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# The Time Use and the Social Well-Being: The Factors of Influence

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## Abstract

This is an attempt to answer a question about how changes in the time use and in health of the population relate to each other, what connection exists between duration and character of work and the state of health. The article draws on the data from the time budget surveys of the rural population of the Novosibirsk region (IEIE SB RAS, 1986-1987, 1993-1994, 1999, 2004-2005; 1100-1500 people in each). The analysis of relationship between time use and health was made at micro and macro levels. At the former health is presented by indicators of the respondent's state of health, diseases he has come through, at the second by life expectancy. Time use is presented by work duration and character and by aggregated structure of average time budget, respectively. The assessment by respondents of changes in living conditions and in their own state is seen as a measure of social-psychological well-being of the population. The direction and degree of influence between "time use – state of health" depend on macro and micro life conditions, on social-psychological well-being of the society and individual, on the "initial" state of health of the individuals.

## Keywords

Everyday Activity, Time Use, Living Conditions, Well-Being, Work

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## 1. Introduction

The last 25 years are known as a unique period in the modern Russian history, which has influenced all aspects of life, including time use, social well-being and health of the majority of the population.

The main purpose of the article to determine whether the time use, especially workload, impact on state of health. So, this article is aimed at analyzing the data of the longitudinal survey[1] of living conditions, time use and social well-being of rural population, on the one hand, and health, on the other hand. Besides, the task of the research is to compare investigative and statistical data.

The state of health is studied from different perspectives. For example, our Moscow colleagues studied an influence of the workers health to their work activity and free time [1]. The aim of other research to analyze the change in the state of health of the Russian population in the post-Soviet period. Age is regarded as a factor with a potential to influence state

[1] Data base is survey/questionnaire data and time-budget data of the longitudinal survey on living conditions, time use, daily activities of rural population conducted by the Institute of Economics and Industrial Engineering, Siberian Branch, Russian Academy of Sciences under the direction of Doctor of Philosophy, Prof., Artemov V.A. (bi-seasonal surveys were carried out in 1986-1987, 1993-1994, 1999, 2004-2005). The surveys covered the rural population of the Novosibirsk region. Data gathering method of the survey is formalized interviews; time budget survey – retrospective interview. Sample – disproportionate, quote, with sample size in each bi-seasonal survey accounting for 1200-1500 people.

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of health [2]. Another research has been devoted to gender differences in state of health, depending on the type of employment and the behaviour of men and women regarding their health [3].

The longitudinal survey shows qualitatively different "time points" of the Soviet and Russian society: 1986-1987 is viewed as a starting point of the period characterized by drastic changes in all spheres of life; 1993-1994 is the period following the change in political and economic structure which is characterized by dramatic fall in the living standards for the majority of the population; 1999 is known for its relative stabilization of the living standards with the general tendency to deterioration and certain adaptation of the rural population to the changing living conditions; 2004-2005 saw certain positive changes in the position of agricultural enterprises, social infrastructure, and well-being of the rural population as a whole.

## 2. The Concept of "Health" as an Indicator of Life Expectancy at Birth

The definition of health as a state of "overall (complete) social-biological and psychological well-being, when the functions of all organs and systems are balanced with nature and social environment, and absence of disease states and physical defects" seems to be most likely the concept of "absolute health" which can hardly exist in nature [4].

We used WHO definition of health as a "complete physical, mental and social well-being and not merely the absence of disease or infirmity" [5], which is objectively called "sociological" [6]. It seems reasonable to mention that the given definition is truly "sociological" and absolutely corresponds to our concept of health in sociological contexts of sociological studies and sociological analyses.

The most generalized indicator of health is life expectancy at birth (LEAB). Life expectancy at birth reflects the most fundamental living conditions, characteristics of daily activities, economic and social-psychological state of a society. This indicator, together with gross domestic product (GDP) per capita and the level of education, is one of the complex indicators used to calculate human development index (HDI) which is widely spread in inter-country and interregional comparison analysis. The studies have demonstrated that life expectancy at birth is "an important and reliable health indicator" [7].

Life expectancy at birth in 1980-2000 tended to change a lot (Table 1), where the "periods" and "points" can be observed. First, the period of 1986-1987 witnessed the highest life expectancy rate over three decades. After that, there was the period of moderate and then, drastic decrease in life span down to its minimal rate in 1994, which was changed by the period of a certain recovery; however, in 1999-2003, there was another decrease in life expectancy rate. Time points of our longitudinal survey in rural area coincide, almost completely, with the peaks and dips of the life expectancy curve in Russia.

**Table 1.** Life expectancy of the Russian population at birth (total population), for years [8]*.

| Years | total population | female | Male | Years | total population | female | male |
|---|---|---|---|---|---|---|---|
| *1986-87* | *70,1* | *74,6* | *64,9* | 1997 | 65,1 | 72,3 | 58,9 |
| 1988 | 69,9 | 74,4 | 64,8 | 1998 | 65,8 | 72,3 | 59,9 |
| 1989 | 69,6 | 74,5 | 64,2 | *1999* | *64,6* | *71,6* | *58,6* |
| 1990 | 67,9 | 73,9 | 62,0 | 2000 | 64,3 | 71,7 | 58,1 |
| 1991 | 67,7 | 73,9 | 61,7 | 2001 | 64,2 | 71,6 | 58,1 |
| 1992 | 66,9 | 73,4 | 60,7 | 2002 | 63,7 | 71,1 | 57,5 |
| *1993* | *64,3* | *71,5* | *57,9* | 2003 | 63,4 | 70,9 | 57,3 |
| *1994* | *63,2* | *70,8* | *56,8* | *2004* | *63,8* | *71,3* | *57,6* |
| 1995 | 64,1 | 71,5 | 57,7 | *2005* | *63,4* | *71,1* | *57,2* |
| 1996 | 64,7 | 71,8 | 58,4 | 2006 | 64,7 | 71,9 | 58,7 |

* Data set in bold are the maximums and minimums of life expectancy; data in italics are the years of longitudinal survey conducted in 1986-2005.

Maximum and minimum points and those close to them coincide with the maximum and minimum points of differences for female and male, correspondingly.

In case when LEAB was significantly different for female and male, its dynamics was practically the same. In the period of 1986-2005, the difference of LEAB between female and male was observed as minimal in 1988 (9, 6 years), and maximal in 1994 (13, 6 years), i.e. in maximum and minimum points of this indicator. The changes in real living conditions are sure to be the main reasons for LEAB decline. In [9] there are LEAB data for the groups of countries by HDI which indicate the "price" Russia paid for the reforms of the 1990s, especially as compared to the group of countries with high level of HDI.

## 3. Methodology

For the analysis it was decided to choose the World Health Organization (WHO) definition of health, one of three elements of the "potential" human development index – life expectancy at birth– and two groups of experimental data: time-budget in the form of its main sections and the responds about the living conditions of families and settlements, individual well-being as well as the general assessment of the results of the reforms.

The analysis of the time use and health was made on macro-level, where life expectancy of the population was used as health indicator (*physical, social and psychological* well-being),whereas extended structure of average time-budget, including total workload – the main indicators of the time use – as general characteristics of the time use. Evaluation of changes in living standards and individual well-being condition was used as an indicator of social well-being of the population. The main method of the analysis was to compare the changes in indicators of the time use and life expectancy along with subjective evaluation of other changes.

This article presents the results of the analysis of the working population, with the revealed tendencies increasingly being the direct consequence of social state in the whole and its changes, rather than the reflection of regional specifics.

*Hypotheses.* The first hypothesis is negative influence of heavy total workload and lack of time for satisfying physiological needs (in particular, sleep) and free time on people's health in 1986-1987.

The second hypothesis is that LEAB indicator is related to the assessment of changes in living conditions and personal state, which is a specific expression of social well-being of the rural population.

## 4. Time-Budget and Health

1986-1987 is a reference point of all changes which took place over the last 25 years. This is the beginning of the period of significant, and at a later date, drastic changes in both the nation/state and the society.

The increase in total workload (TWL), especially hand work in personal subsidiary plots, and maximal TWL was observed at all points of the survey (Table 2). The highest indicator of LEAB over the whole period of the survey was observed at minimal time for sleep and free time (Table 1).

**Table 2.** Time-budget of the working rural population, hours/average season week*

| Time expenditure, activity | Female | | | | Male | | | |
|---|---|---|---|---|---|---|---|---|
| | 1986 1987 | 1993 1994 | 1999 | 2004 2005 | 1986 1987 | 1993 1994 | 1999 | 2004 2005 |
| Working time | 43,4 | 36,5 | 35,2 | 36,6 | 54,5 | 49,6 | 44,3 | 47,5 |
| Time related to work | 4,6 | 4,2 | 4,4 | 4,2 | 4,4 | 4,8 | 4,1 | 4,3 |
| Work in the household including: | 24,5 | 25,7 | 24,1 | 20,7 | 5,0 | 5,4 | 6,8 | 6,2 |
| Cooking | 9,8 | 10,5 | 11,1 | 8,9 | 0,6 | 0,7 | 0,9 | 0,6 |
| House keeping | 4,0 | 4,0 | 4,0 | 3,3 | 1,2 | 1,1 | 1,8 | 1,3 |
| Clothing/footwear maintenance | 2,9 | 4,1 | 2,7 | 2,2 | 0,1 | 0,3 | 0,1 | 0,2 |
| Work in personal subsidiary plots including: | 15,2 | 18,6 | 17,6 | 16,5 | 13,9 | 17,1 | 19,4 | 16,0 |
| Work on personal plots | 4,8 | 6,1 | 5,6 | 6,1 | 3,1 | 3,6 | 3,1 | 4,6 |
| Care for livestock and poultry | 7,6 | 10,0 | 8,5 | 8,6 | 6,6 | 9,2 | 11,4 | 8,8 |
| Other | 2,8 | 2,5 | 3,5 | 1,8 | 4,2 | 4,3 | 4,9 | 2,5 |
| Child-care and education/activities | 4,3 | 3,7 | 3,2 | 2,5 | 2,6 | 1,7 | 1,3 | 1,3 |
| Care | 3,0 | 2,4 | 1,8 | 1,4 | 1,1 | 0,6 | 0,5 | 0,3 |
| Education/activities | 1,3 | 1,3 | 1,4 | 1,1 | 1,5 | 1,1 | 0,8 | 1,0 |
| Satisfying physiological needs | 60,5 | 61,2 | 63,4 | 66,0 | 63,2 | 63,3 | 65,7 | 65,9 |
| Sleep | 48,5 | 48,6 | 50,2 | 51,8 | 51,5 | 49,7 | 52,0 | 52,0 |
| Free time | 14,7 | 16,4 | 19,1 | 20,0 | 23,7 | 24,3 | 24,6 | 25,3 |
| Education | 0,2 | 0,1 | 0,2 | 0,4 | 0,2 | 0,3 | 0,1 | 0,1 |
| Watching TV | 5,6 | 7,3 | 9,4 | 10,5 | 10,3 | 11,9 | 14,4 | 14,4 |
| Visiting and welcoming friends | 3,1 | 3,6 | 3,3 | 3,8 | 3,0 | 3,8 | 3,3 | 3,8 |
| Reading | 1,8 | 2,1 | 1,7 | 1,1 | 2,3 | 2,3 | 1,1 | 1,3 |
| Passive rest | 1,2 | 0,8 | 1,9 | 1,5 | 1,6 | 1,6 | 2,4 | 1,2 |
| Performances/Attractions | 0,4 | 0,1 | 0,1 | 0,1 | 0,7 | 0,1 | 0 | 0 |
| Active rest/Sport | 0,4 | 0,3 | 0,2 | 0,4 | 3,0 | 1,6 | 0,9 | 1,5 |
| Other | 0,8 | 1,7 | 1,0 | 1,5 | 0,7 | 1,8 | 1,8 | 1,6 |
| Total workload, including child-care | 90,7 | 87,4 | 83,1 | 79,4 | 78,9 | 77,5 | 75,1 | 74,1 |

* Time use (for both female and male) in italics are the differences compared to the similar time use observed in the previous survey (coefficients of Kolmogorov-Smirnov and Mann-Whitney) which are statistically significant with probability of 99%.

The second half of the 80s witnessed the peak of real and projected leisure-time activities, which, first of all, can be associated with the improvement of living standards and social-psychological atmosphere observed in that period.

The period of 1993-1994 actually started (and continued) with the beginning of the reforms in 1991 characterized by mass disintegration of industrial and agricultural enterprises as well as state social institutions.

In the beginning of the 90s, there was observed a state of certain equilibrium between the working hours and housework time at the maximum level of aggregate amount of total workload. It should have been followed by either the reduction of working time spent on personal subsidiary plots if reorganization of kolkhozes (collective farms) had led to their economic independence and growth of efficiency and volume of production, or to the reduction of working time if such changes had not occurred in the sovkhoz-kolkhoz sector. As a result, the second option was realized with a bundle of negative consequences.

There was a significant reduction of working time, with the time spent at personal subsidiary plots continuously increasing (first of all, due to the increase in livestock which required continuous care and a great deal of hard physical work). Again, there was observed the reduction of time for sleep and passive rest, which reached its minimal level from all “points” at a maximum share of those who wanted to use additional free time for passive rest.

The year 1994 was, to a certain extent, a watershed year. The changes which were inherent in the following period testify to the transaction from extensive growth of family household to the regime of saving life at a relatively minimal level of labor costs and consumption.

1999 was the next inflection point of the life expectancy curve which again started to decline after a short period of its growth.

There was observed a further reduction of total workload, including working time. The data over the period of 1995-1998 provided by the Russian monitoring of economic situation and public health also testify to the reduction of total workload, working time (except for the female who lived in metropolitan areas) and time spent at personal subsidiary plots [10]. Also, the reduction in workload coincided with a certain increase in birth rate in 1999.

In general, "time-pressure" of the period from 1986 to 1994 gave place to its opposite due to a sharp reduction in work time spent at work.

The longitudinal survey data demonstrated a certain adaptation of the rural population to the changing living conditions; however, they did not give rise to an optimistic prognosis for the growth of life expectancy.

2004-2005 was the last period under study where no precise relations between life expectancy, living conditions and the time use were registered as compared to 1986-1987 and 1993-1994, which, in fact, testifies to the complete accuracy and reliability of the revealed relationships. Still, a certain movement of LEAB indicator in 1999-2004 was associated with the factors examined above.

The workload of rural population continued to decline mainly due to the reduction of the time spent on housework and personal plots. For the first time during the whole period under study, working time increased. Decline in birth rate and the number of children in families led to the decrease in the time spent on childcare. It is necessary to mention that time for sleep and satisfying physical needs as well as leisure time tended to increase. We consider all these changes as positive.

Lengthy and heavy workload, lack of time for recreational activities, problems with medical care, availability and accessibility of medicaments resulted in fatigue cumulation, irritation, life dissatisfaction, health decline, which is sure to have a negative impact on health of the next generation.

## 5. Social Well-Being and Health

*a) Assessment of changes in living standards/conditions*

Social well-being of the population is greatly influenced by the changes in living conditions in the settlement or family as well as personal assessment/evaluation of such changes. According to P.A. Sorokin, “poverty or prosperity of a person cannot be measured by what he possesses at the present moment, rather, by what he possessed earlier and in comparison with other members of the society” [11]. This fundamental statement, which is true today, helps to analyze real changes taking place in everyday life of the majority of the population in Russia as well as human consequences of such changes. The “comparison” mentioned by P.A. Sorokin is an emotional-value assessment forming social well-being of the people, which, in its turn, along with material state and availability of certain services is sure to be one of the factors of people’s vitality.

Assessments of changes in living conditions were “aggregative” since people evaluated qualitative and quantitative characteristics both in aggregate and relative to their needs which in the described period were relatively stable.

In the 1990s, in rural areas the estimates of changes in life (Table 3) altered to the opposite as compared to the mid-1980s. In the first half of the 2000s, the share of negative estimates reduced significantly, whereas the change in offers of goods, in general, was viewed as positive.

**Table 3.** Assessment of living conditions, personal states and their changes.

| Living conditions, state | 1986-87 | | 1993-94 | | 1999 | | 2004-05 | |
|---|---|---|---|---|---|---|---|---|
| | female | male | female | male | female | male | female | male |
| State of health* | | | | | | | | |
| Good | 33 | 44 | 19 | 35 | 10 | 24 | 9 | 30 |
| Mean | 53 | 42 | 56 | 47 | 68 | 62 | 71 | 59 |
| Bad | 14 | 14 | 24 | 17 | 21 | 13 | 18 | 9 |
| Change in living conditions** | | | | | | | | |
| Working conditions | 40 | 37 | n/a | | -68 | -75 | -14 | -33 |
| Transport facilities | 55 | 57 | -26 | -37 | -45 | -52 | -6 | -3 |
| Domestic services | 36 | 33 | -65 | -59 | -62 | -64 | -13 | -1 |
| Trade | 19 | 3 | -14 | -30 | 13 | 13 | 62 | 59 |
| Medical care | 49 | 51 | -45 | -43 | -68 | -65 | 0 | 0 |
| Rest/recreation, leisure-time | -1 | 4 | -28 | -29 | -42 | -49 | -15 | -19 |
| Upbringing, education of children | 37 | 32 | -30 | -26 | -48 | -44 | -7 | 3 |
| Economic condition(s) | n/a | | -45 | -67 | -71 | -58 | 0 | 10 |
| Housing | n/a | | 13 | 7 | -24 | -19 | 10 | 11 |
| Relations with other people | n/a | | -73 | -65 | -67 | -63 | -52 | -33 |
| Family relations | n/a | | -2 | 2 | 3 | -3 | 10 | 15 |
| Relations at work | n/a | | -7 | -16 | -10 | -9 | 9 | 12 |
| Changes in personal state** | | | | | | | | |
| Confidence in the future | n/a | | -67 | -57 | -78 | -58 | -38 | -19 |
| Mood | n/a | | -44 | -38 | -61 | -41 | -26 | -2 |
| Health | n/a | | -48 | -32 | -54 | -38 | -48 | -29 |
| Sense of safety/ security | n/a | | -32 | -26 | -47 | -26 | -33 | -11 |
| Degree of freedom | n/a | | -2 | 5 | -11 | 6 | 2 | 3 |
| Estimates of current results of the reforms* | | | | | | | | |
| Positive/rather positive | … | | 4 | 4 | 7 | 4 | 23 | 25 |
| Negative/rather negative | … | | 76 | 78 | 79 | 78 | 52 | 54 |

* % to the number of those who answered

** the difference between percentage points in the shares of the respondents who gave positive and negative evaluation of changes.

Living conditions at both family and settlement levels are sure to make significant influence on social well-being of the people. L.V. Bondarenko in his paper gives the similar estimate, supporting it with the data of sociological survey of social-working sphere in rural areas conducted in 2004. “Reformation of economy has not added any positive changes into social-psychological climate of a village; rather, it has resulted in the growth of social disillusionments, tension, and threats. In general, negative attitudes among the rural population prevail when estimating their changes in life over the last 10-12 years: 42,6% of the respondents consider their life to have deteriorated; 25,5% of them – deteriorated significantly. About 29,6% of the villagers see the changes as positive, while significant changes were noted only by 6,9% of the respondents» [12]. The conclusion is made that “social-psychological climate in the social medium” depends, first and foremost, on the “level, quality, and stability of life” [*ibid*].

To justify “non-uniqueness” of the obtained data and admissibility to extrapolate the results as well as their combination and the use in joint analyses along with more general statistical data, we present here the results – close to the data obtained in this research – of an outstanding Russian survey conducted in 1999 under the guidance of Yu. M. Plyusnin (13 Russian regions including Siberia, 53 villages and 26 cities were covered; 1922 respondents were surveyed). The survey revealed “preservation and growth of negative trends … in social-psychological attitudes/sets of the people” and “adaptive” behavior of the population. Also, “the growth of psychological tension” and “emotional distress of the people” was observed; “high rate of social stress associated with negative attitudes towards official powers/authorities” was registered; the support for the “reforms” among the population was minimal. Besides, an increased preference of basic values – “material welfare and physical security” – was observed. As a result, 68% of the respondents assessed their state of mind rather pessimistically; 62% - experienced tension and uncertainty [13]. Yu. M. Plyusnin gave the following assessments made by the Siberians of the directivity of transformations in Russia in 1999: 4% of the respondents noted the “revival of the country”; 50,7% - the “decay and collapse of the country”. Yu. M. Plyusnin underlined that those assessments “explicitly coincided with the data of the broad surveys conducted by All-Russian Public Opinion Research Center

(WCIOM) and others" [14].

*б) Assessment of health and its changes*

Table 3 shows that health self-assessment of the population tended to decrease. First and foremost, the general situation and the decline in public health influenced the assessment. Health assessment, in general, was averaged mainly due to the decrease in the share of those who supposed their health to be good. There are many factors affecting long-term dynamics of health self-assessment: educational level, culture, self-control, external factors. However, at a relatively short time period, the impact of those circumstances smoothed out and the dynamics of the real state and self-sentiment of people started to play the main role.

Still, these data show that female in rural areas are far more critical and negative in assessing their state of health than the male. "Females' indicators of individual health in all age groups are lower than those of the male not only by self-assessment, but also by the prevalence of chronic diseases and severity of multiple pathologies. It is related to high social and biological loads: birth and upbringing of children, hardships of modern conditions and way of life associated with the current decline in the living standards [15].

*One more factor*. When formulating the hypotheses, we did not take into consideration a very important factor: government measures planned to reduce production and alcohol consumption (in the mid-1980s) and their complete abolition in the beginning of the 1990s. Liquidation of state monopoly and any limitations on the production and sale of alcoholic beverages resulted in the significant growth of alcohol consumption, especially, surrogate alcohol. The period of 1993-1994 saw the minimal life expectancy as a consequence of a complex impact made on labor, income, values, soberness, justice, and the perspective of "the democrats" who assumed power that time. Besides, anti-alcohol measures of 1985-1986 followed by drastic reduction in alcohol production and consumption were of great importance to health improvement of the population in the mid-1980s, improvement of the situation in families, at work, and in settlements.

In the summer of 1987, when answering the question "What has changed in the village after the adoption of anti-alcohol regulations?", 66% of the respondents noted that it had become safer in the streets – less drinking and hooliganism; 22% - there was no drinking at work; 16% - situation in the families improved; 14% did not note any changes; about 10% mentioned that there was nowhere to buy alcoholic beverages and, as a result, queues emerged [16]. The similar results were obtained while polling 4000 residents of Moscow in June of 1987: more than a half of the respondents noted positive changes, whereas, about a quarter of them did not notice such changes [17]. As a result of those and other changes, in 1986-1987 after a relatively stable period, life expectancy at birth increased and reached the highest level over the whole period under study, which is proved by statistics on delinquency and crime, morbidity, mortality, including suicides, intoxication, murders, and birth rate. To illustrate, in 1986-1987, birth-rate in rural areas accounted for 19,1 (average cross country data 17,2) [18], which is markedly higher than in the previous and following years; the share of second and third births in families increased notably [19].

In the 1990s and 2000s, the opinion of the rural population was changing steadily in one direction: in rural areas people tended to drink more and the regional authorities were expected to take actions in order to reduce drunkenness (Table 4). It seems reasonable to mention that the realistic and firm position of females on the necessity to take strict anti-alcohol measures, unfortunately, was not reflected in the government policy of the 1990s.

**Table 4.** Opinions on the actions against drunkenness, % to the number of rural workers.

| Measures/Actions | Female | | | Male | | |
|---|---|---|---|---|---|---|
| | 1993 | 1999 | 2005 | 1993 | 1999 | 2005 |
| Actions of authorities against drunkenness are needed | 24 | 21 | 32 | 11 | 9 | 17 |
| Restrictions on sale of alcoholic beverages are needed | 19 | 20 | 31 | 4 | 13 | 17 |
| None of measures are necessary | 80 | 48 | 27 | 80 | 62 | 52 |
| Other | 6 | 4 | 9 | 6 | 15 | 6 |
| Hard to tell | 2 | 7 | 8 | 2 | 5 | 9 |

In 2004-2005, the overwhelming majority of both female and male considered that over the last five years prior to the survey, in rural areas, there was the tendency for the people to drink more (80% of female and 61% of male). The similar data – 75% of all the respondents noticed that hard drinking (alcoholism) over the last 10-12 years increased – were obtained in the survey conducted in 2004 by the National Monitoring Center for social and labor services in rural areas [12].

The change in the number of suicides as one of the main indicators of physical, social, and psychological state of the population seems especially noteworthy. In 1980, there were 34,6 cases of suicides per 100 thousand of the population; in 1984 - 37,9; in 1985 - 31,0; in 1986 - 23,1; in 1987 - 23,2. After that, this indicator was observed gradually rising by up to 42,1 in 1994; in 1998 it reduced (35,4), while in 1999-2000 it rose again to 39,3 [20]. The similar dynamics was observed in the number of accidental alcohol intoxications and murders by other reasons, as well as mortality/death rate in whole [20]. To a considerable degree, health decline was a

direct consequence of the lack of personal interest, responsibility and activity to maintain and strengthen health.

Besides, the relationship between life expectancy and alcohol consumption was mentioned by other researchers. "The dynamics of life expectancy in Russia is amirror image of the dynamics of alcohol consumption". Indeed, the peak-tops of alcohol consumption exactly match (completely coincide) the peak-dips of life expectancy, which could be observed in 1993-1994 and 2000-2001. A positive "upside-down" trend – the peak of life expectancy and downfall in alcohol consumption – was observed during the anti-alcohol campaign launched in 1986-1987 [21].

## 6. Conclusion

The proposed hypothesis that excessive workload negatively influenced life expectancy of the people has not been confirmed. The years 1986-1987 witnessed the heaviest workload; whereas, the life expectancy was also the highest.

However, the second hypothesis has been confirmed. It testifies to the fact that social well-being, according to the estimates made by the rural workers of the changes in living conditions, social sphere, personal well-being and their self-assessment, is one of the key factors determining life span of the population. Indeed, it is one of the key factors since other factors – state of healthcare, nutrition quality, alcohol consumption (especially surrogate), etc. – also influence life span of the population.

Bringing forward the results of our experimental analysis, we are far from absolutisiting them. However, we would like to draw your attention to several things. As we see it, such a coincidence between LEAB of total rural population of the country and social well-being of the respondents (surveyed totality of the rural population) is nonrandom. In its turn, this circumstance has made it possible to extrapolate, more seriously and confidently, the conclusions of the local surveys to bigger communities. Of course, a lot depends on reliability of the sample and the respondents, as well as the general condition of the society.

We consider the comparative analysis of the research and statistical data to be important, promising and rather perspective.

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