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Wage returns related to the use of e-skills and institutional factors

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Starting with empirical evidence from major European labor markets, a study by FBK-IRVAPP and UniTN to analyze the role of institutional factors in moderating wage returns from the use of digital skills in European labor markets.

Digital skills are considered increasingly relevant, even key, in today's labor market. The use of software, applications, and technology tools has become an integral part of many occupations, from traditionally more digital ones to those involving management and executive functions, as well as typical industrial manufacturing ones and those involving personal care services. Possessing IT skills can actually make a difference in terms of employability, task performed and, not least, salary profile.

Hence, the relevance of the diffusion, use and return of e-skills, especially in segments of the labor market exposed to increasing levels of employment and wage instability, frequently linked to temporary forms of work that characterize the evolution of advanced economies. Despite its relevance, the topic appears to be little explored both in scientific research and more generally in public debate. E-skills-related premiums are usually linked to structural dynamics of supply and demand for specific skills or job profiles, but little is known about their interaction with more institutional factors, such as contract, the level of employment protection and the level of unionization of the workforce.

In the first part of the SKILLS project, FBK-IRVAPP and the Department of Sociology and Social Research at the University of Trento sought to explore this issue further by analyzing the role of institutional factors in moderating wage returns due to the use of digital skills in European labor markets. The work documents that **the average premium in the use of digital skills is around 4-8 percent of the gross hourly wage**, depending on the country considered, but it also denotes the existence of a wage gap between temporary and permanent workers: **all things being equal, workers with a fixed-term contract achieve a wage premium due to digital skills 2.5 percentage points lower than their colleagues with a permanent contract.**

The estimates also confirm the relevance of the union dimension, indicating how the use of e-skills does not translate into significant wage premiums for workers on temporary contracts, especially in contexts where union density is particularly skewed in favor of permanent workers. At the same time, the e-skills use returns of non-standard contracts are more pronounced in contexts where their level of unionization approaches the one of their permanent counterparts. **In principle, for temporary workers to receive IT-skills-related wage premiums comparable to those of permanent workers, temporary positions need to have higher levels of union representation**. In fact, when the two rates are equivalent, the returns tend to be similar and the ICT-skills-related wage gap vanishes.

Methodological note

The contribution described here has some analytical and empirical **limitations**, mostly related to the data available for analysis. First, the lack of an analysis of union dynamics at different levels (industrial, regional or corporate), due to the unavailability of specific data by contract type. Second, having conidered the limited number of national markets considered, the sectional nature of the data. Third, the impossibility of considering other elements of segmentation of national labor markets, such as the degree of labor market regulation, specifically for permanent and temporary workers, whose analysis given the sectional nature of the data would have been based exclusively on country-specific cross-sectional levels of protection for distinct contractual groups, a practice that is increasingly being criticized and progressively less frequent in the socio-economic literature.

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