

Contents lists available at ScienceDirect

International Journal of Educational Research

journal homepage: www.elsevier.com/locate/ijedures



Impact of university academic performance on financial returns to education in Chile

Cristian Colther^a, Oscar Espinoza^{b,*}, Luis Sandoval^c, Noel McGinn^d

- ^a Universidad Austral de Chile, Instituto de Economía. Los Laureles Nº 35 Interior, Campus Isla Teja, Valdivia, Chile
- $^{\rm b}$ Universidad de Tarapacá, Departamento de Educación, 18 de Septiembre N°2222, Arica, Chile
- ^c Universidad Tecnológica Metropolitana, San Ignacio de Loyola Nº160, Santiago, Chile
- ^d Harvard Graduate School of Education, 13 Appian Way, Cambridge, MA 02138, United States

ARTICLE INFO

Keywords: Returns to education Quantile regression Higher education Academic performance

ABSTRACT

This article examines the relationship between graduates' academic performance and the financial returns of their university education in Chile. By Analyzing data from 784 students who graduated from 10 selected Chilean universities between 2010 and 2016, this study utilizes linear and quantile regression to estimate returns. The results indicate that returns range from 4.9% to 15.0%, depending on the specifications and estimation methods employed. While linear regression suggests no significant association between academic performance and returns, quantile regression reveals a positive impact for lower and medium salary ranges, reducing the income gap with higher earners. The results of this study can be helpful in achieving a better understanding of the factors that influence returns to education.

1. Introduction

The economic return to education has been a major concern for many decades, as witnessed by multiple international measurements and assessments (Becker, 1994; Mincer, 1958; Schultz, 1961; Weisbrod, 1962). Today it is of major interest because it offers a good way to understand the factors that influence differences in the salaries received by university graduates entering the labor force (Bottone & Sena, 2011).

Salary differences can be explained in terms of the accumulation of human capital acquired through education, in the workplace and in general experience (Becker, 1994; Mincer, 1974) or through signaling (Spence, 1973). These perspectives have been tested and confirmed in multiple studies in various countries. They offer not only an understanding of compensation for human capital but also of the role of the supply and demand of highly skilled labor (Ma & Iwasaki, 2021).

Once formal education was divided into levels, researchers noted the differences in the earning levels of those finishing high school and those completing only primary school. The differences increase with each level, so that those completing university have much higher salaries and even higher with graduate study (Belfield & Bailey, 2019; Heckman et al., 2003). However, recent studies have reported a high level of variability in the salaries of university graduates. Not only are there significant variations between professions, but salary differences are widened further taking into account factors such as experience, the type of workday and graduate studies (Caglayan-Akay & Komuryakan, 2022; Espinoza et al., 2022). It is worth noting the differences employers perceive in the quality of universities, as well as in the perceived abilities of graduates once in the productive sector (Espinoza et al., 2022; Gomez, 2021;

E-mail addresses: cristian.colther@uach.cl (C. Colther), oespinoza@academia.cl (O. Espinoza).

^{*} Corresponding author.