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Secondary Employment in Russia

Labor Supply Modeling

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This paper employs the RLMS (Russian Longitudinal Monitoring Survey) empirical data base to estimate the function of labor supply in the form of secondary employment. Several hypotheses are tested — the effect of individual and household income on secondary employment decisions, the dependence of first job parameters on second job characteristics, and the different motives of secondary employment (the heterogeneity of jobs, limitations of time spent on the first job, labor mobility). Our research results support the conclusion that there are two different types of secondary employment (one in the form of a permanent job and another in the form of additional earnings ("prirabotki")), and that secondary employment depends on wage arrears and to some extent on labor mobility. The analysis of secondary employment motives showed that the heterogeneity of job positions is the main reason individuals seek secondary employment in the form of a permanent second job, while time limits on the first job are the dominating reason for seeking additional earnings.

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NON-TECHNICAL SUMMARY

The objective of this research is to specify factors and motives determining the secondary employment labor supply in the current Russian economy. In this paper, secondary employment is treated as employment at more than one job site. Studies of secondary employment are especially important as it is now one of the instruments of supply and demand adjustment on Russian labor market. It can be also considered as the variant of adaptation of people and households to social and economic changes.

Secondary employment is widely spread, its motives are ambiguous, and it can't be explained just by the intention to get more money. Why do many people work in several jobs at once? What are their motives and how do they manage to work in more than one job? What prevents people from gaining the same additional money from one job? Are additional earnings always the main aim of secondary employment? This work was done to find the answer to these questions.

Labor supply models form the theoretical basis of this research, particularly models of labor supply in the form of secondary employment applied in modern labor economic research.

The data of the four rounds (1994–1998) of the Russian Longitudinal Monitoring Survey (RLMS) were employed in an econometric analysis.

Several relationships are tested in this research: the dependence of secondary employment on income from one's main job and total family income; the direct and indirect dependence of the amount of time worked on the main job and secondary employment; the effect of the heterogeneity of jobs on the main and the second job on the forms and motives of secondary employment; the dependence of labor mobility (changing one's main job) on secondary employment in previous periods.

The main results of our research are as follows. The empirical estimates of secondary employment labor supply have supported, on the whole, the main hypothesis of individual behavior in the labor supply sphere: secondary employment depends negatively on the wages received from the main job and the amount of pension received by working pensioners; meanwhile it depends positively on the amount of wage arrears and non-paid vacations. That means that secondary employment can be explained by the intention to compensate for the limited income received from one's main job. Our analysis tested the hypothesis that the number of hours worked on the main job has a negative effect on the secondary

employment decision. We found also that for those who have secondary employment, the number of hours worked on the main job is not an exogenous factor.

The issue of secondary employment motives can't be solved unambiguously. Secondary employment is linked to the intention to change jobs, but the hypothesis that secondary employment in the form of a job search leads to a change of the main job in the next period was not proved unambiguously. We also conclude that secondary employment is closely connected to the heterogeneity of employment positions in the first and the second job and to limited opportunities in the first job.

Our analysis lets us separate two essentially different types of secondary employment: the permanent second job and additional earnings ("pri-rabotki"); both are influenced by different factors.

1. INTRODUCTION

Quite often in an economy employees have additional work in one or several job positions or they earn some additional earnings. Such additional employment is termed secondary employment (secondary job-holding, multiple job-holding, moonlighting). Secondary employment analysis helps us better understand how the short-term and medium-term labor supply adjustment depends on economic and social demographic factors. Research analyzing only the main job labor supply lead to an underestimation of people's ability to adjust their labor activity to changes in the economic situation. While work time on the main job is usually constrained, secondary employment allows the workers to choose their preferred amount of labor supply.

The main objective of this research is to provide a theoretical and empirical analysis of secondary employment labor supply and to reveal and systemize factors that determine it. The main aims to achieve this objective are the following.

Estimation of the influence of socio-demographic (gender, age, education, marital status, amount of children, profession, status of the main job) and economic (wage from the main job, family income, hours of work on the main job, wage arrears, territorial dislocation of job places) factors on the secondary employment decisions;

Estimation of the influence of socio-demographic and economic factors on the amount of labor supply (work hours) in the form of secondary employment;

Analysis of secondary employment motives;

Disclosure of the difference in factors and motives of different types of secondary employment.

In our research we analyze secondary employment as work at more than one job site. Our approach is quite different from the definition of secondary employment that is used in much Russian research (Klopov, 1997; Kupriyanova, 1993; Perova, Khakhulina, 1997; Perova, Khakhulina, 1998; Khakhulina, Stivenson, 1996; Khibovskaya, 1995; Khibovskaya, 1996), where secondary employment is regarded not only as additional for employees, but also as additional to the different status of non-employment and unemployment. In these researches, secondary employment includes the labor activity of retired pensioners, students, and unemployed who have only one employer. From our point of view, considering such

type of labor as secondary employment is incorrect because for retired pensioners, the unemployed, and students who have only one employer, their work should be treated as the main one and not secondary. So, the labor decision is undertaken by retired pensioners, the unemployed, and students under quite different time and non-labor income constraints and status positions than the decision about secondary employment made by other employees.

Secondary employment can exist in the form of an additional paid job or in the form of additional earnings, both regular and irregular. Many types of additional earnings are organized as self-employment, hired labor, or some form of cooperation with other workers.[1] The existing data base usually indicates nothing about the form of secondary employment — whether it is realized in the form of self-employment or in the form of hired labor. Having no information to create more strict propositions, we'll consider all secondary employment as paid work.

We also do not include into secondary employment such types of activities as the work in household (for example, planting, growing and preserving vegetables). First, we do so because otherwise we have to take into account the returns of physical capital used in the household while we don't have any corresponding data. Second, we have no valid indicators of the profitability of this type of labor; the evaluation of the results of this labor is a problem that lies outside the scope of our research. Third, with this type of labor it is practically impossible to separate individual labor input from the inputs of other members of the household.

In the case of several jobs the question is which of the jobs should be considered as the main job and which as the additional one. In our analysis we leave this problem to the workers as we suppose that every person when considering his own job as primary or secondary can use different criteria (the amount of earnings, time worked, sequence of engaging in different types of activities, formal or informal character of labor relations, status positions and others). As a rule, the main job assumes a greater amount of time spent on it.

Theoretical analysis of secondary employment labor supply was initiated in the 1960s and 70s by Shishko and Rostker (1976) who focused on the

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[1] VCIOM surveys show that only 20−25% of additional employment is in the form of an additional job, 6−10% — is in the form of secondary work by contract or offer. In all other cases, additional employment is realized in the form of producing commodities for sale, working as a street salesman, broker, or providing services in construction, repairing, sewing, tutorship, *etc*. (Perova, Khakhulina, 1997).

problem of first job time limits. Killingsworth (1983) reviewed the main achievements in this sphere in the 1980s. Recently several papers have emerged that specify some theoretical statements about the secondary employment labor supply model and pay great attention to the econometric technique of empirical estimates (Kimmel, Conway, 1995; Conway, Kimmel, 1992; Krishnan, 1990; Paxson, Sicherman, 1996) have emerged. Krishnan (1990) stresses the influence of spouse labor status on secondary employment decisions. Kimmel and Conway (1995, 1992) accentuate the heterogeneity of employment positions as the main cause of secondary employment in the situation when the wage rate from the second job is higher than the first one. Paxson and Sicherman (1996) concentrate on the interconnection between labor mobility decisions and secondary employment.

Empirical analyses of secondary employment in the Russian economy has mostly focused on studying this phenomenal expansion (Kupriyanova, 1993; Simagin, 1998; Khibovskaya, 1995; Khibovskaya, 1996), on sociological analyses of the motives of secondary employment (Arsent'eva, 1998; Klopov, 1997; Khibovskaya, 1996) and on describing the categories of population involved in secondary employment (Arsent'eva, 1998; Varshavskaya, 1998; Klopov, 1997; Kupriyanova, 1993; Kupriyanova, Khakhulina, 1998; Roshchin, 1995; Khibovskaya, 1995). A detailed analysis of factors influencing secondary employment decision-making based on regression estimates is contained in Varshavskaya's papers (Varshavskaya, 1998; Varshavskaya, Donova, 1998). Informal additional employment has been studied by Perova and Khakhulina (1997; 1998), and Chernina (1996). The majority of publications analyze secondary employment on the basis of the VCIOM or original survey data; the RLMS data base is used in the papers of Varshavskaya (1998), Klopov (1997), Simagin (1998).

There are no econometric works analyzing secondary employment labor supply for the Russian economy. In Russian economic literature, the first attempt of an econometric analysis of secondary employment is contained in Roshchin's work (1996), but it was done on a limited data base and only for secondary employment of women. Important recent research of secondary employment in Russia has been carried out by Kolev (1998). The author performs a detailed econometric analysis of labor supply in the informal economy on the data of the 6-th RLMS round. Kolev examines employment in the informal economy both as any additional employment of working people (that allows us to consider such labor supply concept as relating more to secondary rather than to informal employment), and as employment of students, pensioners, the unemployed. But here the analysis of secondary employment is mixed up with

the analysis of labor activities of people having non-working status. This results in a bias of estimates of various factors effects on secondary employment decisions.

In the economic literature, estimates of secondary employment expansion differ a lot. According to the results of the VCIOM surveys (Kupriyanova, 1993; Khibovskaya, 1995; Khibovskaya, 1996; Kupriyanova, Khakhulina, 1998; Perova, Khakhulina, 1997; Perova, Khakhulina, 1998; Simagin, 1998), the estimates of secondary employment in Russia in 1994−1998 are in the range of 10−20% of the respondents in the surveys. This estimate is quite close to the results of other research (Arsent'eva, 1998; Varshavskaya, 1998; Varshavskaya, Donova, 1998; Roshchin, 1995; Roshchin, 1996). These studies were conducted mainly for the urban population and registered the amount of those who have secondary employment as approximately 20% of employed people. The Goskomstat surveys give us lower estimates (Obsledovanie naseleniya po problemam zanyatosti, 1999; Simagin, 1998) — from 1% to 4% of the economically active population. The calculations that we made on the RLMS data base indicated that the interval of secondary employment expansion ranges from 4 to 11 % of employed people[2] depending on the conception of "secondary employment" (what types of labor activities were included into it).

Higher estimates of secondary employment expansion are less popular but still exist. According to the results of research on urban population employment (Dokuchaev, Kolesnikov, 1998), the share of those who had additional earnings was 61% of respondents.[3] The estimates of the Federal Taxation Service give us an estimate of 35−40% of the adult population having additional work during the year (Simagin, 1998). According to the results of the research "Strategy of economic survival of population in modern Russia,"[4] 11.8% of the employed population have a regular second job, 16.8% have additional earnings, 25.1% have at least one

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[2] Detailed results and discussion on the possible bias of our estimates of secondary employment expansion depending on including different types of additional labor activities into secondary employment are presented in this report in the section devoted to the analysis of the RLMS data.

[3] While evaluating these data, it is necessary to take into consideration that additional earnings are not equal to an additional job, because additional earnings can be earned at the main job place.

[4] The research "Strategy of economic survival of population in modern Russia" was conducted in April 1998 under the direction of V.V. Radayev (Economic Institute, Russian Academy of Science) in Moscow, Nizhniy Novgorod, and Ivanovo. The estimates of secondary employment on the data base of this research were calculated by the authors of this project.

type of additional employment (regular second job or additional earn-
ings).

The differences in the estimates appear mainly due to the different
treatment of the term "secondary employment" and its application, not
only for workers who have a main job but also for retired pensioners,
students and the unemployed. The estimates are influenced greatly by
the choice of the period of observation when secondary employment is
estimated and by the consideration of different degrees of regularity of
the additional work. According to one study (Varshavskaya, Donova,
1998), 17.5% of the adult population had secondary employment last
year, but only 7−10% in every month. Besides, some share of additional
work is realized as an informal one, or is not registered in the tax in-
spection. The respondents are often not eager to present information
about their additional earnings and employment. If we take into consid-
eration that according to the VCIOM surveys the share of informal em-
ployment among those who have secondary employment is about 2/3
(Perova, Khakhulina, 1997; Perova, Khakhulina, 1998), it becomes clear
that a great part of additional earnings is hidden from researchers.

2. THEORETICAL MODEL

Secondary employment labor supply modeling is based on a theoretical
model of labor supply (Kilingsworth, 1983). This is the model of an indi-
vidual utility maximization. Individual utility depends on consumption
goods and leisure time, with existing budget constraints for the con-
sumption goods connected to the available labor and unearned income,
and time constraints.

Max $U = u(C, L)$, $\partial U/\partial C > 0$, $\partial U/\partial L > 0$,

$T = H + L$,

$pC = V + w(T - L)$,

where C is the amount of goods acquired for available unearned income
and wages, p is the prices of consumption goods, L is leisure time, T is
the total amount of time available to an individual and H is the time en-
gaged in labor activity, w is the wage rate, and V is unearned income.

In order to evaluate labor supply in the form of secondary employment, it
is necessary to take into account that besides the unearned income a
person receives earned income from his main job at the wage rate W_1,
having worked H_1 hours. Then if the labor supply for the secondary work

is H_2, and wage rate is W_2, and we omit the prices, considering all monetary parameters as nominal, the model of secondary employment labor supply looks like the following (Shishko, Rostker, 1976; Conway and Kimmel, 1992):

$\quad$ Max U $(W_1H_1 + W_2H_2 + V, T - H_1 - H_2)$,

$\quad$ $C = W_1H_1 + W_2H_2 + V$,

$\quad$ $T = H_1 + H_2 + L$.

Thus the function of secondary employment labor supply to be estimated is

$\quad$ $H_2 = H_2$ (W_2, H_1, W_1H_1, V, X),

where X is the set of individual socio-demographic and economic characteristics.

We suppose here that decisions to participate in main and secondary employment are made sequentially, but not simultaneously, so the characteristics of the first job (including the wage) are regarded as exogenous parameters for deciding about secondary employment participation and the amount of work taken on there. This assumption is not a necessary one, but it is admissible as the second job is usually really additional, and it emerges in response to restrictions in the first job.[5] The assumption of a two-step decision-making process also gives us the opportunity to avoid estimating an additive labor supply function for both the first and second job. This assumption simplifies the analysis, but it does not exclude the assumption of the inverse influence of secondary employment on the hours worked on the main job.

This theoretical model lets us conclude that an increase in unearned income and earnings in the main work will produce a negative effect on secondary employment labor supply, ($\partial H_2/\partial V < 0$, $\partial H_2/\partial W_1 < 0$). An increase in the wage rate will effect the additional labor supply ambiguously, ($\partial H_2/\partial W_2 < 0$ or $\partial H_2/\partial W_2 > 0$), as it will create both income and substitution effects. An increase in working hours on the main job will result in a reduction in additional employment through a reduction in total time remaining for the secondary job and through an income effect owing to an increase in total earnings from the main job ($\partial H_2/\partial H_1 < 0$).

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[5] We can suppose that for jobs with different non-pecuniar costs and benefits, that is for heterogeneous job positions, the simultaneous decision whether to participate in both the first and second job is more typical, but even in this case, the second job is usually a necessary addition to the first one, mainly in terms of the choice of working hours.

This theoretical model shows that when the worker is interested in additional employment, two situations can exist (Conway and Kimmel, 1992).

The first case is when the amount of hours worked on the main job is constrained (H_1 = max) and underemployment arises. In this case, utility maximization lets the worker accept additional employment with wage rate W_2 smaller than for the main job W_1 (Fig. 1a) but greater than wage rate $\underline{W}_2$, which can be considered as a reserve wage for secondary employment.

The second case, when the amount of hours worked on the main job is not constrained, a worker maximizes utility, selecting the most desirable amount of working hours. In this case additional employment is possible only when the wage rate for the additional job W_2 is greater than the wage rate for the main job W_1 (wage rate ratio $W_1/W_2 < 1$). The substitution effect here results in a positive labor supply for the second job (Fig. 1b). In this case we need to explain why, in spite of the fact that the wage rate for the second job is greater than for the first one, the worker does not abandon the first job and accept the second job as his main and only one. It is reasonable to assume that such behavior is provoked by differences in non-wage characteristics (status, stability, working conditions, non-pecuniary benefits) of the first and second job. In this case, despite the higher wage rate for the second job, this job still remains additional, as it is, as a rule, determined by the share of time spent working on each job. Strictly speaking, the heterogeneity of the first and second job in terms of non-wage characteristics can result in secondary employment even in the situation when the wage rate for the second job is less than for the first one, but there is higher profit or smaller costs that are not expressed in wages for the second job .
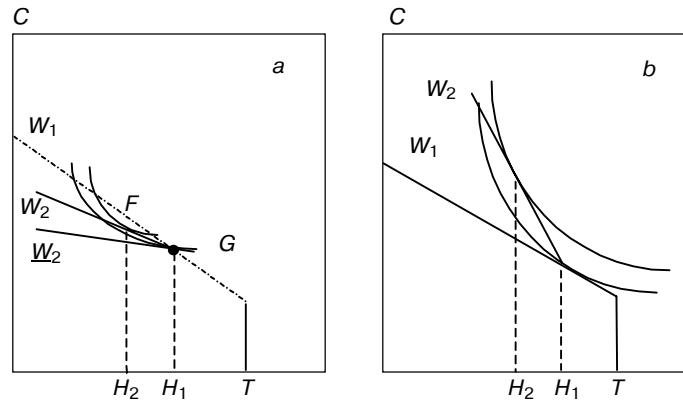
Fig. 1.

The first empirical research on secondary employment was originally based on the analysis of the first case (Kilingsworth, 1983; Shishko and Rostker, 1976; Krishnan, 1990). In the recent research of Kimmel and Conway (1995, 1992), an attempt is undertaken to divide secondary employment into two situations depending on the reasons for its emergence. The set of behavioral situations for the analysis of secondary employment including both cases can be represented by the matrix below.

Proceeding from this classification, several hypotheses on the behavior of these groups have been proposed by Kimmel and Conway (1992). They suppose that group 1 will have secondary employment for longer periods of time in the absence of a predictable ratio of wage rates for the first and second job (wage rate ratio W_1/W_2 can be > 1 or < 1). On the contrary, group 2 is employed in a secondary job in response to labor supply constraints on the first job and is expected to be engaged in the second job only for short periods. In the long run, they are expected to find a main job that will be more suitable for them in terms of working hours. Besides, the wage for a second job will not be greater than for the main one if all other parameters of the two jobs are identical. Then, as a whole, we expect: 1) shorter episodes of secondary employment in lower paid jobs if the motive of time constraints is more important, and 2) longer episodes of secondary employment in the absence of a predictable wage rate ratio W_1/W_2 and if a motive of heterogeneity of jobs exists.

People	Time at primary work is	
	Unconstrained	Constrained
Participating in secondary employment	1 group	2 group
Not participating in secondary employment	3 group	4 group

Paxson and Sicherman (1996) proposed another approach to the theoretical analysis of secondary employment. In the dynamic situation they analyzed secondary employment decisions and decisions to change jobs as two alternative types of workers' behavior, aimed at overcoming the limited opportunities of time and income on the main job. At the same time, these authors accepted the assumption about important constraints on secondary employment, as they consider that it can emerge only if the wage rate for the second job is smaller than for the first one

($W_1/W_2 > 1$). As the non-wage heterogeneity of jobs is not taken into consideration, workers are always supposed to consider the job with the higher wage rate as the main one. The result of this model is the conclusion that changing jobs decreases the probability of secondary employment in the following period.

3. THE MOTIVES OF SECONDARY EMPLOYMENT

If we suppose that secondary employment does exist[6] and is voluntary, it means that those workers who have secondary employment are getting some additional profit or utility from this situation compared to the period when they have no additional work. The additional utility can be connected with the additional income from secondary employment, but there is still no explanation why this additional income is earned by means of a second job and not from the first one. The problem of secondary employment motives is not only a question of the level of incomes of those who have additional work, but it is also a question of why this additional work is realized in the form of a second job and not by an increase in time worked on the main one.[7]

Several implicit assumptions form the basis of the idea that the wish to get additional income is one of the main motives for undertaking secondary employment. First, the second job would become necessary only if the first one doesn't permit a worker to increase his earnings. It occurs when the time worked on the main job is limited by some level that is smaller than the individual's preferable amount of work time or when the earnings on the main job are limited due to a lower wage rate. In the latter case the second job would be profitable only if the secondary employment wage rate is higher than the wage rate for the main job.

For the Russian situation we suppose that wage rate ratio W_1/W_2 for the main and second jobs would be greatly influenced by wage non-payment

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[6] Here we discuss the motives of secondary employment from the side of labor supply, but it is clear, of course, that for the existence of secondary employment, certain assumptions about labor demand are also necessary, primarily, the availability of job positions with a flexible (part-time) working regime.

[7] Sociological surveys usually ignore this problem, and questions are asked in such a way that when respondents rank their motives for secondary employment, they put the motive of increasing income in the first place (the share of respondents who had a second job and mentioned the necessity of increasing income as the main motive of secondary employment was 84% (Khibovskaya, 1995), 83% (Perova, Khakhulina, 1997), and from 80 to 90% (Klopov, 1997; Khakhulina, Stivenson, 1996).

and arrears on the main job. The last hypothesis is to some extent confirmed by the results of sociological research: of the high share of those who have secondary employment, only 18% of respondents get their wages regularly (Dokuchaev, Kolesnikov, 1998).

The proportion between wage rates for the main and secondary jobs should also be influenced by the character of additional available job positions. If these job positions belong to the informal sector of the economy or, more precisely, are connected with informal labor relations, then their advantage is the opportunity to escape taxation. In this case, even if the gross wage rates for both jobs are equal, the net (free of taxes) wage rate for the second job will be higher.

The second implicit assumption regarding additional income as the main motive for secondary employment is that we also suppose that workers participating in secondary employment have lower individual value of leisure and are able to substitute their leisure time with additional work and, hence, additional income. Some research on secondary employment (Arsent'eva, 1998) has actually mentioned the higher labor motivation of those who are engaged in secondary employment compared with other workers. Two thirds of the respondents who had additional work also had attained it earlier in the pre-reform period. Among those who were engaged in secondary employment, only 23% agreed not to work if they could get benefits large enough to maintain an average (not poor) living standard (comparing with 41% of those in the total sample). The share of respondents for whom work is the main source of support is equal both for those who have additional work and those who don't have it — 81%. But the share of those who prefer to work overtime and get higher income is more in the first group (63.5% of respondents) than in the second one (43%) (Arsent'eva, 1998).

To understand the motives of secondary employment, it is necessary to answer the question why, if the second job provides a higher wage rate, doesn't the worker leave the first job for the second one and why doesn't this second job become his main one?

A number of explanations can be found: 1) lower status of the second job compared with the first one; 2) limitation on the number of working hours on the second job that doesn't permit work there to be full-time; 3) non-stability of secondary employment, the irregular character of the secondary earnings, and the high level of risk for the second job; 4) the non-availability of secondary employment if the worker has no status provided by the first job (for example, nobody would invite a university professor as the expert or scientific editor in a publishing house if he terminates his work as a university professor).

Besides the additional earnings, the second job can provide some non-wage benefits, as, for example, non-pecuniary remuneration or the availability of material and informational resources. In sociological research, this motive of secondary employment is fixed as "the searching of new opportunities" (19% of respondents (Klopov, 1997), 23% of respondents (Khakhulina, Stivenson, 1996)), and is summed up in these answers: "I wish to make new contacts, acquaintances," "... to get a stable job," "... to have a more interesting job, to realize my abilities." An internal ranking of this second motive according to these types of answers is as follows: the motive "... to have a more interesting job, to realize my abilities" — 10%, "I wish to make new contacts, acquaintances" — 8%, "... to get a stable job" — 5% (Khibovskaya, 1995).

These respondents' replies permit us to propose the hypothesis that secondary employment can be regarded as a specific form of "prolonged mobility" or "delayed quitting," that is, the search for and choice of a new job when the worker starts his job search while not quitting the previous job. In this case the worker can start his work at the new job on part-time terms, in the form of secondary employment, in order to find out whether the new job is adequate for his requirements and abilities. This hypothesis implies that in this case secondary employment can't have a prolonged character; it should be temporary and either terminate if the worker is not satisfied with his new job or become his main job if it is suitable and the worker can be employed there full-time.

The third place among the motives of secondary employment in the VCIOM surveys (2% of the respondents) is the wish to occupy free time (Khibovskaya, 1995). This motive can be typical for "workaholics" or for single people who are not burdened by family obligations. Such secondary employment can exist even if the wage rate for the second job is not high but the worker seeks for additional labor activities to fulfill some kind of social need. The essence of this type of secondary employment is quite close to social (unpaid) work for the community or for time spent on a hobby.

4. RESEARCH HYPOTHESES

On the basis of the theoretical model and the results of sociological studies, we've proposed and verified the following hypotheses.

Hypothesis 1. Secondary employment depends negatively on individual income received from the first job. Hence a positive effect of wage arrears on the first job upon the secondary employment decision and corresponding amount of working time is supposed.

Hypothesis 2. There is the effect of the family income level on the secondary employment decision. This effect can exist in two forms. First, according to the theoretical assumption about income effect, the influence of other household members' income on a secondary employment decision should be negative. Second, according to the theoretically assumed effect of an additional worker, the secondary employment decision should be negatively influenced by the number of working household members and positively influenced by the existence of someone unemployed in the family.

Hypothesis 3. Time spent working on the first job negatively influences labor supply in the form of secondary employment. At the same time the influence of some characteristics of secondary employment on the amount of time worked on the first job is possible.

Hypothesis 4. Secondary employment decisions are positively effected by constraints on working hours for the first job.

Hypothesis 5. Secondary employment is caused by heterogeneity of job positions for the first and second job. This heterogeneity is expressed not only in different wage rates but also in the different set of benefits and costs of working in a particular job position: additional payments, connections, access to information, status positions. This heterogeneity is also reflected in the different professional and qualification characteristics of the first and the second job.

Hypothesis 6. There is the positive dependence of job mobility, *i.e.*, changing the main job on the existence of secondary employment in the previous period.

5. PRIMARY RLMS DATABASE ANALYSIS

5.1. Definition and expansion of secondary employment

This research of secondary employment labor supply was conducted on the basis of four rounds (5-th, 6-th, 7-th, 8-th) of the RLMS panel survey, corresponding to the years 1994, 1995, 1996 and 1998. The descriptive statistics of variables used here and in later chapters for modeling secondary employment labor supply are represented in the Appendix, Table 8.

The RLMS questionnaire give us the possibility to generate several groups of the respondents having secondary work, and to distinguished them from each other by extending the concept of secondary work:

- those who have a permanent second job or any additional earnings (regular and irregular), *i.e.* any second job;

- those who have only a permanent second job;

- those who have a permanent second job or regular additional earnings;

- those who have only additional earnings, both regular and irregular.

Shares of all mentioned groups among the employed population are represented in Table 1.

Table 1. Share of those who have secondary work in the employed population.

Groups of those who have		5-th round, 1994	6-th round, 1995	7-th round, 1996	8-th round, 1998 г.	Total
No secondary work	N	3795	3586	3474	3649	14504
	%	87.8	89.7	89.8	90.5	89.4
Any secondary work	N	526	414	394	384	1718
	%	12.2	10.3	10.2	9.5	10.6
A second permanent job	N	203	179	169	183	734
	%	4.7	4.5	4.4	4.5	4.5
A second permanent job or regular additional earnings	N	244	223	211	219	897
	%	5.6	5.6	5.5	5.4	5.5
Any additional earnings	N	353	251	239	229	1072
	%	8.2	6.3	6.2	5.7	6.6
Regular additional earnings	N	71	60	56	64	251
	%	1.7	1.6	1.4	1.6	1.5
Irregular additional earnings	N	282	191	183	165	821
	%	6.5	4.8	4.7	4.0	5.0

As we have already mentioned, the estimates of secondary employment expansion based on the RLMS data are lower than the estimates based on the VCIOM data. This bias can be explained by the different survey intervals (RLMS — once a year, VCIOM surveys — once a quarter and once a month) as well as by the possible concealment of some part of informal employment by respondents. The results of the 8-th round permit us to judge whether the RLMS data reflect informal secondary employment. Here the question was included whether the labor activities for the main or additional job are officially registered or informal. Only 2.2 % of the respondents have informal employment for their first job, but 25.9% have informal employment for their secondary permanent job. This estimate is lower than the one attained by the VCIOM surveys. But if we add to the quarter of people informally employed in a second permanent job the amount of those who earn additional earnings, supposing they are mainly informally employed, we get about 60% informally employed among all those who are employed in secondary work. This result correlates with the results of the VCIOM surveys (Perova, Khahulina, 1997).

5.2. Wages and incomes

One of the main items in the models of labor supply is the response of labor supply to changes in wages. The wage received by the respondent on the main job is determined here as the sum of money received during the last month. Wage non-payments and arrears are a special problem. In order to take into consideration wage arrears, we calculated a so-called "contract" wage. For those who did not get paid for the previous month and had wage arrears, the monthly debt was calculated and taken into account in the variable "contract" wage. Meantime, in the regression model estimation, arrears and non-payments of wages during the previous month were taken as independent variables because arrears can take place in the case of positive payment in the last month as well.

The amount of family income in addition to the income of the respondent was estimated on the basis of two types of information — 1) on the individual incomes of all family members during the last month, 2) on the total family income during the month. As there are lots of contradictions among these data, in our accounts we used the greatest of the following figures: 1) the sum of incomes of all other family members except the respondent; 2) the total family income during the month minus all income of the respondent.

All monetary parameters, wage and income were reaccounted by means of regional deflators to 1998.

The wage for the secondary job (Table 2) forms 25% of total income received from the first and second job. If we take into account wage arrears on the first job, it becomes clear that approximately half of the income from secondary employment is provided by additional work. Those who have a second job in the form of a permanent position have smaller earnings from the first job and higher total earnings from two jobs than those who have a second job in the form of additional earnings. Thus a comparison of average earnings permits us to suppose that secondary employment as a permanent job mainly depends on the restriction on earnings of the first job than on other forms of additional employment, but this hypothesis needs further testing by regression analysis.

Table 2. Average monthly earnings (rubles, reaccounted by means of regional deflator to the wage of 1998).

Group of workers	A	B	C
Have only one job	1445	1021	–
Have any secondary work	1473	1070	1975
Have a permanent second job	1400	1042	2072
Have additional earnings	1504	1078	1950

A — Average wage on the first job (only for those workers to whom the wage was paid).

B — Average wage on the first job (including those workers to whom the wage was not paid).

C — Average total wage on the first and second jobs.

Usually the wage rate for the second job exceeds the wage rate for the main job (Table 3); this supports the hypothesis about the heterogeneity of the non-wage characteristics of the first and second jobs. It can also prove that secondary work reflects a situation of "continuous" mobility, when a worker is in the process of transition from the first job to the second one, yet not having abandoned the main one, but already working on the other.

The higher wage for the second job can be explained by the informal character of the second job. This conclusion is also proved by the fact that the wage rate in the case of additional earnings is higher than the wage rate in the case of a permanent second job. If we suppose that additional earnings usually mean informal employment while only a quarter of the permanent second jobs are informal, then higher wages

are also due to non-payment of taxes and the absence of institutional limits on the amount of earnings. The difference in wages in the case of a permanent second job and in the case of additional earnings is also influenced by the less regular character of additional earnings. For the second permanent job, the total remuneration can include different elements of non-regular payments (benefits, bonuses) as well as non-pecuniary forms of remuneration, while in the case of additional earnings all payments are connected with work really done and are in pecuniary form.

Table 3. Differences in wage rates (per hour) for main and secondary job (corrected with respect to arrears and reaccounted by means of regional deflator to the wage of 1998).

	W_1, (rubles)	W_2, (rubles)	Share of the workers for whom $W_1 > W_2$, in percent
For any secondary work			
All	11.98	52.12	22.2
Men	13.50	68.92	16.1
Women	9.70	26.65	31.1
For a second permanent job			
All	13.07	29.05	35.5
Men	16.65	42.40	32.7
Women	9.31	16.94	37.9
For secondary work in the form of additional earnings			
All	11.38	67.84	13.9
Men	12.08	82.26	8.6
Women	10.03	38.04	24.6

Attention is also drawn to the fact that the wage rate ratio $W_1/W_2 > 1$ for women is more frequent than for men. This fact is directly connected with secondary employment in the form of additional earnings, so it is possible that for women secondary employment due to constraints of time and opportunities in the main job is more typical. We can also see that the wage rate ratio $W_1/W_2 > 1$ in 35.5% of the cases for a second

permanent job and only in 13.9% of the cases for a second job in the form of additional earnings. This confirms the fact that for a second permanent job there is no strict proportion between the wage rates W_1 and W_2, so it is possible that a permanent second job is connected both with limited opportunities in the first job and with the heterogeneity of jobs.

5.3. Hours of work

Hours of work during the month were estimated by asking respondents how many hours they really worked during the previous month. Of course, in the situation of full employment in one position, the respondents point out as a rule the time of just being at the job place or the standard duration of working time and not the time really worked. This leads to an estimation bias of both hours of work and wage rates that are calculated by dividing monthly earnings into hours of work mentioned by the respondents. It seems impossible to estimate the sign of such a bias as well as to correct it on the basis of the database used because of the two-way distortion probability, but we can non-ambiguously affirm that it leads to smoothing the data on hours of work and to its differentiation decreasing, all other things equal.

Table 4. Average amount of working time during the month (in hours).

Groups of workers	Hours of work
Have only one job	165.22
Have any secondary job	184
Have a permanent second job	202
Have additional earnings	173

While on the first job more than half of workers work 160–200 hours per month (or 40–45 hours per week) (Fig. 2), on the second job 70% of workers work not more than 20 hours per month (that is, 5 hours per week) (Fig. 3). Such difference is directly linked with the time limitations due to employment in the first job.

The analysis of hours of work on the first and second job in the form of additional earnings shows an important difference in the structure of working time. For the secondary work in the form of additional earnings, more than 60% of workers work up to 20 hours per month, 16% — up to
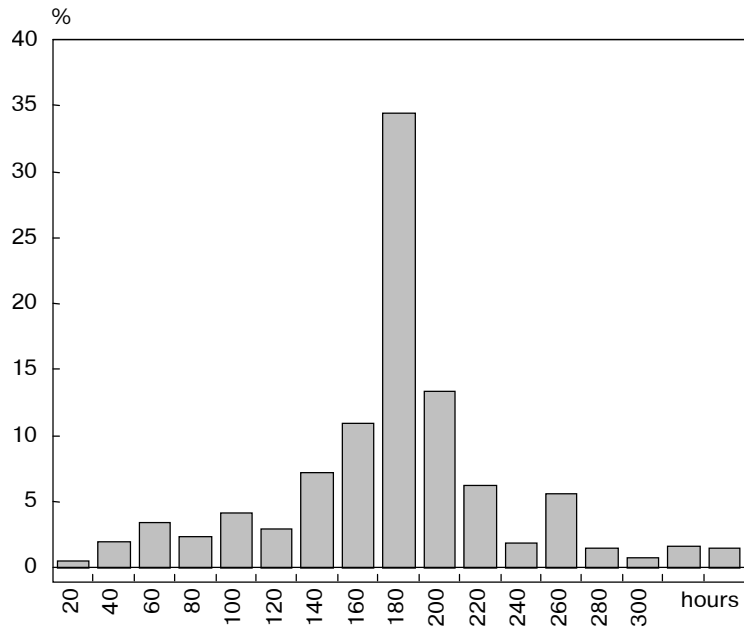
Fig. 2. The distribution of monthly hours of work.
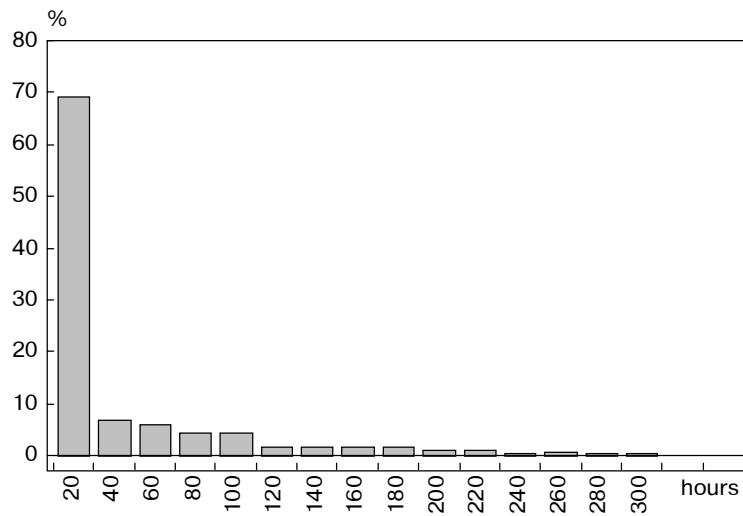
Fig. 3. The distribution of monthly hours of work at the first job.

40 hours, 8.5% — up to 60 hours (Fig. 4). The working time for a second permanent job is higher and the majority (75%) of those who have this sort of work are more equally distributed in the interval of 20–100 hours of work (Fig. 5).
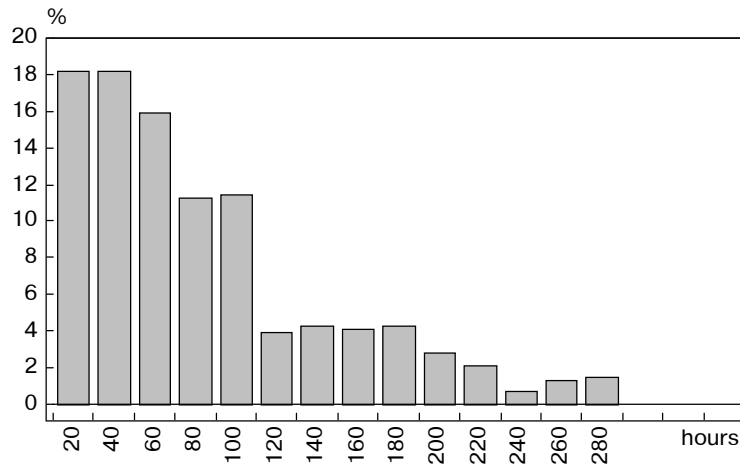
Fig. 4. The distribution of monthly hours of work for the second permanent job.

We can suppose that those who work not more than 180 hours on the first job meet the institutional limits of time[8] (there are 70% of such workers among all the employed). If the main cause of secondary employment is the impossibility of extending working hours at the main job place, then additional employment for such workers is more probable. The analysis of the below crosstable (Table 5) does not testify to this: the workers who have a second job are almost equally present both among those who have time limits on the first job and among those who have no such limits.

According to the theoretical secondary employment model, we can suppose that if such motive as a limitation on the working hours for the first job place is widely spread, then for people employed in secondary jobs

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[8] Of course, those who have a relatively small number of hours of work, for example, less than 100 per month, are unlikely to meet institutional time limits, but as we think that the number of such workers is not large and we have no information on whether this regime is voluntary or involuntary, we do not study these workers as a special group.

with limitations on the working hours for the first job, the probability that $W_1 > W_2$ would be higher. The analysis presented in the below crosstable (Table 6) testifies in favor of this dependence, allowing us to affirm that time limitations for the main job effect the secondary employment decision. We can also mention that for a permanent second job, the absence of a predictable wage rate ratio W_1/W_2 is more typical, while for secondary employment in the form of additional earnings ("prirabotki"), the wage rate for the secondary work is usually higher than for the first one.

Table 5. Ratio of secondary employment and limitations on working hours for the first job(100% along the line).

	There is no secondary job	There is a secondary job
$H_1 \leq 180$ hours per month	89.08	10.92
$H_1 > 180$ hours per month	90.19	9.81

Table 6. Ratio between the wage rate ratio and limitations on working hours for the first job (100% along the line).

	$W_1 < W_2$	$W_1 > W_2$
	Any additional work	
$H_1 \leq 180$ hours per month	74.45	25.55
$H_1 > 180$ hours per month	89.62	10.38
	Permanent second job	
$H_1 \leq 180$ hours per month	61.25	38.75
$H_1 > 180$ hours per month	78.65	21.35
	Additional earnings ("prirabotki")	
$H_1 \leq 180$ hours per month	82.78	17.22
$H_1 > 180$ hours per month	96.05	3.95

5.4. Professional status

Unfortunately the computer codification of professions and status positions of the RLMS respondents leads to substantial distortions in professional status[9] and doesn't permit us to carry out profound comparative

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[9] The statement is based on Klara Sabiryanova's experience of the RLMS data analysis. The authors are grateful to Klara Sabiryanova for valuable consultations on this issue.
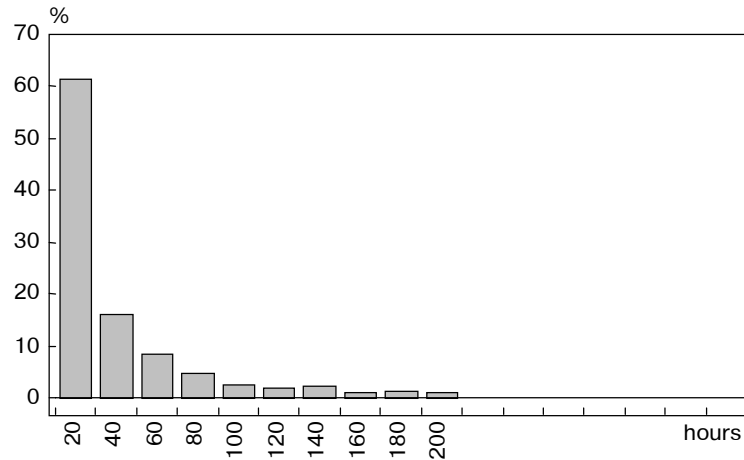
Fig. 5. The distribution of monthly hours of work for the additional earnings.

microanalysis of the impact of professional status on the first and second job decisions. Still some conclusions can be made on the basis of comparing aggregated professional groups.

To compare the professional characteristics of the first and second job, all workers were distributed into six groups according to professional status — executives, professionals, specialists, clerks, skilled workers, non-skilled workers.

We can see a decrease in the share of two groups: a little bit for skilled workers and for about one-third for professionals. The professional groups of executives, specialists, clerks increase their share slightly. The share of non-qualified workers grows two-fold. So the professional structure for the second permanent jobs does not change greatly comparing with the professional structure for the main jobs, but on the whole the number of less qualified jobs increases.

Concerning transitions between groups (Table 7), the relatively low mobility of skilled workers, non-skilled workers and professionals is obvious: more than 50% of them have secondary work of the same type as their first job. The highest mobility is typical for groups of chiefs, specialists, clerks and attendant personnel. So, as the RLMS "professionals" group includes workers without higher education, we can say that a higher educational level leads to relatively greater professional mobility. For "white collar workers," permanent secondary employment is mainly linked to the heterogeneous character of job vacancies. In comparison

with "blue collar workers," they are expected to have access to a larger number of job possibilities for secondary employment.

Table 7. Ratio of the professional status in the first and second job for those who have permanent additional work (100% along the line).

Status in the first job	Status in the second permanent job					
	A	B	C	D	E	F
A	32.1%	32.1%	10.7%	10.7	7.1%	7.1%
B	6.4%	54.3%	14.7%	9.4%	8.7%	6.4%
C	3.2%	15.8%	26.3%	21.1%	14.7%	18.9%
D	1.3%	8.8%	10.0%	36.3%	13.8%	30.0%
E	1.6%	3.2%	11.1%	6.9%	58.7%	18.5%
F	0%	0%	12.7%	14.1%	16.9%	56.3%
Total	4.5%	24.9%	14.4%	13.7%	23.8%	18.7%

A — Executives.
B — Professionals.
C — Specialists.
D — Clerks.
E — Skilled workers.
F — Non-skilled workers.

On average for all professional groups, 49.1% of the respondents have the same professional status. If we compare individual professional status of the first and second job, we'll see that the status of the first and second job is the same only for 20.9% of those who have a secondary permanent job (of course, it is necessary to take into account the errors of automatic codification of professions). On the whole the conclusion can be made that permanent secondary employment is unambiguously connected with the heterogeneity of job vacancies. Unfortunately the available database makes it impossible to estimate to what degree this cause prevails above the other causes. But taking into consideration that the second job is often escorted by a decrease in professional status, as it was revealed in our research, we can suppose that this reason is not the main reason for all people with secondary employment, but it is widely spread among very high-skilled workers. For less skilled workers, secondary employment is linked with limited opportunities in the main job that are overcome by the means of choosing a similar second job.
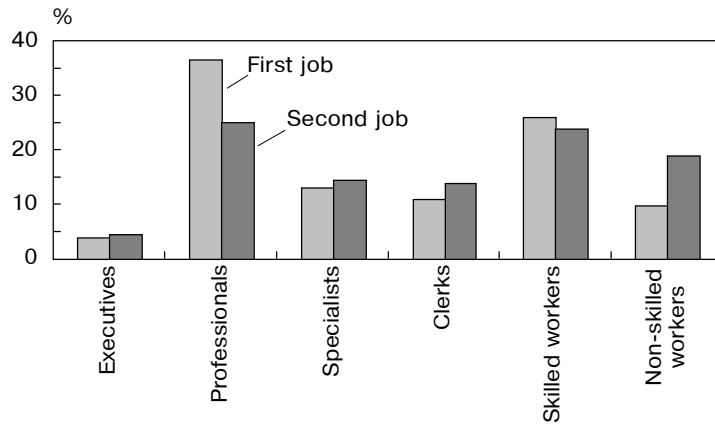
Fig. 6. Distribution employees by professional status for both the main job and a second permanent job.

6. REGRESSION ANALYSIS

In our regression analysis several dependencies were investigated. 1) The equation defining the decision to participate in secondary employment was estimated by means of a probit analysis model. Taking into consideration the panel character of the data, the logit model with fixed effects was also estimated. 2) The Mincer equation of incomes was estimated for the second job. 3) Tobit analysis of the labor supply for secondary employment was conducted using the variable of wage rates predicted by the Mincer equation. 4) The effect of second job earnings on working hours on the main job were studied. 5) The dependencies of the intention to change jobs on the existence of secondary employment were estimated; then the interdependence of workers' mobility and their secondary employment was analyzed.

6.1. Decision to participate in secondary employment

In order to model the decision to participate in secondary employment, we constructed four variables according to the different concepts of additional work:

- all registered secondary employment including both permanent second jobs, and regular and irregular additional earnings,

- permanent second jobs and regular additional earnings,

- permanent second jobs only

- regular and irregular additional earnings.[10]

The four groups of variables that were included in the equation as explaining. First, the social and demographic characteristics of an individual and his family. Second, the professional and economic characteristics of an individual in the first job as well as the characteristics of the first job position. To verify the hypothesis about the effect of limited hours in the first job, a dummy variable was used that divides all workers into two groups: those who have more or less than 180 hours of work per month on the first job. The third group of variables is the characteristics of territory. The fourth group is the characteristics of time, that is the year the survey was conducted.

Based on the estimates for decisions about secondary employment in any form, the following conclusions can be made (Appendix, Table 9).

The decision to take on secondary employment depends negatively on the amount of "contract" wage received for the main job, which means that the hypothesis of the main earnings income effect is confirmed. The same dependence is found for amounts of pension.

Family income has no effect on deciding to take on secondary employment. So, for decisions about secondary employment, family income level is less important than the opportunity to receive higher income from the main job. There is the negative effect of the number of working members of the household (and the number of family members as a whole) on decisions about secondary employment. It can be treated as indirect evidence of the importance of household income level for decisions on secondary employment. In large families, the stability of income is higher, so the employment of the other members of the household is an alternative to secondary employment of the main worker. At the same time secondary employment does not depend on the presence of registered unemployed members of the household; it means that seeking secondary employment is not a strategy taken by households to adapt to unemployment.

Secondary employment depends on sex and age characteristics. Men are engaged in secondary employment more often than women. Age has a negative effect on secondary employment. Higher education increases

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[10] Due to space limitation, the Appendix contains the tables with the results of the regression analysis only for secondary employment in the form of a permanent second job and in the form of additional earnings.

the probability of secondary employment; specialized secondary education also has a positive effect on the secondary employment decision, but to a substantially smaller degree. Marital status does not influence participation in secondary employment. A positive effect is produced by the number of children aged 3 years and older .

The amount of working hours on the main job, according to the theoretical assumptions, has a negative effect on the secondary employment decision, by reducing time available for the second job and increasing the total income from the main job. At the same time there exists a positive relationship between secondary employment and the variable that characterizes the limitation of hours of the first job. The probability of secondary employment is higher for those who work more than 180 hours on the first job. Thus, despite the negative effect of the total hours of work on the first job, with all other conditions equal, the workers with an extremely long work week for the first job (who are the most active in the labor sphere) have secondary employment more frequently. Perhaps this result is connected with the strong substitution effect for them as the wage rate for the second job for them is frequently higher than for the first job ($W_2 > W_1$).

Wages arrears positively effect the decision to take on secondary employment. The effect of having vacation without pay during the previous year for secondary employment is positive.

Secondary employment is much more spread in cities and especially in large cities than in rural regions. Among geographical regions (Northern Caucasus is taken as the basic variable) living in Moscow and St.-Petersburg has a positive effect on the secondary employment decision while the effect of living in Central and Central-Black-Earth, Volga-Vyatsky and Volga Basin, Ural and Western Siberian regions is negative.

Secondary employment in 1994 was greater than in 1998, while for 1995 and 1996 there was no significant effect on the expansion of secondary employment in comparison with 1998.

A series of similar accounts carried out for other variables according to different concepts of additional work has shown that not all revealed dependencies are preserved for a particular form of secondary employment (Appendix, Table 9).

The decision to choose secondary employment in the form of a second permanent job is influenced by fewer factors. The gender asymmetry of secondary employment is preserved although the coefficient of this variable decreases. The dependence on age disappears. The influence of the amount of pension for working pensioners disappears. The negative effect of working time spent on the main job on the secondary employment decision is kept. The positive effect of higher education is present

and even increases; the effect of specialized secondary education becomes less significant. Among family characteristics only the number of working family members and the number of children maintain its effect. The influence of non-payment of wages and involuntary vacation disappears. Among the territorial factors, the type of location preserves its influence. The influence of the year of the survey disappears, which indicates stability of decisions to take on a permanent second job, a lower dependence on the economic situation and greater dependence on the individual characteristics of the worker, his preferences (less value of leisure time) and accumulated human capital.

For the second job that arises in the form of additional earnings, on the contrary, a tremendously wide number of parameters influencing the decision to work are preserved. Gender asymmetry is preserved and even enlarged. A negative dependence on age shows that age effects secondary employment just in the form of additional earnings and not in the form of a permanent job. The influence of the amount of pension for working pensioners is preserved. Hours of work on and wages from the main job preserve their negative influence on the decision to take on secondary employment. But additional earnings are a little bit more affected by the actual paid wage, while the permanent second job is more affected by the hours worked on the main job. Contrary to the results for a permanent second job, for additional earnings the effect of wage arrears and involuntary vacation during the last year is preserved. Compared with a permanent second job, the effect of different education levels changes. Additional earnings, on the contrary to the results for a permanent second job, are influenced by family size factors. A negative effect is produced by the number of family members and number of working members in the family; a positive effect is produced by the number of children of any age. Among regional factors, living in Moscow or St.-Petersburg produces a significant influence. It becomes clear that there are direct correlations between the year of the survey data and secondary employment in the form of additional earnings. In 1994, the extension of secondary employment in the form of additional earnings was greater than in 1998.

On the whole, the conclusion can be made that the types of secondary employment — a permanent second job and additional earnings — are quite different both in their form and by the set of factors influencing the decision to take on secondary employment. Secondary employment in the form of a permanent job is less connected with monetary factors; this disputes the hypothesis outlined during the analysis of the correlation between average earnings from the first job and the type of second job. It also depends less on individual demographic characteristics. Secondary employment in the form of a permanent job depends greatly on

educational level (accumulated human capital) and on opportunities provided by the local labor market (the existence of enough job vacancies for permanent secondary employment). Additional earnings, on the contrary, depend mainly on monetary factors, individual and family opportunities and needs, and the regional labor market situation.

Taking into consideration the panel character of the data, estimation of the equations defining the decision to participate in secondary employment on the basis of logit models with fixed effects was also conducted. The model with fixed effects allows us to evaluate the influences of the parameter changes on secondary employment decisions, having excluded the influence of characteristics that remain constant during the period analyzed (for example, sex or area of location), so the dynamic but not static dependencies are analyzed.

The obtained results in many respects confirm the results of the static analysis. Theoretically, changes in wages on the main job should produce a negative influence on participation in secondary employment. The effect of secondary specialized education is positive. The model with the fixed effect confirms the correlation of the year of survey with the extension of secondary employment; 1994 and 1995 produced the greatest effect and the most statistically significant positive influence.

Estimations of the models with a fixed effect for decisions about taking on a second permanent job and additional earnings show that additional earnings are more sensitive to changes in the working hours for the first job, while the permanent secondary job is sensitive only to wage changes for the first job. The dependency of secondary employment on changes in secondary specialized education is positive for additional earnings, but there is no such dependency for the second permanent job. So, the model with the fixed effect revealed the significant influence of factors connected with the economic characteristics of the first job on secondary employment.

6.2. Income equation

We conducted an analysis of the factors influencing wages of secondary employment. Mincerian type equations were estimated.[11] The log of the wage rate (per hour pay) in secondary employment was analyzed as a dependent variable.

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[11] This analysis is based on a thorough study of investments in human capital in the RLMS data base by K. Sabiryanova and D. Nesterova (1998), where earnings on the second job were included in accounts as income additional to the main income.

Characteristics of education were included in the equations in two ways, the first variant as the number of years of education, and the second as two dummy variables, corresponding to secondary specialized or higher education. Our series of calculations show that the number of years of education doesn't have a statistically significant influence on the level of earnings. For our final calculations, we chose the second variant (dummies); they produced more favorable statistic parameters for the equation (greater R^2). As a variable reflecting experience or working stage, we used the age of respondents.

We supposed that the opportunities in the second job and subsequently wages from the second job are connected with the professional characteristics of the first job. These characteristics, testifying to the status position of the first job, also reflect accumulated human capital.[12]

The results of our calculations (Appendix, Table 10) show that wages from a second job of any type depend positively on gender characteristics (wages are greater for men), don't depend on age, negatively depend on secondary specialized education and don't depend on higher education. The professional status of the worker in the first job is very significant. The lowest wage is the wage of non-skilled workers; it grows subsequently for skilled workers, clerks, specialists, professionals, and chiefs. Regional labor markets influence the differences in earnings greatly. An analysis of the years in which the surveys were conducted shows a positive effect for the 1994, 1995, 1996 rounds in comparison with 1998. This is probably a result of the August 1998 crisis, when a reduction in real wages took place for almost all jobs.

Income equations estimated for the second permanent job and for the second job in the form of additional earnings show similar effects for the main parameters. There is some difference however: for additional earnings gender is more significant, and for a permanent second job secondary specialized education is significant. Both incomes from a permanent second job and additional earnings are influenced by the respondent's professional characteristics in the first job, but for a permanent second job, the significance is greater.

Thus, the result testifies that the income from secondary employment does not directly depend on individual characteristics, *i.e.* parameters

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[12] From the research by K. Sabiryanova and D. Nesterova (1998) we know that the characteristics of the job position influence earnings greatly. But the characteristics of the second job (that included additional earnings) in the available data base are insufficient and incomparable for different types of secondary employment. That's why they were not included in the equation tested.

of human capital. The effect of the characteristics of the regional and local labor market and professional status on the first job is greater than the effect of individual characteristics. This partly coincides with the results obtained for the equation estimating the income received from the first job (Nesterova, Sabiryanova, 1998), but for the first job, individual factors better explain the wage differential.[13] The non-influence of individual characteristics on incomes is probably connected with the fact that earnings on the second job are greatly determined by the parameters of the job position. Secondary employment often has a short-term character; it doesn't suppose accumulation of specific skills (non-influence of experience), professional characteristics of the job position do not often coincide with the professional position attained by education (non-influence of education).

In this case just the opportunity to find a "profitable" second job position is more important. Then the characteristics of the labor market where such jobs are located become significant as well as professional position in the first job.[14] These characteristics can be regarded as initial opportunities for the individual to engage in secondary employment. From this point of view the significance of gender can be interpreted. Besides the traditional difference in earnings of men and women in Russia, the higher earnings of men can be explained by better initial opportunities for secondary employment, the availability of a greater number of job places for secondary work and additional earnings.

6.3. Tobit analysis of labor supply for the second job

For an estimation of the amount of labor supply in the second job, we used tobit-analysis. To eliminate the problem of estimation bias, a new variable for wage was constructed: it is equal to the real wage rate for those who have secondary work, while for those who do not — to the wage rate predicted on the basis of the Mincer income equation.

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[13] For comparison we calculated the same equation with the same variables for the first job.

[14] Of course, the effect of professional status in the first job on the income from the second job can be regarded as the indirect confirmation of the effect of individual characteristics on secondary earnings as we can suppose that individual characteristics (education, experience) influence professional status in the first job. But to clarify these conclusions, special research of the factors determining professional and qualification status is necessary; however, such research was not included in our work.

The results of tobit-analysis show (Appendix, Table 11) that for any additional work, the hours spent on the second job depend negatively on the wage rate for the second job. It can be interpreted as the domination of the income effect for the second job, which means the labor supply curve has a negative bend.

Other results correspond with the predictions. The hours in the first job negatively influence the hours in the second job, which corresponds to the theoretic prediction. Monthly earnings from the first job and pensions also negatively influence the hours worked on the second job, confirming the expected income effect. Both the decision to take on secondary employment and the amount of labor supply for the second job are influenced by wage arrears. The hours of secondary work depend positively on wage arrears as well as on involuntary non-paid vacation in the previous year.

Gender is one socio-demographic characteristic that has a positive effect on the hours of secondary employment. Men work in a second job more frequently and spend more hours there. Age, on the contrary, has a negative effect. The hours of secondary work negatively depend on the number of family members, but positively depend on the number of children. The number of family members can produce an effect indirectly through family income or the value of leisure time. The number of children of school age mean a greater demand for additional earnings as research of living standards of families with children in Russia show that it is particularly families with children who have the greatest problems in supporting their welfare.

Both the decision to take on secondary employment and the hours of work are influenced by the educational level.

A comparison of the results (Appendix, Table 11) of the tobit-analysis for the second permanent job and additional earnings shows that the trends of dependencies that were specified for the second job as a whole are preserved; the differences between the types of second job are correspondent to those revealed by the analysis of decisions on secondary employment. Gender differences have a greater effect on hours of work for additional earnings and the variable of age is significant only for additional earnings. Secondary specialized education influences the hours of work spent on the permanent second job. For additional earnings, the hours of secondary work depend on pension, wage arrears and the sum of wage arrears, family characteristics and characteristics of the regional labor market. For the hours spent on permanent secondary work, the sum of wage arrears and local labor market characteristics are significant.

6.4. Dependence of the hours worked
on the first job on secondary employment

In our theoretical and empirical analysis of factors influencing the decision to take on secondary employment and its extension, we assume that decisions to take on the first and the second job are made in two steps. We in fact do not discuss and analyze the possible effects of the second job on the characteristics of the first job, except the situation when the attractiveness of the second job can lead to changing the main job, that is, to professional mobility. But this effect can surface in another way. Benefits of the second job, its high wage rate, can lead not to a two-step decision but to a simultaneous choice of working hours both for the first and second job, so an adjustment of working hours in the first job can occur. In other words, high earnings from the second job can diminish hours spent on the first job.

To verify this assumption, we estimated the dependency of the first job labor supply on the second job characteristics. The hours spent in the first job were used as the dependent variable. Explanatory variables include the traditional set of socio-demographic variables and characteristics of the first job. It also includes two variables characterizing the second job: the second job wage rate and dummy-variable, showing the ratio of wage rates received from the first and second job. The basic meaning of this variable is adopted when the second job wage rate is greater than the first one.

A negative effect of the second job wage rate on the hours spent in the first job was found (Appendix, Table 12). This means that the idea of a two-step choice of work time for the first and second job can be argued. Even taking into consideration that the respondents usually fix the hours of work that are just standard and not really worked, we still can state that there exists the phenomenon of "shirking" on the first job if the second job is more attractive.

At the same time there is a negative dependence of the hours worked on the first job on the ratio of wage rates for the first and second job. The hours worked on the first job are less if the wage rate for the first job is more than that for the second. This result confirms the statement that despite the "shirking" effect, those workers who work comparatively less on the first job meet the constraints of the possibilities to extend their labor activities in this job. That's why for them secondary employment can exist even if the wage rate for the second job is less than for the first job.

6.5. Interdependence of the intention
to change jobs and secondary employment

The intention to change jobs is an important parameter connected with the decision to take on secondary employment.[15] Including the variable "intention to change jobs" in the equation of the probit analysis of decision making about secondary employment gave us information about its positive effect on secondary employment. The inverse regression where the intention to change jobs was used as a dependent variable also presented a positive effect of secondary employment on the changing of jobs. This regression showed that the effect of the second job in the form of additional earnings on the intention to change jobs is more than the effect of the second permanent job.

During the preliminary analysis we outlined the hypothesis that the difference in wages received from the first and second job will positively influence the intention to change jobs. The regression analysis of the intention to change jobs was conducted. When the difference between the wage rates from the first and second work was included as one of the dependent variables, the analysis did not confirm this hypothesis. The difference between wage rates doesn't effect the intention to change jobs significantly.

So, secondary employment is undoubtedly connected with workers' mobility. It can be regarded as a signal of non-satisfaction with the main job and of a search for a new job. At the same time, a stronger intention of mobility is demonstrated by those who have a second job in the form of additional earnings but not by those who have a permanent second job. That's why "prolonged mobility" plays little role among the motives for a second permanent job. Job positions connected with additional earnings as usual cannot be regarded as a possible future permanent job after leaving the main one because work in the form of additional earnings has an occasional and short time character.

The fact that a permanent second job has less influence on the intention to change jobs testifies that the reason for such work is the heterogeneity of job positions.

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[15] The question about the intention to change jobs was not included in the 8-th round of the survey, so we can analyze the effect of such intentions on secondary employment only for the database of the 5−7-th rounds of the RLMS data.

6.6. Interdependence of mobility and secondary employment

To check the hypothesis of the interdependence of real (not declared) mobility and secondary employment, we performed a series of calculations.[16] Regression dependencies of three types were estimated: first, the variable of mobility was included in the equation which estimates the decision to participate in secondary employment; second, the effect of the second job on mobility was estimated using a probit-regression; third, for those who have secondary employment, the effect of the differences between the first and the second wage rates on mobility was estimated. As the information on mobility refers to the period previous to the time of the survey, the last two dependencies were estimated with respect to the time gap. The data on mobility are included in the equation for the wave t while all other characteristics including the existence and parameters of secondary employment for the wave $t - 1$.

Including the variable characterizing mobility in the previous period in the equation defining the decision to participate in secondary employment (Appendix, Table 13) revealed the existence of a positive dependence between changing jobs and secondary employment. This positive dependence is preserved for all concepts of secondary employment. That is, taking into consideration the idea that information about changing jobs refers to the period preceding the survey, we can make the conclusion that after changing jobs, the amount of time spent in secondary employment doesn't decrease but even increases. Thus those workers who are inclined toward greater labor mobility are more often engaged in secondary employment. Labor mobility does not permit us to solve the problem of optimizing labor activity within the framework of one job position. So, changing jobs and secondary employment are not alternative to but mutually inclusive of expanding the behavioral strategies of people who tend toward high labor activity.

Does secondary employment promote mobility? Whether it is one of the reasons for changing jobs as we had assumed in one of our hypotheses, we shall see. A probit-analysis of the decision to change jobs, dependent on different parameters including the presence of secondary employment, does not permit us to prove this hypothesis unambiguously (Appendix, Table 14). For secondary employment as a whole, we see a positive effect of secondary employment on further labor mobility, changing jobs or profession in the previous round of the survey. How-

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[16] The 7-th and 8-th waves of the RLMS data contain a question about changing jobs during the previous year. We regarded the answer to this question as a characteristics of workers' mobility.

ever, the calculations including dummy-variables on the presence of secondary employment in the form of additional earnings or in the form of a permanent second job (the absence of secondary employment in any form was taken as basic) did not reveal a statistically significant dependence on the decision to change jobs. A significant effect on mobility was produced by the following factors: gender (men more often change jobs), age, work experience in one particular job position, employment in a state (public) owned enterprise(all three parameters effect mobility negatively).

Thus, the hypothesis that the popular reason for secondary employment is "prolonged mobility," or to search for a new job was not proved at this stage of our research.

The results of the analysis of the effect of the ratio between the first and second wage rates on labor mobility also support this conclusion. Different wages are not an incentive for changing jobs.

7. CONCLUSION

Secondary employment is an important phenomenon visible in the contemporary Russian labor market. One fifth of the employed population is active on this labor market. Individuals with a second job get half of their labor earnings from additional work, and this occupation increases their hours of work by 1.1 to 1.25 times. On the other hand, analysis of the RLMS data including time variables shows that the amount of secondary employment has declined from 1994 to 1998.

An empirical estimation of the labor supply in the form of secondary employment made it possible to come to a set of conclusions. As a whole the main hypotheses about the response of individuals' secondary labor supply to the changes in wages and income from the first and second job were confirmed.

Our hypothesis 1 about the effect of individual income from the first job on the decision to take on secondary employment was confirmed. According to the theoretical predictions, the wage received from and the work time on the main job have a negative effect on the decision to take on secondary employment and the amount of time allocated to the second job. Receiving a pension has a negative effect on secondary employment and is a reflection of the income effect (for those working pensioners who have secondary employment). A more interesting result is the justification of the hypothesis about the determination of secondary employment by wage arrears and the administra-

tive non-paid vacation as an implicit impact on the income effect. These results give us reasons to say that secondary employment mostly depends on the intent to compensate insufficient wages received from the main job.

At the same time we did not find any dependence of the amount of family material status on the decision to take on a second job according to hypothesis 2. Family income does not influence decisions about secondary employment. Three explanations were found. First, the data on household income are less valid than the data on individual income. Second, the existing data give us extremely poor information about the distribution of income within the household, and so the use of a simple mean income can bias the real situation, influencing the second job decision. Third, it may be that individual labor earnings and income transfers in the family are not absolutely substituted.

Secondary employment also does not depend on the existence of registered unemployed members in the family. This means that the additional worker effect or additional labor effort effect was not confirmed. Perhaps indirectly this effect takes place through the revealed negative influence of the number of working family members. We can state also that indirectly the family income status acts through the existence and number of children positively influencing the decision about secondary employment. All other things being equal, the number of children increases compulsory family expenses and through the income effect motivates secondary employment.

On the whole, we conclude that secondary employment is determined more by individual characteristics than by the strategy of economic and labor behavior of households.

The negative slope of the labor supply curve for secondary employment can be viewed as an interesting result. This negative slope can be explained by the real marginality of the hours worked on the second job from the point of view of the distribution of time between labor and leisure.

Among individual characteristics, both gender and educational level influence the secondary employment decision. The greater accessibility of a second job position for men and the greater value of leisure for women can explain the domination of secondary employment positions held by men. There are two interpretations of the positive impact of education. First, it creates a greater possibility for moonlighting and accessibility to a large variety of job positions, and, second, the level of education influences the desire for self-realization and for creative work, and so it is a source of non-income stimulus for additional employment.

Secondary employment is influenced by the regional and local labor market characteristics. It is more pronounced in cities where the labor demand level creates more job positions for moonlighting.

Our analysis has confirmed hypothesis 3, according to the predictions of the theoretical model, about the negative effect of the hours worked on the main job on decisions about secondary employment and the amount of work hours spent in the second job position. At the same time, hours spent working on the main job are not an absolutely exogenous parameter if secondary employment exists. A negative effect of the second job wage rate on the hours spent in the first job was revealed. It means that the "shirking" effect takes place in the first job if the second job wage rate is attractive enough for the employee.

There is no absolute answer to the question about the secondary employment motives.

We found a robust relationship between secondary employment and the intention to change one's primary job. But hypothesis 6, about the connection between secondary employment and job searching and job changes in later periods, was not non-ambiguously confirmed. On the contrary, we found an inverse dependence testifying that job changing increases the probability of secondary employment in the next period, so both types of behavior complement each other, reflecting the inclination toward greater labor activity.

We state that hypothesis 5 was also confirmed and secondary employment is linked with first and second job heterogeneity. There is no contradiction to the assumption that the limitation on hours worked on the first job is the main reason for secondary employment, but this conclusion explains why there is no shifting to the second job as a main job if the wage rate for the second job is higher than for the first one.

Hypothesis 4 about the effect of the limitation on working hours for the first job on secondary employment was not confirmed. On the contrary, a non-robust positive effect of extended hours on the first job on secondary employment was found.

There are several explanations. First, as a rule, earnings have a weak relationship to time worked; earnings depend either on concrete results of the work or on professional status. So limitations on work hours does not mean extending work hours is impossible, but there are limitations in the ability to increase total earnings by means of prolonging working time on the first job. Second, job position heterogeneity and limitation of the possibilities within the main job do not act as alternatives but as complements. They conceal each other, preventing us from finding what reason prevails. Third, limitation on work hours for the first job can exist

not only in the situation of standard working time, it can emerge in any other situation and depends on individual preferences and wage rate. So by including in the model the variable that divides all workers into two groups according to the amount of hours worked did not permit us to define the effect of limitations on working time for the first job on the secondary employment decision.

Nevertheless, the fact that secondary employment exists when the secondary job wage rate is less than the first one testifies that the limitations on the first job effect secondary employment decisions.

The answer to the question about the causes of additional employment should be based on a more thorough study of the different forms of secondary employment, all of which can be based on different reasons. So, our analysis made it possible to extract two different types of secondary employment — the second permanent job and additional earnings. Moonlighting in the form of a permanent second job is less dependent on monetary factors, individual demographic characteristics, and the regional labor market. The educational level and local labor market can explain this decision to take on a second job. Additional earnings, on the contrary, are to a great extent caused by monetary factors, individual characteristics, family needs and possibilities and the regional labor market situation. There is some difference in decision making about moonlighting in the form of a second permanent job and in the form of additional earnings. The permanent job is more influenced by the difference in the job position and non-pecuniary characteristics. Typically there is a non-stable correlation between the first and second job wage rates, and the amount of personal human capital is more significant for permanent second job than for additional earnings. Additional earnings are greatly influenced by shifts in individual income in the job position and are oriented to getting additional income.

APPENDIX

Table 8. Descriptive statistics of parameters for different groups of respondents who have or do not have secondary employment.

	Have any additional job		Have second job or regular additional earnings	
	Mean	N	Mean	N
How many hours did you really work in the main job position during the last 30 days (for those who did not work during the last month — 0)?	144.7	1642	142.2	857
How much money did you get during the last month on the main job after taxation (for those who did not get anything — 0)?	1070.4	1676	1161.2	868
Contract monthly wage on the first job	1335.4	1601	1387.8	835
How much were you underpaid in the first job?	1577.4	1519	1371.1	807
Whether you worked during the last month in the main job?	0.918	1717	0.913	897
Please, tell us, did you get any sum of money from your main job during the last month in the form of a wage, benefit, bonus, allowance, income, or profit?	0.733	1717	0.763	896
How much money did you get in the form of a pension during the last month?	21.3	1714	28.0	896
Total family income in addition to respondent's income	2084.4	1630	2216.2	846
Per capita family income in addition to respondent's income	622.7	1630	664.0	846

	Have any additional job		Have second job or regular additional earnings	
	Mean	N	Mean	N
Chiefs and owners of the enterprises	0.034	1713	0.044	893
Specialists and professionals	0.376	1713	0.442	893
Clerks	0.106	1713	0.120	893
Skilled workers	0.395	1713	0.296	893
Non-skilled workers	0.089	1713	0.099	893
If the state is the owner or co-owner of your enterprise?	0.712	1587	0.725	837
If foreign individuals or firms are owners or co-owners of your enterprise?	0.046	1598	0.056	837
If Russian individuals or firms are owners or co-owners of your enterprise?	0.358	1570	0.348	823
Is there now any debt that your enterprise did not pay you in due time for any reason?	0.524	1648	0.466	860
Did the administration send you on involuntary unpaid vacation during the last year?	0.115	1652	0.096	863
Do you want to change jobs (only for 5, 6, 7 rounds)	0.493	1292	0.456	655

	Have any additional job		Have second job or regular additional earnings	
	Mean	N	Mean	N
Gender (1 — male, 0 — female)	0.619	1718	0.554	897
Age	36.7	1718	37.6	897
Secondary specialized education	0.553	1718	0.520	897
Higher education	0.292	1718	0.357	897
Marital status (1 — married, 0 — single)	0.757	1716	0.740	896
Number of members in the family	3.47	1718	3.44	897
Number of children up to 3 years old	0.108	1718	0.089	897
Number of children 4–6 years old	0.262	1718	0.258	897
Number of children up to 7–17 years old	0.588	1718	0.589	897
Number of working members of the family besides the respondent	0.871	1718	0.828	897
Moscow and St.Petersburg	0.158	1718	0.191	897
Northern and North Western	0.075	1718	0.075	897
Central and Central-Black-Earth	0.162	1718	0.158	897
Volga-Vyatsky and Volga Basin	0.143	1718	0.130	897
Northern Caucases	0.123	1718	0.114	897
Ural	0.133	1718	0.143	897
Western Siberian	0.086	1718	0.093	897
Eastern Siberian and Far Eastern	0.121	1718	0.097	897
Cities	0.806	1718	0.837	897
Towns	0.047	1718	0.049	897
Rural settlements	0.147	1718	0.114	897

	Have any additional job		Have second job or regular additional earnings	
	Mean	N	Mean	N
1994	0.306	1718	0.272	897
1995	0.241	1718	0.249	897
1996	0.229	1718	0.235	897

	Have second regular job		Have any additional earnings ("prirabotki")	
	Mean	N	Mean	N
How many hours did you really work in the main job position during the last 30 days (for those who did not work during the last month — 0)?	138.2	704	148.2	1019
How much money did you get during the last month on the main job after taxation (for those who did not get anything — 0)?	1042.2	708	1078.8	1051
Contract monthly wage on the first job	1300.2	682	1360.4	999
How much were you underpaid in the first job?	1609.7	666	1666.1	934
Whether you worked during the last month in the main job?	0.910	734	0.925	1071
Please, tell us, did you get any sum of money from your main job during the last month in the form of a wage, benefit, bonus, allowance, income, or profit?	0.753	733	0.723	1072
How much money did you get in the form of a pension during the last month?	30.3	733	14.3	1069
Total family income in addition to respondent's income	2107.1	689	2155.0	1019
Per capita family income in addition to respondent's income	639.7	689	637.3	1019

	Have second regular job		Have any additional earnings ("prirabotki")	
	Mean	N	Mean	N
Chiefs and owners of the enterprises	0.038	733	0.034	1068
Specialists and professionals	0.495	733	0.311	1068
Clerks	0.109	733	0.103	1068
Skilled workers	0.259	733	0.472	1068
Non-skilled workers	0.098	733	0.081	1068
If the state is the owner or co-owner of your enterprise?	0.742	695	0.694	976
If foreign individuals or firms are owners or co-owners of your enterprise?	0.046	692	0.043	990
If Russian individuals or firms are owners or co-owners of your enterprise?	0.310	680	0.381	972
Is there now any debt that your enterprise did not pay you in due time for any reason?	0.498	709	0.542	1024
Did the administration send you on involuntary unpaid vacation during the last year?	0.101	711	0.121	1026
Do you want to change jobs (only for 5, 6, 7 rounds)	0.470	530	0.504	818
Gender (1 — male, 0 — female)	0.538	734	0.670	1072
Age	37.8	734	35.9	1072
Secondary specialized education	0.501	734	0.585	1072

	Have second regular job		Have any additional earnings ("prirabotki")	
	Mean	N	Mean	N
Higher education	0.407	734	0.229	1072
Marital status (1 — married, 0 — single)	0.723	732	0.772	1071
Number of members in the family	3.40	734	3.50	1072
Number of children up to 3 years old	0.078	734	0.129	1072
Number of children 4–6 years old	0.244	734	0.273	1072
Number of children up to 7–17 years old	0.578	734	0.585	1072
Number of working members of the family besides the respondent	0.842	734	0.875	1072
Moscow and St.Petersburg	0.168	734	0.155	1072
Northern and North Western	0.082	734	0.070	1072
Central and Central-Black-Earth	0.166	734	0.160	1072
Volga-Vyatsky and Volga Basin	0.124	734	0.157	1072
Northern Caucases	0.109	734	0.130	1072
Ural	0.144	734	0.122	1072
Western Siberian	0.094	734	0.077	1072
Eastern Siberian and Far Eastern	0.113	734	0.130	1072
Cities	0.846	734	0.787	1072
Towns	0.046	734	0.044	1072
Rural settlements	0.108	734	0.169	1072
1994	0.277	734	0.329	1072
1995	0.244	734	0.234	1072
1996	0.230	734	0.223	1072

	For the whole group of respondents	
	Mean	N
How many hours did you really work in the main job position during the last 30 days (for those who did not work during the last month — 0)?	153.7	15389
How much money did you get during the last month on the main job after taxation (for those who did not get anything — 0)?	1026.6	15897
Contract monthly wage on the first job	1278.8	14968
How much were you underpaid in the first job?	1319.6	14141
Whether you worked during the last month in the main job?	0.938	16205
Please, tell us, did you get any sum of money from your main job during the last month in the form of a wage, benefit, bonus, allowance, income, or profit?	0.714	16197
How much money did you get in the form of a pension during the last month?	35.4	16196
Total family income in addition to respondent's income	1947.8	15603
Per capita family income in addition to respondent's income	557.3	15603
Chiefs and owners of the enterprises	0.038	16196
Specialists and professionals	0.322	16196
Clerks	0.144	16196
Skilled workers	0.377	16196
Non-skilled workers	0.118	16196

	For the whole group of respondents	
	Mean	N
If the state is the owner or co-owner of your enterprise?	0.744	14739
If foreign individuals or firms are owners or co-owners of your enterprise?	0.037	14828
If Russian individuals or firms are owners or co-owners of your enterprise?	0.286	14490
Is there now any debt that your enterprise did not pay you in due time for any reason?	0.519	15421
Did the administration send you on involuntary unpaid vacation during the last year?	0.087	15481
Do you want to change jobs (only for 5, 6, 7 rounds)	0.397	11793
Gender (1 — male, 0 — female)	0.520	16222
Age	38.1	16222
Secondary specialized education	0.532	16222
Higher education	0.214	16222
Marital status (1 — married, 0 — single)	0.773	16208
Number of members in the family	3.58	16222
Number of children up to 3 years old	0.099	16222
Number of children 4–6 years old	0.246	16222
Number of children up to 7–17 years old	0.607	16222
Number of working members of the family besides the respondent	0.968	16222

	For the whole group of respondents	
	Mean	N
Moscow and St.Petersburg	0.095	16222
Northern and North Western	0.076	16222
Central and Central-Black-Earth	0.183	16222
Volga-Vyatsky and Volga Basin	0.176	16222
Northern Caucases	0.117	16222
Ural	0.153	16222
Western Siberian	0.098	16222
Eastern Siberian and Far Eastern	0.101	16222
Cities	0.719	16222
Towns	0.062	16222
Rural settlements	0.218	16222
1994	0.266	16222
1995	0.247	16222
1996	0.238	16222

In the calculations of the equations, the following dummy-variables were excluded: Region of Northern Caucases, Rural settlements, survey round of 1998, non-skilled workers and attendant personnel.

All monetary indicators were recalculated to the level of 1998 according to regional deflators.

Table 9. Probit-analysis of the decision to participate in secondary employment.

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Characteristics of the first job and income						
Working hours per month on the first job/10	−0.019**	0.004	−0.020**	0.005	−0.014**	0.005
Time limitations in the first job (= 1 if working hours are >180 per month, in other cases = 0)	0.110*	0.053	0.084	0.069	0.093	0.062
Contract monthly wage on the first job/1000	−0.049**	0.013	−0.041*	0.017	−0.045**	0.015
Sum of wage arrears/1000	0.010	0.005	0.011	0.006	0.011	0.006
Monthly pension/1000	−0.466**	0.132	−0.236	0.147	−0.756**	0.213
Family income in addition to respondent's income/1000	0.001	0.004	−0.002	0.005	0.004	0.004
Chiefs and owners of the enterprises	−0.172	0.116	−0.174	0.141	−0.123	0.143
Specialists	0.101	0.066	0.026	0.081	0.158	0.082
Clerks	−0.056	0.073	−0.107	0.090	0.030	0.090
Skilled workers	0.016	0.064	−0.215**	0.082	0.183*	0.077
State — owner of the enterprise	−0.012	0.045	−0.030	0.058	−0.001	0.053
Foreign firm — owner of the enterprise	0.049	0.086	0.052	0.110	0.005	0.101
Russian individuals — owners of the enterprise	0.147**	0.044	0.053	0.057	0.161**	0.052
Whether worked during the last month	0.066	0.089	0.056	0.110	0.094	0.105

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Characteristics of the first job and income						
Whether the wage from the first job was paid during the last month	0.071	0.043	0.033	0.056	0.092	0.051
Wage arrears	0.096*	0.041	0.049	0.051	0.114*	0.047
Non-paid vacation during the last year	0.128*	0.059	0.083	0.076	0.136*	0.068
Experience in the first job position	−0.002	0.002	0.002	0.003	−0.004	0.003
Demographic and family characteristics						
Gender	0.350**	0.041	0.171**	0.051	0.423**	0.049
Age	−0.006**	0.002	−0.003	0.003	−0.008**	0.002
Higher education	0.221**	0.049	0.337**	0.059	0.087	0.059
Specialized secondary education	0.136**	0.037	0.102*	0.047	0.140**	0.043
Marital status	−0.051	0.043	−0.071	0.054	−0.035	0.052
Number of members in the family	−0.056**	0.021	−0.019	0.027	−0.062*	0.024
Number of children up to 3 years old	0.113	0.063	−0.024	0.086	0.165*	0.071
Number of children 4−6 years old	0.113**	0.041	0.053	0.054	0.128**	0.047
Number of children 7−17 years old	0.107**	0.029	0.078*	0.037	0.096**	0.034
Number of working members in the family	−0.065**	0.023	−0.080**	0.030	−0.054*	0.027
Presence of registered unemployed in the family	−0.106	0.111	−0.118	0.149	−0.065	0.127

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Regions, types of location and years						
Moscow and St.Petersburg	0.158*	0.070	0.095	0.089	0.184*	0.081
Northern and North Western	−0.107	0.077	−0.013	0.099	−0.183*	0.091
Central and Central-Black-Earth	−0.215**	0.065	−0.171	0.084	−0.191*	0.075
Volga-Vyatsky and Volga Basin	−0.225**	0.066	−0.241**	0.087	−0.160*	0.076
Ural	−0.214**	0.067	−0.101	0.086	−0.277**	0.079
Western Siberian	−0.167*	0.075	−0.056	0.096	−0.240**	0.090
Eastern Siberian and Far Eastern	0.041	0.072	0.039	0.094	0.025	0.083
Cities	0.291**	0.056	0.405**	0.079	0.169**	0.064
Small towns	0.226*	0.091	0.344**	0.123	0.079	0.107
1994	0.121*	0.051	0.021	0.065	0.173**	0.060
1995	0.080	0.048	0.054	0.061	0.064	0.057
1996	0.036	0.049	0.000	0.062	0.034	0.058
Constant	−1.228**	0.147	−1.636**	0.189	−1.581**	0.173
N	10736		10736		10736	
χ^2	405.47		221.66		357.57	
Prsuedo R^2	0.0544		0.0523		0.0684	
prob > χ^2	0.0000		0.0000		0.0000	

Dependent variable — the existence of secondary employment (probit).

Table 10. Income equation for secondary employment.

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Gender	0.790**	0.069	0.664**	0.100	0.767**	0.093
Age	0.010	0.022	0.055	0.035	0.003	0.027
Square age	0.000	0.000	−0.001	0.000	0.000	0.000
Chiefs and owners of the enterprises	0.602**	0.183	0.763**	0.237	0.702*	0.275
Specialists	0.463**	0.115	0.728**	0.161	0.316*	0.149
Clerks	0.445**	0.142	0.512**	0.190	0.493**	0.183
Skilled workers	0.342**	0.110	0.449*	0.176	0.154	0.133
Specialized secondary education	−0.134*	0.068	−0.201*	0.098	−0.075	0.086
Higher education	−0.049	0.082	0.047	0.101	0.040	0.115
Moscow and St.Petersburg	0.574**	0.113	0.425*	0.167	0.591**	0.149
Northern and North Western	0.514**	0.138	0.370	0.197	0.596**	0.196
Central and Central-Black-Earth	0.129	0.110	−0.061	0.166	0.130	0.139
Volga-Vyatsky and Volga Basin	−0.025	0.108	−0.330	0.173	0.011	0.133
Ural	0.068	0.110	0.015	0.176	0.004	0.137
Western Siberian	0.274*	0.127	0.087	0.157	0.318	0.173
Eastern Siberian and Far Eastern	0.357**	0.118	0.221	0.173	0.375*	0.153
Cities	0.168	0.094	0.403*	0.181	0.181	0.102
Small towns	0.093	0.169	0.479	0.271	0.121	0.208
1994	0.433**	0.087	0.343**	0.130	0.321**	0.114
1995	0.314**	0.092	0.068	0.136	0.339**	0.120
1996	0.406**	0.090	0.266*	0.120	0.371**	0.122
Constant	1.765**	0.436	0.430	0.711	2.192**	0.532
N	1317		491		868	
F	17.97		9.9		8.29	
R^2	0.2033		0.2662		0.1659	

Dependent variable — log of per hour wage rate for the second job.

Table 11. Equation of tobit-analysis of labor supply for secondary employment.

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Predicted log of wage rate from the second job	−0.407*	0.176	−0.259	0.443	−0.181	0.203
Working hours per month on the first job/10	−0.010**	0.002	−0.015**	0.004	−0.007**	0.003
Contract monthly wage on the first job/1000	0.546	0.303	0.539	0.577	0.435	0.328
Contract monthly wage on the first job/1000	−0.285**	0.076	−0.302*	0.144	−0.277**	0.083
Sum of wage arrears/1000	0.056	0.029	0.086	0.049	0.059*	0.030
Monthly pension/1000	−2.840**	0.786	−1.977	1.267	−4.068**	1.146
Family income in addition to respondent's income/1000	0.011	0.021	−0.012	0.044	0.027	0.021
Chiefs and owners of the enterprises	−0.570	0.662	−1.255	1.220	−0.300	0.765
Specialists	0.530	0.385	−0.053	0.749	0.894*	0.437
Clerks	−0.377	0.424	−0.932	0.783	0.072	0.489
Skilled workers	0.096	0.369	−1.822*	0.715	0.917*	0.410
State — owner of the enterprise	0.002	0.260	0.122	0.496	−0.024	0.281
Foreign firm — owner of the enterprise	0.122	0.497	−0.371	0.976	0.152	0.531

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Russian individuals — owners of the enterprise	0.836**	0.253	0.633	0.479	0.869**	0.274
Whether worked during the last month	0.495	0.507	0.900	0.939	0.510	0.555
Whether the wage on the first job was paid during the last month	0.327	0.247	0.135	0.465	0.493	0.268
Wage arrears	0.522*	0.231	0.577	0.428	0.548*	0.251
Non-paid vacation during the last year	0.668*	0.333	0.725	0.627	0.595	0.358
Experience on the first job	0.002	0.013	0.027	0.025	−0.014	0.015
Gender	2.017**	0.271	1.281*	0.503	2.222**	0.308
Age	−0.036**	0.012	−0.036	0.022	−0.036**	0.013
Higher education	1.190**	0.279	2.742**	0.506	0.320	0.313
Specialized secondary education	0.646**	0.211	0.740	0.406	0.670**	0.230
Marital status	−0.290	0.247	−0.527	0.457	−0.182	0.274
Number of members in the family	−0.345**	0.120	−0.208	0.225	−0.382**	0.131
Number of children up to 3 years old	0.690	0.362	0.031	0.719	0.940*	0.380
Number of children 4−6 years old	0.699**	0.234	0.590	0.447	0.752**	0.251
Number of children 7−17 years old	0.658**	0.165	0.699*	0.311	0.577**	0.181

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Number of working members in the family	−0.340**	0.131	−0.645*	0.250	−0.228	0.143
Presence of registered unemployed in the family	−0.928	0.658	−1.627	1.327	−0.445	0.685
Moscow and St.Petersburg	0.934*	0.408	0.869	0.775	0.844	0.440
Northern and North Western	−0.466	0.450	−0.087	0.859	−0.945	0.498
Central and Central-Black-Earth	−1.272**	0.374	−1.308	0.718	−1.145**	0.401
Volga-Vyatsky and Volga Basin	−1.260**	0.377	−1.719*	0.747	−0.957*	0.400
Ural	−0.966*	0.379	−0.151	0.713	−1.490**	0.416
Western Siberian	−0.919*	0.434	−0.261	0.810	−1.408**	0.482
Eastern Siberian and Far Eastern	0.226	0.413	0.460	0.799	−0.050	0.443
Cities	1.809**	0.325	3.414**	0.694	0.985**	0.343
Small towns	1.272*	0.527	2.820**	1.072	0.399	0.573
1994	0.995**	0.301	0.394	0.564	1.153**	0.326
1995	0.741**	0.283	0.481	0.516	0.616	0.314
1996	0.574*	0.288	0.348	0.531	0.464	0.318
Constant	−6.583**	0.954	−14.082**	1.849	−8.233**	1.093
N	10754		10754		10754	
χ^2 (39)	363.93		194.99		328.17	
Pseudo R^2	0.0316		0.0327		0.0437	

Dependent variable — log of hours of secondary work.

Table 12. Dependence of the hours worked on the first job on the second job wage rate.

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Log of contract monthly wage from the first job	0.064**	0.015	0.135**	0.034	0.049**	0.016
Log of wage rate from the second job	−0.074**	0.020	−0.224**	0.042	−0.043*	0.022
Ratio of the first job and the second job wage rates	−0.402**	0.057	−0.614**	0.082	−0.359**	0.090
Sum of wage arrears/1000	0.002	0.003	0.003	0.005	0.005*	0.002
Monthly pension/1000	−0.417**	0.160	−0.739**	0.193	−0.012	0.244
Family income in addition to respondent's income/1000	0.001	0.003	0.000	0.003	−0.002	0.004
Chiefs and owners of the enterprises	0.271	0.163	0.253*	0.119	0.198	0.329
Specialists	0.012	0.068	−0.055	0.082	0.073	0.106
Clerks	0.100	0.076	0.025	0.100	0.174	0.110
Skilled workers	0.145*	0.064	0.128	0.088	0.171	0.095
State — owner of the enterprise	−0.111*	0.044	−0.049	0.071	−0.168**	0.055
Foreign firm — owner of the enterprise	0.031	0.073	−0.080	0.092	0.072	0.099
Russian individuals — owners of the enterprise	0.021	0.039	0.149*	0.062	−0.015	0.052

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Whether worked during the last month	4.546**	0.114	4.115**	0.277	4.647**	0.132
Whether the wage on the first job was paid during the last month	0.108*	0.050	0.153	0.080	0.113	0.067
Wage arrears	0.004	0.039	0.024	0.067	−0.035	0.045
Non-paid vacation during the last year	−0.192**	0.067	−0.245*	0.112	−0.171*	0.079
Experience in the first job	0.002	0.003	0.005	0.004	0.002	0.003
Gender	0.073	0.045	0.021	0.069	0.112	0.058
Age	0.004	0.002	0.003	0.003	0.005	0.003
Higher education	−0.019	0.051	0.029	0.072	−0.040	0.064
Specialized secondary education	0.001	0.035	0.020	0.059	−0.006	0.043
Marital status	0.031	0.046	−0.025	0.064	0.045	0.061
Number of members in the family	−0.029	0.022	−0.065*	0.032	−0.014	0.028
Number of children up to 3 years old	−0.010	0.069	0.117	0.114	−0.012	0.081
Number of children 4−6 years old	0.019	0.040	0.097	0.065	0.005	0.048
Number of children 7−17 years old	0.019	0.030	0.075	0.044	0.019	0.039
Number of working members in the family	0.021	0.022	0.105**	0.034	−0.003	0.028

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Presence of registered unemployed in the family	−0.082	0.155	−0.301	0.353	0.100	0.110
Moscow and St.Petersburg	−0.147	0.077	−0.240*	0.118	−0.067	0.094
Northern and North Western	0.054	0.071	−0.073	0.129	0.163	0.091
Central and Central-Black-Earth	−0.060	0.073	−0.234	0.128	0.036	0.084
Volga-Vyatsky and Volga Basin	−0.043	0.073	−0.301*	0.123	0.052	0.083
Ural	−0.081	0.071	−0.188	0.106	−0.098	0.095
Western Siberian	−0.018	0.079	−0.136	0.121	0.082	0.097
Eastern Siberian and Far Eastern	−0.024	0.075	−0.356**	0.123	0.132	0.088
Cities	−0.130*	0.062	0.059	0.130	−0.179**	0.062
Small towns	−0.099	0.090	0.098	0.166	−0.140	0.098
1994	0.067	0.051	0.038	0.075	0.115	0.072
1995	−0.033	0.052	−0.108	0.081	0.006	0.070
1996	0.012	0.046	−0.112	0.067	0.102	0.065
Constant	0.249	0.142	0.652**	0.249	−0.027	0.190
Number of obs	918		378		575	
F	375.1		51.44		181.48	
Prob > F	0.000		0.0000		0.0000	
R^2	0.694		0.7673		0.6600	

Dependent variable — log of hours spent on the first job.

Table 13. Probit analysis of the secondary employment decision with respect to changing jobs.

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Working hours per month on the first job/10	−0.020**	0.006	−0.024**	0.008	−0.011	0.007
Time limitations in the first job	0.040	0.077	0.013	0.101	0.025	0.091
Contract monthly wage on the first job/1000	−0.058**	0.021	−0.043	0.026	−0.052*	0.025
Sum of wage arrears/1000	0.018**	0.006	0.016*	0.007	0.020**	0.007
Monthly pension/1000	−0.388*	0.176	−0.280	0.202	−0.588*	0.274
Family income in addition to the individual's income/1000	−0.004	0.008	−0.006	0.011	−0.002	0.009
Chiefs and owners of the enterprises	−0.196	0.180	0.017	0.204	−0.363	0.246
Specialists	0.049	0.091	0.005	0.112	0.115	0.115
Clerks	−0.118	0.103	−0.267*	0.134	0.066	0.125
Skilled workers	−0.023	0.089	−0.176	0.115	0.131	0.108
State — owner of the enterprise	−0.040	0.067	−0.061	0.087	−0.017	0.080
Foreign firm — owner of the enterprise	0.042	0.128	0.057	0.163	−0.036	0.154
Russian individuals — owners of the enterprise	0.044	0.065	−0.023	0.083	0.093	0.076
Whether worked during the last month	0.084	0.134	0.149	0.165	−0.003	0.163

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Whether the wage from the first job was paid during the last month	0.051	0.059	−0.021	0.075	0.138*	0.071
Wage arrears	0.061	0.059	−0.018	0.075	0.128	0.071
Non-paid vacation during the last year	0.057	0.087	0.110	0.108	−0.039	0.108
Experience in the first job	0.005	0.004	0.005	0.004	0.003	0.004
Changing of job	0.207**	0.062	0.160*	0.079	0.192**	0.073
Gender	0.306**	0.059	0.089	0.074	0.410**	0.072
Age	−0.009**	0.003	−0.004	0.004	−0.012**	0.004
Higher education	0.226**	0.070	0.305**	0.085	0.129	0.087
Specialized secondary education	0.165**	0.054	0.091	0.069	0.207**	0.065
Marital status	−0.093	0.062	−0.086	0.078	−0.091	0.075
Number of members in the family	−0.021	0.030	−0.002	0.038	−0.036	0.036
Number of children up to 3 years old	−0.046	0.096	−0.200	0.137	0.081	0.107
Number of children 4−6 years old	0.168**	0.061	0.136	0.078	0.186**	0.071
Number of children 7−17 years old	0.088*	0.043	0.036	0.056	0.123*	0.051
Number of working members in the family	−0.103**	0.036	−0.085	0.046	−0.106*	0.045

	Have any secondary work		Have regular secondary work		Have additional earnings	
	B	SE	B	SE	B	SE
Presence of registered unemployed in family	−0.078	0.156	−0.029	0.200	−0.030	0.180
Moscow and St.Petersburg	−0.003	0.103	0.057	0.128	0.000	0.122
Northern and North Western	−0.177	0.112	0.035	0.139	−0.345*	0.138
Central and Central-Black-Earth	−0.376**	0.092	−0.303*	0.120	−0.326**	0.108
Volga-Vyatsky and Volga Basin	−0.257**	0.092	−0.301*	0.124	−0.158	0.107
Ural	−0.280**	0.095	−0.160	0.122	−0.325**	0.113
Western Siberian	−0.127	0.106	−0.010	0.135	−0.187	0.126
Eastern Siberian and Far Eastern	−0.188	0.107	−0.161	0.143	−0.155	0.124
Cities	0.418**	0.076	0.519**	0.109	0.264**	0.087
Small towns	0.263*	0.130	0.462**	0.171	0.038	0.161
1996	0.057	0.052	0.016	0.066	0.047	0.061
Constant	−1.109**	0.213	−1.584**	0.274	−1.500**	0.253
N	5356		5356		5356	
χ^2	224.81		142.61		187.81	
Prsuedo R^2	0.0635		0.0693		0.0777	
prob > χ^2	0.0000		0.0000		0.0000	

Dependent variable — the existence of secondary employment (probit).

Table 14. Probit-analysis of the decision to change jobs depending on the existence of secondary employment.

	Have any additional work		Have additional earnings	
	B	SE	B	SE
Difference between the first and second job wage rates/1000	−0.029	1.112	−0.328	1.311
Ratio of the first and second job wage rates	0.029	0.264	−0.143	0.476
Working hours per month in the first job/10	0.016	0.024	0.004	0.035
Time limitations in the first job	−0.035	0.289	0.222	0.427
Contract monthly wage from the first job/1000	−0.087	0.101	−0.168	0.145
Sum of wage arrears/1000	−0.046	0.049	−0.020	0.067
Monthly pension/1000	−0.898	1.093	0.954	2.614
Family income in addition to respondent's income/1000	−0.066	0.047	−0.131	0.081
Chiefs and owners of the enterprises	0.027	0.626	0.906	0.872
Specialists	−0.139	0.361	−0.009	0.536
Clerks	0.171	0.395	−0.177	0.633
Skilled workers	−0.220	0.330	−0.353	0.453
State — owner of the enterprise	−0.741*	0.291	−0.879*	0.410
Russian individuals — owners of the enterprise	−0.324	0.268	−0.509	0.374
Whether worked during the last month	0.754	0.981		
Whether the wage from the first job was paid during the last month	−0.153	0.224	0.102	0.319
Wage arrears	0.145	0.238	0.345	0.328
Experience in the main job	−0.029*	0.014	−0.049*	0.021
Non-paid vacation during the last year	0.605*	0.280	0.774*	0.372
Gender	0.023	0.234	0.191	0.350

	Have any additional work		Have additional earnings	
	B	SE	B	SE
Age	−0.007	0.012	0.011	0.018
Higher education	−0.058	0.296	−0.341	0.428
Specialized secondary education	−0.315	0.198	−0.684*	0.280
Marital status	−0.173	0.242	−0.207	0.357
Number of members in the family	−0.004	0.130	0.088	0.177
Number of children up to 3 years old	0.504	0.352	0.881	0.475
Number of children 4−6 years old	0.235	0.219	0.181	0.292
Number of children 7−17 years old	0.318	0.169	0.351	0.238
Number of working members in the family	−0.212	0.168	−0.257	0.238
Presence of registered unemployed in family	0.512	0.537	0.220	0.784
Moscow and St.Petersburg	0.457	0.410	1.182	0.633
Northern and North Western	1.045*	0.440	1.986**	0.659
Central and Central-Black-Earth	0.497	0.387	0.912	0.554
Volga-Vyatsky and Volga Basin	0.737*	0.369	1.455**	0.519
Ural	0.587	0.405	1.473**	0.563
Western Siberian	0.499	0.397	0.937	0.580
Eastern Siberian and Far Eastern	0.224	0.415	0.469	0.558
Cities	0.274	0.314	0.127	0.399
Small towns	0.755	0.487	0.625	0.678
1996	−0.428*	0.192	−0.645*	0.288
Constant	−0.718	1.141	−0.800	1.042
N	335		206	
χ^2	70.67		70.71	
Prsuedo R^2	0.1970		0.3067	
prob > χ^2	0.0020		0.0014	

Dependent variable — changing of job (probit).

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