

Chapter 5

Gender Differences in the Employment Patterns of People 45+ in Russia



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Abstract The employment rates for middle-aged and older men and women in Russia grew remarkably in the 2000–2010s, and the latter increased faster than the former. Possible explanations for this tendency might be the substantially higher life expectancy of women in Russia, the overall growth of female employment, and a decline in women’s traditional responsibilities, such as caregiving for grandchildren and disabled relatives. Besides, the 2000–2010s was the period of economic growth in Russia when the overall number of jobs was increasing. Although, in general, the employment rates of people aged 45 and over have been rising, the share of employed people aged 60 and over was less stable in its growth because of changes in pension benefits, as well as on the situation in the labour market. The empirical part of this chapter aims to explore the gender differences in the determinants of employment and labour mobility in middle and older age in Russia. The study uses the Russian Longitudinal Monitoring Survey (RLMS-HSE) data (2010–2017). Gender differences in the influence of current work experience, economic factors, and some job characteristics on employment in middle and older age are revealed. Industry, occupations, particular aspects of job satisfaction are significant for labour mobility in middle and older age in Russia, but their impact differs for men and women.

Keywords Employment · Middle and older age · Pension age · Pensioners · Labour market

5.1 Introduction

Since 2002, except for during the economic crisis of 2008–2009, the employment of the middle-aged and older population in Russia has been steadily growing. Older women have increased their labour force participation faster than men (Lyashok and

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Maltseva 2012). Female employment rates increased from 81.9% in 2002 to 88.5% in 2019 for those aged 45–49, and from 76.1 to 83.9% in the 50–54, from 45.6 to 54.8% in the 55–59-year-old age groups. Male employment rates rose—respectively from 83.9 to 90.1% in the 45–49, from 79.2 to 86.7% in the 50–54, from 68.1 to 77.2% in the 55–59-year-old age groups over the analysed period.¹ The increasing employment rates for the 45+ year-old population were mainly provided by employment in the informal sector of the economy. During 2002–2019, employment rates decreased for 45–49 year-old both men and women and 50–54 year-old men in the formal sector of the economy.² These trends highlight the unfavourable position of middle-aged and older workers in the Russian labour market, where they are often forced out of the formal labour market.

The focus of this chapter is individuals who are middle-aged and older, that is 45 years old and above. According to Oxford English Dictionary³ and American Psychological Association,⁴ middle-age or middle adulthood refers to the period between ages 45 and 65 years old. Until 2019, the normal pension age in Russia was 55/60 years for women/men.⁵ However, starting with 45 years old, there are many options for early retirement (see Sect. 5.2), and in 2017, the share of pensioners was 7.2 and 19.8% in the 45–49 and 50–54-year-old age groups respectively.⁶

Russian pension legislation allows pensioners to work without any penalties, except for the recent abolishment of pension indexation.⁷ The majority of the individuals reaching the pension age, therefore, prefer to apply for a pension, and a substantial number of them continue working. In 2018, 22% of pensioners were officially employed.⁸

In this chapter, the authors analyse factors of the employment of middle-aged and older individuals, as well as labour mobility—changing a job/profession—as a possible strategy for maintaining employment after the pension age. The main research questions ask: to what extent factors affecting employment in middle and older age, and changing a job/profession before or at pension age, are different for men and women?

The chapter has the following structure. The next section provides a brief description of the pension system in Russia, focusing on those aspects that may influence the decision to work in old ages. In Sect. 5.3, based on Russian (Rosstat) and international

¹The Federal State Statistics Service (Rosstat): <https://www.gks.ru/>.

²The same.

³<https://www.oed.com/>.

⁴<https://psycnet.apa.org/search?fa=buy.optionToBuy&uid=1986-19674-001>.

⁵From 2019, the normal pension age will gradually increase by one year annually up to 60 for women and 65 for men (Federal Law No. 350-FZ of October 3, 2018 (2018) “On the amendments to certain legislative acts of the Russian Federation on pension provision and payment”).

⁶Statistical Survey of Income and Participation in Social Programs (2017).

⁷Federal Law No. 385-FZ of December 29, 2015 (2015) “On the suspension of certain regulations of the legislative acts of the Russian Federation, the introduction of amendments to certain legislative acts of the Russian Federation and the features of an increase in the insurance pension, the fixed payment to the insurance pension and social pensions”.

⁸The Federal State Statistics Service (Rosstat): <https://www.gks.ru/>.

(European Union Labour Force Survey, EU-LFS) data, the main trends of employment for middle-aged and older men and women in Russia are analysed, in comparison with other countries. Then, the next section presents the theoretical framework of the analysis and the results of previous empirical research into employment in middle and older age. Section 5.5 focuses on the data and methodological approach of our study, which is based on the Russian Longitudinal Monitoring Survey (RLMS-HSE) data for 2010–2017. In Sect. 5.6, the empirical results are presented. Finally, the conclusion summarises the main findings and provides some policy implications.

5.2 Pension System of Russia

The Russian pension system is mostly a state-run mandatory pay-as-you-go (PAYG)⁹ system, providing old-age, disability and survival benefits based on previous contributions made by employers to the Pension Fund of Russia (PFR). Private pensions are underdeveloped and have limited coverage.

Until 2019, the normal¹⁰ pension age was 55 for women and 60 for men, for the majority of people.¹¹ From 2019 the normal pension age began increasing by one year annually to 60 for women and 65 for men.¹² Additionally, in order to receive an old-age pension people should have a minimum period of contributions, that is equal to 10 years in 2019 and increasing up to 15 years by 2024, and a minimum number of individual coefficients (points), that is equal to 16.2 in 2019 and increasing up to 30 by 2025.¹³

Many employees can receive their pensions five to fifteen years earlier than the normal pension age. For instance, military personnel or policemen, as well as miners and some other groups of workers employed in heavy and hazardous conditions, retire on average at 45.¹⁴ People working in Far North regions usually receive their pension approximately five years earlier than the normal pension age.¹⁵ Health care employees in rural areas, and school teachers, become pensioners at 45–50 years old.¹⁶ Mothers with five or more children or mothers with children with disabilities can also receive pensions earlier.¹⁷ People who lost their jobs two years before the

⁹In pay-as-you-go systems the contributions of current employees finance benefits for current pensioners.

¹⁰The term ‘normal pension age’ refers to the age when an individual can receive a full old-age pension benefit on a regular basis without any privileges to retire earlier.

¹¹Federal Law No. 400-FZ of December 28, 2013 (2013). “On the insurance pensions”.

¹²Federal Law No. 350-FZ of October 3, 2018 (2018) “On the amendments to certain legislative acts of the Russian Federation on pension provision and payment”.

¹³Federal Law No. 400-FZ of December 28, 2013 (2013). “On the insurance pensions”.

¹⁴Federal Law No. 166-FZ of December 15, 2001 (2001). “On the state pension provision”; Federal Law No. 400-FZ of December 28, 2013 (2013). “On the insurance pensions”.

¹⁵Federal Law No. 166-FZ of December 15, 2001 (2001). “On the state pension provision”.

¹⁶Federal Law No. 400-FZ of December 28, 2013 (2013). “On the insurance pensions”.

¹⁷The same.

retirement age due to a reduction in staff and are registered with the employment service could also expect an earlier pension.¹⁸ As a result, the actual pension age is two to six years lower than the normal pension age (Maleva and Sinyavskaya 2010).

People without sufficient years of contributions or the required number of individual coefficients can receive a so-called “social pension” five years later, at 60 (women) or 65 (men) years.¹⁹ This pension age is also increasing by five years by 2023.²⁰

All pensioners can work and receive earnings and pension benefits without any restrictions to their incomes, although from 2016 the benefits of working pensioners are not indexed.²¹ Pension age, the age at which people can receive pension benefits, is, therefore, lower than retirement age, the age when they leave the labour market to live on their pension, for many pensioners.

5.3 The Main Trends of Employment in Middle and Older Age in Russia: Gender Differences and International Comparisons

This section focuses on the trends in Russian male and female employment at the ages of 45+ years old over for the period 2002–2019. There is a gradual decrease with age in both male and female employment that accelerates when men and women reach pension age (that is 60–55 before 2018) at the age of 55–59 when most women retire.

There are at least three major trends in the employment of middle-aged and older individuals from 2002 to 2019. First, there is a significant growth in the employment rates for 45–59-year-old men and women over the whole period and of people aged 60 years old and over until at least 2007–2011. Second, the employment rate of men and women over 60 years old fluctuates more and seems to be more prone to changes in the level of pension benefits, their indexation and relationship to wages as well as to the situation in the labour market. Thirdly, over the 2002–2019 period, the gender gap in employment rates has reduced in all age groups due to the more active involvement of older women in paid employment.

The employment of both men and women aged 45–49 years old grew steadily from 2002 except in 2009 when a slight drop occurred because of the economic

¹⁸The Law of the Russian Federation No. 1032-1 of April 19, 1991 (1991). “On the employment in the Russian Federation”.

¹⁹Federal Law No. 166-FZ of December 15, 2001 (2001). “On the state pension provision”.

²⁰Federal Law No. 350-FZ of October 3, 2018 (2018) “On the amendments to certain legislative acts of the Russian Federation on pension provision and payment”.

²¹Federal Law No. 385-FZ of December 29, 2015 (2015) “On the suspension of certain regulations of the legislative acts of the Russian Federation, the introduction of amendments to certain legislative acts of the Russian Federation and the features of an increase in the insurance pension, the fixed payment to the insurance pension and social pensions”.

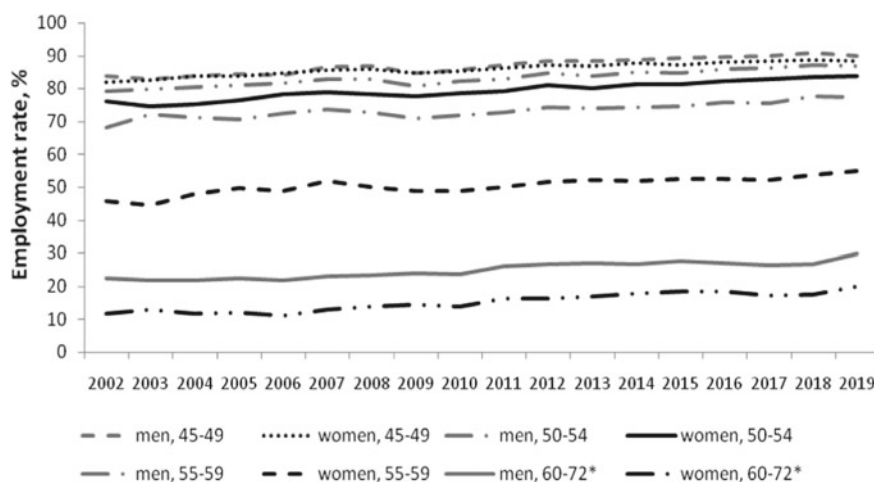


Fig. 5.1 Employment rates of Russian men and women aged 45–49, 50–54, 55–59 and 60–72*, in % (Notes data from the Federal State Statistics Service. Retrieved from <http://www.gks.ru/>) (*In 2000–2007, 60 years and above; in 2019, 60–69 years)

crisis. In 2019, the employment rates of men and women of this age were 90.1 and 88.5% respectively.²² The gender gap remains small (no more 2.2 p.p.), and it is the smallest gender gap in the employment rates of senior age groups (Fig. 5.1).

The employment rates of men and women aged 50–54 also increased (Fig. 5.1). A slightly larger gender gap might be explained by two factors: the wider availability of early retirement options for women at this age, and more family responsibilities—care for grandchildren and long-term family care—that could pull women into inactivity.

The most considerable increase in the employment rates of men as well as women for 2002–2019 is observed at the age of 55–59: 9.1 and 9.2 percentage points respectively. The largest gap in the employment rates of men and women is also seen in this age group. Women become eligible to retire, and approximately every second woman of this age retires. In 2016, female employment rate stopped growing and then slightly decreased in 2017 after the abolishment of pension benefits indexation.²³

The Federal State Statistics Service (Rosstat) has provided detailed data on the employment rates of people of 60 years old and above up to 2007, and 60–72 years old since 2008. From 2002 to 2007, the employment rates of both men and women at the age of 60 and above fluctuated considerably (from 21.8 to 22.9% and from 11.2 to 13.1% respectively). After the economic crisis of 2008–2009, steady growth began (Fig. 5.1). The employment rate of 60–72-year-old men increased from 23.7% in 2010 to 26.7% in 2018, and the employment rate of women of the same age increased from

²²The Federal State Statistics Service (Rosstat): <https://www.gks.ru/>.

²³Federal Law No. 385-FZ of December 29, 2015.

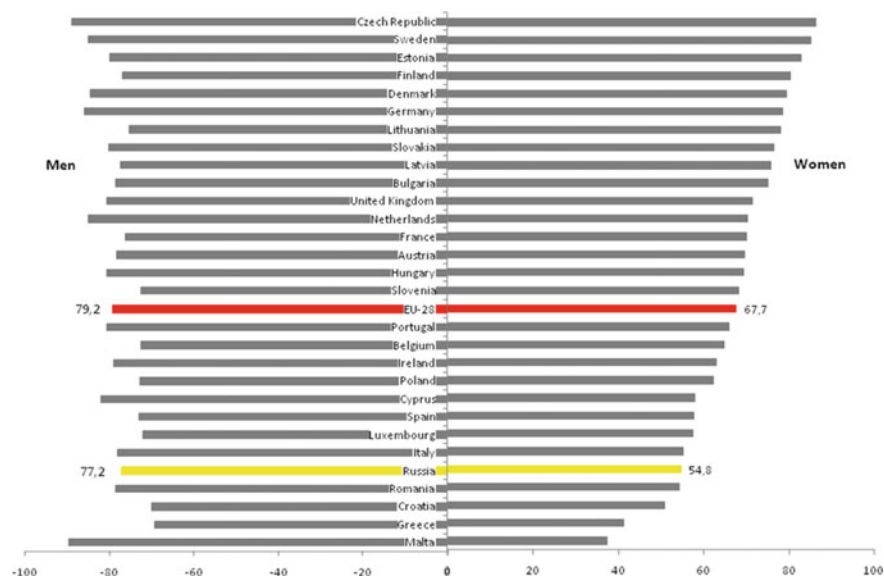


Fig. 5.2 The employment rates of men (*left*) and women (*right*) aged 55–59, % (sorted by women's employment rate), 2019 (*Notes* data from EU-LFS, Federal State Statistics Service)

13.9 to 17.6% over the analysed period.²⁴ The abolishing of indexation in the pension benefits of employed pensioners since 2016²⁵ also seems to be a disincentive to work at a pension age that explains the slight decrease of male and female employment rates in 2015–2016.

The employment rates of 45–54-year-old Russian men and women are higher than the EU-28 average. Russia takes seventh and eight places in the ranks of EU countries according to the employment rates for 45–49-year-old women and men, respectively. The employment rate of Russian men aged 50–54 is higher than in Belgium, France, and Finland and close to Slovakia, Denmark, and the UK. The employment rate for women aged 50–54 years is near to that of Germany, Latvia, and Austria.

The majority of Russian women start receiving an old-age pension from 55 years, which causes a drop in their employment rate to 54.8%, below the EU-28 average (67.7%) (Fig. 5.2). Although also decreasing, the men's employment rate at the same age is only slightly below the EU-28 average (77.2 vs 79.2%).²⁶

At the age of 60 the majority of Russian men become eligible for an old-age pension, and hence their employment rate declines rapidly to 39.4%, far below the EU average (52.2%). The employment rate of Russian women at the age of 60–64

²⁴In 2019, the employment rates of 60–69-year-old men and women were 29.9 and 20.0% (Fig. 5.1). The microdata on the Labour Force Survey (2019) for the calculation of employment rate at the age of 60–72 years are not published yet.

²⁵Federal Law No. 385-FZ of December 29, 2015.

²⁶The Federal State Statistics Service (Rosstat): <https://www.gks.ru/>;
EU-LFS: <https://ec.europa.eu/eurostat/data/database>.

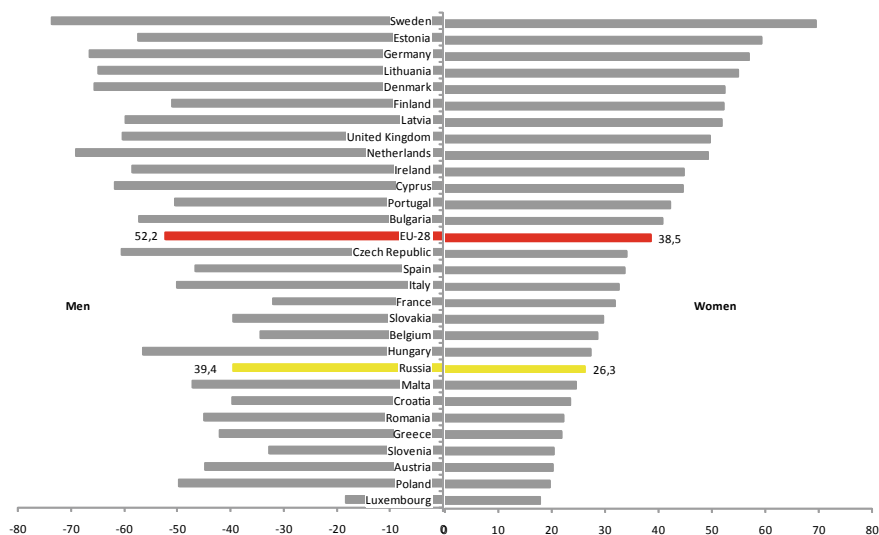


Fig. 5.3 The employment rates for men (*left*) and women (*right*) aged 60–64, % (sorted by women's employment rate), 2018 (*Notes* data from EU-LFS, authors' calculations on the Russian LFS microdata)

is also below the EU-28 average (26.3 vs 38.5%), but the gap is smaller than for men.²⁷ Many Russian women continue working, unlike their EU counterparts, and their employment rate at this age is higher than those in some eastern and southern EU countries, such as Austria, Romania, and Slovenia (Fig. 5.3).

The employment rate for Russian women aged 65–74 is higher than the EU-28 average (8.4 vs 7.4%), and about the same as in the Czech Republic and Finland (Fig. 5.4). The male employment rate is close to the EU-28 average (11.8 vs 13.4%) and that of Italy and Poland.²⁸

In summary, the employment rates of Russian men and women start declining earlier than in many EU countries, but have longer 'tails', with higher employment at ages over 60. Despite the relatively low early and normal pension age in Russia, the employment rates of Russian men and women are comparable with the EU-28 average. The largest gap between Russia and EU countries is seen in the first five-year groups following the normal pension age (55–59 and 60–64 for men and women respectively), and it becomes smaller in older age groups.

²⁷The same.

²⁸The same.

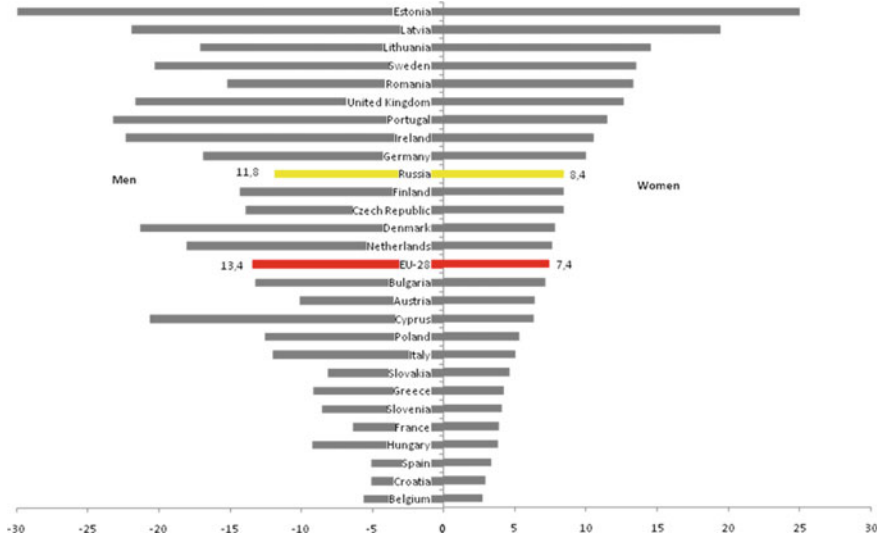


Fig. 5.4 The employment rates for men (*left*) and women (*right*) aged 65–74, % (sorted by women’s employment rate), 2018 (*Notes* data from EU-LFS, authors’ calculations on the Russian LFS microdata)

5.4 Theoretical Framework of the Analysis and Empirical Evidence of Gender Differences in the Factors of Employment in Middle and Older Age

In recent decades, Russia, as well as many other developed or rapidly developing countries, has been observing a convergence between the employment rates of older women and men, caused by substantial growth for the former and the stagnation or even decline of the latter (e.g., for the US, see Gendell and Siegel 1992). Many scholars explain this trend by higher education and qualification of new female birth cohorts entering the labour market (Goldin and Katz 2018) and the institutional development of childcare and long-term care (Cotter et al. 2002) that had led to the decline in women’s family responsibilities (Erskine 1991). Besides, the recent shift from industrial to a more service-based economy has led to the creation of new jobs in female-dominated industries (Kalleberg et al. 1996; Pleau 2010).

These explanations seem to be fair for Russia as well. Besides, due to substantially higher women’s life expectancy than that of men in Russia,²⁹ the former have more opportunities to work longer. At the same time, a large number of senior women become widows³⁰ that increases their poverty risks. A survey of Russian working

²⁹In 2017, in Russia, the further life expectancy of men and women at the age of 60 was 16.46 and 21.95 years correspondingly (Human Mortality Database).

³⁰According to Russian microcensus (2015), the share of widows is 35.4, 65.0 and 82.6 in the 60–69, 70–79, 80–89-year-old age groups respectively.

pensioners in 2017 showed that the main reasons for working after pension age are a lack of money for the appropriate and habitual standard of living as before the pension age, desired or needed to help one's adult children and their families,³¹ and these motives may be more widespread among female pensioners. By pension age, women, on average, have a slightly shorter period of paid pension contributions than men (Gurvich and Sonina 2012). Women's earnings are also lower than men's on average, due to gender differences in employees distribution across industries and occupations (for example, there are more men than women in the top positions of civil service; Maltseva and Roshchin 2007). This leads to a slightly lower pension benefit for women,³² that probably contributes to the growth of their employment rate.

5.4.1 The Factors of Employment for Middle-Aged and Older Men and Women: A Review of Previous Studies

Most studies confirm that the health of older workers may restrict their opportunities to work longer (OECD 1998; Bound et al. 1999; Sinyavskaya 2005; Góra et al. 2010; Gurvich and Sonina 2012 and many others). Because of the rather low life expectancy in Russia compared with developed countries and its huge gender gap, the impact of health on the employment of older workers in Russia is likely to be crucial and differs for men and women. Previous research on Russia has found that the self-evaluation of health has a stronger effect on female employment than male, those close to pension age and those at early pension age (Sinyavskaya 2005)³³ as well as among pensioners of 45 years old and above (Góra et al. 2010).³⁴ More recently, Levin (2015) has reported the opposite tendency for individuals reaching the normal pension age.

A higher level of education seems to be an incentive to work longer. Secondary and post-secondary education increases the length of working careers at the pension age and close to it (Sinyavskaya 2005; Góra et al. 2010; Giles et al. 2011; Gerber and Radl 2014), and raises the probability of re-entry to the labour market (Levin 2015). In Russia, the effect of education is stronger for women than for men, close to the pension age (Sinyavskaya 2005) and at the pension age the situation is reversed (Levin 2015). These findings may correspond with the educational structure of the older generation in Russia. According to the Russian micro census of 2015, in the 45–49, 50–54, and 55–59-year-old age groups, the share of women with tertiary

³¹Validata (2017). Testing of measures of government support. The results of focus-groups.

³²According to RLMS (2017), the average level of pension benefit was equal to 15,401.1 and 13,925.5 roubles (\$632.9 PPP and \$572.2 PPP) for men and women, respectively.

³³In Sinyavskaya (2005), the sample included men of 50–59 and women of 50–54 years old regardless of the status of the pensioner.

³⁴In Góra et al. (2010), the sample included pensioners of 45 years old and above and early pensioners.

education exceeds the share of men with the same level of education; in the age groups of 60–64, 65–69, and 70+ years old this is the opposite.

The majority of studies on Russia, as well as other countries, found that having a spouse/partner increases the probability of a male's employment but not a female's (Borland and Warren 2006; Sinyavskaya 2005). More recent Levin (2015)'s study pointed out that the presence of a working spouse raises the probability of both male and female pensioners being employed, and the effect is slightly higher for men.

Family duties in the form of caregiving for small children or aged relatives partly displace employment in older age (Sinyavskaya 2005; Borland and Warren 2006; Gurvich and Sonina 2012), especially for grandmothers close to pension age (Zamarro 2011; Buber-Ennsner 2014). In Russia, the presence of small children³⁵ affects the probability of female but not male employment at pension age (Kovrova 2007; Denisova 2017b), and close to it (Sinyavskaya 2005), that confirms the social roles of grandmothers for grandchildren of pre-school and early school age. The presence of older grandchildren (6–18 years old) in a household also decreases the probability of a grandmother's employment, but the effect is lower than for younger grandchildren (Kovrova 2007). More recently, Levin (2015)'s study revealed that the presence of children aged 0–18 decreases the probability of both male and female employment at pension ages. These contradicting findings of the impact of family duties on male employment may be caused by the differences in the age of children (small/older children only vs children of all ages) as well as the differences in the observation period (the early 2000s vs 2010s). It is possible that older men and women now participate in caregiving for grandchildren more evenly than 10–15 years ago. The findings noted above have allowed formulating a hypothesis that family factors affect the employment of women more than men at pension age (**Hypothesis 1**).

Job characteristics are also significant determinants of the employment of middle-aged and older persons. At pension age, both male and female employment in the public sector grows, with female employment growing more than male (Lyashok and Maltseva 2012).

Besides, informal employment becomes more common, especially among those who change their job when they reach pension age (Sonina and Kolosnitsyna 2015). Men are more often involved in informal employment than women (Grishina et al. 2014). The ability to work from home increases the probability of middle-aged and older women being employed, while part-time employment is positively associated with their exit from the labour market. However, these factors are non-significant for middle-aged and older men's employment (Levin 2015).

Employment at middle and older age is also affected by economic factors such as the level of pension benefit (Sinyavskaya 2005), the earnings level (Gurvich and Sonina 2012), social benefits (Borland 2003), financial support from relatives (Borland and Warren 2006). In Russia, in the early 2000s, the effect of pension benefit on employment at middle and older ages was negative (Kovrova 2007), especially

³⁵Of 0–5 years old in Kovrova (2007)'s study, 0–6 years old in Denisova (2017b)'s study, and 0–10 years old in Sinyavskaya (2005)'s study.

for men (Sinyavskaya 2005). A higher pension and social benefits increase the alternative cost of employment and may be a disincentive for employment at older ages (Borland 2003). The positive effect of earnings has been observed for both genders (Kovrova 2007) or for male pensioners only (Gurvich and Sonina 2012). Other household incomes seem to be a disincentive to work longer (Gerber and Radl 2014; Levin 2015) while higher household expenditures push older workers to the labour market (Denisova 2017a). Based on these studies, the following hypothesis was formulated: the probability of middle-aged and older women's employment increases even at a moderate earnings, while for men only high earnings are significant (**Hypothesis 2**).

Finally, a few studies explored the impact of job satisfaction on employment in middle and older age. In particular, Levin (2015) found that occupational growth is more significant for women's employment and general job satisfaction is significant for men's employment.

5.4.2 Previous Studies on the Determinates of Labour Mobility of Middle-Aged and Older Workers

The phenomenon of labour mobility has been the subject of several theories. Labour mobility is seen as the process of searching for optimal matching between an employee and his/her job (Jovanovic 1979; Flinn 1986) in job-matching theory, and as the constraint to the accumulation of specific human capital (knowledge and skills) in companies (Gimpelson et al. 2017), in human capital theory.

The factors of labour mobility have aroused considerable interest among scholars, including in Russia. However, there is little research on labour mobility at the pension age and close to it. Russian men tend to change job/occupation more often than women (Maltseva 2007; Gimpelson et al. 2017), but women benefit from labour mobility much more than men (Maltseva and Roshchin 2007). Thus, the following hypothesis was verified: middle-aged and older women tend to keep the same job after pension age, whereas men of the same age prefer to change their job or occupation (**Hypothesis 3**).

Other factors related to labour mobility are education (Nesterova and Sabirianova 1999; Gimpelson et al. 2017), current and future level of earnings (Mortensen 1986; Maltseva 2005), household material well-being (Maltseva and Roshchin 2007). More educated and highly-paid employees are less likely to change their jobs (Farber 1999; Maltseva 2007; Mortensen 1986) but their expectations of higher earnings at a new job location may be an incentive to labour mobility (Maltseva 2005). Besides financial aspects of a job, individuals, especially at older age, may prefer to have a less stressful job, focus on their personal interests, and increase the time spent with families and friends (Johnson 2011; Feldman et al. 2002). Job dissatisfaction may be a reason for job changes (Cornelissen 2006). In addition, in Russia, labour mobility is higher in commerce and construction (Gimpelson et al. 2017), in private (Maltseva 2009) as well as in small and microenterprises (Gimpelson et al. 2017).

5.5 Methodology and Data

The empirical part of the study covers: (1) the factors in middle-aged and older persons' employment, and (2) the factors in the labour mobility³⁶ of middle-aged and older workers and its effect on further employment.

The current study is based on the Russian Longitudinal Monitoring Survey (RLMS-HSE)³⁷ which is an annual nationally representative survey with a longitudinal sample. Its questionnaire contains a broad range of questions about incomes and expenditures, education and employment, health, and so on.

The constructed RLMS-HSE sample covers the period of 2010–2016 that is after the economic crisis of 2008–2009 when the decline of employment rate of middle-aged and older individuals was more noticeable than in the crisis of 2013–2014.

In order to analyse the factors of labour mobility—changing a job/profession—before or at pension age as well as its influence on further employment in middle and older age the sufficient number of individuals who have experienced job changes is needed. In the annual representative RLMS-HSE waves of 2010–2016, 10–13% of individuals of 45 years and over changed a job/profession or entered to the labour market after the period of unemployment, as compared to the year preceding the survey. To increase this share labour mobility over three years is analysed.³⁸ Higher share of individuals with labour mobility leads to more equal distribution between 0 and 1 cases in the binary variable of labour mobility that allows to increase the statistical significance of estimates (Cohen and Cohen 2010). Besides, the influence of individual's labour mobility on their further employment may occur not only in the next year but through time lag.

The longitudinal RLMS-HSE samples are more likely to have higher rates of attrition than other household panel surveys because of its design features and sampling strategy (Gerry and Papadopoulos 2015). In the longitudinal sample of adult respondents³⁹ from 2001 to 2010 the annual attrition was approximately 10% on average and the overall attrition over a nine-year period was 49%; 40.3% of respondents participated in all 10 waves. Individuals of 60 years and over were the dominant

³⁶Changing a job/profession. In this study, these terms are used as synonyms.

³⁷RLMS-HSE is conducted by the National Research University Higher School of Economics (<https://www.hse.ru/en/rlms>) and ZAO Demoscope, together with Carolina Population Centre, University of North Carolina at Chapel Hill and the Federal Centre of Theoretical and Applied Sociology of the RAS (<https://www.cpc.unc.edu/projects/rlms-hse>).

³⁸This variable is constructed on the three-year panel RLMS sample. The fact of changing/getting a job (occupation) by an individual is fixed in every year out of three years based on the following RLMS question: "Try to recall whether you have changed your job or occupation since the previous November, or has everything remained the same? (1) Occupation and job remain the same; (2) Changed occupation, but not job; (3) Changed job, but not occupation; (4) Changed both job and occupation; (5) Didn't work in the previous November; (6) Doesn't know; (7) Refuses to answer". Options (2)—(5) are coded as changing/getting a job (occupation), others are coded as keeping the current job place (see Table 5.1). If an individual has changed or got a job (occupation) at least once over the three-year period, the dependent variable equals 1, otherwise—0.

³⁹17 years old and over.

group among those leaving and never returning to the sample (the same). Thus, a seven-year panel (for 2010–2016) of individuals of 45 years and over is likely to have high rates of attrition. After testing different length of the panel sample the five-year period was chosen as the optimal for the number of observations. Besides, this length of the sample allows to analyse individual's labour mobility over a three-year period as well as its factors in the year before, and its influence on further individual's employment in the year after.

The sample for this study was compiled from three five-year panels of 2010–2014, 2011–2015, and 2012–2016. It contains 2069 individuals (598 men and 1471 women) aged 45 years and above at the first year of observation, who will be working pensioners at the fourth year of observation.⁴⁰

In order to answer the research questions two logistic regressions are estimated. This statistical method allows to estimate the probability of experiencing a particular lifetime event (exit from labour market as well as labour mobility) within a limited period (Liu 2012). Unlike survival analysis, time of the occurrence of lifetime event and the length of survival process are not in the focus of this study. Besides, the assumptions of survival analysis about an independence of individual's censored time and proportional risks are likely to be disturbed⁴¹ (Singer and Willet 2003).

The dependent variable of the first regression is an individual's employment status (employed/unemployed)⁴² at the year t . In the second regression the dependent variable is the fact of changing/getting a job (occupation) by an individual over the last three years preceding the year t .

In both regressions, the independent variables include (1) socio-demographic characteristics (2) job characteristics (3) job satisfaction and erosion of workers' rights (4) economic factors. The independent variables are measured one year earlier than the dependent variables. Also, the first regression includes the fact of changing/getting a job (occupation) by an individual over the three-year period as an independent variable.

The *socio-demographic characteristics* are age, location (regional centre/city or town/urban-type settlement/rural), partnership status (in couples/not in couples (single)), education (lower secondary/secondary/undergraduate), self-rated health (poor or very poor/fair/good and very good), disability status (persons with disabilities/persons without disabilities), eligibility for early retirement (does not have eligibility/have eligibility). *Job characteristics* cover the industry, occupation, type of employment (formal/informal), length of a working-week (full/part-time job), job tenure (less than 1 year/1–2 years/3–5 years/6–10 years/11–20 years/more than

⁴⁰This sample design is used in order to analyse the factors of individual's employment in the last year of observation.

⁴¹The influence of predictors on the risk of exit from labour market as well as labour mobility seems to be different in different periods.

⁴²This variable is based on the following RLMS question: "Let's talk about your primary work at present. Tell me, please: (1) You are currently working; (2) You are on paid leave (maternity leave or taking care of a child under 3 years of age); (3) You are on another kind of paid leave; (4) You are on unpaid leave; (5) You are not working; (6) Doesn't know; (7) Refuses to answer". Options (1)–(4) are coded as employed, others are coded as unemployed (see Table 5.1).

20 years),⁴³ firm ownership (state/private/mixed or no answer), firm size (micro-/small/medium/large/no answer). The group of *job satisfaction and erosion of workers' rights* factors comprise general job satisfaction, satisfaction with working conditions, earnings, job opportunities (a 4 or 5-step scale from dissatisfied to completely satisfied), employer's monetary debt to the employee, reduction of earnings or hours of work, enforced unpaid leave (yes/no). Finally, economic factors are measured by the ratio of pensioner's earnings to the minimum regional wage. The descriptive statistics of the above variables, as well as the RLMS-HSE questions used for their calculation, are presented in Table 5.1.

5.6 Empirical Results and Discussion

In this section, the models for the factors in middle-aged and older persons' employment are firstly presented, and then the models for the factors in the labour mobility before or at pension age are discussed. Separate models for general job satisfaction and satisfaction with various aspects of job are constructed due to the multicollinearity of these variables. Also separate models with the industries and occupations are constructed in order to provide a sufficient number of observations in each group of categorical variables.

5.6.1 The Factors of Employment at Middle and Older Age

The coefficients in the constructed models may suggest that the factors involved in the employment of 45+ year-old men and women are quite different. The main differences are observed in the effect of an individual's level of education and self-rated health, job characteristics (industry, occupation, job tenure, firm size and ownership), and job satisfaction, as well as economic factors regarding the probability of being employed (Table 5.2).

Beginning with socio-demographic characteristics, every additional year of life decreases the probability of being employed by 0.6–1.0% and 0.6–0.7%⁴⁴ for 45+ year-old men and women respectively, depending on the model specification (Table 5.3). Living in a rural area decreases the probability of women's employment in some model specifications (see Table 5.3).

Poor and very poor self-rated health decrease the probability of men's employment (by 16.4–20.7% on average, in comparison to fair health, depending on the

⁴³The continuous variable of job tenure was also tested. However, its significance was lower than the significance of the categorical variable; thus, the second specification is preferable.

⁴⁴The average marginal effect is calculated as the following:

$\Delta P\{y_i = 1|x_i\} \simeq \frac{\partial P\{y_i = 1|x_i\}}{\partial x_{ik}}$, where $\Delta P\{y_i = 1|x_i\}$ is the increase/decrease of the probability that the dependent variable equals 1; ∂x_{ik} is the marginal change of k^{th} independent variable.

Table 5.1 Descriptive statistics of the variables

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Independent variables				
Socio-demographic characteristics				
Age	Mean	56	59	Respondent's socio-demographic profile
	Min	45	48	
	Max	81	84	
Gender	Men	28.9		Respondent's socio-demographic profile
	Women	71.1		
Location	Regional centre	37.3		Respondent's socio-demographic profile
	City/town	32.8		
	Urban-type settlement	6.3		
	Rural	23.6		
Partnership status	In couples	33.6	37.3	Married/having a partner and living together are coded as 'In couples', others are coded as 'Not in couples'
	Not in couples	66.4	62.7	
Education	Lower secondary	6.4	4.9	What is your highest level of education confirmed by certificate or diploma? General or incomplete secondary school (1) Complete secondary school (2) Vocational courses of driving, accounting, typing, etc. (3) Vocational training school without secondary education (4) Vocational training school with secondary education, technical trade school (5) Technical community college, medical, music, pedagogical, art training school (6) Institute, university, academy including specialist diploma (7) Institute, university, academy including bachelor's degree (8) Institute, university, academy including master's degree (9) Post-graduate course, residency (10) PhD degree (11) Doctoral degree (12) Options (1) and (4) are coded as 'lower secondary', options (2), (3), (5), (6) are coded as 'secondary', options (7)—(11) are coded as 'undergraduate'
	Secondary	59.7	61.0	
	Undergraduate	33.8	34.1	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Self-rated health	Poor and very poor	15.2	15.7	How would you rate your health? Very good (1) Good (2) Average—not good, but not bad (3) Bad (4) Very bad (5) Doesn't know (6) Refuses to answer (7) Options (1)–(2) are coded as 'Good and very good', options (3), (6), (7) are coded as 'Fair', options (4)–(5) are coded as 'Poor and very poor'
	Fair	76.2	74.4	
	Good and very good	8.6	10.0	
Disability status	Persons with disabilities	5.1	6.5	Are you assigned to any disability classification? Yes (1) No (2) Doing the paperwork (3) Doesn't know (4) Refuses to answer (5) Option (1) is coded as 'Persons with disabilities', options (2)–(5) are coded as 'Persons without disabilities'
	Persons without disabilities	94.9	93.5	
Eligibility for early retirement	Does not have eligibility	81.2	81.7	Is the firm where you work reported as harmful (unhealthy) or dangerous, in other words, allowing you early retirement with granted pension, or granting additional payments or benefits? Yes (1) No (2) Doing the paperwork (3) Doesn't know (4) Option (1) is coded as 'Have eligibility', options (2)–(4) are coded as 'Does not have an eligibility'
	Has eligibility	18.8	18.3	
Job characteristics				
Industry	Manufacturing	18.8	18.0	To what industry does this job belong? Light industry, food industry (1) Civil machine construction (2) Military industrial complex (3) Oil and gas industry (4) Other branch of heavy industry (5) Construction (6) Transportation, communication (7) Agriculture (8) Government and public administration (9)
	Public sector	37.7	39.1	
	Army, civil service	7.4	7.3	
	Construction	4.6	4.1	
	Transportation, communication	6.7	6.2	
	Agriculture	4.2	3.5	
	Commerce	11.4	12.0	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
	Housing and communal services	6.4	5.8	Education (10) Science, culture (11) Public health (12)
	Other	2.8	4.0	Army, military of internal affairs, security services (13) Trade, consumer services (14) Finances (15) Energy (power) industry (16) Housing and communal services (17) Real estate operations (18) Other (19) Options (1)—(5) and (16) are coded as 'Manufacturing'; options (10)—(12) are coded as 'Public sector'; options (9) and (13) are coded as 'Army, civil services'; options (6)—(8), (14) and (17) remain the same; options (15), (18) and (19) are coded as 'Other'
Occupation	Skilled labour engaged in manual labour and using machines and mechanisms	19.3	16.9	Occupation Military (1) Legislators; high-level officials; top and middle managers (2) Specialists of higher qualification (3) Specialists of middle-level qualification; officials (4) Employees of office and customer service (5) Employees of commerce and service industry (6)
	Military; legislators; high-level officials; top and middle managers	10.3	7.6	Skilled workers of agriculture, forestry and fish farming (7) Skilled labour engaged in manual labour (8)
	Specialists of higher qualification	25.5	26.2	Skilled labour using machines and mechanisms (9)
	Specialists of middle-level qualification; officials; employees of office and customer service; employees of commerce and service industry	29.0	32.9	Unskilled workers of all industries (10) Options (1) and (2) are coded as 'Military; legislators; high-level officials; top and middle managers'; option (3) remains the same; options (4)—(6) are coded as 'Specialists of middle-level qualification; officials; employees of office and customer service; employees of commerce and service industry'; options (7) and (10) are coded as 'Skilled workers of agriculture, forestry and fish farming'; unskilled workers of all industries'; options (8)—(9) are coded as 'Skilled labour engaged in manual labour and using machines and mechanisms'.
	Skilled workers of agriculture, forestry and fish farming; unskilled workers of all industries	15.9	16.4	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Type of employment	Formal	91.8	90.4	<p>1. Does this job belong to a firm or organisation? I mean any organisation or firm where more than one person works, no matter if it is private or state-owned. For example, any establishment, factory, firm, collective farm, state farm, farming industry, store, army, government service, or other organisation.</p> <p>You work at a firm or organisation (1) Not at a firm, nor at an organisation (2) Doesn't know (3) Refuses to answer (4)</p> <p>2. Are employed in this job officially, in other words, by labour book, labour agreement, or contract?</p> <p>Working officially (1) Not officially (2) Doesn't know (3) Refuses to answer (4)</p> <p>Options (1) in the 1st question and (1) in the 2nd question are coded as 'Formal employment', other options are coded as 'Informal employment'</p>
	Informal	8.2	9.6	
Length of a working-week	Full-time job (more 35 hours a week)	88.9	86.9	<p>On average, how many hours is your usual work week?</p> <p>More than 35 hours are coded as 'Full-time job', others options are coded as 'Part-time job'</p>
	Part-time job	11.1	13.1	
Job tenure	Less than 1 year	7.0	6.7	<p>Tell me, please: Since what year have you been working at this job? If you left and then returned to this firm, give the date you last returned</p>
	1–2 years	11.2	9.4	
	3–5 years	14.8	12.9	
	6–10 years	17.5	17.7	<p>The variable is based on the difference between the year of the survey and the answered year on this question</p>
	11–20 years	19.5	21.7	
	More than 20 years	30.0	31.6	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Firm ownership	State ownership	55.5	55.9	1. Is the state the owner or co-owner of your firm or organisation? Yes (1) No (2) Doesn't know (3) Refuses to answer (4) 2. Is your firm or organisation owned or co-owned by any Russian private individuals, employees, or Russian private firms? Yes (1) No (2) Doesn't know (3) Refuses to answer (4) Option (1) in the 1st question and option (2) in the 2nd question are coded as 'State ownership'; option (2) in the 1st question and option (1) in the 2nd question are coded as 'Private ownership'; others options as well as those who do not work in the organisations and enterprises are coded as 'Mixed ownership; no answer; question wasn't asked.
	Private ownership	29.6	29.8	
	Mixed ownership; no answer; question wasn't asked	14.9	14.4	
Firm size	Micro-, small firm (<100 workers)	43.3	45.3	How many people work in your firm? If you don't know exactly, estimate.
	Medium, large firm (>100 workers)	27.2	22.6	
	No answer; question wasn't asked	29.6	32	
Job satisfaction and erosion of workers' rights				
General job satisfaction	Completely satisfied	16.8	17.0	Tell me, please: How satisfied or unsatisfied are you with...? Your job in general Absolutely satisfied (1) Mostly satisfied (2) Neutral (3) Very unsatisfied (4) Absolutely unsatisfied (5) Doesn't know (6) Refuses to answer (7) Option (1) is coded as 'Completely satisfied', option (2) is coded as 'Rather satisfied', options (3), (6), (7) are coded as 'Yes and no', options (4) and (5) are coded as 'Dissatisfied'
	Rather satisfied	50.5	55.8	
	Yes and no	21.1	18.8	
	Dissatisfied	11.6	8.3	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Satisfaction with working conditions	Completely satisfied	14.4	16.0	Tell me, please: How satisfied or unsatisfied are you with...? Your work conditions Absolutely satisfied (1) Mostly satisfied (2) Neutral (3) Very unsatisfied (4) Absolutely unsatisfied (5) Doesn't know (6) Refuses to answer (7) Option (1) is coded as 'Completely satisfied', option (2) is coded as 'Rather satisfied', options (3), (6), (7) are coded as 'Yes and no', options (4) and (5) are coded as 'Dissatisfied'
	Rather satisfied	50.5	54.6	
	Yes and no	19.7	17.9	
	Dissatisfied	15.4	11.5	
Satisfaction with earnings	Completely satisfied	5.5	8.1	Tell me, please: How satisfied or unsatisfied are you with...? Your earnings Absolutely satisfied (1) Mostly satisfied (2) Neutral (3) Very unsatisfied (4) Absolutely unsatisfied (5) Doesn't know (6) Refuses to answer (7) Option (1) is coded as 'Completely satisfied', option (2) is coded as 'Rather satisfied', options (3), (6), (7) are coded as 'Yes and no', option (4) is coded as 'Rather dissatisfied' and option (5) is coded as 'Completely dissatisfied'
	Rather satisfied	26.1	31.9	
	Yes and no	18.8	20.3	
	Rather dissatisfied	31.4	27.3	
	Completely dissatisfied	18.1	12.3	
Satisfaction with job opportunities	Completely satisfied	10.0	11.6	Tell me, please: How satisfied or unsatisfied are you with...? Opportunity for professional growth Absolutely satisfied (1) Mostly satisfied (2) Neutral (3) Very unsatisfied (4) Absolutely unsatisfied (5) Doesn't know (6) Refuses to answer (7) Option (1) is coded as 'Completely satisfied', option (2) is coded as 'Rather satisfied', options (3), (6), (7) are coded as 'Yes and no', option (4) is coded as 'Rather dissatisfied' and option (5) is coded as 'Completely dissatisfied'
	Rather satisfied	35.9	41.1	
	Yes and no	27.5	27.5	
	Rather dissatisfied	16.9	12.8	
	Completely dissatisfied	9.7	7.0	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Employer's monetary debt to the employee	Yes	3.6	2.8	At the present time, does your employer owe you any money that, for various reasons, has not been paid on time? Yes (1) No (2) Doesn't know (3) Refuses to answer (4) The question is asked by those who work in organisations, enterprises, the rest of respondents are coded as 'Does not work in the organisation' Option (1) is coded as 'Yes', options (2)—(4) are coded as 'No'
	No	91.4	91.7	
	Does not work in the organisation	5.0	5.5	
Reduction of earnings and hours of work	Yes	5.0	6.4	In the course of the last 12 months has your salary or have your work hours been cut without your requesting it? Yes (1) No (2) Doesn't know (3) Refuses to answer (4) Option (1) is coded as 'Yes', options (2)—(4) are coded as 'No'
	No	95.0	93.6	
Enforced unpaid leave	Yes	2.5	2.2	In the last 12 months has the administration sent you on compulsory unpaid leave? Yes (1) No (2) Doesn't know (3) Refuses to answer (4) Option (1) is coded as 'Yes', options (2)—(4) are coded as 'No'
	No	97.5	97.8	
Economic factors				
The ratio of pensioner's earnings to regional minimal wage	Less than 2 RMW	6.7	7.2	How much money did you receive in the last 30 days from your primary job after taxes? If you received all or part of the money in foreign currency, please convert that into roubles and report the total Regional minimal wage (RMW) is used for the year of survey The variable is calculated as the ratio of the reported earnings to RMW
	2–3 RMW	29.8	26.4	
	3–5 RMW	25.1	27.5	
	More than 5 RMW	8.8	9.2	

(continued)

Table 5.1 (continued)

Variable name	Variable categories	Frequencies (%)		RLMS-HSE question
		t ₀ (1st equation)	t _{1,3} (2nd equation)	
Dependent variables				
Variable name	Variable categories	Frequencies in t ₂ (%)		RLMS question
Employment status	Employed	84.6		Let's talk about your primary work at present. Tell me, please: You are currently working (1) You are on paid leave (maternity leave or taking care of a child under 3 years of age) (2) You are on another kind of paid leave (3) You are on unpaid leave (4) You are not working (5) Doesn't know (6) Refuses to answer (7) Options (1)—(4) are coded as employed, others are coded as unemployed
	Unemployed	15.4		
Labour mobility	Changing/getting a job (occupation) at least once in a three-year period	21.7		Try to recall whether you have changed your job or occupation since the previous November, or has everything remained the same? Occupation and job remain the same (1) Changed occupation, but not job (2) Changed job, but not occupation (3) Changed both job and occupation (4) Didn't work in the previous November (5) Doesn't know (6) Refuses to answer (7) Options (2)—(5) are coded as changing/getting a job (occupation), others are coded as keeping the current job place
	Keeping the current job place	78.3		

model specifications) while this factor is non-significant for women. Women's lower secondary education decreases the probability of their employment whereas the same education for men increases the probability of men's employment; however, these results do not seem to be robust to all tested model specifications (see Table 5.3).

The probability of being employed is higher in the army and civil service for men; and the probability of women being employed is lower in transportation and communication, construction, agriculture, the army and civil service in comparison to the public sector. These results mainly support the previous findings regarding the gender structure of the employment of seniors (Sonina and Kolosnitsyna 2015).

No significant differences in the probability of women's employment were observed among occupations. The probability of men being employed is higher for specialists of higher and middle-level qualification, officials, employees of offices and

Table 5.2 The significant factors in the employment of men and women of 45 years and older

Variable	Men	Women
Age	_ ^a	–
Location	N/s ^b	Lower in rural area
Education	Higher for lower secondary education	Lower for lower secondary education
Self-rated health	Lower for poorer health	N/s
Industry	Higher in army and civil service	Lower in army and civil service, construction, transportation, agriculture
Occupation	Higher for specialists of higher and middle-level qualification; officials; employees of office and customer service; employees of commerce and service industry	N/s
Firm size	Higher in large firms	N/s
Firm ownership	Higher in mixed firms	N/s
Length of a working week	N/s	Higher for full-time job
Job tenure	+	+
The ratio of pensioner's earnings to minimal regional wage	+	+
General job satisfaction	N/s	+
Satisfaction with working conditions	N/s	+
Employer's monetary debt to employee	–	N/s
Enforced unpaid leave	N/s	–
Changing a job/occupation	+	N/s

^a“–/“+” means negative/positive influence on the probability of employment

^bN/s—non-significant

customer service, and employees in the commerce and service industry in comparison to skilled labour workers engaged in manual labour.

Firm size and ownership seem to be the significant determinants only of senior men's employment. The probability of being employed is higher at large firms (by 10.8–15.5% on average, depending on the model specification, as compared to microenterprises). Working at large firms is often characterised by wider social guarantees and greater stability, which may attract older workers. Somewhat surprisingly, the probability of men's employment is higher at firms with mixed ownership in comparison with state-owned firms. Possibly, in order to receive full pension benefit, older workers choose informal employment, which is more common at firms with mixed ownership than at state-owned firms.

Table 5.3 Regression coefficients in the models of employment for middle-aged and older individuals

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
	Men	Women	Men	Women	Men	Women	Men	Women
Age	-0.048* (0.022)	-0.061*** (0.015)	-0.045* (0.022)	-0.056*** (0.016)	-0.064** (0.021)	-0.063*** (0.015)	-0.062** (0.021)	-0.059*** (0.015)
Location (city/town—ref.)								
Regional centre	-0.117 (0.312)	-0.122 (0.211)	-0.052 (0.312)	-0.172 (0.214)	-0.178 (0.304)	-0.060 (0.212)	-0.107 (0.302)	-0.087 (0.215)
Urban-type settlement	-0.393 (0.552)	0.333 (0.397)	-0.477 (0.527)	0.403 (0.413)	-0.228 (0.513)	0.251 (0.406)	-0.303 (0.478)	0.311 (0.422)
Rural	0.371 (0.410)	-0.339 (0.245)	0.369 (0.419)	-0.295 (0.250)	0.180 (0.362)	-0.509* (0.234)	0.160 (0.370)	-0.448* (0.240)
Education (secondary—ref.)								
Lower secondary	0.692 (0.523)	-0.608* (0.344)	0.664 (0.524)	-0.560 (0.369)	0.813* (0.491)	-0.401 (0.341)	0.740 (0.498)	-0.370 (0.351)
Undergraduate	0.061 (0.330)	0.059 (0.211)	0.054 (0.347)	0.036 (0.211)	-0.282 (0.374)	-0.059 (0.230)	-0.312 (0.378)	-0.078 (0.234)
Self-rated health (fair—ref.)								
Good and very good	0.352 (0.355)	0.089 (0.265)	0.363 (0.360)	0.115 (0.267)	0.260 (0.359)	0.102 (0.273)	0.276 (0.356)	0.137 (0.275)
Poor and very poor	-1.114** (0.427)	-0.431 (0.286)	-1.259** (0.425)	-0.455 (0.286)	-1.037* (0.420)	-0.397 (0.279)	-1.167** (0.437)	-0.419 (0.279)
Disability (no disability—ref.)	-0.314 (0.503)	-0.314 (0.415)	-0.250 (0.506)	-0.306 (0.412)	-0.570 (0.436)	-0.208 (0.382)	-0.512 (0.439)	-0.205 (0.384)

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
In couples (not in couples—ref.)	0.152 (0.393)	-0.094 (0.176)	0.132 (0.378)	-0.151 (0.179)	0.330 (0.406)	-0.079 (0.171)	0.237 (0.407)	-0.130 (0.172)
Eligibility for early retirement (no eligibility—ref.)	-0.264 (0.385)	0.296 (0.284)	-0.295 (0.391)	0.370 (0.295)	-0.271 (0.392)	0.484* (0.278)	-0.307 (0.398)	0.567* (0.290)
Industry (public sector—ref.)								
Manufacturing	-0.380 (0.473)	-0.124 (0.382)	-0.380 (0.485)	-0.077 (0.372)				
Army, civil service	0.962* (0.562)	-0.818* (0.336)	1.053* (0.575)	-0.831* (0.333)				
Construction	-0.586 (0.533)	-1.234* (0.551)	-0.540 (0.532)	-1.285* (0.566)				
Transportation	0.213 (0.579)	-1.316*** (0.334)	0.266 (0.601)	-1.297*** (0.346)				
Agriculture	-0.189 (0.695)	-1.310** (0.509)	-0.253 (0.711)	-1.163* (0.496)				
Commerce	-0.369 (0.616)	-0.496 (0.336)	-0.147 (0.638)	-0.439 (0.331)				
Housing and communal services	0.637 (0.596)	-0.267 (0.466)	0.589 (0.590)	-0.340 (0.473)				
Other	2.117* (1.034)	-0.631 (0.401)	2.131* (0.864)	-0.605 (0.399)				

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Occupation (skilled labour engaged in manual labour and using machines and mechanisms—ref.)								
Military; legislators; high-level officials; top and middle managers					0.421 (0.466)	0.043 (0.577)	0.525 (0.474)	0.118 (0.587)
Specialists of higher qualification					1.007* (0.541)	-0.026 (0.434)	1.058* (0.551)	-0.046 (0.440)
Specialists of middle-level qualification; officials; employees of office and customer service; employees of commerce and service industry					1.103** (0.415)	-0.535 (0.396)	1.112* (0.437)	-0.581 (0.399)
Skilled workers of agriculture, forestry and fish farming; unskilled workers of all industries					0.574 (0.366)	-0.673 (0.415)	0.448 (0.369)	-0.689 (0.422)
Firm size (microenterprise—ref.)								
Small	0.739 (0.475)	-0.072 (0.264)	0.659 (0.498)	-0.051 (0.264)	0.499 (0.448)	-0.027 (0.259)	0.387 (0.457)	-0.025 (0.256)
Medium	0.559 (0.561)	0.381 (0.401)	0.327 (0.569)	0.425 (0.413)	0.424 (0.486)	0.357 (0.398)	0.165 (0.505)	0.415 (0.406)

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Large	1.247* (0.568)	0.359 (0.406)	1.161* (0.589)	0.302 (0.413)	0.924* (0.541)	0.313 (0.363)	0.804 (0.563)	0.257 (0.363)
No answer	0.771 (0.472)	-0.118 (0.272)	0.643 (0.497)	-0.138 (0.275)	0.528 (0.447)	-0.122 (0.263)	0.420 (0.463)	-0.161 (0.264)
Firm ownership (state—ref.)								
Private	0.378 (0.333)	0.158 (0.287)	0.321 (0.349)	0.123 (0.282)	0.168 (0.276)	-0.103 (0.224)	0.118 (0.279)	-0.107 (0.223)
Mixed	1.443* (0.615)	-0.162 (0.447)	1.522* (0.662)	-0.150 (0.446)	1.262* (0.578)	-0.375 (0.428)	1.392* (0.665)	-0.344 (0.419)
No answer	0.044 (0.693)	-0.516 (0.481)	-0.002 (0.719)	-0.600 (0.487)	-0.084 (0.679)	-0.885* (0.469)	-0.091 (0.700)	-0.976* (0.469)
Formalemployment (informal—ref.)	-0.009 (0.607)	0.483 (0.391)	-0.033 (0.574)	0.589 (0.395)	-0.106 (0.603)	0.428 (0.378)	-0.086 (0.571)	0.521 (0.382)
Full-time job (part-time—ref.)	-0.202 (0.482)	0.417* (0.255)	-0.261 (0.514)	0.452* (0.231)	-0.180 (0.443)	0.339 (0.222)	-0.162 (0.473)	0.377* (0.227)
Job tenure (less than 1 year—ref.)								
1–2 years	-0.068 (0.512)	0.444 (0.372)	-0.002 (0.549)	0.440 (0.384)	-0.084 (0.517)	0.443 (0.372)	-0.050 (0.538)	0.411 (0.382)
3–5 years	0.419 (0.548)	0.584 (0.420)	0.366 (0.560)	0.585 (0.425)	0.387 (0.519)	0.592 (0.433)	0.399 (0.532)	0.605 (0.445)
6–10 years	1.058* (0.559)	0.360 (0.404)	1.042* (0.577)	0.373 (0.414)	0.886* (0.502)	0.284 (0.416)	0.916* (0.527)	0.301 (0.431)

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
11–20 years	0.785 (0.534)	0.634 (0.401)	0.793 (0.546)	0.671 (0.411)	0.690 (0.489)	0.569 (0.429)	0.740 (0.496)	0.609 (0.439)
more than 20 years	1.505* (0.595)	0.838* (0.411)	1.554** (0.601)	0.849* (0.418)	1.265* (0.544)	0.613 (0.436)	1.373* (0.549)	0.634 (0.449)
The ratio of pensioner's earnings to minimal regional wage (5 and more MRW—ref.)								
Less than 2 MRW	-0.657 (0.452)	-0.994** (0.363)	-0.690 (0.452)	-1.098** (0.379)	-0.568 (0.455)	-0.777* (0.383)	-0.483 (0.474)	-0.873* (0.397)
2–3 MRW	-0.726* (0.396)	-0.862* (0.358)	-0.703* (0.408)	-0.957** (0.370)	-0.576 (0.398)	-0.712* (0.373)	-0.503 (0.414)	-0.792* (0.381)
3–5 MRV	-0.379 (0.432)	-0.380 (0.389)	-0.389 (0.435)	-0.347 (0.398)	-0.179 (0.409)	-0.264 (0.400)	-0.178 (0.421)	-0.240 (0.406)
General job satisfaction (dissatisfied—ref.)								
Completely satisfied	-0.248 (0.573)	0.533 (0.340)			-0.091 (0.553)	0.462 (0.343)		
Rather satisfied	-0.076 (0.466)	0.468 (0.295)			-0.104 (0.450)	0.427 (0.296)		
Yes and no	-0.725 (0.134)	0.716* (0.334)			-0.743 (0.473)	0.648* (0.326)		
Satisfaction with working conditions (dissatisfied—ref.)								

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Completely satisfied			0.377 (0.589)	0.440 (0.405)			0.435 (0.600)	0.388 (0.396)
Rather satisfied			0.170 (0.400)	0.783** (0.296)			-0.007 (0.408)	0.814** (0.289)
Yes and no			-0.086 (0.436)	0.712* (0.319)			-0.082 (0.433)	0.713* (0.308)
Satisfaction with earnings (completely dissatisfied—ref.)								
Completely satisfied			0.226 (0.653)	-0.194 (0.503)			0.273 (0.653)	-0.023 (0.493)
Rather satisfied			-0.223 (0.421)	-0.375 (0.341)			-0.087 (0.423)	-0.385 (0.331)
Yes and no			0.016 (0.394)	-0.478 (0.332)			0.159 (0.383)	-0.421 (0.324)
Rather dissatisfied			0.423 (0.410)	-0.186 (0.311)			0.533 (0.419)	-0.137 (0.307)
Satisfaction with job opportunities (completely dissatisfied—ref.)								
Completely satisfied			-0.619 (0.617)	0.288 (0.483)			-0.547 (0.652)	0.281 (0.482)
Rather satisfied			0.189 (0.543)	-0.531 (0.359)			0.288 (0.568)	-0.470 (0.362)

(continued)

Table 5.3 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Yes and no			-0.563 (0.496)	-0.300 (0.355)			-0.618 (0.540)	-0.253 (0.356)
Rather dissatisfied			0.456 (0.634)	0.043 (0.394)			0.409 (0.639)	0.176 (0.399)
Employer's monetary debt to the employee (no—ref.)								
Does not work in the organisation ^a	-0.358 (0.954)	0.442 (0.663)	-0.351 (0.934)	0.669 (0.682)	-0.091 (0.936)	0.650 (0.659)	0.010 (0.926)	0.931 (0.673)
Yes	-1.417** (0.493)	0.278 (0.580)	-1.350** (0.460)	0.293 (0.619)	-1.399*** (0.429)	0.288 (0.591)	-1.327*** (0.414)	0.320 (0.641)
Reduction of earnings and hours of work (no—ref.)	-0.055 (0.454)	-0.244 (0.369)	-0.078 (0.450)	-0.274 (0.360)	-0.170 (0.473)	-0.116 (0.358)	-0.216 (0.477)	-0.166 (0.348)
Enforced unpaid leave (no—ref.)	-0.338 (0.727)	-0.758 (0.489)	-0.313 (0.740)	-0.895* (0.452)	-0.348 (0.669)	-0.976* (0.473)	-0.395 (0.691)	-1.095* (0.460)
Changing of a job/occupation (without changes—ref.)	0.983* (0.427)	0.089 (0.310)	0.863* (0.402)	0.153 (0.317)	0.796* (0.372)	0.109 (0.319)	0.754* (0.365)	0.180 (0.328)
Number of observations	598	1471	598	1471	598	1471	598	1471
Pseudo R ²	0.148	0.131	0.165	0.139	0.134	0.117	0.153	0.127

p-level—*0.1; **0.01; ***0.001

^aThe RLMS-HSE question about employer's monetary debt to the employee was addressed only for those who work in the organisations, firms

The job tenure (work experience at the current job) of 4+ -year-old men seems to be more appreciated than that of women of the same age. A job tenure of more than 20 years, as compared to less than 1 year, increases the probability of being employed by 18.2–20.2% and 7.4–9.7% on average for men and women respectively, depending on the model specification. The shorter job tenure (6 years and more) is also significant for men's employment but not for women's. Women often have career breaks for maternity leave, so longer job tenure may be rarer for women than for men.

Senior women are more likely to continue working full-time rather than part-time that may be a step to retirement due to caregiving for grandchildren or elderly relatives (Levin 2015).

Overall satisfaction with a job as well as particular aspects of job satisfaction and erosion of workers' rights are significant determinants of employment for middle-aged and older women mainly. Compared to job dissatisfaction, the average satisfaction with job increases the probability of a woman being employed by 7.8–8.5% on average, depending on the model specification. An employer's monetary debt to the employee negatively influences men's employment. These results confirm Levin's (2015) earlier findings about the importance of job satisfaction for employment at the pension age in Russia. However, the author revealed that the employment of men close to the pension age is more sensitive to general job satisfaction, while the employment of women of the same age depends on satisfaction with opportunities for professional growth (Levin 2015). These differences can be attributed to the economic changes in Russia. The observation period of 2009–2012 in Levin's (2015) study covers the period of economic growth in Russia when real earnings and incomes were growing, and job expectations were relatively high. The current study covers the 2010–2016 period after the economic crisis of 2013–2014 when real earnings and incomes stopped growing,⁴⁵ which has probably changed the career expectations of employees.

Economic factors are significant determinants of employment for both men and women. For men, however, only relatively high earnings seem to be an incentive to maintain employment, while for women lower earnings also increase the probability of being employed. In comparison to pensioner's earnings more than five minimal regional wages, pensioner's earnings of 2–3 minimal regional wages decreases the probability of middle-aged and older men's and women's employment by 8.2–8.5% and 6.8–8.3% on average, depending on model specification. Thus, the second hypothesis was supported.

Finally, labour mobility—changing/getting a job (occupation)—increases the probability of employment of 45+ year-old men, and is insignificant for women of the same age, which confirms the third hypothesis.

⁴⁵<https://www.gks.ru/>.

5.6.2 *Factors in the Labour Mobility of Middle-Aged and Older Workers*

The main differences in the factors of male and female labour mobility are summarised in Table 5.4. Men are more likely to change a job/occupation in regional centres and urban-type settlements than in cities and towns; there were no significant location differences for women. Men having a lower secondary education have lower probability of their labour mobility, compared to men having secondary education. This finding seems to be somewhat contradictory to the previous studies (Nesterova and Sabirianova 1999; Gimpelson et al. 2017), but a low education probably does not enable a higher paid job, which is one of the main reasons for men's labour mobility in Russia (Gimpelson et al. 2017).

In line with the previous studies, the probability of labour mobility decreases with age, about the same for men and women (by 0.6–0.8% every year, depending on the model specification) (Table 5.5).

The probability of changing a job/occupation is higher in construction, transportation and communication for men of 45 years and older (Table 5.4). These industries

Table 5.4 The significant factors of labour mobility for men and women of 45 years and older

Variable	Men	Women
Age	– ^a	–
Location	Higher in regional centres and urban-type settlements	N/s ^b
Education	Lower for lower secondary education	N/s
Industry	Higher in construction, transportation and communication	N/s
Occupation	Lower for specialists of higher qualification	Higher for top and middle managers, high-level officials, legislators
Firm ownership	N/s	Higher in private firms
Job tenure	–	–
General job satisfaction	N/s	–
Satisfaction with working conditions	–	–
Satisfaction with earnings	+	–
Satisfaction with job opportunities	N/s	–

^a“–/+/+” means negative/positive influence on the probability of labour mobility (changing of a job/occupation)

^bN/s—non-significant

Table 5.5 Regression coefficients in the models of middle-aged and older individuals' labour mobility (DV: change of a job/occupation at least once over the 2nd, 3rd, 4th years of observation = 1; no changes = 0)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
	Men	Women	Men	Women	Men	Women	Men	Women
Age	-0.057* (0.027)	-0.052** (0.018)	-0.061* (0.027)	-0.048*** (0.019)	-0.046* (0.026)	-0.052** (0.019)	-0.051* (0.026)	-0.048** (0.019)
Location (city/town—ref.)								
Regional centre	0.712* (0.373)	0.220 (0.257)	0.863* (0.375)	0.136 (0.258)	0.845* (0.371)	0.261 (0.261)	0.956** (0.372)	0.175 (0.261)
Urban-type settlement	1.358* (0.666)	0.376 (0.392)	1.493* (0.676)	0.300 (0.402)	1.668** (0.593)	0.366 (0.399)	1.698** (0.591)	0.293 (0.408)
Rural	0.736 (0.464)	-0.239 (0.298)	0.714 (0.473)	-0.212 (0.303)	0.663 (0.426)	-0.178 (0.289)	0.674 (0.427)	-0.148 (0.295)
Education (secondary—ref.)								
Lower secondary	-0.911* (0.497)	0.423 (0.434)	-0.918* (0.524)	0.457 (0.417)	-1.135* (0.510)	0.436 (0.439)	-1.111* (0.519)	0.473 (0.418)
Undergraduate	-0.276 (0.337)	0.238 (0.214)	-0.277 (0.345)	0.290 (0.220)	0.085 (0.431)	0.084 (0.245)	0.009 (0.441)	0.113 (0.251)
Self-rated health (fair—ref.)								
Good and very good	-0.173 (0.321)	-0.396 (0.249)	-0.199 (0.321)	-0.370 (0.254)	-0.132 (0.318)	-0.377 (0.250)	-0.140 (0.317)	-0.358 (0.254)
Poor and very poor	-0.068 (0.482)	-0.314 (0.289)	-0.205 (0.491)	-0.410 (0.289)	0.196 (0.432)	-0.357 (0.290)	0.062 (0.462)	-0.451 (0.292)

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Disability (no disability—ref.)	0.282 (0.521)	0.687 (0.500)	0.257 (0.531)	0.791 (0.491)	0.133 (0.460)	0.043 (0.272)	0.167 (0.477)	0.785 (0.275)
In couples (not in couples—ref.)	0.407 (0.538)	0.042 (0.190)	0.589 (0.613)	0.038 (0.194)	0.636 (0.557)	-0.005 (0.191)	0.819 (0.618)	-0.015 (0.195)
Eligibility for early retirement (no eligibility—ref.)	0.208 (0.395)	0.160 (0.270)	0.067 (0.421)	0.114 (0.271)	0.153 (0.398)	0.043 (0.272)	0.072 (0.418)	0.005 (0.275)
Industry (public sector—ref.)								
Manufacturing	0.470 (0.508)	0.187 (0.360)	0.414 (0.511)	0.103 (0.354)				
Army, civil service	0.570 (0.651)	0.295 (0.394)	0.574 (0.673)	0.309 (0.402)				
Construction	1.487* (0.584)	-0.147 (0.709)	1.367* (0.618)	-0.371 (0.675)				
Transportation	1.428* (0.588)	0.590 (0.448)	1.415* (0.595)	0.552 (0.461)				
Agriculture	-1.595 (1.163)	0.901 (0.581)	-1.492 (1.168)	0.931 (0.612)				
Commerce	0.716 (0.731)	0.325 (0.351)	0.633 (0.758)	0.293 (0.351)				
Housing and communal services	0.245 (0.696)	0.074 (0.437)	0.285 (0.715)	0.011 (0.465)				
Other	-1.439 (1.177)	-0.258 (0.509)	-1.525 (1.226)	-0.247 (0.521)				

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Occupation (skilled labour engaged in manual labour and using machines and mechanisms—ref.)								
Military; legislators; high-level officials; top and middle managers					-0.373 (0.513)	1.010* (0.434)	-0.363 (0.519)	1.073* (0.454)
Specialists of higher qualification					-1.467* (0.587)	0.118 (0.433)	-1.292* (0.589)	0.194 (0.441)
Specialists of middle-level qualification; officials; employees of office and customer service; employees of commerce and service industry					-0.638 (0.478)	0.060 (0.369)	-0.694 (0.519)	0.076 (0.384)
Skilled workers in agriculture, forestry and fish farming; unskilled workers in all industries					-0.701* (0.403)	-0.196 (0.445)	-0.670 (0.408)	-0.195 (0.453)
Firm size (microenterprise—ref.)								
Small	0.534 (0.535)	-0.041 (0.267)	0.489 (0.538)	-0.077 (0.272)	0.509 (0.466)	0.033 (0.268)	0.500 (0.466)	-0.002 (0.275)

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Medium	-0.129 (0.710)	-0.230 (0.374)	-0.101 (0.730)	-0.214 (0.380)	-0.419 (0.631)	-0.070 (0.377)	-0.428 (0.659)	-0.038 (0.381)
Large	0.359 (0.587)	-0.172 (0.362)	0.306 (0.575)	-0.189 (0.364)	0.098 (0.484)	0.045 (0.346)	0.062 (0.490)	0.007 (0.350)
No answer	0.273 (0.515)	-0.094 (0.268)	0.359 (0.516)	-0.062 (0.267)	0.049 (0.441)	0.080 (0.268)	0.097 (0.447)	0.122 (0.267)
Firm ownership (state—ref.)								
Private	0.439 (0.326)	0.623* (0.279)	0.567 (0.356)	0.662* (0.285)	0.383 (0.286)	0.755*** (0.229)	0.458 (0.296)	0.760*** (0.233)
Mixed	-0.138 (0.485)	0.267 (0.401)	0.057 (0.465)	0.303 (0.408)	-0.186 (0.444)	0.381 (0.387)	-0.061 (0.423)	0.394 (0.393)
No answer	0.218 (0.719)	-0.233 (0.604)	0.062 (0.738)	-0.226 (0.584)	-0.308 (0.824)	-0.154 (0.601)	-0.395 (0.848)	-0.144 (0.580)
Formal employment (informal—ref.)	-0.606 (0.785)	-0.612 (0.448)	-0.480 (0.816)	-0.524 (0.423)	-0.928 (0.766)	-0.714 (0.450)	-0.859 (0.728)	-0.629 (0.422)
Full-time job (part-time—ref.)	-0.166 (0.695)	-0.012 (0.266)	-0.207 (0.684)	-0.008 (0.263)	0.069 (0.623)	-0.045 (0.261)	0.073 (0.626)	-0.046 (0.257)
Job tenure (less than 1 year—ref.)								
1–2 years	-1.157** (0.434)	-1.894*** (0.317)	-1.064* (0.455)	-1.959*** (0.326)	-1.122** (0.379)	-1.938*** (0.313)	-1.036** (0.392)	-2.015*** (0.319)

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
3–5 years	-2.582*** (0.494)	-1.560*** (0.338)	-2.588*** (0.520)	-1.667 (0.341)	-2.445*** (0.454)	-1.674*** (0.333)	-2.487*** (0.477)	-1.797*** (0.336)
6–10 years	-2.104*** (0.471)	-1.755*** (0.334)	-2.217*** (0.487)	-1.806*** (0.344)	-1.936*** (0.438)	-1.852*** (0.341)	-2.037*** (0.442)	-1.918*** (0.353)
11–20 years	-2.559*** (0.514)	-2.190*** (0.335)	-2.683*** (0.538)	-2.288*** (0.352)	-2.325*** (0.480)	-2.371*** (0.340)	-2.456*** (0.507)	-2.492*** (0.364)
More than 20 years	-2.695*** (0.555)	-2.369*** (0.330)	-2.832*** (0.585)	-2.461*** (0.334)	-2.615*** (0.528)	-2.516*** (0.359)	-2.710*** (0.522)	-2.633*** (0.363)
The ratio of pensioner's earnings to minimal regional wage (5 and more MRW—ref.)								
Less than 2 MRW	-0.149 (0.452)	0.376 (0.364)	0.017 (0.457)	0.156 (0.377)	-0.365 (0.441)	0.575 (0.369)	-0.184 (0.453)	0.371 (0.381)
2–3 MRW	-0.307 (0.405)	0.218 (0.354)	-0.193 (0.420)	0.066 (0.365)	-0.528 (0.407)	0.342 (0.355)	-0.463 (0.419)	0.198 (0.368)
3–5 MRW	0.327 (0.339)	0.098 (0.366)	0.380 (0.345)	0.028 (0.371)	0.197 (0.337)	0.129 (0.367)	0.269 (0.334)	0.060 (0.373)
General job satisfaction (dissatisfied—ref.)								
Completely satisfied	-0.120 (0.483)	-0.715* (0.301)			-0.033 (0.485)	-0.781** (0.301)		
Rather satisfied	-0.498 (0.379)	-0.492* (0.242)			-0.506 (0.369)	-0.525* (0.246)		

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Yes and no	0.212 (0.395)	-0.069 (0.252)			0.065 (0.401)	-0.072 (0.249)		
Satisfaction with working conditions (dissatisfied—ref.)								
Completely satisfied			-0.953* (0.532)	-0.776* (0.383)			-0.911* (0.518)	-0.745* (0.382)
Rather satisfied			-0.933* (0.437)	-0.366 (0.256)			-0.988* (0.416)	-0.364 (0.257)
Yes and no			-0.584 (0.442)	0.003 (0.242)			-0.614 (0.419)	0.011 (0.244)
Satisfaction with earnings (completely dissatisfied—ref.)								
Completely satisfied			1.486* (0.599)	0.183 (0.504)			1.525* (0.645)	0.258 (0.500)
Rather satisfied			-0.239 (0.418)	-0.389 (0.295)			-0.055 (0.408)	-0.365 (0.293)
Yes and no			0.010 (0.413)	-0.626* (0.274)			0.217 (0.404)	-0.576* (0.271)
Rather dissatisfied			0.186 (0.391)	-0.315 (0.223)			0.204 (0.375)	-0.325 (0.223)

(continued)

Table 5.5 (continued)

Model specification	Industries, general job satisfaction		Industries, satisfaction with various aspects of job		Occupations, general job satisfaction		Occupations, satisfaction with various aspects of job	
Satisfaction with job opportunities (completely dissatisfied—ref.)								
Completely satisfied			0.146 (0.618)	-0.582 (0.513)			-0.060 (0.616)	-0.743 (0.512)
Rather satisfied			0.185 (0.557)	-0.419 (0.325)			0.062 (0.515)	-0.527* (0.314)
Yes and no			-0.125 (0.490)	0.107 (0.317)			-0.241 (0.461)	0.026 (0.306)
Rather dissatisfied			0.074 (0.512)	-0.001 (0.307)			-0.140 (0.488)	-0.055 (0.300)
Employer's monetary debt to the employee (no—ref.)								
Does not work in the organisation ^a	-1.889 (1.196)	-0.206 (0.761)	-1.631 (1.245)	-0.137 (0.747)	-1.747 (1.344)	-0.487 (0.747)	-1.718 (1.385)	-0.470 (0.733)
Yes	0.660 (0.460)	0.143 (0.518)	0.486 (0.488)	0.063 (0.522)	0.561 (0.461)	0.145 (0.546)	0.438 (0.467)	0.076 (0.545)
Reduction of earnings and hours of work (no—ref.)	-0.089 (0.509)	0.161 (0.394)	-0.317 (0.552)	0.208 (0.361)	-0.154 (0.506)	0.114 (0.419)	-0.424 (0.552)	0.145 (0.383)
Enforced unpaid leave (no—ref.)	0.243 (0.752)	0.346 (0.553)	0.495 (0.802)	0.298 (0.521)	0.426 (0.727)	0.357 (0.553)	0.711 (0.782)	0.269 (0.519)
Number of observations	598	1471	598	1471	598	1471	598	1471
Pseudo R ²	0.232	0.137	0.251	0.153	0.197	0.142	0.218	0.158

p level—*0.1; **0.01; ***0.001

^aThe RLMS-HSE question about employer's monetary debt to the employee was addressed only for those who work in the organisations, firms

are traditionally characterised by lower social guarantees, a wider informal sector, and frequent staff changes. Previous studies report that men of working age work in commerce, construction, transportation, while men of the pension age mainly work in housing and communal services, education and construction (Sonina and Kolosnitsyna 2015). The analysed sample may cover changes of occupation at pension age. No differences in labour mobility were revealed among industries for women of 45 years and older.

Male specialists with higher qualifications are less likely to change a job/occupation, compared to skilled labour workers engaged in manual labour and using machines and mechanisms (by 17.2–20.5% on average, depending on the model specification) (Table 5.5). Female top and middle managers, high-level officials, and legislators change job/occupation more often than skilled workers engaged in manual labour (by 14.4–17.1% on average, depending on the model specification). Probably, top and middle manager positions may be less preferable at pension age and close to it, due to high mental and physical load, which can cause stress.

The length of job tenure (working experience at the current job) is negatively correlated with both men's and women's labour mobility (changing a job/occupation), which supports the previous studies on this topic. However, the effect of tenure is not linear. In comparison to job tenure of less than one-year, one to two years of tenure affects women's labour mobility more than men's (the ability to change a job/occupation is higher by 38.7–40.2% and 20.1–20.7% respectively, depending on the model specification) (Table 5.5). Longer job tenure decreases the probability of changing job/occupation more for men of 45 years and older than for women of the same age.

The probability of labour mobility is also higher at private firms but this effect is significant only for women (Table 5.4). Other job characteristics (enterprise size, formal/informal employment, full-time/part-time job) do not significantly affect the probability of middle-aged and older men's and women's jobs/occupation changing.

General job satisfaction is significant only for the labour mobility of 45+ year-old women. Their complete satisfaction with the job decreases the probability of changing their job/occupation by 11.1–11.7% on average, depending on the model specification, as compared to general job dissatisfaction. Satisfaction with working conditions is significant for both men's and women's labour mobility but its effect is higher for men. Satisfaction with earnings (in both model specifications with the industries and occupations) and job opportunities (in the model specification with occupations only) seems to be significant for women's job/occupation changing but not for men's (Table 5.5). The unexpected result is the positive impact of complete satisfaction with earnings on men's labour mobility. If complete satisfaction with earnings represents real high earnings then these job positions may be rather stressful and intensive, and less preferable for middle-aged and older workers, which may partly explain this result.

The erosion of workers' rights through an employer's monetary debt to an employee, a reduction of earnings or working hours, and enforced unpaid leave are insignificant for changing a job/occupation for both men and women, in all model specifications (Table 5.5).

Finally, economic factors seem to be insignificant in the labour mobility of middle-aged and older workers. The non-financial aspects of a job may become more important in older age. The model specifications used here do not include earnings from a new job, or a comparison with the previous earnings, which may correlate with labour mobility.

5.7 Conclusion

The employment rates of Russian middle-aged and older men and women have been increasing for almost the last two decades. Furthermore, the rate of increase was higher for women than for men. This trend can be explained in the following ways. Firstly, it may be the result of the overall growth of female employment due to the higher human capital of new cohorts entering the labour market. Secondly, Russian female life expectancy is much higher than that for males. Due to lower earnings over the life cycle and a slightly shorter period of paid contributions to the pension system, on the average, women receive lower pension benefits in comparison to men.

The employment rates of both men and women aged 45–54 have been growing more sustainably than of those aged 60 years and above. The employment rates of the latter were more prone to changes in the pension legislation (restrictions on the employment of pensioners, pension indexation, etc.) as well as to the situation in the labour market. The most significant difference in employment rates between men and women is observed in the 55–59-year-old age group when the majority of women begin to receive pension benefits.

The empirical analysis of the factors in male and female employment in middle and older ages (45 years old and above) in Russia supports the previous findings regarding differences in men's and women's places of work. Men are more likely to continue working in the army and civil services and in positions as specialists with higher- and middle-level qualifications, as officials, and employees of offices and customer service, and employees of commerce and the service industry, while women are more likely to maintain their employment in the public sector. Middle-aged and older men also continue to work more often in large firms with mixed ownership. Part-time jobs may be seen as a step towards retirement for women only.

The impact of education on the employment of middle-aged and older men and women is inconsistent in the tested model specifications. At the same time, job tenure significantly contributes to employment in middle and older age, for both men and women, but its effect is higher for men.

The obtained results fail to support the first hypothesis: partnership status is insignificant for both male and female employment in all model specifications. In support of the second hypothesis, economic factors are more crucial for women of 45+ than for men of the same age. Even modest earnings increase the probability of female employment but do not do so for males. At the same time, an employer's monetary debt to an employee significantly decreases the probability of male employment only. Middle-aged and older men probably more often work in private firms or firms with

mixed ownership, where monetary debts to employees are more widespread than in state-owned companies. Other forms of erosion of worker's rights—enforced unpaid leave—as well as satisfaction with working conditions and general job satisfaction are important for women only.

Labour mobility—changing a job/occupation—may be an effective strategy to maintain employment in middle and older age for men only. It is better for women to keep their current job without any changes. Thus, the third hypothesis was confirmed.

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