Middle East Development Journal, Vol. 5, No. 3 (2013) 1350017 (23 pages)

© Economic Research Forum DOI: 10.1142/S179381201350017X

QUANTILE ESTIMATES FOR SOCIAL RETURNS TO EDUCATION IN TURKEY: 2006–2009*

OZAN BAKIS^{†,¶}, NURHAN DAVUTYAN^{‡,∥}, HALUK LEVENT^{§,**} and SEZGIN POLAT^{§,††}

[†]TUSIAD-Sabanci University Competitiveness Forum Galatasaray University Economic Research Center [‡]Economic Research Forum Department of International Trade and Finance Kadir Has University

 $\$Galatasaray\ University\ Economic\ Research\ Center\ Galatasaray\ University\ ^{\$bakis@sabanciuniv.edu}\ ^{\$nurhan.davutyan@khas.edu.tr}\ ^{**hlevent@gsu.edu.tr}\ ^{\dagger\dagger}spolat@gsu.edu.tr$

Received 1 November 2010 Revised 30 January 2013 Accepted 10 August 2013 Published 10 October 2013

Augmenting a Mincerian earnings function with regional data we estimate both private and external returns to education in Turkey using Instrumental Variables, Ordinary Least Squares, Quantile Regression and Instrumental Variables Quantile Regression methods. Our results indicate a median external return between 1.5% and 2.3% for 2006–2009. There is some evidence supporting the skill-biased technical change hypothesis. External returns are uniformly higher for women. We point out some policy implications.

 $\it Keywords$: Human capital; externalities; returns to education; instrumental quantile regression; growth.

1. Introduction

In contrast to traditional growth theory where the source of growth, technical change, is exogenous, new growth theory endogenizes the source(s) involved. It posits that knowledge augmented accumulation of productive factors obviates diminishing returns thereby enabling sustained output increases. This allows room for policy intervention since increased investment in human capital would accelerate growth. Acemoglu (2009) provides a thorough treatment. Endogenous growth theorists differ in the precise mechanisms connecting knowledge to growth, but external benefits to

*This paper was presented at the 16th Economic Research Forum — ERF Conference held during 7–9 November 2009 in Cairo as well as at the CREMed's Economics of the Mediterranean and the Euromediterranean Process Conference during 16–17 July 2010 in Barcelona.