

The Relative Efficiency of Educational Systems: A Cross Country Prescriptive Analysis.

Peter Dolton¹

Oscar D. Marcenaro-Gutierrez²

Abstract

How does a country achieve the most efficient education system possible? We examine the efficiency of educational systems across the world using internationally comparable performance of secondary school pupils. We use OECD aggregate panel data on 39 countries across 17 years to model the most efficient combination of teacher salaries, class size and capital resources to secure the maximum level of students' achievement. In the face of constrained education budgets prescriptive policy evaluations are provided to suggest how countries could make a significant improvement to their educational outcomes by adjusting their educational resource inputs. We also ask if there is a trade-off between the efficiency and equity of educational provision.

JEL Classifications: I21, C21.

Keywords: educational efficiency; equity; teachers' salaries; pupil teacher ratio; stochastic frontier analysis; DEA.

Acknowledgements:

This work has been partly supported by the GEMS Foundation, the Andalusian Regional Ministry of Innovation, Science and Enterprise (PAI group SEJ-532 and Excellence research group SEJ-2727), the Spanish Ministry of Economy and Competitiveness (Research Project ECO2014-56397-P) and University of Malaga.

¹ Corresponding author: University of Sussex & Centre for Economic Performance, LSE. E-mail: P.Dolton@sussex.ac.uk

² University of Malaga. E-mail: odmarcenaro@uma.es.