

Non-Technical Summary

Analyzing Determinants of Wages and Wage Discrimination: The Example of Serbia

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In this paper we analyzed determinants of male and female earnings from main and additional job. The analysis is based on the data taken from the Survey of Economic Situation and Attitudes of the Population in Serbia (SAEPS). We used two independent cross-section data sets, and for each of them we estimated earning equations of main and additional job for each gender separately. The first data set refers to 2001, the year which marks the beginning of implementation of reforms in the area of wage-setting in Serbia, while the 2002 data comprise information on first impact of reform undertaken in the area of wage determination. The econometric methodology is based on the application of sample selection models (Amemiya (1985), Heckman (1979)).

The main starting hypothesis, which has been confirmed by the experience of other countries in transition, is that providing the abandonment of inherited patterns of determination of wages, coupled with the reform of the labour market and the privatization of the economy, namely, by reaching higher extent of liberalization of the economy, we may expect the difference in wages, both in general terms and between genders, to become sharper (Milanovic (1999)). This results from the change in significance of factors which determinate the wages. In order to obtain a clearer picture of the structure of the factors determining wages, we analyzed separately wages of men and women as participants on the labour market, but we also analyzed their participation in opting for the second job. Male participation rate on the labour market in Serbia is

estimated at 55 percent, while their participation in opting for the second job is estimated at 60 percent. In the total number of the employed, a little over one-third were engaged in additional jobs. The estimated share of second job holders is very high, resulting from long-standing presence of black market and social stratification in Serbia. For example, analyzing second job holding in Russia, Foley (1997) found that in the mid 1990s, about 10 percent of the employed in Russia simultaneously hold an additional job. In the late 1980s, however, about 1/5 of Soviet workers were engaged in unregistered additional activities, which was the result of increasing poverty in that period (Foley (1997)).

In the periods under consideration, wage gap between female and male in Serbia was assessed as relatively low. Lower wage discrimination in transitional economies has been empirically explained by higher education level among women and growth in demand for educated labour force (Paternostro and Sahn (2001), Brainerd (2000)). According to the assessed earning regressions, women in Serbia, working on their main job, on average earn about 76 percent of male wage. In general, the measures of inequality indicate a decrease in inequality in average hourly earnings of Serbian workers in 2002. However, the decile ratio between high-paid workers (the 90th decile) and low-paid workers (the 10th decile) rose in 2002, implying the increase in differentiation in wages of the employed.

The factors decisive for the decision to participate on the labour market in Serbia are different for male and female, in general. The attainment of education level is of high significance for female participation on the labour market, but is also becoming increasingly important for men, as well. In 2002 we distinguished two variables, i.e. *non-labour income* and *civil status*, which have significant impact on the likelihood of participation. The variable *non-labour income* significantly reduces the likelihood of both male and female participation on the labour market. Only a small number of factors seem to be significant for making decision to hold second job for both genders. As far as men are concerned, the more years of working experience, the higher likelihood is to opt for the second job. In case of women, higher non-labour income of a household and the presence of children of pre-school age significantly reduce the likelihood of opting for additional job.

The education level has a significant and positive impact on earnings of the employed in Serbia. We obtained higher rates of returns to education in female earning equations in both periods. In 2001 female wages from the main job grew by 12,1 percent on average with each additional year of education, compared to male wages which grew by 5,5 percent. The estimated marginal effects of education level in 2002 rose in female earning equations, but decreased with regard to men. As far as wages from additional job are concerned, education level significantly determines the average female earnings, but it also became significant for male wages in 2002. Our results show considerable regional differences in male and female earnings only with regard to the main job. On the other hand, wages from the second job seem not to be affected by regional differences. The type of enterprise, in terms of ownership, is in some cases significant factor in determination of wages of the employed. Self-employed men and women earn more than men and women employed in the socially-owned sector (employed in enterprises in social ownership). Employment in the private sector (employees working in enterprises in private ownership) provided women in 2001, and men in 2002, with, on average, higher premiums than those received by the employed in the socially-owned enterprises. In 2002 men and women employed in the public sector (employed in state-owned enterprises and state administration) earned significantly higher premiums compared to men and women employed in the socially-owned sector.

We confirmed presence of differences between male and female earnings from main job in both periods. Such a result is typical for transition countries, as confirmed in many empirical studies which analyzed wage discrimination (Jolliffe (2002), Paternostro and Sahn (1999)). The Wald test statistic also strongly reject hypothesis of equality in wage determinants from additional job between genders.