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# Norms as Indicators of Human Capital Investments Effectiveness

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Abstract - This paper analyses Individual Labor Supply (ILS) survey data gathered on various russian labor markets. Institutional parameters of the ILS schedule, their influences on ILS elasticities as well as the shapes of the ILS curves have been the special points of interest of the researches. Besides the canonical C-shaped and the S-shaped curves their mirrored reflections and also L-shaped and J-shaped forms were observed. The "backward bend" concept for poor households and the S-shaped LS curve concept for the household with primary, secondary and tertiary workers helped to find explanations for the cases. The dummies for regions and professions as well as "institutional numbers" were successfully used in order to improve the regression quality. It was revealed that threshold effects, noted as changes in the market strategies - shifts to a different ILS curve type, take place because workers behavioral patterns are framed by certain types of conventions. So behavioral patterns change when a convention, that a worker positions him(her)self in, is changing. The degree of such effects probability increase, when households are forced by external factors to review their economic strategies. Thus assuming that the shape of an ILS function as well as current wage value (roubles per hour) characterizes the economic agent strategy, a hypothesis has been worked out: The strategy choice made by a worker in standard labor market situations may be predicted with a certain degree of accuracy, if the combination of the individual institutional norms values distribution is known. Hence following Douglass North's proposition that institutions are not only carries of history but also accumulators and means of education, the author suggests that the combination of institutional norms might be regarded as a signal of Individual Human Capital Investments Effectiveness.

JEL classification: A13, D02, J22, R29

Key words: Household Labor Supply, Institutional Parameters of Labor Supply, Hunan Capital Quality

#### Introduction

Coming back to the dispute about the essence of education between ancient philosophers Socrates and

Protagoras, we can now say that it could neither be only a means of a joyful leisure for aristocrats nor an object of effective investments, but it is becom-

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Fields of interest:

National economy, institutional economics, methodology of economic education, economic sociology

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ing now a unique delicate and powerful instrument, which may be used for constructing an effective economic system. Another thesis concerning the modern educational paradigm is that it is useless to spent years trying to acquire more and more knowledge, but it is necessary to be competent in managing informational and communicational systems of contemporary knowledge-based society. Moreover the UNESCO standards claim that any change in a man's behavior, knowledge structure, mutual understanding, values, and beliefs may be considered as a result of learning (to be judged as education this learning should be executed in a planned manner) [UNESCO, 1997]. Thus the idea that communications patterns, institutional norms, distribution of beliefs and values can be regarded as educational quality as well as human capital investments effectiveness indicators should not be put aside as an excessive one.

Besides the methodology of measuring the returns to education developed in the economics of education is often facing problems caused by institutional factors bias. Going back at least to Mincer (1970) and Rosen (1977), a number of authors have pointed to the sensitivity of wage regressions to changes in the years of schooling, teachers and school quality, experience etc., and to the failure of these coefficients to pass the test of an uncertainty period (see for example [Björklund/Kjellström 2002]). Griliches (1977) pointed to various econometric issues that arise in estimating a relation between the logarithm of wages, schooling, and other variables and focuses on the problem of "ability bias", which in the estimated schooling coefficients is "even reversed". Similar results were obtained in our research of workers' "rationality". We also paid much attention to the ideas of one of the most experienced researchers of Education production function - Eric Hanushek (at least from 1986). He noted in his later papers that characterizations of worker skills by traditional factors do not capture important aspects of workers' and country's welfare and equity [for example – (Hanushek/Somers 1999)]. Works of Heckman, Glewwe, Hoxby, Fernandez, Rosen and their colleagues made us think that institutional factors were to be taken into account in addition to traditional regression variables. "With whom one goes to school or work, who one's neighbors are, and who is a member of one's household are all likely to be important ingredients both the resources devoted to

and the returns to human accumulation" (Fernandez 2003: 1). Detailed reviews of the mentioned above literature on the quality of education can be found in (Hanushek 1986; Burtless 1996; etc.). The latest ideas in the research area, which is really multidisciplinary, are represented in the Handbook of Labor Economics (1999) and the Handbook of the Economics of Education (2004).

So in view of the voluminous research on the subject, we couldn't help ignoring the fact that so many authors, using varying methods, have all arrived at the same conclusion – institutional (social, psychological etc.) factors should be taken into account while examining the returns to education and agents' behavior on local labor markets. "Don't we learn something from the cumulative evidence, even if individual papers have shortcomings?" (Hanushek)

According to the social capital literature usually dated from the works of Coleman (1990) and Putnam (1993) one should mind values and beliefs in order to describe the regularities of human behavior and the coordination mechanism in market interactions. But it is difficult to formally describe the coordination mechanism when values and beliefs are changing. Such phenomena often take place in transitive economies and/or when we are considering educational phenomena.

Some suggestions may be made with the help of psychological and social forms evolution theories. Ideas of Pitirim Sorokin, Max Weber, Tullckot Parsons, James Colmen and other scholars form a basement for such a theory, but they are not quite suitable to predict quantified results. More formal econometric models have been elaborated within the heterogeneous human capital conceptional framework [Wolpin 1977; Stokey 1990; see also the review in McFadden 2000]. These models made the consideration of economic choice psychological parameters possible, but the results were gained owing to strict limitations such as a certain class of utility functions

The cross section survey results presented in this paper show that one can look further, beyond these limitations, if the revealed interdependence between individual labor market strategies and the values and beliefs distributions is taken into account.

#### I. Research design

The project "Individual Labor Supply Parameters

Survey" (ILSPS) was realized by the author in 2003-2005. The project's objective was to determine typical individual strategies of workers on local labor markets in various Russian regions, the influence of values and norms distributions and other parameters on the revealed strategies. The initial assumption included a thesis that workers strategies may be revealed with the help of the individual labor supply (ILS) schedules, that were later classified.

Another project's goal was to develop a methodology of individual norms values measurement and to test it on the sample of more than 1400 respondents in order to estimate the parameters of their individual labor supply function. The data was collected during an experimental field survey in several Russian regions: Central (Moscow, Moscow region, Tula, Tver etc.), Northern (St.Petersburg), The Urals (Chelyabinsk, Perm etc.), Siberia (Krasnoyarsk, Novosibirsk etc.) and others. These are usually the places where students of the HSE and the REA come from¹. The results gained in Moscow region were also enriched by supplementary psychological and organizational investigation data.

Several data bases on the Russian labor market are becoming available nowadays. Russian Longitudinal Monitoring Survey (RLMS) is one of the most frequently used. But one can hardly find information about workers' expectations, beliefs, and about the elasticity of ILSF in these data bases. It is really rather difficult to get such an information, mainly because it is not enough just to let a respondent to fill the questionnaire; an interview and an explanation of basic economic concepts (such as alternative costs, time allocation for example) are needed in most cases. So the interview often turns into an improvised lesson. It happens to be a good practice for students-interviewers by the way.

More than 100 students of the HSE and the REA conducted more than 2000 interviews with employers in different Russian regions up to now. But only 1420 cases have been found valid for the sample because of the above mentioned difficulties. The validity of the sample was also proved by the significant correlation of our calculations of traditionally estimated coefficients with those published in the subsequent literature [Нестерова/Сабирьянова 1998; Roshchin/Markova 2004; etc.].

## II. The methodology

We ague that an agent's expectations, choices, behavior patterns depend on the conventional conditions she is aware of. We suggest that the revealed shape of an individual labor supply function (ILSF) can serve as a proxy for agent's beliefs and strategies on the local labor market. At the same time the relative values of Empathy, Rationality, Interpretative Rationality and Trust form a certain type of a convention according to which an economic agent is making her decision (so suggests the conventional theory [Boltanski/Theveno 1991]).

We also use the behavioral and organizational theories explanations for individual labor supply curves deviations from the neoclassical textbook model (the canonical C-shaped curve which is in fact mirrored C). The textbook labor supply model actually comes on the scene when an independent, rational worker is making the choice between the good 1 (the leisure) and the good 2 (the set of goods that can be bought for his earnings). His income is considered to be the only resource for buying any other goods and services besides the leisure, and the individual is free from any other duties (especially from those of his household). The labor supply of such a worker (the canonical) can be shown as the dotted line above the E-F zone on fig. 1. The reservation wage (the minimum - not lower than the point E level) is also an important concept of the classical labor supply theory. Otherwise (below the reservation wage) it would not work. The substitution effect domination is responsible for the positive slope (E-F zone), while the negative slope (when raising wages decreases work hours: above F zone) is due to a stronger income effect. There is in fact no difference between an individual and a family (household) labor market behavior in the classical concept.

The negative slope cases (the "backward bend" or L – shaped ILS curve: the B-C-D zone on fig.1) at much lower levels of income, as they had been primarily observed in Indian and African colonized countries, were explained by colonialists and other experts as the cases of non-responsiveness to prices of the poor, of their limited wants and aspirations which determined consumption and behavioral patterns, different from those in industrialized societies (Chelintsev, Berg, Murdal, Lipton). Other sets of explanations for negative or zero labor supply elasticities at low wage levels in agricultural sector

HSE – Higher School of Economics, Moscow; REA – Russian Academy of Economics, Moscow.

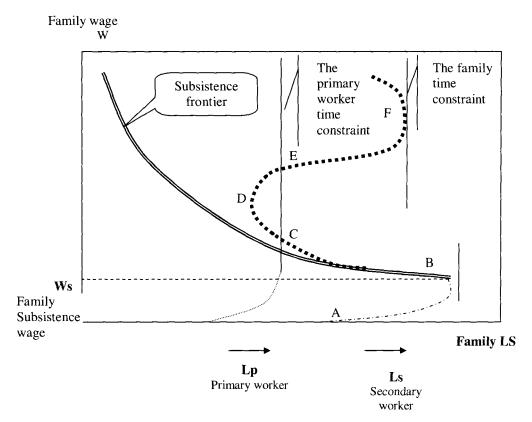


FIGURE 1. The S-shaped labor supply curve of a household.

were offered by labor surplus (Lewis, Leibenstein, Shultz, Sen) and nutrition-productivity-based theories (Leibenstein, Rodgers, Stiglitz).

The family joint labor supply model (Dessing 2002) offers a summary of the cited above theories. According to this concept one may consider a family (a household) as an organization which is to provide their members with a certain amount of goods and services. By various reasons some of the goods and services are home-made, but others can be bought at the market only. So the family needs a "target income" to buy them. Certain family members are sent to the labor market to earn this income. The "subsistence frontier" line on fig.1 depicts the constraint along which the family income remains constant. So, if the family's primary worker is not able to gain enough money even by increasing the working hours, the secondary and maybe the tertiary workers are sent to the labor market (see the A-B part of the line on fig.1).

The secondary worker demonstrates the L-shaped curve for her labor supply (with negative elasticity) because household duties are more important for her than market activities, and she returns home as soon

as her income makes it possible. As her income increases there occurs a possibility to substitute some of the home-made goods and services by those from the market. Thus the secondary worker ILS may become less elastic and even turn to a positively sloped line (see the B-C-D part of the line on fig.1 and C-shaped stroke line on fig.2, type 1).

A primary worker is in most cases a person with a comparative advantage in market activities and who does not have much to do at home as a rule. But his working potential is constrained by the physical conditions, and an always positive ILS slope demonstrated by some of our respondents from "poor" households may be considered as a "distress" labor supply (see J-shaped forms on fig.2, type 2).

Besides type 1 and type 2 ILS, which were revealed in the vicinity of the households' subsistence constraints in our cases, types 3, 4 and 5 were also found out. These were the ILS curves from "richer" households' members, peculiarities of which are discussed below.

As far as the relative values of Empathy, Rationality, Interpretative Rationality and Trust had been also measured as regression parameters for ILS types one may conclude that the classical and the institutional methodologies were combined in our survey.

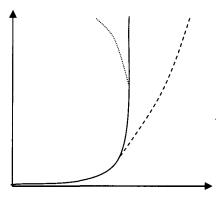
Thus assuming that the shape of an ILS function as well as current wage value (roubles per hour) characterizes the economic agent strategy, a hypothesis has been worked out: The strategy choice made by an individual in standard economic situations may be predicted with a certain degree of accuracy, if the combination of the individual institutional norms values distribution is known. Then, following North's proposition that institutions are not only carries of history but also accumulators and means of education (North 1990), we may suggest that the combination of institutional norms might be regarded as a signal of Individual Educational Quality.

## III. Findings in the field of behavioral patterns

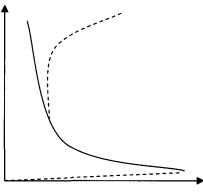
ILS elasticities as well as the shapes of the ILS curves have been the special points of interest of the researches. Besides the canonical C-shaped and the S-shaped curves their mirrored reflections and also L-shaped and J-shaped forms were observed. The "backward bend" concept for poor households and the S-shaped LS curve concept for the household with primary, secondary and tertiary workers helped to find explanations for the cases (Dessing 2002). One can observe the same phenomena once found out in India and Africa. The dummies for regions and professions as well as "institutional numbers" were successfully used in order to improve the regression quality.

Some of Norms' indicators turned out to be valid regression independent variables for the ILSF shape as well as for the wage function. Moreover the correlation between target variables and norms' values in some age strata were even stronger than between target variables and traditionally measured educational parameters.

It was found out that the probability for a certain ILS curve type depends on regional labor market conditions, ages, years of schooling and on norms also. It was revealed that threshold effects noted as changes in the market strategies, - shifts to a different ILS curve type, take place because workers behavioral patterns are framed by certain types of conventions. So behavioral patterns change when a convention, that a worker positions him(her)self in, is changing. The degree of such effects probability



Type 2: "primary" workers



Type 1: "secondary" workers

FIGURE 2. ILS curves types for "poor" households

increase when households are forced by external factors to review their economic strategies.

The household labor supply conceptional framework and the expertise of ILS schedules prepared by the interviewers were the guidelines in elaborating the ILS curves classification and in analyzing the corresponding workers' strategies.

Primarily the respondents were divided in the groups of "poor" and "rich" households' representatives. Workers with hour wages less than 50 roubles were regarded as "poor" households' representatives for all regions except Moscow. The "richness" point for Moscow workers was established at 150 roubles per hour. It should be taken into account that relatively high hourly wages do not always prove high monthly income (they usually count monthly wages in Russia and in other post-soviet countries). Thus, a Moscow high school teacher working 24 hours a week for 150 roubles per hour, receives about 14400 roubles a month (\$500 approximately), that is not so much for Moscow. In such cases, when the weekly

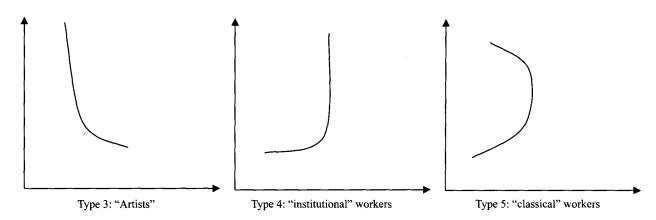


FIGURE 3. ILS curve types for "rich" households

working hours were small, the sorting was made according to the corresponding monthly income per household member.

The ILS curves of primary and secondary workers were marked in the category of the "poor" households. These were J-type curves with positive elasticity for primary workers (fig.2); the rare cases with negative elasticity for much higher proposed wages were neglected. The ILS curves of secondary workers were usually L-type ones. But they could be a C-type also. The revealed negative elasticity section of LS schedule in the "working" zone and a relatively higher supply for low wages were the decision criterion in this case.

Thus the other respondents were considered "non-poor". Three ILS curve types were defined for this category: L – type ILS curve with negative elasticity for "artists"; J - type ILS curve with positive elasticity for "institutional" workers (Weblen's type); mirror reflected C – type for "classical" workers (REMM²) (fig.3).

"Artists" are usually more concerned about their social status on the work place, they are trying to satisfy their needs in creating and pay more attention to public opinion than to rationality. "Institutional" (Weblen's type) workers do not consider wages as the key incentive, they usually work just because "that's the way things are". Their occupation is often listed among the Higher Level Goods they consume in order to satisfy their needs in gaining reputation, self-expression etc.

The market patterns of "classical" workers are

widely discussed in economic theory manuals but our research helped to find out some peculiarities of their behavior.

A more detailed research shows that behavioral patterns, implicit in market strategies and revealed in ILS schedules, depend on professional occupation, gender, marital status, number of children and other parameters. Table 1 shows that married women are more likely to act as "secondary" workers than men, but single men and women demonstrate similar patterns.

For the purpose of a more detailed analysis a cross-section regression for "Elasticity" with the following specifications had been worked out:

Elasticity	<ul> <li>explained variable: elasticity estimation by the respondent<sup>3</sup>;</li> </ul>
Scale	- dummy for ILS type;
Gender	- dummy for gender (0- women, 1 - men);
Childrs	- number of children;
MaSta	- marital status (0 - not married, 1 - married);
HHIncom	- income of a household member (thousand of roubles a month);
LnW	- log of hour wages (income);
LnLh	- log of working hours recalculated for 5-day week;
ExpT	- work experience (total years of work);
ExpS	<ul> <li>work experience according to specialty (years of work);</li> </ul>
Time	- time on the current workplace (years);
EdT	- Total yeas of schooling (including high school);
EdS	<ul> <li>Special education (i.e. learning while doing, courses etc.);</li> </ul>

<sup>3.</sup> When the respondent answers the question: «You would increase/decrease your working time by \_\_\_\_% if your daily income increases by 10%» the value is divided by 10%. The result is checked and corrected according to the expert estimation of ILS curve type. A more detailed interview is conducted if necessary.

REMM - Resourceful Evaluating Maximizing Man (Brunner, Meckling, 1977).

- years of age; Age Region - dummy for regions4; Profession - dummy for professions5; Empathy - Institutional value of Empathy Util - Institutional value of Utilitarianism RatioIn - Institutional value of Interpretative Rationality Trust - Institutional value of Trust - Unexplained residual. e

TABLE 1. Average ILS type numbers sorted according gender and marital status

	Married	Singles
Men	2,59 (1,07)	2,50 (1,10)
Women	2,27 (0,99)	2,50 (1,11)

Other possible variables were not included in the regression in view of 5% level of accuracy. Table 2 presents the regression results for Elasticity differentiated according to ILS curves types.

The results in the most parts prove the preliminary observation conclusions about the behavioral patterns of different types of the workers. Thus the log of the working hours turns out to be the only valid variable for the "secondary" workers of the "poor" households (t-statistics shown in brackets). The negative influences of the same variable and also of the working week's length and the regional and profession's dummies should be noted, while regarding the results for the "primary" workers of the "poor".

"Artist", as more inclined to meditation and reflection, demonstrate valid parameters of Utility, Interpretative Rationality and Trust in their regression. One ought to note the different (negative) influence of Trust. The "primary" workers of the

"richer" households demonstrate more "utilitarian" attitudes than their colleagues from the above mentioned strata (the Utility value is more valid in their regression).

It might seem strange, but the "classical" workers pay less attention to wages, to the working week's length, nonetheless they are rational enough – with the most valid negative Utility value. The reductions of the Interpretative Rationality level, as well as of the Utility's one, cause such workers ILS elasticity to increase. But let us note the different influence of the Empathy.

One can expect more accuracy for the Scale than for the Elasticity regression. And the table 3 data support this expectation. The differences in adjusted R<sup>2</sup> values may be explained by the above mentioned difficulties in gathering data. But we still continue to consider the conclusions based on the table 2 data useful, because they are proved by other observations including deeper interviews with the respondents.

Additionally from the table 3 one can find out that married women, while determining their market strategies, pay more attention to wages than representatives from other categories (the maximum t-stat. corresponding to LnW beta). A higher degree of Empathy helps them in their carrier success, but that of Utilitarianism does not, although these respondents are the most inclined to utilitarian thinking. The influences of Trust and Interpretative Rationality for this stratum are uncertain.

Empathy is a valid parameter for the market strategies of married workers - both men and women, but the influence is positive for women and negative – for men. The revealed negative influence of ages on the strategy levels seems to be quite obvious (it is less expressed for unmarried women), but the negative influence of special education - EdS (significantly expressed for married workers), needs more explanations. Presumably this fact reflects the shortcomings of the professional education system, that is not able to properly satisfy the needs of the economy. The thesis that "life is the best teacher" is actually supported by positive values of the regression coefficients for total work experience (ExpT) and for the experience of work according to the specialty (ExpS) - first significantly expressed for unmarried, second – for married men.

<sup>4.</sup> The following administrative-geographic classification is applied: 1 – for Moscow; 2 – for Moscow region; 3 – for regional centers (+1 - for West and East Siberia); 5 - for district centers; 6 - for villages besides Moscow region. This method provided better regression results than official living standards data from Roscomstat.

<sup>5.</sup> The following classification is applied: 1 - for low skilled workers; retired, part time workers; 2 - sellers; 3 - students, part time workers; 4 - teachers, trainers, skilled workers; 5 - officers, managers, doctors; 6 - accountants, engineers; 7 - financial officers, economists; 8 - top managers; 9 - entrepreneurs; heads of organizations.

TABLE 2. Values of regression for Elasticity and other parameters sorted according to ILS types (Scale)

Scale	1		2		3		4		5	
	Means	Beta	Means	Beta	Means	Beta	Means	Beta	Means	Beta
Gender	0,325 (0,470)	0,09 (1,20)	0,437 (0,496)	0,024 (0,65)	0,336 (0,475)	0,098 (1,12)	0,518 (0,500)	0,05 (0,81)	0,472 (0,506)	0,157 (0,72)
LnW	3,699 (0,807)	<b>0,21</b> (2,09)	3,692 (0,866)	<b>-0,094</b> (-2,04)	4,762 (0,796)	-	5,062 (0,891)	-0,07 (-1,13)	4,847 (0,663)	-
LnLh	3,636 (0,337)	-	3,524 (0,450)	<b>-0,100</b> (-2,69)	3,592 (0,379)	0,166 (1,84)	3,544 (0,481)	<b>-0,235</b> (-4,05)	3,462 (0,425)	-0,404 (-1,80)
ЕхрТ	15,593 (11,47)	-0,20 (-0,85)	16,274 (11,84)	-0,214 (-1,68)	15,389 (11,02)	-0,300 (-1,47)	14,661 (10,61)	-0,044 (-0,71)	17,139 (9,992)	1,018 (1,65)
ExpS	10,726 (10,32)		11,109 (10,71)	0,069 (1,19)	11,301 (10,14)	0,211 (1,11)	9,717 (9,971)	-	12,944 (10,99)	-
Time	6,564 (7,097)	0,071 (0,74)	6,957 (7,812)	-0,043 (-0,98)	5,338 (5,461)	-0,101 (-0,99)	5,134 (7,780)	0,05 (0,91)	7,222 (7,680)	-0,312 (-1,42)
EdT	14,896 (3,308)	-0,103 (-1,07)	14,599 (3,412)	-0,054 (-1,39)	15,292 (2,043)	-	15,309 (2,299)	-0,08 (-0,96)	15,611 (2,207)	-
EdS	1,218 (1,232)	0,07 (0,70)	1,086 (1,029)	•	1,637 (1,165)	- -	1,549 (1,107)	0,11 (1,36)	1,750 (1,228)	-
Age	36,762 (11,71)	0,17 (0,69)	36,845 (12,47)	0,220 (1,72)	36,841 (11,27)	- -	35,065 (10,98)	-	38,528 (9,878)	-0,956 (-1,62)
Empathy	1,044 (1,472)	-0,14 (-1,35)	1,179 (1,468)	-	1,056 (1,381)	•	0,860 (1,450)	-0,11 (-1,45)	0,951 (1,518)	<b>0,792</b> (2,66)
Util	0,315 (1,395)	0,14 (1,62)	0,481 (1,311)	_	0,456 (1,357)	<b>0,249</b> (1,99)	0,108 (1,578)	<b>0,21</b> (2,87)	0,116 (1,472)	<b>-0,622</b> (-3,22)
Ratioln	1,221 (1,503)	1	1,493 (1,476)	0,025 (0,42)	1,656 (1,498)	<b>0,391</b> (2,96)	1,110 (1,495)	-0,08 (-0,98)	1,731 (1,513)	<b>-0,921</b> (-3,20)
Trust	0,836 (1,234)	-0,07 (-0,69)	0,923 (1,235)	-	0,923 (1,467)	<b>-0,742</b> (-4,96)	0,754 (1,127)	0,11 (1,22)	0,840 (1,206)	0,484 (1,60)
Region	2,374 (1,482)	0,11 (1,26)	2,649 (1,473)	<b>-0,184</b> (-4,02)	2,664 (1,449)		1,958 (1,358)	_	2,500 (1,342)	0,181 (1,07)
Profession	3,864 (1,781)	-0,12 (-1,44)	3,742 (2,026)	<b>-0,087</b> (-2,12)	5,504 (1,937)	_	5,664 (1,877)	0,04 (0,60)	5,056 (2,013)	-0,237 (-1,37)
HHIncom	4,775 (3,979)	-0,10 (-1,05)	4,126 (3,926)	0,031 (0,64)	8,925 (9,448)	0,216 (2,39)	18,177 (128,0)	-	8,500 (9,070)	-
MaSta	0,617 (0,487)	-	0,689 (0,463)	0,042 (0,91)	0,566 (0,498)	-	0,612 (0,488)	•	0,639 (0,487)	-0,162 (-0,70)
Childrs	1,029 (1,017)	-	1,059 (0,903)	-0,042 (-0,86)	1,071 (0,952)	0,059 (0,56)	0,990 (0,920)	_	1,500 (1,108)	0,311 (1,54)
Elasticity	-0,047 (0,131)	-	0,059 (0,124)	-	-0,017 (0,087)	-	0,042 (0,070)	-	0,046 (0,095)	-
Adjusted R <sup>2</sup>	-	0,036	-	0,043		0,167		0,061	-	0,314
N	206		749		113		307		36	

Gender				0	10				
Marital Status	0		1		0	10		1	
	Means	Beta	Means	Beta	Means	Beta	Means	Beta	
I W	4,23	0,47	0,431	0,55	4,05	0,57	3,92	0,54	
LnW	(1,01)	(5,77)	(1,02)	(9,99)	(1,08)	(10,15)	(1,03)	(11,15)	
TT 1.	3,47	-0,14	3,64		3,47		3,54	-0,11	
LnLh	(0,59)	(-2,30)	(0,34)	-	(0,51)	-	(0,38)	(-2,90)	
r	6,61	0,38	19,17	0,23	11,68		18,8	0,11	
ExpT	(7,31)	(2,75)	(10,78)	(1,66)	(11,96)	-	(10,1)	(1,08)	
ExpS	3,85		13,08	0,15	7,28		13,6		
	(5,57)	-	(11,84)	(2,47)	(9,88)	-	(10,2)	-	
	2,79	0,08	6,68		5,70		7,87	0,08	
Time	(291)	(1,14)	(6,64)	-	(9,10)	-	(7,96)	(1,76)	
	14,3		14,9		14,5	0,10	15,3	1 `	
EdT	(3,48)	-	(2,75)	-	(2,64)	(1,64)	(3,38)	-	
	1,03	0,07	1,36	-0,10	1,11	-0,06	1,38	-0,08	
EdS	(1,08)	(0,97)	(1,21)	(-2,18)	(1,09)	(-0,99)	(1,04)	(-1,87)	
	26,4	-0,44	39,8	-0,40	32,1	-0,05	40,1	-0,22	
Age	(8,29)	(-3,19)	(10,8)	(-2,95)	(12,8)	(-1,09)	(10,2)	(-2,04)	
	0,71	-0,17	1,03	-0,13	0,98		1,31	0,09	
Empathy	(1,37)	(-1,98)	(1,48)	(-2,47)	(1,39)	-	(1,49)	(2,09)	
	0,22		0,26		0,23	-0.08	0,60	-0,09	
Util	(1,38)	-	(1,40)	-	(1,49)	(-1,54)	(1,32)	(-2,02)	
	1,12	0,12	1,39		1,21	0,13	1,60	1	
RatioIn	(1,50)	(1,28)	(1,55)	-	(1,42)	(2,05)	(1,47)	-	
	0,72	0,17	0,90	0,10	0,75	-0,08	0,98		
Trust	(1,19)	(1,67)	(1,24)	(1,88)	(1,26)	(-1,21)	(1,21)	-	
	0,05	0,13	0,923	0,06	0,02	0,14	0,03	0,18	
Elasticity	(1,19)	(2,12)	(1,235)	(1,51)	(0,11)	(3,11)	(1,14)	(4,65)	
	2,12	0,08	2,57	0,15	2,42	0,24	2,50	0,15	
Region	(1,38)	(1,20)	(1,51)	(3,40)	(1,47)	(4,98)	(1,46)	(3,35)	
	3,88	0,25	4,44	0,16	4,39	0,21	4,43	0,16	
Profession	(2,21)	(3,36)	(2,41)	(3,33)	(2,09)	(4,04)	(1,83)	(3,52)	
	9,60	(0,00)	5,80	0,06	13,6	(1,01)	5,48	(5,02)	
HHIncom	(2,21)	-	(10,85)	(1,22)	(125,6)	-	(15,8)	-	
Childrs	0,13		1,44	0,05	0,50	<del>                                     </del>	1,40	0,11	
Cilluis	(0,43)	-	(0,82)	(1,26)	(0,80)	-	(0,82)	(2,76)	
Scale	2,50		2.59		2,50	_	2,27	(2,70)	
Stait	(1,09)	-	(1.08)	-	(1,11)	-	(0,99)	-	
Adjusted R <sup>2</sup>	+	0,390	<u> </u>	0.220	- (1,11)	0.416	-	0.219	
Aujusieu K	-	0,390	-	0,330		0,416		0,318	

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**TABLE 3.** Values of regression for ILS types (Scale) and other parameters sorted according to gender and marital status

# IV. Discussion: Norms' and Education's **Influences on Market Choices**

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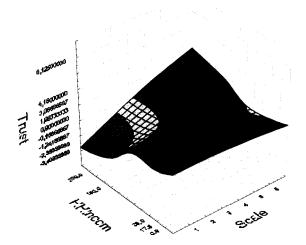
If we return again to the table 2 data, we can find no significant correlation between years of schooling (EdT), professional learning (EdS) and the ILS elasticities (Elasticity) at different levels of labor market choices. Although correlations between some of the Institutional Values and the target function are marked by significant values of t-statistics.

The influence of EdT on labor market choices (on ILS types), as shown in table 3, is insignificant. Only special education (EdS), which is desired to correct the mistakes of general education and to improve it, influences the market decisions. But this influence is negative (except insignificant positive influence for unmarried men)! Assuming that higher levels of strategies are correlated with higher incomes one has to admit that education, if it is not desired to form norms and make the workers' adaptation to communications systems easier, is useless if not harmful for economic agents' success on labor markets.

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Consequently the conclusion may be formulated as follows: the quality of education, above other criteria, can be measured by estimating the distribution of man's individual norms.



**FIGURE 4.** Interdependence between Trust values, household incomes and ILS curve types.

Except other results our research demonstrates that changes in strategic choices are caused by or at least correlated with changes in individual institutional matrixes. This observation can be illustrated by 3D graphics made with the help of the distance weighted least squares method. Thus as shown on fig.4 workers from "richer" households demonstrate higher degrees of Trust for higher strategy levels, but the revealed correlation between Trust and household income (HHIncom) is negative for lower strategy levels.

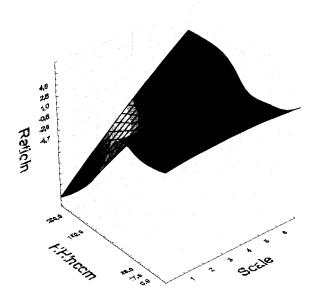
The same kind of interdependence has been revealed for other norms (see for example fig.5). These interdependences differ in details but similar in common features.

Thus one may conclude that a change in strategy choice is preconditioned by changes in person's expectations and beliefs besides other factors.

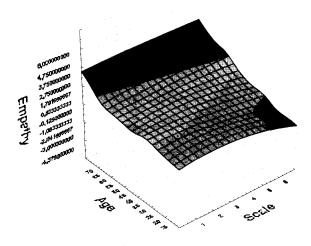
But a worker's values and expectations structure is obviously expected to be changing with years. Surely it does, as the fig.6 and fig.7 show.

But this dynamic has almost nothing to do with the strategic choices on labor markets.

There is one more educational effect that deserves attention. The graphic on fig.8 demonstrate that the total years of schooling influence on norms differs at various strategy levels. It turns out that an individual institutional matrix may react negatively on surplus education. This reminds of the idea, once expressed by a russian XIX century publicist Belinsky, that surplus education spoils people.



**FIGURE 5.** Interdependence between Interpretative Rationality values, household incomes and ILS curve types.



**FIGURE 6.** Interdependence between Empathy values, ages and ILS curve types.

But there arises a question, whether years spent at school or at another educational organization are really useful investment to the intellectual capital of an individual. And another question is about the results that one should expect from a "proper" education. It is impossible of course even to try to come closer to the understanding of the last question's essence in this paper, but we can mark a certain feature of the problem.

We should admit as a fact that people use worldly

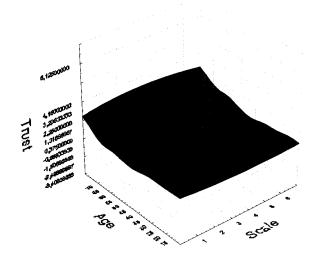


FIGURE 7. Interdependence between Trust values, ages and ILS curve types.

knowledge and common cognition methods in their everyday activities. But common knowledge reflects only external showy characteristics of things and processes, that attract attention but are not always significant. The knowledge gotten from everyday observation is helpful in describing processes, in fixing their sequential stages, but it can not explain why something happens the certain way. This worldly knowledge guides the so called value-rational and traditional actions. We can address to the article of Zafirovski (Zafirovski 2003) for a more detailed description of social and economic actions types.

This state of nature may cause effects which are described as cognitive dissonances in economic psychology, threshold effects in labor economics, "institutional traps" etc. The matter is that in modern russian economy people use (and correlate their behavior according to) commonly known concepts, which do not correspond to their economic definitions. These are for example "money" that is often taken for "value" (or "capital"), "firm" which is frequently mixed up with a "household enterprise" (or the other way out) etc.

The situation becomes aggravated when the conditions change, which often happens in a transitive economy, and a person has to address the true essence of the word. But when, after having done a transaction or acting within the frameworks of a

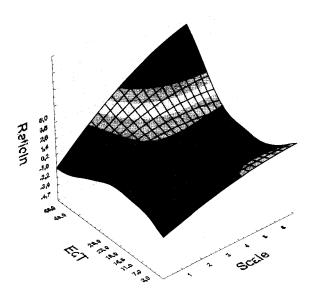


FIGURE 8. Interdependence between Interpretative Rationality values, years of schooling and ILS curve types.

certain convention, as he thinks so, the person can not find the real object behind the false concept, the person finds himself puzzled in a cognitive dissonance situation.

Such was for example the voucher privatization case in the mid 1990-s in Russia. People had been told that this would be a market convention deal, - everybody would have a chance to get his or her own share of the former soviet economy welfare, and the public property ownership system would be exchanged for a good portion of Economic Freedom for new proprietors. But when the entire event was over, the reformers explained to the mass media and to the public, that this had been just an experiment, although certain groups of interest had gained much profit within the communitarian conventions frameworks. Consequently the overall level of Trust went as low as about 34%, when russian people discovered that newly self-made shareholders would not spend their positive external effects results on providing effective management and faire income distribution.

Intuitively or concisely people try to avoid such situations in their everyday activities. This argument might serve as an explanation for threshold effects observed on labor markets. Obviously one would expect that qualitative and quantitative characteristics of such thresholds, a worker is facing (or which matter for him), depend on quality of this worker's education, on his work experience, on his experience of acting within the market conventional framework. But as we can see in the paper the effect of education is uncertain.

An explanation may be suggested, that in view of transition period uncertainty, aggravated by the inflation, behavioral patterns of russian workers (at least of those from "poor" households) shift downwards Veberian scale of rationality with the loss of welfare (measured as household income), as for example from a value-rational and Veblen-instinc-

tive types to Hobbesian rational behavior or even to monade-type one.

In view of these findings the role of Education in economic socialization may be expressed in such a way, that one should teach norms especially market convention norms at earlier ages as possible. And no less attention must be paid to adult's awareness of professional and vocational economic norms as an element of professional education. Unfortunately it is not a common practice in Russian Educational System.

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