



*Asesorías y Tutorías para la Investigación Científica en la Educación Puig-Salabarría S.C.  
José María Pino Suárez 400-2 esq a Lerdo de Tejada, Toluca, Estado de México. 7223898475*

RFC: ATI120618V12

**Revista Dilemas Contemporáneos: Educación, Política y Valores.**

<http://www.dilemascontemporaneoseducacionpoliticayvalores.com/>

**Año: VI**

**Número: Edición Especial**

**Artículo no.:42**

**Período: Marzo, 2019.**

**TÍTULO:** Estudio de la demanda de servicios de seguridad y salud ocupacional.

**AUTORES:**

1. L. A. Vasilieva.
2. E. E. Borisova.
3. N. S. Atopsheva.
4. V. N. Rukavishnikova.
5. T. Yu Freze.

**RESUMEN:** Este artículo presenta una encuesta sobre demanda de servicios de salud y seguridad ocupacional realizada a más de 550 educadores y trabajadores de la industria de producción. Se observa que los trabajadores no están seguros de que las capacitaciones de seguridad ocupacional, la evaluación especial de las condiciones de trabajo y el ejercicio de las funciones del servicio de seguridad ocupacional puedan afectar positivamente su salud y las condiciones laborales en los lugares de trabajo, ni saben que son ellos los beneficiarios finales cuando se trata de la calidad y la plenitud de los servicios de salud y seguridad en el trabajo. Es necesario mejorar la calidad de los servicios de seguridad y salud ocupacional para los empleados y estimular en los empleadores la asignación de medios para la seguridad laboral.

**PALABRAS CLAVES:** empleador, empleado, servicio, salud y seguridad ocupacional, condiciones de trabajo.

**TITLE:** Study of the demand for Occupational Health and Safety Services.

**AUTHORS:**

1. L. A. Vasilieva.
2. E. E. Borisova.
3. N. S. Atopsheva.
4. V. N. Rukavishnikova.
5. T. Yu Freze.

**ABSTRACT:** This article presents a survey on the demand for occupational health and safety services for more than 550 educators and workers in the production industry. It is observed that the workers are not sure that the occupational safety training, the special evaluation of the working conditions and the exercise of the functions of the occupational safety service can positively affect their health and the working conditions in the workplace, nor do they know that they are the final beneficiaries when it comes to the quality and fullness of health and safety at work services. It is necessary to improve the quality of occupational health and safety services for employees and encourage employers to assign means for job security.

**KEY WORDS:** employer, employee, service, occupational health and safety, working conditions.

**INTRODUCTION.**

Social partnership implicates equal involvement of employees and employers in all labor-related issues (Nizova & Sannikova, 2016). Considering the entire experience of Russian enterprises in the field of occupational safety, one can conclude, that no matter how well the control and supervision of operational safety at production sites is organized, the actual safety level can be assessed only by employees who work directly at production sites (Shcherbakov & Kashintseva, 2011). Every day of

their work these employees are exposed to all hazardous and harmful factors of production; they are the only people who can take notice of existing problems with safety provision at worksites. The employer must guarantee a safe working environment for the people who work at his enterprise or organization (Chizhova et al, 2012). Occupational health and safety services for employees help the employer to fulfill his obligations at a high level, with the help of skilled professionals and minimal time input in elaborating documents or searching for the best possible solution (Sergeyev et al, 2013). The main kinds of occupational health and safety services for employees are occupational safety trainings, special assessment of working conditions, and execution of occupational safety service functions (occupational safety outsourcing) (Yukhimchuk et al, 1999). The market for OHS services is unevenly developed. If an organization wants to gain the right to render occupational safety services, it will have to pass a complicated procedure of governmental certification.

There are currently two kinds of certification for the right to render occupational safety services. To gain the right to render occupational safety training services to employees and delve into occupational safety outsourcing, it is necessary to pass an uncomplicated notifying certification procedure in the Ministry of Labor and Social Affairs of the Russian Federation. In case an organization submits all the necessary documents to the Ministry, it will be notified about being included in the register of organizations with the right to render occupational safety services. The certification of organizations planning to conduct special assessment of working conditions is a completely different matter. This procedure is much more complicated and consists of laboratory certification, certification of experts, and certification by the Ministry of Labor and Social Affairs for the right to render the service (Chernyshenko & Zanina, 2017). The difference in the complexity of certification results in an interesting situation with the number of occupational safety service providers (Fig. 1).

**Fig. 1. Number of organizations included every year in the register of occupational safety service providers.**



It follows from the figure that most organizations specialize in occupational safety trainings for employees and employers. This service enjoys the highest demand among employers due to the need for staff training governed by laws and regulations (Ryabova, 2016). The second most popular service among employers is special assessment of working conditions. This assessment is compulsory and must cover each worksite (Kalinin, 2014; Demin, 2014). The third service is occupational safety outsourcing. It is still underdeveloped, probably because the employer is not always interested in the high quality of occupational safety measures and does not refer to special organizations for possible help with this issue (Ivanova & Akhtulov, 2016; Kuznetsova & Lynova, 2013). The unevenly developed market for each of the three services raises the need to look for the reasons of this state of affairs. How is it possible to increase the demand for yet underdeveloped services? How is it possible to improve their quality to a level satisfactory for all parties involved (Faynburg, 2014; Chubarova, 2011)? That said, one should not forget that occupational safety services help the employer to fulfill his duties to ensure an improved working environment for his employees.

And what do employees properly think about these services? Do they consider them useful for themselves? Or else, are they sure that there is no need for such services? This study was conducted to find the answers to all of these questions among employees themselves. In the following, their opinions will help to come to grips with services the quality of which must be improved and also to issues of which employees are insufficiently aware.

## **DEVELOPMENT.**

### **Materials and methods.**

To study the efficiency of the occupational safety service system, a questionnaire survey of staff and managers of different levels was conducted. During the survey the employees were asked general questions without taking account their expertise.

According to the legislation of Russia, each worker must take occupational safety trainings. Occupational safety trainings for workers of various categories differ in type, duration, and periodicity (Zarovnyaev, 2014; Oglezneva & Takasaev, 2017). That is why, each worker must be familiar with and understand the main points of occupational safety, whatever his position or specialty. The formulation of the questions included in the questionnaire allowed one to choose among three possible answers: yes, no, and not quite. The affirmative reply indicates a strong knowledge of the surveyed issue of occupational safety. The negative reply means complete unawareness. The third possible answer was proposed to those employees who could give a firm reply. The questionnaire composed in that way made it possible to obtain the answers to the maximal possible number of questions.

The information collected during the survey is confidential and anonymous. The workers' replies make it possible to identify the strong and weak points of the occupational safety management system and elaborate corrective steps. Employee polling and surveys are widely used in Europe and North

America and are gradually being adopted by leading Russian enterprises (Fedorov & Terent'yev, 2015; Lee et al, 2018).

### Results and discussion.

The results of the survey conducted to study the attitude of educators and production workers to occupational safety services and analyze their awareness in the given field are presented in Table 1.

**Table 1. Corporate employee survey results.**

Item no.	Do you agree with the following assumptions?	Possible answers		
		Yes	Not quite	No
1	I have been familiarized with my rights, including the right to occupational safety according to employment and labor laws.	100%	-	-
2	I am aware of my duties to fulfill the fire and occupational safety requirements at my worksite.	98%	2%	-
3	I am satisfied with the working conditions at my worksite.			
3.1	Illumination.	95%	5%	-
3.2	Air purity and temperature.	100%	-	-
3.3	Conveniences and sanitary conditions.	100%	-	-
4	I am satisfied with the organization, state, maintenance, and cleaning of my worksite.	89%	9%	2%
5	I know that there is the corporate OHS management system; I am aware of its purposes and objectives and the policy in the field of occupational health and safety.	61%	21%	18%
6	I know that certain organizations specialize in rendering occupational safety services.			
6.1	Occupational safety training.	99%	1%	-
6.2	Special assessment of working conditions.	62%	10%	28%
6.3	Occupational safety outsourcing.		58%	42%

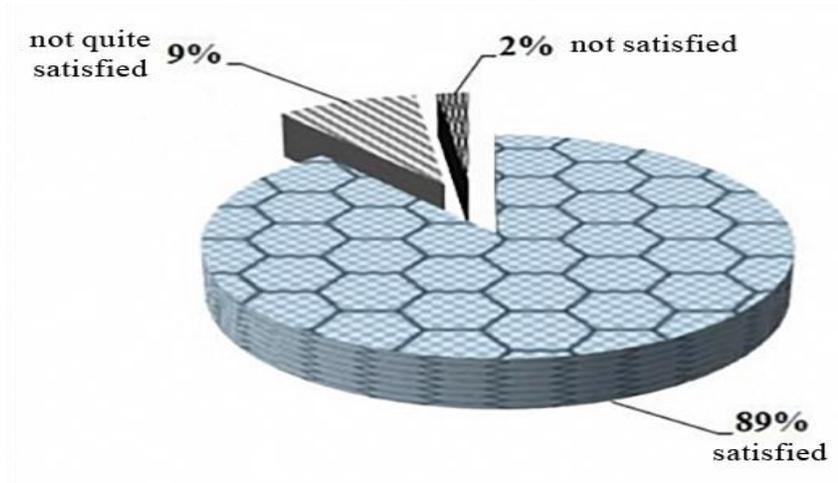
7	I consider occupational safety training an important factor of minimizing the rate of occupational illnesses and injuries at enterprises.	23%	48%	29%
8	I consider special assessment of working conditions an important factor of minimizing the rate of occupational illnesses and injuries at enterprises.	15%	51%	34%
9	Are you aware of penalties for not receiving occupational safety training and not conducting special assessment of working conditions?	73%	13%	14%
10	These services are rendered for the sole purpose of collecting money from enterprises and organizations.	78%	11%	11%
11	I am sure that our enterprise can do without such services.	97%	2%	1%
12	The existence of duties to organize occupational safety trainings and conduct special assessment of working conditions at worksites may possibly encourage the employer to improve the working environment.	8%	68%	24%

According to the analysis of the survey results, the interrogated employees are strongly confident in their basic knowledge of occupational safety; for example, 100 and 98 % of the respondents agree with such respective assumptions as “I have been familiarized with my rights, including the right to occupational safety according to employment and labor laws” and “I am aware of my duties to fulfill the fire and occupational safety requirements at my worksite”.

The employees’ attitude to the working conditions at worksites also gives grounds for optimism. A hundred per cent of the workers are satisfied with the air temperature and purity, conveniences, and sanitary conditions. It is only the level of worksite illumination that is not quite acceptable to 5 % of the workers; however, it is acceptable to 95 % of the respondents.

For the pattern of satisfaction of corporate employees with organization, state, maintenance, and cleaning of worksites see Fig. 2.

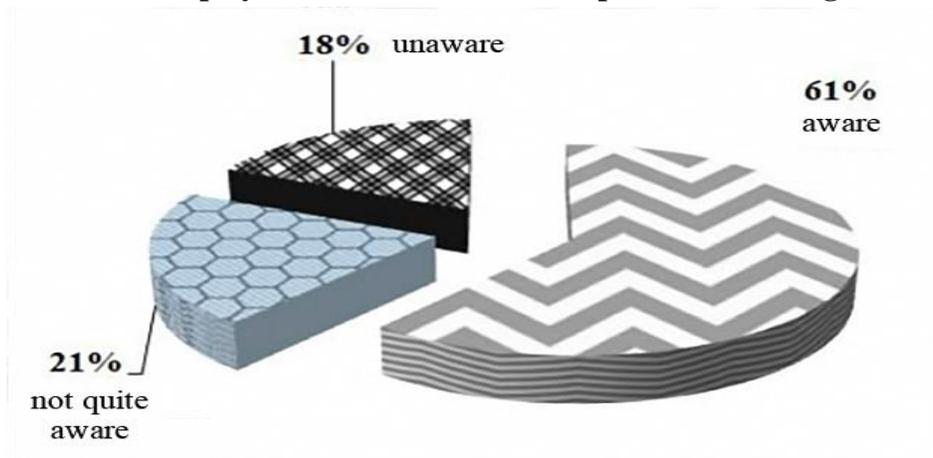
**Fig.2. Pattern of satisfaction of corporate employees with organization, state, maintenance, and cleaning of workplaces.**



There are clearly certain problems with this matter, and corporate managers should pay attention to the maintenance of particular worksites at their enterprises. However, such results are no indication of system-level violations in the organization and maintenance of worksites but merely point to occasional difficulties that must be coped with despite their insignificance.

The next assumption offered to the respondents was “I know that there is the corporate OHS management system; I am aware of its purposes and objectives and the policy in the field of occupational health and safety.” For the pattern of the replies to this assumption see Fig. 3.

**Fig. 3. Pattern of employee awareness of the enterprise OHS management system.**

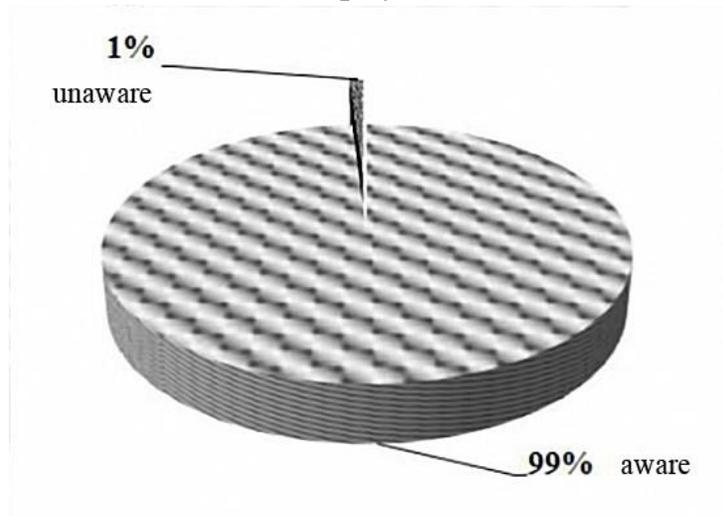


It is clear that those who are aware have most likely taken courses in training centers as managers of business units and specialists from the administrative and managerial staff of their enterprises.

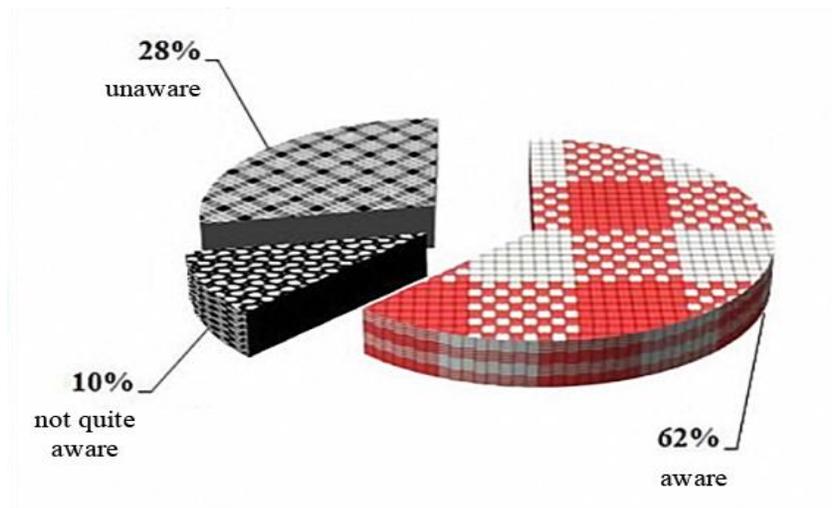
Twenty-one per cent of the respondents seem to have collected sketchy data from other sources and are, therefore, not quite sure about their knowledge. Those who answered “no” had simply no opportunity to familiarize themselves with such information because the training courses they took were dedicated only to the observation of occupational safety rules at their worksites.

The reaction to the assumption “I know that certain organizations specialize in rendering occupational safety services such as occupational safety training, special assessment of working conditions, and occupational safety outsourcing” was even more mixed (Figs. 4, 5, and 6).

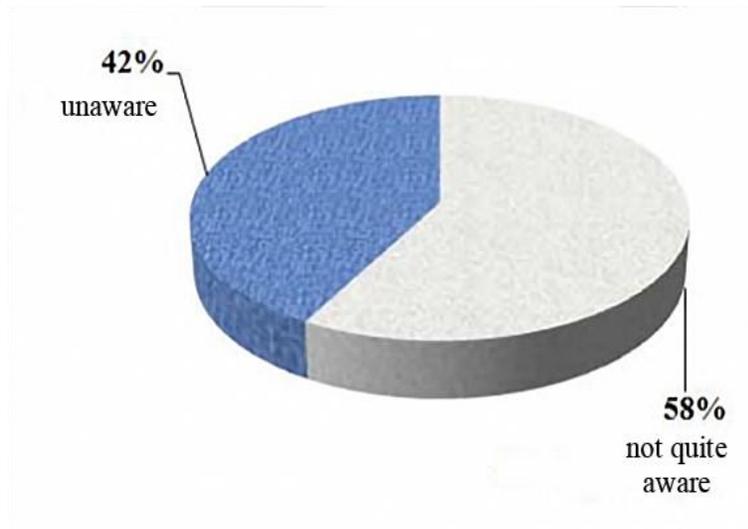
**Fig. 4. Pattern of employee awareness of occupational safety trainings for employers and employees.**



**Fig. 5. Pattern of employee awareness of special assessment of working conditions.**



**Fig. 6. Pattern of employee awareness of occupational safety outsourcing services.**

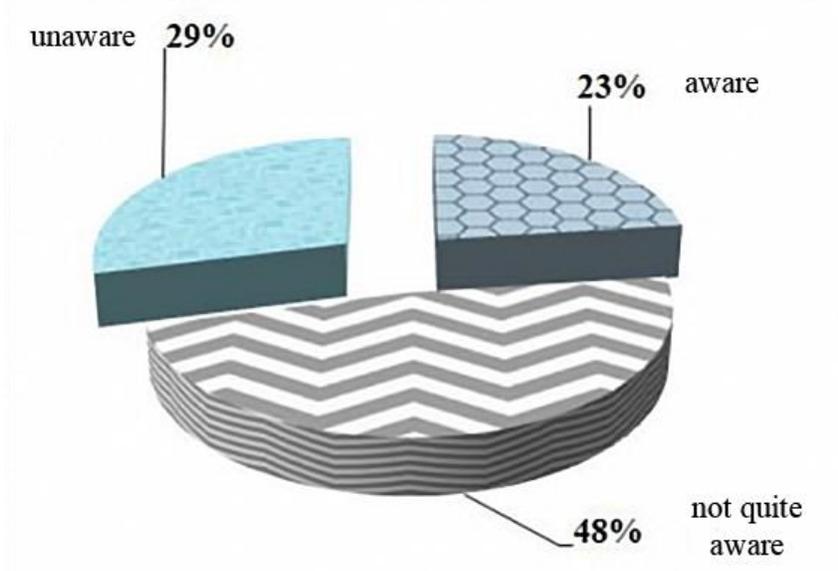


More specifically, 99 % of the respondents know about occupational safety trainings for employees, only 62 % know for sure about special assessment of working conditions, and none of the respondents was aware of occupational safety outsourcing. These results are the telling indicators of uneven developments in the field of occupational safety services. The most demanded and understandable service is occupational safety training. Special assessment of working conditions is less understandable but still enjoys a high demand. The most underdeveloped service is occupational safety outsourcing.

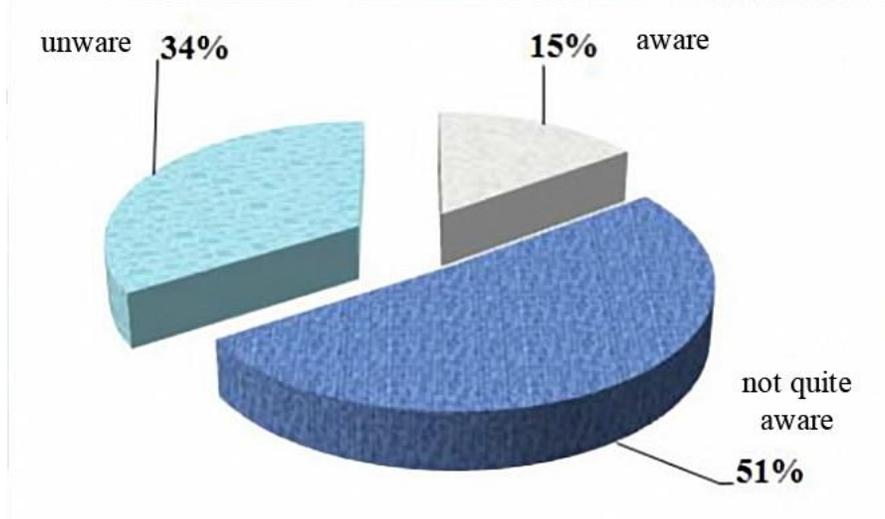
The shares of the respondents who answered “yes”, “not quite”, and “no” in response to the assumption “I consider occupational safety training to be an important factor of minimizing the rate of occupational illnesses and injuries at enterprises” were 23, 48, and 29 %, respectively (Fig. 7).

The shares of the respondents who answered “yes”, “not quite”, and “no” to the similar assumption “I consider special assessment of working conditions to be an important factor of minimizing the rate of occupational illnesses and injuries at enterprises” were 15, 51, and 34 %, respectively (Fig. 8).

**Fig. 7. Pattern of employee awareness of the goals of occupational health and safety trainings.**

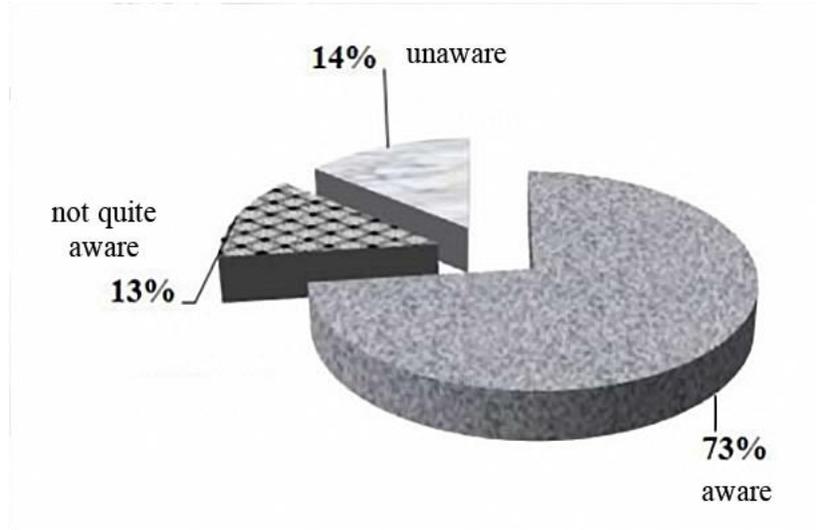


**Fig. 8. Pattern of employee awareness of the goals of special assessment of working conditions.**



These data show that the employees are poorly aware of the fact that occupational safety training and special assessment of working conditions affect the rate of occupational injuries and illnesses. The reason for the poor awareness could be the low quality of the services in those fields; that is why, there are so few employees who believe that these services help to improve their working conditions. To the contrary, the shares of the respondents who answered “yes”, “not quite”, and “no” to the question “Are you aware of penalties for not receiving occupational safety training and not conducting special assessment of working conditions?” were 73, 13, and mere 14 %, respectively (Fig. 9).

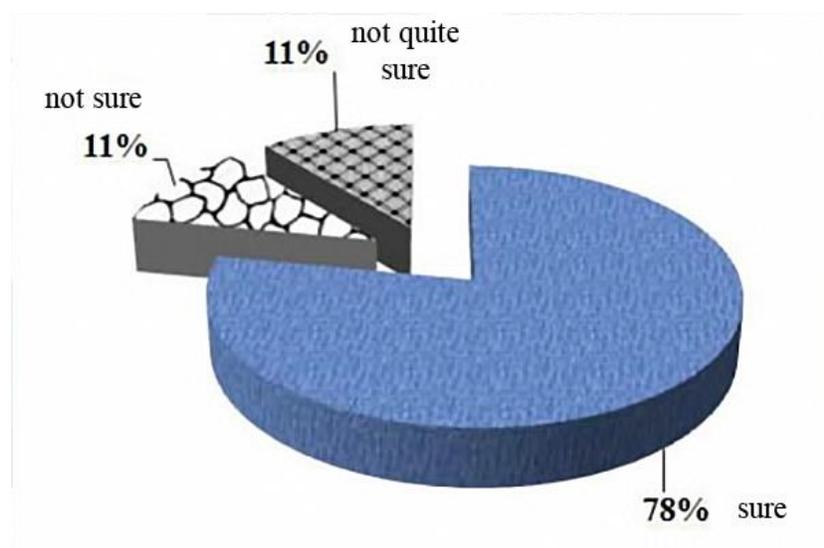
**Fig. 9. Pattern of employee awareness of penalties for not receiving occupational safety training and non-performance of special assessment of working conditions.**



The employees appear to be better aware about the inevitability of the punishment for the employer's violation of the duties to organize occupational safety training for his employees and conduct special assessment of working conditions than about the positive effects of these services on their lives and health. This state of things does raise hackles indeed.

Other results do not seem optimistic either. The shares of the respondents who answered "yes", "not quite", and "no" to the assumption "These services are rendered for the sole purpose of collecting money from enterprises and organizations" were 78, 11, and 11 %, respectively (Fig. 10).

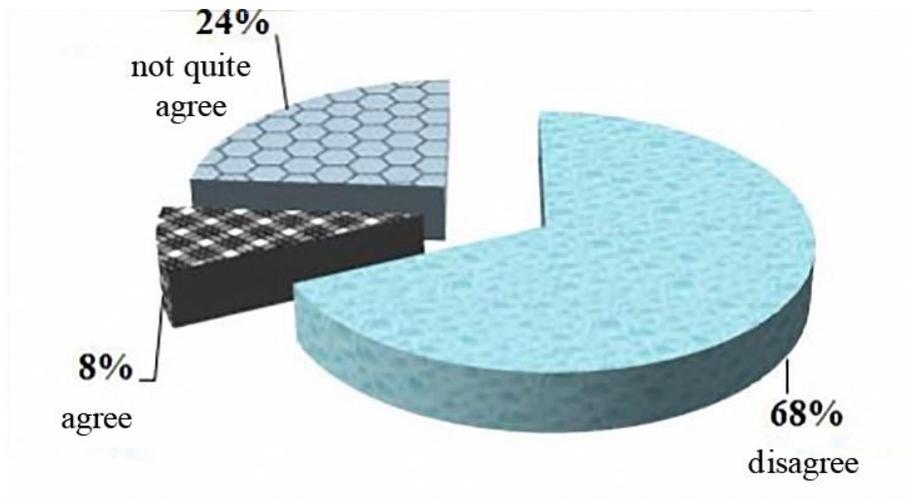
**Fig. 10. Pattern of employee answers to point 10 of the questionnaire.**



The shares of the respondents who answered “yes”, “not quite”, and “no” to the assumption “I am sure that our enterprise can do without such services” were 97 % (absolute majority), 2, and 1 %, respectively. This result reveals the need for improving the quality of occupational safety services, find new forms and kinds of services.

Finally, only 8 % of the respondents agreed with the assumption “The existence of duties to organize occupational safety trainings and conduct special assessment of working conditions at worksites may possibly encourage the employer to improve the working environment”, 68 % of the workers were not sure that there was such a dependence, and 24 % of the surveyed employees were strongly sure that their employers were uninterested in improving their working environment (Fig. 11).

**Fig. 11. Pattern of employee answers to point 12 of the questionnaire.**



## CONCLUSIONS.

Thus, the questionnaire survey results reveal deep and complicated inconsistencies with the provision of occupational safety services, employee awareness of and employer interest in the services. To resolve these inconsistencies, it is necessary to develop the field of occupational health and safety services, look for new approaches and solutions in this domain, and try to conciliate the interests of employers, employees, and occupational safety service providers. It is that all the occupational safety services are ultimately aimed at improving working conditions for employees, ensuring their safety

in the course of labor, and increasing the level of safety culture in the entire production field of this country.

The recommendations to chief executives according to the survey results are to raise the employee awareness of the application, purposes, and current results of occupational health and safety measures, including occupational safety services, their kinds and potential usage at enterprises for the purpose of improving the working environment.

### **BIBLIOGRAPHIC REFERENCES.**

1. Nizova, L. M., & Sannikova, T. V. (2016). Social and Labor Relations as a Form of Welfare Human Labor [Sotsial'no-trudovyye otnosheniya i blagopoluchiye cheloveka truda]. ECO, 8(506), 153-158.
2. Shcherbakov, V. I. & Kashintseva, L. V. (2011). Occupational Risk Management System As the Formula for Sustaining Employee Life and Health [Sistema upravleniya professional'nymi riskami - zalog sokhraneniya zhizni i zdorov'ya rabotnikov]. Okhrana truda i tekhnika bezopasnosti na promyshlennykh predpriyatiyakh (Occupational Health and Safety Procedures at Industrial Enterprises), 9. 8-20.
3. Chizhova, M. A., Khayrullin, R. Z., & Andriyashina, T. V. (2012). Occupational Safety Management System and Means of Taking More Efficient Occupational Safety Measures in Small Entrepreneurships in the Republic of Tatarstan [Sistema upravleniya okhranoy truda i mekhanizmy povysheniya effektivnosti raboty po okhrane truda v sub'yektakh malogo predprinimatel'stva respubliki Tatarstan]. Vestnik Kazanskogo tekhnologicheskogo universiteta (Bulletin of the Kazan Technological University), 15(23), 178-180.
4. Sergeyev, A. G., Balandina, E. A., & Balandina, V. V. (2013). Occupational Safety Management and Certification at the Enterprise [Menedzhment i sertifikatsiya kachestva okhrany truda na predpriyatii]. Study Guide. Moscow.

5. Yukhimchuk, A. A., Apasov, V. A., Vinogradov, Y. I., Golubkov, A. N., Gornostaev, E. V., Grishechkin, S. K., ... & Kononenko, A. A. (1999). Facility for preparation of gas mixture in muon catalyzed fusion experiments. *Hyperfine interactions*, 119(1-4), 341-344.
6. Chernyshenko, O. V. & Zanina, I. A. (2017). The Special Assessment of Working Conditions and Occupational Risk Assessment in the System of Occupational Safety Management [Spetsial'naya otsenka usloviy truda i otsenka professional'nogo riska v sisteme upravleniya okhranoy truda]. *Nauchno-metodicheskiy elektronnyy zhurnal «Kontsept» (Periodic scientific and methodological e-journal "Koncept")*, 7, 11-14.
7. Ryabova, V. E. (2016). Legal Framework of Occupational Safety Trainings for Employees and Employers [Pravovaya baza okazaniya uslug po obucheniyu rabotodateley i rabotnikov voprosam okhrany truda]. *Collected Works on Continuing Professional Education*, 29, 142-155.
8. Kalinin, I. (2014). Disputes Arising from the Relations of Special Assessment of Working Conditions [Spory, vznikayushchiye iz otnosheniy po spetsial'noy otsenke usloviy truda], 4, 51-56.
9. Demin, A. B. (2014). About a Special Estimation of Working Conditions [O spetsial'noy otsenke usloviy truda]. *Poligrafist. V pomoshch' rukovoditelyu i glavnomu bukhgalteru. Typographer. Journal for Chief Executives and Accountants*, 1(63), 59-70.
10. Ivanova, L. A. & Akhtulov, A. L. (2016). Occupational Safety Outsourcing in Developing Corporate Operations [Rol' outsorsinga okhrany truda v razvitii deyatelnosti organizatsii]. *Dinamika sistem, mekhanizmov i mashin, Dynamics of Systems, Mechanisms and Machines*, 4(1), 198-204.

11. Kuznetsova, M. N. & Lynova, V. E. (2013). Outsourcing in the Corporate Occupational Safety Management System [Autorsoring v sisteme upravleniya okhranoy truda v organizatsii]. Normirovaniye i oplata truda v promyshlennosti. Labor Rate Setting and Salary in the Industrial Sector, 7, 60-65.
12. Faynburg, G. Z. (2014). On the Organization of Occupational Safety and Health in the Provision of Services on Eurasian Economic Union Territory [Ob organizatsii rabot po okhrane truda pri okazanii uslug na territorii stran evraziyskogo ekonomicheskogo soyuza]. Bezopasnost' i okhrana truda, Occupational Health and Safety, 4(61), 16-23.
13. Chubarova, T. V. (2011). Social Responsibility in the Market Economy: Employee, Business, and State. [Sotsial'naya otvetstvennost' v rynochnoy ekonomike. Rabotnik, biznes, gosudarstvo] Saint-Petersburg.
14. Zarovnyaev, A. P. (2014). Organizing Occupational Safety Training for Employees. in collected works of the international research-to-practice conference "Basic Problems of Engineering Sciences", Editor-in-Chief A. A. Sukiasyan, 66-68.
15. Oglezneva, T. N. & Takasaev, R. A. (2017). High-Quality Training in Labor Protection As a Fundamental Factor in Reducing the Risk of Injury. in the collected works of the 14<sup>th</sup> international research-to-practice conference "World Science Problems and Innovations": 2 parts, 252-257.
16. Fedorov, A. V. & Terent'yev, A. S. (2015). To the Question of Planning Anti-Crisis Policy in the Sphere of Labor Protection. Nauchnoye obozreniye. Seriya 1: Ekonomika i pravo. Science Review. Series 1: Economics and Law, 3, 137-141.
17. Lee, Y., Capraro, R. M., & Capraro, M. M. (2018). Mathematics Teachers' Subject Matter Knowledge and Pedagogical Content Knowledge in Problem Posing. International Electronic Journal of Mathematics Education, 13(2), 75-90. <https://doi.org/10.12973/iejme/2698>

**DATA OF THE AUTHORS.**

1. **Vasilieva L. A.** Nizhny Novgorod State Engineering and Economic University.
2. **Borisova E. E.** Nizhny Novgorod State Engineering and Economic University.
3. **Atopsheva N. S.** Nizhny Novgorod State Engineering and Economic University.
4. **Rukavishnikova V. N.** Nizhny Novgorod State Engineering and Economic University.
5. **Freze T. Yu.** Togliatti State University.

**RECIBIDO:** 4 de febrero del 2019.

**APROBADO:** 22 de febrero del 2019.