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Abstract

This paper investigates the efficiency of university departments in science, technology and medicine in an Italian Region (Lombardy). The aim of the paper is twofold: (i) to analyse the changes in productivity in recent years (from 2004 and 2007); and (ii) to detect factors that are potentially affecting efficiency. The research benefited from a new and unique dataset (called QuESTIO) developed by the Lombardy Regional Government. Using facilities and academic staff as inputs and research grants and publications as outputs, the research activity of academic departments was modelled. The methodological approach for computing efficiency scores is (DEA) Data Envelopment Analysis; Malmquist indexes have been used to measure changes in productivity, while Kruskal-Wallis tests were employed to study the potential determinants of efficiency. Two main results were obtained. First, the academic departments improved their efficiency but, at the same time, the efficiency frontier worsened. Second, external and measurable factors (such as scientific sector, proportion of tenured staff, location, etc.) have a limited impact in explaining efficiency differentials.

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The policy implications of both results are discussed. (HRK / Abstract übernommen) Agasisti, Tommaso, E-Mail: tommaso.agasisti@polimi.it