

Measuring Returns to Education: What Has Changed?

Samantha Alvis

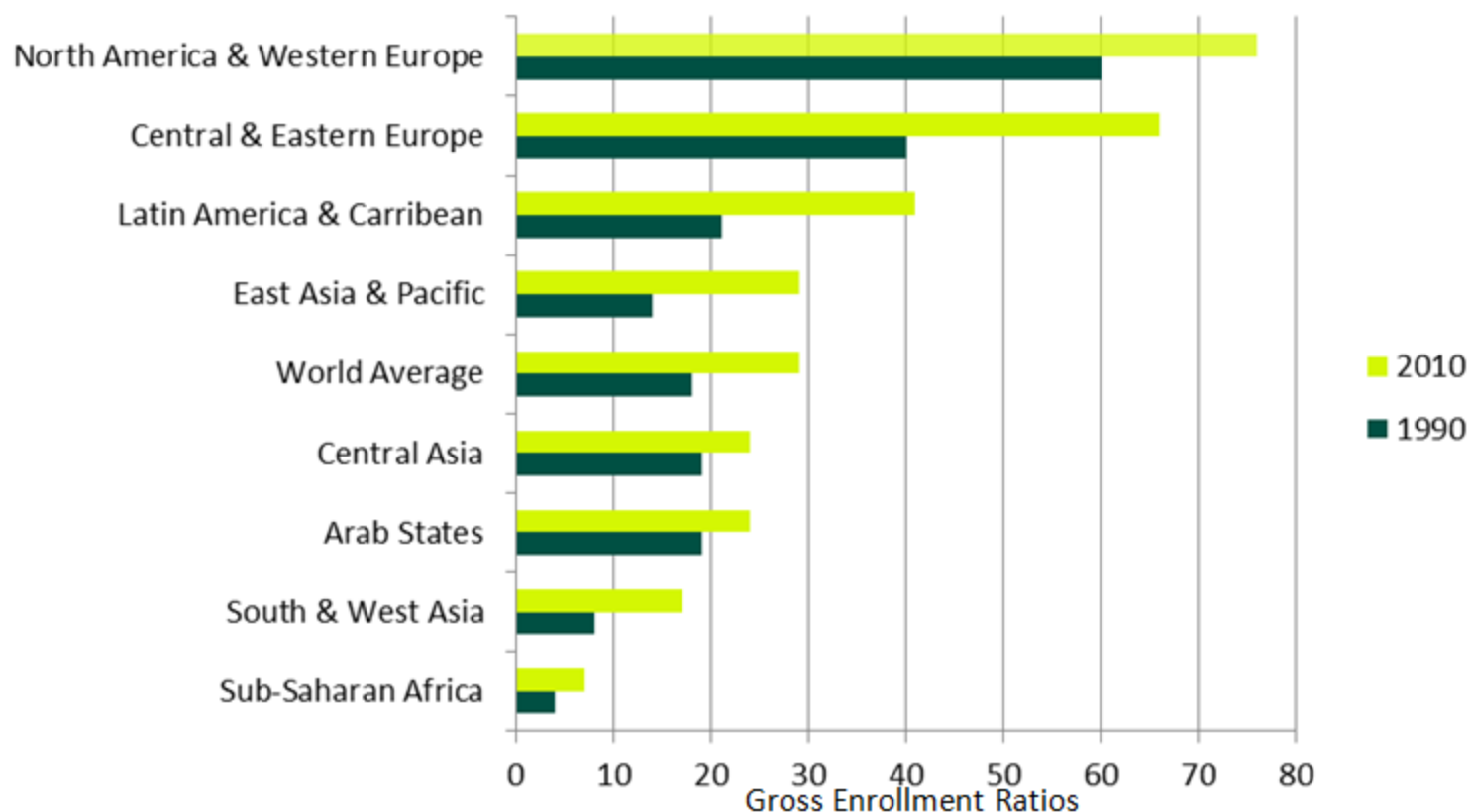
Mickey Leland International Hunger Fellow

Associate Director, International Development and Programs

Association of Public and Land-grant Universities



Gross enrollment levels in higher education around the world



Adapted from “*African higher education: Opportunities for transformative change for sustainable development*” by the Knowledge Center for Advancing Development through Higher Education, Association of Public and Land-grant Universities. (2014).



- Understand how the measurements of returns to education investments have changed in the past 40 years.

Returns to Education: an updated international comparison

GEORGE PSACHAROPOULOS

One of the first questions that was asked following on from what Mary Jear described as the human capital revolution in economic thought, was what of investing in the new form of capital? Hesitantly, at first, but more researchers around the world started estimating the social or private return educational and other human-capital-related expenditures for diverse populations from special samples, using a variety of assumptions and methodologies ranging from simple to extremely sophisticated econometric techniques.

The year 1973 was a landmark in the 'rate of return' literature—as it came to be known—because of the publication of the first systematic comparative study (Psacharopoulos, 1973). A total of 53 rate of return case-studies were reviewed from 1970 to 1979.

This paper is an attempt to update the earlier rate of return evidence by cases that have been conducted in the seventies. The result of this update is the accumulation of 100 cases and a revision of most of the figures in the old country set.

However, I go beyond the compilation of comparable figures and discuss controversial arguments that have been associated with the rate of return data set.

RETURNS TO EDUCATION: A FURTHER INTERNATIONAL UPDATE AND IMPLICATIONS



GEORGE PSACHAROPOULOS

BACKGROUND PAPER FOR THE WORLD DEVELOPMENT REPORT 2013

Returns to Schooling around the World

Claudio E. Montenegro
World Bank and Department of Economics, University of Chile

&
Harry Anthony Patrinos
The World Bank Group

Returns to Investment in Education: A Further Update

George Psacharopoulos and Harry Anthony Patrinos*

Abstract

Investment in education based on human capital theory have been estimated since the 1950s. In the 40-plus year history of estimates of returns to investment in education, there have been several reviews of the empirical results in attempts to establish more reliable estimates from a wide variety of countries, including over time estimates based on new econometric techniques, reaffirm the importance of human capital theory. This paper reviews and presents the latest estimates and patterns of returns to schooling literature at the turn of the century. However, because the availability of data on returns to investment in education has grown exponentially, we include a new section on the need for comparing returns to investment in education and establishing related

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Working Paper Series disseminates the findings of work in progress to encourage the development of policy issues. An objective of the series is to get the findings out quickly, even if the

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ABSTRACT

This paper updates evidence on the returns to schooling, adding estimates for new countries. The total number of countries included in the sample is 100. The evidence confirms and reinforces the finding that the returns are highest for primary education and lowest for tertiary education. The returns to schooling are highest in countries with the lowest income per capita.

Returns to Investment in Education: A Global Perspective

GEORGE PSACHAROPOULOS*
The World Bank, Washington, DC



A World Bank Publication

Measurement Techniques

- Elaborate
 - 1973
 - 1981
 - 1985/86
- Earnings Function
 - 1994
 - 2002
 - 2013
- Shortcut Method

Returns to Investment in Education by Country Type and Level-1981

Region	Private			Number of countries reporting
	Primary	Secondary	Higher	
Africa	29	17	12	9
Asia	16	12	11	8
Latin America	44	17	18	5
LDC Average	27	16	13	22
Intermediate	16	14	10	8
Advanced	*	10	9	14

* not computable because of a lack of control group of illiterates.

Returns to schooling by educational level and region-2013

Region	Primary (%)	Secondary (%)	Tertiary (%)	GDP/pc
World	10.3	6.9	16.8	6,719
Middle East and North Africa	9.4	3.5	8.9	3,645
South Asia	9.6	6.3	18.4	2,626
Eastern and Central Europe	8.3	4.0	10.1	6,630
High Income Economies	4.8	5.3	11.0	31,748
East Asia and Pacific	11.0	6.3	15.4	5,980
Latin America and Caribbean	9.3	6.6	17.6	7,269
Sub-Saharan Africa	13.4	10.8	21.9	2,531

Note. Latest available year from 2000-2011. GDP/pc = Gross Domestic Product per capita. Adapted from “Returns to schooling around the world” by C.E. Montenegro and H.A. Patrinos, 2013. Background paper for the World Development Report 2013, p. 8.

Findings-Data Sources

	D1-1973	D2-1981	D3-1985/ D4-1986	D5-1994	D6-2002	D7-2013 ^b
No. of countries	32	44	61	78	98	131
Date range of data	1959-1971	1957-1978	1958-1983	1958-1990	1959-1999 ^a	2005-2012



All utilized data from other studies
on returns to education



Used
International
Income
Distribution
Database

Returns

- **1973-2002**
 - Private returns to education were higher than social returns.
 - Returns to primary education were higher than at any other level for both private and social returns.
 - Returns to education in developing countries were higher than those to developed countries.
- **2013**
 - Returns to higher education were higher than at any other level
 - Did not measure social returns

Findings-Policy Implications

- Recovering the public cost of higher education and reallocating government spending on education toward with level with the highest social returns (i.e. primary);
- Developing a credit market for education, together with selective scholarships, especially in higher education;
- Decentralizing management of public education and expanding private and community supported schools (Psacharopoulos , Tan & Jimenez, 1986, p. 2)

Conclusions and Recommendations

- Shift to new datasets in 2013 may not allow for comparison against earlier studies
- Despite disclaimer, studies are oft attributed to the World Bank
- Additional investigation is needed to explain influences and changes to the data