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An Analysis of Gender Wage Differentials in Russia from 1996-2002

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Abstract:
This paper examined the male-female differentials in hourly earnings in Russia from 1996 to 2002. The gender wage gap did not alter significantly in the earlier years, a period characterized by economic instability, but as the economy recovered, the differential in earnings increased initially. This trend reversed in 2002 and while the gender wage gap in mean earnings fell to its previous level the differential increased at the lower percentiles. Throughout all years, most of the gender wage differential is accounted for by differences in rewards rather than differences in observable characteristics. Occupational segregation continues to be a salient feature of the labor market with women clustered in professional, clerical and service occupations while men are more predominantly employed in blue-collar jobs.

1. Introduction

The early years of economic transition were characterized by a sharp decline in output and real wages. Women entered economic transition from a position of inequality and segregation. They were concentrated in publicly supported spheres of the economy such as education, healthcare and science, sectors that were at risk of budget cuts in the transition to a market economy. Men, on the other hand were disproportionately employed in heavy industry, construction, transportation and extraction industries, sectors that commanded higher wages. Since the financial crisis in 1998, Russia has experienced economic growth and new jobs have been created. While some researchers found that the gender wage gap did not alter significantly in the early years of economic transition, others found that women's relative earnings declined significantly, at least in the beginning. It is of interest to inquire on the impact of the most recent economic changes on women's earnings relative to those of their male counterparts.

The focus of this paper is the analysis of the male-female earnings gap through a period of economic instability, 1996 – 1998, and economic recovery, 2000 – 2002 using data from the Russian Longitudinal Monitoring Survey (RLMS), a nationally representative household survey. This paper is organized as follows: Section 2 provides an overview of the labor market from 1992 to 2002. A review of previous research on wage differentials in Russia is presented in Section 3. Theories of gender discrimination are discussed in section 4. In section 5 the data is described with an analysis of mean wage differentials. The distribution of occupations and average earnings by occupation are also analyzed in this section. The econometric model is outlined in section 6 followed by regression results and some concluding remarks are offered in section 7.

2. Overview of the Labor Market

Economic restructuring required the reallocation of labor from obsolete sectors of the economy to more productive sectors. The focus of the economy shifted from heavy industry to production of oil and gas for international consumption, importation of consumer goods, and services such as banking, finance and marketing. While output fell significantly between 1992 and 1996, the adjustment to employment was small by comparison. Rather than pursue a strict policy of

economic restructuring that would have led to bankruptcy at many enterprises and massive layoffs, the government opted to adhere only loosely to the policy of financial stabilization.

The social safety net was inadequate to cope with high unemployment and enterprise managers chose to retain a large labor force rather than see a huge increase in unemployment. There were substantial layoffs, but workers were also put on forced unpaid leave, shortened working hours and others continued to work but were not paid. Workers tolerated wage arrears and low wages because of the relative importance of non-wage social benefits provided by the enterprises and shortages of housing and the high cost of moving relative to their cash incomes limited opportunities for mobility across regions.

Keeping a large number of employees on the payroll afforded enterprise managers concessions from local authorities such as access to credit, payments from employment funds, and other privileges[1]. It has been pointed out that less than transparent business practices between large enterprises and local authorities prevented the entry of new firms[2], and hindered job creation. Also inhibiting efficient job creation is the informal system of recruiting employees at enterprises during the post-transition period. Many managers rely on personal contacts for worker searches and on their current employees to spread news of job openings by word-of-mouth, particularly for blue-collar worker rather than using newspaper advertising or headhunters which they resort to only for specialized workers[3].

Enterprise restructuring was accelerated as a result of a wide-ranging financial crisis in 1998. The depreciation of the exchange rate provided a stimulus to the economy through import substitution effects, and high oil and other commodity prices on world markets also boosted economic growth. From Table 1 it is evident that the labor market did not show real improvement until 2000 when the unemployment rate fell, real wages increased and the level of wage arrears declined significantly. Table 2 shows employment by sector as a percent of 1991, or pre-transition level. The biggest employment losses occurred in construction and industry where many blue-collar jobs disappeared. Employment levels in most other sectors declined also except for the Commerce, Service & Marketing sectors, and Administration, Lending & Insurance segments where employment levels have almost doubled from 1991. There is

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[1] Problems of Economic Transition, August 1998.
[2] OECD Report (2002)
[3] Broadman, Recanatini (2001)

evidence that women lost jobs at a greater rate than men in industry and sectors such as science and housing services at the beginning of economic reform[4].

More importantly, there has been open expression of patriarchal attitudes such as 'women's place being in the home' rather than an encouragement of the pursuit of their careers[5]. With the provision of subsidized child-care greatly reduced, many women faced difficulties in coping with full-time market work and household responsibilities. Some have argued that protective legislation, imported from the Soviet era, such as limits on the number of hours pregnant women or women with children under the age of three can work, and the type of work they can do, mark women as 'invalids' and may be used to justify their exclusion from many jobs[6]. At the same time, these laws are often ignored in the private sector[7]. On a positive note, recent changes to labor laws adopt an egalitarian approach to the distribution of family obligations, such as time off to care for sick or disabled children being allowed to either working parent [8]. There is evidence of explicit discrimination against women in the labor market as in job advertisements where employers state a preference for males, or for women without children. Also blatant illustrations of discrimination have been noted where advertisements focus on the applicant's appearance rather than the relevant skills necessary to do the job[9].

3. Review of Previous Research

There is by now an extensive body of research on the labor market in Russia in the post-transition period, as well as some studies prior to economic reform. In the summary of research findings on gender pay differentials presented in Table 1, the unadjusted wage gap ranges from 20 percent to over 40 percent, depending on the data and whether an hourly or monthly wage rate is used. Gregory & Kohlhase (1988) found that the female earnings gap was 18 to 19 percent, controlling for occupation and without occupation accounted for in the earnings equation, the earnings differential was 22 to 29 percent. With pre-reform and post-reform data from several Eastern European countries as well as data from Russia and Ukraine, Brainerd (2000) concluded

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[4] Sachs (1999)
[5] Buckley (1997)
[6] Bridger, Kay & Pinnick (1996)
[7] Feminization of Poverty: World Bank (2000)
[8] Problems of Economic Transition (2001)
[9] Bridger, Kay & Pinnick (1996)

that the widening of the wage gap in Russia and Ukraine is attributable to an increase in inequality in incomes in general in these two countries whereas gender wage differentials narrowed in Eastern European countries. Katz (1997), in her examination of data from a household survey conducted in the industrial city, Taganrog in 1989 surmised that while one third of the male-female wage differential was explained by differences in education, experience, qualification level and work conditions, women earned less because they were women and because of the lower value placed on what was considered 'women's work'.

The rest of the research used RLMS data. Newell and Reilly (1996) reported that the 30 percent wage differential (1992) was mostly accounted for by differences in treatment rather than by differences in characteristics and the failure of women to advance within sectors rather than segregation. Using RLMS (1994) data to examine gender wage differentials, Arabsheibani & Lau (1999) noted that discrimination accounted for a lower portion of the wage differential when the model is corrected for selection bias using Heckman's method. Reilly (1997) found the transition process had an approximately neutral effect on the unadjusted gender wage gap during the 1992 to1996 period.

Results of a study by Gerry, Kim, Lee (2001) using RLMS data from 1994 to 1998 suggest that wage arrears and payment-in-kind helped limit the gender gap as women who experienced a higher wage differential were compensated with these substitutes. Glinskaya & Mroz (2001) concluded that inequality in the lower percentiles declined from 1992 to 1996 from their analysis of RLMS data but increased at the upper ends of the distribution and the increase in the gender wage gap during that period could not be explained by changes in production characteristics.

4. Explanations for Gender Pay Differentials

In western capitalist economies gender earnings differentials are usually attributed to women having less market experience, and less education or marketable skills. These theories are inappropriate to apply to the Russian economy where women had at least as high if not a higher

level of education than men[10], on average, and for several decades up to 90 percent of them were either in the labor force or in school. Another explanation offered for the gender wage gap is that the longer hours that women spend on housework may lower the effort they put into their market jobs, compared to men. The double burden of household responsibilities and full-time work hampered women's ability to compete with men in the labor market and in order to cope, women chose jobs that had more flexible work schedules or were close to home.

The "crowding hypothesis"[11] posits that women earn lower wages on average because employers exclude them from jobs considered "men's work" and with women crowded into other occupations, typically described as "women's work", mean wages in these jobs are reduced. Studies of female employment and wages in the US have shown that predominantly female occupations pay lower wages[12]. In McAuley's (1981) analysis of the Soviet labor market (1970 census data), he noted that while women's employment opportunities had expanded beyond those available to women in western countries, women did not achieve positions of high skill or prestige compared to men. Most women were to be found in jobs of lower skill levels while the majority of those in jobs of higher skill levels were men. Since wages scales were set according to the skill grades assigned to the job and sector, women earned less than men because of their lower skill grades and despite their education levels. Another explanation for the gender wage gap put forward by Blau & Kahn (1996, 1997, 2000), focuses not only on relative labor market qualifications and experience, but also on wage structure, or the prices of labor market skills. Their research suggests that a higher level of wage inequality may result in a larger differential in earnings because women are concentrated more in lower-paying sectors of the labor market.

5. Data

The data for this paper also comes from the Russian Longitudinal Monitoring Survey (RLMS) using the six most recent rounds of the survey: round 6 (1996), round 7 (1997), round 8 (1998), round 9 (2000), round 10 (2001) and round 11 (2002)[13]. The sample is restricted to the working age population, males aged 18 to 60, and females aged 18 to 55 who reported a positive wage in

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[10] Feminization of Poverty in Russia: World Bank
[11] Bergman (1974)
[12] Sorensen (1990)
[13] Information on the survey, and the data is available at www.unc.edu/cpc/projects/rlms.

the previous month. The wage variable is the sum of reported after-tax wage earnings in December 2000 prices from their primary job (which excludes pensions, bonuses, subsidies and payments from welfare) plus an estimate of goods received in lieu of wages. The monthly wage is divided by the number of hours worked to get an hourly wage and the natural logarithm is taken of this wage after it was deflated by the consumer price index from Russian Economic Trends. The wage variable for periods prior to 1998 is divided by 1000, which is approximately the magnitude of the currency devaluation that occurred.

5.1 The Gender Wage Gap

Table 2 shows the gender gap in the mean wage by year. Mean wages for men exhibit greater dispersion than those for women as measured by the standard deviation. Average earnings for both men and women fell between 1996 and 1998 but women's average wages have increased 38 percent compared to an increase of 35 percent for men's wages. The male-female differential in mean wages remained at about the same level in 1996 and 1997 and declined in 1998. It reached its highest level in 2000 and 2001 and the sharp increase in women's average earnings in 2002 reduced the wage gap substantially. Fewer men who worked in the previous month report wages, and this analysis does not take wage arrears into account. This may explain why the female-male wage ratio appears high in the earlier years as men experienced wage arrears to a greater degree than women in this sample. These differentials suggest that there has not been an improvement in women's relative pay position in post-transition Russia overall, compared to some degree of progress for women in western nations. In their analysis of earnings in many western nations, Blau & Kahn (2000) reported a narrowing of the gender wage gap in the 1990s, particularly in the United States. While on the one hand, Russian women appear to fare as well as many of their western counterparts earning 80 percent of male wages on average, by the late 1990s in some countries (Australia, France, Belgium), the female-male average wage ratio was as high as 90 percent.

Figure 1 shows the changes in the gender pay gap by selected percentiles for some years (all years are not included as the graph becomes unreadable). The percentile rankings refer to each sex group's own wage distribution. The gender wage gap appears to be relatively constant at the 25th percentile to the 75th percentile in most years. In 1996, the biggest gap in earnings is at the

90th percentile. In 2000 the differential increased dramatically at the top half of the wage distribution, but by 2002, the differential has declined except at the lower portion of the wage distribution, at the 10th and 25th percentiles.

Economic transition in Russia was characterized by a sharp increase in wage inequality and from the top panel of Table 5 we see that between 1996 and 2001, males in the 90th percentile earned 10 to 11 times as much as their male counterparts in the 10th percentile. The 90-10 percentile differential is somewhat lower for females but it is interesting that this differential declined by over 30 percent for males and 40 percent for females between 2000 and 2002. The differential in average earnings for men and women, in both the top half of the wage distribution (90-50 percentile differential) and the bottom half of the distribution (50-10 percentile differential) remained relatively constant throughout all years.

5.2 Occupational Segregation and Differences in Average Wages by Occupation

Table 6 shows the distribution of occupations for the total from 1996 to 2002 and Table 7 shows average wages and average hours worked by gender in each occupation. In his analysis of Soviet census data, McCauley (1981) noted that women's occupations chiefly involved caring for the sick and young, teaching and clerical work, while men were more likely to be engaged in work involving managerial and technical skills. Occupational segregation is still a salient feature of the Russian labor market as is shown in Table 6. Men work more in blue-collar craft-related jobs and as operators while women are concentrated in white-collar professional positions, the technical medical field, the services industry and clerical jobs and during the post-transition period there has not been a significant shift in the broad categories of occupations held by men and women.

The bottom panel of Table 6 shows that women make up to 94 percent of clerks, up to 78 percent of service workers, 80 percent of technical workers and between 68 and 81 percent of women work as professionals. These 'professional' positions held by women, when broken down, are most frequently secondary and primary school teaching and nursing. Within this category are also economists, professors, accountants and architects but they are a smaller share of the total. The highest wages are earned by those in managerial positions, 44 to 49 percent of whom were females in 2000 - 2002, and the gender wage gap was highest in this occupation category in

almost every year before 2001 and 2002, when it narrowed significantly. Up to 80 percent of technical/medical workers are women and their earnings are significantly lower than those of men, except in 2001. In this category of occupations, more than 50 percent of women work as nurses, bookkeepers and pre-primary school teachers while more men work in higher-paying jobs such as trade brokers, technical/commercial sales representatives and police inspectors. The gender wage differential for professional occupations appears to be increasing in recent years, as it is for service workers. Female clerks are poorly paid compared to their male counterparts in earlier years but the gap in average wages has narrowed here. The smallest wage differential is observed among craft workers and elementary/unskilled occupations and women who work as operators also fare well compared to their counterparts in more skilled (white collar) occupations.

5.3 Comparison of Average Hours Worked

The bottom panel of Table 7 shows that women's commitment to the labor force as measured by average weekly hours worked, is only marginally lower than that of males. Women work on average 90 percent or more of male hours, and their average weekly hours are lower than the legal 41-hour workweek in almost every occupation. This either indicates that many women are dividing their time between household responsibilities and market work or they are not being afforded the opportunity to work as many hours as they wish. Women working as managers/officials put in the most hours at an average of 44 hours per week in 2002, while those in unskilled and elementary positions work the least hours, up to ten hours less than men. However, Katz (1994) noted that in the Soviet system, cleaning jobs were unpopular and hard to fill and managers were likely to allow people time off, unofficially, to care for children and do household chores. Up to 45 percent of women in this category are cleaners but is doubtful that this explains why these employees work well below full-time hours in the post-transition period.

6. Model and Estimation

In empirical studies on wage discrimination, it is common to use an approach developed by Oaxaca (1973) and Blinder (1973), where discrimination is defined as the difference between the observed male-female wage ratio and the wage ratio that would prevail if men and women were paid according to the same criteria. In this approach, the wage of an individual is determined by

productive characteristics such as level of work experience, education, and other indicators that are used to measure one's marginal productivity. Usually, female wage equations are corrected for selection bias since a substantial number of women do not work and their potential wage offers cannot be observed[14]. Wage equations were estimated to account for selection bias using Heckman's Mill's Ratio but the inclusion of the correction term in the wage models did not produce a satisfactory result. Wage equations are specified to relate the natural logarithm of earnings as a function of individual characteristics:

$\ln \overline{W} = \overline{X} \beta + u$ where X is a vector of productivity related variables

To compute the wage differential let

$$\ln \overline{W_m} = \overline{X_{m'}} \beta'_m \qquad\qquad\qquad (1)$$

be the natural log of the average male wage and

$$\ln \overline{W_f} = \overline{X_{f'}} \beta'_f \qquad\qquad\qquad (2)$$

be the natural log of the average female wage.

$\overline{W_m}$ and $\overline{W_f}$ is the natural logarithm of average male and females wages, respectively and $\overline{X_{m'}}$ and $\overline{X_{f'}}$ are average male and female explanatory variables such as education, labor force experience, etc and β_m and β_f are the estimated coefficients of the male and female regressions. Following the Oaxaca (1973) methodology, the wage differential can be expressed as:

$$\ln \overline{W_m} - \ln \overline{W_f} = \overline{X_{m'}} \beta'_m - \overline{X_{f'}} \beta'_f \qquad\qquad\qquad (3)$$

and it may be decomposed in two ways:

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[14] Heckman (1979)

Let $\Delta\overline{X} = \overline{X}_m - \overline{X}_f$ (4)

or the difference in average characteristics

and the difference in rewards to these characteristics is:

$\Delta\beta = \beta'_m - \beta'_f$ (5)

Then the wage differential may be expressed as:

$\ln \overline{W_m} - \ln \overline{W_f} = \Delta\overline{X}\beta'_m + \overline{X}_f\Delta\beta$ (6)

or

$\ln \overline{W_m} - \ln \overline{W_f} = \Delta\overline{X}\beta'_f + \overline{X}_m\Delta\beta$ (7)

The first term on the right-hand side of either (6) or (7) is the log wage differential due to differences in average characteristics and the second term is the differential due to different coefficients or the difference in male and female wage structures. In a world of no wage discrimination, males and females would receive the same returns for the same characteristics and the second term can be interpreted as the part of the log wage differential due to discrimination. Equations (6) and (7) will yield different results as (6) evaluates the differences in average characteristics using the male wage structure and $\overline{X}_f\Delta\beta$ gives the differences in coefficients or a measure of discrimination using female weights. In equation (7), $\Delta\overline{X}\beta'_f$ evaluates differences in average characteristics employing the female wage structure and $\overline{X}_m\Delta\beta$ is the difference due to different rewards using male weights.

The explanatory variables in the model include controls for marital status, children under 7 years old, and age and its squared provide a proxy for labor market experience. Four levels of

education are controlled for in the model, university and postgraduate diploma, technical and medical school diploma, vocational training, secondary school education, and primary school education or less serves as the omitted category. Occupations are classified according to one-digit ISCO classifications: legislators, senior managers and officials; professionals; technicians and associated professionals; clerks; service and market workers; craft and related occupations; plant and machine operators and the omitted category is unskilled and elementary occupations. Two occupation classifications have been excluded from this analysis, namely agricultural and fishery workers and army personnel. A variable indicating whether or not an individual works in the private sector in a foreign-owned or Russian-owned firm is also included in the model as well as a control for supervisory status in one's job. Following Glinskaya & Mroz (2001), a variable indicating whether or not an individual is engaged in entrepreneurial activity is incorporated into the models to measure the rewards associated with a business owner's willingness to take risks, or unobservable skills. Brainerd (1998) theorized that such an indicator might possibly explain more of the gender gap if women and men differ in these characteristics. Variables indicating ownership or co-ownership were not added, however, as it was found that these did not improve the overall fit of the model and this information was missing on several observations, which would reduce the sample size even more. Controls for nine regions are also included in the model with the north and northwest region serving as the omitted category.

6.1 Model Results

Tables 8 and 8A present the regression results for the male and female wage models. For the Oaxaca/Blinder decomposition to properly estimate wage differentials a well-specified human capital model is necessary and this data does not provide a good fit for the model on the whole, compared to data in western capitalist economies. The male wage equations provide a poor fit in all years except 2002, while the female wage models improve over time, explaining 14 to 27 percent of the variation in wages. Both sets of equations fit best in 2002, with the highest adjusted R^2 and more statistically significant variables. Indeed, many of the variables one expects to explain the variation in earnings are not statistically significant in these models.

The education and occupation variables are not statistically significant in many years and sometimes the education coefficients do not have the expected sign, such as the coefficient on

university for males, which is negative in 1996 and 2002. This indicates that there are other factors that are not observable determining one's earnings, especially considering that the control groups are primary school or less for education, and unskilled/elementary occupations. Male managers earn up to 80 percent more than those in unskilled/elementary occupations, the control group, while for women this same coefficient is only significant in 2001 and 2002, when the gender wage gap in this occupation category decreased sharply. Working as operators and in craft-related jobs is more beneficial for women and these occupations also are more highly remunerated for men. This strongly suggests that women have salaries similar to those of men when they work in male-dominated occupations. Private sector employment has a strong, statistically significant positive effect on earnings for both genders and this is particularly true in 2000 and 2001 for females. There is also a premium of up 41 percent attached to working in an entrepreneurial capacity for women, but this declines from 2000 onwards, and in 2001 it is not statistically significant. For men, this does not have a statistically significant impact on their earnings.

Variables indicating family status are statistically significant in the male models only and for some years. Married men earn more than their single or divorced counterparts in every year although this advantage decreases over time. For females, marriage does not appear to have a statistically significant impact on their wages while the presence of children under the age of seven in the household has a negative impact on earnings for both men and women in later years but this is not statistically significant. The age/earnings profile is flat for men and women in all years and the age variables are not statistically significant, most of the time.

Women in the Moscow/St. Petersburg area have increasingly higher earnings on average, than those in the north/northwest, the control region, while wages are declining over time for women in most other regions. This may be explained in part by the fact that credit, finance and insurance as well as computing and information services are particularly strong industries in the Moscow/St. Petersburg region, sectors that may be favorable to employing women[15]. One of the features of the Soviet economy was the concentration of one or two industries in a region, with economic transition regions rich in natural resources could take advantage of newly liberalized

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[15] Sachs (1999)

export markets while those that specialized in the production of machinery and consumer goods found their that their output could not compete with foreign goods. Unemployment did not decline in many regions following the currency devaluation in 1998 and even increased in some, and these results appear to highlight the disparities in income across regions[16]. The same patterns are evident for men except that the Moscow/St. Petersburg area is only marginally advantageous for men, and this is not statistically significant.

6.2 Decomposition of Wage Differentials

Table 9 presents the decomposition of the gender wage differentials. In the top panel, the male-female wage differential for each year is outlined and the two lower panels show the breakdowns of the wage differential using the male and female characteristics and wage structures for each year as bases for comparison. In the second panel it is shown that if men had been paid according to the female reward structure *(Z'Male Δβ),* they would have received approximately 15 percent less in 1996 and 1997 and 21 to 25 percent less in 2000-2002. It is also evident that the differential in earnings that can be ascribed to differences in the way men and women are rewarded ranges from 63 to 98 percent of the in 1996-1998 and from 71 percent in 2000 to 90 percent in 2002. The remaining 21 to 37 percent of the wage differential is due to differences in average characteristics *(ΔZβ Female)*, most of which are occupational. Occupations account for 22 to 52 percent of the differential and entrepreneurial activity makes up 5 percent of the difference in observable characteristics in 1996 and 6 percent in 1998, but by 2000 and 2001 this effect has declined to 1 to 2 percent. Private sector employment is more important in explaining the difference in earnings in 2000 to 2002, compared to earlier years and in 2002, almost 20 percent of the differential is explained by supervisory status rather than occupations.

Women have more education than men on average and sometimes education brings up wages more for women than for men, hence the decomposition contains a negative term in both of up to 19 percent for education variables in the female equations. In the third panel of the table, using the male reward structure and average female characteristics *(Z' Female Δβ)* this term reduces the differential from 5 to 32 percent. Also, if women had been paid according to the male reward structure, they would have received 19 percent more in 1997 and 27 percent more in 2002. The

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[16] Boardman, Recanatini (2001)

bottom panel of table 7 shows that using average female characteristics as the base and the male reward structure, 62 percent of the gender wage gap is attributable to differences in rewards in 1996, and 97 percent in 2001. Differences in the distribution of occupations account for most of the wage differential attributable to differences in characteristics, except in 2001 when private sector employment appears to play a more important role. When the male reward structure is used, entrepreneurial activity accounts for no more than 3 percent of the difference in observable characteristics in any year.

7. Conclusion

This paper analyzed the gender gap in earnings in Russia from different perspectives, through years of severe economic hardship and a period of stability and growth. In the 2000-2001 period when the economy was expanding at a fast rate, the unadjusted gap in mean earnings increased and the unadjusted wage gap widened at almost parts of the wage distribution compared to 1996. By 2002, however, the differential between average male and female earnings declined to the 1996 level but the differential increased at the lower percentiles while narrowing at the 90th percentile. Earnings inequality in men's and women's own earnings as measured by the disparity between higher percentiles and lower percentiles was significantly reduced between 1996 and 2002. Another finding in this analysis is that there are no strong indications of an improvement in women's employment opportunities during the post-transition period judging by the continued segregation of occupations. The type of analysis conducted here has limitations and further insights could be gained through an examination of changes in the wage structure over the period but this is beyond the scope of this paper.

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TABLE 1

National Economic Indicators for Russian Federation: 1991-2002												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
GDP (% Growth)	-5.0%	-14.5%	-8.7%	-12.7%	-4.1%	-3.4%	0.9%	-4.9%	5.4%	9.0%	5.0%	4.3%
CPI (% percent change year-over-year)	N.A.	2508.8%	847.2%	307.7%	131.3%	21.8%	11.0%	84.4%	36.5%	20.1%	18.6%	15.1%
Total Employment	N.A.	71,581	69,863	68,675	66,409	65,950	64,693	63,812	63,963	64,327	64,710	65,766
Unemployment Rate (ILO Definition)	N.A.	4.8%	5.9%	7.7%	9.2%	9.3%	11.1%	12.3%	12.6%	9.8%	8.9%	8.6%
Real Wages (% Growth)	N.A.	-40.0%	0.0%	-80.0%	-28.0%	6.4%	5.7%	-13.3%	-22.0%	20.9%	19.9%	16.2%
Wage Arrears (mils of real rubles, end of year, 1992 prices)	N.A.	3.6	9.2	17.4	42.4	98.1	106	71.7	31.1	20.1	16.5	N.A.
Hidden Unemployment:												
Shortened Workday (thousands-average of 4 quarters)	N.A.	N.A.	1,127	4,382	2,047	3,209	2,503	3,354	2,490	1,297	946	900
Forced Leave (thousands-average of 4 quarters)	N.A.	N.A.	3,321	6,604	2,089	2,132	2,127	3,866	2,653	1,685	1,556	1,477

Source: IMF Reports, 1999 and 2003.

TABLE 2

Employment by Sector Percent of 1991 Level												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Industry	100.0%	95.2%	92.9%	82.9%	76.6%	73.0%	66.5%	63.2%	63.8%	64.9%	65.6%	NA
Agriculture and Forestry	100.0%	103.7%	103.8%	105.6%	100.3%	95.4%	88.6%	89.9%	87.6%	86.3%	82.2%	NA
Construction	100.0%	92.3%	84.1%	80.0%	73.1%	69.2%	66.7%	60.0%	59.9%	58.9%	59.1%	NA
Transportation & Communication	100.0%	97.9%	94.1%	93.1%	91.3%	90.8%	89.1%	84.4%	85.5%	87.1%	87.2%	NA
Commerce, Food Service, Marketing & Procurement	100.0%	100.9%	113.3%	115.3%	118.7%	120.8%	155.1%	165.5%	165.7%	167.5%	177.7%	NA
Public Health, Social Security, Education, Art, Culture & Science	100.0%	98.0%	95.6%	94.9%	93.7%	93.1%	90.6%	89.2%	89.0%	88.7%	88.8%	NA
Administrative staff, Lending & State Insurance	100.0%	94.2%	1.1%	115.5%	137.6%	175.2%	170.4%	178.2%	182.7%	186.0%	186.0%	NA
Other (Housing, Publishing, Utilities, Gen. Svcs.)	100.0%	100.2%	94.0%	92.0%	93.6%	101.6%	96.2%	96.8%	99.0%	101.2%	101.9%	NA

Source: IMF Reports 1999, 2003

TABLE 3

Summary of Research on Wage Differentials in Russia			
Year of Publication	Author(s)	Data	Unadjusted Wage Differential
1988	Gregory & Kohlhase	Soviet Interview Project 1979-1982	22 - 29% *Adjusted* Monthly Wage Gap
1994	Katz	Household Survey, City of Taganrog 1989	17% Monthly Wage Gap 27% Hourly Wage Gap
1996	Newell & Reilly	RLMS 1992	30% Hourly Wage Gap
1999	Arabsheibani & Lau	RLMS 1995	37% Monthly Wage Gap
1999	Reilly	RLMS 1992-1996	1992: Monthly - 46%, Hourly - 28% Wage Gap 1996: Monthly - 44%, Hourly - 28% Wage Gap
2000	Brainerd	Household Surveys, 1991 & 1994	1991: 20% Monthly Wage Gap 1994: 32% Monthly Wage Gap
2000	Gerry, Kim & Lee	RLMS 1994-1998	29% Hourly Wage Gap
2001	Glinskaya, Mroz	RLMS 1992-1995	28% to 39% Hourly Wage Gap

TABLE 4

	1996 (Round 6)	1997 (Round 7)	1998 (Round 8)	2000 (Round 9)	2001 (Round 10)	2002 (Round 11)
GAP IN MEAN WAGES BY YEAR/ROUND						
Log Male Wage	2.460	2.577	2.090	2.272	2.538	2.830
Std Deviation	(0.944)	(0.913)	(0.847)	(0.898)	(0.948)	(0.873)
Log Female Wage	2.232	2.347	1.886	1.955	2.226	2.600
Std Deviation	(0.874)	(0.898)	(0.849)	(0.844)	(0.877)	(0.806)
Differential	0.228	0.230	0.204	0.317	0.312	0.230
No. of Males	887	736	590	758	733	862
No. of Females	996	881	877	1,113	1,138	1,298
Female/Male Wage Ratio	79.6%	79.5%	81.5%	72.8%	73.2%	79.5%

**Gender Wage Gap
1996-2002**

Y-axis: Gender Wage Gap (log points)

X-axis: Percentile

Legend: 1996, 1998, 2000, 2002
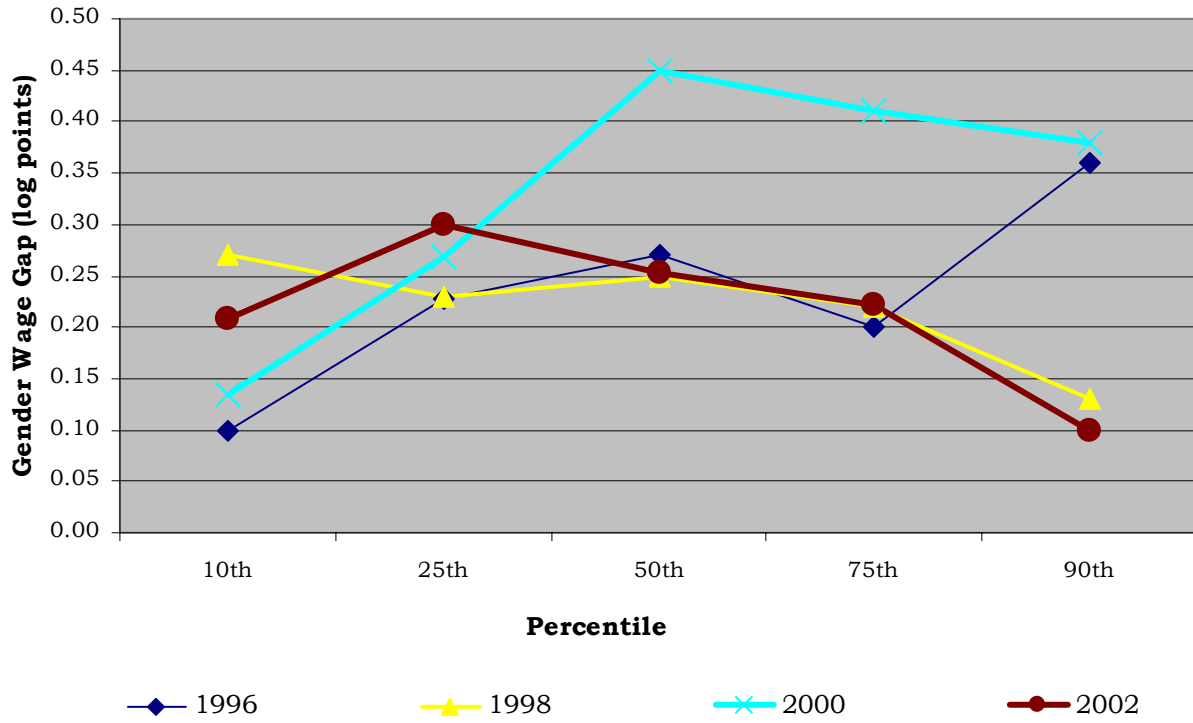
TABLE 5

HOURLY PERCENTILE WAGE DIFFERENTIALS 1996-2002			
MALES			
YEAR	90th - 10th Percentile	50th - 10th Percentile	90th - 50th Percentile
1996	2.402	1.205	1.197
1997	2.310	1.206	1.105
1998	2.310	1.206	1.105
2000	2.367	1.253	1.114
2001	2.380	1.212	1.168
2002	2.095	1.130	0.965

FEMALES			
YEAR	90th - 10th Percentile	50th - 10th Percentile	90th - 50th Percentile
1996	2.153	1.024	1.128
1997	2.225	1.077	1.148
1998	2.218	1.081	1.137
2000	2.337	1.243	1.094
2001	2.037	1.023	1.013
2002	1.986	0.977	1.009

TABLE 6

OCCUPATION DISTRIBUTION - TOTAL

	1996		1997		1998		2000		2001		2002	
Managers	90	4.8%	16	1.0%	39	2.7%	120	6.4%	162	8.7%	148	6.9%
Professionals	336	17.8%	367	22.7%	317	21.6%	370	19.8%	420	22.4%	446	20.6%
Technical	336	17.8%	277	17.1%	304	20.7%	347	18.5%	334	17.9%	414	19.2%
Clerks	143	7.6%	139	8.6%	105	7.2%	116	6.2%	121	6.5%	144	6.7%
Service	169	9.0%	146	9.0%	121	8.2%	187	10.0%	194	10.4%	222	10.3%
Craft	304	16.1%	253	15.6%	204	13.9%	267	14.3%	214	11.4%	278	12.9%
Operators	318	16.9%	252	15.6%	227	15.5%	291	15.6%	265	14.2%	301	13.9%
Elementary/Unskilled	187	9.9%	167	10.3%	150	10.2%	173	9.2%	161	8.6%	207	9.6%
Total	1,883		1,617		1,467		1,871		1,871		2,160	

MALE OCCUPATION DISTRIBUTION

	1996		1997		1998		2000		2001		2002	
Managers	57	63.3%	10	62.5%	17	43.6%	67	55.8%	86	53.1%	76	51.4%
Professionals	108	32.1%	119	32.4%	79	24.9%	69	18.6%	84	20.0%	104	23.3%
Technical	66	19.6%	67	24.2%	60	19.7%	73	21.0%	74	22.2%	91	22.0%
Clerks	16	11.2%	12	8.6%	11	10.5%	7	6.0%	8	6.6%	17	11.8%
Service	57	33.7%	46	31.5%	36	29.8%	40	21.4%	47	24.2%	50	22.5%
Craft	256	84.2%	204	80.6%	165	80.9%	214	80.1%	177	82.7%	228	82.0%
Operators	260	81.8%	191	75.8%	160	70.5%	216	74.2%	181	68.3%	202	67.1%
Elementary/Unskilled	67	35.8%	87	52.1%	62	41.3%	72	41.6%	76	47.2%	94	45.4%
Total	887	**47.1%**	736	45.5%	590	40.2%	758	**40.5%**	733	**39.2%**	862	**39.9%**

FEMALE OCCUPATION DISTRIBUTION

	1996		1997		1998		2000		2001		2002	
Managers	33	36.7%	6	37.5%	22	56.4%	53	44.2%	76	46.9%	72	48.6%
Professionals	228	67.9%	248	67.6%	238	75.1%	301	81.4%	336	80.0%	342	76.7%
Technical	270	80.4%	210	75.8%	244	80.3%	274	79.0%	260	77.8%	323	78.0%
Clerks	127	88.8%	127	91.4%	94	89.5%	109	94.0%	113	93.4%	127	88.2%
Service	112	66.3%	100	68.5%	85	70.2%	147	78.6%	147	75.8%	172	77.5%
Craft	48	15.8%	49	19.4%	39	19.1%	53	19.9%	37	17.3%	50	18.0%
Operators	58	18.2%	61	24.2%	67	29.5%	75	25.8%	84	31.7%	99	32.9%
Elementary/Unskilled	120	64.2%	80	47.9%	88	58.7%	101	58.4%	85	52.8%	113	54.6%
Total	996	**52.9%**	881	**54.5%**	877	**59.8%**	1,113	**59.5%**	1,138	**60.8%**	1,298	**60.1%**

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TABLE 7

AVERAGE WAGE GAP BY OCCUPATION

	1996			1997			1998			2000			2001			2002		
	Male	Female	Diff	Male	Female	Diff	Male	Female	Diff	Male	Female	Diff	Male	Female	Diff	Male	Female	Diff
Officials/Mgrs	2.98	2.56	0.42	3.55	2.81	0.74	2.65	2.05	0.60	2.68	1.89	0.80	2.97	2.63	0.34	3.13	2.95	0.19
Professionals	2.49	2.43	0.06	2.75	2.51	0.24	2.40	2.05	0.35	2.32	2.13	0.19	2.67	2.36	0.31	3.10	2.77	0.33
Technical	2.75	2.26	0.50	2.93	2.27	0.66	2.37	1.82	0.55	2.52	2.04	0.48	2.78	2.62	0.16	3.05	2.61	0.44
Clerks	2.47	2.15	0.32	2.70	2.27	0.43	1.88	1.84	0.03	1.96	1.84	0.12	2.32	2.24	0.08	2.83	2.66	0.17
Service	2.44	2.09	0.35	2.48	2.16	0.32	2.00	1.82	0.18	2.12	1.69	0.44	2.26	1.77	0.49	2.92	2.29	0.63
Craft	2.45	2.31	0.14	2.51	2.40	0.11	1.96	1.91	0.05	2.22	2.16	0.06	2.51	2.34	0.17	2.84	2.75	0.09
Operators	2.40	2.37	0.03	2.56	2.59	-0.03	2.07	1.87	0.20	2.31	2.06	0.25	2.49	2.28	0.21	2.69	2.53	0.16
Elmntry/Unsk	1.94	1.82	0.12	2.17	2.12	0.05	1.75	1.70	0.05	1.73	1.56	0.17	2.06	1.91	0.16	2.33	2.23	0.10

AVERAGE HOURS WORKED BY OCCUPATION

	1996			1997			1998			2000			2001			2002		
	Male	Female	Female/Male Ratio	Male	Female	Female/Male Ratio	Male	Female	Female/Male Ratio	Male	Female	Female/Male Ratio	Male	Female	Female/Male Ratio	Male	Female	Female/Male Ratio
	45.2	45.8	101.2%	55.2	43.7	79.1%	51.9	43.8	84.4%	45.3	41.3	91.2%	45.3	42.2	93.2%	47.4	44.4	93.6%
Professionals	38.3	34.3	89.6%	41.4	35.2	85.0%	39.2	34.3	87.4%	39.3	35.5	90.2%	36.7	35.3	96.1%	39.8	33.5	84.2%
Technical/Med	39.4	36.7	93.2%	41.8	38.5	91.9%	41.8	36.0	86.0%	40.5	37.5	92.6%	44.0	37.1	84.4%	41.9	38.0	90.7%
Clerks	34.5	36.4	105.5%	40.6	40.6	99.9%	41.3	34.3	83.0%	45.1	39.6	87.7%	51.1	43.1	84.4%	45.9	39.3	85.6%
Service	49.9	39.2	78.6%	45.8	38.1	83.2%	45.1	42.6	94.5%	45.8	42.0	91.7%	50.0	37.9	75.7%	43.6	40.3	92.5%
Craft	38.2	36.0	94.2%	41.4	34.9	84.3%	39.1	38.8	99.3%	42.1	38.2	90.7%	40.1	34.6	86.2%	40.8	35.4	86.6%
Operators	39.2	34.4	87.6%	42.6	33.6	78.8%	39.9	37.9	94.9%	42.9	41.0	95.4%	43.2	37.4	86.7%	45.1	40.6	90.1%
Elmntry/Unsk	42.8	34.4	80.2%	42.2	34.0	80.4%	43.9	33.2	75.7%	42.2	34.4	81.5%	43.6	33.6	77.0%	42.4	32.2	75.9%
Sample Avg	41.2	36.2	87.9%	42.3	37.0	87.4%	40.8	36.1	88.4%	42.4	37.8	89.2%	42.0	37.6	89.7%	42.7	37.0	86.8%

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TABLE 8

	1996	1997	1998	2000	2001	2002
			Regressions - Males			
Intercept	1.741 ***	2.483 ***	1.679 ***	0.869 *	1.461 **	1.434 ***
	4.27	5.83	3.78	1.93	3.02	3.20
Married =1	0.099	0.048	0.245 **	0.219 **	0.191 *	0.064
	1.11	0.52	2.90	2.79	2.41	1.00
Children < 7 =1	-0.054	0.000	-0.035	-0.042	-0.005	-0.006
	-0.76	0.00	-0.39	-0.56	-0.06	-0.08
Age	0.014	-0.016	0.005	0.038	0.047	0.060 **
	0.66	-0.72	0.23	1.58	1.85	2.87
Age Sqrd	0.000	0.000	0.000	0.000	-0.001	-0.001 **
	-0.91	0.45	-0.50	-1.58	-1.75	-2.92
Education Dummy Vars.						
University Degree =1	-0.026	0.325	0.573 **	0.617 **	-0.044	0.241
	-0.16	1.84	2.77	3.51	-0.18	0.91
Technical/Medical Ed =1	-0.158	0.258	0.413 *	0.452 **	-0.156	0.114
	-1.01	1.56	2.15	2.73	-0.65	0.44
Vocational Training=1	-0.147	0.100	0.206	0.234	-0.224	-0.123
	-1.05	0.64	1.17	1.53	-0.96	-0.48
High School =1	-0.143	0.408 **	0.204	0.403 *	-0.327	-0.081
	-0.88	2.40	1.02	2.33	-1.05	-0.29
Private Sector=1	0.321 ***	0.141 *	0.146 *	0.171 **	0.303 ***	0.271 ***
	4.87	2.05	2.06	2.70	4.46	4.80
Occupation Dummy Vars.						
Manager=1	0.668 ***	0.792 **	0.415	0.547 ***	0.738 ***	0.498 ***
	3.66	2.58	1.67	3.21	4.34	3.37
Professional=1	0.321 *	0.335 *	0.261	0.273	0.459 **	0.538 ***
	2.02	2.35	1.57	1.68	2.85	4.13
Technician/Medical=1	0.598 ***	0.538 ***	0.306	0.425 **	0.565 ***	0.578 ***
	3.72	3.70	1.84	2.79	3.60	4.48
Clerk=1	0.345	0.345	-0.233	0.084	0.240	0.487 **
	1.39	1.30	-0.88	0.25	0.72	2.34
Service Worker=1	0.225	0.043	0.145	0.290	0.247	0.645 ***
	1.38	0.27	0.83	1.71	1.45	4.48
Craft Worker=1	0.493 ***	0.286 **	0.155	0.433 ***	0.367 **	0.563 ***
	4.06	2.60	1.31	3.76	2.98	5.80
Operator=1	0.494 ***	0.362 ***	0.269 *	0.504 ***	0.420 ***	0.507 ***
	4.05	3.21	2.23	4.33	3.44	5.05
Supervisor=1	0.282 ***	0.186 *	0.063	0.115	-0.025	0.144 *
	3.46	2.25	0.65	1.23	-0.28	1.93
Entrepeneurial Activity=1	0.127	0.191	0.133	0.175	0.058	-0.029
	1.12	1.37	0.98	1.35	0.44	-0.23
Region Dummy Vars.						
Moscow/St. Petersburg=1	0.449 ***	0.218	0.058	0.159	0.040	0.132
	3.34	1.52	0.36	0.96	0.24	1.01
W. Siberia=1	0.354 **	0.057	0.008	-0.233	-0.075	-0.696 ***
	2.58	0.37	0.05	-1.65	-0.48	-5.42
Central=1	-0.168	-0.304 *	-0.432 ***	-0.285 **	-0.414 ***	-0.468 ***
	-1.38	-2.34	-3.30	-2.36	-3.69	-5.18
Caucas=1	0.019	0.040	-0.387 **	-0.274 *	-0.304 **	-0.333 ***
	0.15	0.31	-2.88	-2.21	-2.61	-3.41
E. Siberia=1	0.061	-0.215	-0.192	-0.204	-0.289 *	-0.380 ***
	0.44	-1.40	-1.28	-1.54	-2.22	-3.45
Ural=1	-0.250 *	-0.380 **	-0.656 ***	-0.526 ***	-0.749 ***	-0.565 ***
	-1.98	-2.68	-4.24	-4.05	-6.11	-5.35
Volga-Vyatski Basin=1	-0.302 **	-0.485 ***	-0.576 ***	-0.594 ***	-0.644 ***	-0.700 ***
	2.43	-3.55	-4.18	-4.86	-6.08	-8.00
N:	887	736	590	758	733	862
Adjusted R^2 :	0.16	0.15	0.14	0.15	0.16	0.20
F:	7.95	6.21	4.97	6.36	6.39	9.66

t-statistics in italics   * $P < .05$,   ** $P < .01$,   *** $P < .001$

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Regressions - Females

	1996	1997	1998	2000	2001	2002
Intercept	1.410 ***	2.240 ***	0.671	0.344	2.116 ***	1.839 ***
	3.29	4.57	1.59	0.97	5.17	4.70
Married =1	0.069	0.041	-0.079	-0.002	0.008	-0.018
	1.24	0.65	-1.42	-0.05	0.17	-0.45
Children < 7 =1	-0.029	0.072	0.127	-0.061	-0.105	0.024
	-0.47	0.99	1.78	-1.07	-1.81	0.47
Age	0.016	0.006	0.055 *	0.073 ***	0.004	0.033 *
	0.69	0.24	2.34	3.87	0.21	1.98
Age Sqrd	0.000	0.000	-0.001 *	-0.001 ***	0.000	0.000
	-0.56	-0.44	-2.11	-3.74	-0.16	-1.59
Education Dummy Vars.						
University/Grad Degree =1	0.662 ***	0.245	0.428 **	0.379 **	0.440	0.304
	4.41	1.41	2.70	2.58	1.83	1.28
Technical/Medical Ed =1	0.488 ***	0.022	0.263	0.149	0.119	-0.051
	3.49	0.14	1.76	1.07	0.50	-0.22
Vocational Training=1	0.378 **	-0.150	0.159	0.060	-0.025	-0.125
	2.71	-0.93	1.06	0.43	-0.11	-0.53
High School =1	0.387 **	0.029	0.070	-0.014	0.001	0.125
	2.55	0.17	0.42	-0.10	0.00	0.50
Private Sector=1	0.264 ***	0.240 ***	0.217 ***	0.406 ***	0.366 ***	0.295 ***
	4.33	3.70	3.52	7.91	7.22	7.05
Occupation Dummy Vars.						
Manager=1	0.107	0.178	-0.201	-0.077	0.307 *	0.434 ***
	0.62	0.48	-1.01	-0.56	2.20	3.66
Professional=1	0.275 **	0.088	0.099	0.364 ***	0.149	0.360 ***
	2.60	0.69	0.87	3.65	1.39	4.19
Technician/Medical=1	0.215 *	0.026	-0.001	0.352 ***	0.158	0.322 ***
	2.29	0.23	-0.01	3.73	1.53	3.92
Clerk=1	0.172	0.047	0.014	0.140	0.155	0.303 ***
	1.67	0.38	0.12	1.34	1.38	3.31
Service Worker=1	0.068	-0.118	-0.113	-0.008	-0.253 *	0.007
	0.64	-0.91	-0.92	-0.08	-2.40	0.08
Craft Worker=1	0.398 ***	0.239	0.164	0.507 ***	0.235	0.439 ***
	2.90	1.55	1.08	3.98	1.54	3.69
Operator=1	0.291 *	0.415 ***	0.090	0.400 ***	0.307 **	0.288 **
	2.23	2.88	0.70	3.51	2.57	2.96
Supervisor=1	0.109	0.198 **	0.271 ***	0.240 ***	0.157 **	0.080
	1.74	2.92	4.06	4.06	2.55	1.55
Entrepeneurial Activity=1	0.347 **	0.178	0.408 **	0.242 *	0.072	0.168
	2.87	1.34	3.07	2.11	0.60	1.73
Region Dummy Vars.						
Moscow/St. Petersburg=1	0.036	0.184	0.182	0.320 **	0.257 *	0.211 *
	0.32	1.50	1.45	2.70	2.07	2.15
W. Siberia=1	-0.007	0.066	0.058	-0.066	-0.322 ***	-0.563 ***
	-0.06	0.51	0.44	-0.65	-3.38	-6.21
Central=1	-0.419 ***	-0.336 **	-0.334 ***	-0.325 ***	-0.616 ***	-0.440 ***
	-4.04	-2.94	-3.10	-3.72	-8.46	-7.18
Caucas=1	-0.397 ***	-0.294 **	-0.354 **	-0.454 ***	-0.437 ***	-0.488 ***
	-3.78	-2.47	-3.11	-4.98	-5.49	-7.50
E. Siberia=1	-0.107	0.095	0.007	-0.151	-0.312 ***	-0.387 ***
	-0.90	0.68	0.05	-1.48	-3.26	-4.67
Ural=1	-0.651 ***	-0.443 ***	-0.507 ***	-0.559 ***	-0.717 ***	-0.693 ***
	-5.57	-3.30	-4.02	-5.65	-7.92	-4.67
Volga-Vyatski Basin=1	-0.720 ***	-0.504 ***	-0.507 ***	-0.526 ***	-0.771 ***	-0.711 ***
	-6.85	-4.20	-4.52	-5.86	-9.99	-11.36
N:	996	881	877	1,113	1,138	1,298
R^2:	0.20	0.14	0.17	0.24	0.25	0.27
F:	11.07	6.91	8.16	15.21	16.06	19.91

t-statistics in italics   * P < .05, ** P < .01   *** P < .001

TABLE 9

Difference in log earnings	**1996**		**1997**		**1998**		**2000**		**2001**		**2002**	
Log (wage male) - log(wage fem)	0.229		0.230		0.204		0.318		0.313		0.232	
Male Characteristics and Female Reward Structure												
Z' MALE Δβ	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff
Total due to differences in rewards	0.1504	65.8	0.146	63.3	0.200	98.2	0.226	71.2	0.247	79.1	0.209	90.1
Due to difference in endowments:	TOTAL	100.0		100.0		100.0		100.0		100.0		100.0
ΔZβ FEMALE												
Age	-0.0050	-2.2	-0.007	-3.1	-0.018	-8.6	-0.019	-6.1	0.000	-0.1	-0.006	-2.7
Marital Status	0.010	4.2	0.006	2.5	-0.012	-5.6	0.000	-0.1	0.001	0.3	-0.003	0.4
Children < 7	-0.0006	-0.3	0.001	0.6	0.004	1.8	-0.003	-1.0	-0.007	-2.1	0.001	-13.6
Education	-0.0306	-13.4	-0.031	-13.7	-0.039	-19.1	-0.040	-12.6	-0.044	-13.9	-0.031	-13.6
Occupations	0.0733	32.1	0.119	51.6	0.045	22.0	0.073	23.0	0.073	23.5	-0.006	-2.6
Supervisor	0.0035	1.5	0.001	0.6	0.004	1.8	0.005	1.6	0.008	2.4	0.045	19.6
Entrepeneurial Activity	0.0121	5.3	0.002	0.8	0.012	5.8	0.006	1.9	0.002	0.8	0.004	1.7
Private sector	0.0152	6.7	0.012	5.3	0.017	8.1	0.071	22.4	0.043	13.8	0.028	11.9
Regions	0.0007	0.3	-0.018	-8.0	-0.009	-4.3	-0.001	-0.3	-0.012	-3.7	-0.009	-3.8
Total (due to difference in endowments)	0.0781	34.2	0.084	36.7	0.004	1.8	0.091	28.8	0.065	20.9	0.023	9.9
Female Characteristics and Male Reward Structure												
Z' FEMALE Δβ	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff	Level	% of Diff
Total due to differences in rewards	0.142	62.0	0.274	118.8	0.216	105.9	0.244	76.7	0.305	97.4	0.294	126.8
Due to difference in endowments:	TOTAL	100.0		100.0		100.0		100.0		100.0		100.0
ΔZβ MALE												
Age	-0.015	-6.5	0.004	1.8	-0.006	-2.8	-0.010	-3.2	-0.006	-1.9	-0.013	-5.4
Marital Status	0.013	6.0	0.007	3.0	0.036	17.5	0.030	9.3	0.023	7.4	0.009	3.8
Children < 7	-0.001	-0.5	0.000	0.0	-0.001	-0.5	-0.002	-0.7	0.000	-0.1	0.000	-0.1
Education	0.002	0.7	-0.023	-10.0	-0.065	-31.7	-0.068	-21.5	-0.016	-5.0	-0.057	-24.6
Occupations	0.055	24.0	-0.028	-12.2	0.016	7.8	0.090	28.5	-0.005	-1.8	-0.103	-44.2
Supervisor	0.009	4.0	0.001	0.6	0.001	0.4	0.003	0.8	-0.001	-0.4	0.080	34.5
Entrepeneurial Activity	0.004	1.9	0.002	0.9	0.004	1.9	0.004	1.4	0.002	0.6	0.007	3.0
Private sector	0.019	8.1	0.007	3.1	0.011	5.5	0.030	9.4	0.036	11.4	0.025	11.0
Regions	0.001	0.4	-0.014	-5.9	-0.008	-4.0	-0.002	-0.8	-0.024	-7.8	-0.011	-4.8
Total (due to differences in endowments)	0.086	38.0	-0.043	-18.8	-0.012	-5.9	0.074	23.3	0.008	2.6	-0.062	-26.8

TABLE 10

	Summary Statistics											
	Males											
	1996		**1997**		**1998**		**2000**		**2001**		**2002**	
	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std
Log (Real Hourly Wage)	2.46	0.94	2.58	0.91	2.09	0.85	2.27	0.90	2.54	0.95	2.83	0.87
Log (Total Hrs Worked in Month)	5.10	0.49	5.13	0.37	5.10	0.38	5.13	0.37	5.12	0.42	5.14	0.37
Married	0.84	0.36	0.83	0.38	0.77	0.42	0.75	0.43	0.73	0.44	0.72	0.45
Children < 7	0.23	0.42	0.22	0.41	0.20	0.40	0.25	0.43	0.26	0.44	0.23	0.42
Age	38.59	10.85	37.97	10.91	37.69	10.65	37.13	10.62	37.43	10.34	37.48	10.53
Age Squared	1607.0	859.8	1560.7	859.6	1533.8	820.6	1490.9	814.4	1507.5	795.9	1515.8	811.7
Technical/Medical Education	0.16	0.36	0.20	0.40	0.17	0.38	0.18	0.39	0.22	0.41	0.20	0.40
University/Postgrad Degree	0.24	0.43	0.24	0.42	0.22	0.41	0.20	0.40	0.27	0.44	0.25	0.43
Vocation Training	0.45	0.50	0.38	0.49	0.48	0.50	0.46	0.50	0.47	0.50	0.48	0.50
High School Education	0.10	0.31	0.13	0.34	0.09	0.29	0.11	0.31	0.02	0.15	0.05	0.22
Primary School or Less	0.05	0.22	0.05	0.22	0.04	0.19	0.04	0.21	0.02	0.15	0.01	0.11
Private Sector Employee (Russian/Foreign-owned)	0.32	0.47	0.37	0.48	0.39	0.49	0.47	0.50	0.48	0.50	0.51	0.50
Manager	0.06	0.25	0.01	0.12	0.03	0.17	0.09	0.28	0.12	0.32	0.09	0.28
Professional	0.12	0.33	0.16	0.37	0.13	0.34	0.09	0.29	0.11	0.32	0.12	0.33
Technical/Medical Field	0.07	0.26	0.09	0.29	0.10	0.30	0.10	0.30	0.10	0.30	0.11	0.31
Clerk	0.02	0.13	0.02	0.13	0.02	0.14	0.01	0.10	0.01	0.10	0.02	0.14
Service Worker	0.06	0.25	0.06	0.24	0.06	0.24	0.05	0.22	0.06	0.25	0.06	0.23
Craft Worker	0.29	0.45	0.28	0.45	0.28	0.45	0.28	0.45	0.24	0.43	0.26	0.44
Operator	0.29	0.46	0.26	0.44	0.27	0.44	0.28	0.45	0.25	0.43	0.23	0.42
Elementary/Unskilled	0.08	0.26	0.12	0.32	0.11	0.31	0.09	0.29	0.10	0.30	0.11	0.31
Supervisor	0.28	0.45	0.28	0.45	0.25	0.43	0.25	0.43	0.29	0.45	0.28	0.45
Entrepeneurial Activity	0.09	0.28	0.07	0.25	0.08	0.27	0.07	0.25	0.08	0.26	0.06	0.23
Moscow	0.11	0.32	0.12	0.33	0.08	0.27	0.05	0.23	0.05	0.21	0.06	0.23
West Siberia	0.09	0.29	0.08	0.27	0.07	0.25	0.09	0.28	0.06	0.23	0.06	0.23
Central	0.17	0.38	0.19	0.39	0.21	0.41	0.19	0.39	0.16	0.37	0.18	0.38
Caucas	0.15	0.35	0.18	0.38	0.18	0.39	0.16	0.36	0.14	0.35	0.13	0.34
East Siberia	0.09	0.29	0.08	0.28	0.10	0.30	0.11	0.32	0.10	0.30	0.09	0.29
Urals	0.14	0.34	0.11	0.32	0.10	0.30	0.13	0.33	0.12	0.32	0.10	0.30
Volga-Vyatski Basin	0.16	0.36	0.15	0.36	0.17	0.37	0.18	0.38	0.20	0.40	0.20	0.40

	1996		1997		1998		2000		2001		2002	
Summary Statistics **Females**												
	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std	Mean	Std
Log (Real Hourly Wage)	2.23	0.87	2.35	0.90	1.89	0.85	1.95	0.84	2.23	0.88	2.60	0.81
Log (Total Hours Worked in Mont	4.98	0.45	5.00	0.40	4.97	0.41	5.02	0.39	5.01	0.41	5.00	0.42
Married	0.70	0.46	0.69	0.46	0.62	0.49	0.61	0.49	0.61	0.49	0.58	0.49
Children < 7	0.21	0.41	0.20	0.40	0.17	0.38	0.20	0.40	0.20	0.40	0.19	0.39
Age	37.51	8.62	37.81	8.81	37.43	9.26	37.94	9.69	37.41	9.83	37.57	9.74
Age Squared	1480.9	635.5	1506.9	650.1	1486.8	678.1	1533.4	721.8	1495.8	725.5	1506.7	724.7
Technical/Medical Education	0.35	0.48	0.32	0.47	0.37	0.48	0.36	0.48	0.37	0.48	0.38	0.49
University/Postgrad Degree	0.26	0.44	0.28	0.45	0.28	0.45	0.28	0.45	0.32	0.46	0.29	0.46
Vocation Training	0.25	0.43	0.26	0.44	0.24	0.42	0.24	0.43	0.28	0.45	0.27	0.44
High School Education	0.10	0.29	0.11	0.32	0.08	0.27	0.10	0.30	0.03	0.16	0.05	0.22
Primary School or Less	0.04	0.20	0.04	0.19	0.04	0.19	0.03	0.17	0.03	0.16	0.01	0.08
Private Sector Employee ('Russian/Foreign-owned)	0.26	0.44	0.32	0.47	0.31	0.46	0.30	0.46	0.36	0.48	0.42	0.49
Manager	0.03	0.18	0.01	0.08	0.03	0.16	0.05	0.21	0.07	0.25	0.06	0.23
Professional	0.23	0.42	0.28	0.45	0.27	0.44	0.27	0.44	0.30	0.46	0.26	0.44
Technical/Medical Field	0.27	0.44	0.24	0.43	0.28	0.45	0.25	0.43	0.23	0.42	0.25	0.43
Clerk	0.13	0.33	0.14	0.35	0.11	0.31	0.10	0.30	0.10	0.30	0.10	0.30
Service Worker	0.11	0.32	0.11	0.32	0.10	0.30	0.13	0.34	0.13	0.34	0.13	0.34
Craft Worker	0.05	0.21	0.06	0.23	0.04	0.21	0.05	0.21	0.03	0.18	0.04	0.19
Operator	0.06	0.23	0.07	0.25	0.08	0.27	0.07	0.25	0.07	0.26	0.08	0.27
Elementary/Unskilled	0.12	0.33	0.09	0.29	0.10	0.30	0.09	0.29	0.07	0.26	0.09	0.28
Supervisor	0.25	0.43	0.27	0.45	0.24	0.43	0.22	0.42	0.24	0.43	0.23	0.42
Entrepeneurial Activity	0.05	0.23	0.05	0.23	0.05	0.22	0.04	0.20	0.04	0.20	0.04	0.20
Moscow	0.11	0.31	0.13	0.34	0.10	0.30	0.06	0.23	0.04	0.20	0.05	0.21
West Siberia	0.09	0.28	0.10	0.30	0.08	0.27	0.09	0.29	0.08	0.28	0.06	0.23
Central	0.18	0.39	0.20	0.40	0.23	0.42	0.21	0.41	0.20	0.40	0.19	0.39
Caucas	0.17	0.37	0.16	0.37	0.16	0.37	0.17	0.37	0.15	0.35	0.15	0.36
East Siberia	0.09	0.29	0.08	0.27	0.09	0.28	0.10	0.29	0.08	0.27	0.07	0.26
Urals	0.10	0.30	0.09	0.28	0.09	0.29	0.11	0.31	0.10	0.29	0.10	0.30
Volga-Vyatski Basin	0.18	0.38	0.15	0.35	0.17	0.38	0.18	0.38	0.16	0.37	0.18	0.38

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