Exploiting States' Mistakes to Identify the Causal Impact of Education on Growth with Philippe Aghion, Caroline Hoxby and Jerome Vandenbussche

Abstract: We posit that investment in higher education is more growth-enhancing in economies engaged in innovation on frontier technology. Our empirical analysis addresses a central problem in the education-growth literature: the endogeneity of a region’s education policy with respect to its growth path. We turn to the American federal system for examples of investment “mistakes.” Research universities in states with representation on the congressional appropriations committee receive additional federal funding. The presence of a two- or four-year college in the district of a state’s education committee chairman can similarly influence budget allocation. Neither of these political instruments are correlated with current growth. We assemble panel data on the stock of human capital in US states from 26 birth cohorts (1947 to 1972). Our results confirm that upper-tier education has a stronger effect on growth in states that are close to the technological frontier. The out-migration of skilled labor accentuates the difference between leading and trailing states.