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Earnings and overweight in Russia: Men and women

This paper investigates the influence of Body-Mass-Index (BMI) on the earnings of men and women. The aim is to identify weight — wage discrimination in the Russian labour market, which results in overweight and obese people earning significantly less than normal-weight workers. The study is conducted using a panel dataset from the Russian Longitudinal Monitoring Survey (RLMS–HSE), collected by HSE University, which covers individuals from 2013 to 2023, and Rosstat regional-level data for the corresponding years. Based on the results, we can conclude that being overweight leads to a decrease in wages for female employees, but does not appear to affect the wages of male employees. The industry of occupation plays a role in determining the presence and degree of wage reduction of overweight women in Russia. The largest earnings penalty due to extra weight is found for women employed in construction, education, trade, and consumer services industries. The size of the earnings reduction, following a one-point increase in BMI, varies from 3 to 9%. In industries such as transportation, agriculture, management, finance, and the energy sector, no sign of a weight–wage association is detected.

Keywords: obesity; endogeneity; instrumental variables method; heteroscedastic errors; industry.

JEL classification: C36; I12; J31; J16.

1. Introduction

In recent decades, the prevalence of obesity has become an epidemic and is associated with an increasing number of chronic diseases and higher mortality rates both in Russia (Savina et al., 2022; Balanova et al., 2018; Martinchik et al., 2021) and worldwide², negatively affecting the overall wellness of the population. Another important adverse aspect of obesity concerns the social life of individuals with extra weight and is called weight discrimination or fatphobia. Weight discrimination leads to biased evaluations of overweight students' performance at school (Dian, Triventi, 2021; Glock, Schuchart, 2021), worse quality of medical treatment (Phelan et al., 2015; Puhl, Brownell, 2002), and problems in the labour market. Overweight people have a lower chance of being employed and earn less based only on their weight, while the gender of individual and the type occupation are also significant factors in determining the weight–wage relationship (Flint et al., 2016; Roehling et al., 2007; Lin, 2016; Baum, Ford, 2004; Cawley, 2004).

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² See <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>.