THE IMPACT OF THE STATE REGULATION SYSTEM ON THE INCOME OF FREELANCERS

Diana ABDREISSOVA

North-Kazakhstan University named after M.Kozybayev Pushkin 86, Petropavlovsk 150000, Kazakhstan

Daniyar BAITENIZOV

North-Kazakhstan University named after M.Kozybayev Pushkin 86, Petropavlovsk 150000, Kazakhstan

https://doi.org/10.5755/j01.ppaa.22.3.33829

Absract. This article presents the tools with which the state can influence the level of income of freelance professionals in Kazakhstan. Foreign methods and ways of state regulation of the freelance market in terms of freelancers' income, the infrastructure of Kazakhstan's remote work market reviewed and analyzed in this article, identified the main characteristics of independent professionals in 2021: working hours, income level, length of service of freelancers, etc. It is noted that freelancers' incomes depend on the influence of the state policy in the field of education and length of service as a freelancer. The stereotype that the more a freelancer works, the more he earns is refuted. In this case, the well-known eight-hour workday standard established by the state is the most optimal option for freelancers to earn more income, which is confirmed by the data of our study. Information is provided on the educational structure of freelancers by type of employment, and the average number of hours allocated to work during the week. Multiple regression models of the dependence of freelancers' pay on their education level, work experience, and number of hours worked per week are presented and analyzed in this article. The authors propose recommendations for state regulation that would ensure an effective impact on the level of freelancers' income both in Kazakhstan and in former Soviet Union.

Keywords: *state regulation, freelance market, survey, COVID-19, freelancers' income, level of education, standard working hours, labor market, former Soviet Union.*

Reikšminiai žodžiai: vyriausybės reguliavimas, laisvai samdomų vertėjų rinka, tyrimas, COVID-19, laisvai samdomų vertėjų pajamos, išsilavinimo lygis, darbo laiko standartas, darbo rinka, buvusi Sovietų Sąjunga.

Introduction

As a result of the transformation of Kazakhstan's market economy, new non-standard forms of employment have emerged. The pandemic and the related unstable situation in the world economy were the reasons for the drop-in demand for labor and the establishment of freelancing as an alternative form of traditional employment of the population. Freelancers are understood as independent professionals of intellectual-innovative self-employment, rendering services, as a rule, by means of information and communication technologies. The purpose of the article is to consider the influence of state regulation on the wages of freelancers in Kazakhstan to develop recommendations for its improvement.

Millions of freelancers sell their intellectual services in exchange for receiving payment for their product. Thus, payment is income derived from the realization of the intellectual-innovative ability to create the weal. Freelancers' income is significantly influenced by government policies. For example, the conducted policy in the field of education, in determination of working hours, etc. In Kazakhstan the level of education of youth is high enough, which with development of information technologies passes from traditional labor to work of freelancers. A well-known factor influencing the salary of any specialist is education and work experience. These factors are important and determine the individual income of a freelancer. For example, in an article by Baitenizov et al. 2018, it was proved that the development of self-employment is indirectly affected by GDP through the unemployment rate, enrollment in higher education and the share of the service sector. The theory of human capital states that a high level of education contributes to additional income of a specialist. The knowledge, skills and abilities acquired in the process of education lead to increased productivity of workers. A freelancer's work experience directly affects his or her hourly wage rate. Consequently, as a freelancer's work experience increases, his/her individual income increases.

Since freelancers have a free schedule, they can afford to carry out work regardless of time constraints. Consequently, it can be assumed that this factor of the amount of time spent on work affects the level of individual income of a freelancer. In order to realize their creative intellectual potential freelancers, have to face many obstacles related to the imperfection of state regulation, namely: high requirements on the part of customers regarding education and work experience of a freelance market specialist, mismatch between the income level and the number of hours spent on the execution of the contract. Freelance became a creative mode of self-employment in a new economy and contributes to the development of countries (Baitenizov et al., 2019). These contradictions prompt a study of the phenomenon of state regulation in terms of education and the standard of working hours on the level of freelancers' income.

Based on all of the above, two hypotheses can be put forward:

- The state statistical indicator gross enrollment in higher education and the availability of work experience is indicative of the level of income of specialists in freelancing;
- The state-established norm of an eight-hour workday does not allow freelancers to earn high incomes. To confirm these hypotheses, it is necessary to consider the following tasks:
 - Analyze the composition of freelancers depending on the level of education;
 - Build a multiple regression of the dependence of wages on the level of education;
 - Build a multiple regression of the dependence of wages on the work experience as a freelancer;
 - Build a multiple regression of the dependence of wages on the length of the work week.

The state's understanding of the issues outlined in the hypotheses will contribute to the rational regulation of the freelance market, which will ensure its development in the future. In Kazakhstan, the freelance services market is developing rapidly, although the very notion of "freelance services market" is not common either in scientific literature or in economic practice. In this connection it is very important to define the legal status of freelancers. This circumstance actualizes the need for research and substantiation of the theory and development of the freelancing market.

In the world of freelance research began relatively recently. The first researchers to write about it 20 years ago were D.Pink and T. Malone. They described freelancers and gave forecasts about the development of this form of employment in the future economy (Pink, 2006; Malone, 2006).

The works devoted to the study of the role of freelancers in the economy during the financial crisis of 2008 in European countries attract attention in the aspect of the problems of our study. Many problems of employment were solved by the state precisely by creating favorable conditions for freelancers, which allowed to identify freelancing as a major factor in sustainable development, the authors stressed the importance of encouraging it and removing obstacles to its development, as it is the development of this area will increase the overall welfare of the population (Sharp et al., 2017). The changing freelancing market at present is most vividly reflected by scientific research of scientists on the changing freelancing market during the COVID-19 pandemic and in the post-pandemic period (Atkeson, 2020; Mckibbin & Fernando,

2020). American scientists Dunn M., Munyos I. and Sawyer S. according to empirical data, investigating American freelancers working on online platforms concluded that online freelancing is unreliable and the most common form of modern labor at the moment (Dunn et al., 2021). This fact is also confirmed by the research conducted by O'Farrell R. and Montagnier P., who attempted to quantify workers on digital platforms as well as their characteristics regarding education (O'Farrell & Montagnier, 2019). In addition to analyzing empirical data, these researchers have provided recommendations for estimating the number of freelance market workers, despite the difficulty in quantifying the scale of online platform workers. The quantitative increase in the number of online workers during the COVID-19 pandemic was written about by researchers Stephany F., Cassie O., etc. who proposed, in addition to empirical measurement of the global remote freelance market, the Online Labor Index (OLI) to track foreign platforms, changing geography of labor supply, and gender aspects (Stephany et al., 2020). The freelance market, due to the sharp influx of specialists in this field, imposes its own requirements and limitations regarding the literacy of freelance professionals. The authors identified that freelancers need to have certain knowledge and skills in order to work creatively and productively on digital freelancing market platforms (Sutherland et al., 2020). And researchers from Slovenia emphasize the fact that most freelancers engaged in professional, scientific and technical activities have a second university degree and extensive work experience. These factors have a positive effect on the life satisfaction of freelancers (financial and moral satisfaction). However, not in all countries freelancers are satisfied with their earnings. Thus, researchers Banovic S., Djukanovic B., Markovic D., Krivokapic N. analyzed the advantages and limitations of freelancing in four countries of the Western Balkans, which revealed that residents of Montenegro are not satisfied with their earnings from freelance employment.

The authors believe that freelancing cannot solve the state's unemployment and brain drain problems. The researchers attributed this dissatisfaction with earnings to poor job structure, lower incomes, and unfavorable socioeconomic status (Banovic et al., 2022). Having considered all the above-mentioned factors influencing the wages of freelancers, the researchers Radic V., Blagoyevic M.M., Markovic M.R. and others when conducting a survey among students who received higher education came to the conclusion that most educated youth will be employed exactly in the freelancing market. In this connection, the authors make recommendations on revision of curricula in higher education institutions to include disciplines teaching students how to adapt to such conditions (Radic et al., 2022). Researchers in Bangladesh, when studying the factors that influence the level of income of freelancers, noted that young people need to learn English and gave recommendations for the revision of higher education programs (Rahman et al., 2017).

At present, the scientific elaboration of the issues related to the state regulation of the freelance sector in terms of influencing the level of their income remains low. These circumstances make it necessary to consider the leading factors influencing the wages of freelancers.

Methods

In our study we considered Russian-speaking freelancers working in the Kazakh freelance market. Russian-speaking freelancers are international specialists of the former Soviet Union, as they work mainly with Russian-speaking customers from the former Soviet republics. The qualitative composition and characteristics of freelancers in Kazakhstan are in many ways similar to freelancers in the countries of the former Soviet Union, since these states are approximately at the same socioeconomic level of development, which is confirmed by world rankings (Gtmarket, 2022). And Russian is the international language of communication between these countries. In this regard, this study can be used to study freelancing in the former Soviet Union.

A total of 400 contacts of freelancers in Kazakhstan were randomly selected from various sources of the World Wide Web. Information about freelancer data was taken in part from social networks "tele-

gram," "instagram", as well as from the official Kazakh freelance platforms *allfreelance.kz*, *enbek.kz*, etc. To achieve the purpose the method of research was chosen - electronic survey, which was conducted with the use of questionnaire. The survey was organized in the Russian language for Kazakh freelancers. The target group was represented by freelancers, whose work brought some income. In this sample 66% of respondents were women and 34% men. There was no age limit, due to the purpose of determining the age characteristics of freelancing in Kazakhstan.

We were able to obtain data that are not reflected in official sources. According to the study, the average age of freelancers was 38 years old. The youngest was 14 years old, and the adult was 61. The largest share of the youngest age audience is between 19 and 39 years old, which accounted for 85% of the respondents (178 people out of 209 respondents). The smallest share is among the 50+ age group and teenagers at 3% each. Conclusion: In Kazakhstan, the young population of the country is predominantly engaged in free-lancing 88% of those surveyed, while the remaining 12% are in the adult age category.

The largest groups among the respondents surveyed are "pure freelancers" and "part-timers" (45% and 40%, respectively). The share of entrepreneurs in the overall structure of freelancer status is 12%. And the share of students and housekeepers was a particularly small percentage. The most common areas of professional training for freelancers were economics - 25% of all freelancers, information technology - 18%, engineering and humanities - 16% each, creative and artistic specialties - 11%. At the same time, there are respondents who are professionals in several fields: in three fields - 1.5%, in two fields - 16%. All respondents were informed about the study and voluntarily participated in it. Compensation for participation in the study was not provided. The survey procedure was conducted online with the help of google form. The timing was January 2022.

Instruments

This article presents only some of the data that have been collected as a result of the study. The research was conducted from the position of structural-functional approach based on the methods of analysis and synthesis within the research of the process of freelancers appearance in the structure of employed population in order to analyze and summarize the sociological survey, to identify trends and features of the freelance services market.

The course of the study consisted of the following stages:

- On the basis of generalization of the results of previous studies by other scientists, formed a theoretical framework, which was analyzed through the use of system-logical and comparative research methods, to identify factors that influence the remuneration of freelancers
- 2. The analysis of the results of freelancers' questionnaires: educational and professional characteristics, work experience as a freelancer, etc. was conducted.
- Based on the results the authors made the main conclusions about the Kazakh freelance market, which are necessary for effective state regulation of the freelance market, allowing freelancers to earn a decent wage.

The main empirical basis of the study was the data obtained in the online questionnaire on the data for the year 2021. There were 27 questions in the online questionnaire, reflecting the sides of work and life of Kazakh freelancers.

The research sample was calculated from the total number of questionnaires sent for the electronic survey on the basis of the Paniotto formula, represented by the following formula (Paniotto & Maksimenko, 1982).

$$\pi = 1/(\Delta^2 + 1/H) = 1/(0.05^2 + 1/400) = 200$$
(1)

Results

The restraining factor in the development of Kazakh freelancing is the lack of specific normative-legal acts regulating this sphere. The Labor Code of the RK stipulates the possibility to work as a freelancer legally in Art. 13 "Home workers" 7 and 138 "Distance work". However, in practice, these articles practically do not work, because they are not profitable for the employer. After all, a remote worker becomes a full-time employee, who is legally entitled to a social package: vacation, pension contributions, sick pay, etc. In addition, the lack of legislation leads to difficulty regulating the payment of taxes by freelancers. Freelancers do not pay taxes to the state treasury. This suggests that the shadow economy is developing intensively. Currently, it is simply not profitable for freelancers to come out of the "shadows" under the existing legislation with large gaps. The second restraining factor in the development of Kazakh freelancing is the lack of freelancing statistics, which would allow conclusions to be drawn on the development and state regulation of this branch of the labor market.

Dynamic economic development in Kazakhstan has led to an increase in the level of education among the country's youth. It is the quality of higher education that predetermines the long-term competitiveness of the country in the context of globalization. The state, by increasing the gross enrollment in higher education, influences the increase in income of freelance specialists. Freelancers are one of the most educated strata of independent workers. 83% of freelancers have completed (72%) and incomplete higher education (14%). The share of specialized secondary education is 11% of the total number of respondents. Only 3% (7 people) are freelancers without education. The share of persons with a master's degree and PhD has a high rate of 22%, which indicates the education level of young people in Kazakhstan working in the freelance market.

Analyzing the data obtained, we can conclude that freelance employment is more profitable than office employment with a combination in freelancing (Figure 1).

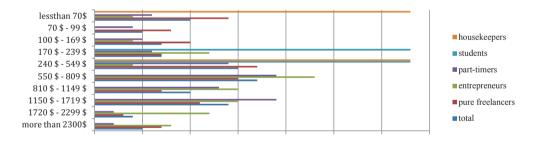


Figure 1. Freelancer's average personal monthly income, %, 2021 Source: authors' own calculations.

Also one of the striking dependencies that has a significant impact on the income of freelancers is experience in freelancing. The data shows that a quarter of freelancers with less than one year of experience have earnings of less than \$70, and specialists with more than 11 years of freelance experience have earnings that do not fall below \$240. This fact is logical, because the more experience a freelancer has, the higher his level of professionalism, respectively, the cost of his services is significantly higher.

The survey data showed that the main share of freelancers are young people. Most of them have not yet managed to accumulate experience as an independent employee. One fourth of all freelancers (26%) belong to the category of beginners (with one year or less of experience), while the share of experienced freelancers with 11 years of experience is 6% (Figure 2).

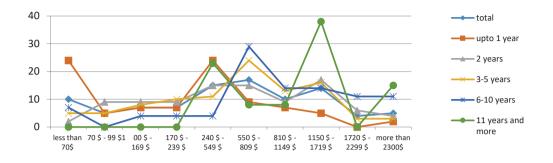


Figure 2. Average personal monthly income for 2021 based on length of service as a freelancer, % Source: authors' own calculations.

19% of freelancers surveyed did not have a clear time limit, but noted the maximum number of hours within which they worked as a freelancer. This group of people prefer to work randomly, and only 21% of respondents work on a standard 5/2 schedule. As can be seen from the data presented in Table 1, 40% of Russian-speaking freelancers can afford to work less than 22 hours per week.

Number of modeing		Тур	e of employment	t		
Number of working hours per week	Pure Freelancers	entrepreneurs	part-timers	students	housekeepers	Total
20 and less	24	7	48		1	80
21-35	17	5	11			33
36-45	16	3	8	1		28
46-60	5	0	0		1	6
More than 60	14	2	1			17
No time limit	18	9	15	2	1	45
Total	94	26	83	3	3	209
Average number of working hours per week	35,6	26,3	17,9	45	40	27.3

Table 1. Quantit	y of hours	per week by	type of employment
------------------	------------	-------------	--------------------

Source: authors' own calculations

The average working week as a freelancer for the sample as a whole was 27 hours per week. Students spend the most time on orders - 45 hours. This can be explained by the fact that this group of people are not professionals and have not yet established themselves in the freelance services market. And the part-timers, having the basic eight-hour work schedule, have additional 18 hours a week as a freelancer. That is, their working week will average about 60 hours.

Discussion

There is a lack of research that reveals the impact of enrollment in higher education on self-employment and freelancing.

One of the first works of this kind was the work of Baitenizov et al. 2018, where the author proved the hypothesis about the impact of gross enrollment in higher education on the level of self-employment. In addition, this paper presents the degree of influence of gross tertiary enrollment in comparison with other factors.

Kazakh authors reveal the problems of the labor market, but the topic of freelancing remains underexplored. (Tolepbergen, 2022; Mussurov et al., 2019)

In general, freelancing in the CIS is actively explored by Higher School of Economics (HSE University) scientists A. Shevchuk and D. Strebkov. In one of their latest works, they point out how the Russian language and specific socio-economic factors facilitate a distinct online labor market that operates across the vast territory of the former Soviet Union and beyond (Shevchuk et al., 2021).

Considering the impact of the state statistical indicator of gross enrollment in higher education and the availability of work experience on the level of income of specialists in freelancing, we obtained the following data presented in Table 2.

Personal income per month, US dollars	Lower limit	Upper limit	Y (depend- ent)	No educa- tion	Vocational secondary	Incom- plete higher	bachelor/ specialist	master	PhD candidate/ doctor
less than 70 \$	0	70	35	1	4	3	10	3	0
70 \$ - 99 \$	71	99	85	1	3	2	5	2	0
100 \$ - 169 \$	100	169	134,5	0	4	4	6	1	0
170 \$ - 239 \$	170	239	204,5	0	0	3	10	4	0
240 \$ - 549 \$	240	549	394,5	0	2	8	15	7	0
550 \$ - 809 \$	550	809	679,5	2	3	5	19	8	0
810 \$ - 1149 \$	810	1149	979,5	0	3	3	12	5	0
1150 \$ - 1719 \$	1150	1719	1434,5	1	3	0	20	7	1
1720 \$ - 2299 \$	1720	2299	2009,5	2	0	1	3	3	0
more than 2300 \$	2300	5000	3650	0	0	1	5	3	1
total				7	22	30	105	43	2

Table 2. Distribution of freelancers according to salary and level of education

Source: authors' own calculations

In our case the p-value for the Fisher statistic was approximately 0.1, which is less than $\alpha = 0.1$. This means that the null hypothesis of insignificance of the regression equation is rejected with 90% reliability. According to Fisher's test the regression is adequate, there is a significant linear relationship between the variables X and Y(salary) (Figure 3).

Regression statistics	
Multiple R	0,95
R-square	0,90
Normalized R- square	0,71
Standard error	614,79
Observation	10

Variance analysis

	df	SS	MS	F	Significance F
Regression	6	10701132,19	1783522,032	4,71874779	0,1
Residuals	3	1133895,333	377965,1109		
Total	9	11835027,53			

	Coefficient	Standard error	t-statistics	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Y-crossing	865,79	645,79	1,34	0,27	-1189,39	2920,97	-1189,39	2920,97
up to 1 year	-26,83	376,73	-0,07	0,95	-1225,76	1172,11	-1225,76	1172,11
2 years	94,84	248,53	0,38	0,73	-696,08	885,76	-696,08	885,76
3-5 years	-47,60	178,56	-0,27	0,81	-615,85	520,65	-615,85	520,65
6-10 years	-323,24	158,58	-2,04	0,13	-827,92	181,44	-827,92	181,44
11 years and more	702,86	416,59	1,69	0,19	-622,92	2028,65	-622,92	2028,65
PhD candidate/doctor	2097,63	814,66	2,57	0,08	-494,98	4690,23	-494,98	4690,23

Figure 3. Regression analysis

Source: authors' own calculations.

Confidence limits of the coefficients do not include "zero" value, which confirms the statistical significance (unlike zero) of the regression equation coefficients. Let's write down the initial linear multiple regression model:

$$\begin{split} &Y{=}865{,}79{-}26{,}83{\cdot}X_{1}{+}94{,}84{\cdot}X_{2}{-}\\ {-}47{,}6{\cdot}X_{3}{-}323{,}24{\cdot}X_{4}{+}702{,}86{\cdot}X_{5}{+}2097{,}63{\cdot}X_{6} \end{split}$$

After constructing a multiple regression model, let us conclude that the greatest influence on the level of wages has a master's and PhD degree, which is quite logical. It should also be noted that it is the transition from the level of education "bachelor/specialist" to the next level of master's degree, there is a sharp jump in the growth of freelancer's wages. This is evidenced by the positive coefficients at X_5 and X_6 in the regression equation. As a result of the data we can draw the following conclusions that more than 70% of freelancers in Kazakhstan are educated professionals with a bachelor's degree or higher. According to our multiple regression the level of freelancers' remuneration directly depends on their level of education. Consequently, the higher the level of education of a freelancer, the more expensive his services are.

When constructing a multiple regression of the relationship between wages and length of service as a freelancer, we also found a direct correlation between the indicators (Table 3).

Personal income per month, US \$	Lower limit	Upper limit	Y (de- pendent)	up to 1 year	2 years	3-5 years	6-10 years	11 years and more	PhD candi- date/doctor
Less than 70 \$	0	70	35	24	2	5	7	0	0
70 \$ - 99 \$	71	99	85	5	9	5	0	0	0
100 \$ - 169 \$	100	169	134,5	7	9	8	4	0	0
170 \$ - 239 \$	170	239	204,5	7	9	10	4	0	0
240 \$ - 549 \$	240	549	394,5	24	15	11	4	23	0
550 \$ - 809 \$	550	809	679,5	9	15	24	29	8	0
810 \$ - 1149 \$	810	1149	979,5	7	9	13	14	8	0
1150 \$ - 1719 \$	1150	1719	1434,5	5	17	16	14	38	1
1720 \$ - 2299 \$	1720	2299	2009,5	0	6	3	11	0	0
More than 2300 \$	2300	10000	6150	2	4	3	11	15	1
total				7	22	30	105	43	2

Table 3. Distribution of freelancers according to salary and length of service as a freelancer

Source: authors' own calculations

Regression statistics								
Multiple R		0,89						
R-square		0,79						
Normalized R- square		0,52						
Standard error		1284,35						
Observation		10						
Variance analysis								
	df	SS		MS		F	Signific	ance F
Regression	5	24308566,68	48	61713,336	2	.,95	0,	1
Residuals	4	6598210,847	16	49552,712				
Total	9	30906777,53						
	Coefficient	Standard error	t-statistics	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Y-crossing	3031,09	1528,50	1,98	0,12	-1212,71	7274,89	-1212,71	7274,89
up to 1 year	-73,86	62,85	-1,18	0,31	-248,37	100,65	-248,37	100,65
2 years	-179,39	265,14	-0,68	0,54	-915,52	556,75	-915,52	556,75
3-5 years	-167,26	235,50	-0,71	0,52	-821,11	486,60	-821,11	486,60
6-10 years	128,16	121,45	1,06	0,35	-209,05	465,37	-209,05	465,37
11 years and more	101,26	53,26	1,90	0,13	-46,61	249,13	-46,61	249,13

Figure 4. Regression analysis. Source: authors' own calculations.

In our regression, the p-value for the Fisher statistic was approximately 0.1, which is less than $\alpha = 0.1$. This means that the null hypothesis of insignificance of the regression equation is rejected with 90% reliability. According to Fisher's test the regression is adequate, there is a significant linear relationship between variables X and Y(salary) (Figure 4).

Confidence limits of the coefficients do not include the value "zero", which confirms the statistical significance (unlike zero) of the regression equation coefficients. Let's write down the initial linear multiple regression model:

$$Y=3031,09-73,86\cdot X_{1}-179,39\cdot X_{2}-167,26\cdot X_{2}+128,16\cdot X_{4}+101,26\cdot X_{5}$$

After constructing a multiple regression model, let us conclude that the greatest influence on the level of wages has a work experience of 6-10 years or more, that is, freelancers with a long work experience in their field have higher wage rates than freelancers with less work experience. Thus, the factorsX_4 and X_5, which have positive coefficients in the regression equation, have the greatest influence on Y (salary). Summing up our second multiple regression relationship, we can say that the level of freelancer's salary is affected by his experience in the field. Conclusion: Our multiple regressions of the dependence of freelancers' wages on their level of education and on their length of service have fully confirmed our hypothesis 1.

The results of the dependence of salary on the number of working hours per week, presented in Table 4, showed the absence of a direct correlation, and also dimentled the stereotype that freelancers work 2-3 hours a day.

Personal income	Lower	Upper	$\mathbf{Y}(1 = 1 \cdot 0)$		Work	hours pe	er week	
per month, US \$	limit	limit	Y (dependent)	Less than 20 h	21-35	36-45	46-60	More than 60
less than 70 \$	0	70	35	7	4	2	2	2
70 \$ - 99 \$	71	99	85	6	2	0	1	1
100 \$ - 169 \$	100	169	134,5	3	1	3	0	4
170 \$ - 239 \$	170	239	204,5	8	1	1	1	0
240 \$ - 549 \$	240	549	394,5	9	8	5	0	1
550 \$ - 809 \$	550	809	679,5	15	6	5	1	4
810 \$ - 1149 \$	810	1149	979,5	9	2	2	0	1
1150 \$ - 1719 \$	1150	1719	1434,5	12	4	4	1	3
1720 \$ - 2299 \$	1720	2299	2009,5	3	2	3	0	0
more than 2300 \$	2300	5000	3650	2	2	3	0	1
total				74	32	28	6	17

Table 4. Distribution of freelancers according to the wages and number of working hours per week

Source: authors' own calculations

In our case the p-value for the Fisher statistic was approximately 0.55, which is greater than $\alpha = 0.1$. This means that the null hypothesis of insignificance of the regression equation is accepted with 90% reliability (Figure 5).

Regression statistics			_					
Multiple R		0,73	_					
R-square		0,54						
Normalized R- square		-0,04						
Standard error		1170,94						
Observation		10	_					
Variance analysis								
	df	SS		MS		F	Signific	ance F
Regression	5	6350658,414	12	70131,683	0,926	364843	0,54472	22179
Residuals	4	5484369,111	13	71092,278				
Total	9	11835027,53						
	Coefficient	Standard error	t-statistics	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Y-crossing	829,41	1026,75	0,81	0,46	-2021,31	3680,14	-2021,31	3680,14
Less than 20 h	-58,84	136,67	-0,43	0,69	-438,29	320,61	-438,29	320,61
21-35	-399,17	337,76	-1,18	0,30	-1336,95	538,61	-1336,95	538,61
36-45	861,35	547,97	1,57	0,19	-660,05	2382,75	-660,05	2382,75
46-60	282,83	838,11	0,34	0,75	-2044,15	2609,80	-2044,15	2609,80
More than 60	-433,82	365,72	-1,19	0,30	-1449,21	581,57	-1449,21	581,57

Figure 5. *Regression analysis Source: authors' own calculations.*

Let's write down the initial linear multiple regression model:

 $\begin{array}{l} Y = 829,41 - 58,84 \cdot X_1 - 399,17 \cdot X_2 + \\ + 861,35 \cdot X_3 + 282,83 \cdot X_4 - 433,82 \cdot X_5 \end{array}$

After constructing a multiple regression model, we conclude that the greatest influence on the level of wages has the number of hours equal to 36-45 per week, which corresponds to the state norms of the working day. There is no direct dependence of wages on the time spent on the performance of work. Consequently, we can conclude that the state's recommended standard of an eight-hour workday is the most optimal amount of time to get more productivity, allowing to provide a decent wage.

In comparison with the survey of Russian scientists the results of the research has a positive correlation with follows: every second Russian surveyed by the Russian Academy of National Economy and Public Administration (RANEPA) believes that an increase in workload and work with greater impact will not lead to an increase in his income (54%), and 46% are sure that with less intensity of work, their salary will remain the same.

Conclusions

Summarizing the above, we believe that it is necessary to identify the following main priorities of state regulation in the sphere of electronic freelancing:

- 1. According to the results of the study, hypothesis 1 was confirmed. According to hypothesis 1 «The state statistical indicator gross enrollment in higher education and the availability of work experience is indicative of the level of income of specialists in freelancing», freelancers with higher education and more experience actually earn more. In turn, wealthier and more successful citizens of a country make a greater contribution to the development of the state, the tax base, forming the middle class and counteracting poverty and unemployment. So, the state should actively intervene in increasing the share of higher education coverage of potential freelancers and young people. An effective solution would be to consider a list of in-demand specialties in freelancing and to target training grants through a state mechanism involving the relevant ministry. One of the measures for the acquisition and development of experience for freelance students is to provide for internships for them on freelance exchanges while studying at universities subordinate to a state.
- 2. According to the results of the study hypothesis 2 «The state-established norm of an eight-hour work-day does not allow freelancers to earn high incomes» was refuted. Thus, the greatest influence on the level of wages has the number of hours equal to 36-45 per week, which corresponds to the state norms of the working day. Perhaps this conclusion to some extent confirms one of the laws of the economic theory on diminishing returns. The state program of freelancing development should take into account that the optimal freelancer load is an 8-hour workday for a high freelancer income.
- 3. The results of our study, according to the hypotheses, can be projected to all Russian-speaking freelancers in the CIS (former Soviet Union).

To summarize, it should be noted that freelancing is a new form of labor relations, to recognize that its scale is growing and the world economy is transformed to the fact that subjects no longer want to work for the common weal, but pursue their individual (personal) goals. Freelancing is an opportunity to earn extra money by doing a lot of work at the freelancer's convenience. The lack of a legal framework encourages shady employment. Meanwhile, freelancing can significantly reduce the costs of the employer, increase productivity and worker satisfaction, etc. Thus, we can say that Kazakhstan needs radical changes at the legislative level for the effective development of freelancing.

References

- Atkeson, A. (2020). What Will Be the Economic Impact of COVID-19 in the US? Rough Estimates of Disease Scenarios. Working Paper 26867. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/ w26867
- Baitenizov, D.T., Dubina, I.N. & Azatbek, T.A. (2018). Trends of self-employment in Kazakhstan: Towards developed labor markets? Journal of Applied Economic Sciences, 13(8), 2216-2226. https://www.researchgate.net/ publication/332250448_Trends_of_self-employment_in_Kazakhstan_Towards_developed_labor_markets
- Baitenizov, D.T., Dubina, I.N., Campbell, D.F.J., Carayannis, E.G. & Azatbek, T.A. (2019). Freelance as a creative mode of self-employment in a new economy (a literature review). Journal of the Knowledge Economy, 10 (1), 1-17. https://doi.org/10.1007/s13132-018-0574-5
- Banovic, S., Dukanovic, B., Markovic, D. & Krivokapic, N. (2022). Freelance In Four Countries of Western Balkan. IPSI Bgd TIR, 18 (2). https://doi.org/10.58245/ipsi.tir.2201.03
- Dunn, M., Munoz, I. & Sawyer, S. (2021). Gender Differences and Lost Flexibility in Online Freelancing During the COVID-19 Pandemic. Front. Sociol, 6:738024. doi: https://doi.org/10.3389/fsoc.2021.738024
- 6. Gtmarket (2022). Ranking of countries in the world in terms of social progress. *https://gtmarket.ru/ratings/so-cial-progress-index*

- Malone, T.W. (2006). Labor in the new century. How new forms of business affect organizations, management style and your life. Moscow: Olimp-Business.
- McKibbin, W. J., & Fernando, R. (2020). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. https://www.brookings.edu/wp-content/uploads/2020/03/20200302_COVID19.pdf. https://doi.org/10.2139/ ssrn.3547729
- Mussurov, A., Sholk, D. & Arabsheibani, G.R. (2019). Informal employment in Kazakhstan: a blessing in disguise? Eurasian Econ Rev, 9, 267-284. https://doi.org/10.1007/s40822-018-0117-1
- O'Farrell, R. & Montagnier, P. (2019). Measuring digital platform-mediated workers. New Technology, Work and Employment, 35(1), 130-144. https://doi.org/10.1111/ntwe.12155
- 11. Paniotto, V. I. & Maksimenko, V. S. (1982). Quantitative methods in sociological research. Kiev: Naukova Dumka. 272.
- 12. Pink, D. (2006). Free Agent Nation: How America's New Independent Workers Are Transforming the Way We Live, M: The secret of the firm.
- Radic, V., Blagojevic, M., Markovic, M. R., Stevanovic, M., Radic, N. & Nikitovic, Z. (2022). Challenges and limitations of gig economy and possible implications for education. International Journal of Entrepreneurship, 26(2), 1-8. https://www.abacademies.org/articles/challenges-and-limitations-of-gig-economy-and-possible-implications-for-education.pdf
- Rahman, M. & Rahman, A. (2017). Factors, impacts, problems and solutions of freelance earning in the context of Bangladesh. Business & Entrepreneurship Journal, 6(1), 1-13. https://ideas.repec.org/a/spt/busent/v6y-2017i1f6_1_1.html
- Sharp, L., Torp, S., Van Hoof, E. & de Boer A.G.E.M (2017). Cancer and its impact on work among the self-employed: A need to bridge the knowledge gap. European journal of cancer care, 26(5), 12-46. https://doi.org/10.1111/ ecc.12746
- Shevchuk, A., Strebkov, D. & Tyulyupo, A. (2021). The Geography of the Digital Freelance Economy in Russia and Beyond. In: Will-Zocholl, M., Roth-Ebner, C. (eds) Topologies of Digital Work. Dynamics of Virtual Work. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-80327-8_2
- Stephany, F., Kassi, O., Rani, U. & Lehdonvirta, V. (2020). Online Labor Index 2020: New ways to measure the world's remote freelancing market. Big Data and Society journal, Julu Desember, 1-7. https://doi. org/10.1177/20539517211043240
- Sutherland, W., Jarrahi, M., Dunn, M. & Nelson, S. (2020). Work precarity and gig literacies in online freelancing. Work, Employment and Society, 34(3), 457-475. https://doi.org/10.1177/0950017019886511
- Tolepbergen, A. (2022). The role of labor market structure and shocks for monetary policy in Kazakhstan. IJEPS, 16, 179-210. https://doi.org/10.1007/s42495-021-00073-2

Diana Abdreissova, Daniyar Baitenizov

VALSTYBINIO REGULIAVIMO SISTEMOS ĮTAKA LAISVAI SAMDOMŲ DARBUOTOJŲ PAJAMOMS

Anotacija. Šiame straipsnyje pateikiamos priemonės, kuriomis valstybė gali daryti įtaką laisvai samdomų specialistų pajamų lygiui Kazachstane. Straipsnyje aptariami ir analizuojami užsienio metodai ir laisvai samdomų darbuotojų rinkos valstybinio reguliavimo metodai, atsižvelgiant į laisvai samdomų vertėjų pajamas, Kazachstano nuotolinio darbo rinkos infrastruktūra, identifikuojamos pagrindinės nepriklausomų specialistų charakteristikos 2021 metais: darbo laikas, pajamų lygis, laisvai samdomas darbuotojas. patirtis ir kt. Pažymima, kad laisvai samdomų darbuotojų pajamos priklauso nuo valstybės politikos įtakos švietimo srityje ir laisvai samdomo darbuotojo darbo stažo. Stereotipas, kad kuo daugiau laisvai samdomas darbuotojas dirba, tuo daugiau uždirba, buvo paneigtas. Šiuo atveju gerai žinomas valstybės nustatytas aštuonių valandų darbo dienos standartas yra geriausias pasirinkimas laisvai samdomiems darbuotojams gauti daugiau pajamų, tai patvirtina ir mūsų tyrimo duomenys. Pateikiama informacija apie laisvai samdomų darbuotojų išsilavinimo struktūrą, asmeninių mėnesinių pajamų dydį pagal laisvai samdomo darbo pobūdį, laisvai samdomų darbuotojų patirtį pagal darbo pobūdį, taip pat vidutinį darbui per savaitę skiriamų valandų skaičių. Šiame straipsnyje pateikiami ir analizuojami daugialypiai laisvai samdomų darbuotojų darbo užmokesčio priklausomybės nuo išsilavinimo lygio, darbo patirties ir darbo valandų per savaitę skaičiaus, regresiniai modeliai. Autoriai siūlo valstybinio reguliavimo rekomendacijas, kurios užtikrins efektyvų poveikį laisvai samdomų darbuotojų pajamų lygiui tiek Kazachstane, tiek posovietinėje erdvėje.

Diana Abdreissova, PhD student North-Kazakhstan University named after Manash Kozybayev. *E-mail: diana.gmu.05@gmail.com*

Daniyar Baitenizov, PhD, Associate Professor Department of Economics and Accounting, North-Kazakhstan University named after Manash Kozybayev. *E-mail: dtbaitenizov@ku.edu.kz*

Diana Abdreissova, doktorantė,

Šiaurės Kazachstano Manašo Kozybajevo universitetas, Kazachstano Respublika. *El. p.: diana.gmu.05@gmail.com*

Daniyar Baitenizov, PhD Šiaurės Kazachstano Manašo Kozybajevo universiteto docentas, Kazachstano Respublika. El. p.: dtbaitenizov@ku.edu.kz

