

ASSESSMENT OF LIFE SATISFACTION OF RUSSIAN POPULATION IN 1993–2013

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Abstract

The degree of population satisfaction with life characterizes the state of society and does not remain constant. It is characterized by the coefficient of life satisfaction that is based on the data of sociological polls. The dynamics of the coefficient shows that the assessment of life satisfaction of the Russian population was negative up to 2006, and in subsequent years it has become positive. The degree of life satisfaction is influenced by objective factors (income and expenditure of population, GDP per capita, unemployment, etc.), as well as by subjective factors (gender, age, marital status, social status, mood state, etc.).

Keywords: Life satisfaction, degree of satisfaction, dynamics, reasons

Introduction

The indicators of economic growth used for assessing the state of society are often complemented with the indicators of life satisfaction (Balatskiy, 2010). This is explained by the fact that the latter are more related to the real life of population than abstract economic indicators. Moreover, a decrease in the level of population satisfaction with life is a sign of intensifying conflictogenity of society. The control over the level of conflictogenity of society requires a quantitative assessment of various aspects of population satisfaction with life.

Life satisfaction is understood as the subjective (positive) assessment of living conditions, life in general, personal relationships, achievements, etc. Life satisfaction is evaluated in terms of personal expectations that are often determined by the assessments and achievements of other people. Life satisfaction reflects the overall level of psychological well-being, it gives an idea of how a person evaluates his/her life in general, i.e. how satisfied

people are with their lives. The term satisfaction implies the existence of some need that is to be fulfilled (Psychologies.ru, Mir psikhologii).

Life satisfaction is a complex, multifaceted concept. First of all, population satisfaction with life is influenced by basic needs: self-preservation, self-reproduction, self-actualization. Satisfaction with financial standing is certainly important, however, there are other additional factors that affect the degree of population satisfaction with life. It also depends on age, education, social status, marital status, personality traits, relationships with other people (Bazovye tsennosti rossiyan, 2003; Indeks udovletvorennosti zhizn'yu v stranakh mira).

Indicator of life satisfaction

The degree of population satisfaction with life is established based on the data of sociological polls conducted upon representative sample several times a year throughout the country: Fact, 1993 (Sociological survey “Fact”); Monitoring of socio-economic changes (Bulletin), 1993-2012 (Sociological survey “Monitoring of socio-economic changes”); Courier, 2001, 2012, 2013 (Sociological survey “Courier”). When asked the question “On the whole, how satisfied are you now with your life?”, the respondents were offered the following answers: “quite satisfied”; “mostly satisfied”; “somewhat satisfied, somewhat not”; “mostly dissatisfied”; “completely dissatisfied”; “I cannot say”.

The responses “quite satisfied” and “mostly satisfied” reflect the share of the population more or less satisfied with personal life. The proportion of people satisfied with their own life was very low (9%) at the beginning of the period under review, but has subsequently increased and amounted to 36% in 2013 (Figure 1). Nevertheless, the share of population satisfied with personal life was observed to decline predictably in the years of financial crises of 1998 and 2009. A significant decrease in the level of life satisfaction was also observed in the year 1995 affected by the consequences of implemented economic reforms (reduction in income, high level of consumer price index and unemployment, increase in the share of the population with income below subsistence level, etc.). Moreover, 1995 was marked by the application of new privatization methods (transition from voucher to cash privatization), activation of spontaneous processes related to privatization of property. The population lived in uncertainty. The year went amid the Chechen war and parliamentary elections. All of the above-mentioned did not contribute to mood improvement and life satisfaction among the population.

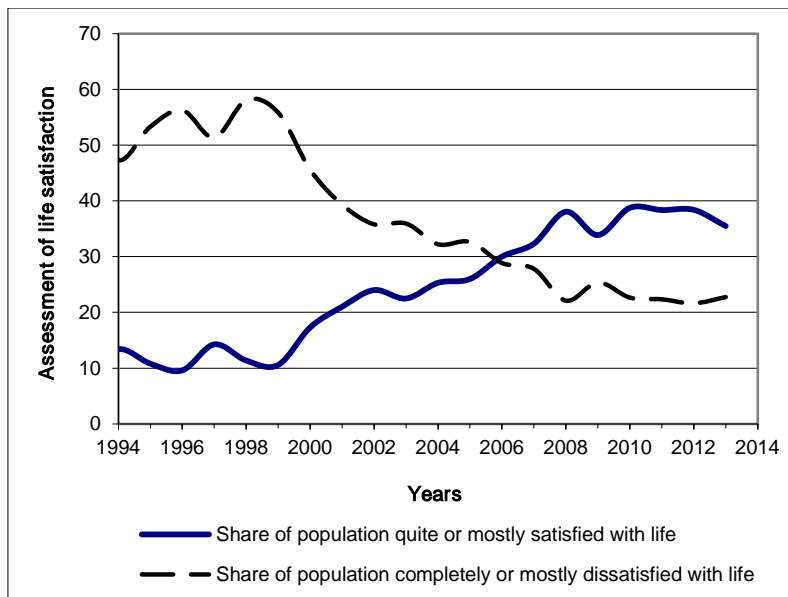


Fig. 1. Dynamics of share of the population giving positive and negative assessments of life satisfaction

The choice of the responses “mostly dissatisfied” or “completely dissatisfied” indicates the presence of minor moods, increasing dissatisfaction with personal life among the population.

At the beginning of the period under review the level of life dissatisfaction was rather high; more than half of the population was completely or mostly dissatisfied with life. In the first half of 1998, the share of those who were mostly or completely dissatisfied with life made up 54%, and in August at the outbreak of the default, the share of the dissatisfied increased to 66%, comprising 28% of mostly dissatisfied and 38% of completely dissatisfied with life. In subsequent years, the discontent of the population had been decreasing. In 2013, 17% of respondents were mostly dissatisfied and 5% were completely dissatisfied with life.

The curves in figure 1 show that the share of the population dissatisfied with life prevailed up to 2006, and then the proportion of the population quite or mostly satisfied with life became predominant. Despite a decrease in the level of life dissatisfaction, one fifth of the population was still dissatisfied with life at the end of the period under review.

The general characteristic of population satisfaction with life is given on the basis of the total *coefficient of life satisfaction*, which is defined as the balance of positive and negative population assessments (neutral assessments are to be disregarded):

$$K_{yж}^t = (\bar{p}_{yж1}^t + 0,5\bar{p}_{yж2}^t) - (\bar{p}_{yж3}^t + 0,5\bar{p}_{yж4}^t),$$

where $K_{yж}^t$ is the coefficient of life satisfaction in t -th year, $K_{yж}^t = [-1, +1]$;
 $\bar{p}_{yж1}^t, \bar{p}_{yж2}^t$ – is the average share of respondents in the t -th year, evaluating life as quite satisfying ($\bar{p}_{yж1}^t$) and mostly satisfying ($\bar{p}_{yж2}^t$), relative units;
 $\bar{p}_{yж3}^t, \bar{p}_{yж4}^t$ – is the average share of respondents in the t -th year evaluating life as completely dissatisfying ($\bar{p}_{yж4}^t$) and mostly dissatisfying ($\bar{p}_{yж3}^t$), relative unit.

The larger the positive value of the coefficient, the higher the level of life satisfaction among the population. The coefficient of life satisfaction equal to +1 means that all respondents are entirely satisfied with life, and equal to -1 implies that all respondents are completely dissatisfied with life. Figure 2 shows the dynamics of the coefficient of life satisfaction constructed on the basis of population assessments.

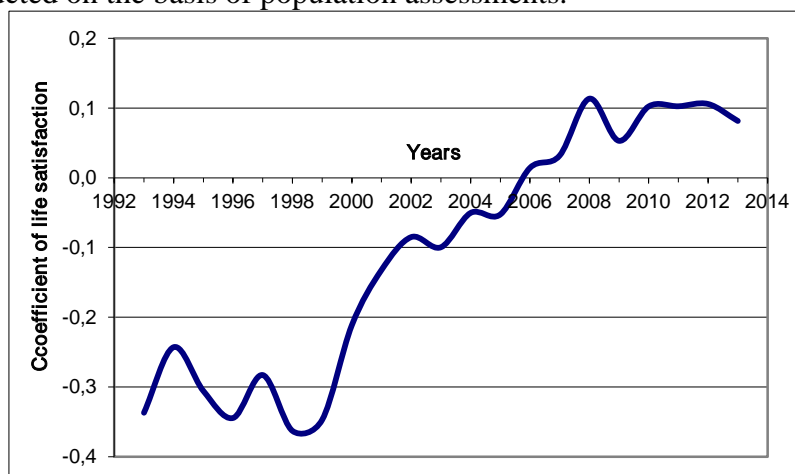


Fig. 2. The dynamics of the coefficient of life satisfaction

As follows from the graph, a negative assessment of life satisfaction was observed up to 2006, and only in the last years of the analyzed period it has become rather positive. The neutral level of life satisfaction was achieved in 2006, which corresponds to the data presented in figure 1. A significant intensification of negativity in assessments was noted in 1995, 1998 and 2009.

Factor analysis of the coefficient of life satisfaction

Life satisfaction is a reaction to subjective reality created under the influence of objective reality as well as subjective structures. Therefore, the reasons (factors) that cause changes in the level of life satisfaction can be divided into objective and subjective.

Objective reasons reflect the objective reality that affects population satisfaction with life. Many of these reasons can be described by the

indicators of official statistics. These factors include, first of all, the indicators of population living standards. The standard of living is defined as the degree of satisfaction of the material and spiritual needs of the population in inextricable connection with the social conditions of life and production development. The standard of living is characterized by income and expenditure of the population, the dynamics of their changes, as well as income differentiation of various population groups, the consumption of cultural and household goods and services, housing, employment, use of off-duty time, development of the healthcare system, education and physical education services, social security, etc.

The indicators of average annual per capita income and real average monthly earnings are considered as the indicators of population income, while household final consumption expenditures, including per capita expenses are regarded as the indicators of population expenditure. R/P 10% ratio is accepted as the indicator of income differentiation of various population groups. The level of poverty is characterized by such indicators as the ratio of per capita money income to the minimum subsistence level and the share of population with money income below the subsistence level. These indicators are directly perceived by the population. The development of the healthcare system, education services, physical education and social security are determined by the level of GDP, including GDP per capita. The indicator of overall unemployment reflects the level of unemployment emotionally perceived by the population. Moreover, considering that we analyze the dynamics of life satisfaction, all economic indicators are taken at constant prices.

Correlation analysis made it possible to establish strong correlation of life satisfaction with such indicators as salary in current US dollars, average annual per capita income in Russia at constant 2000 prices in US dollars, household final consumption expenditure per capita at constant 2005 prices in US dollars, the ratio of per capita money income to the minimum subsistence level, the share of population with money income below the subsistence level, GDP per capita at purchasing power parity at constant 2011 prices in thousands of international dollars; overall unemployment rate.

When eliminating the time factor, it is possible to establish strong linear connection between the coefficient of life satisfaction and the two factors: GDP per capita at purchasing power parity in constant 2011 prices and the overall unemployment rate. Non-linear regression equations allow for the description of interrelations between all distinguished factors and the coefficient of life satisfaction. In order to construct non-linear regression equations, the resulting attribute is standardized within the limits from 0 to 2, with the value of the coefficient of life satisfaction $K = 1$ signifying neutral assessment, $K = 0 \dots - 1$ indicating a negative assessment, $K = 0 \dots + 1$

denoting a positive assessment of life satisfaction. Then natural logarithms for all attributes are determined, and logarithmic equations are derived. After exponentiation, the following polynomial regression equations are obtained:

$$K = 0,3487 t^{0,111} x_1^{0,124} \quad (R = 0,92);$$

$$K = 0,0457 t^{0,068} x_2^{0,361} \quad (R = 0,95);$$

$$K = t^{0,116} x_3^{-0,166} \quad (R = 0,93);$$

$$K = 0,0378 t^{0,109} x_4^{0,524} \quad (R = 0,94);$$

$$K = 0,161 t^{0,072} x_5^{0,552} \quad (R = 0,97);$$

$$K = 1,359 t^{0,167} x_6^{-0,385} \quad (R = 0,96);$$

where K is the coefficient of life satisfaction;

x_1 is salary in current US dollars;

x_2 is household final consumption expenditure per capita at constant 2005 prices, US dollars;

x_3 is the share of population with money income below the subsistence level, %;

x_4 is the ratio of per capita money income to the minimum subsistence level, %;

x_5 is gross domestic product per capita at purchasing power parity at constant 2011 prices, thousands of international dollars;

x_6 is the overall unemployment rate, %.

All the equations are of high quality, which is proved by the correlation index and standard error of equation. The values of Student and Fisher criteria exceed the tabulated value, thus indicating the significance of the parameters of the equations, as well as of the equations in general.

All regression equations contain the time factor, hence, a simple simultaneous change of the attributes in time is present in all cases; therefore, it is incorrect to estimate how strong the connection is only on the basis of the correlation coefficient; it is required to eliminate the time factor. The influence of the time factor is especially noticeable with regard to the indicator of overall unemployment.

The exponents of other variables show that population satisfaction with life grows when there is an increase in population income and expenditure, in the ratio of per capita money income to the minimum subsistence level, and in GDP per capita, as well as a decrease in the share of population with money income below the subsistence level and in the overall unemployment rate. At that, the most positive influence is exerted by such indicators as GDP per capita and the ratio of per capita money income to the minimum subsistence level, while the overall unemployment rate has the most negative effect. For example, in case of 1% increase in GDP per capita at purchasing power parity in constant 2011 prices, the coefficient of life

satisfaction will rise by 0.55%, and in case of 1% rise in the overall unemployment rate, the level of life satisfaction will decrease by 0.9%.

Subjective factors can be conveniently classified into the factors of condition (gender, age, education, marital status, etc.) and the factors of perceptions, evaluations of objective reality (the assessment of family well-being, social status, confidence in the future, etc.). Certain values can prevail in different time periods. For example, in difficult living conditions, the need of self-actualization recedes into the background, giving way to the needs of self-preservation and self-reproduction.

Subjective factors are revealed based on the data of sociological polls: Fact (1993), Monitoring of socio-economic changes (Bulletin) (1994–2012), Courier (2012–2013).

The factors of condition comprise such indicators as gender, age, education level, marital status, occupation, size of the respondent’s locality, region of residence.

The analysis of differences in the degree of life satisfaction between men and women shows that these differences are insignificant. Figure 3 shows the coefficients of life satisfaction for men and women in 1993, 2003, 2013. However, as can be seen from the bar chart, greater emotionality of assessments is observed in women: they are slightly more negative, when giving negative assessments, and more positive, when giving positive assessments.

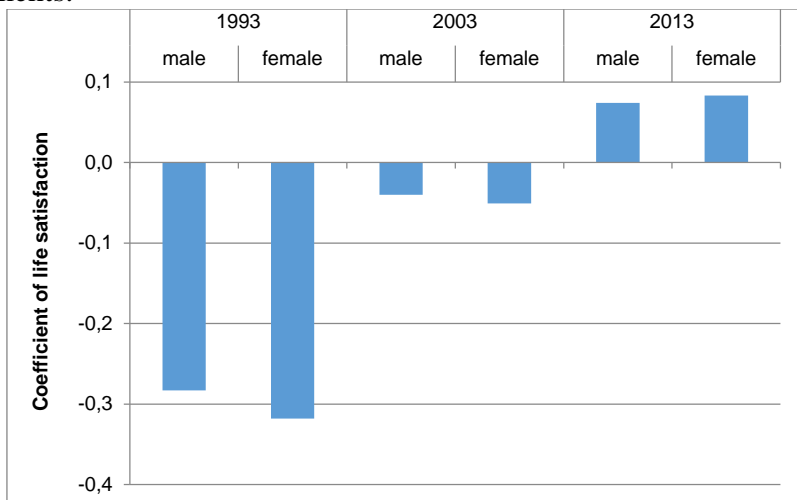


Fig. 3. Gender dependence of the coefficient of life satisfaction

The analysis of changes in the level of life satisfaction depending on age of respondents showed that age differences in life satisfaction are more visible. Figure 4 demonstrates the coefficients of life satisfaction in 2013 for different age groups. During all the years of the period under review the most positive evaluations of life satisfaction are given by younger population in

the age groups 16(18)–25 and 26–35. Less positive assessments of life satisfaction are given by the population aged 36–45. During all the years the assessments of life satisfaction given by the population in the age range from 16(18) to 45 years were more positive than the assessments of the older population.

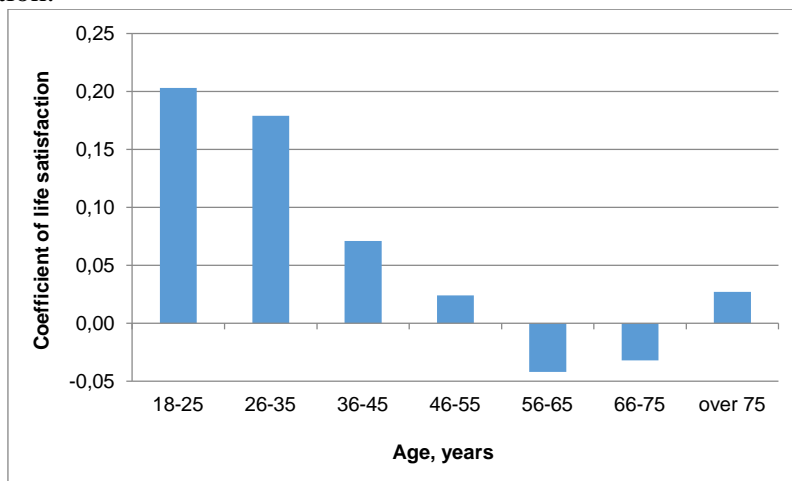


Fig. 4. Age dependence of the coefficient of life satisfaction

It is more difficult to arrange the assessments of life satisfaction given by older population. For example, in 1993, the most negative assessments of life satisfaction were given by the population over 75 years of age, followed by the assessments by the population aged 46-55; in 2003, by the evaluations of those older than 65 years, and in 2013 by the population aged 56-65. It is however explicable. In 1993, in the conditions of high unemployment rate in the country, people aged 46-55 years were at risk of redundancy with a slim chance of finding a new job. It is more difficult for the population older than 75 years to perceive market reforms. Moreover, they found themselves in very straitened circumstances due to miniscule pensions, high level of inflation and the inability to cultivate food at personal dachas or household plots. Along with economic growth in 2003, the unemployment rate began to decline; however, pensions remained low, the possibility of secondary employment was small, so the image of reality was more negative among the population older than 65 years.

By 2013 population incomes (salaries and pensions) increased, economic reforms came to an end, life became more stable and clear. Internal factors have come to the forefront. During this period, the level of life satisfaction was most negatively assessed by the population aged 56-65 years, i.e. the age for retirement and early retirement. People at this age have to readjust their lives in view of income change and unemployment, even when employment participation seems still an option, health permits, and the

possibility exists to draw on occupational and personal experience. At the same time many senior citizens do not seek employment and are quite happy with their own lives due to the realization of basic values.

The level of education also affects life satisfaction. In order to carry out such an assessment, all respondents are grouped into three categories according to the level of education: 1) primary and incomplete secondary education; 2) secondary and vocational secondary education; 3) higher and incomplete higher education. During all the years the population with no secondary education gave the lowest (most negative) assessments of life satisfaction, while the population with higher or incomplete higher education gave the most positive evaluations of life satisfaction, or less negative assessments, as compared, for example, to the beginning of the period under review. In 1993, the assessments in all groups according to the level of education were negative; however, less negative assessments are typical of the population with higher level of education. Figure 5 shows the values of the coefficient of life satisfaction for the three population groups with regard to the level of education in 2013. At the end of the period under review, the individuals with secondary education or above give a positive assessment of life satisfaction, while people without access to secondary education still assess their lives as negative.

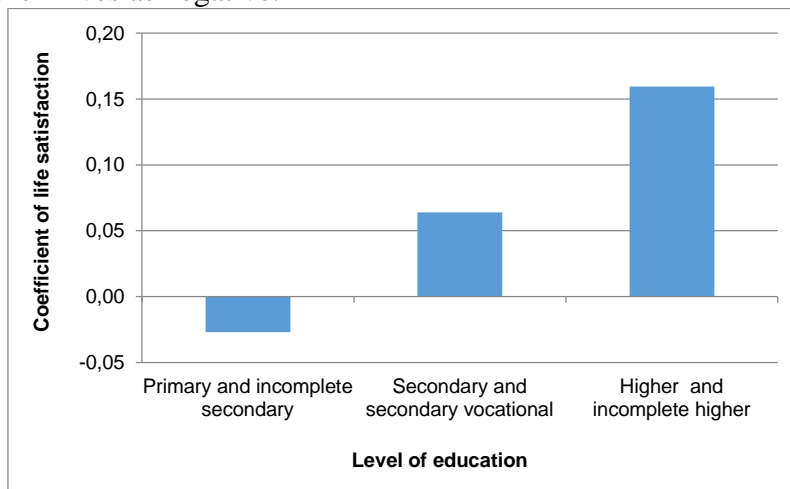


Fig. 5. Dependence of the coefficient of life satisfaction on the level of education

Life satisfaction is also connected with marital status. The most positive assessment of life satisfaction is characteristic of single (unmarried) people, as they are not troubled by the cares of family and children. The indicators of life satisfaction are more negative among married people, but in general they are still higher than that of the divorced or the widowed. They fulfill the basic need of self-reproduction. The most negative assessment of life satisfaction is given by the widowed (Figure 6). Such pattern is observed throughout the whole period under review.

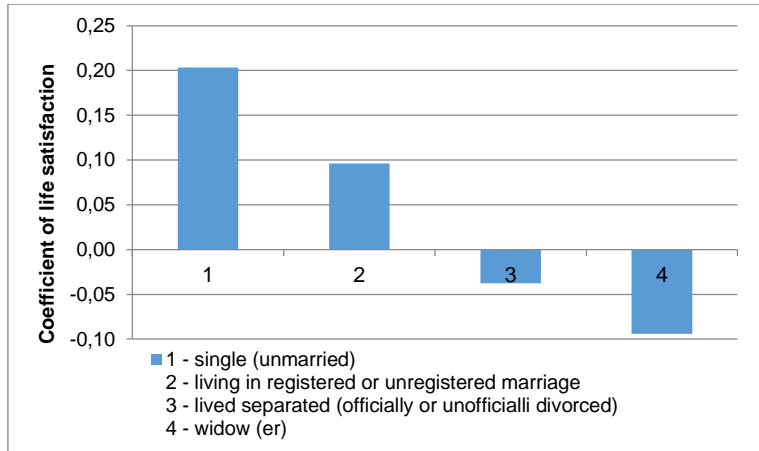
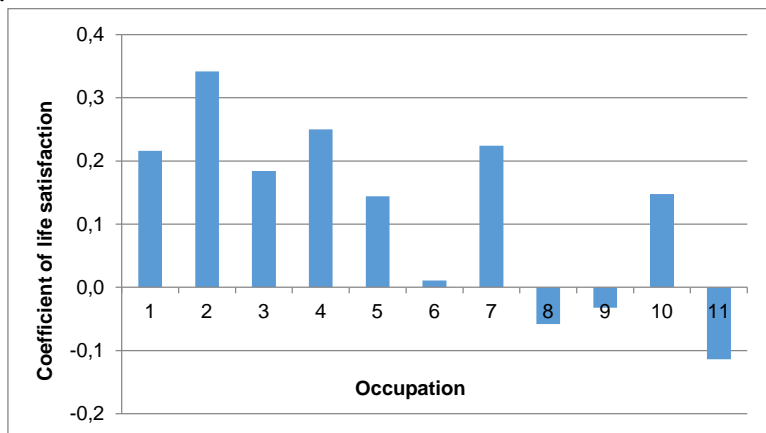


Fig. 6. The dependence of the coefficient of life satisfaction on marital status

Occupation has an impact on the degree of life satisfaction. Unfortunately, the grouping of respondents by employment varied over the years and according to the types of polls. Nevertheless, it can be noted that the most positive (or as in 1993, the least negative) assessment of life satisfaction is typical of executives, managerial personnel, students and undergraduates. The most negative assessment of life satisfaction is characteristic of the unemployed, retirees and ill health pensioners. The bar chart, which shows the levels of the coefficient of life satisfaction for respondents with different employment status in 2013, is presented in figure 7.



1-independent entrepreneurs; 2- executives, managerial personnel; 3 – non-supervisory specialists with professional education; 4 – military personnel, interior ministry members, employees of the prosecutor’s office ;5 employees with no professional education; 6 – workers (incl. craftsmen, foremen) and agricultural workers; 7 – students, undergraduates; 8 – retirees; 9 – ill health pensioners (non-working); 10 – homemakers; 11 – unemployed, temporarily unemployed

Fig. 7. The dependence of the coefficient of life satisfaction on occupation

The assessment of life satisfaction varies depending on the respondent's place of residence. In 1993, the assessment of life satisfaction was more negative in cities than in rural areas, regardless of the city size. At the end of the analyzed period, on the contrary, more positive is the assessment of life satisfaction in Moscow and major cities with the population of over 500 thousand people, where it is probably easier to fulfill the need of self-actualization. More positive assessment is observed in rural areas in comparison with small towns, particularly towns with the population of up to 100 thousand people. This is reflected in Figure 8 (2013).

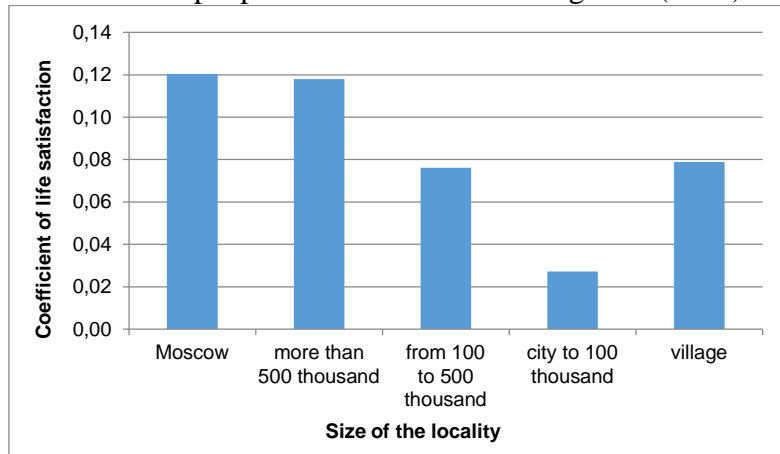


Fig. 8. The dependence of the coefficient of life satisfaction on the size of the locality

Respondents' region of residence also affected the population assessments. At the end of the period under review the most positive evaluations of life satisfaction were observed in Volga and Ural federal districts, while the most negative ones were noted in Siberian Federal District (Figure 9).

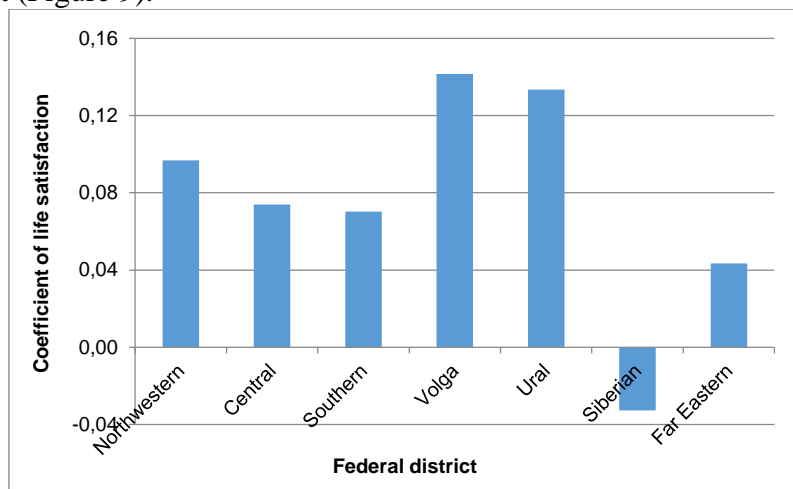


Fig. 9. The dependence of the coefficient of life satisfaction on region

The factors of perceptions, evaluations of objective reality comprise the assessment of a family's financial standing, social status, confidence in the future, personal mood.

The respondents evaluated the financial standing of their families as very good, good, average, bad, very bad. During all the years of the period under review, the negative values of the coefficient of life satisfaction were registered among the individuals assessing their financial standing as bad or very bad. On the contrary, positive values were noted among the respondents characterizing the financial standing of their families as very good or good. Figure 10 shows the estimated coefficient of life satisfaction for different assessments concerning family well-being in 2013.

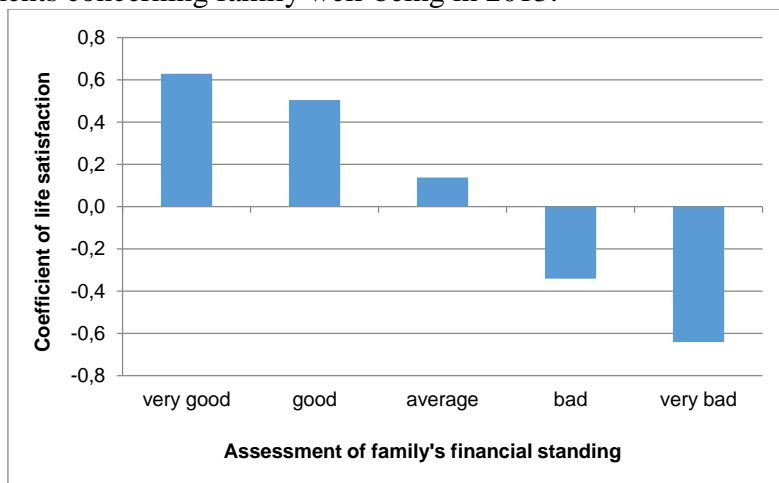


Fig. 10. The dependence of the coefficient of life satisfaction on the assessment of a family's financial standing

There are different approaches and classifications with regard to social stratification. In the questionnaires of sociological polls the society is categorized into five strata: the upper class, the upper-middle class, the middle-middle class, the lower-middle class, the lower class. The respondents were to refer themselves to one of the stratum. By combining the results of the surveys into three groups (the upper class, the middle class, the lower class) the results concerning the degree of life satisfaction were the following: members of the upper class evaluate the degree of life satisfaction more positively; members of the lower class always (in the period under review) assess the degree of life satisfaction as negative. Members of the middle class fall in between. Figure 11 demonstrates the differences in the values of the coefficient of life satisfaction in 2013, for the upper, middle and lower classes according to population self-assessments.

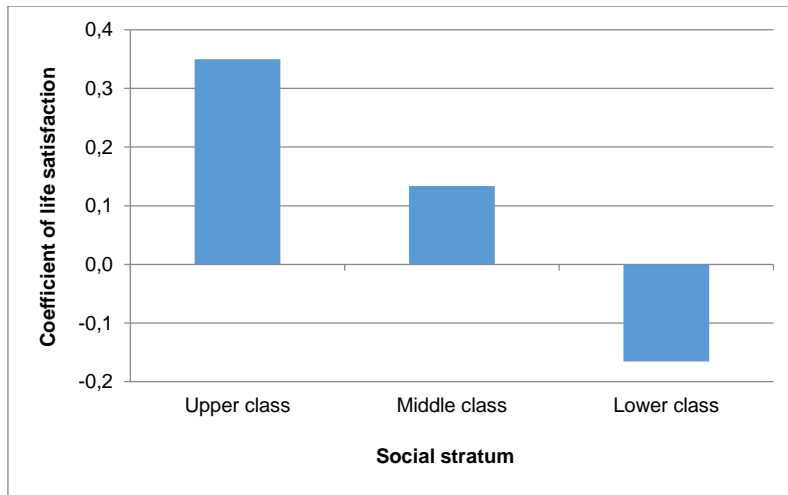


Fig. 11. The dependence of the coefficient of life satisfaction on social class

The value of the coefficient of life satisfaction depends on the assessment of confidence in the future. The more confident in the future the respondent is, the more positive the values of the coefficient of life satisfaction are (Figure 12, 2013).

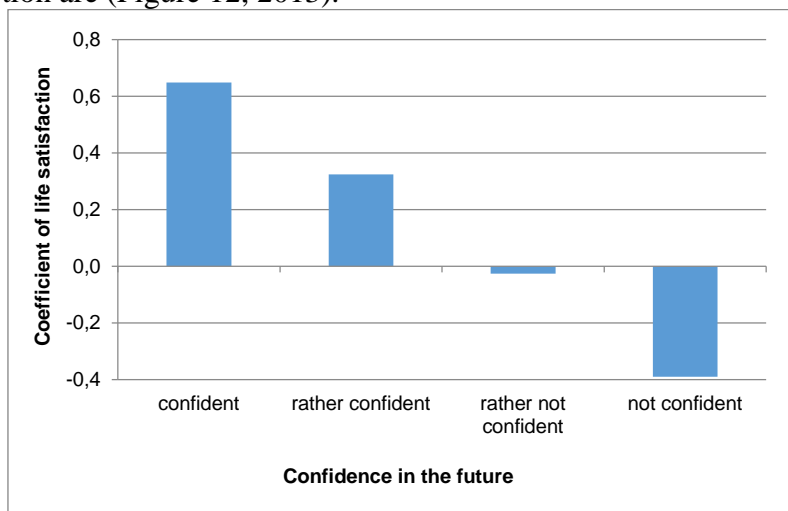


Fig. 12. The dependence of the coefficient of life satisfaction on confidence in the future

The mood of the population also affects the level of life satisfaction. The questionnaires contained four categories of mood states: wonderful; stable, calm; tense, annoyed; fearful, depressed. A logical direct connection between the level of positive mood and the value of the coefficient of life satisfaction is being observed (Figure 13, 2003).

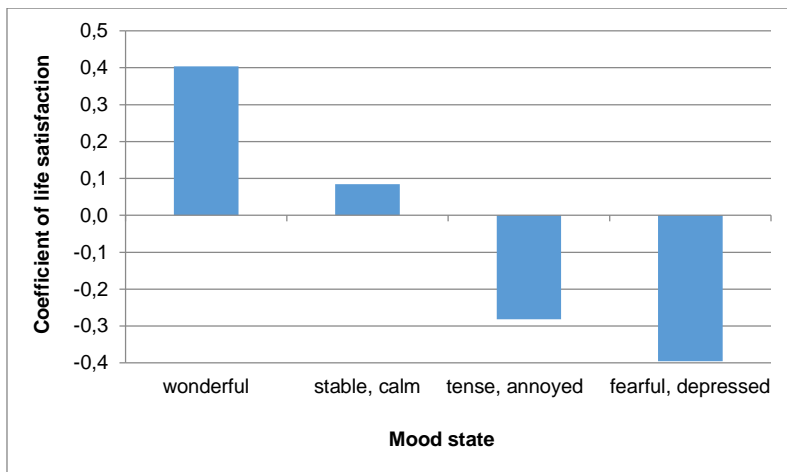


Fig. 13. The dependence of the coefficient of life satisfaction on the assessment of personal mood

Conclusion

Hence, population satisfaction with life does not remain constant. It was negative up to 2006, and then has become positive, which is indicated by the coefficient of life satisfaction. The assessment of population satisfaction with life varies depending on many objective and subjective factors. The positive influence is exerted by such objective factors as the population income and expenditure, the ratio of per capita money income to the minimum subsistence level, GDP per capita, while an increase in the share of population with money income below subsistence level and in the unemployment rate has a negative effect. The subjective factors affecting population satisfaction with life comprise gender, age, education level, marital status, occupation, size of the locality, region of residence, as well as the assessment of financial standing, social stratum, the degree of confidence in the future and the mood state of an individual.

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