

Are There Increasing Returns to Local Concentration of Skills? Evidence on Wages and Returns to Education in Transition

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Abstract

According to recent economic-geography theories, increasing economic integration (openness to trade and foreign investment) may lead to regional divergence within countries based on region-specific initial advantage in terms of the education of its workers. A related strand of empirical literature attempts to measure spatial (regional) externalities (spillovers) from human capital, i.e. the positive effect that one's own education may have on those working in the same local labor market. (Note that human capital spillovers are the main rationale for government support of education.)

It is difficult, however, to separate the effect of regional human capital concentration on economic outcomes from the reverse causality (of regional economic shocks affecting human capital endowment). An important source of exogenous variation in local skill level used in the U.S literature is the historical presence of colleges.

This paper argues that the recent experience of post-communist economies, and of the Czech Republic in particular, provides a useful case for asking about the importance of local concentration of human capital for regional divergence. First, these countries underwent massive reallocation of production and the transition process involved dramatic skill upgrading as well as increasing international integration manifested, e.g., in large inflows of foreign direct investment. Second, as I document using the case of the Czech Republic, these economies inherited from communism an extensive spatial variation in skill endowments. To a large extent, this variation can be traced to the establishment of a college before and during the communist era, which is argued to be exogenous to the post-communist market demand shocks.

This paper therefore asks about the existence of human capital spillovers at the district (NUTS4) level in the Czech Republic: Do educated workers have higher wages as of 2001 if they are working with or near other educated workers? The paper also estimates Czech local returns to education and relates them to relative skill supply. The data provide no direct evidence in support of education spillovers but the results are consistent with a substantial tendency of skill-intensive firms to locate in areas relatively abundant in skilled labor. Variation in local education levels is the key to persistent regional differences in unemployment, but this may not be of policy concern. Future research should assess the potential presence of barriers to accessing higher education in regions with no colleges and universities.