

UDC 331.45
DOI: 10.25206/2542-0488-2019-4-4-149-156

**E. V. BAKIKO
V. S. SERDYUK
E. V. YAKOVLEVA**

**Omsk State
Technical University,
Omsk, Russia**

SOCIO-ECONOMIC IMPACT OF ADVERSE WORKING CONDITIONS AND THEIR DIFFERENTIATION

One way to motivate employers to improve occupational safety is to assess the socio-economic consequences of the conditions and occupational safety in the organization.

The work presents the results of differential analysis of the components of socio-economic consequences of unfavourable working conditions at economic facilities. The method of integral evaluation obtained values of direct and indirect damage from unfavourable working conditions on the example of a number of enterprises of Russia. The ratios of damage and the amount of underestimation by employers of their consequences are shown.

Keywords: labor economy, working conditions, labor protection economy, socio-economic consequences, direct damage, indirect damage, economic components of damage, unfavourable working conditions, enterprise costs.

References

1. Yakovleva E. V., Zuykova E. P. Motivatsiya rabotnikov v period razvitiya industrii 4.0 [Motivation of workers in the period of the industry 4.0] // *Ekonomika truda. Russian Journal of Labor Economics*. 2018. Vol. 5, no. 2. P. 405–418. DOI: 10.18334/et.5.2.39147. (In Russ.).
2. Terje A. Risk assessment and risk management: Review of recent advances on their foundation // *European Journal of*

Operational Research. 2016. Vol. 253, Issue 1. P. 1–13. DOI: 10.1016/j.ejor.2015.12.023. (In Engl.).

3. Karkoszka T. Operational monitoring in the technological process in the aspect of occupational risk // *Procedia Manufacturing*. 2017. Vol. 13. P. 1463–1469. DOI: 10.1016/j.promfg.2017.09.192. (In Engl.).

4. Kim G.-H. Measuring the Effectiveness of Safety Incentives in Construction Sites in Korea // *Journal of Building Construction and Planning Research*. 2018. Vol. 6, no. 4. P. 267–277. DOI: 10.4236/jbcpr.2018.64018. (In Engl.).

5. Hussain M. A., Ahmed A., Rubiee S., Masud A. K. M. Safety Interventions Evaluation in an Oil and Gas Company // *Procedia Engineering*. 2017. Vol. 194. P. 315–322. DOI: 10.1016/j.proeng.2017.08.151. (In Engl.).

6. Shuen A., Feiler P. F., Teece D. J. Dynamic capabilities in the upstream oil and gas sector: Managing next generation competition // *Energy Strategy Reviews*. 2014. Vol. 3. P. 5–13. DOI: 10.1016/j.esr.2014.05.002. (In Engl.).

7. Belyakov S. A., Zabudtskiy A. I., Bayanova E. Yu. Analiz zarubezhnogo opyta ekonomicheskogo stimulirovaniya bezopasnykh usloviy truda [On some questions of economy safety of work in developed countries] // *Vestnik Omskogo gosudarstvennogo agrarnogo universiteta. Vestnik Omskogo Gosudarstvennogo Agrarnogo Universiteta*. 2015. No. 2 (18). P. 108–112. (In Russ.).

8. O realizatsii gosudarstvennoy politiki v oblasti usloviy i okhrany truda v Rossiyskoy Federatsii v 2014 godu: doklad ot 3 noyabrya 2015 g. [On the implementation of state policy in the field of labor conditions and labor protection in Russian Federation in 2014] // *Ministerstvo truda i sotsial'noy zashchity Rossiyskoy Federatsii* [Ministry of Labor and Social Protection]. URL: <https://rosmintrud.ru/docs/mintrud/salary/24> (accessed: 20.07.2019). (In Russ.).

9. Mikhina T. V., Korobova O. S. Otsenka ekonomicheskikh poter', svyazannykh s sostoyaniyem travmatizma i usloviy truda na predpriyatiyakh po dobyche kamennogo uglya, burogo uglya i torfa v Rossiyskoy Federatsii [Assessment of the economic losses associated with the condition of the injury and working conditions at the enterprises of mining coal, brown coal and peat in the Russian Federation] // *Gornyy informatsionno-analiticheskiy byulleten'* (nauchno-tekhnicheskiy zhurnal). *Mining Informational and Analytical Bulletin (Scientific and Technical Journal)*. 2015. No. 10. P. 290–295. (In Russ.).

10. Elin A. M. K voprosu o sotsial'no-ekonomicheskoy otsenke effektivnosti upravleniya okhrany truda [On the issue of socio-economic evaluation of the effectiveness of safety management] // *Wschodnioeuropejskie Czasopismo Naukowe. Wschodnioeuropejskie Czasopismo Naukowe*. 2016. Vol. 11, no. 1. P. 23–27. (In Russ.).

11. Elin A. M. Sotsial'no-ekonomicheskaya otsenka effektivnosti upravleniya okhrany truda [Socio-economic assessment of the effectiveness of labor protection management] //

Uroven' zhizni naseleniya regionov Rossii. Living Standards and Quality of Life. 2016. No. 2 (200). P. 104–111. DOI: 10.12737/20769. (In Russ.).

12. Khrupachev A. G., Khadartsev A. A., Sedova A. V. [et al.]. Primeneniye metodologii bezopasnogo potentsiala trudovogo stazha dlya otsenki ekonomicheskoy effektivnosti meropriyatiy po okhrane truda [Application of the Methodology of Labor Experience Safe Potential for Assessment of Economic Effectiveness of Occupational Safety Measures] // *Bezopasnost' truda v promyshlennosti. Occupational Safety in Industry*. 2019. No. 9. P. 89–95. DOI: 10.24000/0409-2961-2019-9-89-95. (In Russ.).

13. Goryaga A. V., Serdyuk V. S., Dobrenko A. M. [et al.]. Matematicheskiye modeli proizvodstvennykh riskov i sistem zashchity [Mathematical models of production risks and protection systems]. Omsk: OmSTU Publ., 2014. 102 p. ISBN 978-5-8149-1903-8. (In Russ.).

BAKIKO Elena Vladimirovna, Associate Professor of Industrial Ecology and Safety Department.

SPIN-code: 2103-4976

AuthorID (RSCI): 893612

ORCID: 0000-002-7673-4428

AuthorID (SCOPUS): 57203343551

Address for correspondence: Bakiko@mail.ru

SERDYUK Vitaliy Stepanovich, Doctor of Technical Sciences, Professor of Industrial Ecology and Safety Department.

SPIN-code: 9729-9391

AuthorID (RSCI): 175179

AuthorID (SCOPUS): 57203345215

Address for correspondence: ibgd.omsk@yandex.ru

YAKOVLEVA Elena Vladimirovna, Doctor of Economic Sciences, Associate Professor, Professor of Economics and Labor Management Department.

SPIN-code: 1581-2810

AuthorID (RSCI): 650709

ORCID: 0000-0001-5158-3574

Address for correspondence: elenav12@yandex.ru

For citation

Bakiko E. V., Serdyuk V. S., Yakovleva E. V. Socio-economic consequences of unfavourable working conditions and their differentiation // *Omsk Scientific Bulletin. Series Society. History. Modernity*. 2019. Vol. 4, no. 4. P. 149–156. DOI: 10.25206/2542-0488-2019-4-4-149-156.

Received 14 October 2019.

© E. V. Bakiko, V. S. Serdyuk, E. V. Yakovleva