

Labour Inspection as One of the Main Mechanisms for Controlling Occupational Injuries

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Abstract: Purpose of the study is to investigate occupational injuries according to the statistics from labour inspectorates (State Labour, International Labour Organization. ILOSTAT, Państwowa inspekcja pracy), to assess the safety of production processes in Ukraine and countries of the world.

Methodology. The methodical approach to the assessment of safety of production processes, protection of workers from dangers and risks in the areas of supervision of Ukraine and foreign countries of the world was carried out based on the statistics of the reports of the State Labour Service of Ukraine (State Labour), International Labour Organization. Ilostat, Państwowa inspekcja pracy using a logical method of cognition (analysis, synthesis, abstraction, generalization, deduction, induction, analogy, etc.), statistical method of injury analysis. The occupational injuries dynamics in Ukraine and countries of the world (Poland, Italy, Turkey, China, Japan, etc.) have been investigated, the comparative analysis has been made and regularities of its growth or decrease have been identified.

Findings. Based on the data analysis of the State Labour Service of Ukraine, International Labour Organization. Ilostat, Państwowa inspekcja pracy for the period it was found that the state of occupational injuries is declining, both in Ukraine and in the countries of the world. It has been revealed that the most dangerous industries in Ukraine are coal, socio-cultural, trade, transport and agro-industrial spheres. At present, the most dangerous industries in foreign countries are the construction and manufacturing industries.

Practical value. The analysis of occupational injury data from countries around the world makes it possible to evaluate the work of labour inspectorates. On the basis of statistics, supervision areas and the relevant authorities can predict, prevent and eliminate potential industrial hazards ahead of time, to offer promising ways to increase the level of occupational safety in Ukraine based on positive foreign experience.

Keywords: *about inspection, occupational safety, supervision, occupational injuries, dynamics of occupational injuries, legal regulation on occupational safety.*

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Introduction

The State Labour Service of Ukraine (State Labour) is an executive body that implements government policy on supervision, control, prevention of occupational injuries and diseases at work, compliance with labour legislation, employment of population, employment of the disabled, child labour, etc.

Sustainable economic development of the state depends on the successful solution of issues in the field of labour protection; formation of a modern, safe and healthy production environment; reduction of risks of occupational injuries, occupational diseases at work to an acceptable minimum [1].

One of the main functions of the labour inspectorate is to carry out constant control and supervision to identify deficiencies and take timely measures to eliminate them, prevent occupational injuries, ensure occupational safety for workers and society and prevent violations of labour legislation. Ukraine and countries of the world have created a complex system of regulations on labour protection, implemented a number of programs, measures to ensure the safety of production processes and eliminate possible risks in modern production.

Literature Review

The research of Denhere et al. (2022) presented the interoperability readiness of healthcare practitioners in Zimbabwe considering influence by institutional support and government policy through standards and regulation including personnel training. Some scholars made research on post-Traumatic stress symptoms among a sample of abused women and the results indicated that the prevalence of symptoms of anxiety Post-traumatic stress is average among abused women and low among non-violent women (Banisaeed et al., 2022)

The state of occupational injuries is the subject of study of many scientists: economic issue of the on-the-job injury rate determinants in coal mines (Churikanova, 2012); safety technology and health in the production and processing animal products (Kamenska, 2014); disease arising from occupational exposures (Driscoll, 2018); illness arising from excess heat exposure (Fortune et al. 2013); a systematic analysis for the Global Burden of Disease Study 2016» (Gakidou et al., 2017); worker health and safety and climate change in the Americas (Keifer, et al., 2016); occupational disease prevention and control in China (Wang, Tao, 2012).

The International Labour Organization (ILO) emphasizes that statistics on occupational injuries are needed to assess the degree of protection of workers from occupational injuries that complement the indicators of labour inspections, given that the labour inspection is one of the main mechanisms for controlling occupational safety.

Labour inspection statistics play a crucial role in the national labour inspection policies development, systems, programs and strategies. Statistical evidence also allows governments to track labour market trends and better analyse the issues of their compliance.

Unsolved aspects of the problem.

Attention to the analysis of the risks of injuries to workers and the most accidents at work is due to the fact that statistical indicators of injuries in the workplace are constant in world practice. Thus, according to the ILO, millions of workers die and are injured every year. Statistical indicators of occupational injuries according to labour inspections [10, 11, 12] per day, month, year have large figures. This gives reason to think about the causes of injuries in the workplace in various areas of supervision; what is to be done to avoid dangers; how to improve the work of enterprises, organizations, inspections in order to minimize occupational injuries and deaths in the workplace.

Occupational injuries in Ukraine and around the world annually result in significant human, economic, material and moral damage. Given this, the safety of production processes and labour protection is one of the main problems in the world.

The purpose is to investigate occupational injuries according to the statistics from labour inspectorates (State Labour, International Labour Organization. ILOSTAT, Państwowa inspekcja pracy), to assess the safety of production processes in Ukraine and countries of the world.

Methods

The methodological approach to assessing the safety of production processes, protection of workers from hazards and risks in the areas of supervision of Ukraine and foreign countries was carried out according to statistics of the State Labour Service of Ukraine (State Labour), International Labour Organization. Ilostat, Państwowa inspekcja pracy using the logical method of cognition (analysis, synthesis, abstraction, generalization, deduction, induction, analogy, etc.), the statistical method of injury analysis. The occupational injuries dynamics (including deaths) in Ukraine and in the countries of the world (Poland, Italy, Turkey, China, Japan, etc.) was studied,

the comparative analysis was conducted and the patterns of its increase or decrease were identified.

Results

The State Labour Service activity is guided by the regulatory and legal framework: the Constitution of Ukraine; laws of Ukraine: “On Labour Protection” of October 14, 1992; “On Trade Unions, Their Rights and Guarantees of Activity” of September 15, 1999; “On Collective Agreements and Treaties” of July 1, 1993; “On Approval of the National Social Program for Improving Safety, Occupational Health and the Working Environment for 2014-2018” of April 4, 2013; “On High-Risk Facilities” of January 18, 2001; “On Standardization” of June 5, 2014; “On Fire Safety” of December 17, 1993, “On Road Traffic” of June 30, 1993; the Labour Code of December 10, 1971; the Code of Ukraine on Administrative Offenses of December 7, 1984; resolutions and orders of the Cabinet of Ministers of Ukraine; normative legal acts of the ministries and departments; norms of international law; international conventions, etc.

Having analysed occupational injuries according to the statistics of the State Labour Service of Ukraine for 2011-2018, we found that in Ukraine, 4-10 thousand people are annually injured at work, including about 400-700 fatal casualties, despite the diligent work of the state executive bodies. Accordingly, some workers become disabled or get occupational diseases. In addition, we want to note a positive trend to reduce occupational injuries in all areas of supervision (Figures 1, 2).

The state of occupational injuries in Ukraine decreased by 61.3 % during the period 2011-2018, including fatal casualties – by 40.3 %. Thus, in the coal supervision sector – by 83.0 and 87.0, respectively, in the oil and gas exploration and geology exploration industry – by 19.4 and 50.0, in the energy sector – by 24.8 and 47.6, in the construction industry – by 58.4 and 29.9, in the field of boiler control, lifting structures – by 59.5 and 27.3, in the field of mechanical engineering – by 62.4 and 29.6, in the metallurgical industry – by 53.1 and unchanged, in the chemical industry – by 52.1 and 7.1, in the communications industry – by 8.0 and unchanged, in the gas industry – by 52.2 and 100.0, in the housing sector of the communal economy – by 49.8 and 22.7, in the field of agro-industrial complex – by 52.8 and 45.5, in the field of woodworking industry – by 46.8 and unchanged, in the field of light and textile industry – by 5 and unchanged and in the field of socio-cultural sphere and trade – by 33.9 % and 39.6 %. The highest percentage of injuries with fatal casualties in the above period have mining and non-metallic as well as transport industries – by 37.5 % and 10.0 %, respectively.

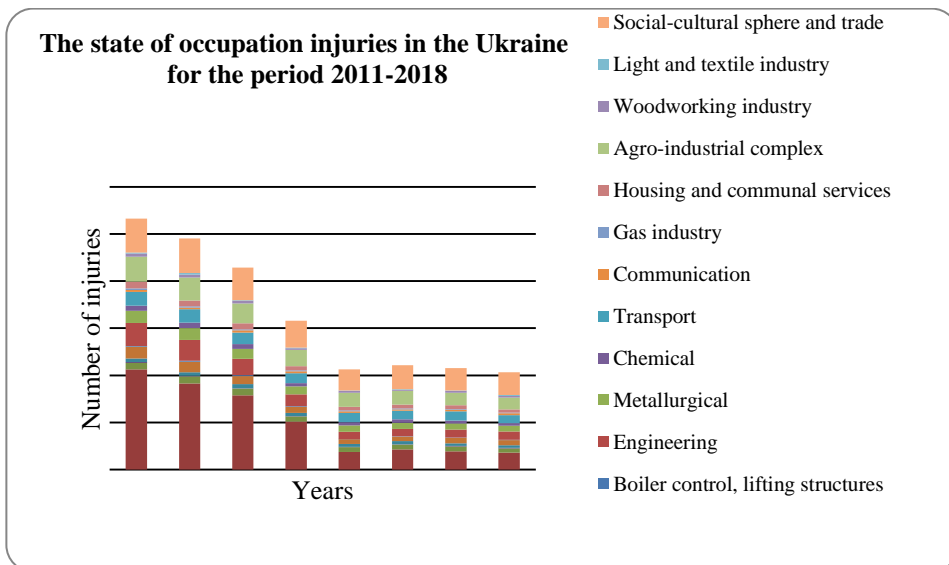


Figure 1. Occupational injuries dynamics by areas of supervision at the enterprises of Ukraine for 2011-2018

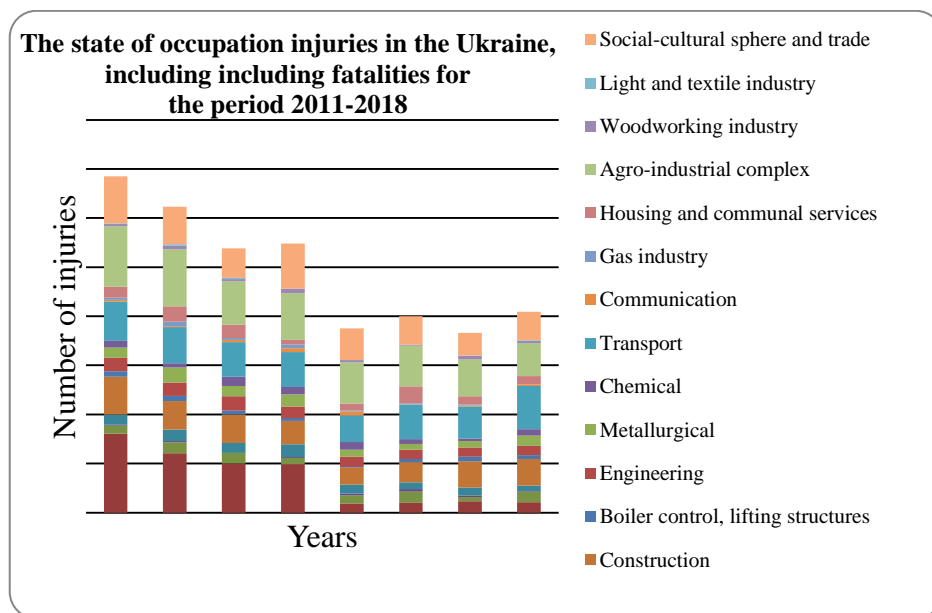


Figure 2. Occupational injuries dynamics with fatal casualties by industry at the enterprises of Ukraine for the period 2011-2018

The results of our research are consistent with the research of Churikanova, (2012); Rogach, & Komar (2013); Pakhomov et al. (2015) and other scientists. Of course, the reduction in occupational injuries (including fatal casualties) is the result of the fruitful work of labour inspectorates and other regulatory bodies that supervise and control economic entities and work to improve and implement measures in order to improve safety, occupational health and working environment, in accordance with the “ILO Decent Work Program for Ukraine for 2016-2019”, “National Social Program for Improving Safety, Occupational Health and the Working Environment for 2014-2018” and other regulatory documents.

In addition, the number of enterprises (mine closures, liquidation of enterprises, etc.) decreased in Ukraine for the period 2013-2018 by 14.5 % and the number of economically active population of working age (demographic crisis, external labour migration, ATO) decreased by 10.1 % (Figure 3.).

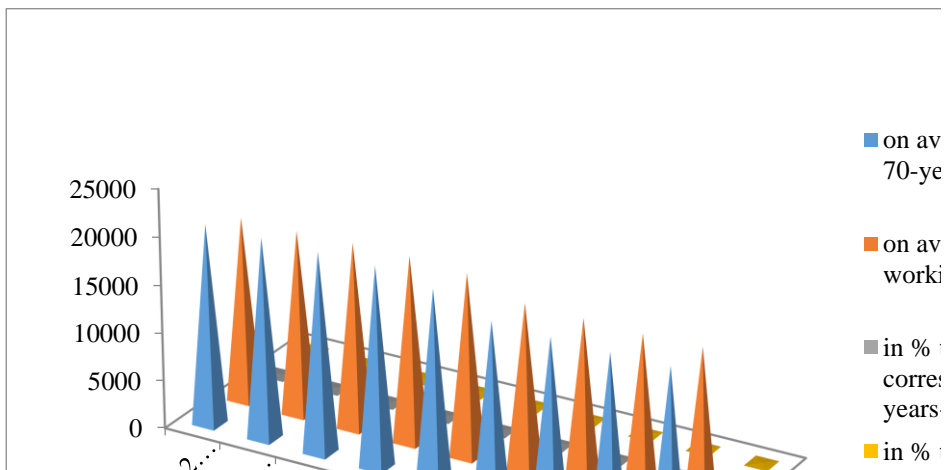


Figure 3. The main indicators of the labour market (2010-2018)

The rate of occupational injuries also tends to decrease in many foreign countries around the world (according to ILOSTAT) [11]. Thus, in 2006-2018 in countries such as Austria, occupational injuries decreased by 21.3%, in Belize – by 14.6, in Bulgaria – by 10.1, in Cyprus – by 14.3, in the Czech Republic – by 28.7, in Denmark – by 18.1, in Finland – by 4.0, in Germany – by 1.9, in Greece – by 81.1, in Hong Kong (China) – by 9.8, in Israel – by 38.9, in Italy – by 35.0, in Kazakhstan – by 22.0, in Kyrgyzstan – by 40.8, in Mauritius – by 21.7, in Mongolia – by 15.9, in New Caledonia – by 16.8, in Norway – by 99.8, in Panama – by 63.2, in Qatar – by 72.9, in

Slovenia – by 27.3, in the United Kingdom – by 10.9 and in In the United States – by 24.6%.

During the period 2011-2018, fatal occupational injuries decreased in Azerbaijan, Israel, Japan, Singapore, Sri Lanka, Egypt, Austria by 39.1 %, 19.4, 11.2, 32.8, 27.0, 79.4 and 62.9 %, respectively (Figure 4).

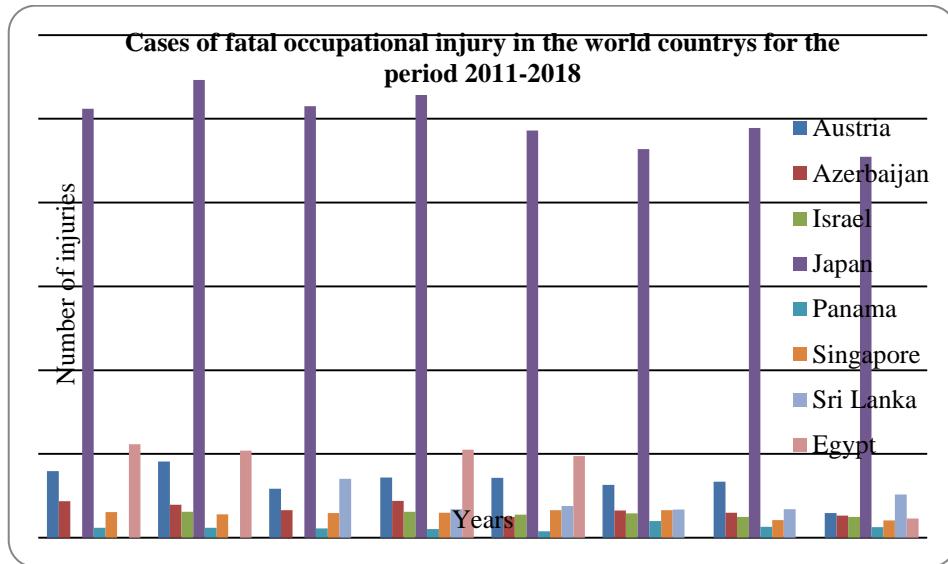


Figure 4. Cases of fatal occupational injuries for the period 2011-2018 according to the International Labour Organization [9]

In 2011-2016, similarly fatal injuries in Austria decreased – by 49.6%, in Azerbaijan – by 25.3, in Japan – by 9.4, in Belgium – by 5.3, in Bulgaria – by 14.9, in Hungary – by 1.2, in Italy – by 43.3, in Lithuania – by 11.8 and in Turkey – by 17.3% (Figure 5). Fatal accidents predominated in the construction industry in Japan, Turkey, Colombia, Italy and France, except Colombia where the industrial sector of the real estate industry predominated.

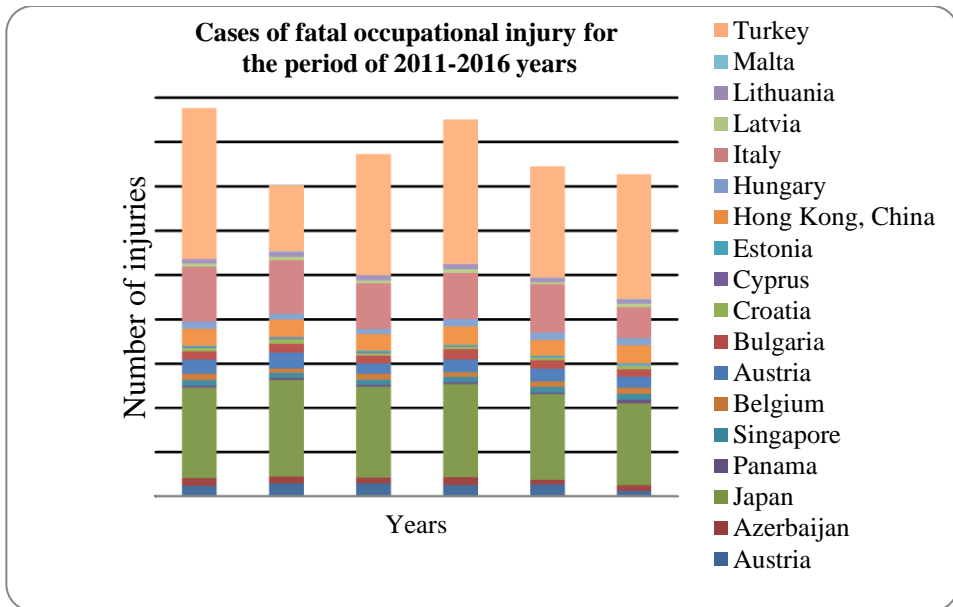


Figure 5. Cases of fatal occupational injuries for the period 2011-2016 according to the International Labour Organization. [9]

In China (Figure 6), the overall decline in fatality rate and accidents at work has been stable, but not as rapid as in the coal industry. From 2005 to 2018, the number of deaths in coal mines decreased by 95%, while the overall annual rate of decline made about 73%. Currently, the most dangerous industry in China in terms of accidents is the construction industry (Figure 7). (China labour bulletin).

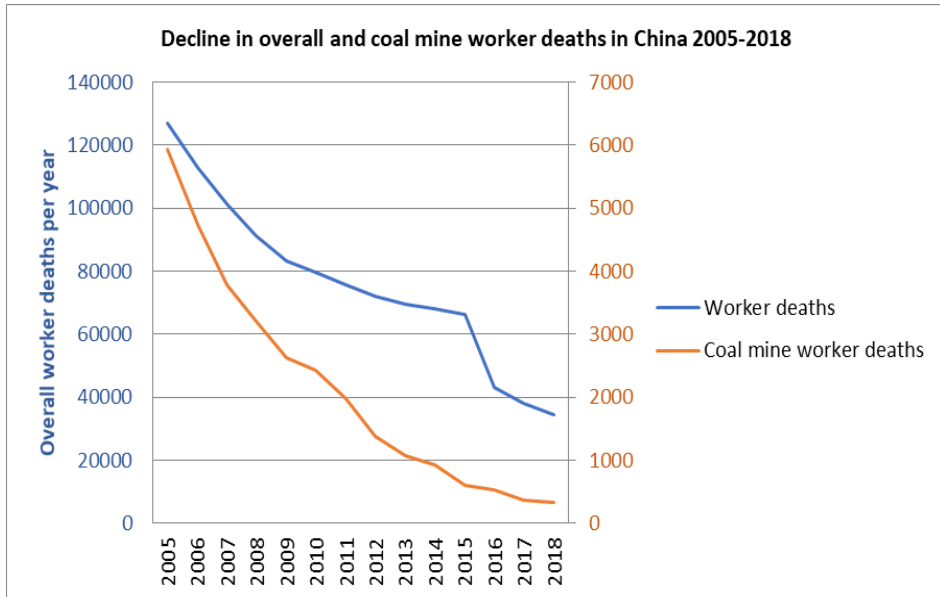


Figure 6. Decline in the overall number of worker deaths in China involved in mining in the coal mines in 2005-2018.

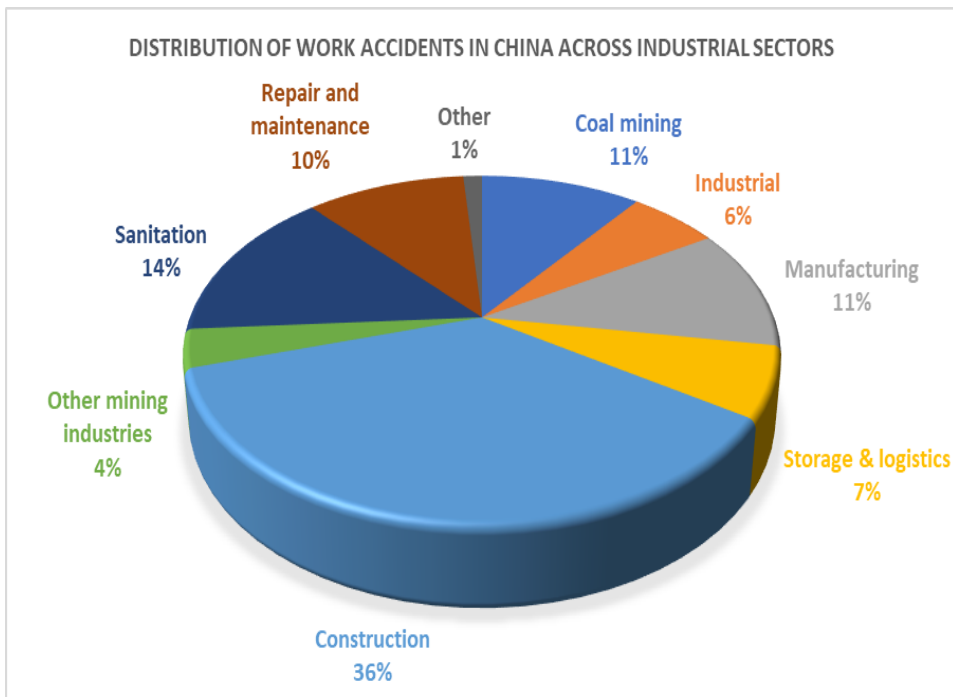


Figure 7. Distribution of work accidents in China across industrial sectors [19]

We have also conducted the detailed analysis of the reports of the State Inspectorate of Poland. The reports are based on the results of the work and in-depth analysis of a large number of inspections conducted by Polish labour inspectors in 2012-2018 (Państwowa inspekcja pracy). After conducting the analysis, it was found that the state of occupational injuries from 2012 to 2018 decreased by 7.4%, fatalities – by 40.3%, severe injuries – by 17.5%, minor – by 7.2% (see Figures 8, 9). The construction industry in Poland ranked first in terms of mortality at work in 2012-2014, 2016-2018, and this industry ranked second only in 2015. The second and third places in terms of mortality at work in 2012-2018 were shared by the industries of industrial processing and transport.

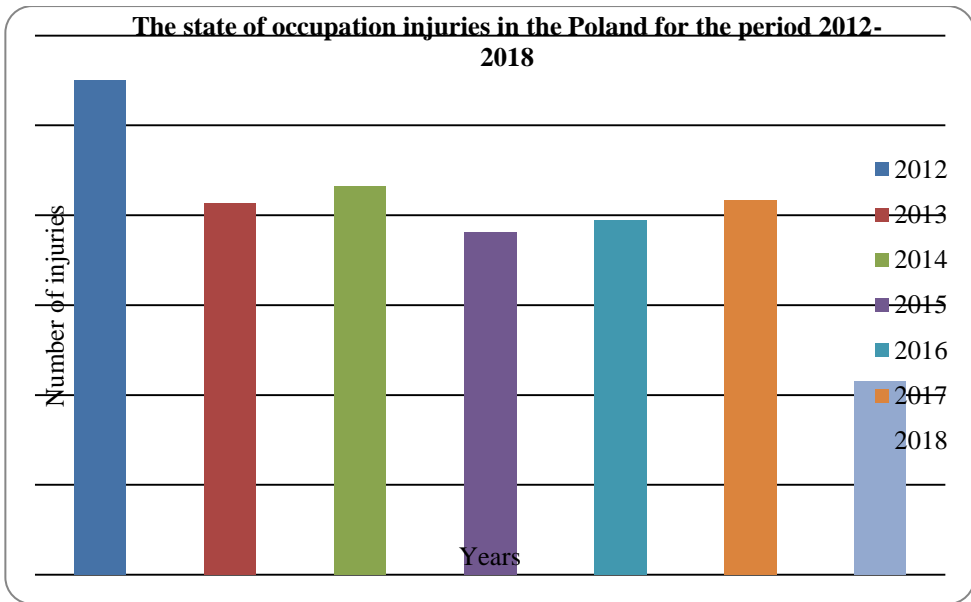


Figure 8. Dynamics of occupational injuries at Polish enterprises for the period 2012-2018 (according to Państwowa inspekcja pracy)

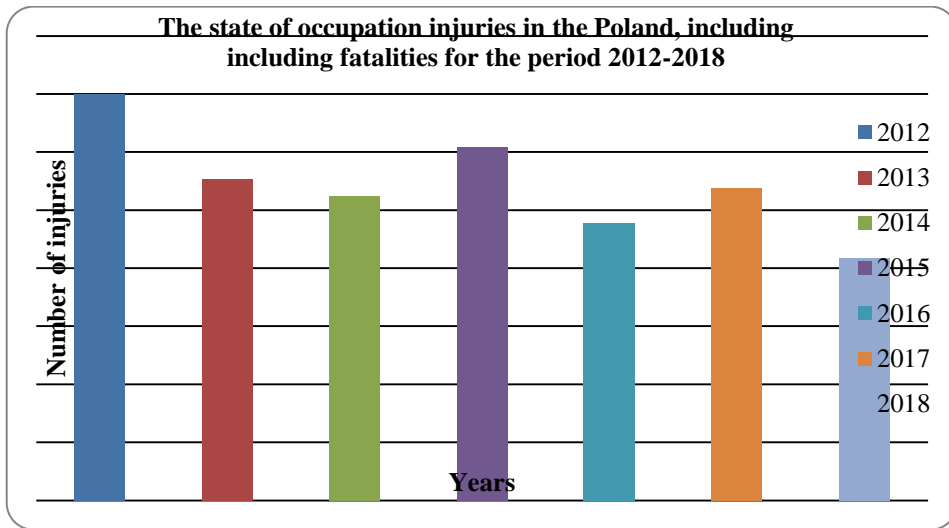


Figure 9. Dynamics of occupational injuries (fatal cases) at Polish enterprises for the period 2012-2018 (according to Państwowa inspekcja pracy (Państwowa inspekcja pracy))

Despite the constant, steady and uniform reduction of occupational accidents, foreign countries continue their work in order to improve legislation, adapt the legal framework to changes in the workplace and simplify it, promote the development and implementation of national strategies and so on (Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, 2007).

The employer, in turn, according to current legislation must take effective measures to ensure safe working conditions in production, because human health and life is the most important priority of universal human values (Kamenska, 2014).

Conclusions

Based on the detailed analysis of the statistical data of the Labour Inspectorates, it was determined that the occupational injuries state is declining, both in Ukraine and abroad (Austria, Azerbaijan, Japan, Belgium, Bulgaria, Hungary, Italy, Lithuania, Colombia, France and others). Despite the fact that the level of injuries has decreased, it should be mentioned that the issue of reducing accidents and occupational diseases to an acceptable minimum remains important and relevant for all countries of the world.

It is necessary to constantly analyse the statistics of occupational injuries in the areas of supervision in order to create safe and harmless

working conditions and improve the work of labour inspectorates. This will make it possible to predict and prevent as well as eliminate possible dangers ahead of time. In addition, it is necessary to constantly conduct training on labour protection, improve normative legal acts in accordance with the development of scientific and technological progress as well as modern technical support of industries.

Also, with the aim of reducing occupational injuries, it is necessary to enhance the management system of labour protection, based on the positive experience of labour inspections around the world (Panama, Singapore, Israel, Luxembourg, Austria), which have lower rates of fatal occupational injuries in the supervisory area, compared to other countries; to provide employees with normative legal acts, instructions on labour protection, which take into account modern requirements of the ILO and European legislation etc.

Safety of production processes is the basis of sustainable economic development of the state in the European dimension. We must always remember that the statistics of occupational injuries are the health and lives of people.

In further research, we intend to examine in depth, study and analyse the legal framework and regulations on labour protection of those countries of the world that have a positive experience in reducing occupational injuries; to identify priorities and concrete actions at the level of enterprises and the state, taking into account the positive experience of the world.

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