

Abstract

Our goal is the estimation of country – level production function aimed at understanding the role of human capital. We analyze the effect of education, especially the effect of the share of college graduates in prime-age population (between 25 – 54 years) on the European Union (EU) countries' labor productivity. Here, an important issue is efficiency of tertiary education institutions. We split the ratio of human capital to observe it from different aspects. We compare an effect of lower and upper tertiary educated, by specializations and by gender. The relationship between human capital and labor productivity was found positive though not significant or significant only on 10 % confidence level. The influence of human capital on labor productivity was found very low, in some cases even negative. Assuming that one of the main reasons behind these contra-intuitive results is the problem of unobserved heterogeneity, we also run instrumental variable estimation. We found positive and significant on 5 % confidence level relationship between human capital and labor productivity. The influence of larger share of tertiary educated people on labor productivity is more evident after some period of time, in our example after two years.

Keywords: human capital, labor productivity, European Union, production function

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