Pensioner employment, wellbeing and gender: Lessons from Russia

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Abstract

Encouraging pensioner employment is one answer to the challenge of aging societies. Employment positively influences the subjective wellbeing (SWB) of working-age populations, but the implications for pensioners, including variance by gender and occupational class, are unclear. We examine this using mixed methods on data from Russia, where pensioner employment is comparatively high. Utilizing data on 5,703 individuals aged 45-70 years from 12 waves of the Russian Longitudinal Monitoring Survey (2003-2015), we estimate individual fixed-effects models for life satisfaction, exploring mechanisms using longitudinal qualitative data. We find pensioner employment positively influences the SWB of both genders across the occupational hierarchy. We attribute the muting of occupational variance to the decommodifying action of pensions. We find gender differences in mechanisms: pensioner employment gives women a non-economic SWB boost, but additional income explains men's SWB improvements. We theorize this finding using our qualitative data, showing how gendered age schemas shape pensioner wellbeing.

Keywords: Retirement, pensioner employment, wellbeing, gender, aging, family.

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Retirement is in flux, with older individuals increasingly working for longer. Institutionalized after the Second World War across advanced capitalist and Soviet bloc countries (Sargent et al. 2013; Townsend 1981), retirement became a standard part of the life course (Kohli 1987). By the end of the twentieth century, however, sociologists were already analyzing the gradual deinstitutionalization of retirement (Han and Moen 1999). Among the forces transforming retirement, increased life expectancy and aging populations have raised concerns about the sustainability of pension systems, while the politicization of age discrimination has promoted increased recognition of older individuals' right to work (Scherger 2015). There have been two broad policy responses to such pressures: first, the progressive raising of retirement ages and

restriction of pension entitlements, a tendency dubbed "neoliberalising old age" (Macnicol 2015), and, second, policies facilitating pensioner employment which decouple pension receipt from retirement. The latter approach was foreshadowed by Townsend's influential critique of retirement as an unwarranted exclusion of older individuals from employment that condemned them to "structured dependency" and relative poverty (1981; 2006). Both responses potentially address demographic concerns by extending working lives, but in very different ways. Here we focus on pensioner employment, examining its implications for subjective wellbeing (SWB). We use data from Russia, which is an ideal environment to study post-pension employment since unusual policies mean that, until 2016, there was no financial penalty for working while drawing a pension (Gerber and Radl 2014). Correspondingly, approximately 35 per cent of Russian pensioners were employed in 2014 (Rosstat 2020a), with the majority employed a year after becoming pensioners (Rosstat 2014a). We focus on SWB which is an increasingly important social indicator (Yang 2008), often framed as a guide to policy in relation to pensions, work and retirement (e.g. Horner 2014; Nikolova and Graham 2014), paying particular attention to gender differences in the experience of retirement and pensioner employment.

Employment has a well-documented positive relationship with SWB in working-age individuals (e.g. Clark and Oswald 1994; Clark et al. 2001; DiTella et al. 2001; Hetschko et al. 2014), but this finding cannot necessarily be generalized to pensioners. Among working-age individuals employment is usually compared with unemployment, whereas for pensioners the alternative to working is retirement which, in contrast to unemployment, is a socially-legitimate form of leisure (Hetschko et al. 2014), forming part of a "moral economy" embedded in a social logic of reciprocity (Kohli 1987). It therefore cannot be assumed that employment will raise the SWB of pensioners relative to the "well-earned" rest of retirement. Moreover, numerous studies find that retirement positively influences wellbeing and mental health (e.g., Charles

2004; Mein et al. 2003; Westerlund et al. 2010; Latif 2011), although some researchers report voluntary retirement having a negligible impact on SWB (Bonsang and Klein 2012). Meanwhile, research on the SWB impact of working while receiving an age-related pension is relatively sparse. Earlier findings suggested SWB benefits (e.g., Maimaris, Hogan and Lock 2010), but recent studies reach contradictory conclusions, some reporting positive results (Lux and Scherger 2017), and others finding positive results disappear once selection is controlled for (Di Gessa et al. 2017).

The experience of retirement varies by gender and occupational class (e.g. Katz and Calasanti 2015; Phillipson 2015), and existing theory suggests that the same will apply to pensioner employment. Subjective and objective gender differences in employment mean that retirement is necessarily a gendered institution. Men seem likely to secure the greatest SWB gains from employment as pensioners. Men's social identity tends to be focused on work, with men's SWB more negatively impacted by unemployment than women's (Dolan et al. 2008). By contrast, women pensioners are more likely to have family-related multiple social identities, which protect against psychological distress in retirement (Moen, Dempster-McClain and Williams 1992; Thoits 1983; 2011). We interrogate such gender differences quantitatively and qualitatively. Meanwhile, judging from findings among working-age populations, pensioners with higher occupational status are more likely to improve their wellbeing through continuing to work than pensioners of lower occupational status, who, however, are more likely to be "pushed" into employment by financial need (Gerber and Radl 2014). We analyze this in our quantitative models.

To specify further the relevance of our research context, first, retirement and pension receipt have been decoupled in Russia by policies that, until the law changed in 2016, imposed no financial penalty on pensioner employment (Gerber and Radl 2014). Russia consequently has a large and socially diverse employed pensioner population, providing an excellent

opportunity to analyze the wellbeing implications of pensioner employment. Second, Russia's historically and comparatively high women's employment alongside a traditional division of domestic and caring labor is an early example of a stalled gender revolution (Ashwin and Isupova 2018), an increasingly common configuration in which women's rising employment fails to produce gender equality within the home (England 2010). Russia thus provides a revealing context in which to probe how women's growing labor market attachment, combined with the gender cultural schemas which structure continued domestic gender inequity, shape retirement, pensioner employment and wellbeing. Third, Russia experienced rapid deindustrialization, skyrocketing inequality and rising precarity in the 1990s, trends evident in a less extreme form in many developed (especially liberal) market economies (Kalleberg 2018). Our case provides insights into the wellbeing implications of increasing precarity for pensioners amid changing patterns of retirement and employment.

We use longitudinal qualitative and panel survey data, employing mixed methods to analyze the impact of pensioner employment on SWB. For the quantitative component, we use data on 5,703 individuals aged 45-70 years from 12 waves of the Russian Longitudinal Monitoring Survey (2003-2015) to estimate individual fixed-effects models for life satisfaction, according to pension receipt and work transitions, adjusting for other time-varying factors. Our study extends understanding of the SWB implications of pensioner employment. Some researchers have suggested that the SWB-impact of pensioner employment is relevant in predicting the wellbeing implications of delayed pension entitlement (e.g., Maimaris, Hogan and Lock 2010), a policy change which is occurring in many countries including Russia in 2019. We show why such comparisons are misleading, highlighting the decommodification (Esping-Andersen 1990) entailed in pension receipt, which has an important influence on the wellbeing implications of pensioner employment.

In terms of gender, we find that both women and men's wellbeing is improved by pensioner employment relative to retirement. For men this is mainly explained by increased income, but women gain a non-economic SWB boost from pensioner employment. We explain this somewhat puzzling gender difference using our qualitative data, which was gathered in five waves between 1999 and 2010. Focusing on a subset of 38 respondents who became pensioners during the research, we examine the experience and meanings of retirement and pensioner employment. This enables us to develop an intersectional theoretical account of how gendered aging interacts with pensioner employment thereby influencing men and women's wellbeing in distinctive ways.

Retirement, pensioner employment and SWB

SWB is an important concept in sociological analyses of ageing (George 2010), with questions regarding retirement and late-life working center stage. When retirement was conceived as a standard part of the life course, research frequently focused on individuals' social adaptation to this change (e.g., Moen, Dempster-McClain and Williams 1992). Contemporary research, by contrast, is more concerned with the SWB implications of longer working lives (e.g., Horner 2014; Maimaris, Hogan and Lock 2010). Below we review extant findings, before examining class and gender differences in retirement and post-pension employment experiences.

Research in this area is plagued by definitional complexity. Retirement is variously defined – including via self-reports (e.g., Horner 2014), sometimes with information regarding future working intentions (e.g., Bonsang and Klein 2012); by data on pension receipt (e.g., Westerlund et al. 2010) and through observed annual hours of work over particular age thresholds (e.g., Neumann 2008). There are likewise differing definitions of pensioner employment. Some studies focus on those working beyond state pension age (e.g., Maimaris et al. 2010; Di Gessa et al. 2017; 2018), others use specific definitions including the notion of

"bridge" employment (Kim and Feldman 2000: 1195), and some only consider retirees who return to employment after a time of not working (e.g., Lux and Scherger 2017). Russia's permissive policy towards pensioner employment pre-2016 facilitated various employment transitions (e.g., remaining at the same job post-pension or finding a new one). Therefore in this study we are interested in all forms of pensioner employment and do not use restrictive definitions such as bridge employment.

What does existing research reveal? It is well established that employment boosts SWB, while unemployment seriously depresses it (e.g., Clark and Oswald 1994; Clark et al. 2001; DiTella et al. 2001). As Hetschko and colleagues (2014) argue, this reflects not only reduced income during unemployment but also the loss of "identity utility" – defined as utility derived from adhering to the social norms and ideals relevant for an individual's social category (Akelof and Kranton 2010). Notably, Hetschko and colleagues found that past retirement age, the SWB of the formerly unemployed improved as they were no longer violating social norms by not working. This highlights why the SWB impact of pensioner employment may differ from that of working-age individuals – the alternative to employment is a socially legitimate form of leisure as opposed to the stigmatized state of unemployment.

In terms of the SWB impact of retirement, early studies suffer problems of endogeneity and cannot exclude that SWB influences selection into retirement (Charles 2004; Neuman 2008; Horner 2014). Among studies that use methods such as instrumental variables or fixed effects models to address this issue, the results are largely positive. For example, Charles (2004), using an instrumental variable approach, found that the direct effect of retirement on SWB was positive. Other studies found that retirement reduced fatigue and depressive symptoms (Westerlund et al. 2010), improved mental health (Mein et al. 2003), and psychological wellbeing (Latif 2011). Other researchers, however, report that voluntary retirement has a negligible impact on SWB (Bonsang and Klein 2012).

As regards the SWB impact of pensioner employment, older studies again have limitations. For example, only one of the studies included in Maimaris, Hogan and Lock's meta-study (2010) was both longitudinal and focused on employment as opposed to volunteering. Meanwhile, Kim and Feldman's widely-cited study (2000), which found post-retirement "bridge" employment improved wellbeing, focused on the socially-select category of university professors. Recent studies have contradictory results. Using panel data from the UK and Germany, Lux and Scherger (2017) found post-retirement employment (after a period of not working) positively impacted SWB even in the lowest occupational groups, while other researchers looking at employment beyond statutory pension age found that positive impacts disappeared once selection factors such as baseline socioeconomic characteristics and health were accounted for (Di Gessa et al. 2017). Since income has a well-documented relationship with SWB (Kahneman and Krueger 2006), we look for an increase in wellbeing after controlling for individual and household income changes.

Occupational status, pensioner employment and SWB

Among working-age populations higher occupational status is positively associated with wellbeing (del mar Salinas-Jiménez et al. 2013) for reasons including greater autonomy (for an overview see Warr 2007), with a lack of control associated with negative health consequences (Marmot 2004). The same may apply to pensioner employment, though the issue is complicated by diverse drivers of pensioner employment across social groups (Dingemans, Henkens and van Solinge 2017; Radl 2013). Those with higher incomes and occupational status are more likely to be "pulled" into pensioner employment by well-remunerated and interesting work, while those with lower pension income face being "pushed" into work by financial need (Gerber and Radl 2014).

Alongside health, which is important but not our focus, occupational class is likely to be a key influence on pensioner employment decisions. In research terms this can be captured

either through a focus on occupational class at baseline or measures of financial compulsion to work as a pensioner. Using the former strategy, research using panel data from the UK and Germany found mainly positive effects on SWB for post-retirement employment and no significant differences between those working in lower-class jobs and all others (Lux and Scherger 2017). By contrast, Di Gessa and colleagues (2018) using data from the English Longitudinal Study of Ageing found that individuals reporting working beyond state pension age because of financial constraint had lower quality of life than those who retired at the expected age, while respondents working beyond pension age by choice reported significantly higher quality of life. Nikolova and Graham (2014), using Gallup World Poll data from the US, found a similar pattern. Highlighting the negative SWB impact of compulsion, involuntary early retirement likewise has a negative impact on wellbeing (Bender 2012; Bonsang and Klein 2012).

Choice regarding retirement and employment decisions thus impacts SWB positively. Since pension receipt reduces economic compulsion to work, acting as a form of decommodification (Esping-Andersen 1990), it may attenuate occupational class differences in the SWB impact of pensioner employment, although the degree to which it does so will vary depending on pension levels, household income and composition. Notwithstanding increased choice over whether to work, however, differences in job quality may mean that employment provides more SWB benefit for pensioners in higher occupational groups.

Gendered age, identity, retirement and SWB

Identity processes are central to sociological research on SWB in retirement (e.g., Moen, Dempster-McClain and Williams 1992), while identity is inevitably gendered. Gender identity is an ongoing, provisional "project" (Connell, 2009: 101) entailing the enactment of gender schemas (norms) – what West and Zimmerman (1987) call "doing gender" – that prescribe different activities for men and women with potentially diverse implications for SWB.

The prevailing gender schemas to which individuals are held accountable vary cross-culturally (Ashwin and Isupova 2018), as well as through the intersection of gender with differences such as age, race, and sexuality. Thus, the gender schemas to which individuals are held accountable change with age (Calasanti 2003). As noted above, SWB may be positively related to conformity with dominant social norms (Hetschko et al. 2014), but it is also possible that such schemas may undermine wellbeing. What are the gendered age schemas to which pensioners are accountable? To begin with women: in Russia gendered age schemas prescribe continued caring and household labor for older women particularly self-sacrificial grandmotherhood (Utrata 2011). By contrast, cross-national research finds that working-age men are widely expected to "do gender" through breadwinning (Thébaud 2010), with breadwinner status, which in Russia means having the highest income, granting men exemption from domestic and caring obligations (Ashwin and Isupova 2018). In line with this, employment is central to the identity of working-age men, with men's SWB more negatively impacted by unemployment than women's (Clarke 2003; Dolan et al. 2008). Whether or not men continue to be held accountable to the breadwinner schema as pensioners is unclear.

Marie Jahoda's (1981;1982) theorizing regarding the manifest and latent functions of employment, recently supported by a longitudinal study (Zechmann and Paul 2019), provides a useful framework within which to consider how these gender schemas may impact the SWB of pensioners. Analyzing the psychological distress associated with unemployment, Jahoda (1982) argued that in addition to the "manifest" function of providing income, employment also had five "latent" functions positively impacting wellbeing: time structure, activity, collective purpose, social contact and status. Jahoda's theory was not gendered, but we contend that divergent gender schemas mean that men and women are likely to be differentially impacted by employment loss.

How does this apply to Russian retirees? In relation to the gendered schemas discussed above, the latent benefit of social contact through employment appears to be gender neutral, as both men and women face more limited social interaction as non-working pensioners. By contrast, given breadwinning expectations, men seem to face a greater threat from the loss of the manifest benefit of income from employment. Since gender schemas prescribe regular unpaid household and caring work for retired women, but not retired men, men are also potentially more vulnerable to the loss of the latent benefits of time structure, activity, and collective purpose. Finally, Jahoda (1982: 52) noted that research suggested that low-skilled women made the biggest gains in self-esteem from employment. Status loss may therefore be a particular risk for retired women. We elaborate below.

Arguments regarding gender differences in time structure and activity are straightforward – Jahoda herself noted (1982: 23) that that unemployed women were kept active and provided time structure by domestic tasks. The notion of purpose is more complex. Jahoda referred to "collective purpose," which she related to feeling useful and needed. Providing a more elaborate theory, Thoits (1983; 2011) argued that the purpose and meaning obtained through multiple social identities such as parent and worker could "guard against anxiety and existential despair" (2011, 148). Thoits linked this to the somewhat distinct theory of "mattering" to others (Rosenberg and McCullough 1981) – the idea that an individual is the object of another person's attention, is important to that person and is depended on for specific needs. Such purpose can protect against the potential negative impact of post-retirement role loss (Kim and Moen 2001), suggesting greater male vulnerability given men's limited domestic engagement beyond breadwinning (Ashwin and Lytkina 2004). In line with this, anthropological evidence suggests that lack of purpose is more prevalent among retired Russian men, with Michelle Parsons (2014) arguing that men's lack of "neededness" in retirement

contributes to Russia's persistent gender life expectancy gap of more than a decade in women's favor (Rosstat 2017a).

By contrast, gendered age schemas may protect women. Household and caring labor can provide time structure, activity, purpose as well as a feeling of "mattering," all of which is potentially positive in terms of wellbeing (Jahoda 1982; Thoits 1983; 2011). Moreover, given the expectations that women provide household labor and care (e.g., to grandchildren), the role strain perspective (Vanderwater et al. 1997) would suggest that retirement should boost women's SWB by eliminating work-family conflict. But other research suggests otherwise. Boye (2009), using wellbeing data from 25 European countries, found that women's wellbeing increased with hours of paid work, and decreased with housework hours. Likewise, caregiving has been found by some studies to reduce wellbeing (Dolan et al. 2008) including among pensioners (Di Gessa et al. 2018).

These contradictory findings may relate to Jahoda's (1982) latent benefit of status which, while provided by employment, may be lacking for women's unpaid labor. Anderson and colleagues (2012; 2015), demonstrate the importance to SWB of social status in face-to-face groups (what they refer to as socio-metric status as distinct from socio-economic status), with higher social status predicting higher SWB. According to Anderson and colleagues' review of the literature (2015), the dimensions of social status include respect and admiration (e.g., Blau 1964); the receipt of voluntary deference (e.g., Goldhamer and Shils 1939) and perceived instrumental social value (Blau 1964; Goldhamer and Shils 1939; Leary et al. 2014). In terms of Nancy Fraser's (2007) distinction between the two "dimensions of social ordering" – distribution and recognition – Anderson and colleagues focus on the latter. As Fraser points out, in terms of recognition gender is a status differentiation which privileges masculinity while devaluing "everything coded as 'feminine'" (Fraser 2007: 26). What Fraser calls the "injustices of misrecognition" (p.26) are thus particularly likely with regard to the "feminine" domestic

sphere, a point supported by literature identifying the invisibility and devaluation of women's unpaid household and caring labor (e.g., Ashwin et al. 2013; Daniels 1987; Folbre 2001). Thus, while doing gendered age may provide women with purpose, activity and time structure, this may be offset by lack of recognition. Meanwhile, gender status beliefs (Ridgeway 2011) privilege men, but whether their status is eroded once they are no longer in employment is unclear.

Propositions

As shown above, the impact of pensioner employment on SWB remains unclear, as does the influence of occupational class and gender on this relationship. We derive the following propositions from the above review.

Despite largely positive findings on the impact of retirement on wellbeing, given the robust positive relationship between employment and SWB in non-pensioners, we propose that pensioners transitioning to employment will experience greater SWB improvements than those transitioning to retirement, independent of income changes. The literature on working-age populations would suggest that occupational status would moderate the impact of pensioner employment on SWB. But by reducing compulsion to work pensions may attenuate class differences in the SWB impact of pensioner employment. We therefore do not expect to see significant class differences in the SWB impact of pensioner employment.

Adding gender to this picture foregrounds the identity issues involved in pensioners' employment decisions. For men the question is whether the benefit of increased leisure in retirement outweighs the potential challenge to masculine identity involved in withdrawing from employment and, potentially, losing the status of family breadwinner. "Retired" women are expected to perform domestic and caring labor. This may protect their wellbeing (Jahoda 1982; Thoits 1983; 2011), albeit not their social status. On balance, we anticipate that men will gain a greater SWB boost from employment as pensioners than women independent of income

changes. Given the centrality of breadwinning to masculine identity we also propose that the impact of individual income increases on SWB, which we expect will be positive, will be greater in men than in women.

Setting

Russia is a revealing research setting, but contextualization is required to facilitate comparisons. State socialist countries followed the capitalist world in institutionalizing retirement (Townsend 1981) with the Soviet pension system created in the 1950s and 60s celebrated as a triumph of socialism (Smith 2015). At age 60 for men or 55 for women those who had worked for 25 years were entitled to a "labor pension" of full benefits. In addition, early pensions, allowing retirement at age 50 or less, were offered for work deemed hazardous or requiring residence in harsh climatic conditions. Given that employment was quasi-compulsory, the vast majority qualified for labor pensions, with citizens who did not entitled to a smaller "social pension."

For comparison, Russia's retirement ages should be viewed in the context of life expectancy and morbidity trends. Life expectancy in Soviet Russia lagged behind Western European countries. Life expectancy is still one of the lowest in Europe – in 2016 66.5 for men, 77.1 for women (Rosstat 2017a: 84) – which, in the case of men, is associated with excessive alcohol use (Leon et al. 2007). Rates of non-fatal and disabling chronic disease, particularly heart disease, are much higher than in Western countries (Townsend et al. 2015) which may result in an increased care burden and health-related retirement rate. Retirement ages in relation to life expectancy are thus in line with European norms. From January 2019 pension ages were raised to 60 for women and 65 for men. The social attachment to low pension ages was reflected in huge protests with banners claiming "We won't live that long!" (https://www.bbc.co.uk/news/world-europe-44992376).

The vast majority of Russians rely on state pensions in retirement, with only 3.4% of pensioners receiving a private pension in 2017 (Rosstat 2020b), attempts to part-privatize the pay-as-you-go pension system having foundered (Cook et al. 2019). In the 1990s expanding pensioner employment was related to hardship, but the average pension rose by an estimated three times in real terms (11 times in nominal terms) between 2001 and 2014 (Lyashok, Nazarov and Oreshkin 2016). Between 2002-2007 the average pension was close to the subsistence minimum, but, as shown in Figure 1, since 2008 has consistently overtaken it, reaching 155% of the subsistence minimum in 2017 (Rosstat 2020c; Rosstat 2014b; Rosstat 2008). Pensions are substantially below average wages (Figure 1), but mean wages are boosted by high inequality; differentiation of pensions is modest in comparison (Solov'ev 2016). Indeed, men and women past pension age face the lowest risk of poverty in Russia. The groups facing the greatest poverty risk are children and men and women ages 16-30 (Rosstat 2017b). Nevertheless, incentives for post-retirement employment remained strong until 2016 when pension indexation was restricted to non-working pensioners. This change does not impact our findings as our qualitative data runs until 2010 and our quantitative to 2015.

Figure 1 about here

The cultural significance of work also requires contextualization. Our pensioner respondents were socialized in Soviet era when the workplace was the focus of social life and welfare provision (Ashwin 1999). Although legalized after 1991, the voluntary sector remains underdeveloped. In our qualitative data the only widely-mentioned sphere of activity outside employment and the household was the dacha – an (often very modest) country house and garden to which a significant proportion of respondents had access.

Longitudinal Quantitative study: Methods

Data

We used individual-level longitudinal data from the Russian Longitudinal Monitoring Survey (RLMS), a household panel study which started in the early 1990s. Interviews were conducted on an almost annual basis; in this study we use data from waves 12-24 (2003-2015), to correspond approximately to the period covered by the qualitative interviews. Design and sampling details are available on the RLMS website (http://www.cpc.unc.edu/projects/rlms-hse). We restricted the sample to those aged 45-70 years or those turning 45 years during the panel, 45 being the earliest age of pension entitlement. We also restricted to individuals who were "at risk" of becoming working pensioners, i.e. those who at baseline wave were in paid work and reported not receiving a pension. After further exclusions due to missing data on retirement, work and wellbeing and other model covariates, and excluding non-working pensioners who were seeking work, from an initial sample across waves 12-24 of adults (aged 18+) of 34,952, we ended up with a panel consisting of 27,174 observations, (2,872 men and 2,831 women).

As in all long-running panel studies, non-random attrition may bias results, and especially where this may relate to the exposures and outcomes of interest. An advantage of the fixed-effects design is that individuals with gaps in participation across waves still contribute information to the analyses. A preliminary analysis of the mean contribution from different population groups showed that on average those contributing the most observations were women, non-urban residents, and those in younger age groups at baseline (see supplementary table S1). This distribution accords with Gerry and Papadopoulos' (2015) analysis showing that the RLMS attrition pattern results in a longitudinal sample that is more female, older, more likely to live in non-urban settlements, more likely to be married, with higher levels of education and engaged in the labor market.

Variables

The dependent variable was life satisfaction, a commonly-used measure of SWB in mid and later life (Kim and Moen 2002; Pinquart and Schindler 2007), which is highly correlated with other measures of happiness and recent changes in life circumstances such as income (Kahneman and Krueger 2006). Life satisfaction was measured with the question "To what extent are you satisfied with your life in general at the present time?", with responses on a 5-point scale: fully satisfied, rather satisfied, both yes and no, less than satisfied, and not at all satisfied (response scale reversed so that higher SWB had a higher score).

Our main independent variable was self-reported transitions in pension receipt and employment status. Every wave respondents were asked their current activity status and were classed as employed if they responded yes to "currently working," "on paid leave" or "on unpaid leave," no otherwise. We classified as pensioners those receiving a pension for old age, retirement, or for years of service, but excluded those receiving pensions for disability, loss of provider or social security. Because at baseline, all participants were working with no pension, the time-varying indicator was divided into four categories: retired (not working, receiving a pension and not seeking work); working pensioner; working, with no pension (i.e. a return to baseline state) and not working and not receiving a pension (unemployed or economically inactive). After viewing the transition matrix (Supplementary Table S2), we discovered that some individuals reported receiving pension benefits that ceased in subsequent waves. We excluded these implausible transitions (N=1432 observations). The bottom panel of Table 1 shows pension-work trajectories at individual (group) level, and highlights that for employed men, the most common trajectories were into unemployment and into working pensioner status, whereas women were more likely to become working pensioners, followed by non-working pensioners. Over the panel some individuals made multiple transitions.

Table 1 about here

We included other time-varying covariates likely to influence associations between work/pension status and SWB. We adjusted for age at the time of interview by using single year dummies, as there is a negative relationship between age and SWB in cross-sectional analyses of post-Soviet countries (Steptoe, Deaton and Stone 2015). We included dummy indicators for wave/ interview year to adjust for potential contextual factors jointly affecting work, pension and wellbeing. As health and family transitions are also strongly associated with SWB (Dolan, Peasgood and White 2008), we also included a categorical indicator of individuals' marital status (never married, married/partnered, divorced or widowed) and a time-varying indicator for self-rated health (on a five point scale) (Bauer, Cords, Sellung, and Sousa-Poza, 2015; Bonsang and Klein, 2012). To capture economic changes that might influence SWB we included time-varying continuous measures of both real individual income and real household income, because household-level income pooling may diminish the impact of individual income, and household-level income will capture, to some extent, activities of other household members. Both measures were self-reported income in roubles for the previous 30 days and were adjusted for inflation using the consumer price index (CPI) for survey year, all relative to 2010. CPI index values were taken from the World Bank (https://data.worldbank.org/indicator/FP.CPI.TOTL?locations=RU). Household income was equivalized according to household structure and size. Both real income indicators were log transformed to normalize their distributions. Occupational class was measured using the International Standard Classification of Occupations (ISCO) 2008, and collapsed into three categories: high (levels 1-3 - managers, professional and technicians, medium (ISCO 2008 levels 4-7, clerical support workers, services and sales workers, skilled agricultural, forestry and fishery workers, craft and related trades workers), and low (ISCO 2008 levels 8-9 and 0: plant, machine operators and assemblers, elementary occupations, armed forces occupations).

We explored the inclusion of other time-varying covariates such as changes in household size and structure but excluded these as they did not explain any variation in SWB.

Analytical Approach

To test our theoretical suppositions about the relationship between retirement, work and SWB we used individual fixed-effect models (Wooldridge, 2015). This assesses within-individual change, thereby accounting for time-constant unobserved heterogeneity within individuals. This is important because work and retirement decisions and SWB may be influenced by unobserved factors such as personality or underlying health conditions. For example, working pensioners are likely positively selected on health and wellbeing grounds; by considering changes within individuals rather than between them we reduce the risk of incorrectly attributing positive SWB changes to working/pension transitions that might relate to unobserved heterogeneity. Before starting the analysis, we tested the appropriateness of a fixed effects estimator using the Hausman specification test, which suggested that random effects models would provide biased estimates (P<0.001).

We modelled changes in the dependent variable life satisfaction using linear fixed effects regression (appropriate given the residuals were approximately normally distributed). More formally, the model could be expressed:

$$y_{it} - \overline{y_i} = \beta'(\chi_{it} - \overline{\chi_i}) + u_{it} - \overline{u_i}$$

where y_{it} is life satisfaction score for individual i at time t where t= 1, 2,.., T; and the y_i is the individual mean of the dependent variable. β is a vector of time-varying independent variables (χ), including pension/work status at time t, and $\overline{\chi_i}$ is the individual mean of these variables. Because the fixed-effects transformation rests on the assumption that unobserved

individual-specific components are constant over time, time-demeaning the data on y and βx discards the unobserved heterogeneity, which might potentially be correlated with the observables. This way, the models reduce the possibility of within-panel endogeneity i.e. individuals with higher life satisfaction self-selecting into particular retirement and work transitions. We calculated robust standard errors to account for the clustered survey design.

We started by fitting pooled models with both genders combined, but after finding significant gender interactions, we present gender-stratified models in the main results. In model 1 we included time-varying indicators of pension/work status, age, self-rated general health (since health changes could influence retirement and work changes), wave fixed effects, and marital status (since entry to widowhood, for example is known to be associated with changes in SWB). In model 2 we added time-varying indicators of individual and household income. In model 3 we investigated whether the relationship between work and retirement transitions was conditional on occupational status by adding an interaction term for occupational class at baseline and pension/work status. We felt this was justified as a stratification variable since occupational status group varied little within individuals over time.

Longitudinal Qualitative study: Methods

Qualitative data can provide a depth of interpretation unavailable in large-sample studies, thus complementing quantitative findings (Small 2011). We use our longitudinal qualitative data to explore and theorize the mechanisms behind our models. Although our research design does not allow us definitively to determine mechanisms, our theorizing can provide building blocks for future research.

The qualitative data, covering a contemporaneous period to the panel data, is drawn from research examining gender differences in adaptation to Russia's transformed labor market. We sampled from four groups facing labor market transitions when the research began

in 1999: (a) employees of economically struggling organizations (in Moscow), (b) new graduates (in Ul'yanovsk), (c) the registered unemployed (in Samara), and (d) state social assistance recipients (in Syktyvkar). The original sample comprised 120 men and 120 women, spread equally among the different groups. Four semistructured in-depth interviews were carried out with each respondent at six monthly intervals between 1999 and 2001 (Time 1 [T1]–Time 4 [T4]). The research was resumed in 2010 (Time 5 [T5]), when 126 members of the original sample (59 men and 67 women) were found and interviewed. Interviews and transcripts were in Russian. Attrition occurred for a variety of reasons, from change of address to death.

For this article we used a subsample of 38 – 13 men, 25 women – comprising respondents who attained their pension during the research period, and were present in the sample for at least 3 waves. In practice, only 4 of our subsample were not included at T5, and all respondents were present at T4. The under-representation of men in our subsample reflects the gender-age structure of the Russian population which, because of disproportionate male mortality, over-represents women in older age groups; the 2002 census figures showed that there were 1370 women for every 1000 men in the 50–69 age group (Rosstat 2017a: 80). Nevertheless, our data has a more severe gender discrepancy than the national average, likely because of the vulnerable groups in our sample, among whom male mortality trends are exacerbated (Tomkins et al. 2007).

The mean age of respondents at their final interview was 62 with a range 46 to 75 (50-71 for women; 46-75 for men). Our pensioners are relatively young, reflecting retirement ages in Russia as well as the provision of "privileged" (early) pensions for those employed in adverse working or geographical conditions. The number of such respondents in our study is boosted by the fact that part of our sample is drawn from Syktyvkar, a city in the Russian far north, whose residents are entitled to early pensions due to the extreme climate. For example,

the youngest respondent was a pilot from Syktyvkar, entitled to an early pension on the basis of adverse working and climatic conditions.

Table 2 about here

Over three-quarters of our respondents remained employed after receiving their pension (see Table 2), somewhat higher than the rate indicated by Rosstat survey data of 52% of pensioners employed for at least a year post-pension (Rosstat 2014a). Many respondents remained at the same establishment. Only one employed respondent retired immediately on receiving his pension, though 6 unemployed respondents did not return to work post-pension. Pension receipt and retirement are thus decoupled in our data, with immediate retirement of pensioners a rarity amid a variety of pensioner trajectories.

The education and occupational status of our respondents in their last job before pension receipt is shown in Table 2. Professional/managerial men with higher education are over-represented in our data and men working in unskilled occupations prior to pension entitlement are absent. This partly reflects the lower life expectancy of less-educated Russian men in lower-status occupations, but also the initial composition of our sample: two of the failing organizations in Moscow were scientific institutes, while engineers and accountants were the two most numerous professional groups among the registered unemployed in Samara at the time we drew our sample. (For more details regarding sampling, see Ashwin, 2006). Women respondents were more evenly spread through the social and educational hierarchy. In terms of regional distribution, 34% of included respondents were from Moscow, 26% from Samara and 40% from Syktyvkar. Unsurprisingly, no respondents from new graduate Ul'yanovsk sample met the pension criterion.

Finally, our sample was ethnically quite homogeneous, with 79% of those disclosing an ethnicity self-defining as Russian. The other significant ethnic group in our sample was

Komi, an indigenous people of northeastern Russia. They comprised 16% of those stating their ethnicity, all of them from Syktyvkar, which is located in the Komi Republic. The Komi have their own language, but those in our sample spoke Russian and were assimilated into Russian urban life. This group does, however, suffer labor market discrimination.

When referring to respondents, we use a three-number code: the first indicates the respondent's city (1=Moscow, 3=Samara, 4=Syktyvkar), the second the respondent's number, and the third indicates the wave of research. Pseudonyms are used when respondents are named in case histories.

To understand the meanings of work and retirement we first mapped respondents' employment trajectories (see Table 2) to develop a longitudinal qualitative profile of each respondent. We then coded thematically using both inductive and theoretically-derived codes, focusing on respondents' accounts of pension receipt, employment, unpaid labor, as well as recreation and hobbies. We moved iteratively between respondent profiles, coding, and theory to explore the mechanisms behind the relationships between SWB, pensioner employment and retirement found in our quantitative analysis. For example, our initial coding revealed that experiences of employment and retirement were deeply gendered. We returned to the literature to help us understand the relationships we found in our quantitative analysis, and refined our understanding of the data and theory in relation to each other.

Quantitative analysis results: fixed-effect panel regression

We started by modelling changes in SWB as a function of work and pension transitions with both genders combined (see Appendix Table S3). Model 1 confirms a working pensioner SWB advantage and shows that respondents who transitioned from employment to being a working pensioner had significant increases in SWB scores compared with those who transitioned to retirement. Transitioning to unemployment was associated with significant SWB declines. In

terms of the other covariates, transitioning from marriage or partnership to widowhood or divorce was associated with SWB declines, as was reporting worse general health. After introducing income controls (model 2) the coefficients for the main independent variable reduced substantially, indicating that individual and household income changes explain a substantial part of the SWB boost from continued working. (Individual and household income were not strongly correlated, and the models remained stable when one was removed.) Despite the importance of income, some extra-economic effect remains. Transitioning to working pensioner status was associated with a 0.13 point increase in life satisfaction score compared to transitioning to retirement ($P<0.001$). This effect, though apparently small, reflects the limited variation in life satisfaction within individuals in these age ranges. To contextualize, the size of the effect of continued working (0.24 in model 1) is larger than the decrease in SWB associated with widowhood (-0.20).

Gender variations

In Appendix Table S3 (model 3), we introduce an interaction term to test whether the relationship varies by gender, which is not statistically significant, indicating that the positive SWB effect of continued work, either with or without pension receipt, does not vary substantially by gender. There is a statistically significant interaction between gender and changes in individual income, however, suggesting that income improvements are associated with larger SWB boosts in men than women. Thereafter, we show gender-stratified models to highlight these heterogeneities.

Table 3 about here

Table 3 shows stratified models for men and women. Model 1 confirms the similarly positive effect of working pensioner status on SWB for both men and women relative to non-working pensioner when adjusted for age, health and marital status. Losing a spouse had a much stronger

negative impact on men's SWB than women's. After adjusting for individual and household income (model 2), the working pensioner-SWB effect diminishes to non-significance for men while it remains significant for women, suggesting that income has a greater influence on men's than women's SWB, a finding we explore in the qualitative section below. In Model 3, we introduce an interaction between work and pension status and occupational status at baseline to test whether the effect of pensioner employment is stronger for some occupational groups. The inclusion of this term means that the main effects coefficients for pension/working at the top of the table now refer to the effect in the highest occupational group. Although the effect size is higher for both men and women in higher occupational categories, as anticipated it is not significantly different from the effect in lower occupational groups among employed pensioners. Male non-pensioner employees in lower occupational groups do, however, have significantly lower SWB than male non-pensioners in higher occupational groups. Occupational class differences in SWB are thus magnified in men where pension income is absent. In line with extant literature, this suggests that economic compulsion depresses SWB.

Robustness checks and additional analyses

Life satisfaction would ideally be treated an ordinal variable, but there is no agreed way to fit a fixed effect regression to ordinal data. We dichotomized the dependent variable into those with the two most positive categories of life satisfaction vs. the rest and fitted binary fixed effects model. Although this means a non-equivalent sample to that in Table 3, as those with no change between binary states are not included, the results look broadly similar. We experimented with various age specifications, and tried including age squared, but this added nothing substantial to the model fit. Models stratified for age (45-59 years vs 60+, Table S4) were consistent with age combined models, and confirmed that younger pensioners were not driving the findings. We also explored the inclusion of additional time-varying covariates such as household size, and structure (presence of children under 18, or adults over 65 with poor

health), which proxy for caring responsibilities (not included in RLMS), but these were non-significant either as main effects or interacted with pension and work status. We also repeated the analysis on different subsets of the panel, comparing those who reported changing their job, with those who did not, and comparing those who reported having a chronic illness at baseline with those that did not, and the pattern of results were similar. We investigated whether other employment changes such as changes in the number of hours worked might explain SWB changes, but they did not. Across the time period, there have been secular fluctuations in the macro-economic situation in Russia (for example, GDP per capita fell sharply during the 2008 financial crisis); despite this, standards of living, life expectancy and life satisfaction levels at an aggregate level have improved over time. Although we include fixed effect dummy indicators for wave (calendar year) which likely account for these contextual changes, we also fitted models on shorter panel series (2003-2007, 2008-2011 and 2012-15) but found the no substantial differences in the pattern of effects and effect size in different calendar periods.

Preliminary analyses (Table S1) suggested that attritors were more likely to be in poor health, older, and living in urban areas. To assess the influence of attrition on our estimates, we constructed inverse probability weights (IPWs) for panel attrition using established methods (Weuve et al. 2012) detailed in a note to Table S5. Table S5 displays the same models as in Table 3, when applying these IPWs, and the results show the same pattern of effect and significance. It is also possible that our results were impacted by endogeneity, i.e. that fixed effect estimates for the difference in SWB between working and non-working pensioners result from substantively different types of people making these transitions and contributing to those estimates. To assess this, we restricted the analysis to individuals who made *both* types of transitions during the panel, and re-ran the models on this subset (Appendix Table S6). The results are consistent with those in the Table 3, meaning within the same individual, different

pension/work states are associated with different SWB effects, implying that different work and pension transitions influence SWB rather than different types of people.

Exploring gendered mechanisms behind pensioners' SWB changes: Qualitative findings

Below we use our qualitative data to explore and theorize potential mechanisms for the findings in our models. We focus on gender differences as these are the most puzzling in the light of existing theory.

Compared to retirement, pensioner employment improved the SWB of not only men but also women. The SWB gains from pensioner employment align with Townsend's structured dependency theory (1981), showing that facilitating the access of pensioners to the labor market can boost wellbeing through an economic mechanism. In terms of gender differences, individual income was significantly more important to men's SWB. Below we propose that this is related to the male breadwinner schema, which appears to apply to men past pension entitlement, and infuses earning money with gendered meaning. Meanwhile, the SWB of women pensioners across occupational groups was boosted by employment via an unspecified non-economic mechanism (that is, there was a benefit from working beyond that provided by increased income). This is surprising for two reasons. First, extant theory would suggest that employment would be more salient to the SWB of men since gender schemas for men are more narrowly focused on work (Ashwin and Lytkina 2004), whereas gender age schemas for women prescribe caring and domestic labor (Utrata 2011) meaning women have multiple identities (Thoits 2011). Second, Russian men enjoy a status premium in employment (Gerber and Mayorova 2006), so it is at first sight puzzling that women pensioners derive greater SWB benefit from employment independent of income.

We analyse these questions below focusing on the way gendered age schemas shape pensioners' experience of retirement and employment, and, in turn, influence their SWB. In

terms of Jahoda's theory (1981; 1982), we found some reference to all the benefits of employment she identifies, but two dominated in our coding and were strongly gendered: for men earning money, and for women enhanced status via social recognition.

Male pensioners: "I am just a source of money"

Model 3 in Table S2 revealed that individual income was significantly more important to men's SWB than to women's. The importance of income to men's wellbeing is likewise revealed by our qualitative findings. Our qualitative findings further suggest: first, that income is important to men's domestic status, as well as gender identity, providing a sense of purpose – linked to wellbeing in Thoits' research (1983; 2011) – even to those in menial jobs. Second, gendered age schemas do not appear to prescribe domestic or caring duties for male pensioners.

Married male retirees generally reported few regular caring or household duties for extended family members or friends, while retired unmarried men in our data reported none. This contrasts with women who, even when they were never-married and child-free, often provided regular help to others. There are only two examples in our data of men performing caring or domestic labor on a regular basis. Alexei, a retired engineer, spent a significant amount of time with his grandson, appearing to enjoy it. Meanwhile, Stanislav, a 49 year old former pilot unable to work as a pensioner after an alcohol-related accident, was attempting to perform housework in a failed attempt to placate his wife's criticism about his deficiencies as a breadwinner.

Male pensioners appeared to be held accountable to the male breadwinner schema even beyond retirement. Alexei, for example, the aforementioned 59 year old retired engineer, had a large pension which was approximately equal to his wife's wages and pension combined. While working he had been a successful breadwinner, and his income in retirement, combined with his wife's contribution, was sufficient to allow them to live comfortably. He did not report

any marital tension and seemed relaxed about being a co-breadwinner in retirement. By contrast, as noted above, Stanislav's employed wife Valentina held him accountable to the male breadwinner schema, pointedly reminiscing in the presence of the interviewer about Stanislav's years as a well-paid pilot when they could afford luxuries such as holidays.

Unmarried male retirees without dependent children did not face pressure to provide, but nonetheless their financial status seemed important to their identity. Often unable to secure purpose and meaning outside employment, our qualitative analysis confirmed that men were vulnerable to feeling "unneeded" in retirement (Parsons 2014). This is dramatically illustrated by the reflections of Nikolai, a 69 year old retired divorcee who, in a similar tone to Parsons' respondents, lamented: "Even the ambulance doesn't come for the likes of me. I live alone … Nobody needs me … who needs us? Nobody. We're redundant." Indeed, Alexei, the above-mentioned retired engineer, was our only male respondent who reported feeling contented in retirement. Respondents such as Stanislav (4-02) and Dima (4-51) had developed serious drink problems, with Dima, a 62 year old retired divorcee, spending most of his time drinking with male companions. Financial status seemed tied up with social status for these respondents. The connection between financial and social status was again starkly expressed by Nikolai, who saw the financial value of his apartment as his only source of social worth. As he lamented: "While I'm alive I'm not going to transfer ownership [of my apartment] to anyone… If … I go to a care home they'll take payment from the [sale of the] apartment. But without an apartment nobody needs me." Nikolai was reduced to defining his identity in terms of his financial status because he saw no other basis for achieving social recognition.

Turning to employed male pensioners, respondents in higher occupational groups reported intrinsic satisfaction with their work. For example, echoing the findings of Kim and Feldman (2000), academics in our data were unanimously positive about post-pension employment. Indeed, two male academics (1-16 and 1-27) saw the notion of retirement as so

irrelevant that they neglected even to mention that they had attained their pensions during the research period until prompted by the interviewer. But for men lower down the occupational hierarchy, breadwinning dominated as a source of meaning and social status.

Compelling illustration of this is provided by the cases of Sergei and Volodya, both downwardly-mobile employed pensioners, who, over the course of the research, moved from finding intrinsic value in their employment, to defining their purpose and social status in terms of breadwinning. Sergei (1-31), a 61 year old former academic chemist, was at T1 combining his poorly paid academic job with supplementary work as a photographer. As a state prize laureate, his work had been meaningful to him. He was disappointed that his scientific "labor and effort" was going to waste and was also concerned about the "loss of social status" entailed in leaving academia for photography. Nevertheless, even at this stage, breadwinning was salient to him; he justified his behavior by noting that "only a parasite" would dispute men's breadwinning obligations (T1). Thus, as the crisis in scientific funding continued, photography became his main occupation. Before T5 he lost his position, however, and experienced a short period as an "unemployed" pensioner. Though past 60, the prospect of not working filled him with shame and dread:

> Well, my wife was working, I was sitting at home. For four months I was in a state of shock, to put it mildly. I phoned Alexei… He said "you know here it's cheap work, just loose change, but still it's some kind of work, still you do something, understand?" I, as a man, I can't do nothing. That's how I'm made… (T5)

To supplement the "loose change" he earned in a photographic agency, he also found a better-paid job as a watchman at a car showroom. Although dismayed by what he called the low "intellectual level" of his coworkers, Sergei did not regret taking the job: "All the same, I had

to bring home some money." Despite the sacrifice in terms of status and intrinsic satisfaction, Sergei was able to find meaning in providing for his family. Indeed, despite his misgivings regarding his new colleagues he had no plans to leave: "here they pay me … and I am satisfied" (T5). From prizewinning chemist to watchman was certainly a steep fall in status, but the alternative of retirement seemed unthinkable to Sergei. As he put it, "Despite my age and certain health problems, I will work for as long as I can. As soon as I stop working I will die. That is certain" (T5). Thus work remained central to Sergei, but its breadwinning dimension came to dominate as a source of meaning and satisfaction.

A similar process can be observed in the case of Volodya (4-35), a 46 year old former Aeroflot pilot. In addition, Volodya's trajectory reveals the centrality of breadwinning to men's domestic status. At T1 Volodya had been made redundant from Aeroflot, and was reluctant to seek work outside aviation. His profession was "central" to him; being made redundant was "like someone cut off the oxygen supply" (T1). His wife, frustrated by his inability to provide, divorced him between T3 and T4. Nevertheless, albeit initially by necessity, they continued to live together, and by T5 they were reconciled, though with no plans formally to re-marry. By this stage a pensioner, Volodya had also become a successful breadwinner, working a grueling schedule as a commercial pilot. He missed the status and conditions of work with Aeroflot, but took enormous pride in his ability to support his reunited family:

> Basically I provide for the family. Now my wife basically comes to me for money.… My children need money. Recently I sent them, together with my wife, to Egypt. And when my son got back he also asked for a new computer. I also need to help my daughter financially while she's doing postgraduate study. (T5)

Volodya's case again suggests male breadwinning obligations persist past pension entitlement, providing male pensioners with a sense of meaning, albeit a rather narrow one. As Volodya concluded, "I am just a source of money; I provide" (T5).

The importance of work to men's identity has long been recognized. Nonetheless, male pensioners might be assumed to be exempt from breadwinning requirements given the social legitimacy of retirement. In our data, however, gendered breadwinning obligations appear to persist. This may be especially visible because a significant portion of our male respondents had experienced periods of economic vulnerability, perhaps leading to an increased need to perform as breadwinners as pensioners. Nevertheless, precarity is widespread in Russia and rising elsewhere. In terms of SWB, male breadwinning obligations are double-edged. On the one hand, male pensioners who are able to provide adequately for dependents secure meaning from doing so, thus potentially guarding against psychological distress (Thoits 1983; 2011). They also raise their status with family members, demonstrating their value by doing gendered age appropriately. We can see the positive impact of additional income on the SWB of men in our models. But on the other hand, this is a rather narrow source of meaning and "mattering" to others, with male pensioners unable to demonstrate their value in this way vulnerable to feeling superfluous. As Nikolai lamented, "nobody needs me."

Women's status in "retirement" and post-pension employment

Model 3 in Table 3 showed that employment increased the SWB of women pensioners relative to retirement not only because of additional income, but also through some unspecified non-economic mechanism enjoyed by women across the occupational hierarchy. Below we use our qualitative findings to develop a theoretical account of this mechanism. We begin by exploring women's experience of retirement, contrasting this with their experience of pensioner employment.

Our qualitative findings support the idea that retirement is a gendered institution. For pension-age women, doing gendered age entailed presumed responsibility for household labor and care (for grandchildren and elderly relatives within the household and extended family). As Lyuba, a 54-year-old pensioner working as a shop assistant while caring for her disabled son and sick mother, said of her extensive caring and domestic labor, "it's not paid, but it's work – and some!" (3-53-5).

Retired women frequently voiced a gendered obligation to perform domestic and caring labor. For example, Tanya, a 59 year old retired fitter, was caring for her grandson, co-resident mother and husband. Although she would have preferred paid employment, she noted, "everything depends on me…. They are my close family and I have to help them all" (1-43-5). Some women reported deriving purpose and meaning from such labor. Grandmothers, for example, often gave positive reports of caring for grandchildren. But, as Utrata also found in her study (2011), other women found "doing gendered age" debilitating and thankless. Galya, for example, had a period of "retirement" looking after her sick husband and co-resident mother-in-law before moving back into post-pension employment. She characterized the experience in wholly negative terms, portraying her eventual return to work as liberating: "Practically two years were again wasted. Only after their deaths we breathed a sigh of relief and the house was quiet. Then I went to work at a shop." Although Galya's outspokenness was likely conditioned by her strained relations with her husband, her negative experience of eldercare is widely shared and reflects research findings regarding SWB and care (Dolan et al. 2008; Di Gessa 2018).

The flipside of women's sense of gendered duty is the taken-for-grantedness of their unpaid labor (Ashwin et al. 2013). For example, Nadia devoted her "retirement" to picking up her three granddaughters (from two daughters) from their schools, a trip that involved four separate bus rides, and took several hours to complete. Unsurprisingly, she reported being

exhausted and "wound up" when she finally reached home (sometimes as late as ten in the evening). Nadia was dissatisfied with life and depleted by her caring duties. Despite her strong sense of duty, she hinted at the lack of recognition for her labor, noting that it could have been provided on a paid basis: "Even if I hadn't agreed, they would have had to ask someone else. Well, there's no question of it! ... [Although] I know that now some people hire [others] to pick up their children, sometimes pensioners, sometimes not very old women" (3-4-5). While seemingly refusing to "question" her duty, Nadia's mention of paid care arrangements implicitly does so, highlighting the lack of recompense for her labor.

Thus, although domestic and caring labor may provide a gendered sense of meaning, it may not secure social recognition. Rosenberg and McCullough's contribution on mattering (1981), suggests that it is important that "meaning" is perceived by others, and not simply experienced internally. Thoits deftly collapses this distinction by conceiving of identities or roles as relational (2011, 148). This is theoretically warranted both within the tradition of social "roles" that she cites originating with Durkheim ([1897] 2002), and within later conceptions of identity such as "doing gender" in which accountability to others is key. But our analysis suggests that securing meaning by forging an identity or role in relation to others is not the same as "mattering" or being recognized, as indeed was perceived by Jahoda (1982) who distinguished between purpose and status/recognition. Being held accountable to doing gendered age may provide women with meaning, but women's domestic and caring labor can also be rendered invisible by its taken-for-grantedness. This contrasts with men for whom the gender schema of breadwinning provides both meaning and social status.

In contrast to women's unpaid labor in "retirement," the most prominent theme in women pensioners' discussions of employment was recognition, a theme largely absent from men's discussions of pensioner employment. Meanwhile, although pay levels were salient to women, the identity-charged discussions of breadwinning common in men's interviews were

absent. Moreover, pension receipt reduced economic anxiety. Liza, for example, a pensioner lone mother living with her disabled grown son, was working as a cleaner in a gym where there were regular wage delays in the summer. She was relaxed about this, noting, "I get through it without worry because I'm a pensioner; my back's covered" (3-10-5). Below we focus on recognition at work, which we argue is important to women pensioners across the social hierarchy. Intersubjective recognition produces social status (Fraser 2007), which, according to Anderson and colleagues' theory (2012; 2015), enhances SWB. We theorise recognition, or "mattering," as a mechanism contributing to the non-economic SWB boost experienced by employed women pensioners.

We begin with the case of Svetlana (1-22), a 71 year old biochemist. Given her high occupational status, Svetlana's intrinsic satisfaction with work is not surprising, but her observations also reveal how the recognition women pensioners gain from employment is gendered:

> The thing is I know this specialism, this work, and I like working… I see that I am needed, necessary. I see that I make a contribution, and at the same time I understand that other people value the professional way I do my work. [...] And, on top of that, I think that I somehow feel better at work. I feel my significance, usefulness, and I consider that it is valued not only at my work, but also in my family. Look, my son, he respects and values me because I still work, that I am still of some use. Not just a grandmother sitting on the bench.

Svetlana drew recognition as a professional and noted experiencing perceived instrumental social value, which may not be available to women lower down the occupational hierarchy. But Svetlana's observations also suggest that the mere fact of working and being "useful" raises

her status within her family: “My son … respects and values me because I still work.” Her reflections also make it clear that such status-enhancement should be viewed relative to what women pensioners could otherwise expect. Were she not employed, Svetlana would be relegated to the status of a “grandmother on the bench,” an image familiar to anyone with knowledge of Russia. Weather permitting, benches in the courtyards of Soviet apartment blocks were, and still are, sites of communal sociability for pensioners, particularly women. The “grandmothers on the bench” are perceived as informal sentries who, while usually grudgingly deferred to, are also resented and ridiculed. The image of the “grandmother on the bench” is thus a derogatory gendered age category, which contrasts with the respect Svetlana reports receiving in the workplace.

Notably, respondents in lower-status jobs expressed similarly appreciative perspectives, as illustrated by the cases of two cleaners. Lilia, a pensioner working as a hospital cleaner, had taken her job just before T1 of our study. She professed herself satisfied with the work, while comparing life at home to being “buried alive” (4-41-1). Themes of respect recurred throughout her interviews. Although at T4 she acknowledged that cleaning was not prestigious work she said, “here everyone respects me… We’ve got a good head nurse. I just come to the door and she immediately asks, ‘Lilia, what’s up? Tell me.’” Working as a pensioner at T5, Lilia again stressed the recognition she received in her job: “I still like work. To this day, everyone respects me. I like everything [about work]; I like everything” (4-41-5). Olga had likewise been working as a cleaner on a cancer ward since T2. Reflecting on why she was still working as a pensioner at T5, she stressed good relations with co-workers, and the recognition from patients: “I was on holiday. They [the patients] telephoned me … [asking] ‘Where are you?’ …. Some recover, then they visit with cakes, sweets, wine” (4-55-5). Analysing these perspectives, it is clear that employment provides these women with a sense of “mattering,” with status-enhancing recognition within their face-to-face groups. This

contrasts with the frequent invisibility of the same work – cleaning – when performed on an unpaid basis in the household.

In the literature review we argued that social interaction, a latent benefit of employment identified by Jahoda (1982), was likely to be gender neutral. Our coding, however, revealed that for women social interaction in the public arena of the workplace was closely intertwined with visibility and social recognition. Zhenya, for example, broke down in tears as she spoke of being forced at T5 to withdraw from her post-pension job as a janitor because of the onset of Parkinsons. Visibility and recognition were integral to her enjoyment of workplace sociability; as she noted at T2, work was a reason "to put lipstick on." She worked for nearly ten years as a pensioner between T4 and T5 citing the main reason as "social interaction … At home I went round in a dressing gown, an apron and worn-out slippers, but there [at work] … I had to pull myself up. That is, shoes, a dress, put myself in order" (3-17-5). As Zhenya's discussion of lipstick and dresses indicates, visibility and social recognition are closely connected, with conformity to gendered standards of respectability providing grounds for respect even for those in low-status professions. Veronika, meanwhile, an academic journal editor who was ashamed of attending work "without teeth," was "dreaming of getting my teeth done" for her 65th birthday, which would enable her to work "as long as it's possible" (1-15-5). Although such concerns regarding appearance are clearly gendered, by "pulling up" and "putting in order" their bodily display women from across the occupational hierarchy lay claim to "respectability" – asserting a right to be respected and recognized – which is not seen as available to the toothless woman confined to the household in her "worn-out slippers."

Summing up, we argue for distinguishing between meaning and mattering. Conforming to gendered age schemas provides an identity-affirming source of meaning, but while in the case of men the prescribed schema of breadwinning confers social recognition, for women, rather than being acknowledged as "mattering," doing gendered age may be invisible. Our

interviews suggest women pensioners are more likely to garner social recognition in the workplace than in "retirement," even when employed in low-status work. Moreover, employment also raises their status within the household. Following Anderson and colleagues' theory (2012; 2015), we contend that such recognition contributes to the non-economic boost to SWB provided by employment to women pensioners across the social hierarchy.

Discussion and conclusions

Our quantitative models show that pensioner employment improves the subjective wellbeing of both men and women relative to retirement, though for different reasons, with income more significantly salient for men. Our qualitative findings suggest that this is because perceived breadwinning obligations persist beyond pension entitlement in the Russian context. Women across the occupational hierarchy enjoy a non-economic SWB boost from employment, a finding we theorize using our qualitative data.

Allowing pensioners to work in Russia (until 2016 without financial penalty) has been good for their income levels and SWB. Thus, decoupling pension receipt and retirement does bring the benefits anticipated by Townsend's structured dependency theory (1981), at least to pensioners able to work. We stress, however, that our finding that pensioner employment boosts SWB does not imply that raising pension ages will be likewise positive. We found no significant occupational differences in the SWB impact of pensioner employment, but these did exist among male employed non-pensioners, with lower occupational status associated with lower SWB. This supports findings suggesting that economic compulsion negatively impacts wellbeing among older cohorts (Di Gessa et al. 2018). Moreover, without the decommodifying support of pensions, the breadwinning pressures experienced by low-income men would be intensified. Finally, without pensions men and women would have to earn significantly more to achieve the same SWB boost from income, which would likely be challenging especially for

those in physically-demanding employment. Overall, therefore, we consider that as a means of addressing the challenges of ageing populations decoupling pension receipt and retirement is more likely to have positive SWB impacts than raising pension ages.

To explore the relationship between pensioners' employment, retirement and SWB, we developed a gendered account of Jahoda's (1982) framework regarding the benefits of employment. This highlighted the salience of income, meaning and status as potentially gendered dimensions of pensioners' experiences of retirement and employment. Exploring later theory on these themes, we drew on Thoits' (1983; 2011) account of the impact of meaning and mattering on psychological wellbeing, and Anderson and colleagues' (2012; 2015) theories regarding the relationship between SWB and status in face-to-face groups. We show how these relate to the gendered identity processes connected with retirement and pensioner employment. In doing so we reveal the importance of distinguishing between the SWB implications of money, meaning and mattering. Money is unsurprisingly crucial to the wellbeing of both men and women, but we show that individual income is differently related to meaning and mattering for men and women. Meaning is secured through doing gendered age appropriately, which garners what Akerlof and Kranton term "identity utility" (2010). Mattering is intersubjective recognition which produces social status (Fraser 2007) in face-to-face groups. For male pensioners, money, meaning and mattering are aligned: earning money is infused with meaning through the breadwinner schema, and also garners social recognition. For women there is no such alignment. Gender age schemas prescribe unpaid domestic and caring labor for women pensioners (Utrata 2011). While such labor may provide meaning, it can prevent women from earning money (as in the cases of our respondents Tanya and Galya, for example), and may be rendered invisible by its taken-for-grantedness. Thus, Thoits' (2011) conflation of meaning and mattering does not hold up in relation to women pensioners.

Distinguishing between these three factors enables us to explain the gender variation in SWB gains from pensioner employment.

Taken together, our qualitative and quantitative findings suggest that men's breadwinning obligations continue beyond pension entitlement, with the SWB impact of income changes significantly higher for men than for women pensioners. This has ambiguous implications. Positively, unlike gender prescriptions for women, doing gender through breadwinning provides meaning and domestic status. But our qualitative findings suggest this comes at a significant cost, with male pensioners retired or unable to work often feeling themselves "unneeded," and even working pensioners valuing themselves solely in relation to employment and breadwinning: "I am just a source of money;" "As soon as I stop working I will die." Russian male mortality trends suggest some basis for such bleak perceptions. Our data relates to a period in which retirement and pension receipt were decoupled, so we cannot judge whether the extension of breadwinning obligations to male pensioners results from decoupling. It is also possible that breadwinning was more salient for our sample because a significant proportion of them had experienced periods of precarity. Nevertheless, our data highlights how the male breadwinner schema can deepen the pain of class-based vulnerability with important implications for male pensioners' wellbeing. It is therefore important to investigate whether breadwinning obligations persist beyond pension entitlement in other contexts.

Turning to women, our qualitative analysis suggested that while "doing gendered age" through domestic and caring labor may provide retired women with meaning, it does not necessarily garner social recognition, thus doing little to raise women's status in face-to-face groups. By contrast, women pensioners reported receiving "respect" and other forms of social recognition such as visibility in paid employment, even when working in low-status jobs such as cleaner or janitor. This highlights the importance of the distinction between meaning and

mattering conflated within the social roles tradition (Thoits 1982; 2011). We propose that these impact SWB through separate mechanisms, with "mattering" – social recognition – boosting SWB via the status mechanism identified by Anderson and colleagues (2012; 2015). We argue that, relative to retirement, employment raises the status of women pensioners which in turn boosts their SWB. Although our findings may partly reflect the post-Soviet context in which paid labor was glorified, the invisibility (Daniels 1987) and devaluation (Folbre 2001) of feminized unpaid domestic and caring labor is a global phenomenon. Our argument may therefore have relevance beyond Russia.

To turn to limitations in the quantitative analysis, we assessed the immediate impact of retirement and pension changes although some studies suggest longer-term impacts may differ (e.g., Horner 2014). Levels of attrition in the RLMS panel mean that assessing the impact over a longer time frame would entail using a smaller and less representative sample. In addition, limitations of the survey questions meant that we could not address to what extent voluntary vs. non-voluntary retirement affect SWB changes, an important factor (Bonsang and Klein 2012). Selective attrition is common to all cohort studies, but particularly ageing cohorts in Russia with high levels of premature mortality and excess morbidity, as shown by Table S1. Selective attrition of people with poor health and low SWB may suppress the association between working and SWB if people who would not work for health reasons and would report low SWB for health reasons are excluded from the sample. We note however that the direction of bias would be to underestimate the effects we observe here. We refrain from giving our quantitative estimates a causal interpretation because while using individual fixed effects is likely to reduce bias, there may still be biases driven by time-varying unobserved characteristics (such as changes in health not picked up by self-rated health), selective attrition, reverse causation, and potentially endogenous control variables. A limitation of the qualitative

data was the higher attrition rate of pension-age men, though this was somewhat mitigated by the fact that the results for men extended but did not contradict extant literature.

The brave new world of aging societies raises a host of sociological questions. We have examined the wellbeing implications of pensioner employment and how these are gendered and shaped by occupational class. Our findings suggest pensioner employment has SWB benefits across the social hierarchy and genders. By contrast, retirement can exacerbate the injuries of gendered age schemas, with men risking feeling "unneeded" and women's status diminished despite their unpaid labor. These findings may be exaggerated in the Russian context where both leisure facilities and the third sector are underdeveloped. Nevertheless, they underscore the importance of understanding the influence of gender identity processes on pensioner wellbeing.

References

Akerlof, George A. and Rachel E. Kranton, 2010. *Identity Economics: How Our Identities Shape Our Work, Wages and Well-Being*, Princeton NJ: Princeton University Press.

Anderson, Cameron, Michael W. Kraus, Adam D. Galinsky, and Dacher Keltner. 2012. "The Local-Ladder Effect: Social Status and Subjective Well-Being." *Psychological Science* 23 (7): 764-771.

Anderson, Cameron, John Angus D. Hildreth, and Laura Howland. 2015. "Is the Desire for Status a Fundamental Human Motive? A Review of the Empirical Literature." *Psychological Bulletin* 141 (3): 574-601.

Ashwin, Sarah. 1999. *Russian Workers: The Anatomy of Patience*, Manchester: Manchester University Press.

Ashwin, Sarah. 2006. “Dealing with Devastation in Russia: Men and Women Compared.” Pp.1-31 in *Adapting to Russia’s New Labour Market: Gender and Employment Behaviour*, edited by Sarah Ashwin. London: Routledge.

Ashwin, Sarah and Olga Isupova. 2018. “Anatomy of a Stalled Revolution: Processes of Reproduction and Change in Russian Women’s Gender Ideologies.” *Gender & Society* 32 (4): 441-468.

Ashwin, Sarah and Tatyana Lytkina. 2004. “Men in Crisis in Russia: The Role of Domestic Marginalization.” *Gender & Society* 18 (2): 189-206.

Ashwin, Sarah, Irina Tartakovskaya, Marina Ilyina, and Tatyana Lytkina. 2013. “Gendering Reciprocity: Solving a Puzzle of Non-reciprocation,” *Gender & Society* 27 (3): 396-421.

Bauer, Jan Michael, Dario Cords, Rachelle Sellung, and Alfonso Sousa-Poza. 2015. “Effects of Different Life Events on Life Satisfaction in the Russian Longitudinal Monitoring Survey.” *Economics Letters* 129: 91-94.

Bender, Keith A. 2012. “An Analysis of Well-Being in Retirement: The Role of Pensions, Health, and ‘Voluntariness’ of Retirement.” *Journal of Socio-Economics* 41 (4): 424-433.

Blau, Peter M. 1964. *Exchange and Power in Social Life*. New York, NY: Wiley.

Bonsang, Eric, and Tobias J. Klein. 2012. “Retirement and Subjective Well-Being.” *Journal of Economic Behavior & Organization* 83 (3): 311-329.

Boye, Katarina. 2009. “Relatively Different? How Do Gender Differences in Well-Being Depend on Paid and Unpaid Work in Europe?.” *Social Indicators Research* 93 (3): 509-525.

Calasanti, Toni. 2003. “Theorizing Age Relations.” pp.199-218 in *The Need for Theory: Critical Approaches to Social Gerontology*, by Simon Biggs, Jon Hendricks, and Ariela Lowenstein. London: Routledge.

Charles, Kerwin Kofi. 2004. “Is Retirement Depressing?: Labor Force Inactivity and Psychological Well Being in Later Life.” *Research in Labor Economics* 23: 269–299.

Clark, Andrew E. 2003. “Unemployment as a Social Norm: Psychological Evidence from Panel Data.” *Journal of Labor Economics* 21 (2): 323–51.

Clark, Andrew E., and Andrew J. Oswald. 1994. “Unhappiness and Unemployment.” *The Economic Journal* 104, 424: 648-659.

Clark, Andrew, Yannis Georgellis, and Peter Sanfey. 2001. “Scarring: The Psychological Impact of Past Unemployment.” *Economica* 68 (270): 221–241.

Connell, Raewyn. 1987. *Gender and Power: Society, the Person and Sexual Politics*. Cambridge, UK: Polity Press.

Connell, Raewyn. 2009. *Gender*. Cambridge, UK: Polity Press.

Cook, Linda, Aadne Aasland and Daria Prisyazhnyuk. 2019. “Russian Pension Reform under Quadruple Influence.” *Problems of Post-Communism* 66 (2): 96-108.

Daniels, Arlene Kaplan. 1987. “Invisible work.” *Social Problems* 34 (5): 403-415.

del Mar Salinas-Jiménez, Mª, Joaquín Artés, and Javier Salinas-Jiménez. 2013. “How Do Educational Attainment and Occupational and Wage-Earner Statuses Affect Life

Satisfaction? A Gender Perspective Study." *Journal of Happiness Studies* 14 (2): 367-388.

Di Gessa, Giorgio, Laurie M. Corna, Loretta G. Platts, Diana Worts, Peggy McDonough, Amanda Sacker, Debora Price, and Karen Glaser. 2017. "Is Being in Paid Work Beyond State Pension Age Beneficial for Health? Evidence from England using a Life-course Approach." *Journal of Epidemiology and Community Health* 71: 431–438.

Di Gessa, Giorgio, Laurie Corna, Debora Price, and Karen Glaser 2018. "The Decision to Work After State Pension Age and How it Affects Quality of Life: Evidence from a 6-year English Panel Study." *Age and Ageing* 47 (3): 450–457.

Di Tella, Rafael, Robert J. MacCulloch, and Andrew J. Oswald. 2001. "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness." *American Economic Review* 91 (1):335–341.

Dingemans, Ellen, Kène Henkens, and Hanna van Solinge. 2017. "Working Retirees in Europe: Individual and Societal Determinants." *Work, Employment and Society* 31 (6): 972-991.

Dolan, Paul, Tessa Peasgood, and Mathew White. 2008. "Do We Really Know What Makes Us Happy? A Review of the Economic Literature on the Factors Associated with Subjective Well-being." *Journal of Economic Psychology* 29 (1): 94-122.

Durkheim, Émile. (1897) 2002. *Suicide.* Abingdon: Routledge.

England, Paula. 2010. "The Gender Revolution: Uneven and Stalled." *Gender & Society* 24 (2): 149-166.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Cambridge, UK: Polity Press.

Folbre, Nancy. 2001. *The Invisible Heart: Economics and Family Values*. New York: The New Press.

Fraser, Nancy. 2007. "Feminist Politics in the Age of Recognition: A Two-Dimensional Approach to Gender Justice." *Studies in Social Justice* 1 (1): 23-35.

Gerber, Theodore P., and Jonas Radl. 2014. "Pushed, Pulled, or Blocked? The Elderly and the Labor Market in Post-Soviet Russia." *Social Science Research* 45: 152-169.

Gerber, Theodore P., and Olga Mayorova, 2006. "Dynamic Gender Differences in a Post-Socialist Labor Market: Russia, 1991–1997." *Social Forces* 84 (4): 2047-2075.

George, Linda K. 2010. "Still Happy After All These Years: Research Frontiers on Subjective Well-Being in Later Life." *Journal of Gerontology: Social Sciences* 65B (3): 331–339.

Goldhamer, Herbert, and Edward A. Shils. 1939. "Types of Power and Status." *American Journal of Sociology* 45: 171–182.

Gunasekara, Fiona Imlach, Ken Richardson, Kristie Carter, Tony Blakely 2014. "Fixed Effects Analysis of Repeated Measures Data," *International Journal of Epidemiology* 43 (1): 264–269.

Han, Shin-Kap, and Phyllis Moen. 1999. "Clocking Out: Temporal Patterning of Retirement." *American Journal of Sociology* 105: 191-236.

Herzog, A., James S. House, and James N. Morgan. 1991. "Relation of Work and Retirement to Health and Well-Being in Older Age." *Psychology and Aging* 6 (2): 202-211.

Hetschko, Clemens, Andreas Knabe, and Ronnie Schöb. 2014. "Changing Identity: Retiring from Unemployment." *The Economic Journal* 124 (575): 149-166.

Horner, Elizabeth Mokyr. 2014. “Subjective Well-Being and Retirement: Analysis And Policy Recommendations.” *Journal of Happiness Studies* 15 (1): 125-144.

Jahoda, Marie. 1981. Work, Employment, and Unemployment: Values, Theories, and Approaches in Social Research. *American Psychologist*, 36 (2): 184-191.

Jahoda, Marie. 1982. *Employment and Unemployment: A Social-Psychological Analysis*. Cambridge, UK: Cambridge University Press.

Kahneman, Daniel, and Alan B. Krueger. 2006. “Developments in The Measurement of Subjective Well-Being.” *Journal of Economic Perspectives* 20 (1): 3-24.

Kalleberg, Arne L. 2018. *Precarious Lives: Job Insecurity and Well-Being in Rich Democracies*. Cambridge, UK: Polity Press.

Katz, Stephen, and Toni Calasanti. 2015. “Critical Perspectives on Successful Aging: Does It ‘Appeal More Than It Illuminates’?” *The Gerontologist* 55 (1): 26-33.

Keenan, Katherine, Michael G. Kenward, Emily Grundy and David A. Leon. 2014. “The Impact of Alcohol Consumption on Patterns of Union Formation in Russia 1998–2010: An Assessment Using Longitudinal Data.” *Population Studies* 68 (3): 283-303.

Kim, Seongsu, and Daniel C. Feldman. 2000. “Working in Retirement: The Antecedents of Bridge Employment and its Consequences for Quality of Life in Retirement.” *Academy of Management Journal* 43 (6): 1195-1210.

Kim, Jungmeen E., and Phyllis Moen, 2001. “Is Retirement Good or Bad For Subjective Well-Being?.” *Current Directions in Psychological Science* 10 (3): 83-86.

Kohli, Martin. 1987. “Retirement and The Moral Economy: An Historical Interpretation of The German Case.” *Journal of Aging Studies* 1 (2):125-144.

Latif, Ehsan. 2011. “The Impact of Retirement on Psychological Well-Being in Canada." *The Journal of Socio-Economics* 40 (4): 373-380.

Leary, Mark R., Katrina P. Jongman-Sereno, and Kate J. Diebels. 2014. “The Pursuit of Status: A Self-Presentational Perspective on the Quest for Social Value.” Pp. 159-178 in *The Psychology of Social Status,* edited by Joey T. Cheng, Jessica L. Tracy, and Cameron Anderson. New York, NY: Springer.

Leon, David A., Lyudmila Saburova, Susannah Tomkins, Evgueny Andreev, Nikolay Kiryanov, Martin McKee, and Vladimir M. Shkolnikov. 2007. “Hazardous Alcohol Drinking and Premature Mortality in Russia: A Population-Based Case-Control Study.” *The Lancet* 369 (9578): 2001-2009.

Lux, Thomas, and Simone Scherger. 2017. “By the Sweat of Their Brow? The Effects of Starting Work Again After Pension Age on Life Satisfaction in Germany and the United Kingdom.” *Ageing & Society* 37 (2): 295-324.

Lyashok, V., Nazarov V., and Oreshkin, M. 2016. “Faktory rosta razmera pensii v sovremennoi Rossii” *Finansovyi Zhurnal,* 29 (1): 7–22.

Macnicol, John. 2015. *Neoliberalising Old Age*. Cambridge: Cambridge University Press.

Maimaris, Will, Helen Hogan, and Karen Lock. 2010. “The Impact of Working Beyond Traditional Retirement Ages on Mental Health: Implications for Public Health and Welfare Policy.” *Public Health Reviews* 32 (2): 532-548

Marmot, Michael. 2004. *Status Syndrome*. London: Bloomsbury.

Mein, Gill, Pekka Martikainen, Harry Hemingway, Stephen Stansfeld, and Michael Marmot 2003. “Is Retirement Good or Bad for Mental and Physical Health Functioning?

Whitehall II Longitudinal Study of Civil Servants." *Journal of Epidemiology & Community Health* 57 (1): 46-49.

Moen, Phyllis, Donna Dempster-McClain, and Robin M. Williams Jr. 1992. "Successful Aging: A Life-Course Perspective on Women's Multiple Roles and Health," *American Journal of Sociology* 97 (6): 1612-1638.

Neuman, Kevin. 2008. "Quit Your Job and Get Healthier? The Effect of Retirement on Health." *Journal of Labor Research* 29, 2: 177-201.

Nikolova, Milena, and Carol Graham. 2014. "Employment, Late-Life Work, Retirement, and Well-Being in Europe and the United States." *IZA Journal of European Labor Studies*, 3 (1).

Parsons, Michelle. 2014. *Dying Unneeded: The Cultural Context of the Russian Mortality Crisis*. Nashville: Vanderbilt University Press.

Phillipson, Chris. 2015. "The Political Economy of Longevity: Developing New Forms of Solidarity for Later Life." *The Sociological Quarterly* 56 (1): 80-100.

Pinquart, Martin, and Ines Schindler. 2007. "Changes of Life Satisfaction in the Transition to Retirement: A Latent-Class Approach." *Psychology and Aging* 22 (3): 442–455.

Pinquart, Martin and Silvia Sörensen. 2001. "Gender Differences in Self-Concept and Psychological Well-Being in Old Age: A Meta-Analysis." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 56 (4): P195-P213.

Radl, Jonas. 2013. "Labour Market Exit and Social Stratification in Western Europe: The Effects of Social Class and Gender on the Timing of Retirement." *European Sociological Review* 29 (3): 654-668.

Ridgeway, Cecilia L. 2011. *Framed by Gender: How Gender Inequality Persists in the Modern World* Oxford, New York: Oxford University Press.

Rosenberg, Morris, and B. Claire McCullough. 1981. Mattering: Inferred Significance and Mental Health Among Adolescents. *Research in Community & Mental Health*, 2: 163–182.

Rosstat 2008. "Osnovnye pokazateli pensionnogo obespecheniya v Rossiiskoi Federatsii", available at: https://gks.ru/bgd/regl/b08_44/Main.htm

Rosstat 2014a. "Prodolzhitel'nost' trudovogo stazha postle naznacheniya pensii po vozrastu naznacheniya i vidu naznachennoi pensii v Rossiiskoi Federatsii v 2014 godu," available at: http://www.gks.ru/free_doc/new_site/population/generation/tab-st-tr_st.htm

Rosstat 2014b. "Osnovnye pokazateli pensionnogo obespecheniya v Rossiiskoi Federatsii," available at: https://gks.ru/bgd/regl/b14_44/Main.htm

Rosstat 2017a. *Russia in Figures,* Moscow: Rosstat.

Rosstat 2017b. "Indeks riska bednosti v zavisimosti ot pola i vozrasta naseleniya v 2016 g." available at: http://www.gks.ru/bgd/regl/b17_44/Main.htm

Rosstat 2020a. "Chislennost' rabotayushchikh pensionerov sostoyashchikh na uchete v sisteme pensionnogo fonda Rossiiskoi Federatsii po vidam pensionnogo obespecheniya i kategoriyam pensionerov v Rossiiskoi Federatsii" available at: https://rosstat.gov.ru/folder/13877

Rosstat 2020b. "Chislennost' poluchatelei negosudarstvennykh pensii v Rossiiskoi Federatsii, available at: https://rosstat.gov.ru/folder/13877

Rosstat 2020c. “Osnovnye pokazateli pensionnogo obespecheniya v Rossiiskoi Federatsii”, available at: https://rosstat.gov.ru/folder/13877

Sargent, Leisa D., Mary Dean Lee, Bill Martin, and Jelena Zikic. 2013. “Reinventing Retirement: New Pathways, New Arrangements, New Meanings.” *Human Relations* 66 (3): 3–21.

Scherger, Simone. 2015. “Paid Work Beyond Pension Age—Causes, Contexts, Consequences.” Pp. 1-27 in *Paid Work Beyond Pension Age.* London: Palgrave Macmillan.

Solov’ev, A. K. 2016. Aktual’nyi analiz urovnya zhizni pensionerov v Rossii, *Problemy rynochnoi ekonomiki* 4: 4-17.

Small, Mario Luis. 2011. “How to Conduct a Mixed Methods Study: Recent Trends in a Rapidly Growing Literature.” *Annual Review of Sociology* 37: 57-86.

Smith, Mark B. 2015. “The Withering Away of the Danger Society: The Pensions Reforms of 1956 and 1964 in the Soviet Union.” *Social Science History* 39 (1): 129-148.

Steele, Fiona, Robert French, and Mel Bartley. 2013. “Adjusting for Selection Bias in Longitudinal Analyses Using Simultaneous Equations Modeling.” *Epidemiology* 24: 703–711.

Steptoe, Andrew, Angus Deaton, and Arthur A. Stone. 2015. “Subjective Wellbeing, Health, and Ageing.” *The Lancet* 385 (9968): 640-648.

Thébaud, Sarah. 2010. “Masculinity, Breadwinning and Bargaining: Understanding Men’s Housework in the Cultural Context of Paid Work.” *Gender & Society* 24: 330-354.

Thoits, Peggy A. 1983. “Multiple Identities and Psychological Well-Being: A Reformulation and Test of the Social Isolation Hypothesis.” *American Sociological Review* 48 (2): 174-187.

Thoits, Peggy A. 2011. “Mechanisms Linking Social Ties and Support to Physical and Mental Health.” *Journal of Health and Social Behavior* 52 (2): 145-161.

Tomkins, Susannah, Lyudmila Saburova, Nikolay Kiryanov, E. Andreev, Michael McKee, Vladimir Shkolnikov, and David A. Leon. “Prevalence and Socio-Economic Distribution of Hazardous Patterns of Alcohol Drinking: Study of Alcohol Consumption in Men Aged 25–54 Years in Izhevsk, Russia.” *Addiction* 102 (4): 544-553.

Townsend, Peter. 1981. “The Structured Dependency of the Elderly: A Creation of Social Policy in the Twentieth Century.” *Ageing and Society* 1 (1): 5-28.

Townsend, Peter, 2006. “Policies for the Aged in the 21st Century: More ‘Structured Dependency’ or the Realisation of Human Rights?” *Ageing and Society* 26 (2): 161-179.

Townsend, Nick, Melanie Nichols, Peter Scarborough, and Mike Rayner. 2015. “Cardiovascular Disease in Europe—Epidemiological Update 2015.” *European Heart Journal* 36 (40): 2696–2705.

Utrata, Jennifer. 2011. “Youth Privilege: Doing Age and Gender in Russia’s Single-Mother Families.” *Gender & Society* 25 (5): 616-641.

Vandewater, Elizabeth A., Joan M. Ostrove, and Abigail J. Stewart. 1997. “Predicting Women’s Well-Being in Midlife: The Importance of Personality Development and

Social Role Involvements." *Journal of Personality and Social Psychology* 72: 1147-1160.

Warr, Peter. 2007. *Work, Happiness, and Unhappiness*. Mahwah, NJ: Erlbaum

West, Candace, and Don H. Zimmerman.1987. "Doing Gender." *Gender & Society*, 1: 125-151.

Westerlund, H., Vahtera, J., Ferrie, J.E., Singh-Manoux, A., Pentti, J., Melchior, M., Leineweber, C., Jokela, M., Siegrist, J., Goldberg, M. and Zins, M. 2010. "Effect of Retirement on Major Chronic Conditions and Fatigue: French GAZEL Occupational Cohort Study." *BMJ*, *341*, p.c6149.

Weuve, Jennifer, Eric J. Tchetgen Tchetgen, M. Maria Glymour, Todd L. Beck, Neelum T. Aggarwal, Robert S. Wilson, Denis A. Evans, and Carlos F. Mendes de Leon. 2012. "Accounting for Bias Due to Selective Attrition: The Example of Smoking and Cognitive Decline." *Epidemiology* 23 (1): 119–128.

Wooldridge, Jeffrey M. 2015. *Introductory Econometrics: A Modern Approach*. Nelson Education.

Yang, Yang. 2008. "Social Inequalities in Happiness in the United States, 1972 to 2004: An Age-Period-Cohort Analysis." *American Sociological Review* 73 (2): 204-226.

Zechmann, Andrea, and Karsten Ingmar Paul. 2019. "Why Do Individuals Suffer During Unemployment? Analyzing the Role of Deprived Psychological Needs in a Six-Wave Longitudinal Study." *Journal of Occupational Health Psychology, 24* (6): 641–661.

Table 1: Characteristics of the Quantitative Sample

Baseline Characteristics	**Men**	**Women**
	N (%)	**N (%)**
Life satisfaction		
Not at all satisfied	196(6.8)	255(9.0)
Less than satisfied	665(23.2)	816(28.8)
Both yes and no	673(23.4)	688(24.3)
Rather satisfied	1108(38.6)	908(32.1)
Fully satisfied	230(8.0)	164(5.8)
Self-reported health		
Very good/good	916(31.9)	603(21.3)
Average	1788(62.3)	1983(70.1)
Bad / very bad	168(5.9)	245(8.7)
Marital Status		
Never married	47(1.6)	121(4.3)
Married/partnered	2618(91.2)	1923(67.9)
Divorced	167(5.8)	522(18.4)
Widowed	40(1.4)	265(9.4)
Occupational level [1]		
High	799(27.8)	1406(49.7)
Medium	1110(38.7)	972(34.3)
Low	962(33.5)	453(16.0)
Age (mean, SD)	49.2 (4.4)	47.8 (3.3)
Individual real income[2] (mean, SD)	17898.63 (17657.5)	13108.7 (18971.8)
Household real income [3] (mean, SD)	37717.1 (44400.8)	34352.5(49305.7)
TOTAL N	2872	2831
Levels of change between baseline and t+1 (N, %)		
Life satisfaction increased 1 point	387 (17.2)	452 (20.1)
Life satisfaction decreased 1 point	440 (19.8)	413 (18.4)
Became non-working pensioner[4]	27 (1.2)	50 (2.2)
Became working pensioner[4]	89 (4.0)	179 (8.0)
Became unemployed with no pension [4]	138 (6.1)	88 (3.9)
Change in marital status	80 (3.5)	161 (7.2)
Within panel pension-work trajectory	%	%
Employment->pensioner, not working	4.0	5.2
Employment->pensioner, working	7.7	17.4
Employment->Employment	70.8	59.6
Employment->unemployment	10.4	5.0
Employment ->pensioner, both working/not working	4.7	9.6
Employment->other combination	2.4	3.3

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. [1]High = ISCO 2008 levels 1-3 managers, professionals, technicians, medium = ISCO 2008 levels 4-7, clerical support workers, services and sales workers, skilled agricultural, forestry and fishery workers, craft and related trades workers, low= ISCO 2008 levels 8-9 and 0: plant, machine operators and assemblers, elementary occupations, armed forces

occupations. [2]Total income from all sources, in roubles, last 30 days ,adjusted for inflation using 2010 as base year [3] Total income from all sources, In roubles, last 30 days ,adjusted for inflation using 2010 as base year, and adjusted for household size [4] At baseline all panel members were in work and not receiving a pension.

Table 2: Characteristics of the Qualitative Sample

	Men N(%)	Women N(%)	Total
Education			
Secondary	3 (23)	4 (16)	7 (18)
Vocational	4 (31)	13 (52)	17 (45)
Higher	6 (46)	8 (32)	14 (37)
Total	13 (100)	25 (100)	38 (100)
Last occupation before pension			
Professional/Managerial	6 (46)	7 (28)	13 (34)
Upper routine non-manual	2 (15)	6 (24)	8 (21)
Lower routine non-manual	2 (15)	3 (12)	5 (13)
Technicians/Nurses	-	1 (4)	1 (3)
Skilled manual	3 (23)	1 (4)	4 (11)
Semi/Unskilled manual	-	7 (28)	7 (18)
Total	13 (100)	25 (100)	38 (100)
Post-pension employment trajectory			
Employment→ working pensioner	8 (61)	16 (64)	24 (63)
Employment→ working pensioner → non-working pensioner	-	4 (16)	4 (10)
Employment → multiple transitions between working and non-working pensioner	1 (8)	1 (4)	2 (5)
Employment → non-working pensioner	1 (8)	-	1 (3)
Unemployment → non-working pensioner	3 (23)	3 (12)	6 (16)
Unemployment → multiple transitions between working and non-working pensioner	-	1 (4)	1 (3)
Total	13 (100)	25 (100)	38 (100)

Table 3: Association between work and retirement transitions and life satisfaction scores for men and women aged 45-70 years

	MEN AGED 45-70 YEARS			WOMEN AGED 45-70 YEARS		
	Model 1 β(SE)	**Model 2 β(SE)**	**Model 3 β(SE)**	**Model 1 β(SE)**	**Model 2 β(SE)**	**Model 3 β(SE)**
Pension/working (ref: pension, not working)						
Pension, working	0.25(0.06)***	0.09(0.06)	0.26(0.1)*	0.25(0.03)***	0.17(0.03)***	0.21(0.06)***
No pension, working	0.13(0.07)	0.05(0.07)	0.26(0.11)*	0.17(0.05)***	0.13(0.05)**	0.16(0.07)*
No pension, not working	-0.34(0.08)***	-0.30(0.08)***	-0.24(0.16)	-0.14(0.07)*	-0.12(0.07)	-0.11(0.11)
Marital status (ref: married/partnered)						
Never married	0.41(0.15)**	0.43(0.15)**	0.43(0.15)**	-0.14(0.14)	-0.14(0.14)	-0.14(0.14)
Divorced	-0.15(0.07)*	-0.15(0.08)	-0.15(0.08)*	-0.18(0.05)***	-0.18(0.05)**	-0.18(0.05)**
Widowed	-0.48(0.13)***	-0.49(0.14)**	-0.50(0.13)**	-0.17(0.07)*	-0.18(0.07)*	-0.18(0.07)*
Self-rated health (ref: very good)						
Neither good nor bad	-0.18(0.03)***	-0.17(0.02)***	-0.17(0.02)***	-0.22(0.03)***	-0.21(0.03)***	-0.21(0.03)***
Bad / very bad	-0.50(0.05)***	-0.48(0.05)***	-0.47(0.05)***	-0.51(0.04)***	-0.51(0.04)***	-0.51(0.04)***
Individual real income		0.11(0.03)***	0.11(0.02)***		0.13(0.02)***	0.13(0.02)***
Household real income (equivalised)		0.21(0.03)***	0.21(0.03)***		0.07(0.02)**	0.07(0.02)**
Interactions with occupation						
Pension, working*medium			-0.19(0.11)			-0.11(0.10)
No pension, working *medium			-0.22(0.12)*			-0.11(0.08)
No pension, not working*medium			-0.04(0.17)			-0.07(0.11)
Pension, working*low			-0.25(0.14)			-0.09(0.10)
No pension, working *low			-0.36(0.11)**			-0.09(0.11)
No pension, not working*low			-0.16(0.16)			-0.16(0.18)

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. Estimates from linear fixed-effect models. All models additionally adjusted for: age, survey wave, *P<0.05 **P<0.005 ***P<0.001.

Supplementary Tables

Table S1: Mean number of waves participants were in according to sample characteristics

Baseline Characteristics	**Men**	**Women**
	Mean	**Mean**
Life satisfaction		
Not at all satisfied	4.6	5.8
Less than satisfied	5.1	5.7
Both yes and no	4.4	4.9
Rather satisfied	4.3	4.4
Fully satisfied	4.0	4.1
Self-reported health		
Very good/	4.2	4.5
Good	4.2	4.4
Average	4.7	5.1
Bad	4.9	5.8
Very bad	3.5	6.2
Marital Status		
Never married	3.7	5.0
Married/partnered	4.6	5.0
Divorced	3.4	4.7
Widowed	3.9	5.5
Occupational level [1]		
High	4.4	5.1
Medium	4.6	4.9
Low	4.5	5.1
Age group		
45-49	4.5	5.0
50-54	4.6	5.2
55-59	4.3	5.1
60+	3.9	3.3
Residential location		
Oblast center (inc. Moscow and St. Petersburg)	4.0	4.5
Town	4.5	5.2
Peri-urban	5.0	5.5
Rural	5.5	5.9

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24.

Table S2: One wave transition matrix for pension/work transitions, row percentages

	Time t+1				
Time t	Not working, pension	Working, pension	Working, no pension	Not working, no pension	Total
Not working, pension	92.1	7.9	0	0	100.0
Working, pension	14.5	85.5	0	0	100.0
Working, no pension	2.1	6.9	86.4	4.6	100.0
Not working, no pension	12.0	1.8	28.9	57.3	100.0
Total	12.0	17.7	64.3	6.0	100.0

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24.

Table S3: Association between work and retirement transitions and life satisfaction scores

MEN AND WOMEN 45-70 YEARS	Model 1 β(SE)	Model 2 β(SE)	Model 3 β(SE)
Pension/working (ref: pension, not working)			
Pension, working	0.24 (0.03)***	0.13(0.02)***	0.11(0.06)
No pension, working	0.12 (0.04)**	0.07(0.03)*	0.12(0.07)
No pension, not working	-0.29 (0.05)***	-0.25(0.05)***	-0.26(0.08)**
Marital status (ref: married/partnered)			
Never married	0.01 (0.11)	0.01(0.11)	0.01(0.11)
Divorced	-0.17 (0.04)***	-0.17(0.04)***	-0.17(0.04)***
Widowed	-0.20 (0.06)**	-0.21(0.06)**	-0.21(0.06)**
Self-rated health (ref: very good)			
Neither good nor bad	-0.20 (0.02)***	-0.19(0.02)***	-0.19(0.02)***
Bad/very bad	-0.51 (0.03)***	-0.50(0.03)***	-0.49(0.03)***
Individual real income		0.12(0.02)***	0.12(0.02)***
Household real income (equivalised)		0.14(0.02)***	0.19(0.02)***
Interactions with gender			
Pension/working*gender			
Pension, working*female			0.03(0.07)
No pension, working*female			-0.08(0.07)
No pension, no work* female			0.09(0.1)
Individual real income *gender			-0.10(0.02)***
N observations/groups	27,174 /5,703	27,174 /5,703	27,174 /5,703

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. Estimates derived from Linear fixed-effect models. All models additionally adjusted for: age, survey wave, *P<0.05 **P<0.005 ***P<0.001.

Table S4: Association between work and retirement transitions and life satisfaction scores for men and women aged 45-70 years, age stratified results

	SUBSET AGED 45-59		SUBSET AGED 60+	
MEN	**Model 1 β(SE)**	**Model 2 β(SE)**	**Model 1 β(SE)**	**Model 2 β(SE)**
Pension/working (ref: pension, not working)				
Pension, working	0.22(0.11)*	0.04(0.11)	0.37(0.11)**	0.23(0.13)
No pension, working	0.06(0.10)	-0.03(0.11)	0.36(0.20)	0.27(0.20)
No pension, not working	-0.39(0.11)**	-0.37(0.11)**	-0.33(0.25)	-0.34(0.24)
N observations/groups	11,399/2835	11,399/2835	1,552/460	1,552/460
WOMEN				
Pension/working (ref: pension, not working)				
Pension, working	0.25(0.04)***	0.17(0.04)***	0.29(0.11)*	0.20(0.12)
No pension, working	0.17(0.06)**	0.13(0.05)*	0.56(0.32)	0.43(0.34)
No pension, not working	-0.14(0.07)	-0.12(0.07)	-0.31(0.57)	-0.28(0.55)
N observations/groups	13,150/2814	13,150/2814	1,073/324	1,073/324

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. Estimates derived from Linear fixed-effect models. Model 1 adjusted for age, survey wave, marital status, self-reported health. Model 2 additionally adjusted for individual and household income (natural logs)

*P<0.05 **P<0.005 ***P<0.001.

Table S5: Association between work and retirement transitions and life satisfaction scores, applying inverse probability weights to account for panel attrition[1]

	MEN AGED 45-70 YEARS			WOMEN AGED 45-70 YEARS		
	Model 1 β(SE)	**Model 2 β(SE)**	**Model 3 β(SE)**	**Model 1 β(SE)**	**Model 2 β(SE)**	**Model 3 β(SE)**
Pension/working (ref: pension, not working)						
Pension, working	0.26(0.06)***	0.10(0.06)	0.25(0.11)*	0.25(0.03)***	0.18(0.03)***	0.23(0.06)***
No pension, working	0.14(0.07)*	0.06(0.07)	0.27(0.11)*	0.17(0.05)**	0.14(0.04)**	0.18(0.06)**
No pension, not working	-0.34(0.09)***	-0.30(0.09)***	-0.24(0.17)	-0.14(0.07)*	-0.12(0.07)	-0.12(0.11)
Marital status (ref: married/partnered)						
Never married	0.44(0.16)***	0.46(0.17)***	0.45(0.16)*	-0.19(0.14)	-0.19(0.14)	-0.19(0.14)
Divorced	-0.17(0.07)*	-0.17(0.08)	-0.18(0.08)*	-0.21(0.05)***	-0.21(0.05)**	-0.21(0.05)***
Widowed	-0.46(0.13)***	-0.47(0.14)***	-0.48(0.14)**	-0.18(0.06)*	-0.19(0.07)*	-0.19(0.07)**
Self-rated health (ref: very good)						
Neither good nor bad	-0.18(0.03)***	-0.17(0.02)***	-0.17(0.02)***	-0.21(0.02)***	-0.21(0.02)***	-0.21(0.02)***
Bad / very bad	-0.47(0.05)***	-0.46(0.05)***	-0.45(0.05)***	-0.52(0.04)***	-0.51(0.04)***	-0.51(0.04)***
Individual real income		0.11(0.03)***	0.11(0.02)***		0.13(0.02)***	0.13(0.02)***
Household real income (equivalised)		0.21(0.03)***	0.20(0.03)***		0.06(0.02)*	0.06(0.02)*
Interactions with occupation						
Pension, working*medium			-0.20(0.11)			-0.11(0.11)
No pension, working *medium			-0.22(0.12)			-0.10(0.08)

[1] Attrition weighting was performed following the methods developed by Wueve and colleagues (2012). The probability of attrition at each wave was modelled by probit regression resulting in several attrition probabilities for each individual depending on their participation. The covariates used were gender, urban/rural residence, the region of residence, age, and lagged values of education, occupational status, life satisfaction, general health, marital status, household size, household structure, and household and individual income. The inverse probability of attrition weight was calculated for those attrited as 1/probability of attrition. Attrition weights were stabilized as in Wueve et al. 2012, by fitting a model which did not contain any significant predictors of attrition, generating predicted probabilities, then taking the ratio of the probabilities obtained from the this, to those from the first model. A single weight was generated for all individuals from the product of their individual treatment and attrition weights.

No pension, not working*medium			-0.03(0.17)			0.02(0.13)
Pension, working*low			-0.20(0.15)			-0.02(0.11)
No pension, working *low			-0.34(0.11)**			-0.03(0.13)
No pension, not working*low			-0.16(0.17)			-0.04(0.19)
N observations/groups	12,951 / 2,872	12,951 / 2,872	12,951 / 2,872	14,223 / 2,831	14,223 / 2,831	14,223 / 2,831

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. Estimates derived from Linear fixed-effect models. All models additionally adjusted for: age, survey wave, *P<0.05 **P<0.005 ***P<0.001.

Table S6: Association between work and retirement transitions and life satisfaction scores, restricting to respondents who transitioned into both 'pension, working' and 'no pension, working' statuses

	MEN AGED 45-70 YEARS		MEN AGED 45-70 YEARS	
	Model 1 β(SE)	**Model 2 β(SE)**	**Model 1 β(SE)**	**Model 2 β(SE)**
Pension/working (ref: pension, not working)				
Pension, working	0.33(0.10)***	0.18(0.10)	0.30(0.04)***	0.20(0.05)***
No pension, working	0.10(0.14)	0.01(0.13)	0.27(0.09)**	0.22(0.09)*
No pension, not working	-0.36(0.15)	-0.36(0.15)	0.07(0.19)	0.06(0.19)
Marital status (ref: married/partnered)				
Never married	- (omitted)	- (omitted)	0.41(0.24)	0.42(0.25)
Divorced	0.13(0.33)	0.14(0.33)	-0.03(0.13)	-0.03(0.13)
Widowed	-0.45(0.28)	-0.42(0.28)	-0.05(0.12)	-0.06(0.11)
Self-rated health (ref: very good)				
Good	-0.89(0.11)***	-0.88(0.12)***	0.07(0.31)	0.06(0.33)
Neither good nor bad	-1.12(0.14)***	-1.10(0.14)***	-0.18(0.32)	-0.19(0.34)
Bad	-1.51(0.17)***	-1.47(0.18)***	-0.48(0.33)	-0.48(0.35)
Very bad	-2.49(0.25)***	-2.47(0.25)***	-0.42(0.44)	-0.46(0.45)
Individual real income		0.02(0.06)		0.12(0.04)*
Household real income (equivalised)		0.23(0.07)**		0.12(0.05)**
N observations/groups	1,390 / 143	1,390 / 143	3,045 / 299	3,045 / 299

Data Source: Russian Longitudinal Monitoring Survey, waves 12-24. Estimates derived from Linear fixed-effect models. All models additionally adjusted for: age, survey wave, *P<0.05 **P<0.005 ***P<0.001.

Figure 1: Relative value of pension