

STUDY OF EMPLOYMENT TYPE AND DURATION IN VARIOUS INDUSTRIES IN BULGARIA FOR THE PERIOD 2019–2022

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ABSTRACT: Over the past twenty years, fundamental changes have taken place in the field of labour which have affected the length and distribution of working time. The main trends are related to the reduction of the total duration of working time and the deviation from the generally accepted standard of the traditional form of employment. There has been a gradual change in the organisation of the work process, which also leads to an increased variety of types of working time. These new processes reflect the impact of many structural changes in society, such as the shift from manufacturing to services, productivity gains resulting from technological progress, and an increasingly competitive work environment. The current survey is aimed at various business sectors in Bulgaria and the world for the period 2019-2022. The data analysed show the preferred form of employment among workers, as well as the changes in the organisation of the work process as resulting from a two-year period of global crisis due to the recent world pandemic.

Key words: working conditions, pre- and post-Covid-19, employment trends, safety, sustainability

ПРОУЧВАНЕ НА ТИПА И ПРОДЪЛЖИТЕЛНОСТТА НА ЗАЕТОСТ В РАЗЛИЧНИ ОТРАСЛИ В БЪЛГАРИЯ ЗА ПЕРИОДА 2019–2022

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РЕЗЮМЕ: Настъпилите фундаментални промени в областта на труда през последните двадесет години имат ясно отражение върху продължителността и разпределението на работното време. Основните тенденции са свързани с намаляване на общата продължителност на работното време и разчупване на общоприетия стандарт на традиционната форма на заетост. Наблюдава се постепенна промяна в организацията на работния процес, което води и до нарастващо разнообразие на видовете заетост. Тези нови процеси отразяват влиянието на множество структурни промени в обществото, като преминаването от производство към услуги, повишаването на производителността в резултат от технологичния прогрес и все по-конкурентната работна среда. Настоящото проучване е насочено към различни бизнес сектори в България и света за периода 2019-2022 г. Резултатите показват предпочитаната форма на заетост сред работещите, както и промените, настъпили в организацията на работния процес вследствие на двугодишен период на световна криза поради влошена епидемиологична обстановка.

Ключови думи: условия на труд, преди и след Covid-19, трудова заетост, безопасност, устойчивост

Introduction

Society and technology have changed over the years, along with changing values and ways of working, as well as the duration and distribution of working time. The average number of working hours per week in the EU decreased from 39 hours in 1990 to 37.8 hours in 2006 and to 37.1 hours in 2019 (Kostadinova and Vladkova, 2022). Despite this decrease in the duration of weekly employment, there are data that the share of people employed in more than one workplace is close to 7% of all workers, which increases the weekly workload.

The factors influencing the current trends in the choice of working hours can be summarised in the following directions: change in the labour market and employment relations; globalisation; technology development; change in society - service society, knowledge and information society; demographic change; change in the value system; changed traditional economic structures; privatisation of public tasks;

information technology-based work equipment. The increasing individualisation of lifestyles, the rise in the proportion of women among those employed are factors influencing a greater variety of preferences for time allocation — the balance between work and free time. As technology enters various sectors, artificial intelligence is creating new types of jobs in the analytical, research, and technical fields, while some professions are disappearing or no longer being practiced. This transition affects not only changes regarding the type and qualities of jobs, but also imposes new requirements for qualifications, way of organising work, etc.

Contemporary social trends and social processes related to the labour process

According to the definition of the International Labour Organization (ILO), the concept of "decent work" is directly related to working hours, formulating the term "decent working hours". It is based on five main principles - healthy organisation

of working time; "family friendly"; promoting gender equality; increasing the productivity of the enterprise; and facilitating workers' choice and influence over their working hours (ILO, 2016).

Improved information and communication technologies may reduce the need for physical presence in a centralised workplace and encourage more mobile and independent types of work (teleworking, remote work). For an increasing number of "knowledge and research workers", the tasks done can be evaluated not according to the number of hours worked, but according to the originality and quality of the product obtained. These workers can benefit from a great deal of autonomy from the point of view of work organisation and the location of the workplace, which raises questions about the application of the usual working time rules. In these cases, high levels of work intensity and stress are possible, which in turn may require the introduction of legislation in the interests of the health and safety of employees, as is the case in traditional production activities.

With the onset of the COVID pandemic, it became necessary to implement greater flexibility on the part of employers and workers in terms of workplace and working hours. And forms of work, such as Telework, Remote Work, Work from Home, and Home Office Defined, which were not previously considered traditional, are becoming common (Krajčik et al., 2023). A whole group of people appears, the so-called working nomads who blur the boundaries of the traditional office space and take advantage of the freedom to turn any place (home, coffee shop, coworking place, etc.) into an office through the necessary technical means.

After the end of the pandemic and return to the usual rhythm of life and work, some of the new forms of employment continued to function. Currently, there are various combinations and opportunities that are offered by employers or are a preferred and sought form of employment by workers. When it comes to the choice of working hours and employment, the main factors determining the choice of employees are systematised by Krajčik M., D. A. Schmidt, and M. Barath (2023): Transportation and commuting time, Comfort, Time efficiency, Productivity, Workspace layout, IT setup, Distractions.

It cannot be said unambiguously which option and type of employment are the most suitable or preferred. This topic is often discussed in various economic analyses and studies, depending on many factors: industry, nature of work, gender, age, social factors, etc. (Kostadinova and Vladkova, 2022). Different forms of employment – for example, from home with flexible working hours or a traditional workplace with fixed working hours – have advantages and disadvantages as shown in Fig. 1.

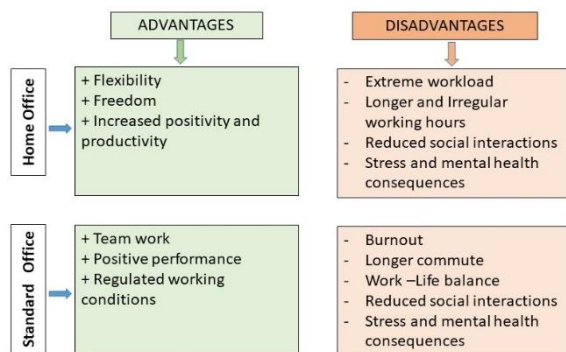


Fig. 1. Advantages and disadvantages of Home office and Standard office

Methodology

The purpose of the conducted study is to establish the preferences and attitudes among employees with different working experience regarding the choice of the type of employment and the length of working time before the onset of the global crisis as a result of the COVID-19 epidemic and after its completion. A quantitative study and analysis of data has been made in order to identify links and trends in different industries.

The 2019 study was conducted in the form of a survey, distributed in printed form. The respondents received it personally. A hundred persons, different in gender, age, work field, and position, were surveyed. The duration of the study was 30 days.

In January 2022, the authors conducted a second survey, in Bulgarian, in an electronic environment about attitudes and preferences regarding the organisation and duration of the work process. The Google Form functionality was used suitable for the target groups (Fig. 2). The duration of the data collection was 45 days, and the respondents were 246 people from various professional sectors in Bulgaria. Participation in the study was voluntary.

Fig. 2. Online survey 2022 in Bulgarian

The questions asked aimed to collect several types of data:

- demographic: age, gender;
- socio-economic - work experience; education, employment sector;
- questions related to preferences for the duration of the work process - multiple choice was possible;
- questions about the preferred type of employment – multiple choice was possible.

Target groups – employees in the field of the mining industry, manufacturing, services, and sales. During the survey in 2022, persons employed in the field of education and the IT sector were additionally surveyed. The aim was to track as

comprehensively as possible the changes that occurred in the organisation of the work process during and after the global COVID pandemic.

The collected data were analysed, processed, and graphically presented with the MS Excel program of the MS Office Software. A correlative analysis was made using IBM's SPSS statistical software product (Fig. 3). When presenting the results, those that were less than 1% of all responses were excluded.

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2. Какъв тип заетост бихте предпочели? В каква сфера(брана) сте заети: Crosstabulation									
		IT-сиктор и електроника	Дрог	Минна индустрия	Образование	Производство	Търговия	Услуги	Total
2. Какъв тип заетост бихте предпочели?	Дистанционна работа (не в от дома)	Count	3	3	2	0	0	1	10
	% within В каква сфера(брана) сте заети		6.4%	5.9%	3.3%	3.3%	0%	5.0%	4.1%
Дистанционна работа (не в от дома), Работа от вкъщи (дом офис)	Count	0	1	0	1	0	0	0	2
	% within В каква сфера(брана) сте заети		0%	2.0%	0%	1.7%	0%	0%	0%
Дистанционна работа (не в от дома), Работа от вкъщи (дом офис), Работа по задания	Count	0	0	0	1	0	0	1	2
	% within В каква сфера(брана) сте заети		0%	0%	0%	1.7%	0%	0%	0%
Дистанционна работа (не в от дома), Работа по проекти	Count	1	1	0	0	0	1	0	3
	% within В каква сфера(брана) сте заети		2.1%	2.0%	0%	0%	0%	8.3%	1.2%
Нощен труд	Count	0	0	1	0	0	0	0	1
	% within В каква сфера(брана) сте заети		0%	0%	3.3%	0%	0%	0%	0%
Работа на сменни	Count	0	3	3	0	0	1	1	8
	% within В каква сфера(брана) сте заети		0%	5.9%	5.9%	0%	0%	4.2%	6.4%
Стандартно работно място (дом офис), Работа на сменни	Count	3	1	1	7	0	0	1	13
	% within В каква сфера(брана) сте заети		6.4%	2.0%	3.3%	11.7%	0%	0%	5.0%
Стандартно работно място (дом офис), Работа по проекти, Работа на сменни	Count	1	0	0	0	0	0	0	1
	% within В каква сфера(брана) сте заети		2.1%	0%	0%	0%	0%	0%	0%
Стандартно работно място (дом офис), Работа по проекти, Работа на сменни	Count	0	1	0	0	0	0	0	1
	% within В каква сфера(брана) сте заети		0%	2.0%	0%	0%	0%	0%	0%
Можливо и двете	Count	0	1	2	9	1	0	0	13
	% within В каква сфера(брана) сте заети		0%	2.0%	6.7%	15.0%	3.8%	0%	5.3%

Fig.3. Correlative analysis by IBM's SPSS statistical software product

Results and Analysis

The survey of 2019

In 2019, a survey was conducted on attitudes towards the choice of working hours and preferred type of employment in various industries in Bulgaria. The data for the study participants are summarised in Table 1.

Table 1. Respondents by industry – 2019

Business sector	Number of respondents	Gender	
		Male	Female
Mining Industry	70	59	11
Service industry	12	12	0
Production	11	6	5
Commercial industry	7	2	5
TOTAL	100	79	21

A percentage distribution of respondents by business sector is presented in Fig. 4. 70% of the respondents were representatives of the mining industry. The distribution of respondents by age and gender is visualised by Fig. 5 and 6.

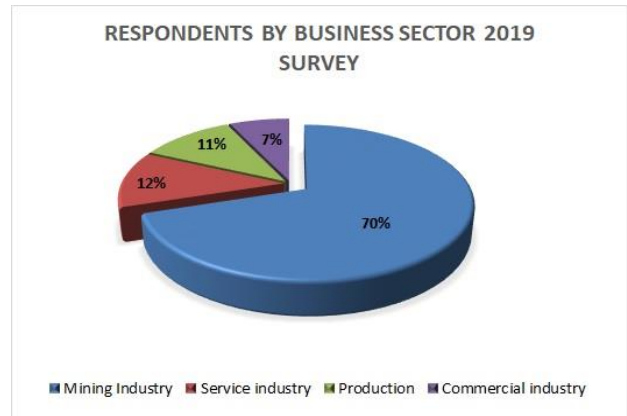


Fig. 4. Distribution by business sector – 2019 survey

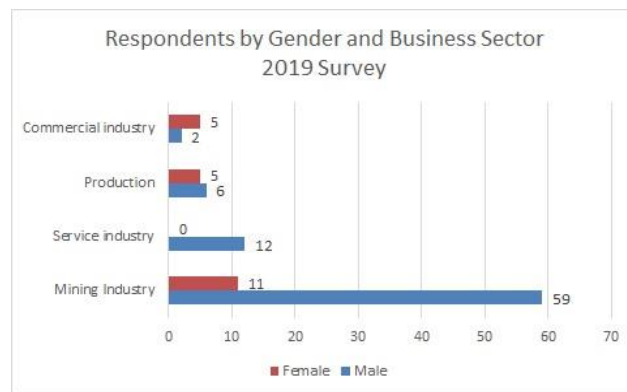


Fig. 5. Distribution on respondents by business sector and gender – 2019 survey

In the survey, the participants were in different age groups. The largest percentage of participants (40%) were between the ages of 30-40. The participants age 60 and above were only 7%.

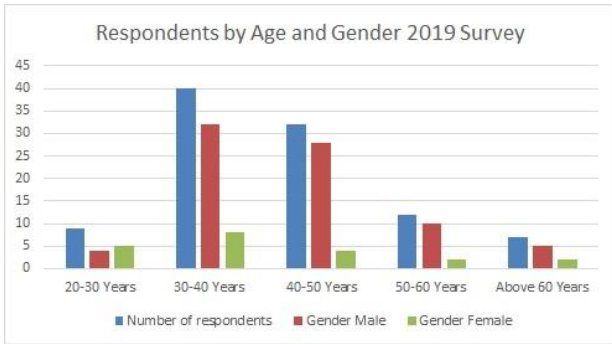


Fig. 6. Distribution by Gender and Age – 2019 survey

The analysed data show that full-time employment (5-day week, 40 hours) in 2019 was preferred by 50% of responses – predominantly male (Fig. 7). However, a significant percentage of responses stating another choice for working time duration, should be also noted. Women preferred other forms of working time, taking into account their personal and professional lives.

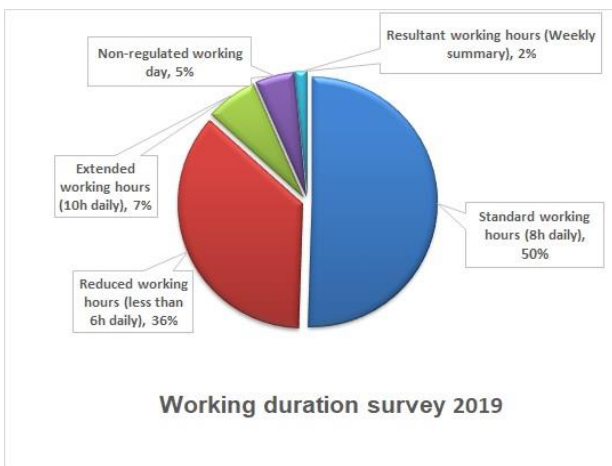


Fig. 7. Working time duration preferences – 2019 survey

The choice for extended working hours and shiftwork favoured by the employees of the mining industry can be explained by the specificity of the branch. Trends and processes in the mining industry in Bulgaria are summarised by Mitev (2020).

The answers to the questions concerning the type of employment are summarised in Fig. 8. Seasonal work is preferred by the survey participants aged between 60-70 years, i.e. Retirement age. Male respondents among the respondents prefer shift work or night work.

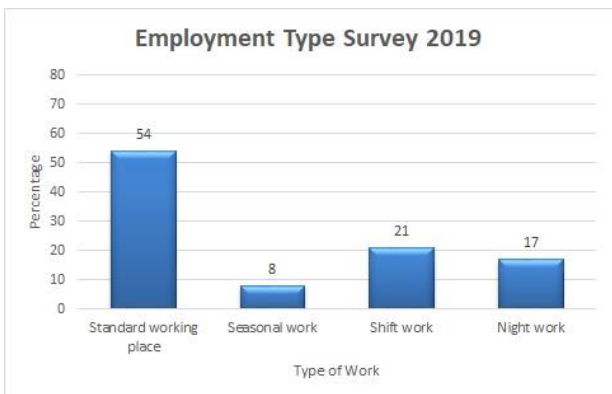


Fig. 8. Employment type preferences – 2019 survey

The likely reason for this choice is the possibility of more free time and flexibility. This type of employment is also associated with a number of risks to the employees' health, due to disruption of the natural physiological regime. A number of studies point to the possible dangers of prolonged shiftwork (Maisey et al., 2022).

The survey of 2022

The survey conducted in 2022 is a continuation of that of 2019, aiming to monitor the changed public and professional circumstances after the end of the global COVID-pandemic. Currently, data from a number of studies on the topic have been published, which found similarity in the attitudes of workers and employers. The survey in 2022 targeted a wider range of business sectors in Bulgaria (Fig. 9). The largest share of respondents was from the education and IT sector. Representatives of the mining industry were 12% of the total number of 246 respondents.

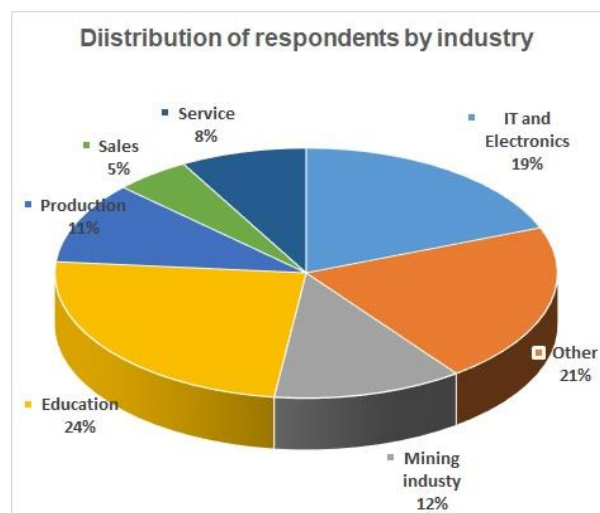


Fig. 9. Business sectors distribution – 2022 survey

The distribution of respondents by gender, age, and business sector is summarised in Figures 10 and 11.

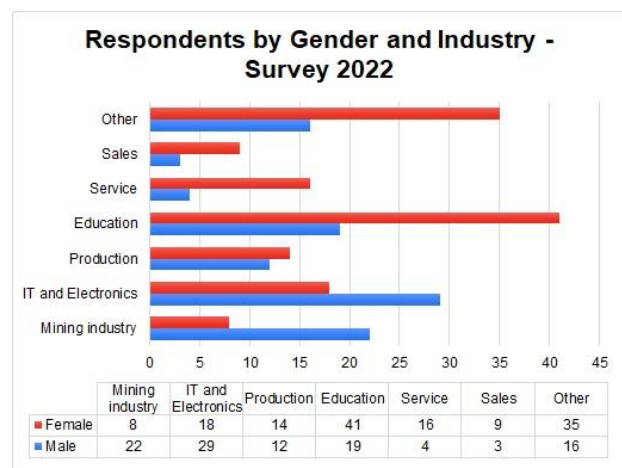


Fig. 10. Business sector and gender - 2022 survey

In terms of age, the largest percentage (53%) was that of participants between the ages of 35 and 55.

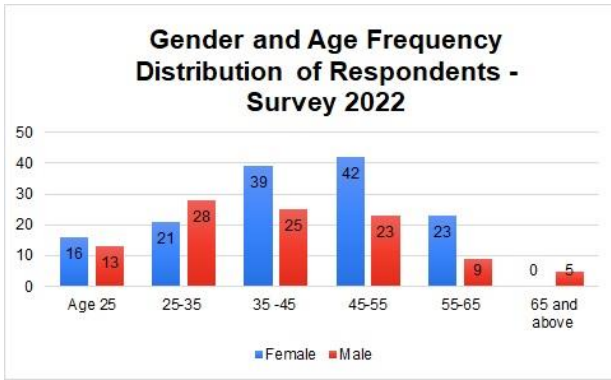


Fig. 11. Distribution by age and gender – 2022 survey

For the purpose of the study, several key questions regarding attitudes about duration and mode of operation have been formulated. The answers are summarised in Fig. 12 and Fig. 13.

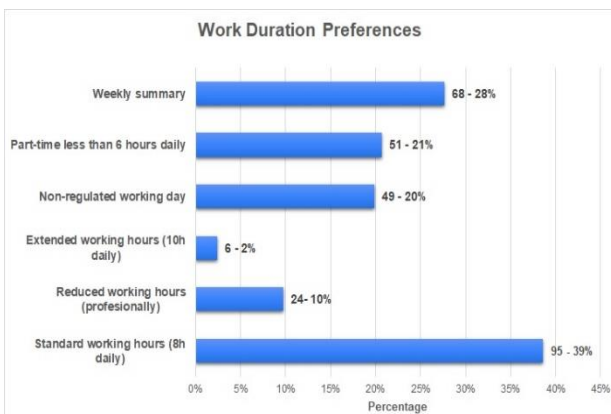


Fig.12. Preferences for work time duration – 2022 survey

Over 39% of the participants prefer an 8-hour working day, but the large share (27.6%) who want to have flexibility in determining the allocation of their weekly workload should also be taken into account.

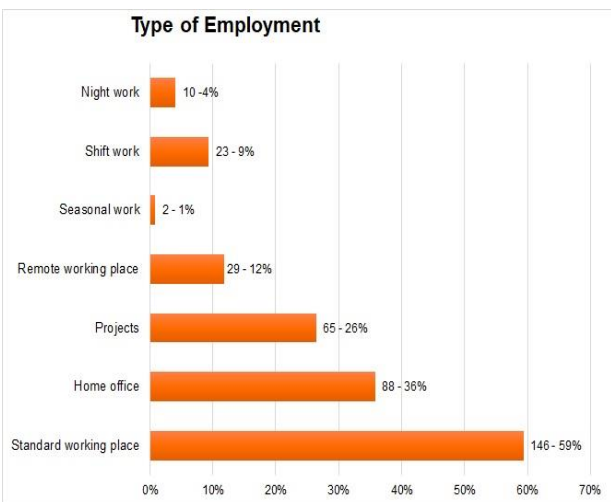


Fig.13. Preferences for type of employment – 2022 survey

When summarising the results concerning the work process organisation (Fig.13), it is evident that 59% of the participants preferred a standard workplace. Choosing a work from home as home office was desired by over 35%. These results are also related to the professional realisation, age, and gender of the respondents.

The group of participants whose professional experience is over 10 years long and over is of particular interest (Fig. 14). These are individuals with clear goals and preferences, which is why their choice is not emotional, but argumentative. 30 % of them prefer a standard 8-hour workday, but the group of people who chose flexibility and reduced duration was approximately 70%. The possibility of more than one choice should be taken into account when answering this issue.

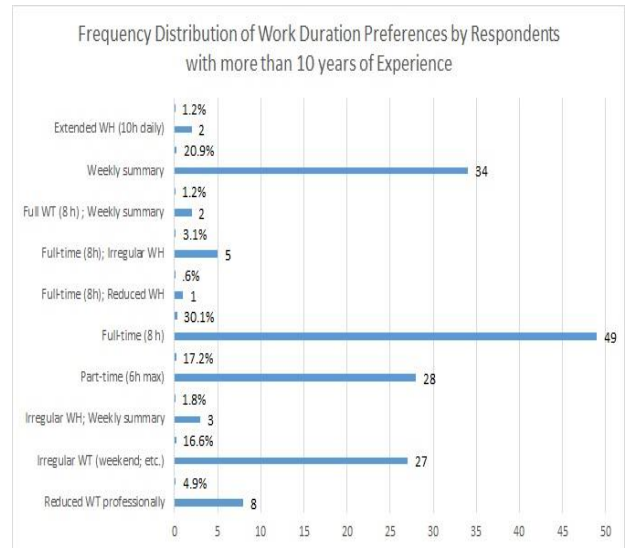


Fig. 14. Frequency distribution of respondents' responses with over 10 years of experience – 2022 survey

A full summary of data on the redistribution of preferences on employment type by industry in Bulgaria is presented in Fig. 15. The business sectors of interest for the authors are IT, education and mining.

Given the specifics and the nature of work, the following dependencies were found for each of them:

Respondents from the sector of **IT and electronics** preferred forms of employment combining home office, standard office, and project work. These hybrid forms of workflow organisation are possible due to the technical support of workers in this sector.

Despite the successful application of distance learning during the pandemic situation, the representatives of the **Education** sector in Bulgaria preferred the standard workplace and project work. The reason for this choice was probably the poor adaptation of standard curricula to their application in an electronic environment. At the same time, there were a number of good examples of continuing successful e-learning through various online platforms.

Logically, the preferences of the respondents from the **Mining Industry** were for a standard workplace, shift work, and night work. These results correspond to the results of the 2019 survey. Information about the other business sectors included in the study is presented in Fig.15.

Distribution of Work Organisation Preferences by Industry - Survey 2022

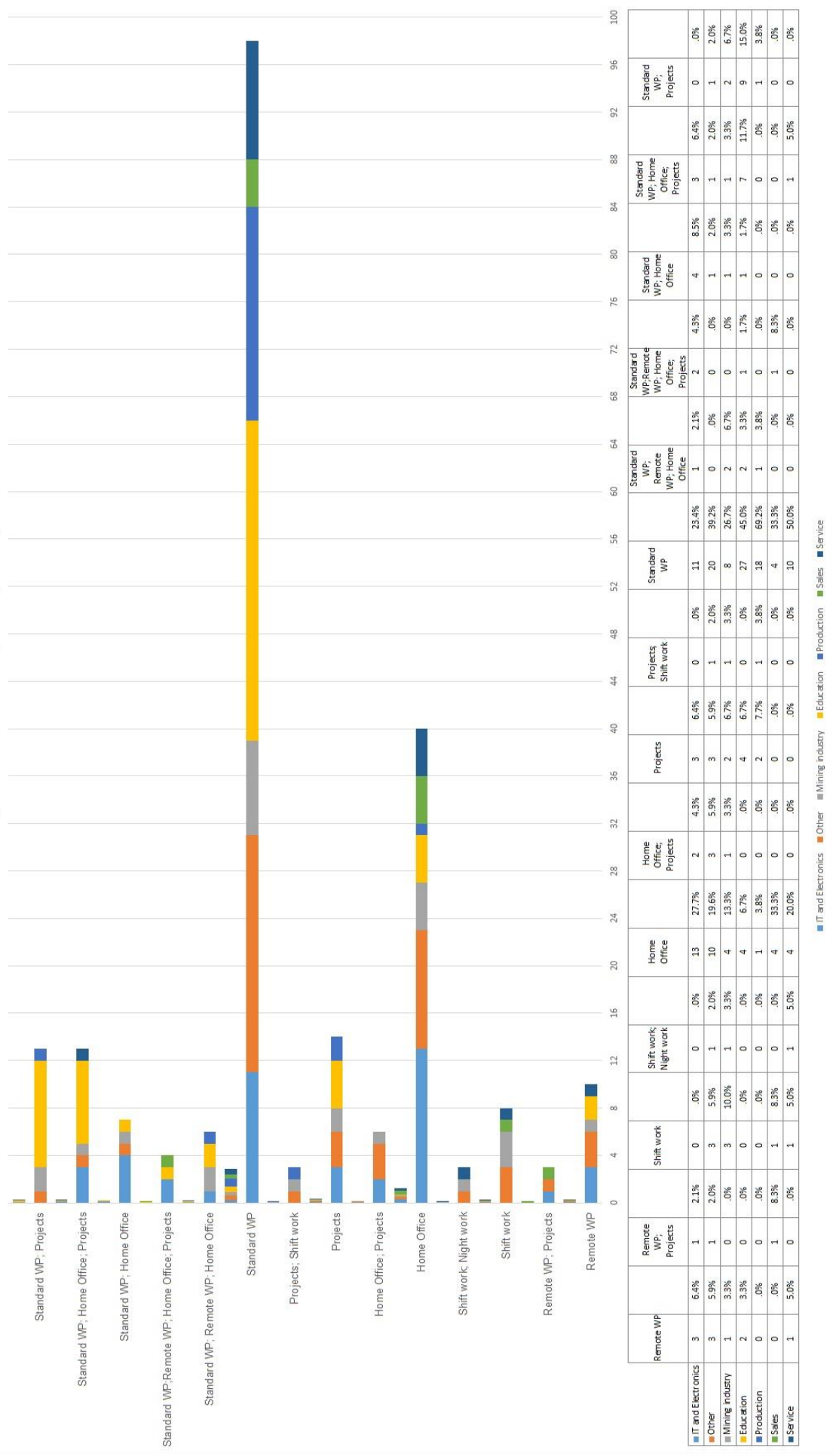


Fig. 15. Distribution of employment preferences by industry – 2022 survey

Conclusion

The conditions of the global crisis forced a number of changes in the organisation of the work process, which remain common long after the crisis has passed. However, no legal framework exists for these new hybrid forms of employment. Their regulation will facilitate the mechanisms of their implementation and will lead to real flexibility for both employers and employees. The expected effects of this process will be increased productivity and satisfaction in terms of work life balance. The surveys conducted in 2019 and 2022 show the changes that have occurred and the dynamics of employee attitudes towards the type of employment preferred.

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