
higher education more towards the sciences. These are but two critical issues which are recognized as such by Malaysian policy makers but are not discussed in the present book. The author's other major lapse is that in enthusiastically describing the coming Pacific era, he forgets that large regional countries such as China, Vietnam and Myanmar which are in the process of moving towards market economies, will not stand idly by but will compete head on in many of Malaysia's markets. The ramifications for Malaysia are not addressed by the author.

The sections towards the end of the book could also have benefited from better organization. The concluding chapter introduces new materials not discussed in the main body including a discussion of export promotion versus export pessimism. There is no justification for relegating this debate to the final chapter since in some sense the key issue for Malaysia is how it can break out of labour intensive assembly and manufacturing, and export its way to broadly based economic development. Notwithstanding the recent success of the Malaysian economy, the immediacy of the major elements of the debate has not diminished. Which perspective is ultimately proven to be correct will depend to a great extent on the shape which the Pacific community assumes in the present decade. Unfortunately, this volume is unable to go beyond inchoate visions which may attract statesmen and politicians but are far less attractive to serious economists who will have to search elsewhere for possible answers to this problem.

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Education in Asia: A Comparative Study of Cost Financing. By Jee-Peng Tan and Alain Knight. The World Bank, 1992. Pp. 204.

This study forms part of the literature and research on the impact of human capital on eco-

nomie growth and social development. Education is a key factor in the development of human resources, and the efficiency of investing in education is in turn a key variable. But the concept of human capital and the issue of education are often argued qualitatively — in terms of cultural factors, or according to psychological norms of what is "good" for the child, or perhaps through the educators' own perceptions and efforts at curriculum design. This book therefore contributes to the body of knowledge by offering some "hard" facts, that is numbers, on a what is an otherwise "soft" subject.

The authors, both economists, from the World Bank and from the Universite de Bourgogne, provide a comparative analysis of education in over a dozen countries, in a readable form and style. The book's title and sub-title are self-explanatory, although the data on cost are more convincing and comprehensive than the data on financing. The World Bank's standard Publication Announcement, which accompanies the launching of the book, is worth quoting:

The authors explain why basic education is crucial to social and economic development and show why systems that favor higher education are unfair and achieve less. They document how individual countries finance education, how financing affects quality, and what policy reforms would make education systems more efficient and fair.

Therefore, this book is important precisely because it describes to the interested reader what is happening to education in Asia, and how it operates. The educator and the government bureaucrat often lack the time and the resources to compare their own costs with that of other neighbouring countries. This book thus provides the data and the analysis for more informed discussions and decisions.

For example, the core prescriptions of the authors strike an intuitive chord: First, quality primary education is the key to building human capital for sustained development, so it makes sense to focus scarce public (and private) resources on primary education. Second, without a corresponding broad base of primary-school

graduates, higher education becomes either a narrow funnel for the children of the élite, who are probably already well-off, or a large trap for misdirected graduates who lack the technical and technological skills for today's work-place. So it makes sense to use large private funds for higher education. The reader's reaction thus should be: "this is what I believed in all along." The book offers ample evidence not only to sustain and confirm such a belief, but also to argue for policy reforms and financial changes in the directions previously outlined.

The contents of the book follow the prescribed and time-proven format of the World Bank of providing empirical data on an issue or a concept, and then using the data to explain progress (or lack of it) and finally to justify possible policy changes. Thus, there is no a priori economic theory or hypothesis to test. The statistics are provided in simple but powerful graphs and charts that invite the readers' attention. Indices and bar-charts assist in making cross-country comparisons. Correlation is the basic tool, with standard linear and curve-fitting techniques to help clarify the visual relationships. Indeed, in one of only a few multiple regression equations, the results are dampened by the authors' own footnote that one t-statistic is significant at the 15 per cent level of confidence; the reader who is an economist thus is left to conclude that the equation was to make meaningful comparisons and this approach reduces the impetus for policy change. One might also wonder at the rationale for choice and aggregation; thus, one chart compares gross enrolment and per capita GNP between Asia, Latin America, and EMNA (comprising Europe, the Middle East, and North Africa); however, Japan and North America are excluded.

Second, by the authors' own admission, "the analysis does not substitute for more detailed studies that are essential in designing country-specific interventions". Again, in their words,

For example, if unit costs in a particular country are significantly higher than those in neighbouring countries, it does not immediately justify a program to reduce costs; rather this finding signals the need for additional analysis to examine

the reasons for the high costs and to evaluate the merits of alternative cost-reducing measures.

Verbum sap sat. Obviously, it is unfair to suggest that the authors can and should work out implementation plans for each or for even some of the countries — that was not their objective. Nevertheless, in the end, the reader may be left with the feeling that the book serves merely as an "appetizer" and that the task of implementing efficient financing for education is still left unanswered for any particular country.

The third limitation is the uneven analysis on different aspects of education. The limitation is attributable to the lack of depth, fragmentation, and possible inaccuracy, of the data. The concern is indeed legitimate, but dirty data is a fact of life for research in developing countries; readers familiar with developing countries are thus already likely to appreciate the difficulties in secondary research and to apply the necessary scepticism in reviewing both the data and the analysis.

The more appropriate criticism may be the lack of time-series analysis, still using secondary sources, so that changes within countries can be compared to change across countries, and also, so that one may account for trends and create a dynamic, rather than a static, analytical framework. But this approach requires knowing more about the individual countries — their policies, their priorities, and the components of their education budgets. For example, the Indonesian Government is concerned with creating an English-literate work force to service foreign investments; that effort can be evaluated in terms of the number of English-language courses in and outside the university system, and by the proportion, in volume, of English-language texts to Indonesian-language texts. On the other hand, the Philippines is already fairly literate in English; one concern of the Department of Education is to rebuild the primary school faculty, who are over-worked and under-paid, and who may readily look for an overseas job. Faculty turnover rates, the teacher to student ratio, an "ageing schedule" of primary school teachers: these factors, if studied over time, will offer deeper insights into the efforts of changing educational systems within countries.

The accumulation and analysis of the data from a diverse number of countries really form the core of the book. Therefore it makes little sense to attempt a digest of the book's contents. The reader should go through the text and charts of the book in order to make an independent judgement. Instead, the concluding part of this review looks at interesting vignettes from each of the core chapters of the book.

One readily takes for granted the relationship between the state of development (per capita GNP) and education (enrolment rates), or the negative relation between the pupil-teacher ratio and per capita GNP. However, an interesting, almost counter-intuitive, statistic is the weak relationship between average teacher pay (in primary education) and per capita GNP. The policy maker can generate many hypotheses — dedication, two-income household, etc. — but the results suggests an area of intervention and efficiency.

The data show a very clear, if diminishing (logarithmic) relationship between "survival" rates in primary education and per capita GNP. However, a jarring statistic is the low survival

from lower secondary to upper secondary grades. Singapore's rate drops from 75 to 20 per cent (of grade 1 entrants); Korea from 93 to 46, and Malaysia from 70 to 42. A useful statistic, which is not included in the book, might be the comparable survival rates for Japan and North America.

The penultimate chapter on "Equity in Education" makes the whole book worth reading. The authors themselves seem excited by their own analysis — judging by its relative complexity, and by the number of figures (19) and tables (12). There is ample data to undertake one's own analysis and to draw one's own conclusion. The recommendations in the final chapter are bland, but the authors were undoubtedly constrained by their own stated limitations, and this should not detract from the rest of the book.

All in all, the book is recommended reading for teachers, public officials, and analysts in the field of education.

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