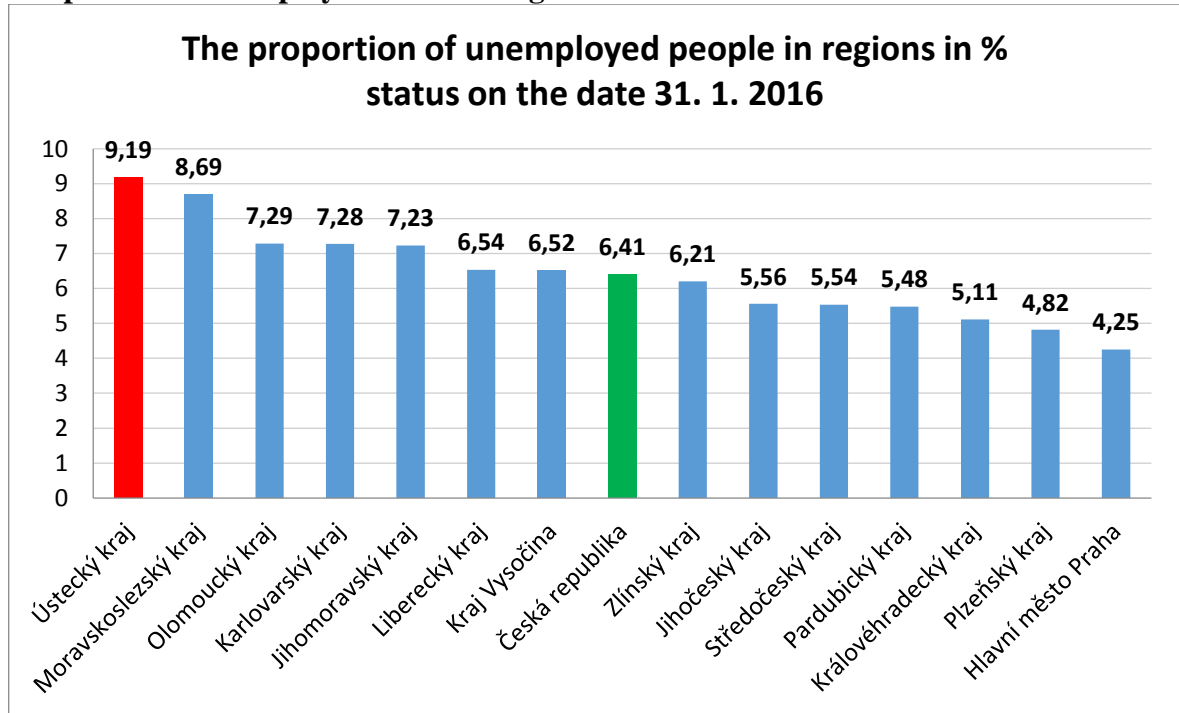
The reasons for the change in registered unemployment indicators:

- indicator of registered unemployment rate compares reached jobseekers with workforce consists of a combination of data from multiple sources
- employment data from sample surveys at the district level are not sufficiently representative, detailed results suffer from a higher error rate and for lower territorial units they are completely missing⁴¹

⁴¹ MPSV [online]: Changes in methodology indicators. 2013.
WWW: < http://portal.mpsv.cz/sz/stat/nz/zmena_metodiky>

3.2.2. The development of unemployment in the region in 2015

Graph No. 4: Unemployment in the regions



Source: Data from Czech statistical office, own processing

Usti region in the Czech Republic has the highest long-term unemployment, it is shown in the graph above and highlighted in red. High unemployment is due to the disappearance of the traditional way of life of displaced original population of the region followed by a one-sided focus on mining, heavy and chemical industries. After limiting these activities in the 90s sharp increase in unemployment occurred in the region. The unemployed are mainly people who previously moved to the region for work that was offered to them. The work was mostly for low-skilled workers. The result is an unbalanced educational and social structure of the region's population. Nearly half of the unemployed have only basic education and for them is very difficult to stand in a modern labor market. A number of such candidates also uses existing social system, which practically demotivates them to work. On the social benefits the candidates reach on the funds financial amounts, which they would not have been able to earn by their own abilities, because their low qualification.⁴²

⁴² Czech statistical office [online]: The proportion of unemployed people in regions. 2016. WWW: < https://www.czso.cz/csu/xc/animovana_mapa_podil_nezam_kraje>

Investor interest was lower than in other regions, even though investment incentives were targeted. In some cases, investors respected the population structure and built here the so called assembly plants, which have not bound themselves on the quality of human potential. Remain investors in the region was only driven by labor costs, and so in need of reduce costs, local investors closed down here and moved further east. Today, the region is not nearly as devastated as several decades ago, but still not attractive enough and a large proportion of fresh university graduates find application in other regions. Also, the focus of vocational and secondary education do not ideally cover the needs of the labor market, and so often the case that schools and colleges leave graduated, but useless students. There is need to tackle the emergence of mutually beneficial links schools with production companies, advertising and promotion today unattractive but necessary craft branches and that a large proportion of primary school leavers (although labor offices try to help students and their parents through the activities of career helping and advising) logs on different business and management academies and after graduation they frequently end up as the Labour Office registered job seekers.

Developments in the Usti region in 2015 copied the nationwide trends while expressing a decline in the percentage of unemployed has even surpassed. No significant regional characteristics was observed and the current situation reflects the overall situation on the labor market, where there is significant demand for labor which Usti Region compared to other regions is offering. In 2016 we can expect a similar development. A negative impact on unemployment in the region (particularly the Most region) in the coming years reflected production cuts at the mine of the CSA, which avoid breaking the mining limits. Equally distributed layoffs would be with assuming of present trends for the labor market cope successfully in the Usti Region.

3.2.3. Employment

Table No. 1: The overall unemployment situation in the region

Employers, employees and self-employed	Status on the date	
	31.12.2014	31.12.2015
Employers		
Employers	15 214	15 309
Employees and Self-employed		
Employees	285 608	286 453
Self-employed	53 428	53 048
Total employment (employees + self-employed)	339 036	339 501

Source: Data from Integrated portal MPSV, own processing

For introduction to analytical part is used table of actual employment situation in Usti region and development of actual economic situation situation. Data are compared with economic situation at the end of 2014.

For the annual comparison the number of employers shows an increase of 95 subjects, as evidenced of the improving economic situation in the whole country. The same behavior was also noted by employers who are mostly tend to accept employees, or possibly replacing or altering their existing employees. Annually, the number of offered vacancies significantly increased and continues a positive trend established in the previous period.

For total employment, the number of registered workers increased slightly by 465 persons on 339,501 people. Nevertheless, the increase in employment does not fit the decline in unemployment, the Labor office of CR annually recorded in the Usti region by more than 10,000 job seekers less. Most employees and self-employed people traditionally work in trade and operates in the district of Usti nad Labem (100,714). This fact is misrepresented by the employer Czech Post, p. P., because of the moving of the staff to economic centers and payroll accounting departments operating in the district.

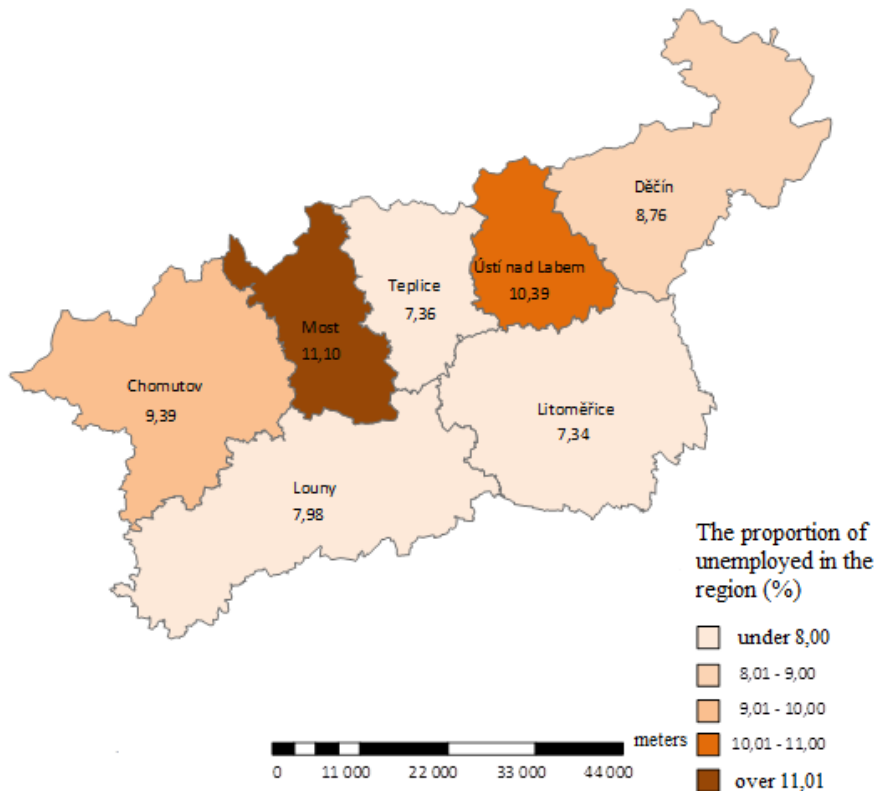
On behalf of big employers actors contribute significantly developing and industrial zones in the Usti region.⁴³

⁴³ MPSV [online]: Analyses of the labor market in the Usti region since 2000. 2016. WWW: < http://portal.mpsv.cz/sz/stat/nz/zmena_metodiky>

3.2.4. The proportion of unemployed in the population aged 15-64

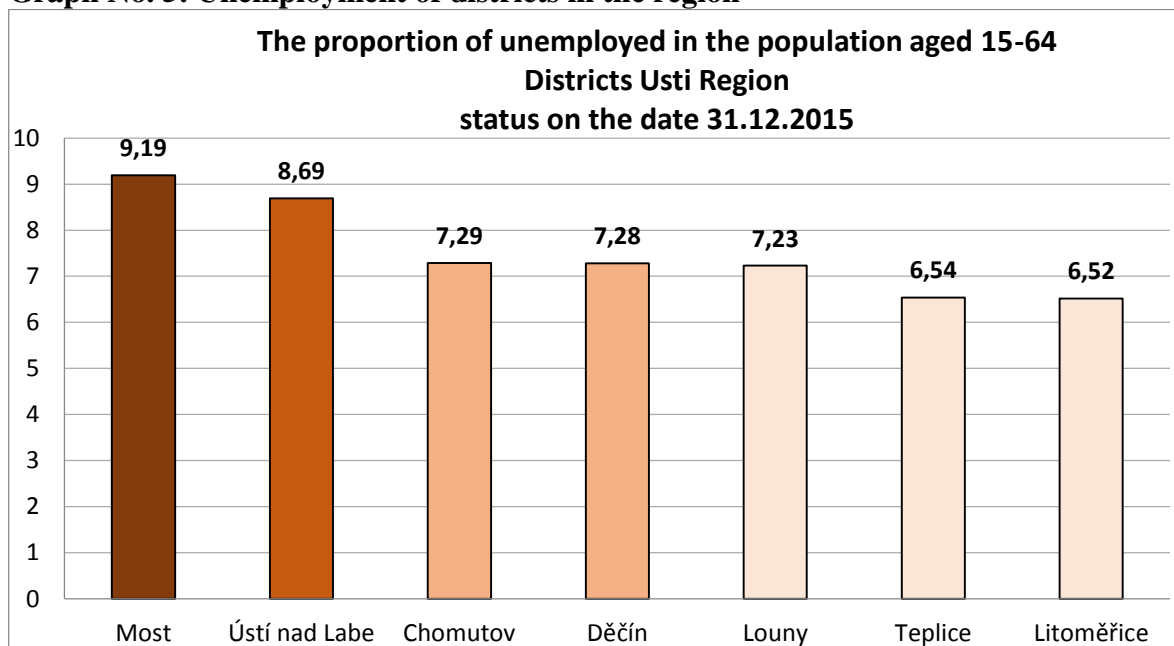
Districts in the Usti region - status on the date 31.12.2015

Picture No. 3: Unemployment of districts



Source: Data from Integrated portal MPSV, own processing

Graph No. 5: Unemployment of districts in the region



Source: Data from Integrated portal MPSV, own processing

For the revision in map and graph above there is shown representation of districts of Usti region and their proportion of unemployment in age 15 – 64 in percents. The highest unemployment is in Most (7,8 %) and reasons are mentioned in text above. The second highest unemployment is in Ustí nad Labem district with 7,2% followed by Chomutov (6,1%), Děčín district (5,5%) same as Louny district (also 5,5%), Teplice (5,4%) and the lowest unemployment proportion is in Litoměřice district with 4,8%.⁴⁴

3.2.5. Unemployment rate in the Ustecky region

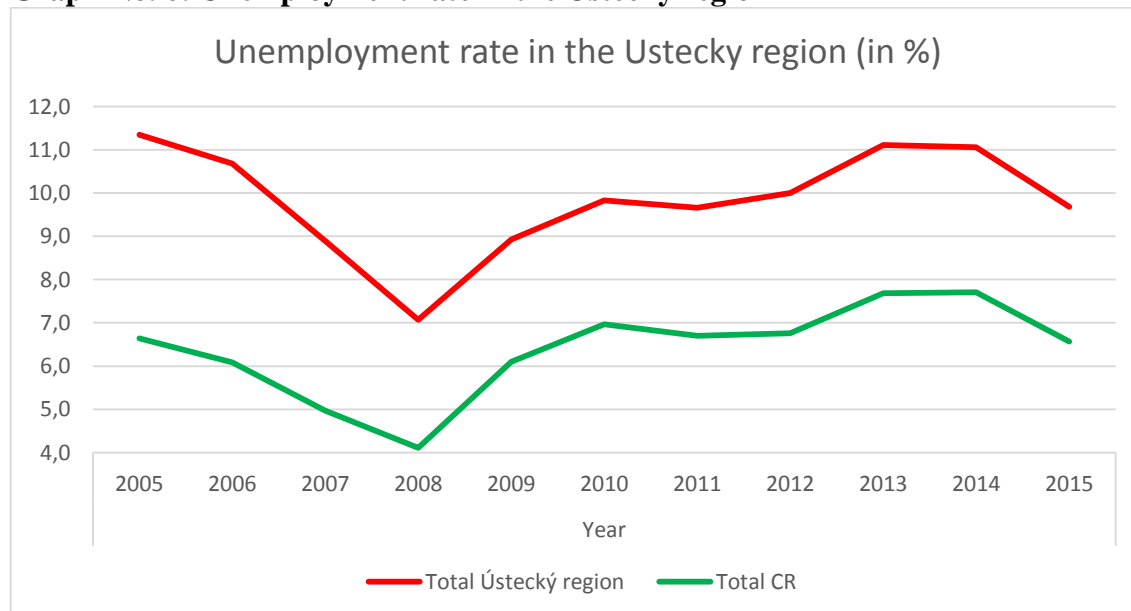
Ratio job applicants aged 15 to 64 years in the population of the same age (in %)

Table No. 2: Unemployment rate in the Ustecky region

		Year										
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	Ústecký region	11,3	10,7	8,9	7,1	8,9	9,8	9,7	10,0	11,1	11,1	9,7
	CR	6,6	6,1	5,0	4,1	6,1	7,0	6,7	6,8	7,7	7,7	6,6
Females	Ústecký region	11,6	11,0	9,5	7,7	9,2	9,9	9,7	10,3	11,2	11,3	10,1
Males	Ústecký region	11,1	10,4	8,3	6,4	8,6	9,8	9,6	9,8	11,1	10,9	9,3

Source: Data from Integrated portal MPSV, own processing

Graph No. 6: Unemployment rate in the Ustecky region



Source: Data from Integrated portal MPSV, own processing

⁴⁴ MPSV [online]: Analyses of the labor market in the Usti region since 2000. 2016. WWW: < http://portal.mpsv.cz/sz/stat/nz/zmena_metodiky>

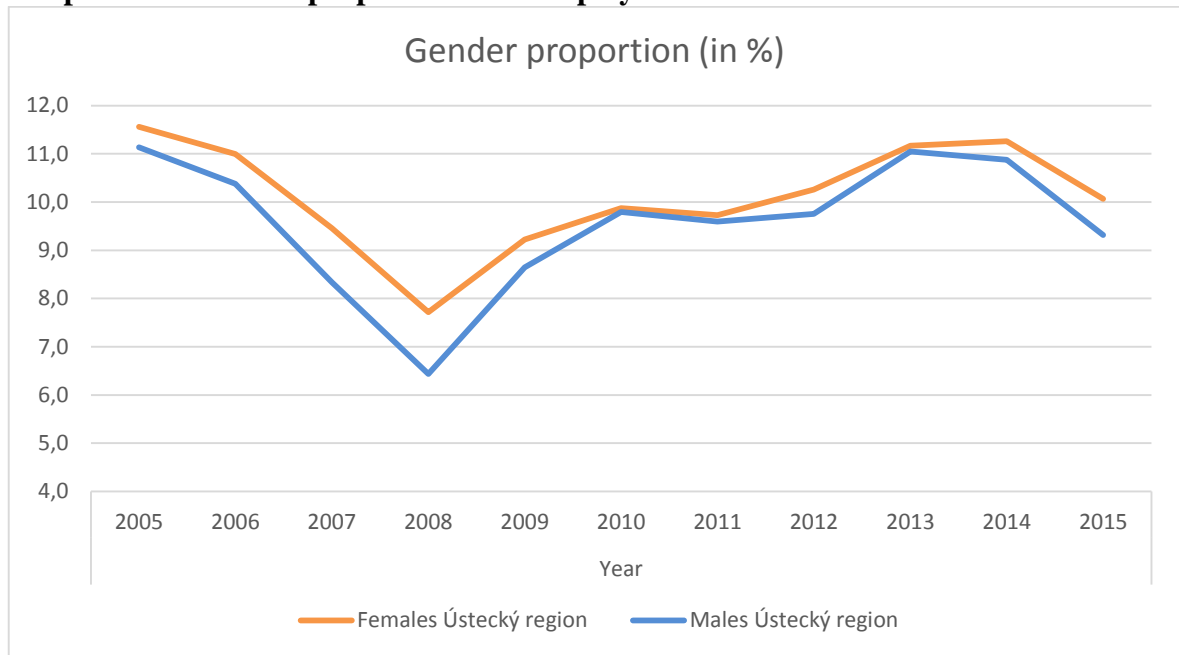
The beginning of the observation period is in year 2005. In terms of unemployment the region was in the period from 2005 to 2008, despite a significant decline in unemployment, still in first place in the Czech Republic mainly due to the reduction of jobs in the mining and chemical industries. Reducing unemployment was caused by the arrival of outside investors into the region and by improving of the overall economic situation.

At the end of 2008, some employers have begun to signal a temporary restrictions on sales of their products or reducing demand for their services provided. They solved this situation by not providing work to their employees on some days of week and they not provide wage compensation also (partial unemployment) because it is an obstacle on the side employer. Everyone began to behave cautiously and the recruitment of new employees was slowed down.

Since the beginning of 2009, developments in unemployment confirms the impact of the global financial and economic crisis. The number of registered job seekers during the year increased. The rise in unemployment and the impact of the global financial and economic crisis persists also in the year 2010. The period from 2011 to 2012, the situation in the region is stable and recorded only a slight decline in unemployment.

In 2013 there was a relapse in the labor market in the Usti region, this bad situation persisted even in 2014, but due to the improving of the economic situation in the Czech Republic there is recorded a decrease in unemployment in the region. For a summary of the data we can see that the unemployment situation in the Usti region follows the overall trend of unemployment in the Czech Republic. In the long term Usti region is represented by first place with the highest unemployment rate in the Czech Republic. With the arrival of spring months there is traditionally seen increased influence of seasonal works, which reduces the overall unemployment, but even that it does not affect the overall placement of this region in the first place.

Graph No. 7: Gender proportion in unemployment



Source: Data from Integrated portal MPSV, own processing

In the long term can be described this chart with higher rate of unemployment among women. This is nothing unusual both in the Czech Republic and European Union countries. It is because of sociological perception of women and men - the woman looks after the children and the man brings money to the household. Usually the employer decides to employ men rather than a young woman because there is a high probability that she will go to maternity leave.

Due to the global economic crisis and the associated rising unemployment in the years 2008 - 2010 this situation did not apply completely, in 2010 there was a restriction of coal mining, which is characteristic for this region. This was reason that a large number of men lost their jobs and the proportion of men and women was almost equal.

Furthermore, there was a proximity ratio of men and women even at the end of 2013, and later the unemployment rate for men fell, and vice versa unemployed females was increasing.

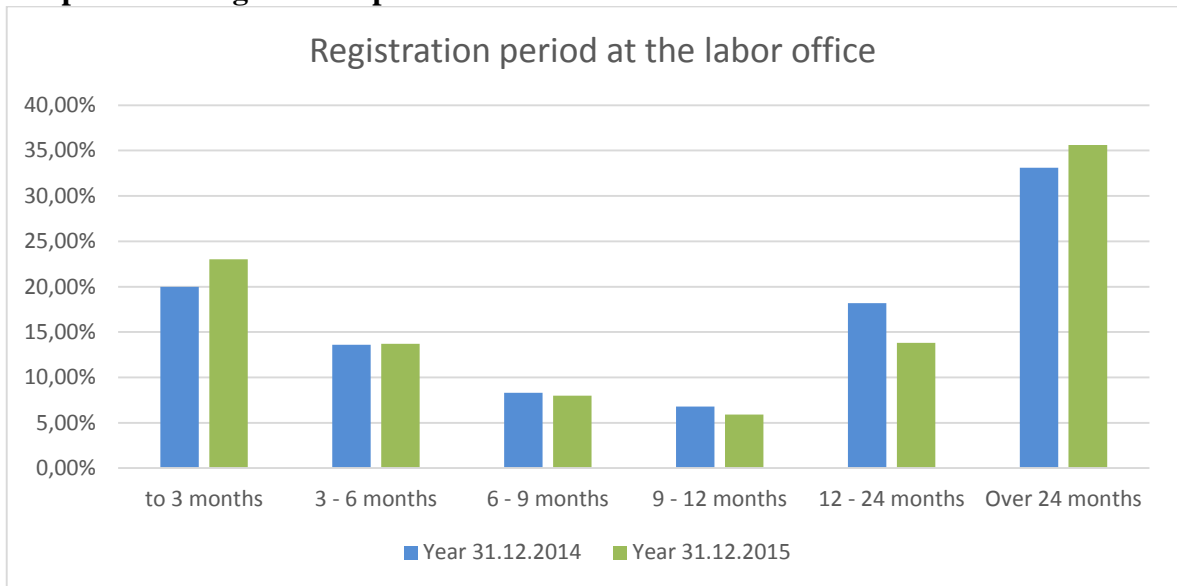
3.2.6. Duration of registration

Table No. 3: Registration period

Registration period	Year			
	2014		2015	
	Percentage	No. of people	Percentage	No. of people
to 3 months	20,00%	12 140	23,00%	11 665
3 - 6 months	13,60%	8 286	13,70%	6 952
6 - 9 months	8,30%	5 057	8,00%	4 057
9 - 12 months	6,80%	4 124	5,90%	3 015
12 - 24 months	18,20%	11 094	13,80%	7 026
Over 24 months	33,10%	20 123	35,60%	18 063
Total	100,00%	60 824	100,00%	50 778

Source: Data from Integrated portal MPSV, own processing

Graph No. 8: Registration period



Source: Data from Integrated portal MPSV, own processing

To 31. 12. 2015 absolute number of applicants decreased in all categories according to the duration of registration. The share of applicants registered for a period longer than two years has exceeded 35% of job seekers. Significant decrease of job seekers from this group was affected by the growing economic recovery, which is associated with the growth of production and services, creating new jobs and new recruitment and also greater emphasis on control mechanisms in the case of payment of non-insurance or social benefits and tightening their payment. Labor office can help this group by increased care in obtaining employment and pressure on the activation of long-term unemployed. Positively is appeared

decline in the proportion of registered job-seekers over 12 to 24 months, where there was a decline by almost 5% by the end of 2015 it was recorded approximately 14% of applicants. The growing share of registered job seekers less than three months may be considered desirable because this category includes applicants affected by the frictional unemployment, which is a prerequisite for finding a new job in the short term.

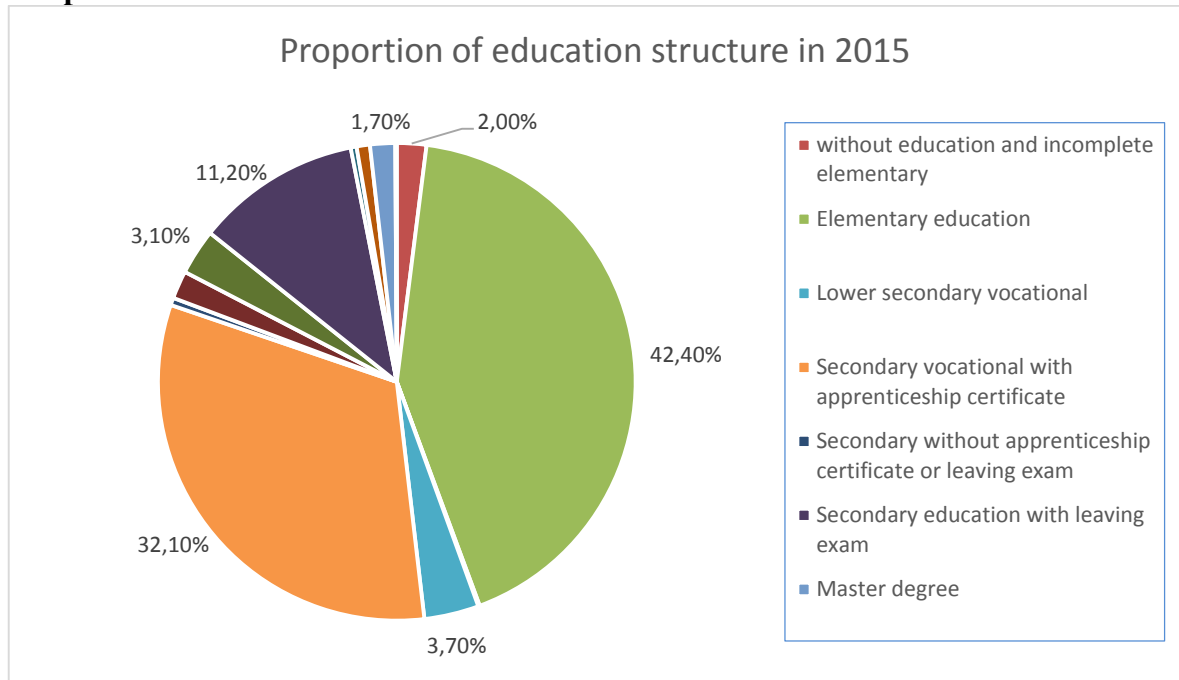
3.2.7. Educational structure of job seekers

Table No. 4: Educational structure

Level of education	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
without education and incomplete elementary	0,5	0,6	0,6	0,6	0,5	0,5	0,6	0,5	0,4	0,5	2
Elementary education	43,1	44,3	45,4	44,1	40,8	39,9	40,8	40,9	41,2	41,9	42,4
Lower secondary education	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Lower secondary vocational	2,8	2,9	2,6	2,9	3,4	3,5	3,8	2,5	2,6	3,9	3,7
Secondary vocational with apprenticeship certificate	36,1	34,9	33,8	33,7	35,7	36	34,3	36,1	35,8	33,8	32,1
Secondary without apprenticeship certificate or leaving exam	0,7	0,7	0,7	0,6	0,6	0,6	0,5	0,4	0,3	0,5	0,5
Full secondary education	2	2	1,9	2	1,9	1,9	2	1,8	2	2	1,9
Secondary education with a vocational and leaving exam	2,6	2,8	2,7	3,1	3,6	3,5	3,6	2,6	2,6	3,3	3,1
Secondary education with leaving exam	10,5	10,3	10,2	10,8	11,2	11,6	11,7	12,3	12,1	11,3	11,2
Higher professional education	0,3	0,2	0,3	0,3	0,3	0,3	0,3	0,4	0,4	0,3	0,4
Bachelor degree	0,2	0,3	0,3	0,4	0,5	0,5	0,7	0,7	0,8	0,8	0,9
Master degree	1	1,1	1,2	1,3	1,5	1,5	1,6	1,6	1,7	1,6	1,7
Doctoral education	0,1	0	0	0	0	0,1	0,1	0,1	0,1	0,1	0,1

Source: Data from Integrated portal MPSV, own processing

Graph No. 9: Educational structure



Source: Data from Integrated portal MPSV, own processing

Due to the fact that over time the representation of the different groups does not change much, here is a chart prepared for the last period which is 2015. The largest representation in the records have traditionally citizens with primary education and vocational education, which together made up more than 80% of all job seekers. Can be assumed that this trend will not change significantly even in future. Nevertheless the situation is much better for candidates with apprenticeships due to demand from employers. Candidates with primary or no education remain a problem group, which still has the largest share in the total number of registered job seekers, jobs for them are formed sporadic and increasing assumptions for placement of this group on the labor market is difficult. Until now, this group of people was been used mainly in public works, which is due to the number of applicants with primary education insufficient, despite the fact that Usti region seeks to ensure fluctuations in these places and mobilize the greater amount of registered job seekers.

In 2015 there was a significant increase in the budget for secondary employment and satisfying were practically all applicants. 2016 should be the provision of funds for active employment policy instruments to significantly tightened. In the future, it is necessary to look for new ways to deal with emphasis on increasing the qualifications of these people. Experience has also shown that any deviation between qualification requirements and qualifications of the workforce can be flexibly solved by retraining. Approximately 17% of registered job-seekers make up high school students who are relatively easily retrained group, and also interest from employers for this group are increased, with the possible support of the active employment policy and EU projects is for the candidates increased chance to find job. The lowest representation have repeatedly undergraduates who, along with graduates of higher vocational education, formed at the end of the year less than 3% of all job seekers. The share of individual levels of educational attainment remained broadly unchanged annually.

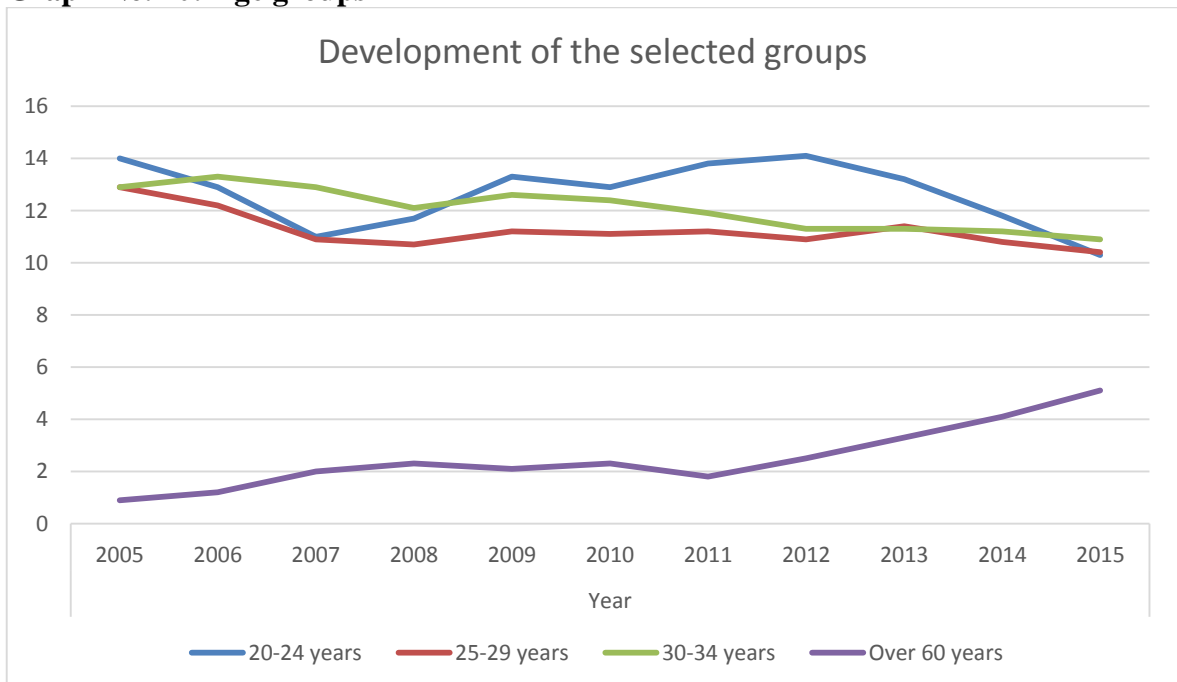
3.2.8. Age structure of job seekers

Table No. 5: Age structure

Age	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Under 19 years	6,3	6,1	6	6,4	5,9	5,3	5,4	5,5	4,5	4	4,2
20-24 years	14	12,9	11	11,7	13,3	12,9	13,8	14,1	13,2	11,8	10,3
25-29 years	12,9	12,2	10,9	10,7	11,2	11,1	11,2	10,9	11,4	10,8	10,4
30-34 years	12,9	13,3	12,9	12,1	12,6	12,4	11,9	11,3	11,3	11,2	10,9
35-39 years	10,8	10,9	10,9	11,2	11,6	12,1	12,6	12,7	12,7	12,8	12,4
40-44 years	10,2	10,6	10,8	10,6	10,4	10,3	10,4	10,5	11,2	11,8	12,5
45-49 years	10,6	10,1	10,2	10	10,1	10,6	10,9	10,8	10,6	10,6	10,8
50-54 years	12,7	12,8	14,1	13,7	11,9	11,4	11	10,1	10,2	10,9	11,1
55-59 years	8,7	9,8	11,2	11,5	11,1	11,6	11	11,6	11,6	11,9	12,3
Over 60 years	0,9	1,2	2	2,3	2,1	2,3	1,8	2,5	3,3	4,1	5,1

Source: Data from Integrated portal MPSV, own processing

Graph No. 10: Age groups

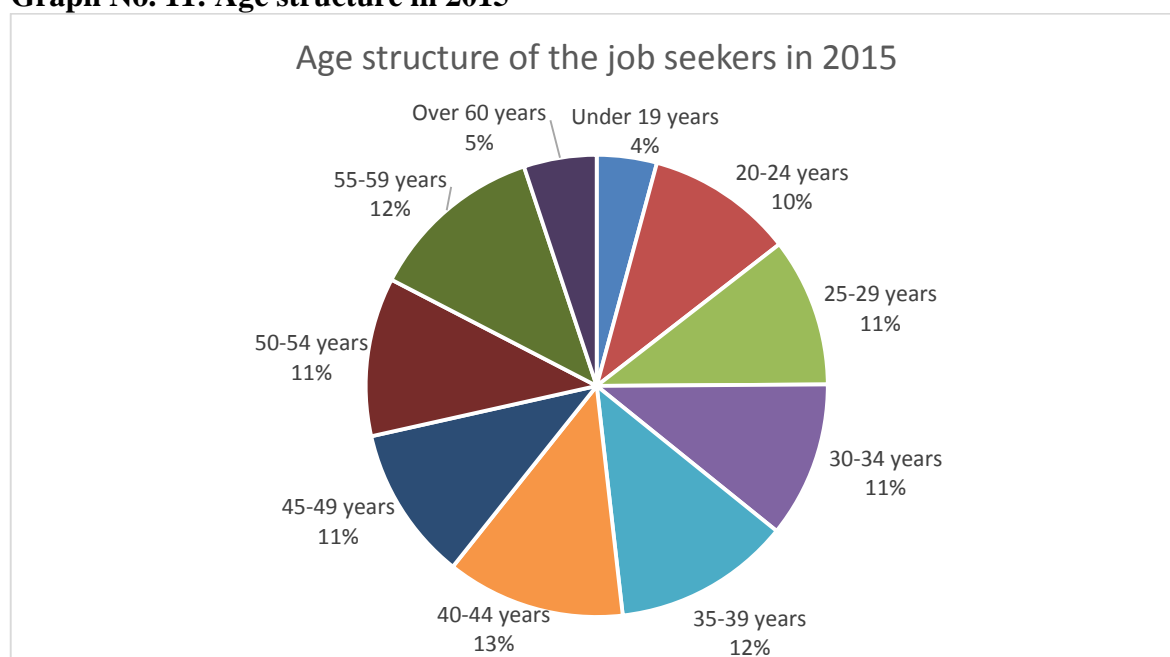


Source: Data from Integrated portal MPSV, own processing

This graph shows the evolution of selected groups. It is focused on risk group of graduates, therefore 20 to 29 years. It can be seen that over time, the unemployment rate in these age decreases. It is because of active employment policies and various projects intended for graduates to obtain experience and thereby facilitate their entry into the labor market. Other

specified group is the age group 30-34 years in this group is obvious decline too. It is also caused by active employment policy, namely practices and retraining, as this age group is flexible to some extent, it is easy for them to apply various types of active employment policy. The last group is the age group over 60 years. This group is influenced by shifting the age when people go to retire. This age is constantly increasing at the expense of people who are no longer needed in the labor market because their fields of work have disappeared or been replaced by machines. For this group it is difficult to apply active labor market policies, such as retraining, because these people are harder to learn new things.

Graph No. 11: Age structure in 2015



Source: Data from Integrated portal MPSV, own processing

The plot focuses on a proportion of job seekers in 2015, so the most recent data. Among the most represented age group among candidates aged 40-45 years, 35-39 years and 55-59 years, although it can be argued that the representation of different age groups is relatively uniform. The least represented are young people aged 20-24 years and 25-29 years. Their absolute number and proportion in 2015 declined, due to increased care for this group of candidates, mainly thanks to the project "Practical training for young people up to 30 years in the Usti region" financed by EU funds. In 2016 will be increased care in obtaining employment and aimed at applicants over 50 years. Relatively favorable results were obtained from total comparison based on a total applicants ages 45-49 years and 50-54 years. Workers in this age group can offer high productivity and rich working experience. While

not bound by the care of children and they are not still penalized by increasing of health problems.

The only age group that recorded in the improving situation on the labor market, annual increase in absolute values, are the candidates over the age of 60 years, which is due, next-upon retirement. Continued to suggest that the proportion of different age groups up to 30 and over 50 years would be increased without a care in the mediation of employment, which leads to the use of active employment policy.

3.2.9. Development of the number of persons with disabilities

Table No. 6: Persons with disabilities

Persons with disabilities	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Persons with disabilities	9137	8619	8091	7671	7712	7611	7188	7061	7208	7084	6716
Share of the total number of applicants (%)	12,9%	13,5%	16,2%	16,8%	12,9%	12,3%	12,4%	12,2%	11,0%	11,6%	13,2%

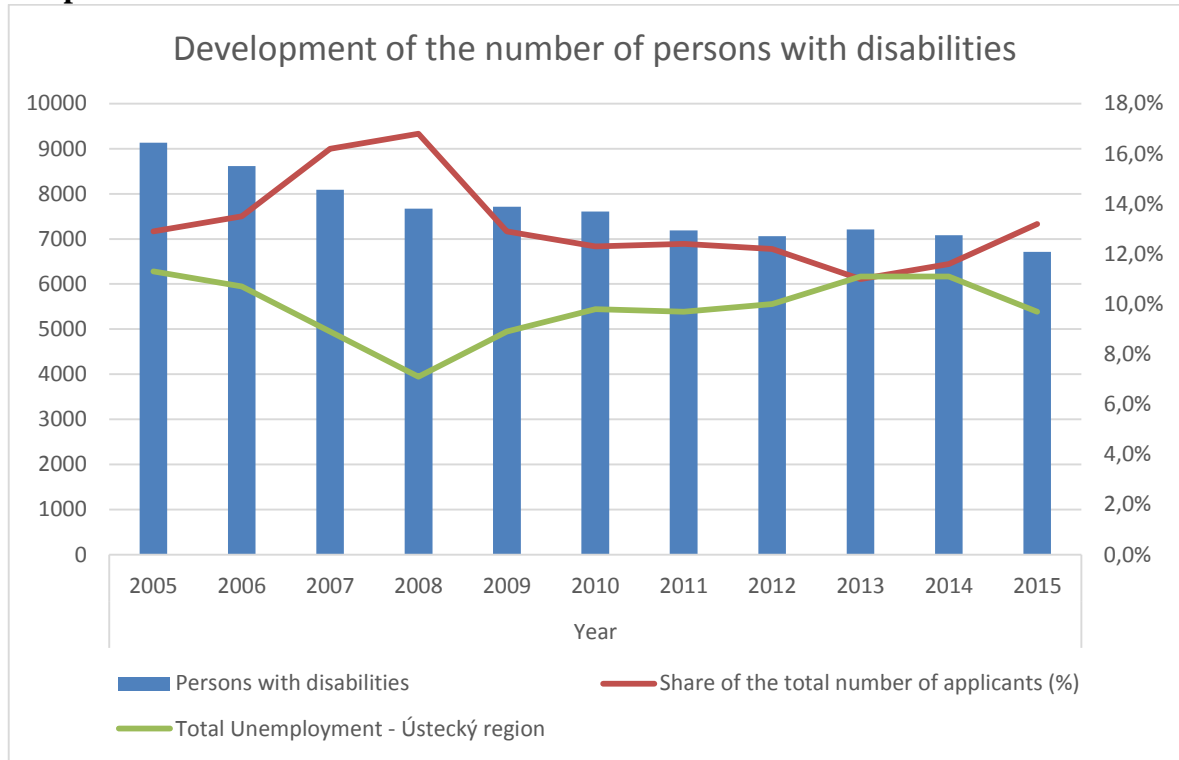
Source: Data from Integrated portal MPSV, own processing

Persons with disabilities have limited opportunities for employment and they are often affected by long-term unemployment. The main problem for people with disabilities is their lower labor productivity and increased sickness rate. Their health problems are often related to the exercise of their profession. They are therefore excluded from the workforce, not only for health reasons, but also because of limitations in terms of education and experience in other fields and activities. For a number of candidates with disabilities also leads to an accumulation of multiple medical disability, which further worsens the possibility of integrating of candidates into the working process. Integration into the labor market makes it difficult for even a low level of professional qualification, the relatively low motivation to find a job on the part of these candidates for advisory activities or vocational rehabilitation. Positively on increasing employment of people with disabilities is reflected the application of active employment policy (support for protected jobs, incl. The self-employed or a refund of wage costs) through the employment office supports the inclusion of persons with disabilities into the workforce.

Applicants with disabilities are placed to provide tangible benefits to the employer within the active employment policy. Additional placement options are mainly production cooperatives of disabled persons, associations of disabled persons, protected jobs and

sheltered workshops, which are established by employers. Despite contributions to the establishment and operation of sheltered jobs and sheltered workshops, which are provided by employers, there is still a shortage.

Graph No. 12: Persons with disabilities



Source: Data from Integrated portal MPSV, own processing

This graph is highlighted by the development of job applicants with disabilities and the percentage of these people on unemployment in the Usti region, to this graph is added for better comparison the overall development of unemployment in the Usti region. Based on the number of people it can be seen that there is a constant decline of these people in the labor market caused by their employment. This is justified by applying active employment policy, which is explained in the paragraph above. In terms of percentage the share of persons with disabilities is percentage increases until 2008 when occurred the global economic crisis, after this year there were mass dismissals of people and companies not gain new employees, and therefore the proportion of people with disabilities decreased. Overall, this trend can be observed in the chart where the percentage of applicants with disabilities mirrored copies the overall unemployment rate in the Usti region.

3.2.10. Employment of foreigners

Table No. 7: Employment of foreigners

Employed foreigners	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Employed with work permits	2342	2361	3135	4064	2286	1913	1729	1348	760	386	129
Citizens of the EU, EHP and Switzerland	1522	1825	2861	2835	2785	3403	3665	3770	4125	4427	4733
Total number of employed foreigners	4245	4668	6581	7636	6026	6561	6834	7108	6571	6813	7324

Source: Data from Integrated portal MPSV, own processing

Graph No. 13: Employment of foreigners



Source: Data from Integrated portal MPSV, own processing

In the period from 2005 - 2008 can be seen increasing the attractiveness and accessibility of the Czech market for foreigners, it is also given the good economic situation and the fall in unemployment. In 2008 in the period of global economic crisis, there is a change in trend and in the Usti region began to decline amounts employed foreigners. Due to the lack of jobs began to issue fewer and fewer work permits, this trend continued until the present time. In the long term in the period from 2005 - 2015 can be seen a constant increase of employed persons from the countries of European Union and European Economic Area. The reason for disapproving total number of employed foreigners is continually adding various groups over time from the side of labour offices, such as employees of the so-called third countries

and issuing different work cards like green or blue. Thus, the total number of employed foreigners is not equal to the sum of workers and employees with permission from the European Union.

3.3. The main causes of unemployment in the region

- Advantageous geographical location on the axis Germany (Saxony) - Prague (Central Bohemia)
- Mineral reserves and built industrial agglomeration with water and energy infrastructure (mining, energy, automotive, engineering, chemical and food industries)
- Construction of transport infrastructure (exceptionally dense road and railway network), which is limited by the completion of the missing section of the D8 motorway across the Czech Central Mountains
- Lower transport services in some remote areas of the region (an increase of transport fares, reducing the number of transport links)
- The high number of available labor force with a favorable age structure
- Relatively low labor costs and housing costs
- A high proportion of the population with basic education while a low proportion of university-educated population (lacking regional universities) associated with their migration to Prague or abroad
- Insufficient integration of minority groups in the population, high crime rates and the incidence of socio-pathological phenomena
- The reputation of the region associated with low attractiveness
- Economy strong focus on industry with material intensity, the concentration of businesses in regional centers and small number of long-term prosperous small and medium enterprises
- The behavior of employers when hiring employees, closing short-term contracts (contracts for work, working fixed-term contracts)
- Bad reputation with selected employers, employee's unwillingness to embark on such employers

- Inappropriate composition of apprenticeships and study programs, which often provides graduates who are the current labor market useless or even unusable
- Mismatch between skill needs of employers and educational attainment or experience of job seekers
- Persistently low demand for available labor force with elementary education or no education
- High staff turnover in selected professions, often associated with low wage levels in these professions
- Low pay compared to social benefits
- High indebtedness of some job seekers combined with the threat of distraint to seize property and bank accounts freezing
- Implementation of active employment policy tools (community work, socially useful jobs, retraining, support for the employment of disabled persons, regional individual projects) to labor office financed from the national budget and EU projects⁴⁵

3.4. Estimated solutions

Estimated solutions to reduce unemployment in the Usti region is mainly the use of employment policy, as in the case of already mentioned successful projects for „student support“ reducing the share of unemployment among this group. Also, practices and retraining have a positive effect on the share of unemployed in the age group of 30-34 years because this group is flexible and able to learn new things.

Concerning employment policies, on the other hand, it is necessary to tighten the social benefits, according to the chart time of registration. At the Labor Office is the most significant group of people registered for more than 24 months, a large percentage of these people lost motivation for job search because of the relatively high social security contributions. They are not able to achieve same wage as the amount of social benefits, so

⁴⁵ MPSV [online]: Analyses of the labor market in the Usti region since 2000. 2016.
WWW: < http://portal.mpsv.cz/sz/stat/nz/zmena_metodiky>

they rather stay unemployed. It is big problem of the Usti region, because there is situated high amount of people who are abusing the system of social benefits, this problem is called social parasitism. Solution for decrease share of this group is lower the social benefits and more control of people who are receiving benefits.

It is also necessary to improve and streamline the education system, which should be more responsive to labor market requirements. Students fields should be linked with production companies, which would both motivate students and also allow them to practice. Another way to improve the overall situation of unemployment in the region is the arrival of new investors. It is necessary to provide jobs to people who have low qualifications. These are mainly people who have immigrated to work in the mining industry, for example, as mentioned above. For these people, it is necessary to ensure low-skilled jobs in the manufacturing sector for instance.

4. Conclusion

All market economies are facing one problem, which is unemployment. Unemployment is influenced by many factors, among them belong mentality and education of population, characteristics and history of the area or natural influences. Society is due to the negative consequences of unemployment subsequently afflicted by economic and social impacts.

Bachelor thesis is focused on the problem of unemployment in the Usti region. The aim of the thesis was to analyze the development of unemployment in the selected region in the period 2005 - 2015. The first part is an introduction focused on comparing the Usti region with other regions, where it is seen highest unemployment and therefore first place in the ranking of most unemployed regions, this order is the same over a duration of the monitoring period. Another section of the thesis focuses on districts in the Usti region, according to the proportion of the unemployed, in this comparison is in first place with the largest share Most district, followed by Ústí nad Labem. High unemployment is due to the disappearance of the traditional way of life of the displaced original population of the region followed by a one-sided focus on mining, heavy and chemical industries. After limiting these activities in the 90s sharp increase in unemployment occurred in the region. The unemployed are mainly people who previously moved to the region for work that was offered to them. The work was mostly for low-skilled workers. The result is an unbalanced educational and social structure of the region's population. Nearly half of the unemployed have only a basic education and for them is very difficult to stand in a modern labor market.

After these chapters begins a part devoted to the period 2005 - 2015. The first is described the development of unemployment in the region, along with the development of unemployment in the Czech Republic. It can be seen that the development of the region follows the developments in the Czech Republic, with the difference that the unemployment rate in the Usti region is about twice as high. There is significantly reflected the global economic crisis in 2008, when unemployment rose sharply. This chapter is focused on the distribution of the share of unemployed between males and females in the region, women are more risky group in terms of getting a job than men, but this is the same in the Czech Republic but also in other European Union countries.

Furthermore, the practical part devoted to the structure of unemployment in the region. It is dedicated to ages, the education of job seekers, people with disabilities and foreigners who

work in this region. This part is analyzed due to a possible solution to the problem of unemployment in the region and to identify the most critical people who have the lowest chance for getting a job. The most frequented group in this survey in 2015 according to education were people with basic education and secondary education with apprenticeship. By age groups, there is an age group from 35 to 44 years, and most of rising unemployment in the period from 2005 to 2015 was a group of people over 60 years because of the constantly shifting boundaries of retirement.

Estimated solutions to reduce unemployment in the Usti region is mainly the use of employment policy, as in the case of already mentioned successful projects for student support reducing the share of unemployment among this group. Also, practices and retraining have a positive effect on the share of unemployed in the age group of 30-34 years because this group is flexible and able to learn new things. Concerning employment policies, on the other hand, it is necessary to tighten the social benefits, according to the chart time of registration at the Labor Office is the most significant group of people registered for more than 24 months, a large percentage of these people lost motivation for job search because of the relatively high social security contributions. It is also necessary to improve and streamline the education system, which should be more responsive to labor market requirements. Student's fields should be linked with production companies, which would both motivate students and also allow them to practice. Another way to improve the overall situation of unemployment in the region is the arrival of new investors. It is necessary to provide jobs to people who have low qualifications. These are mainly people who have immigrated to work in the mining industry, for example, as mentioned above. For these people, it is necessary to ensure low-skilled jobs in the manufacturing sector for instance.

It seems that, due to the improving economic situation and the implementation of active employment policy by the labor offices it can be expected that the unemployment rate will be further reduced in this region. However, it is unlikely that this rate will be reduced sufficiently to compete in regions with low unemployment rates.

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