## Liudmila S. Kiseleva<sup>1</sup>, Wadim Strielkowski<sup>2</sup> ECONOMIC ANALYSIS OF HAPPINESS, WELLBEING AND HEALTH: A TYUMEN REGION CASE STUDY

The paper provides an analysis of relationships between satisfaction with life, subjective prosperity, and health of Russian citizens based on the research carried out in the Tyumen region. Our findings reveal that the life satisfaction rate is at the level of the developed countries indices (with the exception of elderly respondents). Material prosperity is positively and significantly related to the feeling of happiness. The influence of education level on the satisfaction with life appears to be less significant. Besides, we have figured out that women feel more happy than men.

Keywords: the economics of happiness; satisfaction with life; health; Tyumen region.

## Людмила С. Кисельова, Вадим Стрієлковскі ЕКОНОМІЧНИЙ АНАЛІЗ ЩАСТЯ, БЛАГОПОЛУЧЧЯ ТА ЗДОРОВ'Я: НА ПРИКЛАДІ ТЮМЕНСЬКОГО РЕГІОНУ

У статті проведено аналіз взаємозв'язків між задоволеністю життям, суб'єктивним благополуччям і здоров'ям російських громадян на основі дослідження, проведеного в Тюменському регіоні. Отримані результати виявили, що рівень задоволеності життям людей знаходиться на рівні показників розвинених країн, за винятком літніх людей. Матеріальний достаток позитивно і значуще пов'язаний з відчуттям щастя. Вплив рівня освіти на задоволеність життям виявився малозначним. Крім того з'ясовано, що жінки відчувають себе щасливішими, ніж чоловіки.

**Ключові слова:** економіка щастя; задоволеність життям; здоров'я; Тюменська область. **Рис. 3. Табл. 2. Літ. 31.** 

## Людмила С. Киселева, Вадим Стриелковски ЭКОНОМИЧЕСКИЙ АНАЛИЗ СЧАСТЬЯ, БЛАГОПОЛУЧИЯ И ЗДОРОВЬЯ: НА ПРИМЕРЕ ТЮМЕНСКОГО РЕГИОНА

В статье проведен анализ взаимосвязей между удовлетворенностью жизнью, субъективным благополучием и здоровьем российских граждан на основе исследования, проведенного в Тюменском регионе. Полученные результаты выявили, что уровень удовлетворенности жизнью людей находится на уровне показателей развитых стран, за исключением пожилых людей. Материальный достаток положительно и значимо связан с ощущением счастья. Влияние уровня образования на удовлетворенность жизнью оказалось малозначительным. Кроме того выяснено, что женщины ощущают себя более счастливыми, нежели мужчины.

**Ключевые слова:** экономика счастья; удовлетворенность жизнью; здоровье; Тюменская область.

**Introduction.** At present, there are more and more scientists who tend to think that countries should neither try to assess their power, nor wealth, but the happiness of their citizens. So, if the gross domestic product is an economic development indicator for the industrial economy, it is not that effective for the post-industrial economy. The World Happiness Report, covering 130 countries, was compiled only twice. Happiness in the given version is the value that reflects national wellbeing and can be determined by 6 factors — actual GDP per capita, healthy life time people's self-

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assessment, freedom to live one's life upon one's choice, freedom from corruption, charity. Russia is on the 68th position among the estimated countries (www.aif.ru, 9.09.2013). Foreign scholars note that the level of happiness in Russia is extraordinarily low for the country at such level of economic development.

The economic theory of happiness has not yet taken its firm place in the publications of Russian economic scholars, except some scarce sources (Antipina, 2012; Rumjantseva, 2010). There are no empirical studies that could explain specific features and peculiarities of "Russian" happiness with the exception of those carried out to collect the data within the framework of international investigations of countries. This happens despite the fact that Russia has a huge territory with a large number of constituting regions which considerably vary in the level of socioeconomic development, climatic conditions, population density, urbanization level etc., which, respectively, could considerably influence the level of happiness and satisfaction of people living in those regions.

We have made an attempt to investigate life satisfaction and the level of perceived happiness of residents of the Tyumen region — Russian oil & gas province located in Western Siberia. The results on Russia, partly postulated in scientific literature, were confirmed, though a part of findings enables to speak about some specific feature in terms of Russians' life satisfaction and felt happiness. We managed to figure out that the region's residents' level of life satisfaction is equal to the developed countries values, except for the individuals in the age group over 55 years. Happy people are more satisfied with their lives, and the other way round, those, whose satisfaction with life is high, say more often that they are happy. This is a classic scenario, and we did not find any differences concerning the investigated region. Material wealth and money are positively and significantly related with the feeling of happiness at the level of 5%. A conclusion may be drawn that the less money the person has, less happy he, or she will feel. Health appeared to have a negative relation with the feeling of happiness: excellent health at the level of 10%, good health at the level of 5%. The influence of education level on life satisfaction appeared insignificant.

The paper has the following structure. In the first part of the paper we have stated the place of the "happiness" category in scientific publications and described the main results of empirical investigations, carried out by European and American scholars. The second part describes the database and methods. In the third part we present the main results and their interpretation.

The "happiness" category in scholars' research. The philosophy of happiness goes back to Ancient Greece. The successors of eudaemonism considered happiness to be the principal value of life and subordinated ethics and morals to it. Among the later ideas the philosophy of happiness may be found in the ethics of utilitarianism. The founder of this trend Bentham formulated the goal of utilitarianism simply: the more people are happy, the better.

The economic theory of happiness is one of the theories which is operated by the specialists, trying to find out, what flaws the contemporary economy has. In their opinion, understanding the notion of life quality as a number of objective values (purchasing power, per capita income etc.), economists miss its "human" constituents — among other items, life satisfaction. The first scientific investigations in the economic theory of happiness appeared in the 1970s. These principles were developed by

the Nobel Prize Winner D. Kahneman (1999; 2005), and American economist R.A. Easterlin (2003; 2005).

In the 2000s, there was a boost of interest to happiness not only from philosophers, psychologists, sociologists, but also from economists. B.S. Frey (2008) states that the studies of happiness have a considerable potential in order to make revolutionary changes in economics. In this respect, it becomes interesting to know what results were achieved by the scholars, dealing with the happiness investigations, at this point, as well as what issues are the most controversial.

We consider valid the grouping the array of scientific publications in the fields as: 1) theoretical studies, as a rule, interdisciplinary, which try to formulate what happiness is and to gain new theoretical knowledge about this category with the help of historical, sociological, psychological methods (Blanchflower & Oswald, 2008; Demtchenko, 2011; Frey and Stutzer, 2000; Seligman, 2002); 2) descriptive studies, with the goal to acquire empirical data, enabling to penetrate deeper into the matter of happiness, to study separate characteristics and features of the given phenomenon (Diener, 1997; Oswald, 2010; Ryan and Deci, 2001); 3) methodological studies, aimed at the development and improvement of methodological instruments in the studies on happiness.

There are some results of economic theory of happiness, conclusively presented in the scholars' papers. To be more specific, a phenomenon, known as the "Easterlin paradox", is a pattern, formulated in 1974 by R.A. Easterlin, then specified more by himself in 1995 (Easterlin, 2003; 2005). The essence of the phenomena is as follows: the population of rich countries is happier as a whole, than the population of poor countries, but in developed countries, despite the growth of the gross domestic product per capita, subjective estimations of happiness do not rise. In other words, income growth of a separate individual makes him (her) happy, but the growth of income of all the population of the country does not increase common happiness.

The psychologist R. Veenhoven (2003) offered the generalized value of life satisfaction in this or that country, which is named HLY (Happy Life Years), which combines the data on the lifespan and on the degree of life satisfaction. Besides, the degree of life satisfaction is not the felt happiness. In some countries, the total life satisfaction is low, and there are many happy people there. Usually, it is typical for developing countries, where the current state of events improves, and in this context the passed life seems especially unsuccessful for respondents.

What concerns the dynamics of happiness for a typical citizen of a country, the studies in this field are carried out by A. Oswald (2010). The dynamics of happiness may be described with the graph, having a "U" shape, where the lowest values belong to the age of 44–46 years (Figure 1).

This is explained by the fact that during the period of active professional experience people are the least satisfied with their life — they have to give up their pleasures for income and career. This age is the peak of depressions in Great Britain. The growth of happiness level of people above 60 years (even on the background of health worsening) means that the pension system, healthcare etc. make the life of the elderly comfortable and worthy (Blanchflower and Oswald, 2008).

The happiness curve, drawn on the basis of the studies in the USA, looks slightly different (Figure 2).

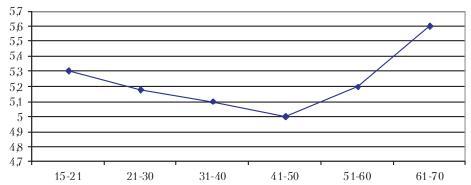


Figure 1. Life satisfaction depending on age in Great Britain (average estimation, 1 – "completely unsatisfied", 7 – "completely satisfied"), drawn by the authors on the basis of (Oswald, 2010)

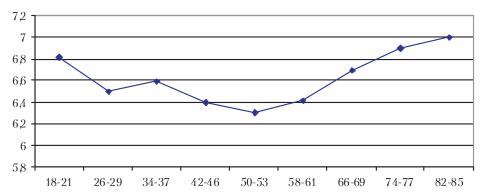


Figure 2. Life satisfaction depending on the age in the USA (average estimation, 1 – "completely unsatisfied", 10 – "completely satisfied), drawn by the authors on the basis of (Stone et al., 2010)

In the American society the "bottom" of the curve is located within the range of 50–53 years, but the argumentation of the given situation will be, in our viewpoint, similar to the British one.

Let us introduce some more interesting results. The studies by American economists B. Stevenson and J. Wolfers found out that since the 1970s the level of happiness of American and European women keeps decreasing and approaches the men's values (Stevenson and Wolfers, 2009). While before that time economic development influenced the men's and women's happiness differently — women were happier.

S. Lyubomirsy, L. King and E. Diener (2005) found out that happy people reach more success in their lives, than unhappy ones. According to their viewpoint, a happy person is very likely to be successful in professional activity: he or she is creative in solving assigned tasks, gets less tired, his or her enthusiasm brings a big benefit, from the amount of which happiness is also dependant. Thus, the happier is person in a country, the higher is their economic effectiveness and the richer is the society.

Some scholars offer measuring happiness with the help of objective, for example, medical parameters. Studies in the field of physiology reveal a relation of wellbeing

with defensive powers of the body (a happy person resists virus infections easier, happy people are less likely to have high blood pressure (Steptoe et al., 2008)). A considerably big number of publications is dedicated to the studies of the influence of inequality degree in the society on individual wellbeing, including health (Alesina et al., 2004; Smith, 1999). Such studies are aimed at measuring happiness with the help of economic parameters (Layard, 1980).

Concerning the studies of factors, determining the subjective estimate of life satisfaction, they are divided into 2 groups: economic and non-economic. Economic factors include: the degree of economic development of the country as a whole; the presence or absence of work (or a source of income), amount of individual income; the rates of inflation and unemployment, variations of business activity in the country and in the world (Antipina, 2012). Non-economic factors: formal features (sex, age, race); individual traits of a person (pessimist/optimist, introvert/extravert); social status (education, profession, marital status); way of spending time (communication with close people and friends, going in for sports, or hobbies, engagement in the life of community, rest); life conditions (climate and environmental conditions, social stratification, law and order) (Gaucher, 2009; Inglehart and Kligemann, 2000).

The research carried out in Great Britain show, that people with university diplomas are less satisfied with their lives and are more likely to be the subject to stresses, than people without education. But in many countries (USA, Switzerland, Latin American countries) there is a positive correlation between the level of education and the level of happiness.

**Data and methods.** For achieving the goals of our analysis, we used the data of the sociological survey conducted in the city of Tyumen, Tyumen region, in February-March 2014 using our own questionnaire. The data are representative for the population of the age from 18 years and above. Representativeness is controlled corresponding to sex, age, and education. The total number of the respondents in the sample was 287. The type of selection we used was non-probabilistic (the version of selection quota). The objects under investigation were the following age groups: 18–25 years, 26–35 years, 36–54 years, and above 55 years.

In order to verify the relation of the degree of life satisfaction with the level of felt happiness, as well as to check the inverse relation between the given values we used two models of linear regression, calculated on the basis of the least square method (Tables 1 and 2). The meaning variables, as the basis of the first model, influencing life satisfaction, are the following:

- age (4 age groups, enumerated above);
- sex;
- education (secondary, incomplete higher, higher, academic degree);
- the level of felt happiness (the respondents chose: 1) Yes, I am happy; 2) No, I am not happy; 3) I am not certain);
  - content of happiness for an individual (emotional side of life or material one);
- material riches (is the money a measure of happiness for the individual, or not);
  - perfect health;
  - good health.

calculated by the authors										
	Coef.	Std. Err.	t	p > [t]	95% conf. interval					
Age	1619507	.1111899	-1.46	0.146	3808319	.0569304				
Gender	.3667795	.2049881	1.79	0.075	0367466	.7703056				
Educ	.0932872	.1105648	0.84	0.400	1243634	.3109377				
Нарру	-1.169951	.1246857	-9.38	0.000	-1.415399	9245027				
Emot	.2934418	.2326236	1.26	0.208	1644856	.7513692				
Money	5593407	.4396919	-1.27	0.204	-1.424889	.3062078				
exhealth	.1671226	.3604979	0.46	0.643	5425298	.8767751				
Ghealth	0539236	.2177643	-0.25	0.805	4825999	.3747528				
constant	8.493557	.5915273	14.36	0.000	7.329115	9.657999				
$\mathbb{R}^2$	0.279									
Adj. R <sup>2</sup>	0.258									
N =	287									

Table 1. Factors, determining life satisfaction in the Tyumen region,

Table 2. Factors, determining the level of happiness in the Tyumen region, calculated by the authors

	Coef.	Std. Err.	t	p > [t]	95% conf. interval				
Satisf	2055893	.0219104	-9.38	0.000	2487206	162458			
Age	0686548	.0466063	-1.47	0.142	1604008	.0230912			
Gender	.2310812	.0853049	2/71	0.007	.0631555	.3990068			
Educ	.01884	.0463938	0.41	0.685	0724877	.1101678			
Emot	.0766758	.0976852	0/78	0.433	1156209	.2689725			
Money	.3586195	.1835969	1.95	0.052	0027972	.7200363			
exhealth	229924	.1505472	-1.53	0.128	5262813	.0664333			
Ghealth	1699352	.0907251	-1.87	0.062	3485307	.0086603			
constant	2.802661	.2807705	9.98	0.000	2.249954	3.355367			
$\mathbb{R}^2$	0.2957								
Adj. R <sup>2</sup>	0.2754								
N =	287								

The second model checks for how much the level of felt happiness depends on the level of life satisfaction. The factors, determining happiness, are the same variables as in the first model, except for the level of felt happiness. Instead of this variable there is the "life satisfaction" value used, measured in the questionnaire according to the range from 1 to 10 (the higher is the mark, the higher is the level of individual's life satisfaction at the present moment).

**Key research findings and their interpretation.** We calculated the regression equations with the help of the ordinary least squares in order to analyze the determiners of individuals' life satisfaction at the present moment on the one hand, and the factors determining the level of felt happiness on the other. The results are presented in Tables 1 and 2 respectively for each model. In our viewpoint, in terms of some variables the situation in Russia is interesting and not typical.

First of all, our results show the dynamics of happiness of the individual, different from the typical one for American and Europeans society, described in the work of D.G. Blanchflower and A.J. Oswald (2008). Different from the "U-type" happiness curve, where the lowest values of happiness belong to the age of 44–46 years, in our graph there are the following peculiarities (Figure 3).

1. The lowest happiness values are typical for the age group of 26–35 years, which varies from the practice of the earlier studied countries, but is completely log-

ical for Russia, because in Russia the period of marriage and bearing children is considerably shifted to younger age for both sexes. Correspondingly, the amount of responsibilities, which are to be born, grows in younger age, maximizing labor efforts in a wish to achieve material wellbeing and stability, frequently at the expense of pleasures.

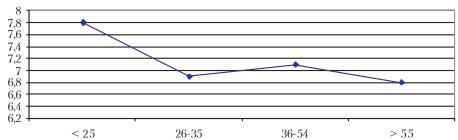


Figure 3. Life satisfaction depending on age in the Tyumen region (1 – completely unsatisfied, 10 – completely satisfied),

developed by the authors

2. Our calculations of dependence of life satisfaction from the age showed the following: the older the respondent is, the less satisfied with life he or she is. This contradicts the conclusions, made by D.G. Blanchflower and A.J. Oswald for the individuals above 61 years. Though in Russia such tendency has several explanations. Firstly, retirement is combined for the majority of the population with a sharp decrease of income at the background of worsening health, expensiveness of qualitative medicines and medical services, expensive utility services. The situation is aggravated by the accumulating and insurance mechanisms of comfortable old age implementation being undeveloped. Secondly, taking the average lifespan of Russians (69 years) into consideration, the majority of population unfortunately does not come into the happy age of wisdom, which occurs after 75 years.

Sex is positively related to the life satisfaction and is significant at the level of 10%. Women in the Tyumen region are more pleased with their lives, than men. This tendency, in our strong conviction, may be transferred to Russian society as a whole, though it is in some contradiction with the research of B. Stevenson and J. Wolfers (2009), which state that since the 1970s women's happiness gets slowly equal to men's happiness in developed countries. While earlier in the opinion of the same authors, starting from the 1930s economic development influenced the men's and women's happiness differently — women were happier.

Let us suggest that the difference in feeling happiness by Russian women, compared to American and European women, can be explained by differences in values. Even in the investigation, carried out by us, it becomes obvious that for the great majority of Russian women family and children are the main priority and the guarantee of happy life. She would sacrifice her career without any regret, if it is harmful for family relations and children up bringing. Considering the renovation and strengthening of religious orthodox traditions in Russia, according to which the objective for a woman is to serve for a man and help in achieving his goals. The forecast is that women in Russia will not stop feeling themselves less happy for the nearest decade and will not adopt men's style of behavior in the society and in self-real-

ization. We think that this could be studied in detail within the framework of a separate study.

We found out, that the level of felt happiness is negatively related to life satisfaction at the level of 5%. This means, that happy people are more satisfied with their lives. As it was earlier stated, happy people achieve larger success in their lives, than the unhappy ones. The influence of other factors (education, health) on life satisfaction appeared insignificant.

The second model of linear regression suggests fairly different configuration of variables. Here we find out, what factors determine the happiness of the individual, and to what degree they influence on the feeling of happiness. In the given model the meaningful variables are life satisfaction, age, sex, money, excellent, or good health.

Our study showed that more respondents are satisfied with their lives, the more they state that they are happy. This is a classic scenario for the country with developed economy.

The material riches, money is positively and significantly related to the feeling of happiness at the level of 5%. A conclusion may be drawn, that the less money a person has, the less happy he or she will feels.

Health appeared to have negative relation with the feeling of happiness, perfect health at the level of 10%, good health at the level of 5%. The worse the respondent estimates his or her health, the less frequently he or she speaks about happiness.

What concerns the level of education and its influence on the satisfaction and the feeling of happiness it appeared that there is no influence of it in both models.

Conclusions. This paper investigated life satisfaction and the feeling of happiness of the residents of a constituent area of Russian Federation — the Tyumen region, as well as how and at what degree such factors as sex, age, education, health condition influence people's wellbeing. We have found out, that in the 2000s the issues, related to the estimation of subjective wellbeing, development of the "happiness economics" conception, occupied a serious place in foreign scientific literature and gained topicality. Besides, we have to note low research activity by Russian scholars in this field, moreover, with the emphasis on regional peculiarities.

The results we obtained show that happy people are more satisfied with their lives and, on the other hand, the respondents, highly estimating the satisfaction of their lives said more frequently, that they were happy. We found out the specific dynamics of happiness in Russia, different form the dynamics in developed countries. The elderly in the Russian Federation appear less happy and satisfied with their lives, than the elderly abroad, which is a distinctive signal, reflecting the non-satisfactory level of social security, material wellbeing, plenty of healthcare services for the people of the old age. Our study confirmed that material riches, money influence people's feeling of happiness. The less money the person has, the less happy he or she will feel. Women appear to be happier than men. Also, people, estimating their health as excellent and good, are more satisfied with their lives and are happier.

The implemented study enabled to outline the directions of the following studies, in which we particularly plan to study the causes of life dissatisfaction by the elderly in more detail; boundaries of income, enabling the increase of the happiness level, as well as people's satisfaction. Besides, we consider interesting to study the influence of cultural values of this or that society on the life satisfaction.

In summing up our results, it should be noted that the economic theory of happiness is doubtless to broaden the field of research. The level of happiness is unlikely to be the only factor of human development, but it is an important addition to other indicators of progress. Nevertheless, the authorities of a number of countries plan to shift the emphasis from quantitative values to the estimation of the total happiness of their citizens while determining the effectiveness of economic policy in the nearest future in order to form a new development model, basing upon mental wellbeing improvement.

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