

RETURNS TO INVESTMENT IN EDUCATION: A DECENNIAL REVIEW OF THE GLOBAL LITERATURE

EE 462 Development Macroeconomics

Reference: Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: a decennial review of the global literature. *Education Economics*, 26(5), 445-458.

Summary

- What is the objective of this paper?
- How many estimates are included in this study?
 - How many countries?
 - What years?
- Main results?

2 main methods to study rate of returns to education

- Full discounting method
 - Mincerian earning function
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- Which method is used to study private rate of return and social rate of return?

What's the general conclusion about the rate of return over time?

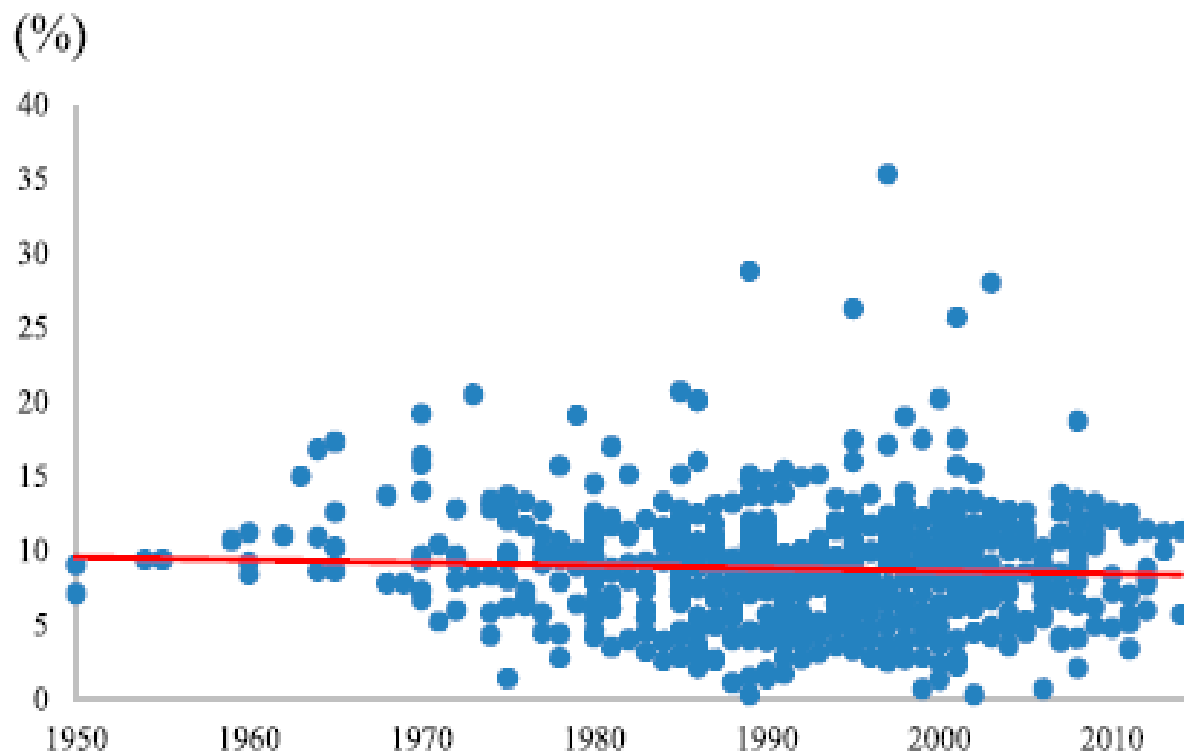


Figure 1. Rate of return to schooling over time.

Note: Regressing the overall Mincerian rate of return on the year of the estimate, gives: $\text{Return} = 49.611 - 0.020\text{Yea}$; $R^2 = 0.003$ ($t = 1.4$)

Why does the rate of return decline by the years of schooling?

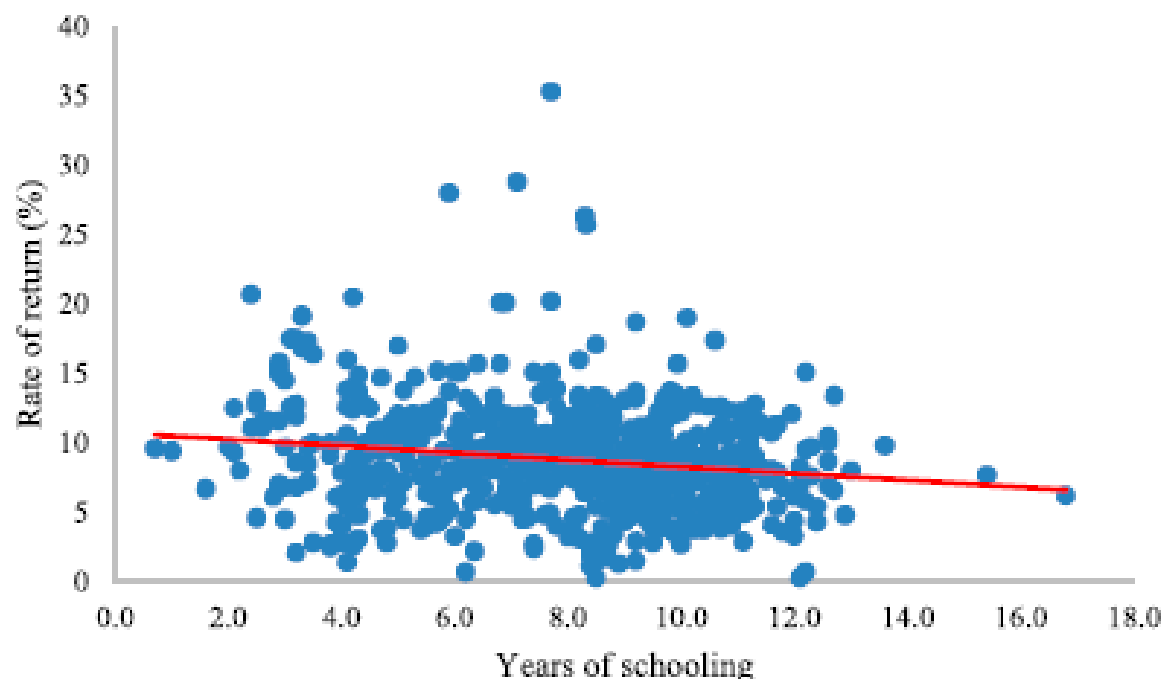


Figure 2. Return to schooling by years of schooling.

Note: Regressing the overall Mincerian rate of return on the year of the estimate, gives: $\text{Return} = 10.749 - 0.246 S$, $R^2 = 0.027$ ($t = 4.4$)

Table 1. Years of schooling and returns over time.

Period	Mean years of schooling	Overall Mincerian rate of return (%)	Number of studies
Pre 2000	7.8	8.7	511
Post 2000	8.6	9.1	194

What can be said about the rate of return to schooling in Columbia?

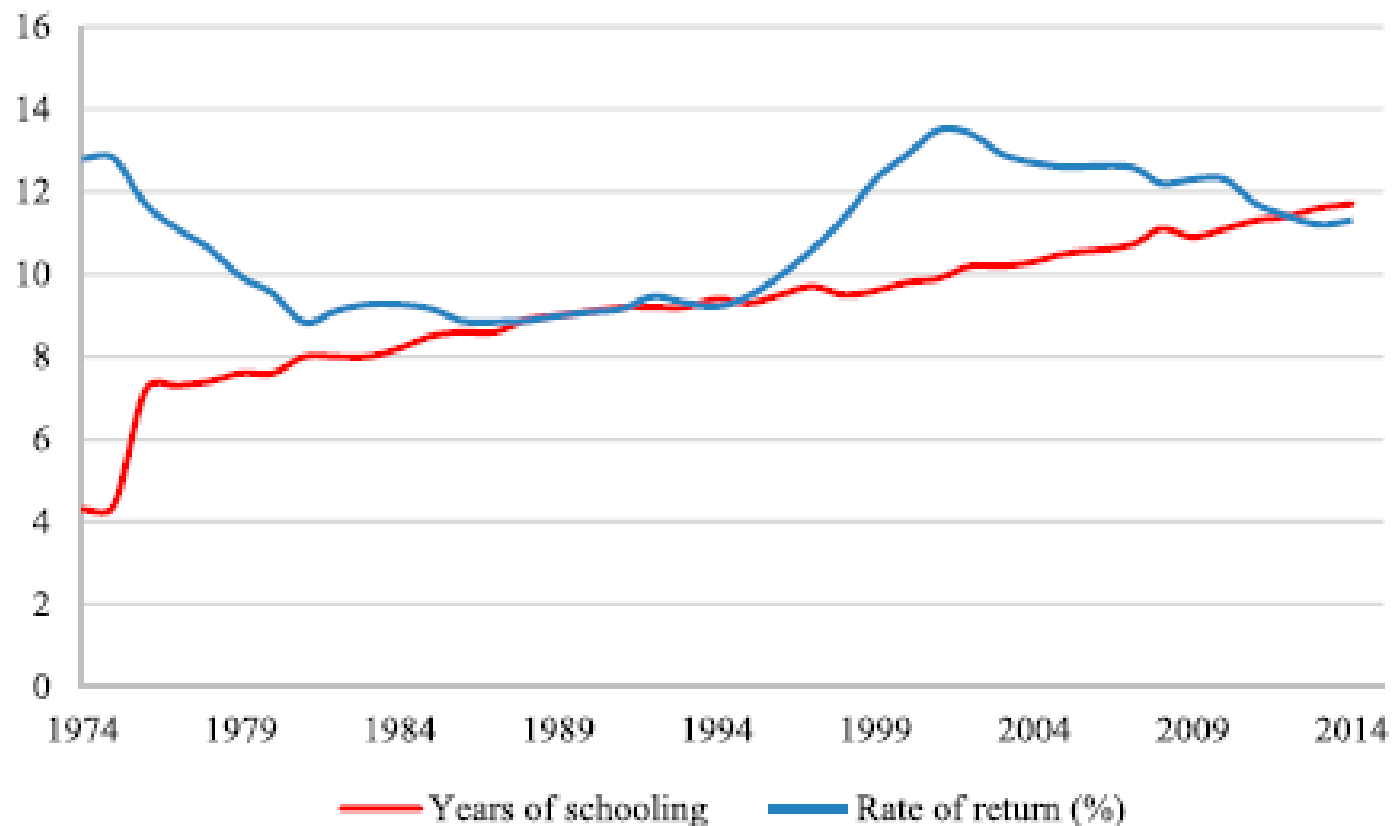


Figure 3. Returns and years of schooling over time: Colombia.

What can be said about the rate of return to schooling in Argentina?

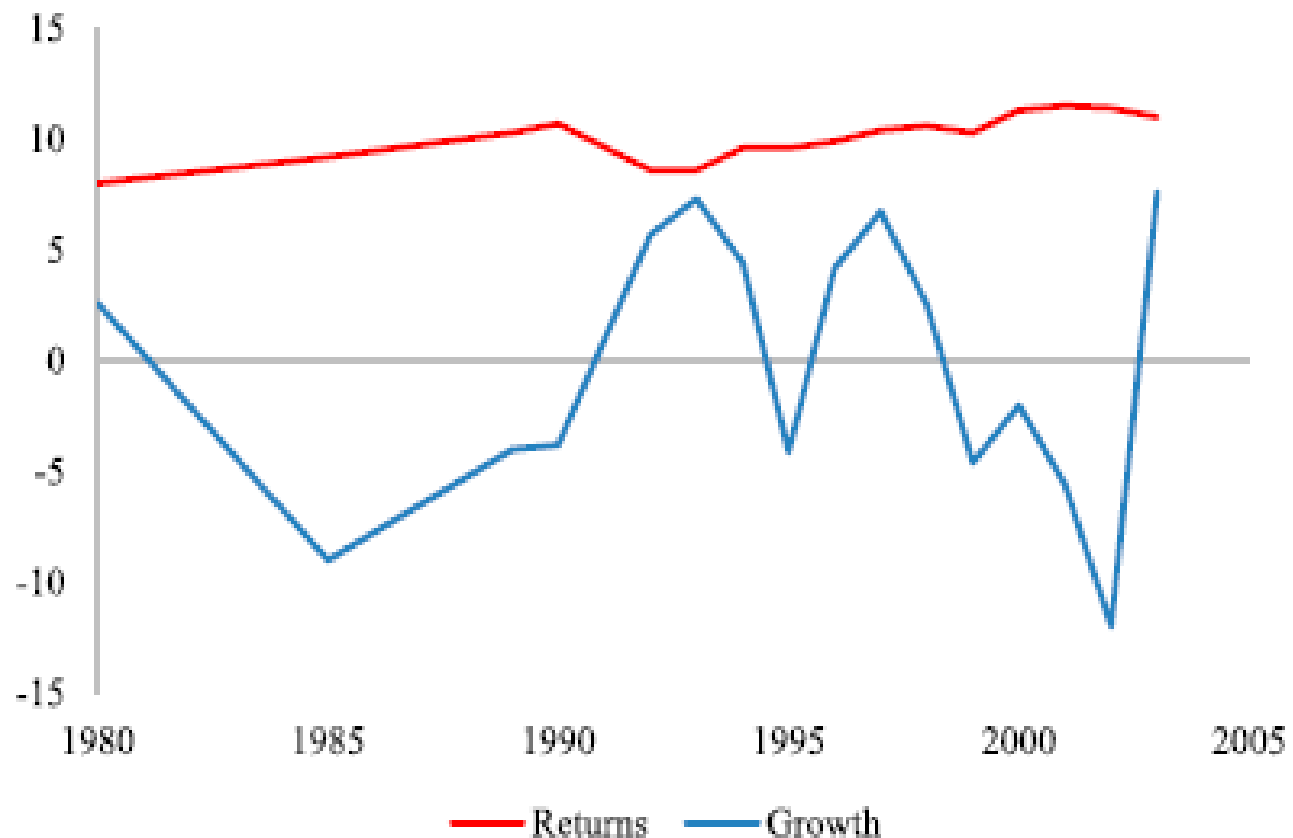


Figure 4. Returns to schooling and economic growth: Argentina.

Note: Source of change in GDP per capita is World Bank World Development Indicators.

Race between Education and Technology

- What does it mean by the “race between higher education and technology”?

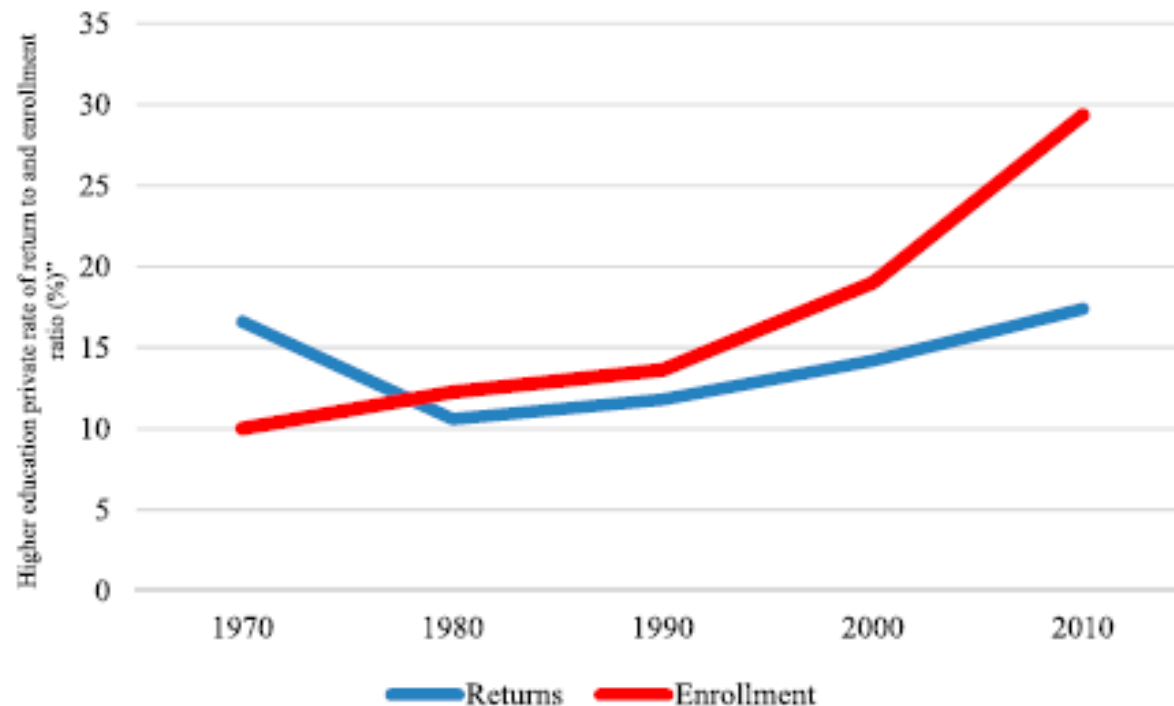


Figure 5. The race between higher education and technology.

Note: Returns are averages by decade from our compilation; enrolment rates come from the World Bank's EdStats database

What's the difference in the rate of return to education across income groups?

Table 2. Private returns to schooling by income group.

Country income level	Overall rate of return (%)	Mean years of schooling
Low	9.3	5.0
Middle	9.2	7.0
High	8.2	9.2
World average	8.8	8.0

Note: Country per capita income levels based on World Bank (2016) classifications in 2015 US\$: low = \$1045 or less; middle = \$1046–12,735; high = \$12,736 or more.

Table 3. Private returns to schooling by region.

Region	Overall rate of return (%)	Mean years of schooling
Latin America and Caribbean	11.0	7.3
Sub-Saharan Africa	10.5	5.2
East Asia and Pacific	8.7	6.9
South Asia	8.1	4.9
Advanced Economies	8.0	9.5
Europe and Central Asia	7.3	9.1
Middle East and North Africa	5.7	7.5
World average	8.8	8.0

What's the difference in the rate of return to education between genders?

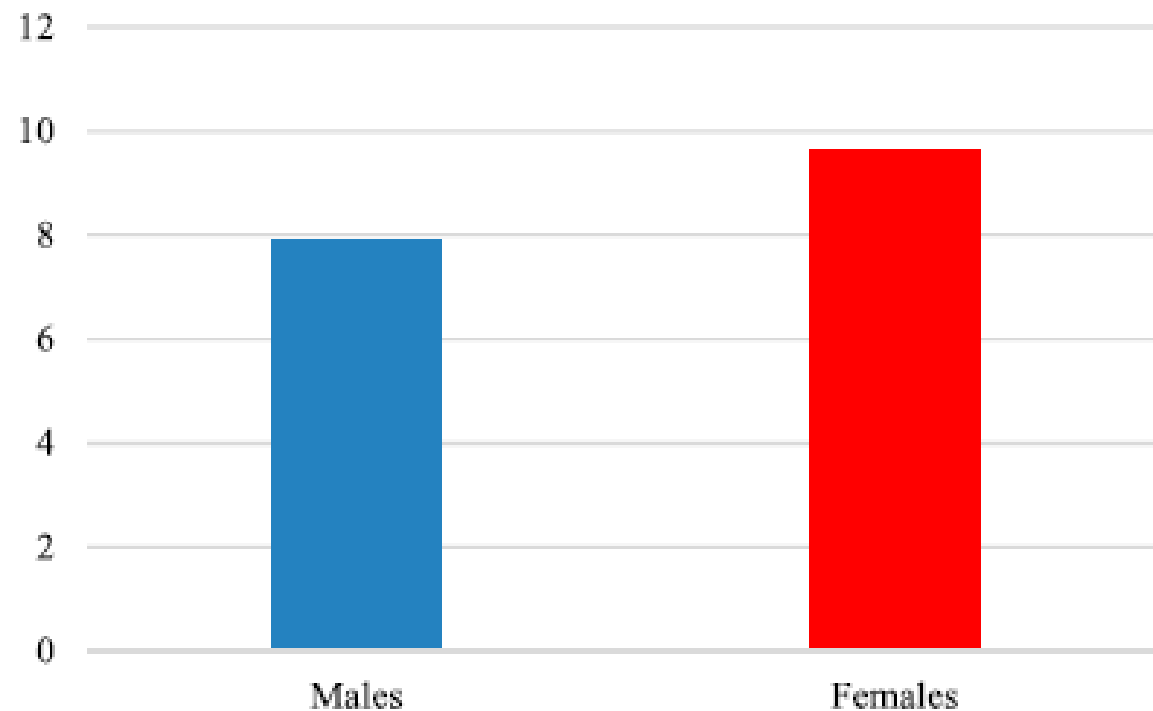


Figure 6. Private Mincerian returns to education by gender.

What's the difference in the rate of return to education across sectors?

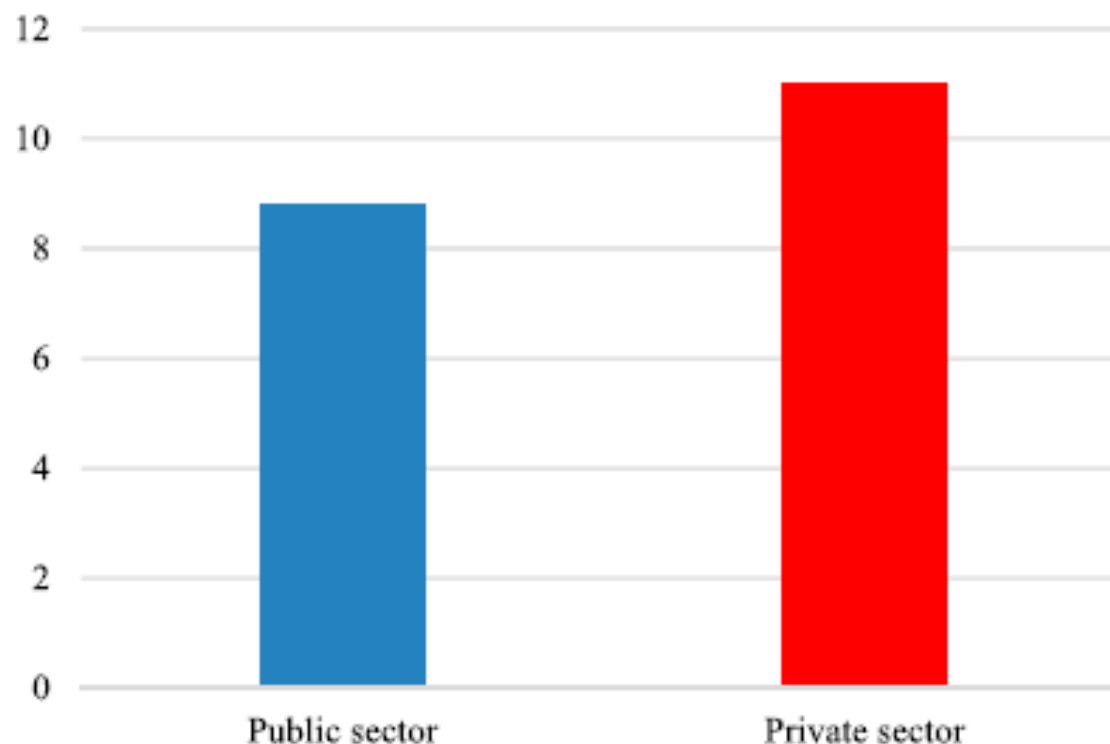


Figure 7. Returns to schooling by sector of employment.