

How Do Workers Fare During Transition? Perceptions of Job Insecurity among Russian Workers, 1995-2004

By: Susan J. Linz and Anastasia Semykina

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Susan J. Linz*
Department of Economics
Michigan State University
East Lansing, Michigan

and

Anastasia Semykina Department of Economics Florida State University Tallahassee, Florida

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* corresponding author: Linz@msu.edu Phone: (517) 353-7280, fax (517) 432-1068

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Abstract

Labor market conditions deteriorated substantially in the 1990s during Russia's transition from plan to market, generating pervasive and prolonged economic insecurity. Our objective is to document perceptions of job insecurity among Russian workers over the course of the transition period and evaluate whether these perceptions are consistent with actual economic outcomes. We use RLMS data to examine perceptions of job insecurity among Russian workers between 1995 and 1998, when economic conditions were relatively chaotic, and between 2000 and 2004, when economic conditions had stabilized. We employ two measures to assess worker perceptions of job insecurity: one reflects workers' concerns about job loss, and the second evaluates their concern about ability to find employment in case of a lay-off. Our descriptive analysis focuses on workers who perceived their job situation as insecure during this period, categorizing workers based on their socio-demographic characteristics, job characteristics and region of residence. Using ordered probit analysis, we study conditional distributions of our measures of perceived job insecurity, and how those varied by worker characteristics, current economic conditions, and over time. Similar to studies conducted in developed market economies, we find that perceptions of job security are higher among workers with more education, among workers with status positions (supervisory responsibilities), and among workers who live in locales that are not adversely affected by economic conditions. Unlike these studies, however, we find that perceptions differ between men and women; age is negatively, rather than positively, correlated with confidence in keeping one's current job; and longer job tenure does not improve perceptions of job security. We find that worker perceptions are largely consistent with actual labor market conditions. Specifically, perceptions of job security were very low in years of major economic change and uncertainty (1995-1998), but improved during the years of relative economic stability (2000-2004). In both periods, workers with relatively weak positions in the labor market tended to have lower perceptions of job insecurity.

Key words: perceptions, Russia, job insecurity, gender **JEL Classification**: P23, J31, J71

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1. Introduction

Labor market conditions deteriorated substantially in the 1990s during Russia's transition from a centrally-planned economy to a market-oriented economy. Employment and real wages fell dramatically; the unemployment rate rose from zero to double-digits; worker turnover exploded, far exceeding turnover rates in developed market economies (Gimpelson and Lippoldt 2001, Lehmann and Wadsworth 2000, Rutkowski 2006). For many workers, transition generated pervasive and prolonged economic insecurity (Standing 1996, Desai and Idson 2000), and contributed to an unprecedented decline in all health-related indicators, most notably, life expectancy (Field and Twigg 2000).

While Russia's economic transformation has attracted much interest, generating literally hundreds of studies and publications, little is known about how Russians perceive their economic situation, in general, and their employment opportunities, in particular. Indeed, despite a growing number of studies conducted in developed market economies, perceptions of job insecurity have rarely been the focus of research conducted in transition economies. We propose to address this knowledge gap by documenting perceptions of job insecurity among Russian workers over the course of the transition period and evaluating whether these perceptions are consistent with actual economic outcomes.

Investigating perceptions of job insecurity is important for several reasons. Studies conducted in developed market economies find that perceptions of job insecurity not only adversely affect workers' physical and psychological well-being (Bertaux and Queneau 2002, Bohle *et al* 2001, Ettner and Grzywacz 2001), but also workers' organizational loyalty and job satisfaction (Chirumbolo and Hellgren 2003, DeWitte and Naswall 2003, Naswall and DeWitte 2003, Sverke and Goslinga 2003), contributing to deteriorating worker performance. Moreover, studies suggest that perceptions of job insecurity may directly affect such economic outcomes as consumption and employment, and may undermine workers' bargaining power in negotiations with their employers (Benito 2006, Dominitz and Manski 1997, Manski and Straub 2000). Perceptions of job insecurity may also motivate workers to invest their time

¹ See for example, Aaronson and Sullivan (1998), Bryson et al. (2004), Clark and Postel-Vinay (2005), Dominitz and Manski (1997), Elman and O'Rand (2002), Manski and Straub (2000), Schmidt (1999).

² To the best of our knowledge, the only study that focuses on perceptions of job security in Russia is by Clark and Sacks (2004), who use data collected from four Russian enterprises in spring of 1999. At the national level, the impact of various factors on the overall life satisfaction in Russia was studied by Eggers *et al.* (2006), Frijters *et al.* (2006), and Ravallion and Lokshin (2001).

and financial resources in more general education and training, as opposed to acquiring additional firm-specific human capital (Elman and O'Rand 2002). In the context of Russia's economic conditions, studies suggest that concerns about job loss and limited outside employment opportunities may affect saving (Guariglia and Kim 2004) and workers' ability to avoid wage arrears (Linz *et al* 2006).

We use nationally representative Russian Longitudinal Monitoring Survey (RLMS) data to examine perceptions of economic insecurity among Russian workers between 1995 and 2004, a period characterized by both unstable and relatively stable macroeconomic conditions. We employ two measures to assess worker perceptions of job insecurity; one reflects workers' concerns about job loss (*jobloss*), while the other evaluates their concerns about ability to find employment in case of a lay-off (*findjob*). Considering these measures over a long time span enables us to explore two different aspects of job insecurity, as well as to track changes in workers' perceptions. Indeed, these data make it possible to address the question of whether perceptions of job insecurity among Russian workers are consistent with real outcomes. We address the question by comparing perception patterns with the actual situation in Russia's labor market.

Our analysis of perceptions of job insecurity is structured as follows. Section 2 describes labor market conditions in Russia before and during the transition. We describe the data and our measures of job insecurity in Section 3. Results of our descriptive and regression analyses are discussed in Section 4, where we also evaluate whether perception patterns observed in Russia are similar to those documented in studies conducted in developed market economies and assess the extent to which worker perceptions are consistent with actual economic conditions. Section 5 presents concluding remarks.

2. Labor Market Adjustment in Russia

Russia's transition resulted in significant employment and wage adjustment because socialist institutions and economic outcomes differed significantly from capitalist counterparts (Gregory and Lazarev 2004). Soviet labor market conditions were characterized by high labor force participation (Moskoff 1984). "Parasite laws" made unemployment essentially illegal, contributing to over 95 percent of the adult population working full-time for the state (Hanson 1986). "Job rights" meant that permanent employment contracts were the norm, and dismissals rare (Granick 1987). These factors, in an environment dominated by "soft" budget constraints (Kornai 1980), caused firms to employ more workers than were actually necessary to produce a given level of output. Surplus labor, combined with out-dated machinery and equipment, resulted in low labor productivity. Planners set basic wages correspondingly low, but established the institution of firms providing workers with housing, health care, child care, recreational facilities, and other social services. Centrally-determined prices of basic

necessities also were set relatively low and remained stable over time.

When Russia began its transformation in 1992, labor codes were rewritten: parasite laws dropped and unemployment "legalized." Labor force participation fell to just over 80 percent (Rutkowski 2006), in part by choice (especially among women) and in part because of circumstance – discouraged workers facing no local job opportunities withdrew from the labor force.

Despite output reductions of more than 50 percent in many sectors and regions, Russia's employment-to-population ratio remained quite high in comparison to other transition economies. Partly, this is explained by workers moving from stable full-time jobs to temporary, insecure, part-time jobs, in the formal or 'informal' sector (Guariglia and Kim 2006, Khotkina 2001, Maslova and Baranenkova 2004, Sabirianova 2002). Partly, it is explained by glacial change in the institution of job rights (Clarke 1999, Linz 1995 1998). Maintaining employment despite dramatic production declines contributed to significant wage adjustment, including widespread use of unpaid leave and wage non-payment.³ Releasing workers to unemployment appears to have been a last resort strategy; Russian firms had no money to pay the severance cost. Nevertheless, the national unemployment rate rose to approximately 8 percent by the end of 1994, and exceeded 10 percent in 1997. The unemployment rate peaked at nearly 13 percent in 1999, shortly after Russia's financial crisis, and then slowly declined, approaching 7.6 percent in 2005 (IMF 2003, 2006).

While centrally-planned economies exhibited relatively low wages and minimal income inequality, the transition process introduced enormous income disparities as wages became more closely linked to productivity and alternative sources of non-labor incomes emerged.⁴ Rapidly growing demand for workers with skills in commercial banking, financial markets, legal and insurance services, procuring transportation equipment and services, personnel relations, marketing, and advertising, to name just a few, translated into higher wages and better employment opportunities in these sectors (Rutkowski 2006). Moreover, regional disparities in the pace of economic and enterprise restructuring have generated widespread variation in local labor markets conditions.

Dramatic changes in Russia's economic conditions, and the corresponding labor market adjustments, likely elevated perceptions of job insecurity among Russian workers, and some workers found themselves in more unfavorable situations than others. Who were those workers that felt most disadvantaged, and how their perceptions changed as transition progressed from the period of

³ See, for example, Standing (1996) for discussion of unpaid leave, and Desai and Idson (2000), Earle and Sabirianova (2002 2004), Lehmann *et al* (1999 2003), Linz *et al* (2006), for the discussion of wage arrears in Russia.

⁴ Goskomstat (2000) reports that property income rose from 1 percent to nearly 8 percent of total income between 1992 and 1999.

uncertainty and crisis to the prevalence of developed market relations and virtual economic stability,

3. Data Description and Measures of Job Insecurity

Data for our analysis were obtained from the Russian Longitudinal Monitoring Survey (RLMS) Phase II (rounds VI-XIII), which correspond to years 1995, 1996, 1998, 2000, 2001, 2002, 2003, and 2004 (no survey was conducted in 1997 or 1999).⁵ Our sample was restricted to the civilian workforce, aged 15-65,⁶ and, among those, if either the economic insecurity measures or other variables used in the regression analysis (marital status, education, tenure, local unemployment rate) were missing, the observation/respondent was dropped. The size of the resulting sample is 32,977 observations, although we use somewhat smaller sub-samples in our analysis of the two aspects of job insecurity because of the missing data for the corresponding variables.

Due to substantial changes in economic conditions in Russia throughout the considered period, we need to allow for the possibility that the contribution of different factors to perceptions of job insecurity varied over time. In order to permit such flexibility in our estimates, we perform estimation separately for two periods: the period of major economic fluctuations and uncertainty (1995-1998) and the period of relative stability (2000-2004). We provide summary statistics for the samples used in particular descriptive and regression analyses in the Appendix.

Although our data come from a longitudinal survey, we refrain from using panel data methods in our regression analysis. The reason for this is that RLMS data is not a true panel. Whenever the respondents moved to a different location, they were not followed; instead, the dropouts were replaced with new (appropriately selected) respondents. This way the data remained representative of the whole Russian population in each given period, but any type of analysis that would seek to utilize the panel properties of the data set would suffer from selection biases. Therefore, in our regression analysis we

⁵ We thank Charles Petrin for constructing the data set used in our analysis.

⁶ Given mobility and other constraints not typical of the rest of the working population, individuals who reported themselves ask working for the military in any capacity were excluded. Individuals were categorized as members of civilian work force if two conditions were met. First, in response to the question about their "main occupation," they selected "employed," "on official childcare or maternity leave," or "unemployed, actively looking for work.

Excluded are the categories of students, housewives, and retired (and no longer working). Second, they reported holding a primary job coded according to the four-digit International Standard Classification of Occupations (ISCO) that is consistent with an employee working in a civilian (non-farm) enterprise. Excluded are individual farmers, senior government officials, artists and entertainers, fashion models, religious leaders, and so on, who have rather atypical performance criteria to meet in highly specialized labor markets. We use two criteria because ambiguity regarding labor force participation emerges from the fact that respondents give different responses to similar questions, making no one question a sure-fire signal of employment status. Moreover, while other researchers have elected to drop individuals in the RLMS who are not officially "working age" (18-60 years old for men and 18-55 years old for women), we have only dropped individuals under age 15 and those over age 65.

use cross-sectional estimation techniques, but account for correlation between observations within each individual unit by computing standard errors adjusted for cluster at the individual level.⁷

When choosing our perception measures, we rely on previous research which identifies two important aspects of job insecurity perceptions: (i) fear of job loss and (ii) confidence in finding alternative employment in case that becomes necessary (Dominitz and Manski 1997, Elman and O'Rand 2002, Manski and Straub 2000, Schmidt 1999). Two RLMS questions included in each survey round address these issues. Respondents were asked:

How concerned are you that you might lose your job? (jobloss)

Imagine this not very pleasant scene: the enterprise or organization where you work, for some reason will close tomorrow, and all workers will be laid off. How certain are you that you will be able to find work, no worse than your present job? (findjob)

In each case, respondents were given a 5-point Likert scale, where 1 reflected a negative assessment (fear) and 5 reflected a positive assessment (confidence). Substantial similarities between the RLMS questions and questions cited in the literature on developed market economies facilitate the comparison of our results with those of other studies.

4. Perceptions of Job Insecurity in Russia

We analyze variation in perceptions of economic insecurity by first examining unconditional effects, and second by using ordered probit regression analysis to study the influence of various factors conditional on other things being equal.

4.1 Descriptive analysis

When considering the unconditional effects, we focus on the proportion of workers who perceived their job situation as very insecure or relatively insecure during 1995-1998 and 2000-2004. We categorize workers based on their socio-demographic characteristics, job characteristics, and region of residence, and compute the percent within each group for the two time periods. Our descriptive analysis results are reported in Table 1.

Overall, more than half of the workers expressed concerns about job insecurity. Perceptions of job insecurity were particularly strong in the mid- and late- 1990s, and weakened in the subsequent, more stable, years. Even though there is clear evidence of improvement over time, our findings suggest that perceptions of job insecurity are more common among Russia's workers than among workers in

⁷ Standard errors were computed using *cluster* option in Stata.

developed market economies.8

Concerns about the possibility of losing one's job tend to increase with age up to the point when workers reach retirement age, and decline afterward. In contrast, uncertainty about finding another job increases monotonically with age. Perceptions of job insecurity are more common among women than among men, and the gender difference is especially large when 'concerned about finding a new job' is the insecurity measure (columns 3 and 4). Workers with university education and those who have supervisory responsibilities are more likely to perceive their jobs as secure. However, a long-lasting employment relationship with the same employer does not enhance security – workers with longer job tenure tend to perceive greater economic risks (insecurity).

Occupational differences are partly as expected. The least concerned about their economic situation are managers and professionals; that is, workers who were in high demand in the emerging market economy. Interestingly, teachers, nurses, and social workers have similarly low perceptions of job insecurity, yet the demand for such workers did not show noticeable growth over the course of transition. These occupations, typically associated with state sector employment and thus low pay, became rather unattractive to workers after the socialist system collapsed. Thus we view the fact that they perceive their jobs to be secure as likely driven by a negative supply shock.

Regarding differences in local labor market conditions, perceptions of job insecurity are positively related to the local unemployment rate in 2000-2004, although no clear pattern arises in 1995-1998. Workers living in rural settlements were relatively optimistic about keeping their jobs during the years of high volatility; however, opportunities for alternative employment and chances for keeping job when the economy is stable were perceived to be better in urban areas. Regional differences also are present. The most notable result is that workers residing in major metropolitan areas (Moscow and St. Petersburg) are less likely to feel insecure than workers in all other regions.

4.2 Regression analysis of perceptions

While the descriptive analysis helps to identify general relationships in the data, we are most interested in studying the impact of various factors conditional on other things being equal. Using ordered probit regressions, with our two measures of job insecurity (*jobloss* and *findjob*) as dependent variables, we perform estimation separately for 1995-1998 and 2000-2004. For each dependent variable,

⁸ Manski and Straub (2000) report that in the U.S., the average expected probability of job loss was about 15 percent in the mid- and late-1990s. Schmidt (1999) finds that in 1996, about 10 percent of U.S. workers believed that job loss was very or fairly likely, and less than 5 percent believed that they were both likely to lose their jobs in the next 12 months and would not be able to easily find another job with similar compensation.

⁹ Because the responses to economic insecurity questions are qualitative, ordered probit is an appropriate model to use, as it preserves ordering without attaching a numerical meaning to each response.

the lowest value of the measure reflects the most adverse outcome (fear, insecurity) and the highest value reflects the most favorable outcome (confidence, security).

In the set of explanatory variables, we include age and age-squared (to allow for nonlinearities), gender, marital status, a dummy variable for married women, education dummies, tenure and tenure-squared, the local unemployment rate, occupation and region dummies, and a dummy for rural settlements. In all regressions, we permit the intercept to be year-specific by adding year dummies. Coefficient estimates for *jobloss* and *findjob* are reported in Table 2.

Age. There is substantial variation in perceptions by age, especially when jobloss (columns 1 and 2) is used as the measure of job insecurity. Workers become more concerned about the possibility of losing their jobs as they age, and only after age 42 do they begin to regain some confidence. This is in contrast to developed market economies, where workers' expectations of job loss tend to decrease with age (Dominitz and Manski 1997, Manski and Straub 2000). On the other hand, estimates from the findjob regressions (columns 3 and 4) reveal similarities between developed market economies and Russia. Similar to workers in Western countries, perceptions of a positive job search outcome among Russian workers decrease with age, although this relationship is less apparent in 1995-1998. For all reasonable ages, the age profile is both declining and concave, suggesting that workers' confidence in finding a new job diminishes faster as age increases.

Tenure. While in developed market economies the fear of job loss tends to decrease with tenure (Elman and O'Rand 2002), our results in Table 2 suggest that the opposite is true for Russia – perceptions of job insecurity among Russian workers tend to increase as a workers stays longer with the current employer. Before 2000, uncertainty about maintaining one's current job and finding a new job was greatest among workers with the longest job tenure; the quadratic term is small and insignificant at all conventional levels. In 2000-2004, the tenure profiles are convex, suggesting that perceptions of job security start to recover after the turning point is reached. Nevertheless, in the range of observed data, perceptions of job security are greatest among workers with fewer years of tenure.

Gender and marital status. In all regressions, perceptions of job insecurity are significantly higher among women. When job insecurity is measured by one's confidence in finding a new job (columns 3 and 4 in Table 2), gender differences in perceptions are smaller in more recent years. In contrast, there is no sign of improvement over time for the other aspect of job insecurity (*jobloss*). These findings disagree with patterns observed in developed economies, where gender differences in perceptions of job insecurity were found to be negligible (Dominitz and Manski 1997, Elman and O'Rand 2002, Manski and Straub 2000). However, our results are similar to those of Clark and Sacks

(2004), who find that Russian women are more uncertain than men about their job security and their alternative employment options.

Married women are slightly less confident in finding new jobs than are single women, although the differences are small and statistically insignificant at all conventional levels. The effects are exactly opposite for men. In 2000-2004, married women were less concerned about job loss than were single women, which could be due to the presence of a spouse, who is typically considered to be the major wage earner in the family.

Education. It appears that, when other factors are held constant, perceptions of workers with vocational training are largely similar to those of workers with no post-secondary education. In contrast, workers with university education tend to feel more secure on their jobs, which is akin to findings of other studies (Dominitz and Maski 1997, Manski and Straub 2000). Interestingly, Russian workers with university education had significantly higher perceptions of job security during 1995-1998, but the beneficial effect of education decreased substantially in subsequent years.

Occupation and position. There is relatively little variation in perceptions by occupation. For the reasons discussed earlier, perceptions of job security are higher among teachers, nurses and social workers. Managers and officials perceived their jobs as relatively secure in 1995-1998, but not in later years. The most disadvantaged are the semi-skilled manual workers, who are highly uncertain about their job situation.

Workers with supervisory responsibilities are more confident in their ability to maintain current employment and find a new job in case it becomes necessary. Moreover, their confidence grows over time.

Local labor market conditions. Once we control for other factors, we can see a clear relationship between perceptions and local unemployment rate. Perceptions of job insecurity tend to be higher among workers in regions characterized by higher unemployment rates. In 1995-1998, though, the negative impact of the local unemployment on *jobloss* is rather small and insignificant at the 5% level, indicating that during the period of substantial uncertainty, workers were roughly equally concerned about a chance of losing their jobs, regardless of whether the unemployment rate was high or low. Among workers residing in rural settlements, perceptions of job loss were relatively low in the mid-to late-1990s, but increased considerably during 2000-2004. The chances for finding a new job were perceived to be consistently lower in rural locales, with urban-rural differences growing over time.

Throughout the period under investigation, workers residing in Moscow and St. Petersburg perceived their job situation as relatively secure. Job insecurity is also of less concern in Northern and

North Caucasian regions. In other regions, the perception patterns seem to be less clear. For instance, workers in Eastern Siberian and the Far East express confidence in finding new jobs but are rather uncertain about their ability to maintain current employment.

4.3 Conditional distribution of perceived economic insecurity

To evaluate the size of the effects of individual characteristics and macroeconomic conditions on perceptions of job insecurity conditional on other factors being fixed, we estimate conditional distributions of *jobloss* and *findjob* at different values of the explanatory variables. For example, to estimate the conditional distribution of *jobloss* for workers at age 25, we set age equal to 25 for each individual, while keeping all other covariates at their original (reported) values, and use standard ordered probit formulae for response probabilities to obtain estimated individual probabilities for *jobloss* (see, for example, Wooldridge 2002, section 15.10). Then, we compute sample means of the individual probabilities to obtain the average estimated probability of each outcome, given age equal to 25. Following the same procedure, we obtain estimated distributions for other age levels. Similarly, we analyze the contribution of other factors to the variation in *jobloss*, and then repeat the procedure for *findjob*.

Conditional distributions of perceived insecurity measures estimated at different values of selected characteristics are displayed in Table 3. Comparisons by age show that age has the largest effect on the probability of falling into the most disadvantaged (lowest perceived job insecurity) category and the impact is the greater for *findjob*. While workers become less concerned about the possibility of job loss as they approach the retirement age, uncertainty about finding a new job always increases with age. The estimated probability of reporting the worst *findjob* outcome (absolutely uncertain) is substantially larger for workers aged 55 than for 25 year olds (0.51 versus 0.31 in 1995-1998, and 0.35 versus 0.17 in 2000-2004). The probability of the best *findjob* outcome (absolutely certain) is noticeably larger for younger workers than for older workers, although there is less variation in this outcome over time.

The estimates in Table 3 once again demonstrate that women have much higher perceptions of job insecurity than men. In 1995-1998, conditional on other factors held constant, the probability of being either "very concerned" or "fairly concerned" about job loss is slightly less than 0.59 for single men and approximately 0.67 for single women; the gender difference is slightly larger in 2000-2004 (0.52 for single men versus 0.63 for single women). The most striking gender differences are in *findjob* outcomes for married workers in the relatively early stages of Russia's transition. While marriage gives an advantage to men, for women it causes additional difficulties. In 1995-1998, the probability of being

"absolutely uncertain" about finding a new job is estimated to be approximately 0.19 (or 19 percent on the absolute probability scale) greater for married women than for married men, although the difference reduces to less than 11 percentage points by 2004. In contrast, the estimated probability of the best *findjob* outcome ("absolutely certain") is almost 6 percentage points higher for single men than for comparable single women. The corresponding gender differences for married workers are somewhat larger.

Workers with university education tend to have higher perceptions of job security, although the effect of education on the conditional distribution is modest. The probability of a particular outcome may change by, at most, 4 percent when a worker with no post-secondary education is compared to a worker with university-level training. In 1995-1998, a change from secondary education to university-level training reduces the estimated probability of the worst *jobloss* outcome by 3.3 percentage points and increases the probability of the best *jobloss* outcome by 2.2 percentage points. In 2000-2004, perceptions of a positive job search outcome appear to be no better among workers with higher education than among workers with vocational or secondary education. Similarly, the conditional distributions vary little with tenure. In 1995-1998, the estimated probability of falling into the "very concerned" job loss category is about 2.2 percentage points higher for workers with 10 years of tenure than for workers with only one year of tenure; in 2000-2004, the difference is somewhat larger (about 3.5 percentage points). There is slightly more variation in the probabilities of different *findjob* outcomes. In 2000-2004, workers with 10 years of tenure were about 6 percentage points more likely to fall into the "absolutely uncertain" category for *findjob* and 5 percentage points less likely to fall into the "absolutely certain" category than workers with one year of tenure.

Local unemployment appears to have a larger impact on workers' perceptions of their ability to find new jobs than on concerns about losing current job. An increase in the local unemployment rate of 3 percentage points leads to an increase in the probability of the most unfavorable *findjob* outcome by about 3.5 percentage points in 1995-1998, and by more than 2 percentage points in 2000-2004. The corresponding decrease in the probability of the most unfavorable *findjob* outcome is about 2 percentage points throughout the entire period.

4.4 Discussion: Perceptions versus reality

Although our results are, in some cases, different from findings based on data collected in developed market economies, they seem to match reality fairly well. Workers' views of their own job situation were rather pessimistic in the mid-1990s, when inflationary conditions wreaked havoc, and during the financial crisis in 1998, when macroeconomic conditions deteriorated once again. Workers

felt more secure during the relatively stable years, 2000-2004, when Russia's transition to a market economy came close to completion. Workers in locales with higher unemployment rates were more concerned about losing current jobs and finding new ones. Perceptions of job security were higher in metropolitan areas, where employment opportunities are more plentiful (Grogan and Van den Berg 2001).

In the RLMS data, there is little variation in perceptions of job insecurity across workers with different years of tenure, which is consistent with the observation that, holding other factors constant, the actual probability of job separation in Russia was found to be roughly even across workers with more than five years of tenure (Lehmann and Wadsworth 2000), and there appeared to be no return to job tenure in terms of earnings (Clark 2003, Gorodnichenko and Sabirianova 2005, Lehmann and Wadsworth 2000). In contrast, in developed market economies, worker turnover declines significantly with tenure, and wages tend to rise with seniority (Altonji and Williams 2005, Lehmann and Wadsworth 2000), which may help to explain why perceptions of job insecurity in these countries are lower among workers with more years of tenure.

Substantial concern among older workers about finding a new job is similar to results reported in studies conducted in developed market economies and is consistent with the fact that, in Russia's transition economy, unemployment spells tended to be longer among older workers (Foley 1997), and the pool of new hires was dominated by young workers (Lehmann and Wadsworth 2000). Among U.S. workers, perceptions of job insecurity decrease with age. We find the opposite is true in Russia. This difference could stem from the fact that U.S. workers aged 40-54 may be overly optimistic about their job security (Schmidt 1999).

Numerous studies of the Russian labor market suggest that women are disadvantaged in terms of both earnings and employment opportunities. Holding other factors constant, the gender wage gap in Russia was estimated at 36 to 70 percent between 1995 and 2002 (Clark 2003, Gorodnichenko and Sabirianova 2005). Grogan and Van den Berg (2001) find that, while Russian women had significantly shorter unemployment spells than men in the mid-1990s, the incidence of unemployment was higher among women. Gerber and Mayorova (2006) find that, even though women gained greater access to new jobs over the course of Russia's transition, the quality of the new positions was lower for women when compared to men. Moreover, given policies and practices adopted during Russia's transition that discriminate against women with children (Gerry et al 2004, Linz 1996 1998), it is not surprising that married women tend to be more concerned about their ability to find alternative employment. These findings suggest that generally high perceptions of job insecurity among Russian women are fully

justified. We must also note that the extent of gender discrimination is substantially greater in Russia than in developed Western countries,¹⁰ which may explain why gender differences in perceptions are observed in Russia, and not in developed market economies.

A decline in perceptions of job security over time among Russian better educated workers is unusual, but not completely irrational. In the mid-1990s, workers with university education tended to have shorter unemployment spells than less educated workers (Grogan and Van den Berg 2001); however, the situation seems to have changed in later years. According to the Russian Statistical Agency, Rosstat, almost 14 percent of workers who were unemployed in 2003-2004 had either complete or incomplete higher education, while in 1995, the corresponding number was 11.5 percent.

5. Summary and Conclusions

Using data from a nationally representative survey, we examine perceptions of economic insecurity in Russia between 1995 and 2004. We find that perceptions of Russian workers follow patterns which, in part, are similar to those obtained from studies conducted in developed market economies: perceptions of job security tend to be higher among workers with more education, among workers with status positions (supervisory responsibilities), and among workers who live in locales that are not adversely affected by economic conditions. Unlike these studies, however, we find that perceptions differ between men and women; age is negatively, rather than positively, correlated with confidence in keeping one's current job; and longer job tenure does not improve perceptions of job security.

Worker perceptions are largely consistent with actual labor market conditions. Specifically, perceptions of economic security were very low in years of major economic change and uncertainty (1995-1998), but improved during the years of relative economic stability (2000-2004). In both periods, workers with relatively weak positions in the labor market tended to have higher perceptions of job insecurity. Overall, feelings of job insecurity appear to be more prevalent in Russia than in developed market economies. Comparisons between perceptions of job insecurity in Russia and in other countries that have undergone transition from plan to market constitute a possible avenue for future research.

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¹⁰ For instance, the unconditional gender wage gap in late 1990s was about 16% in Great Britain (Daly *et al.* 2006), 20% in the U.S. (Blau and Kahn 2004), and 30% in Russia (Newell and Reilly 2001).

Table A1. Summary Statistics for the Variables used in the Analysis of JOBLOSS and FINDJOB, by period

Variable	JOBL	.OSS	FINDJOB			
	1995-1998	2000-2004	1995-1998	2000-2004		
Age	38.53 (11.30)	38.03 (11.46)	38.62 (11.24)	38.27 (11.43)		
Female	0.53	0.54	0.53	0.55		
Married	0.82	0.74	0.82	0.75		
Secondary degree or less	0.18	0.16	0.18	0.16		
Vocational-level training	0.36	0.36	0.36	0.35		
University-level training	0.46	0.48	0.46	0.49		
Tenure	7.99 (8.93)	7.34 (8.78)	8.09 (8.93)	7.65 (8.91)		
Supervisor	0.22	0.21	0.22	0.22		
Managers & professionals	0.14	0.15	0.14	0.16		
Skilled technical & administrative	0.14	0.14	0.14	0.15		
Clerical, sales, service	0.14	0.16	0.13	0.14		
Teachers, nurses, social workers	0.10	0.09	0.10	0.10		
Skilled manual	0.17	0.14	0.17	0.14		
Semi-skilled manual	0.19	0.18	0.19	0.18		
Unskilled manual	0.13	0.13	0.13	0.13		
Northern and North Western	0.08	0.08	0.08	0.08		
North Caucasian	0.12	0.10	0.12	0.10		
Ural	0.16	0.15	0.16	0.15		
Central and Central Black-Earth	0.19	0.19	0.19	0.19		
Volga-Vyatski and Volga Basin	0.17	0.17	0.18	0.18		
Western Siberian	0.08	0.08	0.08	0.08		
Eastern Siberian and Far Eastern	0.10	0.10	0.10	0.10		
Metropolitan: Moscow/ St. Petersburg	0.09	0.13	0.09	0.14		
Rural settlement	0.27	0.26	0.27	0.25		
Local unemployment rate	10.82 (3.34)	8.27 (3.53)	10.77 (3.30)	8.23 (3.54)		
Number of observations	10,633	22,235	10,206	20,739		

Standard deviations in parentheses under the sample means.

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Table 1. Percent of Workers Who Feel Most Vulnerable, by period.

	Concerned about a chance of losing job ^a		Uncertain about finding job if laid off ^b		
	1995-1998	2000-2004	1995-1998	2000-2004	
Overall	63.95	52.71	64.27	48.35	
Age 15-24	56.36	44.15	50.53	33.89	
Age 25-39	64.04	51.38	60.99	40.07	
Age 40-54	68.19	57.91	68.95	57.75	
Age over 54	58.51	49.52	77.59	67.25	
Male	60.67	50.39	55.39	41.51	
Female	66.83	54.65	71.99	54.04	
Married	64.22	52.99	62.35	48.58	
Not married	62.72	51.88	64.68	47.67	
Education					
Secondary degree or less	66.25	53.61	68.94	50.35	
Vocational-level training	66.46	53.38	64.73	47.13	
University-level training	61.10	51.89	62.10	48.60	
Less than 1 year tenure	61.69	48.01	56.69	37.73	
1 to 3 years tenure	60.93	49.74	58.98	41.36	
3 to 10 years tenure	64.81	53.78	64.28	48.31	
More than 10 years tenure	66.89	58.21	72.77	62.56	
Supervisor	60.62	50.07	60.47	45.48	
Not a supervisor	64.87	53.42	65.33	49.16	
Occupation	01.07	00.12	00.00	10.10	
Managers & professionals	57.89	50.07	58.68	48.02	
Skilled technical & administrative	64.88	54.22	65.05	47.63	
Clerical, sales, service	69.10	52.66	70.59	48.61	
Teachers, nurses, social workers	58.29	49.93	61.86	48.93	
Skilled manual	63.34	51.12	59.73	43.69	
Semi-skilled manual	66.67	58.46	66.11	50.36	
Unskilled manual	65.27	49.84	68.31	51.18	
Region	05.27	43.04	00.51	31.10	
Northern and North Western	59.09	49.08	65.27	39.17	
North Caucasian	61.54	55.58	64.36	49.80	
Ural	67.84	53.26	63.40	48.26	
Central and Central Black-Earth	62.48	52.30	66.90	48.12	
Volga-Vyatski and Volga Basin	67.64	56.42	68.64	53.63	
Western Siberian	67.22	56.55	64.13	55.10	
Eastern Siberian and Far Eastern	69.11				
	52.68	57.30 41.86	64.97 50.42	50.98 40.19	
Metropolitan: Moscow/ St. Petersburg Urban settlement					
Rural settlement	64.98	51.69	62.25	44.65	
	61.15	55.65	69.79	59.20	
Local unemployment rate under 6%	73.13	45.47 54.64	66.77	41.83	
Local unemployment rate 6-10%	58.26	54.64	58.78	50.54	
Local unemployment rate over 10%	67.54	55.73	68.16	50.50	

Respondents were included in this group if said they were "Very concerned" or "A little concerned."

b Respondents were included in this group if said they were "Absolutely uncertain" or "Fairly uncertain."

Table 2. Ordered probit estimates for JOBLOS and FINDJOB, by period

	JOBLOS		FINDJOB			
-	1995-1998	2000-2004	1995-1998	2000-2004		
Age	-0.075***	-0.052***	-0.008	0.001		
Age squared / 100	(0.008) 0.089***	(0.006) 0.060***	(0.008) -0.012	(0.007) -0.026***		
Age Squared / 100	(0.010)	(0.008)	(0.010)	(0.009)		
Female	-0.225***	-0.282*** (0.041)	-0.349***	-0.258***		
Married	(0.060) 0.054	(0.041) -0.035	(0.061) 0.132**	(0.043) 0.096***		
	(0.051)	(0.034)	(0.052)	(0.037)		
Married * Female	-0.009 (0.064)	0.162*** (0.044)	-0.195*** (0.064)	-0.114** (0.047)		
Vocational-level training	-0.015	0.034	0.036	0.042		
hali yanali. I ayal ina laina	(0.035)	(0.028)	(0.035)	(0.030)		
University-level training	0.105*** (0.037)	0.050* (0.030)	0.116*** (0.038)	0.008 (0.032)		
Геnure	-0.008*	-0.015***	-0.015***	-0.026***		
Farana armanad / 400	(0.004)	(0.003)	(0.004)	(0.004)		
Tenure squared / 100	0.013 (0.014)	0.031*** (0.011)	0.017 (0.015)	0.036*** (0.012)		
Supervisor	0.077**	0.086***	0.094***	0.132***		
Managara 9 professionals	(0.033)	(0.026)	(0.033)	(0.026)		
Managers & professionals	0.170*** (0.053)	-0.006 (0.041)	0.157*** (0.055)	0.034 (0.044)		
Skilled technical & administrative	0.006	-0.117***	0.021	-0.067		
Clarical calca comica	(0.048)	(0.039)	(0.049)	(0.041)		
Clerical, sales, service	-0.024 (0.048)	-0.032 (0.037)	0.014 (0.050)	0.056 (0.040)		
Teachers, nurses, social workers	0.241***	0.116**	0.274***	0.208***		
Skilled manual	(0.059) 0.029	(0.048) -0.030	(0.060) 0.012	(0.051) 0.001		
Skilleu Halluai	(0.046)	(0.037)	(0.048)	(0.039)		
Semi-skilled manual	-0.075	-0.205* [*] *	-0.096**	-0.144* [*] *		
Rural settlement	(0.046) 0.108***	(0.035) -0.090***	(0.046) -0.147***	(0.037) -0.378***		
varai settiement	(0.032)	(0.025)	(0.032)	(0.026)		
ocal unemployment rate	-0.009*	-0.025***	-0.033***	-0.028***		
Northern and North Western region	(0.005) 0.166***	(0.004) 0.260***	(0.006) 0.079	(0.005) 0.460***		
volution and World Western region	(0.057)	(0.050)	(0.060)	(0.050)		
North Caucasian region	0.093*	0.083*	0.154***	0.263***		
Jral region	(0.051) 0.036	(0.043) 0.070*	(0.050) 0.085*	(0.044) 0.108***		
Stat region	(0.044)	(0.036)	(0.045)	(0.038)		
Central and Central Black-Earth region	0.072	0.079**	0.022	0.151***		
Western Siberian region	(0.044) 0.020	(0.036) 0.019	(0.045) 0.114**	(0.038) 0.167***		
Western Siserian region	(0.054)	(0.043)	(0.054)	(0.046)		
Eastern Siberian and Far Eastern region	-0.067	-0.010	0.087*	0.152***		
Metropolitan: Moscow/ St. Petersburg	(0.052) 0.364***	(0.040) 0.221***	(0.051) 0.356***	(0.042) 0.198***		
	(0.055)	(0.044)	(0.056)	(0.049)		
1996	-0.036		-0.079***			
1998	(0.022) -0.233***		(0.023) -0.092***			
	(0.033)		(0.034)			
2001		0.117***		0.125***		
2002		(0.022) 0.092***		(0.022) 0.086***		
		(0.023)		(0.025)		
2003		0.112***		0.093***		
2004		(0.023) 0.084***		(0.023) 0.075***		
		(0.024)		(0.024)		
Number of observations	10633	22235	10206	20739		

Standard errors robust to heteroskedasticity and serial correlation are in parentheses under the coefficient estimates. Cut point estimates are available from the authors upon request.

* significant at 10%; ** significant at 5%; *** significant at 1%

Reference categories: workers with no postsecondary education, unskilled manual workers, Volga-Vyatski and Volga Basin region.

Table 3. Estimated Conditional Distribution of Job Insecurity for Various Values of Selected Conditioning Variables.

		Age		Single	Married	Single	Married		Education			Tenure		Local U	nemploym	ent Rate
	25	40	55	Men	Men	Women	Women	Secondary	Vocational	University	1	3	10	6%	9%	12%
JOBLO:	SS, 1995 -	1998						•		,						
1	0.344	0.440	0.385	0.365	0.346	0.450	0.433	0.411	0.416	0.372	0.381	0.386	0.403	0.378	0.388	0.399
2	0.221	0.220	0.222	0.220	0.219	0.218	0.219	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220
3	0.103	0.092	0.099	0.100	0.102	0.091	0.093	0.095	0.095	0.100	0.099	0.098	0.096	0.099	0.098	0.097
4	0.163	0.133	0.150	0.156	0.162	0.130	0.135	0.142	0.140	0.154	0.151	0.150	0.145	0.152	0.149	0.146
5	0.170	0.114	0.144	0.158	0.171	0.111	0.120	0.132	0.128	0.154	0.149	0.145	0.136	0.151	0.144	0.139
JOBLO:	SS, 2000 -	2004		•				1		1				•		
1	0.274	0.341	0.315	0.271	0.283	0.369	0.324	0.324	0.312	0.307	0.293	0.302	0.328	0.291	0.316	0.343
2	0.252	0.260	0.258	0.250	0.252	0.260	0.258	0.257	0.256	0.256	0.255	0.256	0.259	0.255	0.258	0.260
3	0.115	0.109	0.111	0.115	0.114	0.105	0.110	0.110	0.111	0.112	0.113	0.113	0.110	0.114	0.111	0.108
4	0.186	0.162	0.172	0.187	0.183	0.152	0.168	0.168	0.172	0.174	0.180	0.176	0.167	0.180	0.171	0.161
5	0.172	0.128	0.143	0.177	0.168	0.114	0.140	0.140	0.148	0.152	0.160	0.153	0.137	0.160	0.143	0.127
FINDJC	PB, 1995 -	1998		Ī				1		I				Ī		
1	0.307	0.393	0.506	0.333	0.289	0.460	0.483	0.416	0.403	0.374	0.361	0.372	0.404	0.336	0.370	0.405
2	0.262	0.264	0.249	0.263	0.258	0.257	0.253	0.258	0.259	0.260	0.262	0.262	0.261	0.260	0.261	0.260
3	0.146	0.130	0.106	0.141	0.148	0.116	0.111	0.125	0.127	0.133	0.136	0.134	0.128	0.140	0.134	0.127
4	0.134	0.109	0.078	0.126	0.139	0.090	0.084	0.103	0.107	0.115	0.118	0.115	0.106	0.126	0.116	0.106
5	0.152	0.103	0.061	0.136	0.165	0.077	0.068	0.099	0.104	0.119	0.122	0.117	0.101	0.138	0.119	0.101
FINDJC	PB, 2000 -	2004		i				i		ı				1		
1	0.170	0.235	0.351	0.209	0.184	0.284	0.290	0.247	0.235	0.245	0.203	0.216	0.259	0.224	0.247	0.272
2	0.234	0.261	0.278	0.244	0.234	0.265	0.266	0.254	0.251	0.254	0.247	0.252	0.264	0.248	0.255	0.261
3	0.162	0.159	0.141	0.157	0.158	0.150	0.150	0.154	0.155	0.154	0.160	0.159	0.155	0.156	0.154	0.151
4	0.234	0.204	0.152	0.216	0.227	0.183	0.180	0.199	0.204	0.200	0.219	0.213	0.193	0.209	0.199	0.188
5	0.200	0.142	0.079	0.173	0.197	0.118	0.115	0.146	0.155	0.147	0.172	0.161	0.129	0.163	0.144	0.128

JOBLOSS: 1 = very concerned; 5 = not concerned at all. FINDJOB: 5 = absolutely uncertain; 5 = absolutely certain.

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