

Why Do Wages Rise with Job Seniority in Post-Socialist Countries: New Evidence from Russia

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Extended abstract

Other things being equal, workers who work longer in some enterprise receive more than those who were hired recently. The common explanation of this wage premium for tenure is offered by the human capital theory (Becker, 1964). It suggests that workers accumulate specific human capital - the knowledge and skills that increase productivity in the enterprise, but are almost useless for any other enterprise. Consequently, worker with longer tenure accumulate that capital more and thus receive higher wages. This theory also predicts that after a certain point each additional year of service gives a smaller increase in wage, since the accumulation of human capital slows over time.

However, this explanation is not the only one. A number of other theories (eg., matching theory, see Jovanovic, 1979, or bargaining theory) offer their own explanations of the wage premium for tenure. In this regard, the extent to which this premium reflects a reward for firm-specific human capital is an empirical issue. For now, mainstream studies on the subject use fairly advanced econometric methodology to evaluate the role of human capital (Abraham, Farber, 1987; Altonji, Shakotko, 1987; Altonji, Williams, 2005; Bratsberg, Terrel, 1998; Buchinsky et al., 2010; Dustmann, Meghir, 2005; Topel, 1991; Munasinghe et al. 2008; Williams, 2009). The general consensus is that the reward for specific human capital is certainly a part of the observed premium but its contribution is quite modest.

In the post-socialist countries, the link between wages and tenures has its own specifics. Many studies report that at the beginning of the transition from plan to market the wage premium both for experience and tenure was insignificant or even negative, but it grew and became positive afterwards (eg., Bird et al. 1994; Muenich et al. 2005; Orlowski, Riphahn 2009). Such dynamics is usually associated with the depreciation of the "old", gained in the planned

economy, human capital and the subsequent accumulation of "new", "market" human capital. Existing studies on Russia have reached qualitatively similar conclusions. While in the early stages of the transition period longer tenures gave no wage premium to Russian workers or even this premium was negative, by the end of the 2000s it became positive (see Nesterova, Sabirianova, 2002; Lehmann, Wadsworth, 2000; Mal'tseva, 2009; Russian worker, 2011).

In this paper, we continue this line of research and estimate the premium for tenure in Russia in the period from 1994 to 2019 using RLMS-HSE panel micro-data. Our work differs from previous studies on Russia and other post-socialist countries in a few important aspects. Firstly, in our regression analysis we explicitly distinguish between "old" and "new" tenures. Secondly, we estimate the premiums for tenure separately in the private and state sectors, as the "old" human capital should depreciate less in the latter than in the former. Thirdly, using methods proposed by Altonji and Shakotko (1987) and Topel (1991), we obtain estimates of returns to firm-specific human capital, purified from the influence of other factors.

Our yearly cross-section OLS estimates show that in the private sector the wage premium for tenure became positive only in the mid – 2000s, while in the state sector it has been positive all the period under study. When we apply OLS to the pooled 1994-2019 data we find that in the private sector the premium for tenure is lower and the wage growth over the tenure stops earlier than in the state one. On average, the cumulative wage premium for workers with 15-20 years of firm-specific experience makes about 17-20% in the private sector and about 30% in the state sector. Taking into account the fact that many long tenures have originated in the planned economy induces an up-and-right shift in the premium-tenure profile in the private sector but has almost no effect on the profile in the state sector. This indicates that the premium for tenure is relatively low in the private sector because, unlike the state sector, it “fines” for “old” tenures. Moreover, we find that wage premiums for the “new” tenure are much larger than wage premiums for the “old” one, which holds true for both sectors. However, wage premiums even for the “new” tenure disappear almost completely when we apply A-S or Topel’s methods instead of OLS. This suggests that wage premium for tenure in Russia almost does not reflect returns to firm-specific human capital.

References

1. Abraham K., Farber H. (1987) Job duration, seniority and earnings. *American Economic Review* Vol.77, No.3, P. 278–297.
2. Altonji J. and R.Shakotko (1987) Do Wages Rise with Job Seniority? // *Review of Economic Studies*. Vol. 54. No. 3. P. 437-59.
3. Altonji J.G., Williams N. (2005) Do wages rise with job seniority? A reassessment //, *Industrial and Labour Relations Review*. Vol. 58. No. 3. P. 370-397.

4. Becker G. S. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. Chicago: University of Chicago Press. 1964.
5. Bird E. J., Schwarze J., Wagner G. G. (1994) Wage effects of the move toward free markets in East Germany // *Industrial and Labor Relations Review*. Vol. 47. No. 3. P. 390-400.
6. Bratsberg, B. and D. Terrel (1998) Experience, Tenure, and Wage Growth of Young Black and White Men, *Journal of Human Resources*, Vol.33, No.3, 658-682.
7. Buchinsky M., Fougère D., Kramarz F., Tchernis R. (2010) Interfirm mobility, wages, and the returns to seniority and experience in the US. *The Review of Economic Studies* Vol.77, No.3, 972–1001.
8. Dustmann Chr., Meghir C. (2005) Wages, Experience and Seniority // *Review of Economic Studies*. Vol. 72. No. . P.. 77–108.
9. Fleisher, B., Sabirianova, K. and Wang, X. (2005). ‘Returns to skills and the speed of reforms: Evidence from Central and Eastern Europe, China, and Russia’, *Journal of Comparative Economics*, Vol.33, No.2, P. 351–370.
10. Jovanovic B. (1979) Job Matching and the Theory of Turnover // *Journal of Political Economy*. Vol. 87. No. 5. P. 972-990.
11. Lehmann H., Wadsworth J. (2000) Tenures That Shook the World: Worker Turnover in Russia, Poland, and Britain // *Journal of Comparative Economics*. Vol. 28. No. 4. .P 639-664.
12. Maltzeva I. (2009). Trudovaya mobilnost i stabilnost: naskolko vysokaya otdacha ot specificheskogo chelovecheskogo kapitala v Rossii? // *The HSE Economic Journal*. Vol. 13. № 2. p. 243-278. (in Russian)
13. Munasinghe, Lalith, Tania Reif, and Alice Henriques (2008) “Gender Gap in Wage Returns to Job Tenure and Experience.” *Labour Economics* 15 (6): 1296–1316.
14. Muenich, D., Svejnar, J. and Terrell, K. (2005). ‘Returns to human capital under the communist wage grid and during the transition to a market economy’, *Review of Economics and Statistics*, Vol.87, No.1, P. 100–123.
15. Murphy K., and F., Welch (1990) Empirical Age-Earnings Profiles, *Journal of Labor Economics*, Vol.8, No.2, 202-229.
16. Nesterova D., K.Sabirianova (1999) Investizii v chelovecheskiy capital v perehodny period v Rossii // M.: EERC, Working Paper № 99/04. (In Russian).
17. Orłowski R., Riphahn R. T. (2009) The East German wage structure after transition // *Economics of Transition*. Vol. 17. No. 4. P. 629–659.
18. Rossiyskiy rabotnik: obrazovanie, professiya, kvalifikatsiya (2011) / V.Gimpelson and R.Kapeliushnikov (eds) Moscow: The HSE Publishing House. (in Russian)
19. Sabirianova K. (2002) The Great Human Capital Reallocation: A Study of Occupational Mobility in Transitional Russia // *Journal of Comparative Economics*, Vol. 30. No. 1. P. 191-217.
20. Topel R. H (1991) Specific Capital, Mobility, and Wages: Wages Rise with Job Seniority // *Journal of Political Economy*. Vol. 99(1). P. 145-76.
21. Williams N. (2009) Seniority, Experience and Wages in the UK // *Labour Economics*, Vol.16 (3). P. 272-283.