Revealing Dynamics: The Impact of Minimum Wage on Inequality Within Germany's Regions

Mariya Afonina *

March 20, 2024

Keywords: minimum wage, inequality, regional differences, SOEP, difference-in-difference

JEL-Codes: J31, J68, R10, R23

This study investigates the impact of introducing a statutory minimum wage in Germany on regional inequality dynamics, emphasizing the within-region disparities. Utilizing the German Socio-Economic Panel (SOEP) data, the research studies trends across the whole population and different sub-groups within the functional local labour market areas (LLMA): men, women, and disaggregating by parenthood status.

The effects of minimum wage policy have been studied for decades, with a great body of literature focusing on the impact on disemployment as well as monthly and hourly wage trends and possible adjustment mechanisms. However, not only previous studies like Caliendo et al. (2023) and Bossler and Schank (2023) found controversial results in terms of the effects on the monthly wages but also the effects on inequality, especially within particular regions, remain the gap. Although previous results confirm the convergence of the wages between West and East Germany, only a few articles have concentrated on the smaller administrative units.

Utilizing the Difference-in-Difference approach and regional variation in the exposure to the minimum wage, the inequality dynamic has been studied on two levels. First, the SOEP data was aggregated to the LLMA level, accounting for the distribution of characteristics for different subgroups to study the direct impact on the inequality indicators. Secondly, the individual-level analysis was undertaken to define micro-level impacts on hourly wages and how they shape the within-region dynamics.

Macro-indicators show a 10% convergence in inequality based on the wage distributions for the whole sample. However, disaggregating by groups reveals opposite trends for men and women. For women, the effect was about 4% and was statistically significant only in the first year of reform. On the contrary, for men, it appeared later, increased over time, and reached 15% in 2019-2020. Interestingly, the aggregated descriptive analysis shows an increase in inequality between men on the country level. However, plotting the results on the LLMA level discloses that it is observed only due to the non-treated regions, with minimum wage legislation successfully counteracting this dynamics in men. The individual-level analysis confirms these macro findings.

^{*}LWC SOEP RegioHub; Bielefeld Graduate School of Economics and Management, Bielefeld University, 33501 Bielefeld, Germany. Contact: mariya.afonina@uni-bielefeld.de