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TRENDS OF HIDDEN EMPLOYMENT IN LITHUANIA AND PROBLEMS IN METHODICAL CALCULATIONS

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Abstract. The article discusses the extent of hidden employment in Lithuania and its dynamics tendencies, different methodologies used for the assessment of this phenomenon are reviewed and the problems this assessment faces are discussed. Because the estimation of hidden employment extent is very complicated and multiple problem the article is based on various data sources and on the methodology of statistical researches.

The article widely presents the results of survey of Statistics Lithuania[1]and it's acummulated experience, various methodological problems of hidden employment estimation are disscused. Employed in the unofficial labour market population dynamics tendencies are estimated based on prepared methodology of calculation by the Institute of Labour and Social Research scientists[2]). According to calculations made by authors, hidden employment in Lithuania kept growing fast and reached the maximum value of 380 thousand till 1994. Later (in 1995–2001) it declined substantially to 230 thousand. 2002–2004 were the year of temporal stabilization (with a number of 210 thousand illegally employed), after which a period of sudden fall took place (down to 120 thousand in 2008). Despite this, the favorable conditions for hidden employment growth were formed in 2009, while in the threat of the economic crisis the country experienced an especially deep recession. Increased taxes and unemployment, made the favorable conditions for shadow business.

Keywords: black economy, employment, hidden employment, hidden employment of the youth, assessment of hidden employment.

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JEL Classification: C5, C82, E2, E26, E24, J21, J23, K31, K71.

[1] It should be noted that non-observed economic research (evaluation) are carried out approximately every 10 years. The authors participated in the development of unrecorded economic research methodology for 2003 year.

[2] The authors of the article participated in the development of methodology.

1. Introduction

Hidden employment is defined as an employment without the conclusion of an employment contract or as an employment violating provisions of an employment contract (Damidavičius *et al.* 1998; Ercolani 2007; Krumplytė 2009). Illegally employed people do not absolutely or partially pay taxes and social insurance contribution. Persons working in a hidden labour market deliberately avoid paying taxes.

Usually two types of hidden employment are distinguished: full and partially hidden employment (Lacko 2007; Damidavičius *et al.* 1998; Werner *et al.* 1986). Full hidden employment is in case when employees work without the conclusion of an employment contract. There are two possibilities of the full hidden employment: either an employer has his company unregistered or he/she does not have a business license and does not pay any taxes related to business activity and therefore does not conclude an employment contract with employees or though an employer has a legal business he/she employs people illegally. Partial hidden employment is in case when an employee and his employer have concluded an employment contract and an employer has a legal business but they conceal part of an income and, accordingly, reduce the income tax and state social insurance contribution. In other words, hidden book–keeping is practiced. One should stress that in certain cases both partial and full hidden employment might be concealed in one company. However, full hidden unemployment is not widely spread in registered (legal) companies. Illegally employed people who work without an employment contract should make only a part (probably a negligible one) of all employees working in such companies.

According to the survey on black economy carried out by Statistics Lithuania in 2002 a considerable share of total 104 thousand hidden employees worked in construction and manufacturing industry (23% in each), agricultural, hunting and forestry companies (20% in each). According to the expert assessment, the number of hidden employees dropped a little over 2003 and such employees made up 9.1% of all employees (Juškienė, Markelevičius 2003).

Worsening economic situation and raising the tax burden in Lithuania nowadays has significantly increased the black economy. It is also likely that the economic downturn will increase the dimension of hidden employment.

The aims of this article is *to estimate the extent and dynamics tendencies of hidden employment in Lithuania.*

The scientific issue, validity. The estimation of hidden employment is a complicated issue. There are many different ways to estimate hidden labour market in Lithuania. Usually it is only static (instantaneous) assessment irrespective of changes of this phenomenon in time. There were no possible to get information about hidden employment in traditional ways (by collecting data from the reports of enterprises and Lithuanian labour exchange unemployment accounting), that is why, in order to estimate the size of this hidden segment, usually two methods were used: the method of balanced calculations or the method of distinctions.

Because the estimation of hidden employment extent is very complicated and multiple problem the article is based on various data sources and on the methodology of statistical researches.

2. The relation between hidden employment and black economy

The extent of hidden employment is closely connected to black economy (Dallago 1990; Measuring the Non–observed Economy 2002; Lacko 2007). Black economy is a hidden part of economics, when financial contracts are not declared and are not taxed (Feige 1989; Brug, van Eck 1992). So, it covers all people who gets the undeclared incomes. "Black economy" is the most common term which is used to define this situation, but it can also be known as gray, non-observed, unofficial or informal economy. The black economy contains two types of activity: legal work that State Tax Inspectorate is not informed about and the receiving of undeclared incomes (Ivan–Ungureanu 2003). It is necessary to underline the fact that hidden employment also involves the cases when legal companies have illegal employees (without an employment contract).

The economists of the International Monetary Fund have calculated that, according to the data publicize in 2004, black economy has already reached 17% of national capital in the countries that are the members of Economical Cooperation and Development Organization (Black Economy Goes 'Far Beyond Illegal Immigrants' 2004).

According to the surveys on Non-Observed Economy of the Department of Statistics, hidden economy made 15.2–18.9% of Lithuania's GDP in 2003 (Juškienė, Markelevičius 2003). Lithuanian GDP in 2002 was 50.758 billion litas, so, the black economy reached 7.7–9.6 billion litas. These are usually onetime researches and requires a lot of input (because of its' big size and need for special researches). That is why there is no recent data.

Judging from the research made by the Institute of Lithuania Free Market (LLRI), the share of black economy in Lithuania's GDP did not change during 2002–2003 (stayed around 20%). However, these expectations appeared to be wrong: on the contrary, according to LLRI research, – it grew up to 21.4% of GDP in 2005, which is almost one percent more than it was expected half a year ago. Market participants expected the share of black economy to go down to 20% in 2006 (Lietuvos ekonomikos tyrimas 2006/2007).

In 2007 market participants reduced the quota of black economy in Lithuania to 17.8 percent, similar it remained in 2008 (18 percent). Lithuanian Free Market Institute study also shows that in 2009 black economy grew rapidly and reached 24.3 percent of GDP. This means that almost one in four litas has been earned and spent in the shadow. Even greater growth forecast for 2010 (up to 27.1 percent.). To illustrate the scale of the problem, the other index – number of companies involved in black economy – is offered. In 2008 informal activities conducted by 27.5 percent of business subjects, in 2009 these were 40 percent (Lietuvos ekonomikos tyrimas 2009/2010).

Lithuania faces extraordinary economic difficulties. To solve them the government chose inapropriate direction of the tax burden increase, thereby further stimulating the informal activities. For that reason black economy becomes very significant reason for not collecting the planned state budget.

Often a manifestation of black economy cases is perceived as an activity having only a small effect on the country's economy. However, market participants' evaluation shows that it is not so – four from 10 people are participants of black economy.

It is also noteworthy that with reference to some foreign researches' estimations, the extent of black economy have a significant differences – according to the professor of Linco

university (Austria) Friedrich Shneider, the share of hidden economy even in 2003 reached 29.4% of GDP in Lithuania (Shneider 2003). There are expressed an opinion that this is due to the fact that the Lithuanian Free Market Institute calculates the amount of black economy on the basis of experts survey (annual interviews with up to 50 experts), while F. Schneider, black economy calculates on the basis of official statistical data (Startienė, Trimonis 2009).

3. Assessment of the hidden employment state

Description of the hidden employment assessment methodology used in the black market survey. In order to evaluate the extent of hidden employment, experimental method of evaluation might be used (Albu 2007). It is a method, when competent specialists of the regional labour market are interviewed (especially useful in those cases, when information is doubtful). However, the calculations made by referring to cumulated data and concrete calculation method might help to avoid subjectivity in assessment and to assure the possibility to compare the results in time. Actually, it is not possible to evaluate the dynamics of hidden employment in regional level.

Now we will discuss a method, used in the survey of Statistics Lithuania on Non-Observed economy for the assessment of hidden employment in our country in 2003. The results of this research were used by the Department of Statistics in order to calculate non-observed economy. They were published in a publication called "Measuring the Non-observed Economy" (Oficialiai neapskaitytos ekonomikos Lietuvoje tyrimas 2004) Due to the lack, low quality and the specifics of the data, the chosen methodic let (agreeable to possibilities) to use more reliable original data. It is necessary to underline that the indicators of hidden labour market, which were achieved by calculation method, are far less subjective in comparison to the expert research which shoes only the not grounded with calculations opinion.

Comments on general methodology in the Statistics Lithuania research "The Non-observed Economy" are as follows:

1. The survey plan was accomplished following the idea that there are two main components of the hidden employment – partial and full hidden employment. The developed methodology enabled to assess the extent of hidden employment by kind of economic activity and by region (on the district level).

2. It is necessary to note that the extent of hidden employment can be assessed only approximately, therefore, calculations based on various data sources can considerably differ.

3. The survey indices cover data starting with 2001, assuming that changes in hidden employment and hidden earnings that were reported in 2001–2002 did not markedly influence the calculation results.

4. Data gained by LFS and information of the Labour Statistics Division (LS) on remuneration were used for this survey.

5. Taking into account big possible seasonal fluctuations in the hidden employment, in the survey annual averages were used instead of the quarterly averages. Thus, possible deviations have been avoided. Information as detailed as possible was provided for the assessment of the extent of hidden employment by kinds of economic activity.

6. Full hidden employment in the calculations is expressed as the number of employees in the hidden market while partial hidden employment is reflected by a particular value. Its

influence can be measured by the average of the hidden earnings. Despite that, ratio–indices which can be used to express the extent of the GDP components to be corrected are preferred for the presentation of the calculation results.

When dividing the employees into smaller groups by kind of economic activity one encounters the problem of calculation accuracy, since the Labour Force Survey (LFS) results are affected by errors. Moreover, not all employees included into the survey sample reveal that they are working. The latter factor is even more significant than the errors. Therefore, correction of the results had to be done in separate kinds of economic activity. Results were given by bigger groups of economic activity kinds in cases where detailed information about employees in smaller kinds of economic activity was not available. However, a better resolution of calculation results by kind of economic activity assessing hidden employment was obtained compared to the Survey on Non-Observed Economy carried out in 1995 (in the survey of 2003 the extent of hidden employment by kind of a separate industrial economic activity was assessed).

Hidden employment in a separate kind of economic activity (in other words the number of employees in the hidden labour market) is obtained by subtraction of the total employee number based on the LS survey from the corrected total number of employees based on the LFS survey. An assumption is made, that the number of employed persons consists of the number of employed in official and the number of employed in hidden labour market, but Labour statistic shows only the official employment. In order to eliminate the differences between different data sources, the data of LFS were adjusted. The data sources were matched in low supply angle. Those women, who did not work due to the pregnancy holidays on the week that the research was made, were eliminated from the number of hired employees as well as people who were temporary unemployed due to other reasons at that particular time. According to the ILO (International Labour Organization) methodic, the last–mentioned categories of employees are added to the number of employed (Surveys of Economically Active Population. Employment, Unemployment and Underemployment: an ILO Manual on Concepts and Methods 1992).

In all cases the absolute value of hidden employment cannot be negative. However, after calculations by separate kinds of economic activity it became evident that not all employees covered by the sample told that they are working. Therefore, additional correction of the results is carried out in separate kinds of economic activity, assuming that the extent of hidden employment in these kinds of economic activity equals zero (number of employees based on the LS survey is equal to the number of employees based on the LFS survey). Here, electricity, gas and water supply, financial intermediation and some other kinds of economic activity follow the same line. Index for the total number of employees working in the hidden labour market is obtained by summing up the hidden employment in separate kinds of economic activity.

It was assessed that the biggest share of hidden employees was in construction and manufacturing industry (23% in each) followed by agriculture, hunting and forestry (20% in each). A substantially smaller number of hidden employees was observed in other kinds of economic activity. According to the Survey on Non-Observed Economy carried out in 1995 employees working in the hidden market were distributed in a different way. There were even 40% of hidden employees in agriculture, 21% in construction and 19% in trade. However, the real

volume of hidden employment is reflected by the coefficient of correction of the employee number. The higher is the coefficient, the bigger is the volume. Talking about the merged kinds of economic activity, this coefficient in 2002 was the highest in agriculture, hunting and forestry – 1.6, lower in construction – 1.39 and in other social, public activities and services – 1.19. The total number of people who works illegally equaled about 100 thousand.

It can be summarized that the calculations made in the survey on Non-Observed Economy enables us to estimate approximately the extent of hidden employment. This allows us think that this method of calculation might be a good way to illustrate the tendencies of the dynamics of this phenomenon. However, looking from the statistical angle, we can not avoid subjectivity while estimating the extent of hidden employment. It should be enough for adjustment of GDP, because these calculations show the possibility to detail the phenomenon according to the economical activities and regions. Surely, they involve only hidden employment. Despite the exceptions mentioned, it can be stated that the results of the calculations especially depends on the quality of the data we have. That is why, considering the possibilities to dispose the information that is collected, the employment estimation method should be improved. However, the improvement of any kind of methodic means the re–count of the indicators from previous years. In this way, the better comparison and accuracy of the results could be assured.

4. Assessment of the hidden employment dynamics

***Description of the methodology for the hidden employment assessment*[3].** This calculation methodology and the obtained results have been discussed in more details in the official reports of the Institute of Labour and Social Research. The calculations are based on the index of the change in the insured employee number assuming that only persons who lost a legal job enter the hidden labour market (data of "Sodra" – the State Social Insurance). A significant share of employees working in agriculture and not registered in the statistics of the State Social Insurance are excluded from the hidden labour market. Moreover, hidden employment is calculated taking into account the number of unemployed persons registered with the Labour Exchange. The number of the registered unemployed persons reduces the value of the hidden employment.

In order to assess the total number N of persons employed in the hidden labour market, a half of the number of unemployed persons registered with the Labour Exchange B and a decrease in the number of the employed in solvent agricultural companies (i.e. number of employees in solvent agricultural companies based on the data of the State Social Insurance) during the analyzed period b are subtracted from a maximum drop in the number of insured

[3] The authors participated in the development of methodology. In the calculations, it was considered, that after restoration of country's independence, people who previously worked for hired agricultural companies, went to work in small private agricultural sector (become so called „Trihektarininkais"). In the opinion of authors due to the extremely low-income of this population group, they can not be identified with informal employment (distinguished features of these small farms - very low-income and production for their own use). It was actually eliminated in the small agricultural sector from the calculation results. In such way the impact of small agricultural sector on calculation results was eliminated. It is necessary to emphasize that the influence of this factor actually worn during the last decade of the 20th century, when in the beginning a very rapid decrease in the number of employees of agricultural companies was noticed.

persons A_{max}. The fact that the maximum number of the insured persons at the State Social Insurance was reached during the base year (1991) is taken into account. Calculation results are rounded up to the accuracy of the decimal numbers. A special correction coefficient K is applied in order to assess the value A_{max} using the number of insured persons during the base period A_0 and the same number during the current period A. Calculation formulas are as follows:

$$N = A_{max} - B/2 - b, \quad (1)$$

$$A_{max} = A_0 - KA. \quad (2)$$

As it was mentioned in the report of the Institute of Labour and Social Research "Prediction of the unemployment and employment changes till 2007" approximate calculations show that the full hidden employment grew till the middle of 1994 but afterwards indications of stabilization and even decrease were observed. Having reached the maximum limit in the third and fourth quarters of 1994 (380 thousand) this index dropped down to 220 thousand in 2000. The drop of this index value was likely influenced by the fact that more and more persons who have been working in hidden labour market started to look for a job at the Labour Exchange. However, later hidden employment grew a little bit (the number of employees in hidden market reached 230 thousand in the middle of 2001).

Despite of the temporal increase in the hidden employment the situation started to improve later. The number of employed in the hidden labour market declined from 230 to 120 thousand during the period of 2001–2008. The share of employed working in the hidden labour market (per cent from the total number of employed persons) decreased from 17 to 7.9% over the discussed period (see Fig. 1).

It must be emphasized that hidden employment trends are similar to trends in black economy. However, these indeces are not identical, especially in shorter than 5 years period. The first half of this decade can be discerned, when these indeces were relatively stable, but according to the assessment of the experts, the extent of black economy already began to grow in 2006, while hidden employment decreased in 2006–2008. It is supposed that concealing profits, value added or excise taxes for enterprises were significantly easier than to employ people informally.

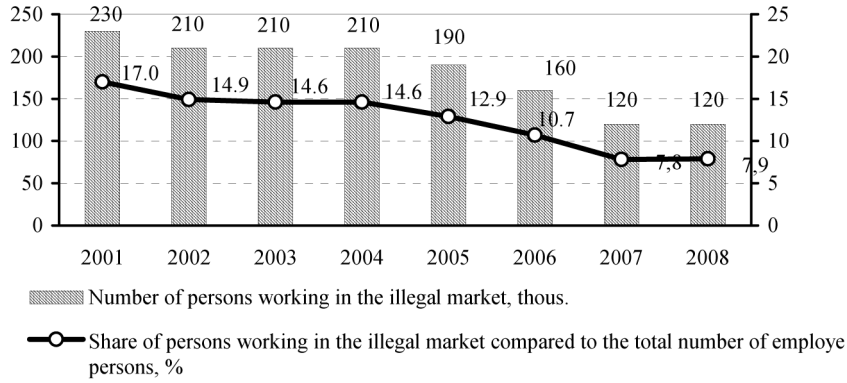

Fig. 1. Dynamics of the number of persons working in the illegal market

Increased number of insured employees over the last years can be interpreted as a legalization of employment when people move from the hidden labour market to the legal one.

The formula mentioned above was applied also for the youth group aged 15–24 introducing the coefficient evaluating the weight of the hidden employment. The share of the youth among the total employed population and decrease in the number of the employed in the youth group during the period of 1997–2008 according to the data of LFS was taken into account when assessing this coefficient.

Assessment of hidden employment of the youth. According to the approximate calculations the number of the youth working in the hidden market decreased from 35 thousand to 14.5 thousand over 1997–2008, although in 2008 already seen some negative changes. Obviously, with the improvement of the situation on the labour market after 2001 and with increased deficit of the labour force more and more employers try to attract the youth by employing them legally and providing them social guarantees. Therefore, not only the total hidden employment of the youth but also its share among all the illegally employed persons lowered over 2001–2008. The share of youth among the illegally employed people dropped from 13.6% to 12.1% over this period (see Table 1). On the other hand, as situation on the labour market was getting worse up to 2001 more and more youth joined the hidden labour market. The share of youth among the illegally employed people increased from 12.1% to 13.6% over 1997–2001 and to 12.1% decreased over 2002–2008. Despite improvement of the situation till 2008 hidden employment among the youth is higher compared to that of older people. This is reflected by the fact, that the share of the illegally employed youth is higher compared to the share of employed youth among total employed persons (the first index equaled 12.1% in 2008, the second – 9.4%). Occurrence of this phenomenon in the youth group (relatively higher hidden employment of the youth) is determined by two reasons: firstly, youth pays less attention to prospective social guarantees ensured by social insurance contributions compared to older people; secondly, the youth without work experience is usually forced to accept hidden employment offered by some employers, moreover one can illegally employ the youth on the grounds of a probation period.

Of course, at the time of economic downturn, it could be said that the extent of hidden employment has increased. About prosperity of shadow trends in the labour market indirectly can be indicated from reduction of taxes compare to household consumption (Ginevičius, Podvezko 2009). There is also a significant gap between the decline of industrial production and enterprises consumed energy changes. On the other hand, referring to the data of Department of Statistics, in the first year half of 2009 Lithuanian industrial output decreased by about 20 percent., while referring to the data of electricity-producing companies, industry companies and business consumption of electricity decreased by only about 10 percent. Experience shows that tax increases in Lithuania increased the informal economy and at the same time the informal labor market. Current dependence can be explained by Laffer curve, which shows revenue in the budget dependence on tax rates. Therefore, it is clear that tax increases adversely affected the labor market situation and trends of black economy. Economic policy lacks flexibility to promote job creation and small business development (Melnikas 2008; Girdzijauskas *et al.* 2009). In fact there is no studies in the country that would indicate what impact the economic crisis in recent years had made on the national economy and labour market developments, what impact – tax increases and how this related to hidden employment.

Table 1. The assessment of dynamics of the number of persons working in the illegal labour market excluding the youth group (estimations are made with the reference to data of Statistics Lithuania)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
The total number of people employed in the illegal labour market (thousand)	290	250	240	220	230	210	210	210	190	160	120	120
Hidden employment of youth (thousand)	35.0	30.8	30.2	28.8	31.2	27.4	26.8	26.8	23.6	19.6	14.3	14.5
Share of youth compared to total number of illegally employed persons (%)	12.1	12.3	12.6	13.1	13.6	13.0	12.7	12.8	12.4	12.2	11.9	12.1
Share of youth compared to total number of employed persons (%)	12.1	11.0	10.4	9.0	8.3	8.5	8.2	7.4	7.5	8.4	8.7	9.4

Primary data source: Statistical Yearbook of Lithuania, Labour Force, Employment and Unemployment (Lietuvos statistikos metraštis (1997–2010), Darbo jėga, užimtumas ir nedarbas (2004–2009)

The evaluation of the indicators that influences the dynamics of hidden employment. It has been used the indicators of paired correlation (see Table 2) in order to examine the influence separate factors have on the hidden employment. As it is seen, the calculations show substantial differences of the correlation.

It can be assumed that the reduction of hidden employment responded to quicker growth of country's economy in this decade (till 2008). The reversed relation of correlation between GDP and the number of people employed in the illegal labour market was especially tight (–0.985). The graphical view of this dependence, which you can find below, was made with a help of paired regression equation referring to the data of 1993–2009.

In this way, it could be said that previously occurred the growth of the economy influenced the decline of hidden employment. Although the calculations involved and 2009 year, when economic growth has slowed down significantly, it had very little impact on the trends established in the previous period. In the conditions of economical growth (till 2008), more and more legal vacancies emerge, so, the possibilities for the unemployed to find a legal job have increased noticeable. It could be stated that decrease in hidden labour market was positivelly affected by the shortage of labour force during economic growth, while before rapid growth of GDP has significantly increased the need of employess.

On the other hand, it is possible that one of the reasons of strong reversed relation between GDP and the number people employed in the illegal labour market might be statistical

(see Fig. 2). The reduction of illegal work could have had a direct influence on the growth of calculable GDP share, that could not be estimated earlier due to the lack of statistical information. Still, in order to confirm this assumption, a full–scale research is needed. Unfortunately, its accomplishment is complicated by the restriction of the possibilities to dispose of the statistical data.

Table 2. The assessment of correlation between hidden employment and other indicators of labour market and economical development (based on data of 1993–2009 (the estimations are made with the reference to data of Statistics Lithuania)

Indicators	Labour force	Employed persons	Insured employees	Number of people employed in the illegal labour market	National budget income (NBI)	The proportion of NBI and GDP	GDP (in prices of 2000)
Labour force	1.000	0.232	–0.421	0.767**	–0.829**	–0.502*	–0.788**
Employed persons	0.232	1.000	0.403	0.464	–0.424	0.528*	–0.453
Insured employees	–0.421	0.403	1.000	–0.458	0.497	0.808**	0.494
Number of people employed in the illegal labour market	0.767**	0.464	–0.458	1.000	–0.960**	–0.327	–0.985**
National budget income (NBI)	–0.829**	–0.424	0.497	–0.960**	1.000	0.397	0.968**
The proportion of NBI and GDP	–0.602*	0.528*	0.808**	–0.327	0.397	1.000	0.366
GDP(in prices of 2000)	–0.788**	–0.453	0.494	–0.985**	0.968**	0.366	1.000

* – Correlation is significant at the 0.05 level.

** – Correlation is significant at the 0.01 level.

Primary data source: Statistical Yearbook of Lithuania; Economic and Social Development in Lithuania; Labour Force, Employment and Unemployment (Lietuvos statistikos metraštis (1997–2010), Lietuvos socialinė ekonominė raida (1993–2010), Darbo jėga, užimtumas ir nedarbas (2004–2009))

It is logical, that the growth of our economic influenced the growth of national budget income during this decade (until 2008). Still, weighty factor of the growth of national budget income is the decrease of the hidden employment (see Fig. 3). That is what the reversed correlation between these indicators show (–0.960). The relation between the number of people employed in the illegal labour market and the number of whole labour force is so tight and statistically meaningful (correlation coefficient was accordingly 0.767). Meanwhile, other correlations between labour indicators are far less significant.

Sufficiently tangible statistically significant direct correlation relationship between workers in the informal labor market and labor market indicators (correlation coefficient was 0.767, respectively) can be explained by the fact that the decline in hidden employment resulted in the decline of workforce. One of the fundamental reasons to explain this dependence – an unfavorable demographic factors influence on the the indicators in question. In addition,

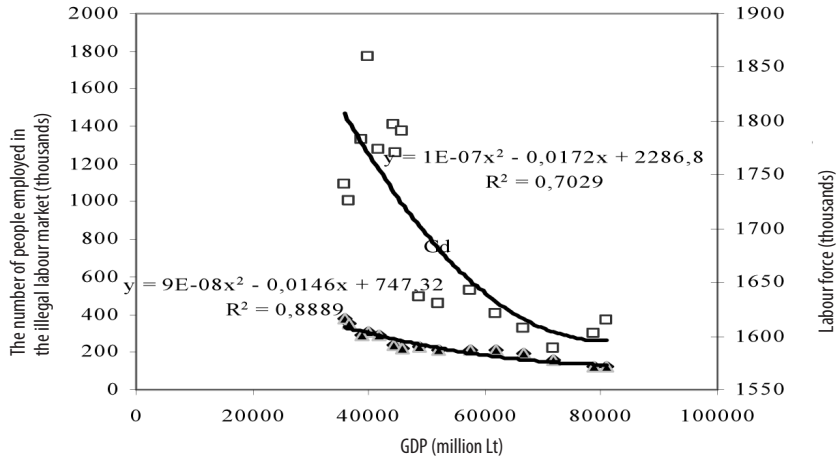

Fig. 2. The dependence between GDP, the number of people employed in the illegal labour market and the number of labour force ($p = 0.01$, the estimations are made with the reference to data of Statistics Lithuania)

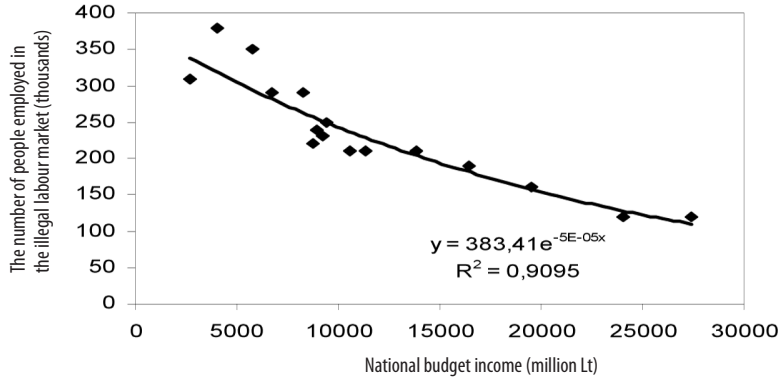

Fig. 3. The dependence between the number of people employed in the illegal labour market and the national budget income ($p = 0.01$, the estimations are made with the reference to data of Statistics Lithuania)

it was mentioned that the appeared shortage of labor market in economic growth time approvingly influenced the decline of illegal labor market. Other hidden employment indexes of correlation coefficient values are noticeably lower.

5. The evaluation of hidden employment by special (sociological) research (The research made by the Institute of Labour and Social Research in 2004–2005)

In order to analyze the situation further, the analysis of comparison between three groups is accomplished: 1. The inspectors of the State Labour Inspectorate; 2. The employers; 3. The representatives of trade unions/employees. According to the respondents from the first group, the average share of people working in the illegal labour market was lower (around 15%) in comparison to the results of in other two groups (around 22%). So, on this point,

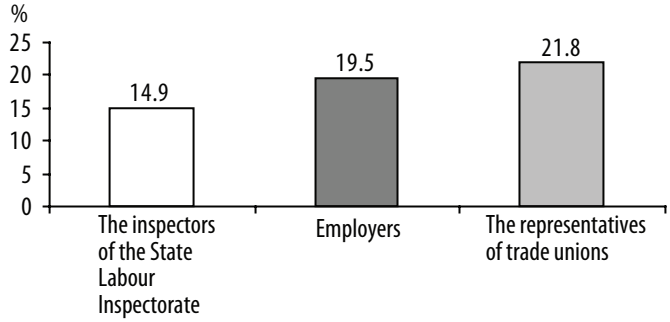

Fig. 4. The share of the people employed in the illegal labour market in Lithuania (calculated from general number of employed persons %) (special research data)

the opinions of the employers and the representatives of trade unions practically concurred (see Fig. 4) (Nelegalaus darbo, teisės aktų, reglamentuojančių darbo santykius, pažeidimų, darbdavių atstovų grasinimų ar kitokio psichologinio pobūdžio įtakos darbuotojų darbo rezultatams bei saugai ir sveikatai tyrimas 2004–2005).

It is necessary to underline that the general absolute number of employed persons (by Department of Statistics official data) was given in the questionnaire in order to help the respondents to answer the question about the share of illegally employed. This, in our opinion, enabled us to increase the correctness of the results (helped the respondents to realize the real extent of hidden employment) (see Fig. 4).

Although nowadays it is stated that in the period of downturn the illegal work and the shadow economy in Lithuania has grown, but research on this topic are almost non-existent. The results of "Swedbank" survey shows that 54% of people without formal employment in 2010 received work related income. According to the experts' estimations, illegal work and informal wages paid in envelopes encompasses even 23% of the black economy (Baltic Business News 2010).

The influence hidden employment has on the work results, the work environment and the employees. Almost half of labour inspectors and the representatives of trade unions think that hidden employment has a negative influence on work results (accordingly 46% and 45%). Meanwhile, among the employers only 36% of the respondents had this opinion. Naturally, the inspectors of the SLI had the strongest attitude towards the subject, while the employers estimation is much more liberal. As you can see from the chart below (see Fig. 5), even 9% of the leaders of companies think that hidden employment has nonnegative influence on work results.

The question "Does the hidden employment make a negative influence on work conditions, safety and health of the employees?" was answered positively by 78% of labour inspectors, 72% of the representatives of trade unions and only 56% of the employers. And on the contrary – 9% of the employers did not agree with the statement, while non of the representatives of trade unions did that. It can not be stated that the negative consequences of illegal work is strongly ignored by the employers, because their negative attitude is not very strong. For example, the answer "More Yes than No" was chosen by 31% of the employers, 22% of the representatives of trade unions and 18% of labour inspectors.

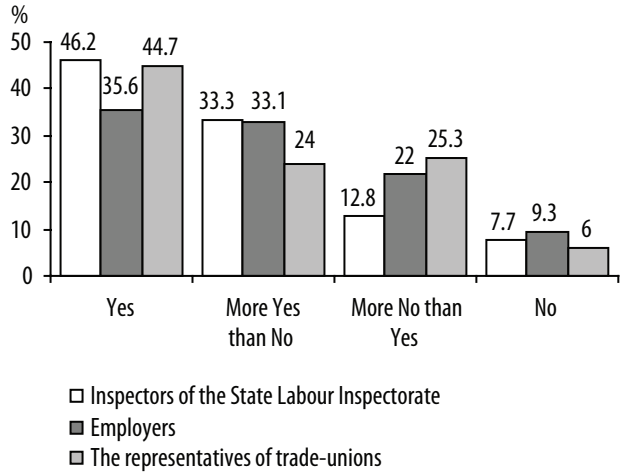

Fig. 5. The distribution of the answers to the question "Does the hidden employment make a negative influence on work results?"(%)

The attitude towards the matter between all groups of respondents is quite similar. Three main factors were pointed out by the respondents: the reduction of social guaranties, the absence of safe working conditions and the growth of psychological tension. Even 93% of labour inspectors, 84% of employers and almost 82% of the representatives of the trade unions pointed the reduction of social guaranties to employees as outcome of illegal work. Furthermore, 45% of labour inspectors, 32% of the employers and 51% of the representatives of the trade unions think that hidden employment can not assure safe working conditions. 35% of labour inspectors, 38% of the employers and 36% of the representatives of the trade unions underlined the growth of psychological tension.

6. Conclusions

1. Hidden employment (illegal work) has set in Lithuania in the times our economics moved to market economy. The undeclared size of work is closely connected to black economy. There is a need to note that problem of hidden employment is miscellaneous and that is why different methods of its evaluation are used in this article.
2. According to calculations made by authors, hidden employment in Lithuania kept growing fast and reached 380 thousand till 1994. Later (in 1995–2001) it declined substantially up to 230 thousand. 2002–2004 were the year of temporal stabilization (with a number of 210 thousand illegally employed), after which a period of sudden fall took place (down to 120 thousand in 2008).
3. One should notice that various assessments of hidden employment extent differ quite markedly. According to the calculations of the authors, which represented Institute of Social and Labour Research based on the data of the State Social Insurance the extent of hidden employment in 2003 reached about 200 thousand while according to the data of the Survey on Non-Observed Economy this number equaled about 100 thousand. Con-

stituting a general composition in 2003 it was found out that the probability of the index of the hidden employment extent was in the limits between 100 and 200 thousand. The maximum limit of this interval is based on the calculations of the authors. The differences in calculations can be explained by both the approximate character of the assessment and by the methodological differences. Unfortunately, there is no possibility to compare new indicators, due to the fact that the survey on Non-Observed Economy in our country is carried out only every 10th year.

4. Firstly, due to the methodological problems assessment of the hidden employment in the survey on Non-Observed Economy 2003 was restricted to hired employees, although this phenomenon exists among self–employed persons as well. Secondly, we think that while assessing hidden employment it would be worth to evaluate the total number of the employed persons covering both statistically not surveyed employment and surveyed employment corresponding to official LFS data using special calculations and sociologic surveys. This would help avoid understatement of the number of people working in the hidden labour market since a part of these persons are not included into the employees' number assessed by the surveys. The most disturbing fact, i.e. the fast and long–term downturn in economic activity and employment of the population in the last decade of 20th century reflected an increased influence of the black economy on employment. On the other hand, attention should be paid to the sudden drop in the general employment rate due to the impact of economic downturn at the end of the decade, which, according to official statistics would not be so significant, if not the influence of the informal labor market.
5. After disintegration of the old system of the total statistical reporting, enterprises either did not report the data on employment to Statistics Lithuania at all or these data were not accurate enough in order to assess the trends of the studied phenomenon. As the large–scale economy sector was vanishing small–scale sector started to establish itself. However, collection of information on the latter one is a very difficult task. Therefore, the need for the LFS grew significantly. It wouldn't be wrong to say that the decrease in the number of the employed persons in the first half of the last decade reflects the move of the employees from the legal to the hidden labour market but not the employment decrease. This factor should have undoubtedly distorted dynamics of the employee number. Another problem is how to assess the employment changes as accurately as possible, since the LFS data and data on employment provided till 1998 by the official statistics are not comparable. In order to solve this problem it is necessary to carry out a special survey based on calculations using data from different data sources.
6. It should be noted that hidden employment assessment methodology developed by the Institute of Labour and Social Research allows to estimate unofficial employment trends over a longer period of time. Moreover, data sources used in calculations characterize high reliability. The discussed methodology is useful for making the operational calculations. In this case it is possible to achieve acceptable accuracy of the difference using the data obtained by the total statistical reporting carried out by the State Social Insurance and the data of the Labour Exchange. Making use of the said data sources one can avoid influence of the errors characteristic of sample surveys. However, using the discussed methodology based on the data of "Sodra" (State Social Insurance), it is difficult to assess changes in

hidden employment by the economic activities. Therefore, it is not applicable for the needs of the National Accounts of official statistics, i.e. for correction of the GDP components by economic activity taking into account the extent of the black economy. On the other hand, it would be possible to expand application possibilities of proposed methodology by applying it to the general hidden employment assessment by economic activities. Considering the overall scale of illegal working methods of calculation, the distribution of the structure by economic activities could be estimated by making interwievs. In such way a few methods for the evaluation of hidden employment would be combined.

7. One of the official reasons for the inactivity of the population is the relatively high hidden employment. Obviously, hidden employment slightly reduces the official indices on the population employment and activity since not all working persons are covered by statistical reporting. Being a part of the total employment hidden employment increases the total number of the working persons in the country. However, there are no surveys on the influence of the hidden labour market on the total employment (activity) dynamics in Lithuania. There were no data on the share of illegally working persons who are not included in the number of working persons based on LFS data, although various assessments of fluctuation of total hidden employment and its distribution by the main economic activities have been made (one should distinguish here the Survey of Statistics Lithuania on Non-Observed Economy carried out in 2003).
8. A social survey accomplished by the Institute of Labour and Social Research has revealed the extent of the spread of this negative phenomenon in Lithuania. In the process of analyzing the ungrouped data, it became visible that the interval of this indicator according to different groups ranged from 15% to 22%. A very important conclusion comes from this research: the negative influence made by hidden employment is much bigger on work conditions, security and health of the employees than on the work results they achieve. Obviously, there are cases when illegal employment has a positive influence on work results – in cases when the employers of the official labour market suggest especially low salaries which do not correspond to the abilities of their employees.
9. One can state that results of the hidden employment calculations greatly lie on the quality of available data. Therefore, taking into account the possibilities of the information available, the methodology for assessment of hidden employment should be improved. However, any improvement of the methodology reveals the problem of the recalculation of indices for the previous years. This is the only way to ensure higher accuracy and comparison of the results.

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NEOFICIALAUS UŽIMTUMO TENDENCIJOS LIETUVOJE IR METODINĖS SKAIČIAVIMŲ PROBLEMOS

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Santrauka. Straipsniu siekiama įvertinti neoficialaus užimtumo apimtį ir jo dinamikos tendencijas bei apžvelgti skirtingas šio reiškinio skaičiavimų metodikas. Kadangi neoficialaus užimtumo (nelegalaus darbo) apimties įvertinimas itin sudėtinga ir įvairialypė problema, analizuojant situaciją naudotasi įvairiais duomenų šaltiniais: skirtingų institucijų apklausų duomenimis, specialių skaičiavimų rezultatais. Straipsnyje plačiai naudojami Statistikos departamento prie Lietuvos Respublikos Vyriausybės (toliau – Statistikos departamento) atlikto tyrimo rezultatai ir sukaupta patirtis, aptariamos įvairios metodinės neoficialaus užimtumo įvertinimo problemos. Dirbančiųjų neoficialioje darbo rinkoje dinamikos tendencijos įvertinamos remiantis Darbo ir socialinių tyrimų instituto mokslininkų parengta skaičiavimo metodika, prie kurios kūrimo prisidėjo straipsnio autoriai. Be to, siekiant geriau ištirti nagrinėjamą problemą naudojamasi Darbo ir socialinių tyrimų instituto atlikto specialaus tyrimo („Nelegalaus darbo, teisės aktų, reglamentuojančių darbo santykius, pažeidimų, darbdavių atstovų grasinimų ar kitokio psichologinio pobūdžio įtakos darbuotojų darbo rezultatams bei saugai ir sveikatai 2004–2005 m.“) rezultatais. Kaip parodė autorių skaičiavimai, iki 1994 m. neoficialusis užimtumas Lietuvoje augo itin sparčiai ir pasiekė maksimalią 380 tūkst. reikšmę, o 1995–2001 m. labai sumažėjo (iki 230 tūkst.). 2002–2004 m. buvo laikinas stabilizacijos laikotarpis (dirbančiųjų neoficialioje darbo rinkoje buvo 210 tūkst.), po kurio šis rodiklis sparčiai mažėjo (iki 120 tūkst. 2008 m.). Nepaisant to, palankios neoficialaus užimtumo augimo sąlygos susiformavo 2009 m., kai grėsmingos ekonominės krizės metu šalyje ypač stipriai pasireiškė ūkio nuosmukis, išaugus mokesčiams ir nedarbui tiesiog suklestėjo šešėlinis verslas. Būtina pabrėžti ir tai, kad įvairūs neoficialaus užimtumo apimties vertinimai stipriai skiriasi. Autorių skaičiavimais, kurių pagrindas yra „Sodros“ duomenys, neoficialaus užimtumo mastas 2003 m. siekė apie 200 tūkst. užimtųjų, o tų metų neapskaitomos ekonomikos tyrimo duomenimis, jis siekė apie 100 tūkst. Apibendrinant skirtingus duomenų šaltinius, galima pateikti nelegalaus darbo apimties (dirbančiųjų neoficialioje darbo rinkoje skaičiaus) tikėtinas svyravimo ribas. 2003 m. šis rodiklis galėjo svyruoti nuo 100 iki 200 tūkst. Viršutinė šio intervalo riba remiasi autorių atliktais skaičiavimais. Šiuos skirtumus galima aiškinti tiek apytikriu vertinimų pobūdžiu, tiek metodiniais skaičiavimų skirtumais. Deja, nėra galimybės palyginti naujesnių rodiklių, nes neapskaitomos ekonomikos tyrimas šalyje atliekamas maždaug kas 10 metų.

Reikšminiai žodžiai: neapskaitoma ekonomika, užimtumas, neoficialus užimtumas, neoficialaus užimtumo įvertinimas.

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