

**доц. д-р. ДЕСИСЛАВА СТОИЛОВА**

*ЮГОЗАПАДЕН УНИВЕРСИТЕТ „НЕОФИТ РИЛСКИ”, БЛАГОЕВГРАД*

**ИКОНОМИЧЕСКИ АСПЕКТИ НА ЗДРАВЕОПАЗВАНЕТО И БЕЗОПАСНОСТТА НА РАБОТНОТО МЯСТО В БЪЛГАРИЯ: ПОСТИЖЕНИЯ, ПРЕДИЗВИКАТЕЛСТВА, РЕФОРМИ**

**ECONOMIC ASPECTS OF OCCUPATIONAL HEALTH AND SAFETY IN BULGARIA: ACHIEVEMENTS, CHALLENGES AND REFORMS**

**Associate Prof. Dr. DESISLAVA STOILOVA**

*SOUTH-WEST UNIVERSITY “NEOFIT RILSKI”, BLAGOEVGRAD*

**Abstract:** This paper is intended to analyze the dynamics and economic impact of occupational accidents and diseases in Bulgaria during the period 2000 – 2009, grounded on data provided by the National Social Security Institute, the Ministry of Labor and Social Policy, and the National Center of Public Health Protection. The effectiveness of state regulations and economic incentives to improve occupational health and safety is discussed on the base of the legislation in force. The conclusion is that Bulgarian legislation in the scope of occupational health and safety is harmonized with the requirements of the EU directives regarding the implementation of measures intended to stimulate occupational health and safety improvement. Due to the stable legal base, statistics has recorded diminishing rates of work accidents and occupational diseases during the analyzed period. The economic incentives are generally recognized as an effective instrument to promote occupational safety and health in Bulgaria. They are potentially strong instruments in driving enterprises towards health and safety excellence. Basic precondition for stimulating corporate investments in occupational health and safety activities is reinforcement of the link with profitability.

**Key Words:** occupational health and safety, work accidents, occupational diseases, social insurance, economic incentives.

## **1. Introduction**

Investments in occupational health and safety have often been supported by social and ethical arguments, but during the 1990s economic arguments prevailed by calculating the cost of occupational diseases, injuries and accidents to employers, workers, society, and national economy. National governments, through their regulators and agencies aim to improve occupational health and safety (OHS) to reduce the cost to society of occupational diseases and accidents, while at the same time improving competitiveness and efficiency of the national economy. (OHS, 2007a)

The economic impact, and more specifically the estimating of the costs and benefits of occupational safety and health,

has become an important issue in all of the member states of the European Union. Moreover, the attention paid to it is still increasing. Different member states apply variety of economic incentives and instruments in occupational health and safety policy. One of the best known and most often applied tools at the moment is the cost-benefit analysis. In some member states the assessment of the economic impact is one of the standard procedures used in political decision-making process. (OHS, 2006) In other countries, such as Bulgaria, economic assessments still does not influence decision-making process on the existing and new policy measures in the scope of occupational health and safety.

Actually, cost-benefit analysis is carried out after implementation of an occupational health and safety measure in only a few EU

member states. The way assessments are performed varies from one country to another. Estimating the benefits proves to be a particularly difficult task, mainly due to the social aspects, which are often impossible to assess in monetary units. Other problems involved in estimating the benefits include a lack of reliable data, difficulties in isolating relevant factors, and the fact that benefits often become apparent only after a period of time. All of these problems exist in Bulgaria. Estimating the costs is quite easier, allowing for national and international comparisons. According to the estimations the cost of work accidents and occupational diseases as a percentage of the gross domestic product in the EU member states range from 2.6% to 3.8%. (OSHA, 2007b)

This study is intended to analyze dynamics and economic impact of occupational accidents and diseases in Bulgaria, discussing the effectiveness of state regulations and economic incentives to improve occupational safety and health. Besides the introduction the paper consists of the following sections: the second section presents a short retrospective overview the state regulations in the scope of occupational health and safety and presents the main institutions and legislation in force; sections three and four provide analyses respectively of the dynamics and economic impact and of occupational accidents and diseases in Bulgaria during the period 2000 – 2009, grounded on data provided by the National Social Security Institute, the Ministry of Labor and Social Policy, and the National Center of Public Health Protection; section five includes a brief survey on applicable economic incentives of occupational health and safety improvement; section six concludes.

## **2. OHS Regulation in Bulgaria: A Retrospective Overview**

Occupational health and safety in Bulgaria is not a new phenomenon. In 1918 the General Law on Public Social Insurance

adopted for the first time the principle of mandatory insurance for all workers and employees in private and public enterprises. The insurance covered only accidents and sickness risks. The injured worker or employee had the access to a medical assistance, cash benefits and personal pension. In case of death, the inheritors received a pension and certain amount of funeral expenses. A complete public social insurance system was created in Bulgaria by the Law on Public Insurance (1924). The system covered all categories of workers and all kinds of insurance risks, namely work accident and occupational disease, sickness and maternity, invalidity, old age, and death. Each social insurance fund enjoyed financial autonomy in respect to property and accountability.

During the communist period reorganization of social insurance system was carried out in conformity with the Labor Code (1951), the Decree on National Free Medical Aid (1951), and the Law on Pensions (1958). According to the legislation social insurance funds were absorbed by the state budget. Since the beginning of transition towards market-based economy in 1990, a broad reform related to social insurance system's legislation and institutional structure has been carried out. In response to the fast-changing legal and financial environment during the transition period, public sector finance as a whole and social insurance transactions in particular have been very dynamic. Economic stagnation, financial instability, inflation and severe budget deficits have negatively influenced the effectiveness of social insurance system during the last decade of 20<sup>th</sup> century.

Financial stabilization and economic growth, achieved during the first years of the new century, parallel to legislative amendments, stabilized the social insurance system in Bulgaria and provided a solid base for development and implementation of a complex state policy in the scope of occupational health and safety. Now, according to the Social Insurance

Code (2000), the insurance for the risks of work accident and occupational disease is mandatory under the public social insurance system, parallel to the risks of sickness and maternity, invalidity, old age, and death.

Institutionally, the **Ministry of Labor and Social Policy** (MLSP) develops, coordinates and implements state policy on public social insurance in Bulgaria. The body responsible for administration of public insurance funds, including Work Accident and Occupational Disease Fund is the **National Social Security Institute** (NSSI). The Institute is a public organization, which guarantees citizens' pensions and benefits right. NSSI is also entrusted with the care of work accidents ascertainment, investigation, registration and report. Unfortunately, there is not a legal obligation for creation of database of occupational disease incidents.

Bulgarian legislation in the scope of occupational health and safety is entirely harmonized with the requirements of Directive 89/391/EEC regarding the implementation of measures intended to stimulate occupational health and safety improvement. A strong system, comprising variety of rules, standards and requirements is developed and implemented according to the Law on Safe and Healthy Work Conditions (1997), with the purpose to prevent work accidents and occupational diseases. The **Chief Labor Inspection**, an executive agency under the Ministry of Labor and Social Policy, is entrusted with the responsibility to control the employers about the legislation observance. It reports that the majority of employers observes the legislative requirements and ensure safe work environment.

Financially, occupational accidents and diseases protection is grounded on the **Work Accident and Occupational Disease Fund** (WAODF), which is a relatively autonomous component of the public insurance system. The National Assembly adopts the NSSI budget, which is

a part of the consolidated state budget for a period of a calendar year. Work accident and occupational disease **insurance contributions** are determined in a percent of the insured persons' monthly insurance income and they are totally at the employers' expense. Since 2005 the insurance contributions rates vary from 0.4% to 1.1% differentiated by groups of economic activities. Differentiation is based on risk assessment, according to short-term and long-term expenditures, paid off by the WAODF, depending on frequency and severity of insurance cases occurred in the relevant economic activity. In order to overcome shadow economy, so called **minimal social insurance thresholds** are adopted. The thresholds guarantee the minimal monthly insurance income and vary for different professions. They are intended to legally protect the workers' social insurance rights.

**The compulsory insured persons** for work accident and occupational disease risks include all categories employed persons (workers and employees, civil and military servants). Only the self-insured persons are not insured for work accident and occupational disease on a mandatory basis. **Work accident risk** covers all cases of unexpected health injury, which caused certain work inability or death and occurred during usual work process, or with respect to labor process, or during each work, performed in interest of the enterprise, or even during the usual route from home to work place and back. **Occupational disease risk** covers diseases, occurred under the harmful factors impact, due to the labor environment, during the labor process. The occupational diseases are included in a national list, but enumeration is not exhaustive and it is possible occupational disease non-existent in the list, to be recognized in case of reduced work capacity or death.

**Insurance payments** are relatively broad and include cash benefits in the cases of temporary disability and readjustment, disability pensions, inheritors'

pensions and cash aid in case of death, prevention and rehabilitation cash aid, medical services and treatment.

Insured persons are enabled to a cash benefit in lieu of labor remuneration for the leave period, due to **temporary disability**. Benefit right does not require an insurance length of service before the insurance case. Benefit shall be paid from the first day of the disability until recovery or invalidity fact. Benefit amount due to work accident or occupational disease (90% of the gross labor remuneration) is higher than benefit amount, due to general sickness or other accident (80% of the net labor remuneration). Cash benefits for the first working day shall be paid at the employers' expense and for the remaining period – at the WAODF expense.

In case of temporary reduced work capacity, resulting from work accident or occupational disease, the worker or employee shall be transferred to other suitable work place or shall perform the same labor activity under more comfortable conditions. If this **readjustment** leads to wage reduction, the insured person receives a cash benefit, which amounts to the difference between the remuneration before and after readjustment. The benefit shall be paid for the readjustment period, but not longer than six months.

Insured persons who have lost 50% or more of their work capacity in result of work accident or occupational disease, irrespective of their insurance length of service can apply for **disability pension**. According to the legislation the amount of disability pension due to work accident or occupational disease shall not be lower than the amount, calculated as an invalidity pension due to general sickness or other accident. In case of insured person's death the inheritors (spouse, children and parents) are allowed to get an **inheritor pension** and a **cash aid**, amounting to two minimal wages.

Victims of work accidents and persons with occupational diseases receive **medical**

**services** and treatment under the usual order in the General Health and Social Assistance System. **Prevention and rehabilitation cash aid** is intended to reduce the WAODF's expenditures for cash benefits and disability pensions, by prevention and rehabilitation of work accidents victims and persons with chronic occupational diseases. Prevention and rehabilitation cash aid is a lump sum during a calendar year. It covers partially the nutrition, and completely – the main medical services and accommodation.

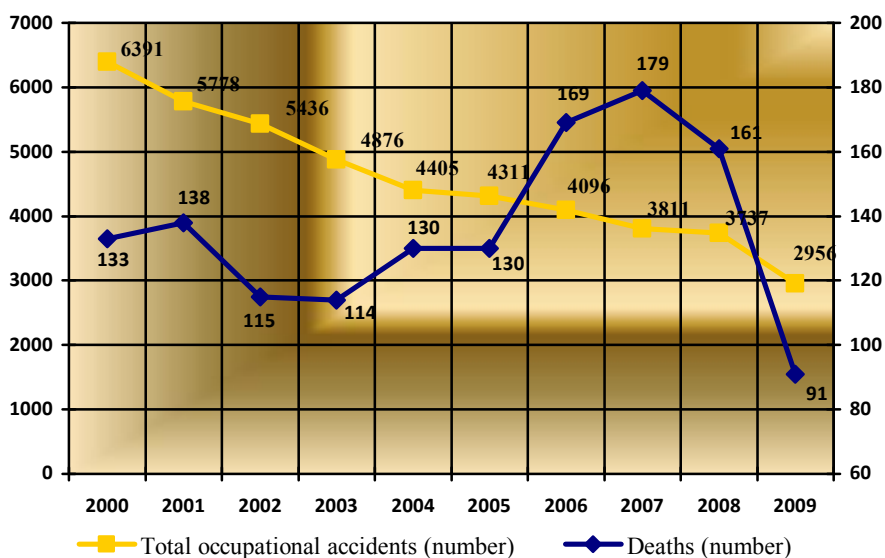
Actually, financing of the prevention measures is the weakest point of the system. Each year, some of the WAODF's resources, are transferred into the Work Conditions Fund (WCF) at the Minister of Labor and Social Policy. The WCF is set up according to the Law on Safe and Healthy Work Conditions with the purpose to finance projects and programs, aiming at work conditions improvement; development of rules, standards, and requirements; publication of educational and informative materials in the scope of occupational health and safety.

In a nutshell, occupational health and safety in Bulgaria is based on strong legislation. Workers' rights in cases of occupational accidents and diseases are institutionally and financially provided through the public social insurance system. A strong system, comprising variety of rules, standards and requirements is developed and implemented according to the Law on Safe and Healthy Work Conditions, intended to prevent work accidents and occupational diseases. The Chief Labor Inspection, an executive agency under the Ministry of Labor and Social Policy, is entrusted with the responsibility to control the employers about the legislation observance. It reports that the majority of employers observes the legal requirements and ensures safe work environment.

### 3. Occupational Accidents and Diseases Dynamics in Bulgaria (2000 – 2009)

Typical of the period 2000-2009 is a sustainable tendency to occupational accidents reduction. From 6 391 in 2000, occupational accidents diminished to 4 405 in 2004 and reached 2 956 in 2009, registering 53.7% decrease. Incidence rate, measured as number of accidents per 1000 persons in employment, decreases due to decrease of occupational accidents on the one hand, and increase of insured persons

on the other hand. The reduction of the incidence rate is 62.7% - from 2.87 in 2000 to 1.07 in 2009. Due to the economic growth accompanied by unemployment decrease and measures against shadow economy, insured persons for the analyzed period increase from 1 900 940 in 2000 to 2 765 577 in 2009. A negative tendency – the fatal accidents increase by 21.1%, from 133 in 2000 to 161 in 2008 was overcome in 2009. Moreover, deaths represent only 3.1% of the total accidents number.

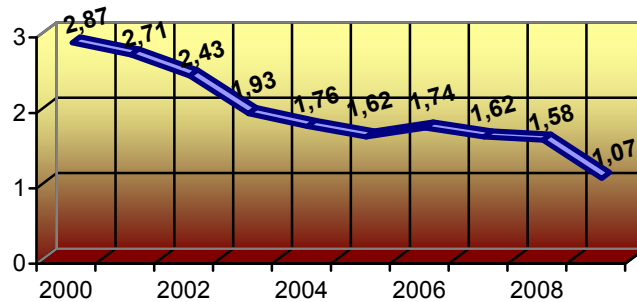


**Chart 1 Occupational Accidents in Bulgaria (2000 – 2009)**

Source: National Social Security Institute

According to the International Labor Organization database, the incidence rate of work accidents in Bulgaria (1.07) is relatively low by comparison with the rates officially reported by Luxembourg (65.7), Spain (58.2), Slovenia (42.6), France (39.4), Austria (39.3), Portugal (38.7),

Belgium (37.9), Finland (28.9), Germany (28.4), Malta (27.8), Italy (27.5), Czech Republic (16.8), Denmark (15.8), Greece (7.8), Sweden (7.5), Cyprus (6.9), Slovakia (6.5), Estonia (5.7), Hungary (5.3), United Kingdom (5.2), Lithuania (3.1), Latvia (1.7), and Romania (0.8).



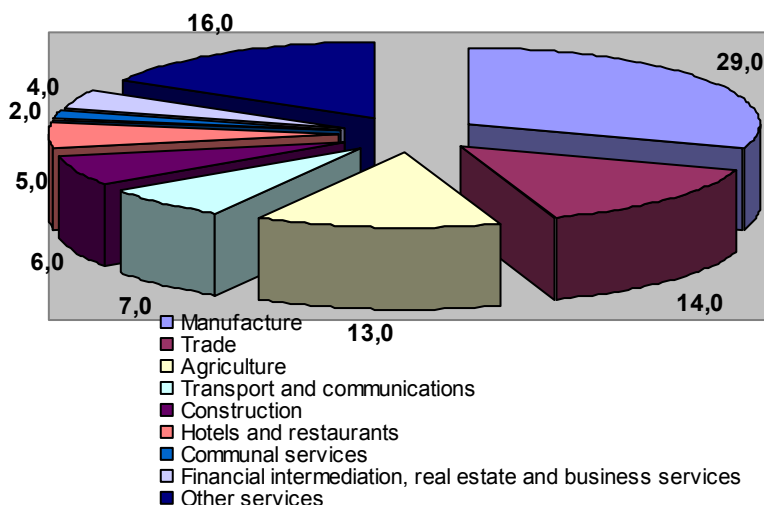
■ Accidents at work (per 1 000 persons in employment)

**Chart 2 Incidence Rates of Work Accidents in Bulgaria (2000 – 2009)**

Source: National Social Security Institute

Normally, different economic activities do not contribute equally to the employment and accidents occurrence. Prevailing share of the work force (29%) is employed in the manufacture, followed by the trade (14%) and agriculture (13%). The employed in the transport and communications sector represent 7% of the work force. In the construction sector are engaged 6% of the

employed. There is a tendency toward increase the employment in the service sector (27%). For example 5% of the work force is employed in the hotels and restaurants, 2% - in the communal services, 4% offer financial intermediation, real estate and business services, and 16% offer others types of services.

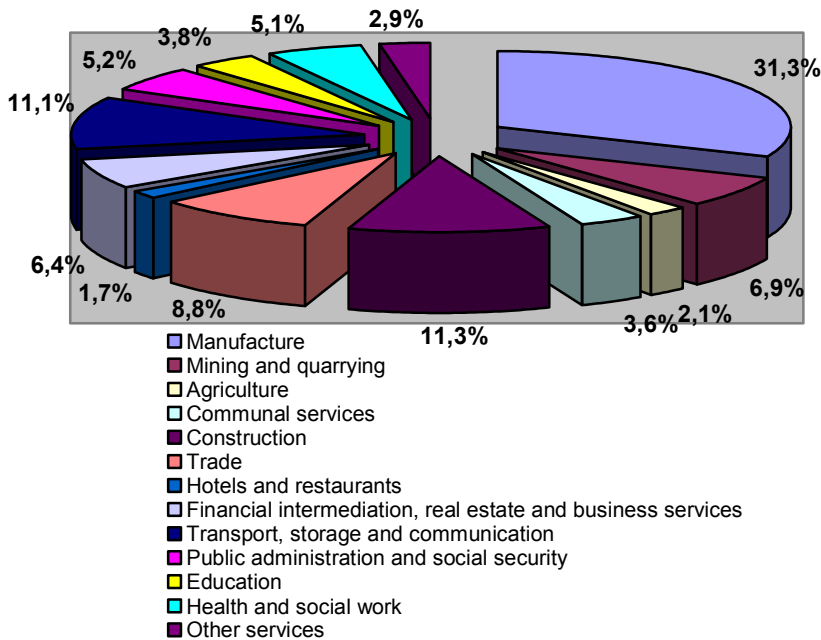


**Chart 3 Employment by Economic Activity (%), 2009**

Source: Ministry of Labour and Social Policy

Traditionally, manufacturing registers 31.3% of total accidents at work in 2009, followed by construction (11.3%), transport (11.1%), wholesale and retail trade, repair of motor vehicles and household goods (8.8%), mining and quarrying (6.9%). Comparatively moderate is the contribution of the sectors financial intermediation, real estate and business services with 6.4% of

the total work accidents, public administration and social security (5.2%), health and social work (5.1%), education (3.8%), electricity, gas and water supply (3.6%). Expectantly low is the share of economic activities such as agriculture, hunting, fishing and forestry (2.1%), hotels and restaurants (1.7%), and all the other services (2.9%).

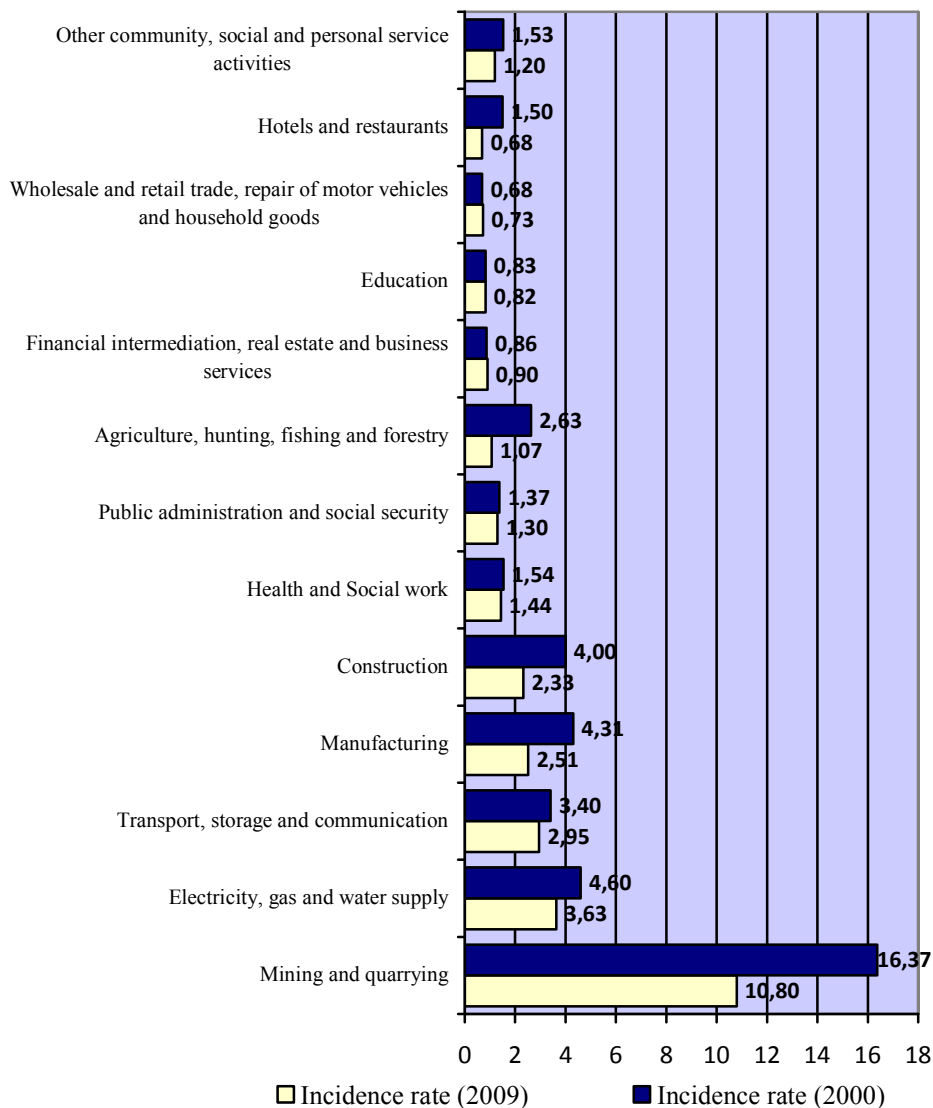


**Chart 4 Accidents at Work by Economic Activity, 2009**

Source: National Social Security Institute

According to the incidence rate, the riskiest economic sector is mining and quarrying with 10.8 accidents per 1000 employed, which exceeds almost seven times the national average (1.58) in 2009. Above the average are the rates in sectors as electricity, gas and water supply (3.63), transport, storage and communication (2.95), manufacturing (2.51), and construction (2.33). Near the average are

activities as agriculture, hunting, fishing and forestry (1.55), health and social work (1.44), public administration and social security (1.30). Economic activities, associated with relatively low risk of work accidents are financial intermediation, real estate and business services (0.90), education (0.82), trade, repair of motor vehicles and household goods (0.73), hotels and restaurants (0.68).



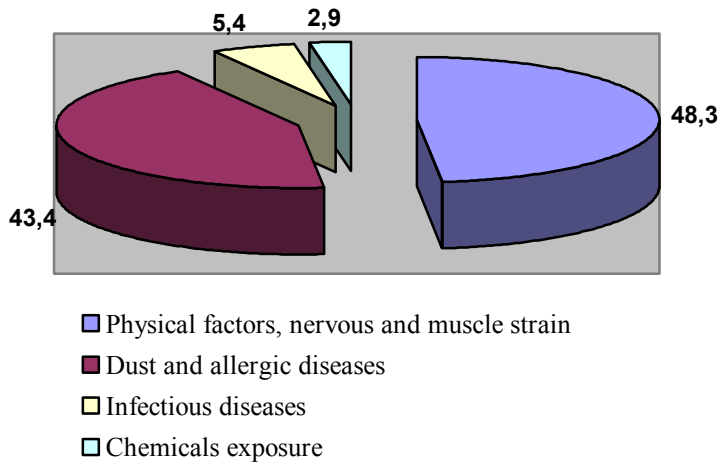
**Chart 5 Incidence Rates by Economic Activities**

Source: National Social Security Institute

The most significant incidence rate reduction for the analyzed period has been recorded in the economic sectors hotels and restaurants (54.7%), manufacturing (41.8%), construction (41.8%), agriculture, hunting, fishing and forestry (41.1%), mining and quarrying (34.0%), electricity, gas and water supply (21.1%), transport, storage and communication (13.2%). Comparatively moderate is incidence rate

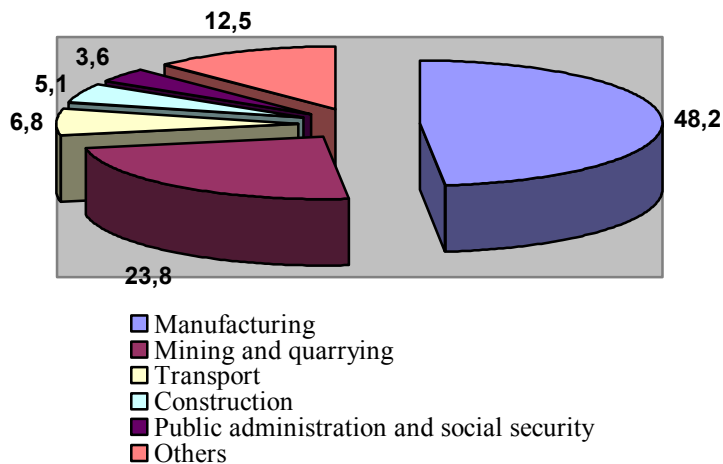
reduction in the public administration and social security (5.1%), health and social work (6.5%), and education (1.2%). Only two economic sectors register increase of the incidence rate, but the percentages are insignificant – 7.4% and 4.7% respectively in the sectors trade, repair of motor vehicles and household goods, and financial intermediation, real estate and business services.





**Chart 6 Occupational Diseases by Factors (%), 2009**

Source: National Center of Public Health Protection



**Chart 7 Occupational Diseases by Sectors (%), 2009**

Source: National Center of Public Health Protection

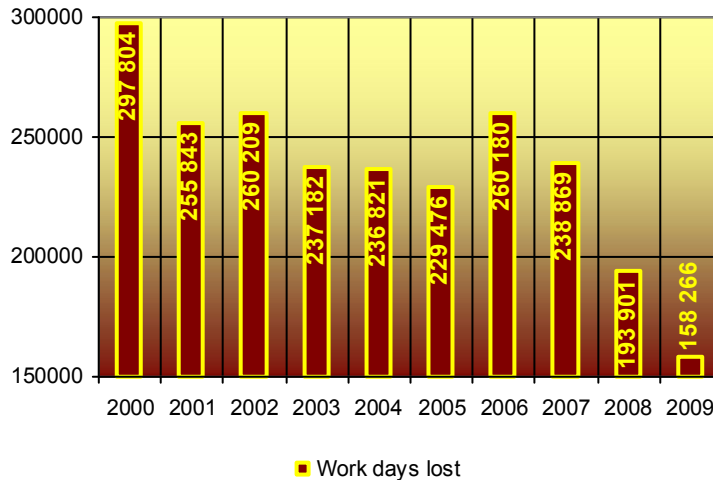
According to data, provided by the National Center of Public Health Protection occupational disease incidents, registered for the period 2000-2009 totaled up to 2643. In 2009 there are only 72 new cases recorded, which represents 31% and 75% decrease by comparison with the new occupational disease incidents registered respectively in 2006 and 2002. Different types of occupational diseases contribute to the total number of incidences in 2009 as follows: physical factors, nervous and

muscle strain - 48.3%, dust and allergic diseases - 43.4%, infectious diseases - 5.4%, and chemicals exposure - 2.9%. The most significant number of occupational disease incidents is registered in the economic sectors such as manufacturing (48.2%), mining and quarrying (23.8%), transport (6.8%), construction (5.1%), public administration and social security (3.6%).

#### 4. Economic Impact of Occupational Accidents and Diseases in Bulgaria (2000 – 2009)

Parallel to the occupational accidents and diseases reduction, the number of working days lost during the analyzed period has diminished with 46.9% from 297 804 days in 2000 to 158 266 days in 2009. Financially, economic costs of work

accidents and occupational disease in Bulgaria are measured by the total expenditure of the Work Accidents and Occupational Disease Fund. Due to inflation and salaries increase, typical of the periods of economic growth, total expenditure of the WAODF raised with 96.6%, from 14.9 millions euro in 2000 to 29.3 millions euro in 2009.

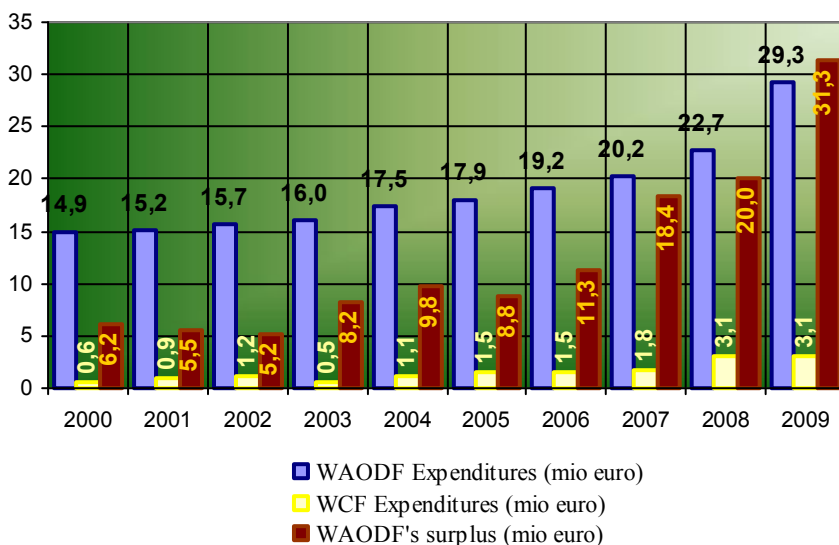


**Chart 8 Number of Work Days Lost (2000-2009)**

Source: National Social Security Institute

Specific of public sector economics in Bulgaria is the tendency of enormous budget surpluses accumulation, especially after fiscal year 2003. The total consolidated budget surplus varies between 1.7% (2004) and 3.8% (2008) of the gross domestic product (GDP). As a component of the National Social Security Institute's budget, the WAODF has recorded a surplus for each fiscal year of the analyzed period. It is interesting to note that parallel to the WAODF's total expenditure increase with 52.3%, the surplus increase for the same period is 222.6%, from 6.2 millions euro in 2000 to 20.0 millions euro in 2008. Measured as a percent of the total

expenditure the WAODF's budget surplus represents 41.6% in 2000 and reaches the record-breaking 106.8% in 2009. Due to the currency board, which preserved financial stability, Bulgaria faced the new world economic crisis later than most of the countries. In 2009 a budgetary deficit of 0.8% of GDP occurred, but WAODF's budget surplus (31.3 mio Euro) was not affected. The effectiveness of such enormous surplus is doubtful, having in mind unexplored possibilities for prevention measures strengthening and undeveloped system of economic incentives to occupational health and safety improvement in Bulgaria.



**Chart 9 Public Expenditures for Occupational Accidents and Disease in Bulgaria (2000 – 2009)**

Source: National Social Security Institute

Financing of prevention and rehabilitation activity is the weakest point of the system. Prevention measures are financed in two ways – directly from the WAODF on the one hand and from the Work Conditions Fund (WCF) on the other hand. However, the WCF is funded by transfers from the WAODF. During the period 2000 – 2009 the WAODF's expenditure for prevention and rehabilitation measures have been cut down by 3.5 times in absolute terms, from €18 304 in 2000 to €7 492 in 2004 and €5 018 in 2009. In relative terms prevention and rehabilitation expenditure represent 0.1% of the WADOF's total expenditure in 2000, 0.04% in 2004 and only 0.02% in 2009. In other words 99.98% of the WAODF's expenditures in 2009 are directed toward compensating the consequences and only 0.02% are referred toward preventing the accidents. A positive tendency is Work Conditions Fund's budget increase from 0.6 millions euro in 2000, to 1.1 million euro in 2004, and 3.1 millions euro in 2009. In relative terms WCF's budget represents 4.0%, 6.3%, and 10.6% of the WADOF's total expenditure, respectively in 2000,

2004, and 2009. However, some of the WADOF's budget surplus should be directed towards development of the system of economic incentives to occupational health and safety improvement in Bulgaria.

### 5. Applicability of the Economic Incentives of OHS Improvement

Economic incentives aim to stimulate enterprises to invest in management of occupational health and safety by making it more financially attractive. They are potentially strong instruments in driving companies towards safety and health excellence, especially if they reinforce the link with profitability. In general, to be considered successful, incentives must stimulate company's activities that are both beyond what is already required by law and would not otherwise have been carried out. By this reason, economic incentives are considered an approach that encourages the companies "to go a step further" than legal requirements in the occupational health and safety activities. However, assessment of their effectiveness is not straightforward in practice and systematic

empirical assessments of existing incentives are rare.

Economic incentives of various types exist in all member states of the European Union. They are usually put in place by public administration or by insurers and may act at national, regional or sector level. Basically, they grant financial advantages to companies that improve the quality of their working conditions. The most popular economic incentives may be broadly divided into three categories: firstly, state subsidies, grants, and other types of financing, secondly, incentives based on tax systems and thirdly, insurance premium variation.

**Subsidies** that promote the occupational health and safety measures exist in a majority of the EU member states. Examples include government programs that subsidize companies to invest in safe machinery, innovative production methods or models of work organization. However, only in a few member states the effects of these subsidies are evaluated. **Tax policy** of a majority of the EU member states is tailored to influence the behavior of companies. Corporate tax reduction, for instance, is often offered to employers who invest in equipment or machinery that is safer than the minimum legal requirement. (OSHA, 2005)

Incentives of the third type aim to establish a strong link between the **insurance premium** paid by a company and its safety and health performance. Premium graduation often reflects outcomes following past exposures (e.g. hearing loss as a consequence of many years of noise exposure) or current exposures (e.g. the current exposure to noise at the company). In addition, premium graduation may be more or less aggregated. It may be focused on the performance of the economic sector to which the company belongs or on the performance of the individual company.

In Bulgaria economic incentives are not a usual practice. Subsidies and corporate tax reduction have never been applied as incentive of occupational health and safety improvement. Social insurance contribution is differentiated, but economic incentives in insurance policy are more related to the economic sector experience than to assessment of the effectiveness of the individual organization's safety and health arrangements. The applicability of economic incentives has been outlined for the first time in the Strategy for occupational health and safety (2008 – 2012) and the National Program for occupational health and safety (2009), which were adopted in 2008. Now, the economic incentives are generally recognized as an effective instrument to promote occupational safety and health.

## 6. Conclusion

In general, occupational health and safety in Bulgaria is based on strong legislation. Workers' rights in cases of occupational accidents and diseases are institutionally and financially provided through the public social insurance system. Bulgarian legislation in the scope of occupational health and safety is entirely harmonized with the requirements of Directive 89/391/EEC regarding the implementation of measures intended to stimulate occupational health and safety improvement. A strong system, comprising variety of rules, standards and requirements is developed and implemented according to the Law on Safe and Healthy Work Conditions, with the purpose to prevent work accidents and occupational diseases. According to the official reports the majority of employers observes the legislative requirements and ensures safe work environment.

During the period 2000 – 2009, due to the stable legal base, Bulgarian statistics has recorded diminishing rates of work accidents and occupational diseases. Work accidents register 41.5% decrease, while the reduction of the incidence rate is 45% -

from 2.87 in 2000 to 1.07 in 2009. According to the International Labor Organization database, the incidence rate of work accidents in Bulgaria is relatively low by comparison with the rates officially reported by the EU member states. Newly registered cases of occupational disease have been reduced by 75%. Parallel to the occupational accidents and diseases reduction, the number of working days lost during the analyzed period has diminished with 46.9%.

Financially, economic costs of work accidents and occupational disease in Bulgaria are measured by the total expenditure of the Work Accidents and Occupational Disease Fund. Due to inflation and salaries increase, typical of the periods of economic growth, total expenditure of the WAODF raised with 52.3%, from 14.9 millions euro in 2000 to 22.7 millions euro in 2008. Even in the first year of crisis 2009 is reported an increase of the expenditures for work accidents and occupational diseases to 29.3 millions euro. The financial focus should be shifted from alleviating the consequences of occupational accidents and diseases towards strengthening the prevention measures. The tendency of enormous budget surpluses accumulation, specific of public sector economics in Bulgaria, especially during the period 2003-2008, is valid for the WAODF's budget as well. The surplus increase for the analyzed period is 222.6%. Measured as a percent of the total expenditure the WAODF's budget surplus represents 41.6% in 2000 and reaches the record-breaking 106.8% in 2009. The effectiveness of such enormous surplus is doubtful, having in mind unexplored possibilities for prevention measures strengthening and undeveloped system of economic incentives to

occupational health and safety improvement in Bulgaria.

The economic incentives are generally recognized as an effective instrument to promote occupational safety and health in Bulgaria. Subsidies and corporate tax reduction can and should be applied as incentive of occupational health and safety improvement. Social insurance contributions are differentiated, but economic incentives in insurance policy are more related to the economic sector experience than to assessment of the effectiveness of the individual company's safety and health arrangements. The efforts should be directed toward shifting from generalization to innovative solutions differentiated for small and large companies, taking into account the individual company's safety and health performance. Basic precondition for stimulating corporate investments in occupational health and safety activities is reinforcement of the link with profitability.

Some of the following issues need further consideration. Firstly, the relationship between traditional occupational safety and health regulation and economic incentives: how should these two kinds of instrument interact and what are their respective roles? Secondly, the free riders problem in the case of tax incentives and subsidies: to what extent free riders present a problem and, if so, should public money be used to pay for something that may have happened anyway? Thirdly, the heterogeneity of companies, with the most typical difference between small and medium enterprises and other companies: how can economic incentives be effective for all companies without losing efficiency?

## References:

1. European Agency for Safety and Health at Work (OHSA). (2000). "The State of Occupational Safety and Health in the European Union – Pilot Study," Luxembourg: Office for Official Publications of the European communities
2. European Agency for Safety and Health at Work (OHSA). (2005). "Effectiveness of Economic Incentives to Improve Occupational Safety and Health," <http://osha.europa.eu/en/publications/forum/14>. (10.03.2010)

3. European Agency for Safety and Health at Work (OSHA). (2006). "Economic Impact of Occupational Safety and Health in the Member States of the European Union," <http://osha.europa.eu/en/publications/>. (16.03.2010)
4. European Agency for Safety and Health at Work (OSHA). (2007a). "National Economics and Occupational Safety and Health," <http://osha.europa.eu/en/publications/factsheets/76>. (10.03.2010)
5. European Agency for Safety and Health at Work (OSHA). (2007b). "The Business Benefits of Good Occupational Safety and Health," <http://osha.europa.eu/en/publications/factsheets/77>. (10.09.2010)
6. International Labor Organization. Labor Statistics. <http://laborsta.ilo.org/STP/do>. (22.09.2010)
7. Ministry of Labor and Social Policy of the Republic of Bulgaria. (2008a). "Strategy for Occupational Health and Safety (2008-2012)". <http://www.mlsp.government.bg/bg/docs>. (28.02.2010)
8. Ministry of Labor and Social Policy of the Republic of Bulgaria. (2008b).
9. "National Program for Occupational Health and Safety 2009". <http://www.mlsp.government.bg/bg/docs>. (28.02.2010)
10. National Social Security Institute Database. <http://www.noi.bg/en>. (20.09.2010)
11. National Social Security Institute. (2008). "Social Insurance in Bulgaria in 2007 Yearbook", Sofia
12. National Center of Public Health Protection. <http://www.ncphp.government.bg/>. (25.10.2010)

---

Настоящата статия е разработена в рамките на Проект „ROWER” финансиран по 7-ма Рамкова програма за научни изследвания на Европейския съюз.

The present article was worked out within the frames of the "ROWER" Project funded under the EU 7<sup>th</sup> Framework Programme for scientific research.

---