Chalam (K.S.): *Finances, Costs and Productivity of Higher Education*. New Delhi, Inter-India Publications, 1986, 240 p. Rs 195

This book is both ambitious and courageous. It is ambitious because it attempts to deal in depth with issues which have often defeated previous forays by economists, such as the true cost of education or the most appropriate unit cost. It is courageous because the author did not hesitate to undertake special surveys in order to give information, for example on the private cost of education. Although it deals mainly with the Indian state of Andhra Pradesh, it takes care to compare it with the Indian federation and offers a wealth of factual information, often detailed and often on subjects otherwise usually scant or non-existent.

After a chapter describing the Profile of Higher Education in Andhra Pradesh, the author analyses the Pattern of Finances for Higher Education (Chapter 3). This chapter is very representative of the whole book. In it is a wealth of data on expenditures on higher education and many comparisons with other levels of education, with the rest of the country and with the Gross Domestic Product (GDP). But one is disappointed to see that the statistical series ends in 1975-76 (the study was published in 1986). This, of course, limits the usefulness of the book as an aid to policy decisions, as does the absence of interpretation of important changes over a period of time, for instance on the part of teaching staff in direct expenditures (p. 45) or in the proportion of State funding which goes to higher education (p. 56).

One is inclined to smile when reading some naïvetés, as when the author states that 'the funds for compulsory primary education could have been more had they not been used for higher education' (p. 56), or when he defines indirect expenditures on education as 'that part of the educational expenditure which is other than the direct expenditure' (p. 49). As far as analytical methods are concerned, one wonders about the significance of 'the indirect and total expenditure elasticity with respect to the scholarship and buildings' as it seems to imply that some parts of the total expenditure are autonomous and can therefore be considered as determining the whole, whereas it is more reasonable to reason the other way around and to calculate the elasticity of scholarships, for instance, with respect to total expenditure.

Chapter 4 analyses the sources of support for higher education. It gives very interesting information on the evolution of the private versus public support of various types of education; unfortunately, often for a period ending in 1970-71, that is to say, 15 years before the book was published. Some of the comments of the author, moreover, do not seem to fit the facts. For instance, he states that table 4.7 'shows that the government funds for students have been continuously increasing in the state' (p. 84), whereas the table shows a fairly sharp drop between 1966-67 and 1970-71 (from 741 to 564 rupees). One is also puzzled by the use of elasticity coefficients, for instance when the author concludes that a coefficient of 1.18 between fees and total expenditure shows that 'a one per cent increase in the private expenditure on higher

education leads to more than one per cent increase in expenditure by government' (p. 89), as if government decided what to spend according to the level of private contributions.

Chapter 5 is entitled 'Institutional and Government Cost of Higher Education'. It rightly points out that it is important to analyse expenditure at the level of each institution and it gives an original and very interesting survey of the situation in a sample college. The analysis of government cost is especially well conducted; one regrets only that the author does not explain why he feels it useful to deduct the estimated capital cost from the total in order to measure 'the amount of funds actually provided by the government during the year' (p. 98).

The appendix to this chapter on 'The Theory and Methods of Estimation of Unit Costs of Education' raises more problems. It distinguishes very aptly between direct expenditures and 'associates' expenditures which are 'not strictly related to the education of the student though it is necessary for the student to sustain' (p. 119). However, it omits to mention that one should deduct subsidies from expenditures in order to arrive at the private costs (p. 126).

This problem is tackled at length in the next chapter on 'Private Costs of Higher Education'. Although very informative and detailed on expenditures, there are confusions between expenditures and costs (p. 131). It also states, without giving any justification, that 'care should be taken' to use either earnings foregone or the cost of foods in the estimates of total resource cost of education' (p. 131). It concludes that the lower income groups are getting a lower share of the education subsidy given directly to the institution by government (p. 142), and shows that scholarships cover a part of private costs but does not attempt to draw the net overall balance. One also strongly regrets that the author does not attempt to analyse, through multiple regression models, the respective influence on private costs of the various factors on which he has gathered information, which limits the scope of his conclusions (p. 157).

Chapter 7 is entitled 'Total Resource Cost and Expenditure Projections for Higher Education' but deals at length with methodological problems before proposing projections. To our mind, it is the weakest part of the book. First, it states that to measure the total resource cost of education, one has to take into account not only past earnings, but also the opportunity cost of students' time which is an obvious duplication of assessment. Second, coming back to the problem of the cost of food already touched upon in Chapter 6, it states that 'as long as the children are non-earning student members of the family the cost of food of the children is a cost of education to the parents' (p. 164), forgetting that children have to be fed whether or not they go to school. It then goes on to take the total cost of food and maintenance as a proxy for the real cost incurred by a student (p. 166), which is clearly incorrect. Third, observing that the cost of food and maintenance is higher than earnings foregone, it concludes that 'the food and maintenance cost is more appropriate than the earnings foregone as a component of the private cost of education' (p. 167), which is a *non sequitur*. The ingenious alternative projections which are proposed at the end of the chapter are fortunately little affected by these inconsistencies.

Chapter 8 on 'Productivity and Efficiency of Higher Education' is also a little marred by the unconvincing distinction between those two concepts and by an analysis of internal efficiency which obviously deals with external efficiency, as it uses as weights the earnings of graduates, something which happens *after* the studies and *outside* the school system. But the author is quite aware of the limitations of the results (p. 202).

The book ends with conclusions and policy implications which are often well taken. On the whole, in spite of some methodological flaws, and a far from up-to-date bibliography (except for the publications of the author, the most recent entry dates back to 1978 and most of the references are from the 1960s or the early 1970s), this is a courageous and useful book.

University of Burgundy, Dijon Jean-Claude Eicher