Human Capital Investment: An International Comparison

As many economies become more knowledge-based, the acquisition of human capital has arisen as a key component in these economies’ security, ability to address social inequities, and long-run development. Accordingly, this report from the OECD is the result of a request from that organization’s Council of Ministers to investigate what is currently known about the acquisition of human capital, determinants of rates of return, how human capital is distributed throughout populations, and the role of public policy.

The report is organized into six chapters, the first comprising introductory material relating to the motivation and objectives of the report. The second chapter begins the substantive material, measuring the stock of human capital. As described in this chapter, human capital attainment can be measured through educational attainment, directly measuring adult skills, or estimating the market value of human capital. As the extensive data in this chapter show, the stock of human capital varies widely among OECD countries and the means used to measure it are not necessarily correlated. For example, some countries with high aggregate attainment have low literacy rates, and vice versa. Therefore, it appears that different countries’ educational systems vary in the degree to which they give their students the tools for life.

The third chapter reports on the extent to which OECD countries invest in human capital accumulation. While there is little variability among OECD countries in their investment levels in the beginning levels of education, there is wide dispersion in investment in higher levels of education. In particular, the mix of public and private investments in education fluctuate widely across countries. In addition, in all countries, educational opportunities seem to be concentrated among the younger, more economically advantaged of the populations.

The next chapter focuses on the returns to human capital investments, focusing primarily on market outcomes for benefits, and formal educational attainment for costs. Although the data do suggest that increased educational attainment leads to more robust macroeconomic outcomes, the mechanisms by which that occurs cannot be explored due to data limitations.

The fifth chapter deals with the imperfections in the current data and how these can be addressed to achieve a fuller understanding of human capital attainment. The suggestion in this chapter is to concentrate resources into two areas. First, broader measures of the stock of human capital need to be developed, allowing research to move beyond using educational attainment as a proxy. Using other measures such as life skills fluency would allow a more direct measure of productivity gains. Second, these aggregate data need to be supplemented by micro level data to gain a better understanding of private costs and returns. Improvements in data collection and design will allow governments and researchers to more fully investigate the differential impact of policy initiatives on portions of their populations.

The final chapter deals with policy issues surrounding human capital accumulation. Governments are particularly concerned with this types of investment because human capital investments account for a large share of national incomes; there are considerable social returns to this type of investment, and human capital is not distributed equally among or within OECD countries. These observations lead to five policy issues that governments must increasingly face: defining and achieving “adequate” levels of human capital investment; deciding upon the appropriate distribution of costs among the private and public sector; allocating resources relative to these costs; achieving an equitable distribution of investment spending; and developing a system whereby human capital outcomes can be accurately assessed.

This report does not only do an outstanding job of compiling the relevant data from OECD member countries. It provides a clear, cogent overview of the field of human capital accumulation, going beyond the data (which is substantial) to outline shortcomings in the measurement, analysis, and the data itself. The only area that I think deserved a bit more attention was the relationship between human and social capital. The report makes a passing reference to the fact that levels of social capital can influence the degree to which human capital is accumulated, for example, if education is a valued commodity in a particular culture. However, social capital may also influence the rate of return to human capital. For example, do societies characterized by a greater level of social cohesion have a greater rate of return on human capital accumulation than less cohesive societies? Perhaps additional research questions such as these are just a natural outgrowth of the wealth of
information contained in a report such as this. That is, not only are significant questions answered, but more are raised, the hallmark of a good analysis.

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**Opportunity Foregone: Education in Brazil**


This is a collection of 18 articles written by 42 authors and organized as chapters. Sponsored by the Inter-American Development Bank, its origin can be traced to a symposium held in Rio de Janeiro on March 24-27, 1991, five years prior to publication.

These characteristics might keep potential readers away on various grounds. First, the inclusion of so many authors, it might be argued, inevitably leads to inarticulation in format and discontinuity of content, both of which detract from analytical integrity. Second, works published by international development organizations seldom transcend mere institutional attempts to justify a loan or fund a project and, more often than not, lack the theoretical rigor and methodological complexity expected from "real" academic books. And third, by the time symposia proceedings are published, usually the nature of the problems has changed, the data are obsolete, and proposed solutions no longer apply.

Yet Birdsall and Sabot manage to beat the odds and come up with an interesting and worthwhile volume. They blend insights from U.S. and Brazilian writers and combine the scholastic elegance of university professors with the down-to-earth perspectives of a broad selection of professionals from public, international, and applied-research agencies, distilling a product which is surprisingly cohesive and adequately balanced in terms of arguments, analysis, and recommendations. And while the data seem to be somewhat outdated, mostly from the 1970s and 1980s, it is difficult to ascertain whether the obsolescence is due to the time elapsed between the symposium and publication of the proceedings or to the perennially archaic nature of Latin American statistics. Certainly the arguments, analysis, and recommendations remain relevant to Brazilian education: The overall system needs to be reformed, since it has failed, and continues to fail, in preparing children to function competitively in a modern market economy, thus creating a huge bottleneck in the development process.

The 18 chapters are grouped into four sections. Section I provides the background and setting, assessing the sector’s poor performance, in terms of both inputs and outputs, and comparing it with the experiences of other countries at the same level of economic development. Poor performance is blamed on the predominance of private interests over public purposes in policy formulation and implementation, and the findings suggest that an additional year of schooling per labor-force participant would increase real output by approximately 20 percent.

Section II contains four studies which examine the relationship between education and productivity at the individual level. Focusing on urban labor markets and returns to schooling across industries, these studies use both cross-sectional and time-series data to estimate different aspects of the wage-education profile. The empirical evidence is quite revealing: Returns to post-primary schooling, especially university education, are substantially higher than returns to primary schooling, thus suggesting that Brazil’s income distribution disparities could be reduced by decreasing the country’s high repetition and dropout rates. Inequalities in income distribution seem exacerbated by the existence of very high returns to schooling to workers in multinational industries which use advanced technology and benefit from protectionism. The evidence also indicates that wages are affected by schooling quality over and beyond the effect of schooling quantity.

The studies in Section III probe different aspects of the relationship between access to schooling and income distribution. Using the concept of “circular mobility,” based on educational background and experience, and transitional matrices, the empirical evidence shows here that, regardless of level of economic growth reported by region of residence, more education leads to greater mobility. Each additional year of schooling leads to an increase of 10 percent in a status scale which is the social counterpart of the real-output indicator used by economists in Section I. However, educational attainment seems to be relatively unresponsive to improvements in households’ socioeconomic status, which suggests that direct increases in quantity and quality of schooling are necessary to reduce inter-regional disparities.

Finally, the studies of Section IV touch on specific problems of the country’s educational system. These problems include grade repetition, quality of schooling, and government policies that affect access to private education. While the authors estimate that greater quality would pay for itself by reducing grade repetition, low-income students in good private schools experience difficulties in overcoming the structural deficiencies associated with their physical and intellectual background at