

The Good, the Bad: How digital technology shapes welfare for formal and flexible workers

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Digital technology has a profound impact on China's labor market. How does the welfare inequality between formal and flexible workers change under the influence of digital technology? In this paper, theoretical and empirical studies are carried out respectively. In theory, the welfare effect of individual dimension is considered based on building a general equilibrium model including market production sector and household production sector; In the empirical aspect, the pooled four-wave data from the China Family Panel Studies (CFPS) from 2014 to 2020 are used to test the effects of digital technology on the welfare inequality between the formal and flexible workers. The study found that digital technology widened the wage disparity and non-wage benefits inequality between the formal and flexible workers, and the sub-industries found that digital technology mainly significantly expanded the wage disparity between the formal and flexible workers in the high-digitalization sectors and the non-wage benefits inequality between the formal and flexible workers in the low-digitalization sectors. The mechanism analysis shows that the substitution effect and the productivity effect have negative effects on the wage disparity between the formal and flexible workers, while the creation effect and the flexibility of flexible workers have positive effects on that. The digital skills difference caused by digital technology has a negative effect on the non-wage benefits inequality between the formal and flexible workers, while the legal efficiency and regulatory quality have a positive effect on that. In addition, the wage disparity and non-wage benefits inequality between the formal and flexible workers caused by digital technology are significantly different in different education levels, gender and time intervals.