

Education expansion, Technological change, and the Decreasing wage premium

Pauline Corblet[†]

October 2021

Abstract

The wage gap between educated and uneducated workers has grown quickly in the 1970s and the 1980s in the US, despite the uninterrupted rise in the relative supply of educated workers. Since the 2000s however, the education wage premium has stagnated in many western economies. Using an exhaustive matched employer-employee dataset, I study the case of the Portuguese labor market, where the high school wage premium has stalled since the late 1980s and even decreased in more recent years. This decrease has occurred in the context of rapid education expansion and the economy's transition from manufacturing to services. I examine the heterogeneity of the graduate wage premium evolution to age, as its decrease is particularly sharp for young workers. I investigate three channels to explain this decrease: the rise of the educated workers relative supply, changes in demand brought by technological change, and sorting between workers and firms. To do so, I build a model of one-to-many matching, which uses the most recent advances in matching theory and computational matching to make predictions both on wages and matching. The model affords flexibility in identification that lets me estimate sorting between workers and firms as well as varying elasticities of substitution over time. I find evidence of skill-biased technological change that has increased the demand for educated workers. However, the magnitude of technological change varies by industry, and I find that young educated workers favor industries where technological change is most modest.

[†]SciencesPo, Paris, *e-mail address*: pauline.corblet@sciencespo.fr