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OBITUARY



(10 October 1915-21 January 2004)

We announce with profound regrets the sad demise of *Padma Bhushan* Professor M.V. Mathur on 21 January 2004. Prof Mathur was founder-Director of NIEPA and was the Director of the Institute when it existed earlier in the names of the Asian Institute of Educational Planning and Administration, and the National Staff College for Educational Planners and Administrators. Professor Mathur was instrumental in starting the *EPA Bulletin*, which was later transformed into the *Journal of Educational Planning and Administration*, in which he continued to take active interest. He also served as a member of the Indian Education Commission, the third Finance Commission, and the Fourth Pay Commission, besides many other commissions and committees. He was also the Vice-Chancellor of Rajasthan University, and was associated with a large number of academic institutions in India and abroad.

This issue of the JEPA is dedicated to his memory.

Editor

Professor M.V. Mathur *(1915 - 2004)*

Professor Mukut Vehari Mathur breathed his last in Baltimore, USA in January 2004 after a prolonged illness. He had left India in 1999 to stay with his daughter after he had been slightly disabled due to a fall during an evening walk in Jaipur. Born in Alwar Rajasthan in 1915, he gave distinction to many positions that he held. He was Vice Chancellor of Rajasthan University (1966-68), Director General of the National Council of Applied Economic Research (1974-75), Director of National Institute of Education Planning and Administration (1975-80), Vice-President of the Indian Institute of Public Administration from the early stages of its growth, and the Chairman of the Institute of Economic Growth (1982-87). He was also the President of the Indian Economic Association (1967), Rajasthan Economic Association, Indian Association for Educational Planning and Administration, and the Indian Association for Social Science Institutions (1980-82). He was also associated with the Jaipur based Institute of Development Studies as its founder Chairman. More importantly, Professor Mathur's initial academic years in the decades of 50s and 60s were spent in building the Department of Economics in Rajasthan University that earned worldwide acclaim. He also pioneered in enriching it as a Department of Economics and Public Administration. This creation of a joint department of the two disciplines was a first in India and was also a reflection of his thinking and approach to the public role that he adopted.

Another institution, which needs to be mentioned and which bears a large imprint of Professor Mathur's contribution is National Institute of Education Planning and Administration (NIEPA) which he also helped found. He served and nurtured the NIEPA for long years as Director when it was first known as the Asian Institute of Educational Planning and Administration (1968-74), later the National Staff College for Educational Planners and Administrators (1975-80), and subsequently as the National Institute of Educational Planning and Administration (1975-80). He was also Honorary Professor Emeritus at NIEPA (1981-83).

Professor Mathur studied at Allahabad University for his Master's in Economics and then at Harvard University for his Master's in Public Administration. After his Harvard degree, he landed with a UN assignment, as a Personnel Officer & Acting Chairman of Staff, Regulations and Policies Division, but decided to return to India after working there for a year (1948-49). This was the time when India was on its way to freedom from colonial rule and its dreams of development were being translated into concrete policies and actions. He immersed himself into these challenging tasks with an unparalleled commitment and dedication, often at the cost of his family.

Professor Mathur spent the next decade of his life nurturing the Department of Economics and contributing to the institutional development of Rajasthan University. This involved providing support to building a team of scholars dedicated to academic excellence. He perceived his role not only as a professional economist but also as a policy

advisor. It is this latter role that occupied most of his time after his University responsibilities. Gradually he emerged as an important source of policy advice for state as well as central governments. Professor Mathur was a member of the Fourth Pay Commission (1983-87), Third Finance Commission (1960-61), Education Commission (1964-66), Plantation Enquiry Commission (1954-56), UPSC Committee on Recruitment to All-India & Central Services (1974-76). He played a critical role in the planning exercises for Rajasthan government as the Vice-Chairman of State's Planning Board. He also served as Chariman of the Rajasthan Government Committee on Reorganisation of Universities in the State (1978-80), and was a member of the Governing Body of the Commonwealth Council for Educational Administration (1978-88), which honoured with a Fellowship in 1986. He moved between the academic world and that of policy with great ease realising that good policy couldn't be divorced from good implementation. It was the link between the two that led to the addition of Public Administration to the Economics department that he headed and also his long association with the Indian Institute of Public Administration, New Delhi as its Vice-President. He leaves behind a rich legacy of 40 years of consistent contribution to the fields of economics, planning and education.

To those of us who were his students, Professor Mathur stood out as a sincere and dedicated teacher. With all his pre-occupations outside the University, he made every endeavour to keep in touch with them and be available for them whenever sought. It even meant taking one or the other with him while he commuted from one meeting to another. Discussions on my M.A. thesis were held on several of such occasions. During the days that he was stationed in Delhi on an assignment of Government of India, he made it a point to be at Jaipur in the Department of Economics and available to his faculty colleagues and students during the week-ends. When in town, he never missed the opportunity to have tea with colleagues. The Tea Club, as it came to be known, was a vibrant and lively place for intensive discussion and attracted people from outside. His lectures on economic planning in his MA classes were interspersed with policy experiences. For him planning was not an exercise in economics alone but a holistic endeavour of social sciences. He took keen interests in the issues of recruitment of bureaucrats for he saw in them effective instruments of implementing development plans and was associated with the work of the Union Public Service Commission.

Professor Mathur was a remarkable human being, urbane and gentle and always impeccably dressed. As a public figure, he straddled the world of academics and policy with ease. His recognition came with the award of *Padma Bhushan* in 1989 and *Rajasthan Ratna* in 1984, and the Parikh memorial Award in 1983. His students and colleagues will remember him as a great teacher and a man of high personal qualities.

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The Applicability of Income Contingent Loans in Developing and Transitional Countries*

D. Bruce Johnstone"

Abstract

In the face of rapidly rising costs of higher education, various countries are turning to forms of cost sharing. Portions of costs formerly borne predominantly or exclusively by taxpayers are increasingly shared by parents and/or students. Policies calling for students to share these costs generally call for some form of government-sponsored student loans. Countries like Sweden, Britain, South Africa, Australia and New Zealand provide different kinds of income contingent student loans, in which repayment obligation is expressed as some percentage of future income or earnings. Supporters frequently portray this loan form as inherently superior to more conventional forms of fixed repayment schedules. Examining this presumption, with particular reference to its applicability in developing and transitional countries, the paper finds income contingent forms of repayment obligations to be highly variable and in all ways still constituting a student loan, carrying for most students a rate of interest, that may or may not be to the advantage of the student borrower, frequently to conventional loan forms from the perspective of the lender, which is generally the government.

An increasingly important question in the construction of national student financial assistance policies, particularly in developing and transitional countries, is the applicability of *income contingent loans* for recovery of a portion of the costs of higher education. Such student loan programs, especially promoted by Australians and "on the table" in 2003 for adoption in Britain, have long captured the fascination of both economists and politicians. As provided in Australia, New Zealand, Sweden, Scotland, and South Africa and as recommended in much of the higher educational policy literature, income contingent loans (sometimes mistakenly referred to as "graduate taxes") have certain theoretical as well as practical advantages.

* This paper was first written for Chinese translation to appear in *Peking University Education Review* in 2004. A longer version, "Income Contingent Loans and Graduate Taxes: Can They Work in Developing and Transitional Countries?" appears on the web page of the International Higher Education Finance and Accessibility Project at < <http://www.gse.buffalo.edu/org/IntHigherEdFinance>>.

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However, many of these claimed or presumed advantages are not in fact the property of *income contingency per se*, but of the extent and type of built-in governmental subsidization or of the use of the government's machinery of income tax with-holding and pension contributions, most of which can be extended to conventional, mortgage-type loans as well. Thus, although income contingent loans are often sold as fundamentally unlike loans, they are, in fact, fundamentally *just like loans*: to be repaid - at least for most borrowers - with interest and carrying only as much protection, or subsidization, for the eventual *low lifetime earner* as the government chooses to build into the terms of the contract. At the same time, the collection of income contingent loans depends totally on the lender's (in almost all cases, meaning the government's) ability to track and to verify all sources of income for all borrowers for most of their earning lifetimes - which is exceedingly difficult and perhaps a practical impossibility at this time in most developing and transitional countries.

Furthermore, income contingent loans are frequently advanced (especially by their proponents in Australia and the UK) not simply as a way for students to pay whatever portions of the underlying costs of instruction (i.e. tuition fees) or costs of student living (i.e. fees for food and lodging) may have been determined to be their proper share, but as an alternative to the so-called *up-front* payment of tuition fees - which in most cases are deemed to be the parent's share (at least for those financially able to pay). Implemented as an *alternative* to tuition fees, the effect of an income-contingent deferred contribution, then, is to shift radically the very meaning of *cost-sharing* from a financial responsibility to be paid by both parents and students to a financial burden to be paid only by students (or by taxpayers to the extent that the loans are not actually meant to be repaid). The thesis of this paper is that the great need in both the developing and the so-called transitional countries for successful schemes of cost-sharing is not likely to be met by student loan schemes, that: (a) have little likelihood of being repaid at anywhere near the true cost of capital; and (b) are advanced as alternatives to up-front tuition fees, thereby foregoing a parental contribution altogether for most parents.

Student Loans, Cost-Sharing and the Imperative of Cost Recovery

Student loans, or any other sort of what are sometimes called *deferred payment plans* - including all forms of income contingent and so-called *graduate tax* schemes as well as more conventional forms of lending - in all countries purport to achieve two distinct and basically contradictory aims. In the first place, such schemes are usually part of a policy of *cost-sharing*, or the shift of a portion of the costs of higher education from governments or taxpayers to parents and/or students. Second, loan schemes are ways to enhance participation, or higher educational accessibility, either (or both) by increasing the total revenue stream and thus expanding higher education's capacity (and thus its accessibility) and also by making it possible for would-be students without parental or other sources of support nonetheless to invest in their own higher education.

The rationale for cost-sharing has been the subject of a large and well-accepted (even if politically and ideologically contested) body of economic and public finance theory.

However, the most compelling case for cost-sharing in both developing and transitional countries may rely less on the economist's presumptions of theoretically superior efficiency and equity (as valid as these presumptions may be) and more on the much simpler to grasp - and much less controversial - *sheer need for alternative (i.e., non-governmental) revenue*. This need, in turn, emerges from the enormous scarcity of tax revenues and the long and compelling queue of competing public needs, both of which conditions are especially characteristic of both the developing and the transitional worlds. Simply put, the economic, political and social imperative for a great expansion in the capacity of tertiary education systems - especially in countries that currently have small portions of young adults enrolling in any sort of post-compulsory studies - is so far in excess of any conceivable additional public revenue likely to be devoted to higher education that alternative, non-governmental revenue sources, absolutely must be found. And by most calculations, a substantial portion of this non-governmental revenue is going to have to come from parents and students in the form either (or both) of tuition fees as well as fees for some of the currently free or heavily subsidized student housing and food.

Cost-sharing is frequently advanced as though the student's and the parent's (or family's) shares were theoretically and practically indistinguishable. However, the theoretical rationales underlying the expectation of a parental (or perhaps an *extended family*) share and a student share are quite different. A parental contribution is based on the principle that the student is still, at least through his or her first degree (assuming no significant time lapse between the completion of secondary and the beginning of tertiary education) a financially dependent child and that parents have an obligation to contribute financially to the expenses associated with their children's higher educations, *at least to the limit of their financial ability*. Additionally, it is assumed that the parents derive considerable satisfaction from the higher education of their children, and derive more satisfaction (and even some derived status) from being able to place their children in the "best" university they can afford and that their children are able to get into.

The theory behind the appropriateness of a *student* contribution, on the other hand, is based almost entirely on the assumption of substantial personal and private benefits from the higher education. These presumed benefits may be manifested in higher lifetime earnings, greater status and influence, more "life options," or simply the personal satisfaction that comes (to most people) from being better educated. This theoretical appropriateness of a *student* contribution is buttressed by the fact that higher education in almost all countries (including developing and transitional countries) tends to be partaken of disproportionately by an intellectual and social elite - further supporting the principle that students should contribute something toward the costs of their higher education. It is this principle - quite apart from the principles that supported the parental contribution - that calls for student loan programs so that students can defer this contribution until they are financially able to do so. And it is the increasing popularity of the *income contingent* form of student loans that is having in some countries the (presumably unintended) effect

of also shifting what might be an expected *parental* contribution to an *additional student* contribution toward the costs of higher education.

Forms of Student Loans

Student loans may take one of two basic forms, with many variations of each and with "hybrid" versions of the two also possible.

Conventional Loans. A conventional, or a "mortgage-type," loan carries three contractual elements: (1) a *rate of interest* expressed as an annual percentage of the amount borrowed or still to be repaid (which may be fixed or may vary according to some index such as the government's borrowing rate or the calculated annual rate of inflation); (2) a *repayment period*, or the amount of time the borrower has to repay the loan; and (3) a *repayment mode*, such as whether the payments are to be in equal monthly installments, or installments that begin small and increase over time, or some other arrangement that yields a stream of payments sufficient to amortize the loan at the contractual rate of interest.

Income Contingent Loans. An income contingent loan, on the other hand, carries a contractual obligation to repay some percentage of future earnings (sometimes per \$1000 borrowed) generally until the loan is repaid at the contractual rate of interest (whether subsidized, unsubsidized, or *premium* - that is, designed to generate a surplus) or until the borrower has repaid for a maximum number of years. The borrower who has repaid the maximum number of years without paying off his or her loan at the contractual rate of interest is released from further obligations and thus granted a subsidy, or an *effective grant*. This subsidy is given not on the basis of the current low income of the borrower's family at the time of the original loan, but on the basis of the borrower's own low income over an effective earning lifetime - that is, on the basis of his or her higher education never really "paying off monetarily."

Elements that are stipulated in the income contingent loan contract are: (1) the annual repayment burden, or the percentage of income or earnings that must go to loan repayment (which may be fixed for all income levels or *progressive*, increasing at higher incomes); (2) the stipulation of precisely what is to be counted as *income* and over what span of time (for example, last year's *actual taxable*, or the current year's *estimated gross*); and (3) the provision for release from further repayments (which is generally either repayment at a contractual rate of interest or repayment for a maximum repayment period or until a maximum age). The elements that vary according to income or earnings, then, are: (1) the actual monthly or yearly repayments; (2) the repayment period; and (3) the ultimate (i.e. after the final payment is made) cost of the loan expressed as an overall effective interest rate on the original amount borrowed.

This is in contrast to a conventional loan in which the stipulated elements are: (1) the required monthly or annual payments; (2) the rate of interest (either fixed or variable); and (3) the repayment period - which together stipulate the cost of the loan to the borrower. The element that varies in the conventional, or mortgage-type, loan is the *burden of repayments*, or the relationship of repayments to current earnings.

The Presumed Superiority of Student Loans of the Income Contingent Form

Proponents of income contingent loans frequently proclaim income contingent loans to be *ipso facto* superior to all other forms of student lending. For example, income contingent loans are often portrayed as less costly to those borrowers who turn out to earn lower incomes. However, although the income contingent repayment form does have attractive features, it is well to keep in mind - especially in reference to the applicability of the income contingent loan form to developing and transitional countries - four qualifications, or caveats, to the common presumption of the superiority of the income contingent loan form.

First, an income contingent loan is still a loan - and is not *per se* any "cheaper" for most students than a conventional loan, merely because the repayment obligation is expressed as a percentage of income or earnings. The "cheapness" or "expensiveness" of a loan - not to be confused with the manageability of its repayments - is measured by its "true" simple annual interest rate - or alternatively, by the discounted present value of the reasonable anticipated repayment stream. On the other hand, if "manageability" is defined by the *ease of the repayments*, then manageability can always be enhanced by reducing the individual repayments (for a conventional loan) or by lowering the percent of income to be repaid (for an income contingent loan) - in either case, however, extending the repayment period and the total dollars that will ultimately be repaid, but not in itself affecting the true cost of the loan (that is, the discounted present value of the eventual repayment stream).

Second, as stressed above, an income contingent loan ought not to be viewed as a *substitute for a tuition fee*, but rather as simply another way *of deferring it* (or deferring any other necessary expense of higher educational attendance). If a student incurs a payment obligation for attending an institution of higher education that can be paid in the future - *income contingently or otherwise* - then for all practical purposes, there is an effective tuition fee. In some cases, as in the US, it is assumed that parents (or perhaps students) pay the tuition "up-front," but may take out either a parent or a student loan to do so (which, in the case of a US Direct Student Loan, may be converted at the initiation of the repayment process to an income contingent repayment schedule). In other countries, the "loan" passes directly from the lender (generally the government) to the university (or into the university's budget appropriation) without ever passing through the student's hands, and perhaps never even being perceived quite like the combination of *tuition fees* and *student loans* that such a policy really presents. In still other cases - Australia being a good example - the student and the parent are given the choice of accepting the terms of the income contingent loan (which goes directly to the university) or paying "up front" at a considerable discount. However, a cost-sharing obligation that is totally in the form of an income contingent loan and that is presented (or allowed to be perceived) as *in lieu of tuition* (without a strong incentive to pay "up-front") discourages and may all but preclude a parental contribution to the costs of instruction, thus effectively shifting the higher educational cost burden only to the student.

Third, some of the attractiveness attributed to income contingency - specifically, the presumed convenience to the borrower and the presumed greater certainty of repayment (and thus of lower defaults) to the lender, or the government - comes primarily from the government's willingness to enlist the policies and procedures of income tax and pension or insurance withholding to the cause of collecting student indebtedness. But this machinery, including the power to mandate employers to collect such sums at the point of wage and salary payments as well as the government's power to verify compliance and punish transgressors, could in theory be applied as well to the collection of conventional loans. This observation in itself does not deny the theoretical attractiveness of these provisions, nor does it deny certain other theoretical attractions of income contingency: it merely observes that if the government can compel employers to collect income contingent loans or graduate taxes, it can also compel employers to collect any payment owed by citizens, the effective collection of which is deemed to be of overriding public importance: local taxes, for example, or child support, or the cost of automobile insurance. (An obvious corollary to this presumed advantage, of course, is that a government that lacks the power and/or established means of collecting taxes and pension contributions from its citizens can hardly be expected to be able to collect payments on an income contingent loan or graduate tax obligation.)

Finally, an income contingent loan presents major complications not found with conventional "mortgage-type" loans. Most of these arise from the need to stipulate precisely, and to be able then to verify the income that is effectively to be "taxed" in order to arrive at the proper repayment amount. Multiple sources of income, highly variable income, income that tends to not get reported all, and income that can be easily shifted between a borrower and a non-borrower member of the family, all constitute great problems for the viability of an income contingent loan scheme. Highly industrialized countries with extensive reporting and monitoring of virtually all income and with a culture of voluntary income tax compliance may be able to overcome these problems as Sweden and Australia seem to have done. For developing countries or transitional countries, where sources of income of earnings are frequently multiple, highly variable, and generally unreported, the problem of establishing the repayment obligation will be enormous and one that virtually invites misrepresentation of income and almost certain repayment shortfalls.

It is true that repayments on conventional student loans are also problematic and that most loan programs in most developing and transitional countries have been plagued with very low recovery rates. In keeping with the point immediately above, however, if any of these countries had the kind of ubiquitous and generally successful income tax or pension contribution machinery necessary to implement successfully an income contingent loan program, then the same governmental collection procedures could be mandated for the conventional, fixed repayment loan. At that point - i.e. with employers collecting repayments for either form of student loan along with income taxes and pension or insurance contributions - the difference between an income contingent and a conventional, fixed-schedule loan is that an underpayment with the conventional loan is

instantly and unequivocally known and can be dealt with; underpayments on income contingent loans can extend for years and be virtually undetectable.

The Contribution of Income Contingent or Conventional Loans to Revenue Supplementation

Student loan plans, whether conventional or income contingent, will recover *insufficient* repayments to the degree that the plan: (1) carries too great an interest subsidy (i.e. is initially designed to recover far below the true opportunity cost of money); (2) incurs excessive defaults or underpayments; or (3) is excessively costly to service. It follows, then, that successful plans - at least on the criterion of effective cost recovery - will be minimally subsidized and will experience minimal defaults/underpayments and administrative costs. It is well to note at the outset that the cost recovery experience of loan programs in low-income countries has been generally dismal. However, the question being addressed in this paper is whether an income contingent or a conventional form is apt to be *better* on the criterion of actual cost recovery - assuming that either plan would carry the same degree of built-in taxpayer subsidy and that either would have the same access to whatever governmental machinery existed for the collection of tax withholding and pension contributions at the point of wage and salary payment? The question posed in this way can only be answered in theory, as the purportedly successful income contingent loan programs, such as those in Australia, New Zealand, Sweden and South Africa, have never been compared "side-by-side" to a conventional loan program operating in the same culture and with the same access to governmental subsidies and to the government's tax and pension withholding machinery.

In theory, however, the two repayment forms are likely to experience different kinds of losses. A conventional repayment plan incurs losses from defaults or from losses in cash flow due to late payments - which in turn may be attributable to willful non-payment, to errors in collection (simply losing track of borrowers), or to losses from borrowers who are experiencing financial hardship, as with periods of unemployment. Losses from income contingent loans, on the other hand, will mirror the losses from income tax collections in that country generally: that is, from non- or under-reporting of income, either earned or unearned, and from overstatement of the expenses purportedly incurred to bring in this income (or of any other kinds of otherwise allowable deductions from an individual's gross earnings).

Of these losses anticipatable in transitional and developing countries, the loss from the income contingent repayment streams is arguably apt to be greater - if for no other reason than because of its essential *non-detectability*, as discussed in the preceding section. And in those occasions where a conventional loan contract has a co-signatory (typical of student loans in most transitional and developing countries) and where employer withholding possibilities cover only some of the potential borrowers and only some of their incomes, a conventional loan program, employing both monthly, or coupon repayments as well as employer deductions where appropriate, with vigorous enforcement, and with clear repayment expectations at the time of initial borrowing as

well as at the time of departure from the university, probably stands to recover as much and probably more of the anticipated repayments than an income contingent plan.

The Need for Private Loan Capital

A slightly different criterion of *success*, but still related to the aim of effective cost recovery and the need to supplement government revenue, *is* the degree to which the student loan plan can tap private savings rather than rely simply on governmental revenue. Particularly if the purpose of cost-sharing - that is, the imposition of tuition or of charges for room and board formerly provided by the state or the university - is to add revenue that the government (or taxpayers) cannot or almost certainly will not devote to higher education, then it helps relatively little if the loans must still be financed entirely from scarce governmental revenue.

Herein lies another problem with loans of the income contingent variety. Unlike most conventional loans that may be defaulted upon but can then be collected from a guarantor or co-signatory (or collateral seized and sold), an income contingent loan, although fairly well insulated from defaults *per se*, can be recovering little or no repayments due to the low current income (at least the low *reported* current income) of the borrower and still not be in default and thus be unable to trigger any guarantee or collateral repossession. Especially in developing countries, where many university graduate borrowers will have several income streams, *some of which will almost certainly go unreported and most of which will be unverifiable*, the risk of under-payment is great and arguably as or more difficult to "catch" or "stem" as defaults and arrears on conventional loan repayments. Even in Australia, which touts its Higher Education Contribution Scheme (HECS) as a success and a model for much of the world, the loans depend entirely on government revenue, and the assets in the hands of the government (that is, *the promises to pay an income tax surcharge*) have virtually no market value.¹ In Australia, which is relatively able to tax, which will probably collect a reasonable portion of the income contingent payments owed, and which can run deficits without unleashing destructive inflation, this may be of little consequence. In transitional and developing countries, which tend to have limited private savings, a limited capacity to tax, and, therefore, a limited governmental capacity to borrow, an income contingent loan plan financed by the government would more nearly resemble the mere printing of money, with all of the negative consequences of "taxation by inflation."

¹ Following this observation, the Australian government, with the HECS obligations considered as assets on its balance sheet, could in theory sustain a higher level of indebtedness than it could in the absence of these obligations. This theoretical position, however, is not supported by the IMF or most other international monetary agreements.

The Income Contingent or Conventional Loans and the Expansion of Participation

The other major aim of student loan programs - to some degree working against the goal of shifting the expense burden from the taxpayer³ to the student - is to maintain, or even to enhance, *access to higher educational opportunities*. Taken by themselves - that is, without any accompanying additional cost-sharing, or shift of cost burden to parents and/or students - the ability to borrow, at a reasonable rate and possibly with little or no collateral, provides a way for some students, particularly those from poor families, or those who by any system or tradition have outgrown their financial dependence on their parents and who, thus, may have no other resources to be able still to invest in their own higher education. In addition, student loans, as a component of cost-sharing, designed to provide additional revenues to higher education, provide a way to expand revenues, therefore, to expand capacity, and, therefore, to expand the participation of those for whom the access barrier is as likely to be insufficient higher educational capacity as it is to be insufficient personal or parental resources.

It is true that students would prefer no tuition to even some tuition, and prefer grants to loans. It may also be the case that there are some populations (perhaps rural, or ethnic or linguistic minorities) who are more debt-averse and reluctant to borrow, and who would, in the short run, abandon altogether higher educational aspirations for themselves or for their children, if borrowing is the price of getting a higher education. On the other hand, the claim of widespread debt aversion may also be a self-serving assertion by students who will not lose their presumed entitlements without a struggle. In the end, since the consequences of insufficient higher educational revenue and, therefore, of insufficient higher educational capacity tend inevitably to fall disproportionately on the poor, who have no private or "out-of-country" alternatives, it is more likely, in fact, to be the poor who most need the loans, both for higher educational capacity to be increased and for a way to make an investment in their own future.

An important question, then, is whether a particular *form* of student lending - specifically a conventional loan with a known cost (i.e. a simple annual interest rate) and a fixed repayment schedule, or an income contingent loan with a fixed percent of income owed, but an indeterminate cost and repayment period - provides more access. Posed another way, this question asks whether one or another form of student indebtedness makes students more (or less) willing to go into debt in order to attend a college or university that he or she would have been unable to attend in the absence of that opportunity to borrow? Some subtly different forms of nearly the same question include: Which form of student loan repayment obligation would the student prefer *at the onset of the need to borrow* (when, as in the US, an income contingent repayment option might be available)? Which form would the student prefer *when actually making the*

³ It is important to bear in mind that the "taxpayer" can also be the average citizen consumer or even worker whose real take-home pay is diminished by the government in indirect forms of taxation, such as payroll taxes, or even business taxes (which leave less revenue to be distributed to workers), or even (the most regressive form of taxes) to deficit finance-induced inflation that only indirectly, but still assuredly, removes the purchasing power from the ordinary citizen or worker.

repayments! Or finally. Under which form of repayment obligation would the student be better off **after full repayment!**

These loan preference and access questions are exceedingly difficult to answer even in theory, and quite impossible to answer experimentally or through actual observation, as there have been so few occasions where there have been two different but fiscally comparable plans in operation long enough to see which one seems to make a difference in accessibility. In fact, the US Direct Loan Program provides the only generally available student loan program in the world where borrowers have a choice between an income contingent, a conventional mortgage-type, and a fixed-but-graduated repayment - each with precisely the same present value of anticipated repayments. In this context, the income contingent option has not been the favored choice among US students.

In fairness to the proponents of income contingency, the US income contingent option is also extremely complicated, notoriously ungenerous to low-earning borrowers, and lacks the convenience of being "piggybacked" onto the US income tax and social security withholding systems at the point of wage and salary payment, and so fails on all counts to provide the kind of loan that the proponents of income contingency have always advocated. The US income contingent option has been purposely constructed to maximize the recovery of repayments, minimize the need for governmental subsidization (at least beyond that called for by the conventional student loan plans), and not provide any further burden to employers or jeopardize the very high US voluntary income tax compliance. On the other hand, another reason for the relative lack of interest in the US income contingent repayment option may be that the US conventional student loans provide such easy and almost automatic **deferral** in the event of a return to school as well as **refinancing** in the event of unemployment or other occasions of genuine financial hardship that the flexibility and manageability once thought to be the special property of income contingency seems now to have been built into US conventional loan programs.

Summary: Income Contingent Versus Conventional Student Loans

In summary, then income contingent loans modelled after the Australian Higher Education Contribution Scheme (HECS) would seem to work well when:

- The government, by downplaying (or not mentioning at all) the politically treacherous concept of **tuition fees**, is able to get an element of cost-sharing that it would likely be politically unable to get, were it to advocate openly even a modest tuition fee.
- The government, in stressing mainly the income contingent loan obligation of the student, is willing to forego the potential of more **up-front** tuition - and thus to minimize the role of parents (even affluent ones) as an important current partner in sharing the costs of higher education.
- The Government does not really need even the students' deferred revenue **now**, but is able to tax or borrow sufficiently to keep the universities open and the

students fed and housed, and to accept payment only in the future-in essence *becoming the lender*.

- The majority of student borrowers (or students who become obligated to future income contingent payments) will have a single employer, which will pay them a periodic and relatively regular salary, and which is also sufficiently large, sophisticated and legally compliant that it can be counted upon to take out of the borrower's paycheck the correct amount, year in and year out.

Conversely, HESC-type income contingent loans would seem to be less applicable when:

- The need is for non-governmental revenue *now*, making the parental contribution to tuition (even with a great deal of discounting) the primary source of needed revenue supplementation.
- The scarcity of governmental revenue precludes government from being the sole lender (which places a premium on student loans that have some, albeit discounted, value on the private capital market).
- Graduates (borrowers) are likely to hold multiple short-term jobs, to be employed in the informal economic sector, where records are most unreliable, or to be emigrating.
- There is no tradition of voluntary, reliable self-reporting of incomes, and state systems for monitoring and verifying incomes for the purpose of income tax withholding and/or pension or social security contributions are non-existent or unreliable.

The Applicability of a HECS-type Income Contingent Loan Plan for Transitional and Developing Countries

From the analysis above, the applicability of a HECS-type income contingent loan plan for transitional and developing countries can be summarized in the following points:

1. An income contingent loan scheme that is to be collected along with the government's income tax withholding and pension contribution mechanisms will almost certainly not provide significant cost recovery in most transitional and developing countries for the simple reason that most do not (at least not in the year 2003) have effective and reliable systems for such collection at the point of wage and salary payments. In the absence of such ubiquitous systems, governments are likely to know the incomes of, and be able to collect from, mainly the civil servants and perhaps those employed by multinational corporations and some large private enterprises. However, repayments are likely to be low or missing altogether from those employed in first or second jobs in the private sector, many or most of those

who are self-employed, and virtually all emigres (a significant proportion of the university graduates of many transitional and developing countries).

2. The negative consequences of limiting most of the repayments to civil servants or to those only in very large and visible private enterprises include not only the lost revenue but also the inequity, the market distortions and the seeming governmental complicity in a program in which only *some* debts actually have to be collected. Especially regressive is the notion that successful entrepreneurs and emigres might be "missed," while the relatively poorly paid civil service would be forced to repay a loan (and thus to pay a tuition fee) that others are able to avoid.³
3. Even if these distortions did not occur, or could be surmounted, income contingent loan obligations still have little or no value on the market - that is, little or no ability to tap private savings. Therefore, if the income contingent loans are to provide *additional* revenue - for the purpose either to expand higher educational capacity, or to enhance higher educational quality, or to put money into the hands of students who would otherwise be excluded from higher education altogether - the additional revenue will still have to come from government. But the principal rationale for cost-sharing, or revenue supplementation, in the first place (which is what student loans represent), is to provide *non-governmental* revenue because additional revenue for higher education from the taxpayers is thought to be so unlikely. Cost-sharing in the form of income contingent loan obligations held by the government is better than no cost sharing at all. But this form will not solve higher education's immediate revenue problems because it does not provide significant amounts of new money.
4. Finally, the "downplaying" (or even the outright rejection) of *up-front tuition* in favor of a supposedly painless alternative (i.e. the income contingent obligation) excludes, or at least minimizes, the participation of parents in the badly needed cost-sharing. Allowing, and substantially subsidizing, an "up-front" option, as in the Australian HECS program, recognizes the need for some immediate payment and effectively rejects the accompanying call from some quarters for the abolition of "up-front" tuition fees. However, those who would reap the generous current (as of summer 2003) 25 per cent discount for *up-front* payment are, of course, only those more affluent parents who can afford to do so.⁴ Finally, even if the "pre-payment option" effectively works like an "up-front tuition" for some families, it fails to reinforce the general principle of an expected parental contribution to the costs of higher education. Rather, the "up-front" payments are made only under the guise of being able to help some children reduce some of their relatively light debt burdens - which

³ In fairness, collecting from emigres is a problem for any student loan program. However, having the predominate-or even the only-serious collection effort carried out as an adjunct to the government's income tax withholding or pension contribution schemes seems almost to absolve the obligation of the emigres.

⁴ Turning this HECS provision "on its head," Australia can be said to have created a modest up-front tuition, which students and families may, if financially unable to pay, discharge with a modestly subsidized income contingent loan, but at a 25 per cent penalty.

is not the same as declaring there to be a universal parental obligation to share in the costs of higher education to the extent of the family's financial ability.

The above assertions suggest that an Australian *HECS-type* income contingent loan plan will not provide a significant alternative non-governmental revenue stream to the universities and other tertiary-level institutions in either transitional or developing countries, nor is it likely to enhance participation.

Recommendations for Student Loan Programs in Transitional and Developing Countries

1. Universities and other tertiary level institutions in transitional and developing countries need to supplement their limited governmental, or taxpayer, revenues with cost-sharing from both parents and students. (This recommendation applies as well to all countries in the OECD and elsewhere in the highly industrialized world; it simply applies more so to the transitional and developing countries where tuition fees are even more resisted, but the need for them is even greater.)
2. This cost-sharing should begin with parents and/or students taking financial responsibility for most of the expenses of student living, but should also include financial responsibility for a portion of the costs of instruction (that is, in the form of tuition fees).
3. Tuition fees should be established only after policies are in place for programs of means-tested financial assistance as well as generally available student loans.
4. The setting of tuition fees should be as depoliticized as possible. Countries should consider an independent (albeit politically accountable) board, buffered from both the government and the universities and other tertiary institutions, to establish the base year tuition fee[s] and also to establish annual increases thereof.
5. A single-track up-front tuition fee - albeit one that can vary by institution and/or by program - is preferable to a dual-track system that varies by the academic preparedness (and thus inevitably by the region, social class, ethnicity, or family language) of the entering students.
6. Politically acceptable language and euphemisms for "tuition fees" such as "contributions" may be necessary, but should not have the effect of substituting a larger (albeit deferred) contribution from students for an up-front contribution expected from parents (to the limit of their financial abilities to pay). In short, an expected student contribution via a student loan program (income contingent or otherwise) is probably a good step, and it may be a way to accommodate an up-front tuition for some students. But it should not be adopted as a wholesale substitute for an up-front tuition to be collected wherever possible from parents or extended families.
7. Solutions to the acute and worsening austerity experienced by universities and other tertiary-level institutions in the transitional and developing worlds must not be (nor even appear to be) only at the expense of students and parents, that is, only via the

introduction or acceleration of tuition fees. Rather, universities and other institutions must actively and transparently seek efficiencies (even at some considerable disaccommodation and pain) that minimize the per-student costs of instruction without jeopardizing quality.

8. A student loan program should be designed to collect reasonably close to the amount that was lent, with expected repayments discounted approximately at the government's borrowing rate. In other words, student loans should be only *minimally subsidized*, with interest rates either, at a minimum, pegged to the prevailing rate of inflation or at a maximum to the government's borrowing rate. (This provision is not meant to cover the losses from defaults or from other limited and purposefully designed subsidies or repayment forgiveness features.)
9. The student loan program must be equipped with legal authority to collect; technology to maintain accurate records; collectors who can track borrowers and verify financial conditions; advisors and repayment counselors in the universities; and the legal authority to enlist at least the larger employers in the collection of repayments.
10. An income contingent repayment mode should *not* be installed as the expected, or "default," repayment mode for all borrowers, but should be an option for borrowers at the start of their repayments and the beginning of their post-graduate employment, who can demonstrate that they can probably discharge the repayments by paying a percentage of earnings from a single employer that represents the dominant earnings stream. (In short, repayment via income contingent payroll deductions should not be an option for the unemployed, self-employed, or only "marginally-employed. Rather, their needs for either forgiveness or refinancing should be handled in other ways.)
11. Procedures need to be added to the repayment processes for conventional, fixed-schedule student loans, to accommodate borrowers whose earnings are low or for whatever other reason are experiencing real repayment hardships, either temporarily or permanently. (In short, a conventional loan needs the same kind of genuine *low earnings protection* that is presumed to follow by definition from an income contingent form of repayment obligation.)
12. Other procedures to be attached to student loans in most transitional and/or developing countries should include:
 - a. Repayment terms sufficiently long for the monthly payments to be manageable for most borrowers.
 - b. A requirement of a parental or other family co-signatory, even where there is little or no real assignable family collateral, and even where the co-signatory adds little to the private market value of the loan. (The purpose of the parental or family co-signatory would in part be to give the government an additional means of collecting in the event of default, but also in part simply to enlist the help of the family in impressing on the borrowing children that loans are real obligations.)

- c. A government guarantee backing up the guarantees of the co-signatories (especially to cover those parents with low incomes and assets).
- d. A policy of passport controls on emigres or students seeking advanced degrees out of country requiring a renewed contract (and possibly new collateral or co-signatories) for those leaving the country with student debts.

These recommendations are not, in their essential features, significantly different from other recommendations, even those that feature income contingency. The primary difference is that these recommendations reserve income contingency as an option to be selected at the start of repayments and at the start of the primary post-graduate employment, and only then for those who can demonstrate a reasonable chance of repayment via the payroll deductions. These recommendations also do not feature student loans - income contingent or conventional - as an alternative to tuition fees, but as a means for the student to repay the share that has, by country policy, been "assigned" to the student, to be repaid either via part-time employment and earnings, or by loans, or by additional family or "other" contributions.

References

- Barr, Nicholas (2001) *The Welfare State as Piggy Bank: Information, Risk, Uncertainty, and the Role of the State*. Oxford: Oxford University Press.
- , (2002) "A Submission on Financing Issues to the Department of Education, Science and Training, *Inquiry into Higher Education Reform*, July 2002.
- Chapman, Bruce and Chris Ryan (2002) "Income Contingent Financing of Student Charges for Higher Education: Assessing the Australian Innovation" in Maureen Woodhall, ed. *Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective*. Special International Issue of *The Welsh Journal of Education*, Vol.11, No. 1, pp. 64-81.
- Chapman, Bruce (1999) "Reform of Ethiopian Higher Education Financing: Conceptual and Policy Issues" World Bank: *Economics of Education Thematic Group*.
- Department of Education and Skills [UK] (2003) *The Future of Higher Education*. London: Her Majesty's Stationary Office.
- Johnstone, D. Bruce (2003) "Cost-Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility" *Czech Sociological Review*, Vol. 39, No. 3, June 2003, pp. 351-374 [or <<http://www.gse.buffalo.edu/org/IntHigherEdFinance/>>].
- (2002) "Challenges of Financial Austerity: Imperatives and Limitations of Revenue Diversification in Higher Education" in Maureen Woodhall, ed. *Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective*. Special International Issue of *The Welsh Journal of Education*, Vol.11, No. 1, 2002, pp. 18-36.
- (2001) *The Economics and Politics of Income Contingent Repayment Plans.* University at Buffalo Center for Comparative and Global Studies in Education: International Comparative Higher Education Finance and Accessibility Project (Summer 2003) <<http://www.gse.buffalo.edu/org/IntHigherEdFinance/>>.
- (2000) *Student Loans in International Comparative Perspective: Promises and Failures, Myths and Partial Truths.* University at Buffalo Center for Comparative and Global Studies in

- Education: International Comparative Higher Education Finance and Accessibility Project (Summer 2003) <<http://www.gse.buflalo.edu/org/IntHigherEdFinance/>>.
- Johnstone, D. Bruce (1986) *Sharing the Costs of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden, and the United States*. New York: College Entrance Examination Board.
- McMahon, W. (1988) "Potential Resource Recovery in Higher Education in the Developing Countries and the Parents' Expected Contribution," *Economics of Education Review*, 7(1).
- Salmi, Jamil (1999) *"Student Loans in an International Perspective: The World Bank Experience."* (unpublished).
- US Department of Education (2003) *Repayment Book: William D. Ford Federal Direct Loan Program of Education*. Also available [summer 2003] at: <http://www.ed.gov/DirectLoan/pubs/repabook/index.html>
- US Department of the Treasury and US Department of Education (1995) *"A Study of the Feasibility of the IRS Collecting Repayments of Federal Direct Student Loans,"* June 1995.
- US General Accounting Office (2001) "Details on Income Contingent Repayment in FDLP" Appendix IV *of Alternative Market Mechanisms for the Student Loan Programs*: Washington, DC: US General Accounting Office, pp. 82-92.
- (1997) *Direct Student Loans: Analyses of Borrowers' Use of the Income Contingent Repayment Option*. Washington, DC: US General Accounting Office.
- Woodhall, Maureen, ed. (2002) *Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective*. Special International Issue of *The Welsh Journal of Education*, Vol.11, No. 1.
- (1992) "Changing Sources and Patterns of Finance for Higher Education: A Review of International Trends." *Higher Education in Europe*, Vol. 17, No. 1:141-149.
- (1988) "Designing a Student Loan Programme for a Developing Country: The Relevance of International Experience." *Economics of Education Review*, Vol. 7, No. 1:153-161.
- (1989) *Financial Support for Students: Grants, Loans, or Graduate Tax?* London: Kogan Page.
- World Bank (1994) *Higher Education: Lessons of Experience*. Washington, DC: The World Bank.
- Ziderman, Adrian and Douglas Albrecht (1995) *Financing Universities in Developing Countries*. Washington, DC: The Falmer Press.
- Ziderman, Adrian (2002) "Alternative Objectives of National Student Loan Schemes in Maureen Woodhall, ed. *Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective*. Special International Issue of *The Welsh Journal of Education*, Vol.11, No. 1, pp. 37-47.

An Econometric Evaluation of Pakistan's National Education Policy 1998-2010

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Abstract

This paper evaluates the physical and financial input estimates and enrolment targets of the latest Pakistan's National Education Policy (NEP) 1998-2010. The instrument used for three types for consistency checks is the Integrated Social Policy and Macro Economic Model of Pakistan developed by Social Policy and Development Centre. The historical and mostly quantitative input/output relationships embodied in the Human Capital Block of the 248 equation models are used for the following checks: Under the 6 per cent economy's growth rate scenario assumed by NEP, we compare (a) the policy targets (enrolments, addition of schools and teachers) for the year 2003 with those generated by the model; (b) generating financial and physical input requirements (teachers/schools) for given enrolment targets; and (c) a consistency exercise conducted to verify whether a modified set of projected financial outlays based on the original NEP projections generate the expected enrolment levels.

I. Introduction

Educational planning exercises and policy framework announcements in many developing countries are uni-dimensional in character, that is, they mostly spell out qualitative and quantitative targets in relation to the underlying philosophy and approaches to the education of the society as envisaged by the political and economic ideology of the government in power¹. Unfortunately, these exercises and frameworks are not intimately integrated into the overall economic performance, investment priorities, domestic and foreign resource constraints and availability of human resources for management and implementation. A recent survey of education sector policy documents of 4 African countries, i.e., Ethiopia, Mozambique, Namibia and Zambia, (Takala 1998) observed, "Analysis of the financial requirements that follow from the

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¹ In the last decade, these policies are also increasingly influenced by the international bi-lateral and multi-lateral funding agencies.

expansion targets and of funding prospects is not found in the main text of any of the four countries' current documents". Consequently, qualitative and quantitative output targets remain frequently un-achievable even if backed by the best of intentions and administrative expertise. The characteristics of educational planning and implementation of various policy frameworks in Pakistan follow a similar pattern.

The National Education Policy, 1998-2010, announced in March 1998, contains a detailed annexure consisting of nine Tables on physical output targets, input and financial requirements by education level/gender and by year 2003². The anticipated financial expenditures are further broken down by development/recurring and by public and private sector outlays. This provided an opportunity to conduct a consistency exercise of inputs/outputs and financial outlays of the policy paper with respect to the growth performance of the economy and its capacity to generate resources and allocate them to the education sector in the country. I use a large econometric model developed by Social Policy and Development Centre (SPDC) to conduct the following 3 types of quantitative comparisons with the latest National Education Policy 1998-2010 (NEP): (1) The NEP document assumes a 6 per cent growth rate of the economy for its financial outlays. Based on the historical performance of the economy, including allocations to the social sector via resources flowing through inter-provincial fiscal relationships, we compare NEP target's (enrolments, schools and teachers) with those generated from our model; 2) Given the historical input/output relations embodied in various econometric specifications of the model, we generate financial and physical input requirements (teachers/schools) for the given output targets; and 3) A consistency exercise is conducted to verify whether a modified set of projected financial outlays based on the original NEP document generate the expected output levels, i.e., enrolment rates.

A few words concerning the use of econometric models for policy evaluation. Lucas (1976) critique may render the use of econometric models questionable for policy evaluation, as policy documents are a blueprint for structural shifts in approach, priorities and implementation³. However, historically in Pakistan, education policies and plans have remained exercises in rhetoric. The low priority given to social development, along with resource and implementation constraints did not enable any of the previous policy documents to spearhead structural transformation in the education sector of the country. The possibility of structural shifts in the education sector during the time frame of the current NEP policy are remote as Pakistan faced economic sanctions in the first year

² The other two policy documents among the six announced in the last thirty years that contain rudimentary estimates are National Education Policy, 1992-2002, and National Education Policy and Implementation Program, 1979. Besides the six policy frameworks there were: 7) Report of the Commission on National Education (1959), and 8) & 9) Educational Conferences 1951, 1947 respectively.

³ As per Dornbusch and Fischer (1990), "Lucas argues that existing macro-econometric models cannot be used to study the effects of policy changes because the way private agents (firms and consumers) respond to changes in income and prices depends on the types of policy being followed.... Accordingly, the Lucas critique is not one that rules out the use of econometric models. It suggests rather that very careful modeling of the responses of consumers and firms to changes in income and prices, and particularly to changes in policy, is needed".

(1998-99) of its implementation, and will continue to face fiscal and balance of payments constraints under a tough ESAF/EFF program and debt re-scheduling⁴.

The structure of the rest of the paper is as follows: Section II briefly outlines the main features of the National Education Policy. The Integrated Social Policy and Macro-Economic Planning (ISPM) Model for Pakistan developed by SPDC is employed to assess the feasibility of physical and financial targets of the NEP document. In Section III, the ISPM model is summarily described, elaborating on specifications estimating the input/output relationship of the education sector, as these are part of Human Capital Index block of the ISPM model. The results obtained from simulating the above three variants of consistency checks through the ISPM model are presented and analyzed in section IV. The paper is summarized in section V.

II. Education Policy: Main Features and Targets

The scope and aims of National Education Policy, 1998-2010, are wide-ranging and all encompassing in the field of education and training. Within the field of education, the policy document covers core areas such as Islamic, elementary, secondary, technical and teachers' education. It also has policy guidelines on use of information technology for education, library and documentation services and physical education and sports. The policy aims extend from integration of Quranic principles and Islamic practices into the existing curricula, universal primary education, popularization of information technology among children of all ages and raising the incentive and pay structure for the school teachers⁵. Some of the objectives relevant to the focus of this paper are as follows:

1. In following the spirit of the last two education policies, the primary objective of Universal Primary Education (UPE) in Pakistan is maintained⁶. To attain this objective 5.5 million primary school age (5-9 year old) will be provided access through Non-Formal Basic Education Program. A crash condensed course is to be arranged for 10-14 year old primary school drop-outs, to complete primary education cycle in 2-3 years' time.
2. Up to 12,000 new formal primary schools and 3000 mosque schools will be added to the educational infrastructure during the period 1998-2003. Second shift will be introduced in 20,000 primary schools. Nearly 1/3rd of existing primary schools will be upgraded to the level of secondary schools.

⁴ As per author's calculations, development expenditures on education as a percentage of yearly average NEP targets were 26 per cent in 1998-99 and 29.3 per cent are budgeted for the FY 1999-2000. Percentages for the recurring expenditures for the corresponding years are 60 and 69 per cent.

⁵ For a critical discussion on conceptual and underlying philosophy of NEP 1998-2010. see Ahmad (1998).

⁶ NEP'92 states, "To ensure 100 per cent participation of children in education at the primary level by the year 2000,...." (Pp.11). NEP'79 begins with the following policy statement, "Universal enrolment will be attained by 1986-87. In the case of girls, universalization will be attained by 1992" (p.5).

3. About 21,000 new secondary schools will be added to the existing 27,000 schools by the year 2003. This addition will raise the participation rate from 31% to 48% in the corresponding period.
4. To achieve the enrolment targets for year 2003, the stock of primary teachers will increase by 36,000. Similarly 1,31,000 new secondary teachers will be hired during the period.
5. In order to conform to the World Bank funding strategy for the education sector in Pakistan through its Social Action Program II (1997-98 to 2002-03), primary (class 1-5) is merged with middle (class 6-8) level education to form elementary education. While the physical inputs and outputs are classified in the NEP document by primary, middle and high (class 9-10), financial outlays are allocated on the basis of elementary (class 1-8) and secondary (class 9-10) education. The outlays in the elementary and secondary education sector during 1998-2003 are expected to be Rs.554 billion (58.50/US \$), out of total outlay of Rs.710 billion for the education sector. This includes Rs.112 billion expected from the involvement of the private sector in the delivery of primary and secondary education. Out of public sector expenditure of Rs.442 billion, development expenditure is Rs.88 billion, i.e., only 20 per cent. Elementary education is expected to absorb 62 per cent of public sector outlays on these two levels⁷.

III. ISPM Model and Human Capital Block

The Integrated Social Policy and Macro (ISPM) Model for Pakistan developed by the Social Policy and Development Centre provides the basic framework for checking the three dimensional consistencies mentioned in Section I. One of the unique features of the model is that for the first time in Pakistan, it provides a planning tool wherein the social, public finance and macro-economic dimensions of the economy have been integrated under one system. The model is capable of tracing and quantifying the impact of most common internal and external shocks on economic and social indicators, as well as linking the changes in these indicators to the short and long-run growth potential of the economy. Due to its highly disaggregated character, covering all three levels of government, the model is capable of predicting outcomes in greater detail even at the level of provision of individual social services. It should be noted that such a disaggregation of the model at the provincial level, in terms of revenue and expenditures on social services (e.g., schools, hospitals, doctors, teachers, enrollments, etc) is well suited for reconciling and verifying the economic and social targets within a general equilibrium macro framework⁸. The model is based on a consistent national level data covering the

⁷ The NEP document gives province, level-wise break-up of total development and recurring expenditures till the year 2003, but falls short in giving province level, year-wise break-up of these expenditures. It is also silent on "norms" used in translating the financial provisions into physical targets, i.e., number of schools and teachers.

⁸ An exhaustive description, specification, estimation results and policy simulation of the ISPM model can be found in Pasha et al (1995).

period 1973-94 and is estimated by single equation regression techniques. It consists of 248 equations, of which 119 are behavioral and the rest are identities (Table 1). These equations are subsumed into 18 inter-related blocks. As the primary focus of the model is to assess the impact of various policies on social indicators, the social development module, consisting of human capital and health blocks has the largest number of behavioral equations.

TABLE 1
Overall Structure of the Macro Model

	<i>Equations</i>	<i>Identities</i>
Macro-economy	31	48
Public Finances	47	45
Social Development	39	38

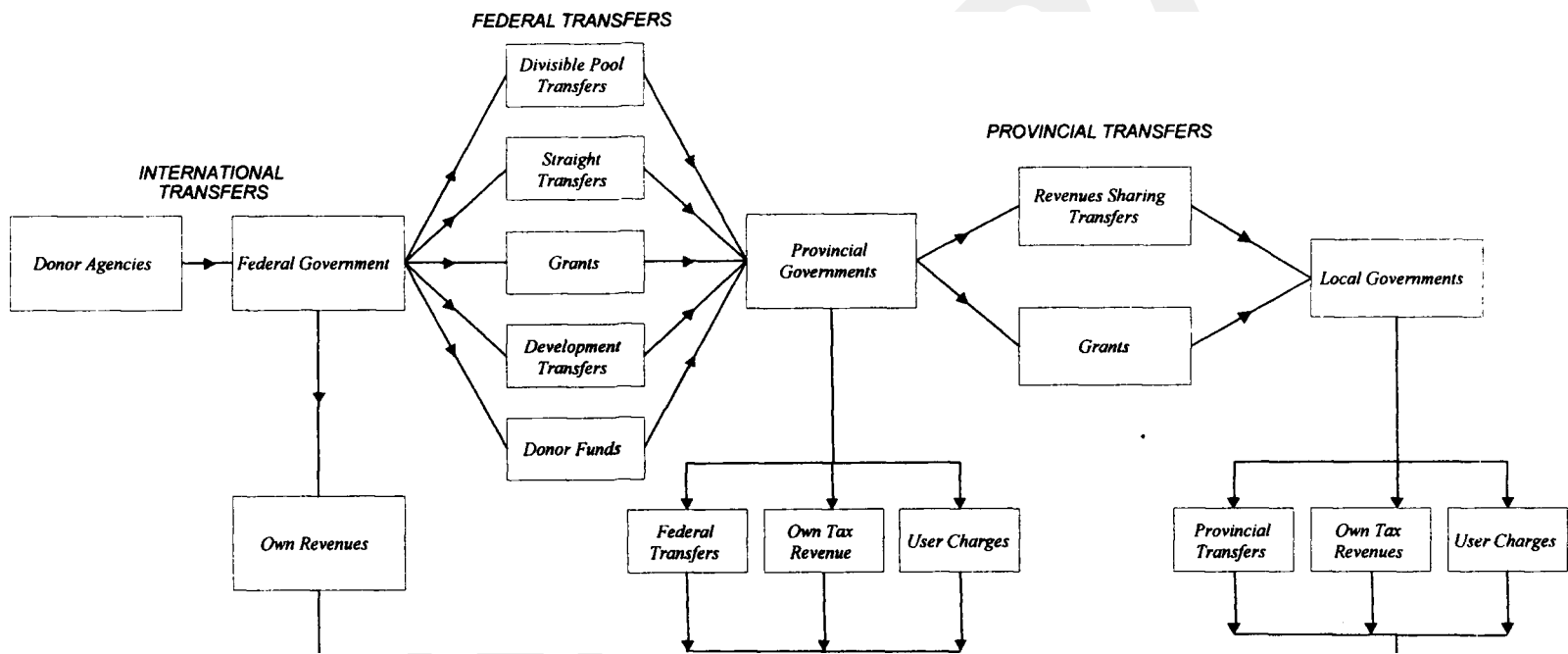
Although, the model is broadly Keynesian in spirit, the specification of individual blocks and equations are based on a pragmatic approach. It captures the reality and non-market clearing aspects of the Pakistan's economy. Thus, the macro-economic block is essentially supply driven. In addition, the social sector indicators are also resource determined. The model is dynamic and rich in specification. Internally, the model is linked by a set of interdependent and mutually reinforcing behavioral relationships. For example, human capital stock increases due to higher government expenditure in the education sector. In turn, higher human capital stock contributes to higher productivity of labor and thereby to gross domestic product of the economy. Sustainable growth rate encourages the government to allocate more resources to the social sectors relying on improved capacity of the economy to generate more fiscal revenues.

Financing of Social Sector Expenditures

As mentioned above, the process of financing and execution of social services is quite complex in Pakistan, with involvement by all the three tiers of government. The principal responsibility of execution and maintenance of social sector projects rests with the provincial (state) and local governments. Consequently, provincial and local governments incur over 80 per cent of the total expenditure on social sectors, with the share of the former around 65 per cent. However, the bulk of financing to the provincial governments for the implementation of these social sector programs is by transfers from the higher levels of government.

Establishment of elaborate inter-governmental revenue-sharing arrangements, particularly between the federal and the four provincial governments is a consequence of the structural imbalance between the allocation of functional responsibilities and fiscal powers to different tiers of government that has necessitated the establishment of elaborate inter-governmental revenue-sharing arrangements, particularly between the federal and the four provincial governments. Provinces finance their expenditures from

**CHART 1
FINANCING OF SOCIAL SECTORS IN PAKISTAN**



Social Sectors

various tax and non-tax sources constitutionally under their fiscal powers, federal revenue sharing transfers (which includes divisible pool and straight transfers), grants and development transfers (including donor funds) received from the federal government. In 1997-98, for example, 18 per cent of the recurring provincial expenditure was financed by revenues generated from the provincial levies (12 per cent taxes and 6 per cent user charges), 72 per cent from the revenue sharing transfers and 11 per cent by grants from the federal government. In the same year 77 per cent of the provincial development outlays were financed from the federal development transfers, largely consisting of loans and donor funds. Clearly, the bulk of provincial income comes from the federal government and is outside the direct control of the provincial governments. As such, modeling of inter-governmental fiscal transfers is a crucial feature of the model (see Chart 1 for a stylized view of the inter-governmental fiscal relationships).

Human Capital Index Block

Integrating social sectors into a macro economic model of Pakistan is challenging from a data base perspective. The specifications of equations in the human capital block are circumscribed by the availability of quality and quantity of historical data. Consequently, as a pioneering attempt, most of the social input/output specifications use and generate quantitative rather than qualitative indicators⁹. The approach adopted in this block is to determine the total development and recurring expenditure allocations for primary and secondary education respectively by gender¹⁰. Based on the former, the number of new schools commissioned can be determined, which yields the stock of functioning schools. From the recurring expenditure, assuming a given real wage rate, the number of teachers is derived. Given the number of schools and teachers, resulting enrollment in government schools is behaviorally determined¹¹. This leads to a measure of output from the education system. Given the output and the labor force participation rate, the total number of new educated labor force entrants can be quantified. This helps in identifying the change in the magnitude of the human capital index, based on the stock of educated workers in the labor force. At each step, the specifications developed are as follows:

⁹ Macro time-series data on quality indicators, e.g., school grades, teaching methods, quality of teachers and schools is almost non-existent. The latest NEP does not categorize recurring and development expenditure into quantity versus quality enhancing expenditures.

¹⁰ Gender segregation in the provision of education services specifically at the primary and secondary level and in the provinces of NWFP, Baluchistan and in the rural areas throughout Pakistan, is due to socio-religious traditions of 'purdah' (veil) that discourage gender interaction from a young age. Thus, male and female government schools are manned entirely by their respective gender in the rural areas. In the urban areas male government school can be run both by male and female staff. Consequently, government financial allocations, schools and teachers are earmarked and reported on the basis of gender.

¹¹ The input/output specifications of the Human Capital Index Block are based on historical time series data only pertaining to the public education. Private sector began the provision of education services first at the professional level in early nineties..

Development Expenditure

The total development expenditure, (DEED), on education is the sum of expenditure, by the federal government (DEED_f), by the provincial governments (DEED_p), and by the local governments (DEED_l). These are obtained from the respective expenditure blocks.

Expenditure on a particular education level, (l), for a particular gender, (g), is then specified in generic form as follows:

$$DEED_{lg} = f(DEED, DEED_{l-1}, NEN_{lg}) \quad (1)$$

subject to the condition that

$$\sum_g DEED_{lg} = DEED \quad (2)$$

where, NEN_{lg} is the number of enrolment by level and gender¹².

Recurring Expenditure

Similarly, the total recurring expenditure, (REED), on education is the sum of expenditure by the federal, provincial and local governments. Recurring expenditure on a particular level for a particular gender then is given by

$$REED_{lg} = f(REED, REED_{l-1}) \quad (3)$$

where, $\sum_g REED_{lg} = REED \quad (4)$

Teaching Inputs

The number of new schools, (NS), is estimated behaviorally as a function of real development expenditure and new schools constructed last year:

$$NS_{lg} = f(DEED_{lg}, NS_{l-1}) \quad (5)$$

¹² Simple technical term used to describe and symbolize a relationship between variables is called "function" and is denoted by the symbol (f). Subscript denoted by (-1) indicates one-year lag or previous year value of the variable in question. The symbol Σ indicates sum or aggregate value of the variable. For example $\sum_g DEED_{lg}$, denotes the sum of development expenditure by level and gender.

The total stock of schools, (SS), in a particular year is given by

$$SS_t = SS_{t-1} + NS_{ts} \quad (6)$$

The number of teachers, (TE), is given by

where, w_{tj} is the exogenously given real wage rate of teachers, inclusive of recurring costs, per teacher by level and gender¹³.

Enrolments

Given the teaching inputs and the school-going age population (specified exogenously), (SGA^A) the enrollment ratio, (ENR), is determined behaviorally by the following equation:

$$TE_t = SS_t \cdot ENR_t \quad (8)$$

where SS_t is the total number of schools by level and gender. This specification has been extended by including various demand level indicators in three out of four specifications¹⁴: (a) Male enrolment in primary school is also determined by the female literacy ratio; (b) Female enrolment in primary school is also a function of per capita income of population above 10 years of age; and (c) Male enrolment in secondary schools is related to labor income in the non-commodity producing sectors of the economy¹⁵.

Based on this, the number of students enrolled, (NEN), is given by

$$NEN_t = ENR_t \cdot SGA_t \quad (9)$$

¹³ By definition identity (7) implies that the number of teachers can decline if the real recurring expenditure slides. In reality, the allocation to recurring expenditure (of which more than 80% is spent on the salaries of teachers) has increased much faster than the real wage rate. As a result the overall stock of teachers has consistently been increasing. Budgetary allocations linked to actual spending performance in the previous year along with the observation that education sector is used by the politicians to absorb the rural unemployed has led to a very 'soft' relationship between the number of teachers and number of schools, thus generating a wide-spread phenomena of 'ghost teachers' in Pakistan.

¹⁴ See estimated equations 0-23, 0-24 and 0-25 in Appendix A.

¹⁵ At a macro level indicator (a) proxies for the widely observed and documented empirical evidence of the positive impact of mother's education on decisions pertaining to male offspring's schooling. Similarly, indicators (b) and (c) proxy for the average household income and opportunity cost of enrolling males in the secondary schools respectively.

Output

The output of newly educated persons by level and gender, ($OUT_{i,g}$), is derived as

$$OUT_{i,g} = S_{i,g} \times NEN_{i,g} \tag{10}$$

where $S_{i,g}$ is the exogenously specified rate of completion (after allowing for drop-outs) of a particular level of education and gender.

Educated Labor Force Participants

The number of new educated labor force participants, ($NW_{i,g}$), depends upon the output of educated persons, enrolment by gender and level and opportunity cost in terms of real wages.

$$NW_{i,g} = f(OUT_{i,g}, AW_{i,g}, NEN_{i,g}, W_{i,g}) \tag{11}$$

Human Capital Index

We are finally in the position to relate, the human capital index, (HCI), for a particular sector (e) in the following manner:

$$HCI_e = f(NW_{i,g}, EXPIND) \tag{12}$$

where $EXPIND$ is the experience index¹⁶.

IV. Results of Simulations

The following results of the simulation exercise compare only the primary and secondary level targets of NEP as nearly 80% of the total government outlay is on these levels. We also make the following modification in the target financial outlays of NEP document to ensure comparability with the structure of our model: The targeted development expenditures (which mainly determine the addition to stock of schools) for the elementary (class 1-8) level given in the NEP document are first split into primary (class

¹⁶ Human capital index for the sector at period V is computed as $HCI_v = \frac{1}{k} \sum_{t=1}^v L_{i,t} \times W_{i,t}$ where $L_{i,t}$ = labour employed in sector k , $W_{i,t}$ = wage of the agriculture worker is taken as the numeraire. Labour Force Survey for the years 1972, 1975, 1979, 1985, 1988, 1991, 1992 and 1995 are used to construct the index for these years. Missing years are interpolated using spline technique with fifth-order polynomial fitted through closest six points.

1-5) and middle (class 6-8), in the ratio of 32 and 68 per cent respectively. Similarly recurring expenditure on elementary education is split into primary and middle level in the ratio of 76:24 respectively¹⁷. In the second stage, the middle level share of the respective expenditures is added to the NEP's secondary level respective financial targets, in order to be consistent with the model's definition of primary and secondary education levels and input/output relations. Table 2 compares the break-up of recurring and development expenditure by level as given in the original NEP document and our modified NEP estimates.

TABLE 2
National Education Policy and Modified National Education Policy
Aggregate Benchmarks by the Year 2003
(Thousands of Rupees)

	<i>NEP Estimates</i>				<i>Modified NEP Estimates</i>	
	<i>Total Elementary</i>	<i>Primary</i>	<i>Middle</i>	<i>Secondary</i>	<i>Primary</i>	<i>Secondary</i>
Recurring Expenditure	218796	165793	530003	134560	165793	187563
Development Expenditure	54698	17093	37605	33640	17093	71245

Splitting shares in parentheses

Growth Rate Scenario

We begin the consistency exercise by running the ISPM under the assumption of 6% annual growth rate of the economy adopted by the NEP document till the year 2003 for all its input requirements and output targets¹⁸. The question of interest is whether the input and output targets are consistent with the assumed growth rate of the economy? The total stock of teachers as specified in equation 7 above is determined by the interaction of real recurring expenditure and exogenously given real wage rates. For this simulation we assume that the real wages of teachers increase by 3 per cent annually¹⁹. National Finance

¹⁷ NEP data does provide support for the ratios applied in case of recurring and development expenditures. Middle level enrolment as a proportion of total enrolment in class 1-VIII is expected to reach 27 per cent by 2003. Middle level teachers as a proportion of total teachers in class 1-VIII is expected to be 31 per cent by 2003. New middle schools will constitute 47.5 per cent of the new primary plus middle level schools by 2003 under the proposal

¹⁸ For deterministic simulation we used the procedure as outlined in Fair (1994), Pp.262-263. Theoretically for a non-linear model such as used in this paper, stochastic simulation are recommended. However Fair (1994) observed that, "this does not, however, seem to be an important problem in practice, since deterministic predictions are generally quite close to the mean values from stochastic simulations, and so if one were only interested in estimation of the changes, it seems unlikely that stochastic simulation would be needed.

¹⁹ No such assumptions are specified in the NEP documents.

(NFC) Awards announced periodically determine the inter-provincial fiscal transfers among the four provinces. We incorporate in the simulation the most recent 1997 NFC Award structure that will determine Divisible Pool Transfers till the year 2002²⁰.

TABLE 3
Achievement of Targets by the Year 2003 (%)

	NEP	Growth Rate Scenario C1	Enrolment Rate Scenario C2	Financial Outlay Scenario C3
Enrolment Rate (Primary)				
Boys	99.58	107	-	124
Girls	79.60	76	-	74
Enrolment Rate (Secondary)				
Boys	71.58	84	-	342
Girls	43.77	88	-	436
Stock of Teachers (Primary)				
Male	205700	126	121	138
Female	176500	82	152	90
Stock of Teachers (Secondary)				
Male	254800	80	108	196
Female	137000	83	89	210
New Schools				
Primary	12000	235	214	312
Secondary	21000	31	32	121
Modified Financial Outlays (Primary)				
Development	17093	154	110	-
Recurring	165793	107	119	-
Modified Financial Outlays (Secondary)				
Development	71245	26	27	-
Recurring	187563	51	67	-

²⁰National Education Policy (NEP) targets in absolute numbers.

NEP Financial outlays aggregated over the five years in million rupees.

In Table 3, percentages in column C1 indicate the extent (in terms of percentages) to which the model's prediction is consistent with the specified targets (enrolment, teachers, stock of schools) in NEP with the assumed growth rate. Under the historical dynamics of growth and its capacity to generate and allocate resources gender and level wise, only 76 per cent of NEP enrolment targets for females will be met at the primary level. Compared

²⁰ While estimation of the model is based on NFC awards of 1974 and 1990, the present simulation is based on the NFC award 1997. In contrast to the previous Awards, all taxes are now included in the divisible pool net. Provinces under the old Award receiving 80 per cent share of the fast growing taxes i.e., sales and direct taxes will now receive 33 per cent in the 1997 award.

to our model estimates, the NEP estimates for boys' enrolment at the primary level are understated by 7 per cent. Starting from a low base, the model predicts approximately 90 per cent achievement of NEP targets in case of secondary education. Except for male teachers in primary education, the NEP targets for the stock of teachers by the year 2003 closely match those generated by the model. Traditionally low female participation, reinforced by their truncated teaching careers (marriages, family responsibilities) and male bias in hiring practices has led our model to overestimate the stock of male primary teachers by the year 2003.

Model predictions of additions in the stock of schools reflect historical expenditure patterns and priorities that have improved access to primary education. Ismail et al (1994) observe, "...cost effectiveness of provision of primary education can be significantly enhanced if the allocation of funds is shifted towards recurring expenditure for employment of more teachers away from development allocations for construction of new schools". If past patterns of public expenditure continue, only 31 per cent or approximately 7000 secondary schools will be added against the NEP target of 21000 schools. Interestingly, our model predicts that only 31 per cent of the NEP target in new secondary schools will achieve close to 90 per cent of corresponding NEP targets in enrolment. This partly reflects the higher contribution of new schools at the margin as compared to additional teachers in raising enrolment²¹.

These deviations between NEP targets and model estimates in new schools and financial outlays embody the following messages for the policy makers: (A) Any downward revision from the average 6 per cent economic growth rate will further lower the actual enrolment rates. (B) Hiring practices and incentive structure for primary teachers need to be tilted in favour of female as opposed to the male teachers. Holding the total stock of male primary teachers at the NEP target may be difficult administratively given large-scale male unemployment, the clout of rural polity and the low participation rate of females in the country. Similarly, raising the stock of female primary teachers to NEP targets of 176500 against the 144384 (see Table 4 for corresponding model predictions and NEP targets in levels) implied by our model calls for a structural break from conventional approaches of hiring and retaining female teachers. (C) Our model predicts an enrolment close to 90 per cent of the NEP target from 30 per cent additional new secondary schools through capital investment of 26 per cent of modified NEP targets. This deviation seriously questions the cost effectiveness of development expenditures in the construction of new secondary schools or upgradation of primary to secondary schools.

²¹ In Appendix A the production function of enrolment, i.e. 0-23 to 0-26, has higher coefficients attached to schools per school going age population compared to teachers per school for each level and gender.

TABLE 4
Results of Alternate Evaluation Experiments: Year 2003
(Levels)

	<i>NEP Document</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>
Enrolment Rate (Primary)				
Boys	99.58	107.61		123.42
Girls	79.60	60.44		58.71
Enrolment Rate (Secondary)				
Boys	71.58	60.14		244.61
Girls	43.77	38.38		190.86
Stock of Teachers (Primary)				
Male	205700	259878	249600	284551
Female	176500	144384	268842	159586
Stock of Teachers (Secondary)				
Male	254800	204774	274975	499595
Female	137000	113180	123049	287420
Modified Financial Outlays (Primary)				
Primary	12000	28264	25692	37394
Secondary	21100	6542	6781	25614
New Schools				
Development	17093	26285	18767	-
Recurring	165793	177231	196952	-
Modified Financial Outlays (Secondary)				
Development	71245	18542	19019	
Recurring	187563	96177	126084	

Enrolment Based Scenario

We also look at the evaluation exercise from another angle. Given level and gender-wise enrolment targets are the input requirements (teachers, schools and financial outlays) predicted by our model consistent with those of the NEP document? To elaborate while the previous scenario was based on the growth dynamics of the macro economy, this scenario is driven by the output targets. Column C2 in Table 3 gives the results of the simulation. To achieve the primary enrolment targets, the model predicts the need of nearly 50 and 20 per cent more than NEP estimates for female and male teachers respectively. Economies of scale/non-linearities in the enrolment production function are indicated by 10 per cent less addition in primary schools leading to higher female enrolment. Mechanical allocation of resources through the growth process may have led historically to excess capacity in boy's primary education. Secondary school enrolment can be achieved by increasing the stock of teachers close to the modified NEP targets. Financial outlays under the primary enrolment scenario are close to the development expenditure estimates of NEP while 20 per cent higher for the recurring expenditure estimates. Though the greater need for female primary teachers by the model calls for

bigger recurring expenditure allocations, the latter do not vary as much as the former indicator²². Historically, there has been under-provisioning of the primary teachers as empirically documented by Ismail et al (1994). The authors state, "It appears that their role in raising quality and demand for primary education has not been fully recognized". Correspondingly, recurring budgets are inflated as a cushion against the anticipated cuts in the actual disbursements due to perennial revenue shortfalls during the year. Interestingly the inputs i.e., teachers, schools, financial outlays, required for secondary enrolment target are fairly robust across the two scenarios. Apparently the over estimation in proposed development outlays for the secondary education in NEP is not supported by the historical expenditure patterns as well the cost-effective strategy.

Financial Outlay Scenario

The Government proposes to raise the expenditure on education from 2.1 per cent in 1997-98 to 4 per cent of GDP by year 2003²³. This implies substantial diversion of resources to this sector. Historically expenditure targets of none of the previous education policies were met in letter and spirit. Given the expected slow down in economic activity and tough WB/IMF conditionalities accompanying debt re-scheduling signed in Jan 1999, it is fair to assume that government will once again fail to meet these ambitious targets²⁴. However, we still project from our model, the profile of inputs and outputs under this likely *counter/actual* scenario? Column C3 of Table 3 gives the extent of achievement possible as predicted by our model. Although our model overestimates the stock of new primary schools at the end of 2003 by 212 per cent, in terms of actual additions, these allocations will add 37,000 schools as per our model against 12,000 allowed for by the policy document. Similarly, proposed allocation of recurring expenditure at primary level can finance nearly 40 per cent more male teachers as compared to the targets in the policy document. At secondary level the proposed allocations in development expenditure will add 25,000 new schools as per our model estimates against 21,000 projected by the NEP²⁵. The allocations in recurring expenditure at secondary level can finance roughly twice the numbers of teachers compared to the estimates of the policy document. The ambitious allocations at the secondary level clearly leads our model to overshoot with respect to the enrolment targets.

²² I thank one of the referees of this paper for pinpointing differences in the model estimates between the two indicators.

²³ Based on historical allocations, the growth rate scenario of the model in section iv.1 predicts that total expenditure on education will go up to 2.7 per cent of GDP by the year 2003.

²⁴ As per author calculations, the total expenditure on education was 1.97 per cent of GDP in 1998-99. The budgeted figures for 1999-2000 are 2.04 per cent of GDP under an 11 per cent growth assumed in nominal GDP.

²⁵ It is unclear from the NEP document whether the costs of up-gradation are included in the development outlays. Treating the entire development outlay by level as expenditure on new schools leads to overshooting of model estimates.

Qualitative comparison

The above comparison provides a quantitative dimension on the divergence between NEP targets and the ones generated in a general equilibrium historical framework. Looking at important ratios can give us a qualitative dimension to the differences between the NEP policy and scenario results. Table 5 compares a few selected ratios of NEP targets with the ones explicit in the growth rate and enrolment scenarios. Under the growth rate scenario, financial ratios (recurring and development) of secondary schools and secondary teachers per school diverge noticeably from the NEP ratios. Higher financial ratios of the policy document signify a policy shift towards greater expenditure on secondary education and do not support the historical allocation behavior of the authorities, as reflected from the model estimates. Except for the outlays on new primary and secondary schools, the financial ratios of modified NEP and the enrolment scenario (model estimate (2)) are fairly close. Apparently to achieve the enrolment targets of the policy, expenditure on new school buildings is overstated to reflect expected cost overruns. The model predicts a better teacher school ratio for secondary schools of about 12 teachers per school with a recurring outlay of an almost Rs.0.17 million less than the modified NEP financial estimates.

TABLE 5
Selected Quality Ratios
NEP Targets and Model Estimates for Year 2003

	<i>NEP Document</i>	<i>MODEL Estimates (1)</i>	<i>MODEL Estimates (2)</i>
Recurring Expenditure/Primary School	1.02	0.99	1.07
Development Expenditure/Primary School	1.00	0.93	0.73
Recurring Expenditure/Secondary School	3.91	2.86	3.74
Development Expenditure/Secondary School	3.24	2.83	2.80
Primary Teachers/School	2.35	2.26	2.95
Secondary Teachers/School	8.16	9.47	11.97
Student/Teacher (Primary)	53	52	-
Student/Teacher (Secondary)	29	28	-

Expenditure ratios are in million of Rupees.
Model Estimates (1) Growth Rate Scenario

V. Conclusions and Summary

Most of the education policies in developing countries are well set out in terms of aims, objectives and targets. They also portray a judicious blend of politico-economic ideology of the rulers and/or political party in power and the human resource needs of the society for development. However, the targets usually lack internal consistency with the performance of the economy and capacity to generate internal and external funds. The purpose of this paper was to evaluate the consistency of input and output targets spelled

out in the Pakistan's National Education Policy, 1998-2010. The instrument used for three dimensional consistency checks was the Integrated Social Policy and Macro (ISPM) model developed by Social Policy and Development Centre. From a policy perspective, the deviations between NEP targets and model predictions under each of the 3 consistency checks can be interpreted as call for policy shifts in allocation and hiring priorities, elimination of cost over runs and cost effective expenditures by the government in the education sector.

The main findings of each consistency check are summarized as follows:

- (a) Under the 6 per cent annual growth rate scenario, most of the model estimates for physical input and outputs were close to the policy document. The policy makers would need to weaken the historical dynamics of building more primary schools (partly politically motivated) and instead strictly adhere to the efficient utilization of the physical targets set in NEP. Secondly, there is an imperative to scrutinize and monitor the cost estimates of building new secondary schools or middle component of elementary education under the SAP II framework. The deviations between the NEP and model estimates suggest that the former are grossly 'padded'. The deviations in terms of students/teacher and teacher/school ratios between the two estimates were even less than observed in the absolute numbers.
- (b) A simulation was performed to assess the inputs (physical, financial) required for the given enrolment targets. The model estimated that nearly 52 per cent more primary school teachers would be required than estimated by the NEP document to attain these proposed targets. This deviation underscores the need to adopt radically different approach to the hiring and retention of female primary school teachers. Overstatement in the NEP expenditures of secondary education in the enrolment-based consistency check is remarkably similar to the growth rate scenario. Except financial outlays, the estimates of other targets matched well with the NEP targets.
- (c) A likely *counter/actual* simulation based on the given modified financial allocation was performed. In this scenario the estimated achievements were far above the estimates projected by the NEP document specifically in the case of secondary education.

References

- Ahmad, Eqbal (1998), *Education Policy: A Critique*, http://www.geocities.com/CollegePark/Library/9803/eqbal_ahmad/edu_policy.html
- Fair, Ray.C.(1994) *Testing Macro-econometric Models*, Harvard University Press, Cambridge, Massachusetts.
- Dornbusch, R, and S.Fischer (1990), *MACRO-ECONOMICS*, Fifth Edition, McGraw-Hill Publishing Company, New York.
- Government of Pakistan, Ministry of Education, *National Education Policy: 1998-2010*, 1998.

- Government of Pakistan, Ministry of Education, National Education Policy, 1992.**
Government of Pakistan, Ministry of Education, National Education Policy and Implementation Program, 1979.
Ismail, Z.H et al (1994) Cost Effectiveness in Primary Education: A Study of Pakistan, Pakistan Development Review, Vol. 33, No.4, Winter.
Lucas, Robert E. Jr.,(1976), Econometric Policy Evaluations: A Critique, in K. Brunner and A.H.Meltzer, eds., The Phillips Curve and the Labor Market, Amsterdam, New York, and Oxford: North Holland.
Pasha et al (1995) Integrated Social Policy and Macro-economic Planning Model For Pakistan, Social Policy and Development Centre, Karachi, Pakistan, Research Report No. 7, June, <http://www.spdc-pak.com>
Takala, Tuomas (1998) Making educational policies under influence of external assistance and national politics - a comparative analysis of the education sector policy documents of Ethiopia, Mozambique, Namibia and Zambia, International Journal of Educational Development, Vol. 18, No.4, July.

Appendix A

Regression Estimates Human Capital Index Block

Equation Number		-2 R	SER	DW	F-Ratio
1	Total Development Expenditure on Education $DEED = DEED_{t-1} + DEED_{t-2} + DEED_{t-3}$				
2	Development Expenditure on Male Primary Education $DEEDPR_{t-1} = -60.00 + 0.191 DEED + 0.00001 NENPR_{t-1}$ (-3.06)* (28.1)* (2.21)** $- 147.0 D02_{t-6} + 399.2 D02_{t-7}$ (-5.57)* (10.8)*	0.99	32.70	1.29	830.83
3	Development Expenditure on Female Primary Education $DEEDPRF = 34.98 + 0.103 DEED + 0.00002 NENPR_{t-1}$ (-3.86)* (30.9)* (3.24)* $- 103.8 D03_{t-1} + 223.0 D03_{t-2}$ (-7.68)* (13.4)*	0.99	14.79	1.48	1261.98
4	Development Expenditure on Male Secondary Education $DEEDSE_{t-1} = -187.9 + 0.120 DEED + 0.0001 NENSE_{t-1}$ (-9.91)* (21.9)* (9.95)* $+ 178.7 D04_{t-1}$ (14.7)*	0.99	24.30	1.74	1444.71

5 Development Expenditure on Female Secondary Education

$$DEEDSE_t = -42.95 + 0.061 DEED_t + 0.0001 NENSE_t,$$

$$\begin{aligned} & (-8.04)^* \quad (24.2)^* \quad (9.95)^* \\ & + 92.05 DOS_{t-1} \\ & (15.1)^* \end{aligned} \quad \begin{array}{cccc} 0.99 & 11.95 & 1.69 & 1454.41 \end{array}$$

6 Total Recurring Expenditure on Education

$$REED_t = REED_{t-1} + REED_{t-2} + REED_{t-3}$$

7 Recurring Expenditure on Male Primary Education

$$REEDPR_{1t} = -24.40 + 0.249 REED_t + 0.0147 REEDPR_{1,t-1}$$

$$\begin{aligned} & (-0.72) \quad (7.09)^* \quad (1.02) \\ & 513.1D09^*, \\ & (4.20)^* \end{aligned} \quad \begin{array}{cccc} 0.99 & 103.4 & 1.23 & 4248.63 \end{array}$$

8 Recurring Expenditure on Female Primary Education

$$REEDPR_{2t} = -104.8 + 0.129 REED_t + 0.437 REEDPR_{2,t-1}$$

$$\begin{aligned} & (-2.76)^* \quad (5.63)^* \quad (3.32)^* \\ & 520.6 DO10^*, \\ & (4.65)^* \end{aligned} \quad \begin{array}{cccc} 0.99 & 100.3 & 1.48 & 2362.54 \end{array}$$

9 Recurring Expenditure on Male Secondary Education

$$REEDSEM_t = 16.82 + 0.174 REED_t + 167.9 DO11_t$$

$$\begin{aligned} & (1.64) \quad (184.9)^* \quad (4.97)^* \\ & -620.2 DO11^*, \\ & (-26.1) \end{aligned} \quad \begin{array}{cccc} 0.99 & 32.69 & 1.24 & 14093.96 \end{array}$$

10 Recurring Expenditure on Female Secondary Education

$$REEDSEF_t = 18.09 + 0.055 REED_t + 0.199 REEDSEF_{t-1}$$

$$\begin{aligned} & (1.18) \quad (10.7)^* \quad (2.52)^{***} \\ & + 0.554 DEEDSEF_{t-1} - 504.7 D012^*, \\ & (4.59)^* \quad (-9.91)^* \end{aligned} \quad \begin{array}{cccc} 0.99 & 45.38 & 2.23 & 1136.20 \end{array}$$

11 New Male Primary Schools

$$NPS_t = -615.7 + 3.646 \frac{DEEDPR_t}{100}$$

$$(-1.84)^{***} \quad (2.50)^*$$

$$+ 2.927 \frac{DEEDPR_{t-1}}{WG/-/100} + 2.201 \frac{DEEDPR_{t-2}}{77.6/-2/100}$$

$$\begin{array}{cccc} 0.98 & 724.37 & 1.50 & 157.85 \end{array}$$

$$(1.84)^{**} \quad (1.91)^{***}$$

$$+ 0.1112 NPS_{t-1} + 7324 D015_{t-1} - 8354 D015_{t-2}$$

$$(2.05)^{***} \quad (15.5)^* \quad (-119)^*$$

12 New Female Primary Schools

$$NPS_t = 1577.79 + 1.880 \frac{DEEDPR_t}{WG/100} + 2.620 \frac{DEEDPR_t}{PIGI-HOO} - 589.288 [DO]_{6,t} * In TIME] + 3981.184 D016_{t-1}$$

(5.27) (1.92)* (2.67)* 0.94 438.61 1.98 58.16

(-4.91)* (7.77)*

13 New Male Secondary Schools

$$NSS_{m,t} = -55.16 + 0.249 \frac{DEEDSEM-2_t}{WG/-2/100} + 0.527 \frac{DEEDSEM-3_t}{PIGI-3>100} + 0.486 NSSM-I + 504.3 DOn * - 0.783 AR(1) - 0.928 MA(1)$$

(-4.35)* (1.91)*** (2.38)*** 0.94 110.46 1.76 34.13

(3.79)* (5.66)* (-3.79)* (-17.8)*

14 New Female Secondary School

$$NSS_f = -74.15 + 0.979 \frac{DEEDSEp_t}{WG/-2/100} + 0.797 \frac{DEEDSEp_t}{TIGI-3/100} + 0.166 NSSF_{t-1} - 306.1 D018_{t-1} + 1579 D018_{t-2}$$

(-2.76)* (2.93)* (2.52)** 0.98 62.27 2.09 179.45

(4.56)* (-5.34)* (23.9)

15 Total Stock of Male Primary School

$$SSPM = SSP_{m,t-1} + NPS_{m,t}$$

16 Total Stock of Female Primary School

$$SSP_f = SSP_{f,t-1} + NPS_f$$

17 Total Stock of Male Secondary Schools

$$SSS_m = SSS_{m,t-1} + NSS_{m,t}$$

18 Total Stock of Female Secondary Schools

$$SSSF = SSS_{f,t-1} + NSS_f$$

19 Total Male Primary Teacher

$$TEPS_m = [REEDPR_m / ITC] * [OO] / WSM$$

20 Total Female Primary Teacher

$$TEPSF = [REEDPR_f / ITC] * [OO] / WPSF$$

21 Total Male Secondary Teacher

$$TESS_m = [REEDSE_m / JIGC] * [IW] / WSSM$$

22 Total Female secondary Teacher

$$TESSF = [REEDSE_f / ITC] * [OO] / WSSF$$

23 Enrolment Ratio for Males at Primary Level

$$\ln \text{PRENR}_m = 4.634 + 0.583 \ln \frac{\text{SSP}_m}{\text{SGAPRM}} + 0.518 \ln \frac{\text{TEPS}_m}{\text{SSP}_m}$$

(8.81)* (7.28)* (8.41)*

$$+ 0.322 \ln \text{PRENR}_{m,t-1} + 0.028 \text{LR}_m + 0.171 \text{D028}_{m,t}$$

(6.29) (4.18)* (10.7)*

$$- 0.033 \text{D028}_{m,t-1}$$

(-1.81)**

0.99 0.015 2.15 501.12

24 Enrollment Ratio for Females at Primary Level

$$\ln \text{PRENR}_f = 5.830 + 0.239 \ln \frac{\text{TEPS}_f}{\text{SSP}_f} + 0.610 \ln \frac{\text{SSP}_f}{\text{JG-ATR}_{f,t}}$$

(12.97)* (7.95)* (12.15)*

$$+ 0.551 \ln \text{PRENR}_{f,t-1} + 0.204 \ln \frac{Y}{\text{POP}_{0,t} + \text{POP}_{1,t}}$$

(13.02)* (11.85)*

$$+ 0.026 \text{D029}_{f,t} - 0.048 \text{D029}_{f,t-1}$$

(5.36)* (- 8.60)*

0.99 0.006 1: 2599.24

25 Enrollment Ratio for Males at Secondary Level

$$\ln \text{SEENR}_m = 6.403 + 0.511 \ln \frac{\text{SSS}_m}{\text{SSP}_m} + 0.145 \ln \frac{\text{TOT}}{\text{LOT}}$$

(14.5)* (10.3)* (8.41)*

$$+ (1-0.511=0.489) \ln \frac{\text{TESS}_m}{\text{SSP}_m}$$

(6.36)* (10.1)*

$$+ 0.233 \ln \frac{\text{NENPRM}}{\text{SGASE}_m} + 0.073 \text{D030}_{m,t}$$

(6.36)* (10.1)*

$$+ 0.070 \text{D030}_{m,t-1}$$

(13.1)*

0.99 0.008 2.58 1432.54

26 Enrollment Ratio for Females at Secondary Level

$$\ln \text{SEENR}_f = 8.204 + 0.961 \ln \frac{\text{SSS}_f}{\text{SGASE}_f} + 0.467 \ln \frac{\text{TESS}_f}{\text{SSS}_f}$$

(10.3)* (8.34)* (3.04)

$$+ 0.0141 \text{LR}_{f,t}$$

(3.50)*

0.99 0.038 1.79 430.23

27 Number of Male Enrollment at Primary Level

$$NENPRM = PRENR_{it} * SGAPR_{it}$$

28 Number of Female Enrollment at Primary Level

$$NENPR_f = PRENR_{it} * SGAPRF_{it}$$

29 Number of Male Enrollment at Secondary Level

$$NENSEM = SEENR_{it} * SGASEM_{it}$$

30 Number of Female Enrollment at Secondary Level

$$NENSEF = SEENR_{it} * SGASEF_{it}$$

Note: $DOXX_{it}$ are dichotomous variables, t-ratio are in parenthesis, R^2 Coefficient of Determination, SER=standard error of regression, DW=Durbin-Watson Statistic, F-Ratio=F-distribution statistic.

List of Endogenous Variables

DEED	Total Development Expenditure on Education
DEED_f	Federal Development Expenditure on Education
DEED_i	Local Development Expenditure on Education
DEED_p	Provincial Development Expenditure on Education
DEEDPR_p	Development Expenditure on Education Female Primary
DEEDPR_m	Development Expenditure on Education Male Primary
DEEDSE_p	Development Expenditure on Education Female Secondary
DEEDSE_m	Development Expenditure on Education Male Secondary
LR_p	Female Literacy Ratio
	Male Literacy Ratio
NENPR_p	Number of Female Enrolment at Primary Level
NENPR_m	Number of Male Enrolment at Primary Level
NENSE_p	Number of Female Enrolment at Secondary Level
NENSE_m	Number of Male Enrolment at Secondary Level
NPS_p	New Female Primary School
NPS_m	New Male Primary School
NSS_p	New Female Secondary School
NSS_m	New Male Secondary School
PRENR_p	Female Primary Enrolment
PRENR_m	Male Primary Enrolment
REED	Total Recurring Expenditure on Education
REED_p	Federal Recurring Expenditure on Education
REED_i	Local Recurring Expenditure on Education

<i>REED_p</i>	Provincial Recurring Expenditure on Education
<i>REEDPR_f</i>	Recurring Expenditure on Education Female Primary
<i>REEDPR_m</i>	Recurring Expenditure on Education Male Primary
<i>REEDSEP</i>	Recurring Expenditure on Education Female Secondary
<i>REEDSE_m</i>	Recurring Expenditure on Education Male Secondary
<i>SEENR_p</i>	Female Secondary Enrolment Ratio
<i>SEENR_m</i>	Male Secondary Enrolment Ratio
<i>SSP_f</i>	Total Stock of Female Primary Schools
SSP_m	Total Stock of Male Primary Schools
<i>SSSp</i>	Total Stock of Female Secondary Schools
<i>SSS_m</i>	Total Stock of Male Secondary Schools
<i>TEPS_p</i>	Female Teachers in Primary School
<i>TEPS_m</i>	Male Teachers in Primary School
<i>TESS_p</i>	Female Teachers in Secondary School
<i>TESS_m</i>	Male Teachers in Secondary School
<i>y</i>	Gross Domestic Product in Real Terms
YQJ	Value Added in Other Sectors in Real Terms

List of Exogenous Variables

	Employment in Other Sectors
<i>P_{ig}</i>	Price Index for Government Investment
P'GC	Price Index of Government Consumption
<i>POP_f</i>	Female Population above 10 Year of Age
<i>POP_m</i>	Male Population above 10 Year of Age
<i>SGAPR_m</i>	School Going Age Population Male Primary
<i>SGAPR_p</i>	School Going Age Population Female Primary
<i>SGASE_m</i>	School Going Age Population Male Secondary
<i>SGASE_f</i>	School Going Age Population Female Secondary
<i>WPS_m</i>	Wages Male Teacher Primary School
<i>WPS_p</i>	Wages Female Teacher Primary School
	Wages Male Teacher Secondary School
<i>WSS_f</i>	Wages Female Teacher Secondary School

Wages are expressed in constant 1980-81 million rupees.

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Internal Resources Generation and Utilisation in Conventional Distance Education Institutes: The Case of Three Universities in Kerala

K. Muraleedharan¹

Abstract

Retreating of State to its conventional corner's and consequent resource constraints, and gripping the social overheads like education in developing economies, have made it imperative on the part of the Universities in India to generate their own internal resources and reduce their dependence on public exchequer. In search for their own resources, these universities have efficiently harnessed the recent paradigm shifts in the frontiers of higher education globally towards open market driven, lifelong and learner-centered education from all the opposite counterparts, and have resorted to establish distance education centers. Apparently, this has enabled these universities to cater to the unreached and the marginalized in the mainstream education in a big way. But, from the point of economics, what needs to be explored is how far these universities were able to generate their own resources and how these resources are put to their best uses. The paper addresses this question with reference to three conventional universities in Kerala.

Higher education, globally, is undergoing an irreversible series of paradigm shifts towards global, open market driven, lifelong and learner-centered education from all the opposite counterparts, perhaps, beyond what Drucker (1993)¹ had in his mind, when he talked about the 'silent revolution'. The focal one in this series, from the perspective of economics, is in the context of funding in which emphasis is placed on the internal resource generation and better utilization by higher education institutions, with less

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¹ Peter Drucker was the first scholar to predict the revolution to be triggered off by the changes in technology and advent of information technology. He coined the term " Knowledge Workers " and " Knowledge Society" See Peter Drucker. *Landmarks of Tomorrow* (1959) and *The Future of Industrial Man* (1942). He examined the historical evolution of knowledge workers, their dominance over the other groups in the society, their characteristics and the place education will attain in modern societies. (See Peter Drucker 1994)

dependence on public exchequer. The structural adjustment policies and the consequent rolling back of State to its traditional corners, coupled with severe resource constraints faced by the developing countries, were at the roots of these paradigm shifts. Ultimately, this has made it imperative on the part of these institutions to generate their own resources and become economically viable for subsistence, as the flow of funds from the public exchequer has begun to dwindle. In other words, the higher education institutions have to be more rational in identifying the market potential of their services and economical in utilising the resources they generate. Several cost cutting measures and efficiency parameters are being prescribed by a host of Committees in this regard.

Higher education in India, from the perspective of financing, provides a familiar landscape (Venkatasubramanian, 2002). Since independence, higher education through universities has been an exclusive subject of public funding as private capital and internal resources have been on the way out. Consequent on increasing demand, coupled with resource constraints, the State and Central Governments were not able to allocate additional resources to the education sector. The public spending on education is much behind the target of 6 per cent of GNP as recommended by the Education Commission of 1964. The government policy is categorical on this point and insists that higher education institutions like universities have to sustain on their own resources (Punnaya Committee, 1993). Though prior to this policy announcement, it was with this perspective that the three affiliating universities in Kerala State viz., University of Calicut (Calicut), University of Kerala (Thiruvananthapuram) and Mahatma Gandhi University (Kottayam), (here after M.G. University) resorted to introduce Distance Education Institutes (here after DEIs) as a first step to generate internal resources of their own. Now, the three of the four affiliating universities in Kerala have their own full-fledged DEIs, in different captions, institutional profiles and organizational set-up². In this context, it will be quite reasonable to examine how far these DEIs are able to generate resources by exploiting the rich potential of unmet demand for higher education, and utilize them properly. Here is an attempt made in this regard by using the data related to three DEIs for a period of 10 years since 1990-91.

The major source of funds, apart from the internal resource they mobilize, from the universities in Kerala being the parent institutes of these DEIs are the Grants made available from the Government and UGC/IGNOU through them. The internal sources of

² The Distance Education Institutes attached to Kerala's Universities viz., School of Distance Education of Calicut University; School of Distance Education, School of Distance Education, M.G. University; and Institute of Distance Education, Kerala University has a roughly same pattern of administration. The Director is at the top, vested with the independent powers of Academic and Administrative functions, subject to the ratification of the respective Universities. The major variation is in the staffing pattern. School of Distance Education, Calicut University runs the system exclusively depending on the Contact Programme Lectures and lesson writers, outsourced on contract basis, from regular colleges. This seems to be a more viable model for conventional distance education institutes. But the other two institutes, particularly, Distance Education Institute in Kerala University, depend on permanently appointed teaching staff for academic assignments. This results in poor manpower utilization as contact classes are for a short period of time, lesson writing is not a recurring work, as the syllabi remains unchanged for a period of minimum three years.

funds are the fees and other receipts like fines, additional fines and cost of application forms remitted by the students enrolled in these institutes. A brief profile of these institutes and the map of distance education scenario in Kerala will be definitely fitting as a preface.

Profile of the Institutes

The state of Kerala has for historical reasons shown a deep concern for education and it has been the prioritized agenda in the life of the people in Kerala since the very beginning. Kerala and her people were ahead in their march towards a knowledge society and knowledge economy. Changes in land relations, the social and economic mobility of the population, the response of public administration, especially the native States and the impact of social reform movements contributed towards this. The excess demand for university education has been met with the provision of private registration in Kerala's affiliating Universities³. The three major affiliating universities in Kerala, viz.; Kerala University, University of Calicut and M.G. University started private registration in the years 1971, 1976 and 1991 respectively. Kerala University established the Institute of Correspondence Courses (ICC) in 1976, followed by University of Calicut in 1981, and Mahatma Gandhi University in 1989. (IGNOU had its Regional Center in Kerala at Kochi in 1988) Along with these, a number of other universities provide distance education facilities in Kerala through their study centers. Annamalai, Madhurai Kamaraj, Bharathiyar, Alagappa, Pondicherry, Sri Venkiteswara and Madras University are the important among them. All these indicate the acceptability of distance education as an alternative to the conventional system in the State. While M.G. University has started Off-campus distance education centers, Cochin University of Science and Technology and Kannur University are in vigorous efforts to enter in to the field of distance education.

The distance education scenario unfolding in Kerala from the strength of student's enrolment is provided in the Table 1.

Table. 1 shows that around 60 per cent of the students of distance education are from the jurisdiction of Calicut University and more than 37 per cent of the students in Kerala are catered by distance stream of education. The percentage of students opting distance education will be much higher if the other institutions providing distance education are included.

³ Private Registration has been the statutory provision of the Universities in Kerala to accommodate those who are willing to learn, but failed to enter the regular stream. Those who study in this stream enjoy a more or less same status as that of regular student, without being discriminated as a correspondence student. In general, admissions through Private Registration often out-stripped the regular admissions, as there are no marks restrictions and all those who are eligible are admitted.

TABLE 1
Enrolment of Distance Education Students in Kerala (1999-2000)

<i>Institutes</i>	<i>Distance Education Students</i>	<i>Percentage to Total Students in Distance Education</i>	<i>Total Number of Students of Higher Education</i>	<i>Percentage of Distance Education Students</i>
Kerala University	4940	12.13	94757	5.2
M.G. University	2689	6.59	89262	3.01
Calicut University	24429	59.94	81622	29.92
IGNOU R.C, Kochi	8697	21.34	N.A	N.A
Total	40755	100.00	-	-

Note: N.A = Not applicable

Source: Office Records of the Distance Education Institutes and respective Universities.

A few pioneering attempts of scholars in this regard are worthy to be documented. The questions of economies of scale and cost-effectiveness were discussed in detail by several authors. (Laird and Layard 1974; McIntosh and Riggs 1979; Perraton 1982; Rumble 1981:1982:1987:1997). Pandey (1980), who examined the cost-effectiveness of 7 correspondence institutes of Indian universities on the basis of cost-benefit analysis, type of cost and academic programmes, found that correspondence courses supported themselves without government subsidy, mostly depending on students' contribution. Markowitz (1987), Perraton (1994) and Rumble (1997) too analysed the cost and economics of distance education, discussing at length various aspects of costs and behaviour of costs. Ruddar Dart (1988) argued that the distance education system had tremendous potential of economies of scale. He also analysed the recurring cost profile of nine distance education institutions and observed that there exists an inverse relationship between cost per student and enrolment (Ruddar Dart 1994). What is missing in these studies is an attempt to examine the ways on which resources are utilized in these DEIs.

Objectives and Scope of the Study

The principal objective of the study was to examine how far these DEIs attached to Kerala's three conventional universities were able to generate internal resources and also to examine the ways in which these resources were utilized, using the techniques of (1) Analysis of Revenue and Cost; and (2) Revenue and Cost Functions.

Analysis of Revenue and Cost

As far as this study is concerned, Total Revenue is defined as that from (i) Fees from the students enrolled in these institutes, (ii) Miscellaneous receipts like fine, cost of application forms, and (iii) additional fine. In other words, the revenue as defined in this study does not include the grants made available to these Distance Education Institutes through the parent institutions from Government of Kerala and UGC or IGNOU. Total Cost is defined as the sum of expenditure on (i) Salary, (ii) Contingent Expenses,

(iii) Remuneration to the lesson writers, (iv) Preparation of Study Materials, (v) Contact Classes, (vi) New Courses, (vii) Audio and Video Expenses, (viii) Library, and (ix) Study Centers. It needs to be noted that the cost of overheads like buildings and other infrastructure is excluded as they are part of the parent universities. Three derivatives of Revenue and Cost used in this study are:

1. Compound Rate of Growth of Revenue and Cost over the period.
2. Difference between Revenue and Cost
3. Difference between Revenue and Cost Per head.

The compound growth rate of Revenue and Cost, given in Table 2, provides a precise picture of the performance of these DEIs. Except in the case of Kerala University, the rate at which revenue has grown exceeds that of cost.

TABLE 2
Compound Rate of Growth of Revenue and Cost in Distance Education Institutes of Kerala (1990-91- 1999-2000)

<i>Distance Education Institutes</i>	<i>Revenue</i>	<i>Cost</i>
Calicut University	3.29	3.24
Mahatma Gandhi University	3.25	3.20
Kerala University	2.64	2.95

Source: Estimated from office records of Distance Education Institutes of corresponding Universities

TABLE 3
Difference between Revenue and Cost as the Percentage of Cost in DEIs of the Universities of Kerala

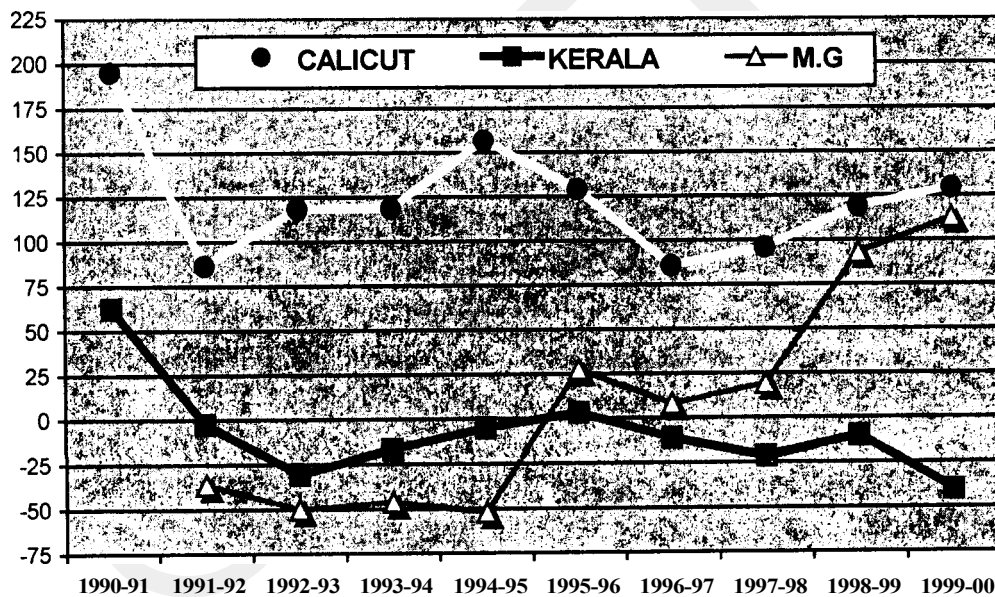
<i>Year</i>	<i>CALICUT</i>	<i>KERALA</i>	<i>M.G</i>
1990-91	195.33	62.56	-10.68
1991-92	86.62	-2.47	-36.10
1992-93	118.48	-30.38	-50.25
1993-94	118.58	-16.73	-46.35
1994-95	156.62	-5.16	-52.13
1995-96	129.22	3.31	27.42
1996-97	85.76	--11.23	7.93
1997-98	95.86	-21.47	19.26
1998-99	119.00	-10.18	92.84
1999-00	129.44	-40.06	112.75

Note: The data from which the figures are drawn are given in the Appendix (Table A.1)

Source: Estimated from Office Records of DEIs.

A much clearer picture can be drawn with the help of the difference between revenue and cost over time. It can be seen that DEI of Calicut University has been able to maintain a surplus over its cost in total, while Kerala University has demonstrated a mixed trend of surplus and deficits. In the case of M.G. University, the trend of Revenue and Cost is promising, as the deficit has been giving way to surpluses over time. The positive difference between Revenue and Cost as a percentage of Cost in Calicut University has been the highest in 1990-91 and the lowest in 1996-97. In the case of Kerala University, the negative difference has touched the ever-highest level in 1999-00 and in the case of M.G. University, the difference has been the highest in the same year as shown in Table 3 and Figure 3.

FIGURE 3
Difference between Revenue and Cost as a Percentage of Cost in DEIs of the Universities of Kerala



Though the comparison of differences in Revenue and Cost provides a clear picture of these institutes, it requires that one should use standardized measures for this purpose in order to reach some significant conclusions. Generally, the Revenue and Cost per head are used in these occasions. This is quite different from the concept of average cost and average revenue. The difference is in the definition of denominator, the number of students, i.e., whether the number of students are to be weighted or unweighted. In this analysis, unweighted number of students is used to work out the Revenue and Cost per head. The three distance education institutes lay bare different trends of Revenue and Cost per head during the last decade. It can be seen that DEI of Calicut University has

been able to maintain a surplus of revenue per head over cost, while the other DEIs faced severe deficits and excess spending per student. The difference of cost per head over revenue per head in these institutions touched 15 per cent in the case of DEI of Kerala University and 26 per cent in the case of M.G. University on an average. In the case of Calicut University, the DEI has been able to manage the positive difference between revenue per head and cost per head and it has been steeply coming down since 1990-91, except during the two middle years of the decade. The situation in Kerala is alarming as it plunged into negative differences since 1990-91, while M.G. University succeeded in reducing the negative difference and making it positive during the last two years of the study period as per Table 4.

TABLE 4
Difference between Revenue and Cost per Head in
Distance Education Institutes of Kerala

<i>Year</i>	<i>CALICUT</i>	<i>KERALA</i>	<i>M.G</i>
1990-91	1313	325	-43
1991-92	323	-15	-297
1992-93	413	-296	-435
1993-94	477	-166	-295
1994-95	682	-80	-376
1995-96	615	31	265
1996-97	462	-153	142
1997-98	495	-273	-340
1998-99	427	-112	1977
1999-00	490	-710	2573

Source: Estimated from Office Records of Distance Education Institutes and Universities

Analysis of Revenue and Cost per head and the differences between them surface certain focal questions, some of them old and some of them fresh, in the area of resource generation, utilization, management, administration and organisation of Distance Education Institutes. These questions pertain to the size of enrolment, administration and organizational set up and their relation with the unit cost of output. While one of the Universities, with sizable enrolment, has managed to maintain surplus, the other two have failed even in meeting the per head cost and has been sustaining on external funds. This again surfaces the question of optimum enrolment required for a viable unit in the Distance Education Industry. Experts put different figures in this regard and the prescribed optimum enrolment varies from 10,000 to 46,000 and the maximum limit is 300,000 (Datt 1988: Pillai and Naidu 1991). As far as the optimum enrolment is concerned, it is a multivariate function of several determinants and unique features in each of the DEI may have a dominant influence on it. For instance, the staffing pattern

with more weightage to the teaching staff with UGC pay scales can scale up the costs and vary the optimum enrolment.

In the context of determinants of cost, one has to look in to: (i) the components of cost as well as (ii) the strength of students enrolled, the significant determinant of cost. While pursuing along the first determinant, we analyse Components of Cost and along the second, analyse the Cost Functions. It may be also interesting to examine how far the major determinant of Revenue, i.e., Enrolment of Students is able to explain the variations in Revenue over time.

Total Cost in distance education can comprise several components as given in Table 5. One can see that there is significant variation in the components of total cost in three DEIs of Kerala. The staff pattern and the organisational structure of the institution play an important role in the nature, composition and trend in the costs. Table 5 shows that salary of the staff members account for the highest share of cost in all the three institutions, while it is more than 80 per cent in Kerala, it is as low as 44.43 per cent in M.G University. Calicut University stands in between these two. The staffing pattern is definitely to reflect on the costs, as the case of Kerala University demonstrates. Kerala University has the highest number of staff (59) with more than 40 per cent academic staff with UGC pay scales. The Staff-Student ratio⁴ worked out for these institutes shows that Kerala University has the highest Staff-Student ratio (1.245), followed by M.G. University (0.736) and Calicut University (0.366). This is reflected in the swelling of the component of salary adding to total cost and then increase in cost per student.

The figures given in Table 4, differences between revenue per student and cost per student, are a derivative that explains the variations in total cost, enrolment and total revenue. Total Revenue in turn depends on the Fee collected. In this context, it needs to examine the fee rates charged by these Institutes. While fee rates charged by these DEIs are compared, it can be seen that DEI of Calicut University has the lowest fee rate in almost all courses. As per the latest revised fee rates notified by these institutes, DEI of Kerala University charges Rs.750, DEI of M.G. University charges Rs1500, while DEI of Calicut University charges Rs.425 as the tuition fee for Degree Classes. The variation in P.G and Diploma classes is much wider. A glance at the enrolment of students and the fee rates charged by these DEIs point to the price elasticity of DEI services in Kerala, an area so far unexplored by the researchers in distance education. Perhaps the most important reason for the growth of enrolment in DEI of Calicut University is the moderate fees charged, compared to the other institutions.

The head 'salary' constituting more than 80 per cent in Kerala University is due to the fact that Kerala University has been engaging permanent teaching staff to handle

⁴ **Staff Ratio derivative is worked out to understand the relation between manpower employed and the number of people served. Defined generally, it is the ratio of Staff employed to the Students enrolled. In this study, the average of the staff members and average of student enrolment for the period from 1990-2000 are worked out to derive the Staff ratio as follows.**

Staff-Student Ratio"	Average Number of Staff for the study period	100
	Average Enrolment for the study period	

classes and prepare study materials unlike M.G. University and Calicut University. While M.G University has nominal number of teaching staff, Calicut University pulls through without any academic staff, except the Director, by employing contract and part-time contact programme lectures. The second largest component in the cost in Kerala and Calicut is preparation of study materials, while in M.G. Kottayam, it is the conduct of contact classes. A glance at the expenditure per student in various heads will shed more light to the state of affairs of resource utilization in these institutes (Table 5).

TABLE 5
Average of the Percentage of Components of Total Cost in Distance Education
Institutes of Calicut, Kerala and Mahatma Gandhi Universities 1990-2000'

<i>Universities</i>	<i>Salary</i>	<i>Contingent Expenses</i>	<i>Remuneration to Lesson Writers</i>	<i>Preparation of Study Materials</i>	<i>Contact Classes</i>	<i>New Courses</i>	<i>Other Expenses</i>	<i>Audio/Video Equipments</i>	<i>Library</i>	<i>Study Centers</i>	<i>Total</i>
Calicut	65.39	0.61	2.01	22.86	6.74	0	0.94	1.29	0.26	0.20	100.0
Kerala	83.73	0.30	0.63	8.28	2.17	1.62	1.68	0.33	1.40	0.18	100.0
M.G.	44.43	3.33	6.36	5.20	37.85	0	0	0	3.61	0	100.0

Source: Estimated from the Office Records of respective Distance Education Institutes and Universities

Table 6 shows that per head expenditure on salary is almost four times higher in Kerala and around twice in M.G. Kottayam, compared to that of Calicut University. This is because of the weightage given to academic staff in the staff pattern. Calicut and Kerala spend same amount on the preparation of study materials, in spite of the significant variation in students strength. This aspect calls for further probe and it raises doubts about the economies of scale in Distance Education. DEI of Kerala University, with less than one-fifth of enrolment spends a slightly higher amount per head for the preparation of study materials. An important striking fact one can observe from the Table is the exorbitant amounts spent by M.G. University under the heads of contingent expenses, remuneration to lesson writers, contact classes and other expenses. All these heads involve multiple of per head expenditures in other two universities.

An important determinant of Revenue and Cost is the number of enrolled students. Revenue and Cost functions are estimated for understanding how far the major determinants of these variables are able to explain the variations in the Revenue and Cost.

TABLE 6.
Average Cost per Student on the in Distance Education Institutes of Calicut,
Kerala and Mahatma Gandhi Universities 1990-2000(Rs.)

<i>Universities</i>	<i>Salary</i>	<i>Contingent Expenses</i>	<i>Remuneration to Lesson Writers</i>	<i>Preparation of Study Materials</i>	<i>Contact Classes</i>	<i>New Courses</i>	<i>Other Expenses</i>	<i>Audio/Video Equipments</i>	<i>Library</i>	<i>Study Centers</i>
Calicut	243.16	2.37	7.78	86.98	24.77	0	3.55	4.59	1.01	.68
Kerala	906.43	3.51	7.08	87.11	23.09	14.34	17.33	3.81	14.57	1.88
M.G.	421.87	28.68	59.58	61.05	420.91	0	126.12	0	25.22	0

Note: The figures related to M.G. University pertain to 1992-93 to 1999-2000, as in the first year M.G. University had not enrolled any students

Source: Estimated from Office records of Kerala, Calicut, M.G Universities

Revenue and Cost Functions

Revenue and Cost functions are estimated for the purpose of analysing the relationship between these variables and output. This analysis will provide some information about the nature of change in revenue and cost depending on the change in output. Analysis is concerned with establishing Revenue and Cost functions, that is relating to Revenue and Cost with output (Pillai and Naidu, 1991). A simple way of analysing the relationship between the student enrolment and total cost is to establish a cost function (Naidu, 1998). Nature of revenue and cost functions shed some light on the efficiency of operations of the institutes. Revenue and Cost functions are estimated for the purpose of analysing economies of scale. This section is an attempt to examine the relationship between total cost and total revenue with the output in a dynamic framework. These functions are expressed as exponential functions of output, i.e., weighted number of students of the respective years.

Revenue Function

Analysis of Revenue function will help one to examine the relationship between the variation in output and the consequent changes in revenue over time. The Revenue function used in this study is given in equation (1) below:

$$TR = AC/e^{\beta Q} \text{---(1)}$$

Where TR= Total Revenue in Rupees

Q= Total Output i.e. Weighted number of students

A and β = Constants

$e^{\beta Q}$ The disturbance term

In this form p can assume three sets of values. $p < 1$ implies that the institute is experiencing decreasing revenue, $p > 1$ implies increasing revenue and $p = 1$ implies constant revenue conditions.

The equation (1) can be made linear by transforming it in to logarithmic form.

$$\ln TR = \ln A + p \ln Q + U \quad (2)$$

Using the ordinary least square method, the model is estimated and the results are given below:

- Calicut University

$$\ln TR = 2.310 + (+0.922) \ln Q$$

$$R^2 = 0.755 \quad F\text{-Ratio} = 20.293$$

- Kerala University

$$\ln TR = -0.616 + (+0.871) \ln Q$$

$$R^2 = 0.875 \quad F\text{-Ratio} = 45.058$$

- M.G. University

$$\ln TR = 1.192 + (+0.957) \ln Q$$

$$R^2 = 0.759 \quad F\text{-Ratio} = 25.216$$

In all the three cases, as the result shows, revenue increases with the output, but only less than proportionately. In the case of Calicut University, revenue increases by .922 per cent for every unitary increase in output. Similar is the case with other two universities, but the only difference is in the magnitude of variations. So, the results of estimation of revenue function show that all these institutes of distance education have increasing revenue functions in which the revenue of the institute increases with every increase in output, though in a less than proportionate manner.

Cost Function

The cost function used in this study is specified as given in equation (3) below.

$$TC = A Q^{\alpha} e^U \quad (3)$$

Where T = Total Cost in Rupees

Q = Total Output i.e. Weighted number of students

A and α = Constants

e^U = The disturbance term

In this form, a can assume three sets of values, i.e. $a < 1$ implies that the institute is experiencing decreasing cost, $a > 1$ implies increasing cost and $a = 1$ implies constant cost conditions.

The equation (3) can be made linear by transforming it in to logarithmic form.

$$\ln TC = \ln A + a \ln Q + U \quad (4)$$

Using the ordinary least square method, the model is estimated and the results are given below:

- Calicut University

$$\ln TC = 2.310 + (+0.922) \ln Q$$

$$R^2 = 0.851 \quad F.\text{Ratio} = 45.619$$

- Kerala University

$$\ln TC = 20.469 + (-0.085) \ln Q$$

$$R^2 = 0.807 \quad F.\text{Ratio} = 51.058$$

- M.G. University

$$\ln TC = 1.192 + (+0.957) \ln Q$$

$$R^2 = 0.917 \quad F.\text{Ratio} = 87.820$$

The results of estimation of Cost functions of distance education institutes of Calicut and M.G. Universities show that these two universities have increasing cost functions. The reverse is the case with Kerala University distance education. In other words, the cost of providing additional output increases in the case of former two institutes, while that decreases in the case of the latter, but in insignificant rates of 0.085. This implies that additional enrolment can be met with lesser additional cost, but the rate of **decrease** in cost is much less. Practically, there will not be decrease in Cost for every additional unit of output in the case of Kerala University. Every additional unit of output in Kerala is much cheaper in Kerala, as compared to the other two universities in the sample.

In the case of Calicut and M.G. Universities, though the cost function exhibits an increasing trend, the resultant increase in cost is due to the increase in output and is less than proportionate to cost, as the value of a is less than one. This implies that for every increase in the output there will be less than proportionate increase in costs. But in the case of Kerala University, the cost decreases slightly with every increase in output. This implies that, there is sufficient potential for the DEI of Kerala University to expand its strength without a sizeable increase in marginal cost. In other words, it has to reap the unutilized potential of higher education to the maximum extent possible. The three institutes can reap the economies of scale, provided they are willing to take strict cost cutting measures.

The high values of R^2 in all equations show that all the three models are able to explain the variations in dependent variable on the basis of changes in the predictor

variable and the model is of high predictive power as it is indicated by the comparatively high F - ratios.

What stems from the analysis of cost functions in the distance education institutes in Kerala, Calicut and M.G Universities is that all the three institutions are enjoying economies of scale in operation and can think about expanding operation further and that too profitably.

Conclusion

The attempt to examine the internal resource generation and utilization has brought out the dismal picture in these Distance Education Institutes in Kerala's Universities. The systematic accounting practices, monitoring of costs, cost reducing efforts and efficient management techniques are hardly found in the agenda of these Institutes. The three DEIs in Kerala have exhibited more or less same compound rate of growth in revenue generation during the study period. The difference between revenue and cost in these DEIs over the period has shown a mixed trend in Kerala University, while it has exhibited a definite positive trend in Calicut and M.G. Universities. A better picture is obtained by comparing the difference between the cost per head and revenue per head. While Calicut University has been able to maintain a positive difference since 1990-91, M.G exhibited a trend of improvement from negative differences to positive differences, and Kerala University continued to be in the negative zone with double of the negative difference between cost per head and revenue per head compared to that of 1990-91. While the components of cost are examined, it was found that expenditure under the head 'Salary' constituted the largest share in the total cost, with extreme inter-institute variations. It is clear that the staff pattern of Kerala and M.G Universities has reflected on this; though proportionately Calicut University stands second in the share of cost to meet the salaries, the salary expenditure per head being the lowest in this institution. The cost pattern emerged suggests that in conventional DEIs, it is viable to depend on teaching staff hired on contract basis than to go for permanent teaching staff.

The results of estimation of Cost functions of Calicut and M.G. University show that these universities have increasing cost functions, while Kerala University has decreasing cost function. In other words, the costs of providing additional output increase in the case of the former two institutes, (though in a less than proportionate manner) while that decrease in the case of the latter. Analysis of Revenue function has shown that in all the three cases, revenue increases with output, but only less than proportionately. In the case of Calicut University, revenue increases are to the tune of .922 per cent for every unitary increase in admissions. Similar is the case with respect to other two universities. But the only difference is in the magnitude of the variations. So, the results of estimation of revenue function show that all these institutes of distance education have an increasing revenue function in which the revenue of the institute increases with every increase in admissions, though in a less than proportionate manner.

What one infers from the above picture of generation of internal resources and utilization in DEIs of Kerala is that these institutions do not have a clear perspective of

resource generation or utilization. The absence of a well-designed policy of resource generation and auditing of resources reign the administration of these institutes. The apparent variation in cost components shed light on the diversity in organizational set up and management practices and the unaffordable manpower and material wastages consequent on it. Two of the institutes draw a very dismal picture of an unhealthy existence, sustenance on public funds, without any innovative steps to cater to the student populations. In the realm of mismanagement and sheer waste of manpower and materials, there is hardly a room for thoughts on cost cutting measures. All this calls for standardization measures, in this area, like uniform fees, staff pattern, syllabus and curriculum and administrative set up, so that these institutes can compete in a uniform environment for excellent student support services. One of the most important findings of this study is the identification of price elasticity of distance higher education system, which has so far been neglected by these institutes, and also to the areas where further research is to be geared.

References

- Datt, Ruddar (1988) *Developing of Correspondence Courses in India - A Survey-cum- Stock taking, in Khan, I (ed) Teaching at a Distance*, Delhi, Amar Prakashan.
- (1988) "Distance Education versus Traditional Higher Education: A Cost Comparison" in *Studies in Distance Education*. (Ed) B.N.Kaul, Association of Indian Universities and IGNOU, New Delhi
- (1989) "Developing of Correspondence Courses in India - A Survey-cum-Stock taking" in Khan, I (Ed.) *Teaching at a Distance*, Amar Prakashan, Delhi.
- (1993) "Cost Analysis of Distance Education Institution with different size classes in India." *Kakatiya Journal of Distance Education*, Vol.2, No.1, January-June 1993.
- Drucker, Peter (1994) "The Age of Social Transformation" *The Atlantic Monthly*, November 1994, P.53-80
- Greville, Rumble (1982) "The Cost Analysis of Learning at a Distance: Venezuela's Universidad Nacional Abierta" *Distance Education*, 3(1), 1982, 116-140
- (1987) "Why Distance Education can be Cheaper than Conventional Education" *Distance Education*, 1(1)
- (1997) *The Cost and Economics of Open and Distance Learning*, Kegan Page, London
- Laird, B and Layard, R (1974) "Traditional Versus Open University Teaching Methods: A Cost Comparison" *Higher Education*, Vol.3 (4)
- Mcintosh, N.E and Riggs, M (1979) "Employers and the Open University" Milton Keynes Open University Survey Research Department.
- Markovitz, Harold (1987) "Financial Decision Making. Calculating the Cost of Distance Education" *Distance Education*, 8(2): 147-161
- Naidu, C.G (1998) "Pricing Strategies of Distance Education" *Staff and Educational Development International, Volume 2*, No.1, May 1998.
- (1998) "The Economics of Quality in Distance Education: An Indian Perspective" *Indian Journal of Open Learning*, 7(3) 245-255
- Perraton, Hilary (1982) *The Cost of Distance Education*. The International Extension College, Broadsheets on Distance Learning No. 17

- Perraton, Hilary (1994) "The Comparative Cost of Distance Education Teaching in Higher Education: Scale and Quality" in Dhanarajan, G, et.al (eds) 1994, *Economics of Distance Education: Recent Experience*, Hongkong, Open Learning Institute Press, pp 19-30
- Pillai.C.R and Naidu.C.G (1991) Cost Analysis of Distance Education, IGNOU, Planning Division, IGNOU, New Delhi
- Saroj Pandey, (1997), " Popularity and Effectiveness of Open Education System: A Case Study of IGNOU" *Journal of Higher Education*, Vol.20 (1), Spring 1997, Pp.71-80
- Venkatasubrahmaniam, K. (2002) "Financing of Higher Education", *The Hindu*, February 19, 2002. p OB-1

Appendix

TABLE A. 1
Revenue and Cost in DEIs of Calicut, Kerala and M.G Universities
1990-91 to 1999-2000 (Rs)

Year	Calicut	Kerala	M.G.
1990-91	7626300	4346170	190520
1991-92	5030513	3034984	325320
1992-93	6722630	2955295	828671
1993-94	8242348	3466353	1099726
1994-95	11142736	4360685	578097
1995-96	14047902	4903682	1961842
1996-97	16365898	4537000	3282182
1997-98	18889127	4929328	3437084
1998-99	21448937	6013058	11315400
1999-00	2334382	5243170	15058270

Source: Office records of DEIs

TABLE A.2
Enrolment, Staff Strength and Staff Per Student in DEIs of
Kerala, Calicut and M.G. Universities

Year	Calicut	Kerala	M.G.
1990-91	4010	5151	249
1991-92	7955	5333	249
1992-93	9972	4684	408
1993-94	10011	4193	1552
1994-95	10920	4138	1674
1995-96	12690	4146	1592
1996-97	16820	3756	1706
1997-98	19152	4948	2139
1998-99	25003	6073	2682
1999-00	25429	4940	2687
Average	14196	4732	1493
Average Staff Members	52	59	11
Staff per Student Ratio	0.366	1.245	0.736

Source: Office records of DEIs of Calicut, Kerala and Mahatma Gandhi Universities

TABLE A.3
Components of Total Costs and the Percentages of it in the Distance Education Institutes of Calicut University (1991-2001)

	Salary	Contingent Expenditures	Course Materials	Remuneration Contact Classes	New Courses	Other Expenses	Audio & Video	Library	Study Centers
1990-91	60.13	1.71	5.49	5.21	0	0	0	0	0
1991-92	62.35	0.13	20.02	3.14	0	0	0	0	0.08
1992-93	60.47	0.20	16.94	5.91	0	0	0	0	0.00
1993-94	58.18	1.46	12.74	4.88	0	1.29	5.29	0.21	0.26
1994-95	66.93	0.06	13.00	5.24	0	1.39	0	0	1.15
1995-96	55.21	0.21	18.83	5.01	0	0.48	4.84	0.62	0.10
1996-97	46.06	0.41	37.81	3.40	0	0.60	0.16	0.45	0.04
1997-98	45.49	0.24	33.52	4.71	0	2.04	0.06	0.08	0.03
1998-99	46.91	0.24	24.39	8.87	0	1.19	0.01	0.41	0.00
1999-00	60.11	0.13	15.33	11.41	0	1.18	0.35	0.49	0.03

Source: Estimated from Office Records of Universities.

TABLE A.4
Components of Total Costs and the percentages of it in the Distance Education Institutes of Kerala University (1991-2001)

Year	Salary	Contingent Expenditures	Course Materials	Remuneration Contact Classes	New Courses	Other Expenses	Audio & Video	Library	Study Centers
1990-91	81.73	0.21	8.41	2.71	2.81	1.86	0	1.93	0.08
1991-92	79.15	0.35	8.84	2.40	4.50	2.64	0	1.57	0.07
1992-93	80.61	0.21	13.52	1.19	1.17	1.95	0	1.22	0
1993-94	86.41	0.28	6.52	2.27	2.39	1.17	0	0.66	0.24
1994-95	84.68	0.19	6.19	1.79	0.16	1.32	2.04	2.69	1.09
1995-96	85.77	0.39	6.75	1.60	2.84	0.61	0.67	1.00	0.13
1996-97	84.22	0.28	8.97	3.36	1.08	1.04	0	0.33	0.07
1997-98	81.89	0.26	8.02	2.63	0.30	3.13	0.46	2.90	0.04
1998-99	85.86	0.27	8.40	2.01	0.27	1.76	0	0.55	0.00
1999-00	87.03	0.61	7.15	1.71	0.70	1.37	0.15	1.14	0.04

Source: Estimated from Office Records of Universities.

TABLE A.5
Components of Total Costs and the Percentages of it in the Distance Education Institute of Mahatma Gandhi University, Kottayam (1991-2001)

<i>Year</i>	<i>Salary</i>	<i>Contingent Expenditures</i>	<i>Course Materials</i>	<i>Remuneration Contact Classes</i>	<i>New Courses</i>	<i>Other Expenses</i>	<i>Audio & Video</i>	<i>Library</i>	<i>Study Centers</i>
1990-91	93.05	6.95	0		0		0	0	0
1991-92	78.50	6.84	0	14.67	0		0	0	0
1992-93	63.65	6.82	0.57	20.47	0		0	0	0
1993-94	30.99	2.42	3.12	13.21	0	10.15	0	33.47	0
1994-95	41.74	0.96	13.60	24.67	0	9.94	0	0	0
1995-96	28.78	2.27	4.96	27.49	0	7.85	0	0.02	0
1996-97	26.93	1.48	4.64	51.43	0	14.43	0	0.02	0
1997-98	28.43	1.48	16.25	38.89	0	6.08	0	1.21	0
1998-99	25.59	2.02	4.41	48.89	0	17.65	0	0.42	0
1999-00	25.56	2.02	4.41	48.82	0	17.24	0	0.94	0

Source: Estimated from Office Records of Universities.

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Efficiency and Accessibility of Higher Education in Russian Federation"

Saveliev Alexander*

Abstract

Higher education, with a long history of several centuries, despite its conservatism, convincingly demonstrates vitality and unique ability for modifications and transformation. The main core of higher education institutions of Russia is the chair, and their structural sub-dividing responsible for quality of education and training of the graduates. In some countries, for training of the graduate, the concrete professor is responsible, in others - faculty or department. What of these frames is most effective is the crux of the problem. Today, in conditions of multi-level system of higher education, the chair trains the bachelors, masters, diploma specialists. Directions of the bachelors and masters training become rather broad and the chair unable to ensure its own forces: it is necessary to have widely erudite teachers, furthermore learned in all the details of a concrete speciality. Today's post-graduate school may not ensure training of such teacher, which is a severe problem for a system of higher education.

Introduction

The efficiency of a professional education becomes a direct attribute of economic development of a nation. The successful solution of problems of scientific, technical and socio-economic advance of society depends in accordance with high quality of the specialists training in modern requirements of production.

For the determination of a state development strategy of modern society, the problem of an increasing role of education in achievement of political, economic and social stability in the country is worthy of a special attention. Education of the population in the broad sense of the word must be considered as a source of consolidation and self-development of the state.

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1. New Challenges of a Modern Epoch

Upcoming century and new milienium should become the beginning of a new information civilization with a new system of values. The status of the person and society today is determined not by number of accumulated material values, but by standard of culture, education and reasonably-sufficient managing and ensuring the savings of resources

In previous time, the main role in the development of states' and nations' natural resources was played, giving this or that country, the comparative advantage in a system of global economic cooperation. Nowadays, on the foreground, institutional condition is put forward, and, what is even more important is the level of development of human resources - knowledge, creativity, craftsmanship skill in the broad sense of the word.

In foreground of the historical scene, there will be those countries, those people, who will be capable to offer more higher level of education, good breeding and skill in all its manifestations, ability to search for knowledge and for non-standard solutions.

Just the educational potential, its further and its greater measure will determine the status of a person in society and also the status of a nation (state) in the world. The development of economy in coming decades, by the experts' opinion, will be determined by resources having two different colourings: "*black gold*" and "*gray matter*".

On the basis of a qualifying level analysis of a European labour force, conducted at the end of the 80s, the Advisory Committee on Industrial Researches and development of the European Commission of European Union came to a conclusion that, without a competitive education system, there cannot be a competitive labour force, and without a competitive labour force, the competitive economy cannot be there. Another way, it may not be, wherefore in modern conditions, when the part of human resources in making up the Domestic Gross Product in developed countries falls 80%, the dominating role in economic development belongs to education, which shapes a competitive labour. The availability of such labour, by the conclusion of the authors of the report, is an indispensable premise for a surviving in competition for the export markets. The winners will appear to be those, who can insert the results of basic researches in new technologies faster and, to begin with, produce the high-performance goods coupled with their sale under the admissible price.

The philosophical views on education vary. The increasing number of countries revise their approach, according to which, the education is considered as the instrument of the state, which uses it for shaping of the appointed (given) type of the social personality. Such approaches are revised, according to which, the special attention is concentrated only on one aspect of education - its significance for development of economy and production. The increasing number of the people perceives needs of the personality development as main conditions of the state human resources development.

Today in the world, there is a moving of the states' competing from the field of economy to the field of science, new technologies and education. In the context of a tough competition, the states having a higher scientific potential and a more educated labour will survive. In the practical plan, the century is everywhere marked by permanent

reforms and innovations in the education field that, in aggregate, represents the key factor of becoming a post-industrial civilization of mankind's development. All directions of education system and activities such as the following proved to be affected by reforms and innovations:

- Aims and contents of education.
- Organization and technologies of education.
- Financing and organizational structure of a system, as a whole, and education institutions, in particular.

Just for this reason, the governments of the world developed countries give major attention to realization of education reforms.

Three main problems would be solved at implementation of education system reforms in Russia:

1. Increase of education accessibility;
2. Improvement of its quality, according to needs of the individuals, society and state; and
3. Increase of efficiency and return of means, allocated on education.

2. Present Status of Higher Education System of Russia

Table 1 depicts some historic data of Russian system of higher education over the last four decades or so.

TABLE 1
Dynamics of Higher Education Institutions Development in Russia

<i>Years</i>	1960	1965	1970	1975	1980	1985	1990	1992	1994	1996	1998	2000	2001
Student enrollment state sector, only in thousand	1497	2354	2672	2857	3046	2966	2824	2638	2534	2802	3347	4271	4797
Student enrollment state sector, fulltime, in thousand	680	950	1250	1500	1686	1569	1648	1630	1600	1777	2040	2625	2881
Number of higher education state institutions - all;	430	432	457	483	494	502	514	535	710	813	914	965	1008
Non-state sector	430	432	457	483	494	502	514	535	553	569	580	607	621
Student enrollment, non-state sector	-	-	-	-	-	-	-	-	111	163	251	470	630
Total enrollment, in thousand	1497	2354	2672	2857	3046	2966	2824	2638	2645	2965	3598	4741	5427
Admittance enrollment state sector, in thousand							584	521	568	674	832	1140	1263
Number of the students per 10000 of population							191	178	171	200	245	324	380

In this space of time, it is possible to emphasize three temporary intervals:

1. Period of extensive development (1960-1980): There is no need to describe the period of extensive development. As a result of its implementation, there was a stepping up of the higher education system and an increasing number of higher education institutions. The process was accompanied also by negative events: some of the new higher education institutions had not indispensable conditions for realization of education process (absence of laboratory facilities, uncompleted teaching staff by highly qualified personnel). In the end, it has led to accumulation of rather severe problems: country had no time to construct new learning-laboratory buildings, buildings of new hostels, there was no education equipment. To the beginning of the 80s, it had become clear that the extensive path of development of higher education had exhausted itself completely. The crisis of a system was coming in all directions.

2. Period of crisis (1981-1994): The feature of a crisis interval is that the reduction of the student enrollments occurred against a background of stabilization of daytime (full-time) students' contingents. It means that the reduction of students' contingent of higher education institutions was put into practice at the expense of the evening and correspondence forms of education. In some higher education institutions, the activity of evening and correspondence divisions was completely periodinated. The data analysis on entrance competition and number of the applications, handing in higher education institutions by the forms of education shows that the evening form loses the attractiveness for youth, which today among the in-service training forms prefers correspondence education forms (in particular distant education) and externate. By 1994, the process of students' contingent reduction was stopped.

3. Period of gradual way out of the crisis since 1994: During the third interval, the rather fast increase of number of higher education institutions and students' contingents got under way. By 1997, the contingents of the students of higher education institutions reached the level of 1980. In this period, there has been an extensive increase in the number of higher education institutions of different ownership forms; the non-state higher education institutions that received licenses for education activity have also appeared.

It may be necessary to mark a number of factors deciding this process:

- 1) In the 90s, increase in the number of state higher education institutions was kept as poorly controlled.
- 2) Since 1993, the regular registration of non-state higher education institutions having the license for education activity began.
- 3) From the beginning of the 90s and further, there was a process of rapid expansion of higher education institutions; many new universities have appeared.

The total number of higher education institutions in Russia in 2001 had reached 1008, more than 400 of these are non-state. Simultaneously, there is a process of transformation of leading specialized higher education institutions of state sector into universities or academies: except for classic universities, also the technical (polytechnic), humanitarian and other types of universities have appeared; by 2001 their number exceeded 300.

As of now, all the education system of Russia includes more than 143,0 thousand state education institutions of all levels (from elementary schools up to institutions of post-graduate education), about one and half thousand of scientific organizations, technological parks, innovation centers, in which today approximately 39 millions of persons are educated, trained and work. (See Figure 1 the Structure of Higher Education of Russia)

In the country, 621 state education institutions of higher professional education act, in which more than 5 million students are trained. In 407 non-state higher education institutions, more than 600 thousand persons are trained. In 2001, all forms of education in the state higher education institutions admitted about 13 million persons. The parameter of the students' number of higher education institutions per 10 thousand populations makes 380.

It is interesting to track processes of development of branch higher education institutions. Natural-scientific education, education, medicine in a relative part of a higher professional education practically saved their own position. Volumes of engineering-technical and agrarian education decreased (almost by one third), to a lesser degree, but also the volumes of education in spheres of culture and art also decreased. Simultaneously with it, the part of humanitarian (in 2 times), economic and ecological education has increased. Such structural modifications in a system of higher professional education completely correspond to a situation, arising in the country, on labour markets and education services.

Distribution of state higher education institutions by kinds: the universities take approximately 47 % of total number of higher education institutions, academies - 28 %, institutes and other education establishments - 25%. Thus, an overwhelming number of students is trained at universities of a different type - 56 %, in academies - 25 %, and in institutes - 19%.

For the past decade, in higher education institutions the part of the students trained on engineering and technical specialties, essentially has decreased. Moreover, the number of students in higher education institutions of a humanitarian, economic and juristic orientation has increased. In them the training of bachelors and masters on 94 directions including natural sciences and mathematician, humanitarian and socio-economic sciences, education, engineering science, agricultural sciences, and also training of diploma specialists on 470 specialties of higher professional education in different spheres of science and engineering.

The modern information technologies, first of all, such as computer technologies of education, knowledge management are widely introduced into practice of higher education; monitoring of the state education standards, processes of licensing, certification and accreditation of education institutions implements. The information technologies in education introduce the new positive moment in process of teaching and learning of knowledge.

Appearance of personal computers and ITization of many spheres of business become a turning point and for the field of education, the needs of development and application of high-tech systems of education has a practical character, dictated by high level of professional technologies in forward branches of production.

The modern level of telecommunications means development has allowed to adopt a development program of a unified system of distant education in Russia, which is invoked to promote problem-solving to the fullest satisfaction of professional education needs of citizens. The technologies ensuring a direct transmission to the students of new scientific knowledge, discovered on the basis of research works, conducting in higher education institutions, received the further perfecting and development.

3. Access to the System of Higher Education

According to Article 26.1 of the Universal Declaration of Human Rights, the access to higher education should be determined by abilities, possibilities, gains, persistence and perseverance of those who want to receive such education, and the getting capability of such education can be saved during all life.

TABLE 2
Distribution of Higher Education Institutions' Students by Economic Regions
(in Thousands)

<i>Year</i>	<i>1995</i>	<i>1997</i>	<i>1999</i>	<i>2000</i>
Economic regions, all	2642,0	3046,5	3728,1	4270,8
Northern	64,4	74,4	92,9	110,0
Northwest	224,9	255,5	316,8	352,1
Including St.-Petersburg	205,6	232,1	286,2	315,6
Central	706,0	802,3	954,0	1090,6
Including Moscow	450,8	514,4	607,8	708,7
Volga-vjatski	133,2	154,1	193,1	214,3
Central - chernozemni	124,4	139,0	163,5	181,8
Povolzhski	287,5	325,7	390,6	442,4
North-Caucasian	244,3	296,4	362,7	422,8
Ural	298,9	357,3	450,3	523,4
West-Siberian	273,4	322,0	411,2	484,0
East - Siberian	154,6	172,7	211,7	239,6
Far Eastern	116,0	131,9	163,3	190,0
The Kaliningrad range	12,4	15,2	18,0	19,8

For analysis of access problems to higher education, it is necessary to consider distribution of the students' contingent by economic regions of Russia as shown in Table 2, which further displays strong dispersion not only by absolute value of students' contingents, but also by relative number of the students per 10 thousand of population in economic region: from 78 students per 10 thousand in East-Siberian region up to 295 in North West region. The gap makes almost 3,8 times.

Even greater dispersion is observed at the level of the subjects of Russian Federation: the best indices are for Moscow with the subordinated territories (558 students), St.-Petersburg (512 students), Tomsk Oblast (342 students) and the least indices are for Hanty-Mansiysk region (44 students).

The above-stated information does not allow asserting that Russia by number of higher education institutions essentially differs from other countries. But, at the same time, the problem is whether such broad network of education institutions is capable to meet the requirements of youth in higher education.

As criterion for an evaluation of personal needs in higher education, the number of applications for admission in higher education institutions (Table 3) is selected. Over the period of time, this index, being equal to about 2, means that the personal needs are satisfied only by half.

Based on the above-stated, it is possible to draw a conclusion: The number of places for education, not number of higher education institutions is a major argument for the students/candidates while selecting path of their development.

TABLE 3
Competition of an Entrance in State Institutions*

<i>Years</i>	<i>Entrance, (in Thousand)</i>	<i>Number of the Applicants</i>	<i>Competition of the Applications (per 100 places)</i>
1990*	352,8	764,4	217
1992*	325,2	684,3	210
1993*	331,2	658,0	199
1994*	332,6	684,7	206
1995*	345,6	724,0	210
1996*	359,6	777,5	216
1997*	364,9	833,2	228
1998 **	832 (546,7)	161,2	194
1999 **	946 (563,1)	179,7	190
2000*	(621,9)	1375,4	220
2001*	(669,3)	1474,7	220

Notes: *Under the data of the Department of economy for higher education institutions, dependent on Ministry of Education;

** Data by all higher education institutions of Russia.

Certainly, the higher education institutions can admit to the first course still additional students' contingent with full compensation of the costs (on the commercial basis) that does not contradict the existing laws. Taking into account also admission contingent in non-state higher education institutions, the coverage of youth by a system of higher education is essentially increased. The above stated leads to show that, in 2000, the higher education institutions admitted at the first course 1.1 million students, and, in 2001, this index exceeded 1.3 million students, that is, a record index for all years of existence of Russia, showing further that the youth of Russia is active and has an unambiguous desire to get higher education.

4. Economics of Higher Education

Under the Constitution of Russia, for the first time, higher education is granted on the competitive basis and is paid at the expense of the budget, and the state, allocating financial assets, inspects this process through the so-called check figures of admission at the first course of education.

TABLE 4
Dynamics of Expenses of Education in State Higher Education Institutions
(in Thousands)

<i>Year</i>	<i>1992</i>	<i>1994</i>	<i>1995</i>	<i>2000</i>	<i>2001</i>
The student enrollment, thousands	2638,0	2534,0	2642,0	4279,7	4797,4
Including train:					
At the expense of the budget	2588,9	2417,6	2413,4	2754,6	2783,0
Percent From contingent	98	95	91	64	58
Full compensation	49,1	116,4	228,6	553,5	675,6
Fulltime education	1657,2	1628,5	1692,1	2441,8	2657,0
Including					
At the expense of the budget	624,8	1557,4	1580,3	1832,2	1858,6
Percent of contingent	98	96	93	75	70

Table 4 confirms the conclusion. The introduction of the practice of paid education with full compensation of the costs on education unconditionally dilates capabilities of youth admission in a system of higher education, thus, as indicated in the table, the share of education, financed at the expense of the budget, decreased. This circumstance stipulates unequal capabilities for children from the so-called unprovided for and not sufficiently provided for families.

5. Coverage and Equity of Access

Is it possible, in these circumstances, to talk about reduction of a system of higher education? Simply to answer such a rhetoric question, it is difficult, as though it is necessary to take into account many factors and, first of all, the state of economy -

availability of financial and material resources, which are demanded for maintenance and development of an education system. Simultaneously, it is necessary to take into account the needs of the economy and the society in terms of the specialists, and the needs of the personality in getting higher education.

For an evaluation of the student's coverage by higher education, it is expedient to use cumulative students' contingent trained in education institutions of a higher and secondary professional education (education of the 5-th and 6-th levels on international classification of UNESCO). Thus, it is necessary to take into account also that the persons at the age of 15-24 belong to the basic group of the population covered by a higher and secondary professional education as shown in Table 5.

TABLE 5
Coverage of Youth and Access to Higher Education

<i>Indices of a Coverage and Access to Higher Education</i>	<i>Years</i>				
	<i>1980</i>	<i>1995</i>	<i>1996</i>	<i>1998</i>	<i>2001</i>
Population (in million persons)	148.0	148,3	148,0	146,7	144,8
By age groups (in million persons) Including					
15-19, H1	10,2	10,8	10,9	11,2	11,9
20-24, H2	9,5	10,2	10,3	10,5	10,8
Cumulative contingent (in thousand persons)	5094	4700	4940	5650	6919
Cumulative admission (in thousand persons)	1338	1343	1391	1619	2034
Quotient of coverage for age group 15-24	0,26	0,22	0,23	0,26	0,58
Quotient of access of the population age-group					
15-24	0,068	0,064	0,066	0,075	0,090
15-19	0,131	0,124	0,128	0,144	0,171

Such an approach is realized because the statistical data, describing an age composition of the students of the secondary professional education institutions, are absent.

Quotient of coverage is determined as ratio of cumulative contingent of the students to the number of the population of the given age group.

Quotient of access is determined as ratio of a cumulative entrance to the number of the population of the given age group.

These two indices are relevant for decision making at determining scales of the system of higher education development.

The access of youth to post-secondary education can be considered as a major social indicator describing a state policy in the field of education and a degree of implementation of the state guarantees in this sphere. It follows the conclusion that the system of a higher and secondary professional education basically answers education needs, existing in society, and has a definite potential of development as a "pent-up demand for education" among those categories of youth, who for whatever reasons, could not to realize the education needs. Certainly, it is necessary to have in view those

financial resources, which the society can allot for solution of these problems. It is no wonder that the Government of Russian Federation attempts to shift originating difficulties with financing of the higher education system from their own shoulders on to others: whether it is the students and their parents' shoulders (full cover of the costs on education), or it is the regional budgets (handing over the higher education institutions for competence of the subjects of Russian Federation). Substantially, all this is possible under one condition: it is necessary to have the solvent population that, in the nearest future, is unlikely.

6. Sources of Finance

Characterizing the situation, usual for the last years with financing of the education system as a whole, it is possible to assert that the level of financing, determined, in the end, stability of threshold indices of economic safety in the field of education, comes nearer to critically low values.

The search of the substantiation of paths of education system withdrawal including higher education, from financial crisis and ensuring its stable development, demands study of threshold social and economic indices used in similar systems of foreign countries. In this connection, it is necessary to mark the broad current opinion that the level of education financing should not be below the average level of countries of Organization for Economic Cooperation and Development (OECD), in which the education expenditure is considered as a social priority.

Taking into account state and non-state sources of education financing, the OECD countries spend on an average 5.9% from a cumulative GDP. The main source of finance is the state allocating on education 4.7 % of a GDP. On the private sources of finance, it is accounted 1.2 % of a total GDP of OECD countries. On an average, these countries spend 13 % of total budget expenditure.

Despite considerable divergences between countries, the general tendency is characterized in each country by the fact that the education expenditures are sharply increased in accordance with transition to more high levels of education. For elementary education, they make from 1700 dollars per student up to 5300 dollars or more; for secondary education from 1700 dollars per student up to 6500 dollars and more; and for higher education from 4100 dollars per student up to 11000-16000 dollars in Canada, Sweden, Switzerland and USA.

The relevant rule of education policy of OECD countries is the allocation of the responsibility for education financing between federal, regional and municipal management bodies. In 19 of 25 OECD countries, 85 % of expenditures on state account on higher education is not only originated but is also inspected by the state. Such assignment for education allow the majority of OECD countries to ensure rather high level of financial maintenance.

The higher education throughout is rather an expensive enterprise, as is shown by world experience. Not each country has a good chance to have its own high-quality

higher education. The same world experience does not give any financing model to follow. All is determined by local conditions, national traditions and other factors.

The governments of different countries consider higher education financing as a composite complex problem. In developed countries, it is sharply definite that the system of higher education should be provided with the conforming resources, to have highly qualified teaching staff, good hardware of lectures and education audiences, labs and perfect library with all computer and telecommunication capabilities.

The main source of the higher education financing, practically in all countries, is the state budget formed through the taxes. Table 6 shows budget expenses in Russia.

TABLE 6
Federal Budget Expenses on Education (in%)

<i>Expenses on Education</i>	<i>Years</i>				
	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>
Total Percentage of GDP	3,49	3,45	3,63	3,71	4,09
Higher Education	1,99	2,00	2,27	1,92	2,40
Secondary Specializ. Education	0,45	0,48	0,48	0,44	0,57
Vocational Education	0,70	0,65	0,67	0,62	0,91

In federal type countries, there are discussions concerning addition of local or municipal budget funds to the funds of state finance. In an overwhelming majority of countries, the systems of higher education enter both the state and the private education institutions. In some countries, there are still private institutions dependent on the state. For example, in Great Britain, there is a unique private university and more than 45 completely independent universities and institutes, which are inspected by Council of university financing (Universities Finding Council). In the USA, 25% of students are trained at private universities (among them are also the most prestigious USA universities), which receive more than 35% of total state expenditure and approximately 40% of the expenditure is covered at the expense of a tuition payment. In public sector, the tuition payment makes only 15% of total charges. In Japan, at private universities, there is a lower level tuition (almost in 2 times) and it makes more than 60 % of their expenditure. The state universities receive more than 62% of their funds from a state budget and fall into the categories of elite universities of the country. In Germany, the major share of responsibility for financing of higher education lies on respective state governments.

The universities and other higher education institutions worldwide are actively engaged in search of other sources of finance.

These are:

- Conducting of scientific researches by the orders of either state agencies or different firms and enterprises;

- Sale of a different kinds education services;
- « Training or improvement of skills of professional staff;
- Organization of short-period education courses during holidays (vacation education);
- Management of risky business (stock market, investment etc.); and
- Leasing education buildings for holding conferences etc.

All these attempts are undertaken to help higher education institutions survive in conditions of a financial resources deficit.

The development of a national education system of Russia invoked to ensure reproduction of an intellectual country potential, largely among the other factors, is determined by the dimensions of its financing.

Contrary to repeatedly declared principles of financing education in priority process, due to impressibility of the expenditure decrease on these purposes, from 1992 to 1999 and the tendency of a specific gravity reduction of the education expenditure in total amount of an account part of the country, consolidated budget was saved, that resulted in incomplete and delayed financing of current activity of education institutions, as well as shortage of means for the Federal program of education development realization (refer to Table 7).

In Russia, during the last decade, there was yet an otherwise tradition. The legally established standards of state expenditures for education envisioning allocation for all education system from the state budget not less than 10% of the national income of country and not less than 3% of expenditure part of the federal budget for higher education are not being executed.

TABLE 7
The Expenditure of the Budget for Education and Personnel Training in Higher Education Institutions

<i>Year</i>	<i>1980</i>	<i>1985</i>	<i>1990</i>	<i>1995</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>
Expenses of the budget, Bill. Rubles	76,1	101,1	136,3	284778	529765	499,9	575,1
Including on education, Percentage GDP	11,6	13,6	22,2	10981	18471	17,25	20,87
Percentage of the budget expenses	15,24	13,40	16,29	3,86	3,49	3,45	3,63
On training of personnel in high education institutions, Bill. Rubles	1,5	1,6	2,4	6351,0	10568,6	10,03	13,02
Percentage of the budget expenses	1,97	1,58	1,76	2,23	1,99	2,00	2,26

The analysis of education financing in the country as contrasted to economically developed countries conducted in dynamics by index of a GDP share, put in education, has shown disastrous recession of volumes of budget financing of education institutions in Russia since 1992.

The prime operations of Government in the field of education will be directed to ensuring the expenditures for education increase and essential increase of their efficiency, conditioning for engaging to the field of education of means from extra-budgetary sources. In the field of higher education, for a transition period the competitive procedure of allocation of a state contract for training specialists and financing of the investment designs of higher education institutions, irrespective of their organization-legal form, transition to the contract basis of financial relationships of education organizations with the state, and also introduction of a principle of address granting of the grants will be entered.

It is envisioned also to take measures for re-structuring and reorganization of a network of education institutions of a professional education by their integration with higher education institutions and foundation of university complexes. The installment transition to normative financing per head of a higher professional education envisions realization of experiments on improvement of organization technologies of unified final examination at school during 2001- 2003. It is difficult to say how these intentions of Government influence reform realization in the field of higher education. Discussion of these and other proposals by the academic society will allow to answer this problem.

7. Efficiency of Higher Education

First of all, it is necessary to clear that which is perceived as efficiency of higher education.

The "efficiency" of any process or system implies needs of introduction of some quantitative assessments. When it is a question, for example, about technical devices or systems, it is clear that any device or machine can be evaluated by its productivity, or by a velocity of fulfilment of operations, or any other arguments. If we deal with an economic system, its efficiency is meant as a return (getting the profit or income) from an investment of financial or other means. The faster a profit, the more effective the system. If we have undertaken to evaluate system education effectiveness, here, it is not at all apparent, as it is necessary to estimate its activity and what process needs to be taken for an evaluation.

Globally, in a system of higher education, it is possible to select some basic processes:

- Training;
- Education;
- Scientific researches; and
- Management.

Each of these processes has specific features, which should be taken into account for an evaluation of efficiency. At the same time, any education establishment, including university, academy or institute, according to a main role, is granted education services, which in the market of services become the goods. But it is not a unique kind of "output product", as there are still outcomes of fundamental or applied scientific researches, improvement of professional skill and retraining of the specialists, cultural and education activity for the population of the given region and many other things. It is possible to call it as the external system effectiveness of education.

There is then the concept of an internal efficiency. It is necessary to make more precise what kind of activity we intend to estimate, what subjects are involved in this activity etc. For example, to evaluate efficiency of the professor's lecture, it is necessary to conduct questioning or form filling of the students to determine what knowledge they have acquired as a result of the lecture hearing. To evaluate education activity of the chair, it is necessary to evaluate activity of each teacher for all kinds of studies and for all disciplines, which the chair conducts. To take into account the students' successes at fulfilment of all kinds of studies, including fulfilment of the homework, as one of the criteria for an evaluation of an internal efficiency, the drop-out of the students is used.

From what is stated above, it becomes apparent that the problem of an evaluation of education activity of the education system and subjects is rather complex.

It is possible to talk about economic efficiency of the financial expenditure in a system of higher education. However, it is thus necessary to take into account a specific feature of an education field, on which it is impossible to transfer mechanically all those economic theory rules, which are fair for an industrial field. For example, for production manufacture, the rule is fair that the production efficiency is higher there, where at equal loiter resources, including financial, more production ensues. To transfer this rule to education field, it will occur that more the students are trained in the given institution, other things being equal (identical scales of financing, identical equipment, identical number of the teachers etc.), a higher economic efficiency of an investment of financial resources will result in higher production in the given higher education institutions/schools. Certainly, the concrete professor can simultaneously train 5-6 students and several scores of them, but the education effect from its activity will be essentially different. From the formal point of view, all higher education institutions give the identical diploma, but "price" of this diploma is different, as it is determined in the main authority of the institute, among other higher education institutions, behind which, in turn, there is a quality of education.

On the other hand, in the opinion of the western scientists, the university today is the «republic of intellect»), or the ((factory for producing knowledge)), the task of which is:

- To provoke curiosity of the student;
- To infect them with skills of analytical and creative intellection; and

- To maintain mutual excitement of the teacher and the students during the communication process.

Before the Second World War, the universities in Europe were elite institutions. The post-war boom in development of higher education has led to sharp increase in the number of students in many countries, in diversification of education programs, and in mass higher education. As education space extends, the students have an opportunity to be trained in any place of the world. Academic freedom of the students and teachers has, however, aggravated the problems of quality of education sharply.

8. Modification in Organization of a System of Higher Education

The market economy by virtue of an extraordinary mobility of its conjuncture forces the people permanently to study and to be retrained and in the case of changing job or profession, and in a case, when the person remains on the job for a long time. Today, scores of countries of the world search and realize their models of continuous education. In many developed countries, all types of education institutions-network have sharply increased, and the number of adults education training in the different education forms has exceeded the number of schoolchildren and the students.

The continuity of education ensures a capability of multivariate motion of the personality in education space and creates for it the optimal conditions of such motion. The contents of education within the framework of continuous all-level education should be ensured by means of a complex of the state education standards and successive education professional programs.

In a system of continuous education, the major role is to assign post-graduate education, which, in the long period, should become the most-vast sphere. Today, it should be a question of qualitatively different basis of such education, where the retraining of the unemployed and vacant population, informal education and self-education adults will enter. The institutions of post-graduate education should have an integrative character to execute major variety of education programs.

For free progression of the person in professional education space, it is necessary to ensure higher flexibility and diversification of the education forms. A special attention is necessary to be given to the "open education", called distant education. The needs of the education market of Russia in distant education now already make 3.5 million persons annually, among them at higher education - 1.5 million persons and retraining of staff - 2 million people. Broad perspectives in development of the forms of getting education have the externate form too.

In Russia today, an understanding has developed that access to global information networks should have not only education institutions of a professional education, but also comprehensive schools that will promote strengthening of unified information space in an education system.

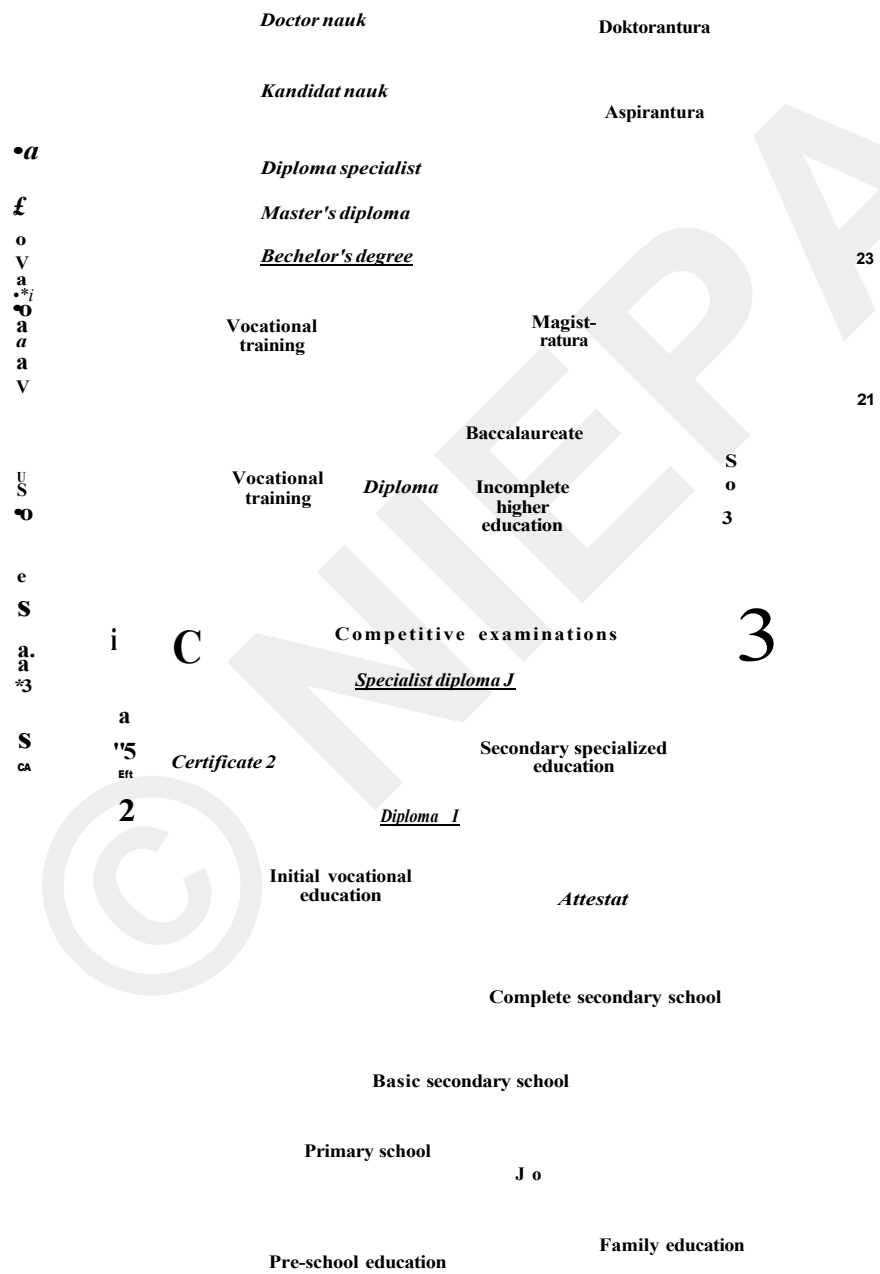


Figure 1. Structure of Education System of Russia

The professional education stands today before needs of setting up the whole system of the flexible organizational forms of education and modern education technologies creating higher favourable conditions for continuous progression of the person in modern society.

The search of perfecting methods of the specialists training quality in conditions of a shaped labour market, on the one hand, and satisfaction of the personality inquiries in education services, on the other, causes higher education institutions to revise both contents of education and teaching, and education technology process. Today, in Russia, the new system of higher education, including conventional structure of the higher education specialists training and multi-level structure, granting diverse on duration and level of education programmes, are actually set up. The different education institutions distinguished by forms of ownership (state, private, public, mixed), by types (university, academy, institute, college), by levels (uncompleted higher, basic higher, full higher (master, diploma specialist, postgraduate education) are characteristic for this system as shown in Scheme of the higher education system in Figure 1.

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RESEARCH NOTES/COMMUNICATIONS

Educational Research and Policy Making: The Indian Scene

Punita Govif

Abstract

// 'research over the past three years in medicine, agriculture, physics or chemistry were wiped out, our life would be changed materially, but if research on education over the same three years were to vanish, educators and education would continue much as usual' (Lakme quoted in Nisbet, 1994). True, in the present scenario, researches in social sciences are losing their prestigious place. They are often charged as useless. But the total body of information and conceptualization of issues, that researchers in social sciences produce, may exercise their impact on policy making. Although development in social sciences is not as orderly as in physical sciences, it is possible to summarize through Meta-Analysis the researches on a single topic into generalized conclusion, irrespective of inherent differences.

Introduction

Educational research as a systematic discipline with scientific basis came into existence with the efforts of Wundt in the last decade of 19th century. In India, it started quite late. The first attempt of providing basic facilities for educational research was initiated by the Central Institute of Education (CIE), when the government imposed upon it the responsibility of conducting research on educational issues. The establishment of this Institute in 1947 was followed by the establishment of Central Bureau of Textbook Research (CBTR) in 1954 and in particular the National Council of Educational Research and Training (NCERT) in 1961 to serve as the premier institute for educational research in the country. Later on, State Councils of Educational Research and Training (SCERT,) came into existence in different States and Union Territories on the pattern of NCERT.

Present Scenario

The growth of research during the post-1950 can be divided into three major phases. The first phase (upto 1978) heralded increased government interest in forming sound research base, the second phase (from 1978 to 1988) as the period of massive expansion, and the

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third phase (from 1988 to 1998) reflecting a trend towards quality improvement and an inclination to provide sound knowledge base for policy framing.

In the first phase (upto 1978), systematic and planned efforts were made to organize educational research, particularly during the decades of sixties and seventies. Institutions like NCERT had been striving at priority level to develop the discipline of educational research. These institutions through the channelization of financial assistance had concretized the efforts in a preferential manner to individual researchers and institutions that were willing to tackle major problems of education through research. The University Grants Commission introduced a scheme for developing a limited number of university departments for advanced research and training in selected fields. These centers were entrusted the task of encouraging the pursuit of excellence and teamwork in educational studies so that international standards might be achieved. The NCERT also initiated quite a few research projects in collaboration with certain universities and other institutions in different parts of the country. Similarly, ICSSR also sanctioned a few projects of educational significance to different institutions in the country and attempted to develop coordinated research efforts for solving problems in scientific manner. There had been greater efforts to enrich educational research through an inter-disciplinary approach. During this period, 1570 research studies were completed.

The second phase (1978-1988) was the landmark in the development of educational research. Attempts were made to strengthen knowledge base of education. The contribution of psychology, during this period, to develop the science of pedagogy has been considerable. The third survey of research in education (Buch, 1986) recorded that out of 319 Ph.D. theses in the area of learning, motivation and personality, more than 50% (164) were completed outside the departments of education. Table 1 describes period-wise the distribution of Ph. D. theses in Education.

TABLE 1

<i>Period</i>	<i>Number of Ph.Ds.</i>
1. First Phase upto 1978	1570
2. Second Phase 1978-1988	3155
3. Third Phase 1988-1998	2601

Source: Surveys of Educational Research and Indian Educational Abstracts upto 1998.

There has been an explosive growth of educational research during this period. The main reasons for this stupendous growth were: increase in the number of universities offering facilities for educational research, UGC's drive in supporting and encouraging research in all disciplines through research fellowships, and NCERT and ICSSR supporting interdisciplinary research in education.

During the third phase i.e. from 1988-1998, there has been a remarkable decline in the number of studies produced, in comparison to the previous years. A large number of national bodies sponsoring and financing educational research created the problem of

overlap and duplication, resulting in the lack of coordinated growth of research in education. Many studies on similar topics were produced with a little variation. Besides, there could be two other reasons responsible for decline in the number of studies: (a) introduction of NET as compulsory qualification for lecturership; and (b) policy of automatic and time-bound promotion of teachers to higher scales. The need was felt to diagnose the weaknesses in the education system and to analyze research findings, without moving ahead for further research. The idea that research findings should contribute to policy-making also got momentum.

Analysis of the Situation

Regarding the effectiveness of research, it can be said that research has value only when its results influence or promote action, either directly or indirectly. In our educational system, people in power and administration are responsible for framing the policies. It depends on them whether they want to use the results of research studies or not. In a study, Weiss (1977) interviewed 155 policy-makers in Washington D.C. and found that 57 of them felt that they used research but only 7 could point to a particular project or study that did have an influence. The situation in India is also very pathetic, as decisions are taken here without sufficient background of research studies. For example, radical changes were made by NCERT regarding curriculum development, teacher education etc. but there was hardly any evidence to show that these decisions were based on the findings of any research.

The science curriculum at school stage has been revised four times but no systematic efforts have been made to evaluate curriculum in the light of research findings.

A couple of years ago, the government had decided to change the existing syllabus of history at school stage and it has been modified accordingly. Now, the question arises what was wrong with the existing syllabus, and which research study had proved it defective? Similarly, it was decided by NCTE during 1990s to have a teacher student ratio of 1:10 in the teacher training institutions instead of 1:20. The question again arises which research study provided the basis for such a decision?

Educational research in India has grown over a period of more than five decades. The societal expectations are varied and many. Teachers and school administrators expect educational research to help them improve the planning and execution of teaching. Policy makers, on the other hand, expect educational research to help them in the framing and implementation of reforms so that quality of education may improve. They are exclusively interested in research that addresses problems of their agenda. Thus, research is expected to provide ready-made solution for different educational problems and a strong knowledge base with which our system can meet the challenges. An education system with a weak knowledge base will be puerile and unfit to accomplish what is expected of it.

Research in the field of social sciences and particularly, educational research may be utilized for various purposes. Important contribution in this regard has been made by Weiss (1979, 1980) who identified and distinguished seven ways of utilization of social

science research which would equally seem to apply in the field of education. These approaches to utilize research knowledge are as discussed below.

(a) Knowledge-Driven Approach

This approach is based on the assumption that basic research reveals some findings that have direct application in practice. It refers to linear relationship between basic research and development. The applicability of this approach is extremely limited in social sciences because knowledge in this field cannot be readily converted into "replicable technologies, either material or social".

(b) Problem-Solving Approach

In education, a commonly held view of research utilization assumes research as providing empirical evidence and conclusion to help solve a particular policy problem. In this approach, the task of a researcher is to identify the missing knowledge. Analysis and interpretation of research findings helps in providing solution to the problem. It is also known as classical approach, which deals with traditional concept of policy making. Researchers are expected to provide knowledge-base to policy makers so that they can frame a line of action.

(c) Interactive approach

This approach refers to interactive communication between researchers and policy makers. Both of them interact with each other in a manner that involves both a search for knowledge as well as a solution to a problem. The creation of new knowledge is only one component of an interactive process that also involves the utilization of knowledge.

(d) Enlightenment Approach

In this approach, there is no assumption that decision makers and practitioners seek research-based knowledge to assist them, rather they are influenced by an enlightenment that has come to them as a result of the cumulative findings derived from research. It is the frequently used approach through which social science research affects the policy formulation. Instead of direct application of findings, generalizations help the policy makers to take decisions.

(e) Political Approach

Politicians know that an accumulated body of research findings must influence policy decisions. They take certain decisions under compulsions and then seek legitimization from researches. Sometimes, research findings are used to defend a decision already taken by the politicians. Thus, research is used as ammunition to legitimize the decision which they wish to take or have already taken.

(f) Tactical Approach

Related to the political approach is the tactical approach where research is used as an excuse to delayed decision. Certain controversial issues about which politicians hesitate to take decision during their tenure are left to the results of research. Many significant decisions are sometimes deferred on the ground that they are not supported by any research evidence.

(g) Research-Oriented Approach

This approach is based on the assumption that the process of enquiry is of value in itself. Social science research, together with other intellectual inputs such as philosophy, history and so on, contributes to widen the horizon of knowledge on certain issues. If policy makers and practitioners are directly engaged in research enterprise, they will not only facilitate the utilization of research findings, but will also promote wider diffusion and acceptance of research-based knowledge. According to Keeves (1990), this approach emphasizes the unity of three components: creation, diffusion and utilization of knowledge.

Disjunctions between Researchers and Policy Makers

Policy makers are exclusively interested in research that addresses problems which are on their agenda. Therefore, fundamental research that bears remote relationship with day-to-day problems is of no interest to policy makers. Politicians have loyalty towards the ideology of their party. Therefore, research, even if it addresses itself to a major issue on the political agenda, can be discarded or rejected if its results are not in accordance with the ideology of their party.

Policy makers have limited time period allotted to them. Research studies generally take years to complete while the politicians want results 'here and now'. Decision-making is a continuous process which cannot wait for 'specially commissioned research' to produce relevant facts. In order to conduct an empirical field study, several years are required. Review of the existing literature, data collection, analysis and interpretation of data require many years to complete. Thus, the researchers have different time horizon than that of policy makers.

Policy makers, in most cases, are not familiar with the language used by the researchers. To a lay person, research reports are an 'empty jargon'. Thus, the problem is to interpret research findings in such a way that it can be understood by 'ordinary people'. Researchers conduct their work under entirely different conditions under which politicians and administrators do not work. They follow the prescribed norms and are less inclined to decision-oriented research, as they perceive their work as an important contribution to a growing body of knowledge in a particular area.

In policy making, research is only one of the many inputs. The policy makers want to establish a policy, which is acceptable to those who are in power. They are not much concerned with 'what is right', they rather try to reconcile divergent views in a solution

which is acceptable to maximum number of those affected by it. It may, therefore, be difficult to describe a policy as correct, or otherwise.

Lamke wrote that if research over the past three years in medicine, agriculture, physics or chemistry were wiped out, our life would be changed materially, but if research on education over the same three years were to vanish, educators and education would continue much as usual (Nisbet, 1994). If research, with all its vast expenditure, is not able to bring improvement in the education system, then the system is at fault for being unable to make use of the findings, or the research itself is at fault. Sometimes researchers are blamed that the only ones who are benefited by the research are the researchers themselves and none else. Once they submit report and get a degree, they lose interest in what happens to the findings.

There has long been a pessimistic feeling that progress in the field of social sciences is not as orderly as of 'harder' sciences. The most recent work of 'harder' sciences seems to build upon the older work of those sciences, while the most recent work of social sciences seems to be 'starting from scratch'. There are many topics of interest on which we have results of numerous studies, all addressing essentially the same problem. Situation can be imagined with the fact that there were 1600 published works before 1973 on the 'psychology of sex differences'. "If one considers the literature on that topic since 1973 and realizes that many studies not focused specifically on sex differences (or not mentioning them in their title) may contain data on the question, then a population of over 5000 studies can be imagined on a single topic" (Glass 1981). Scores of educational problems can be cited on which available literature numbers several hundreds of articles, e.g. programmed instructional material, personalized system of instruction, effectiveness of computer assisted instruction etc. What can one conclude if say, out of 50 studies on a topic, we have 25 favouring the hypothesis and the other 25 just opposing it absolutely. However, this state is beginning to change. More and more reviews of literature are moving from the traditional literary approach to quantitative approach of research synthesis described in an increasing number of textbooks (Cooper, 1989; Cooper and Hedges, 1994; Glass, McGaw and Smith, 1981; Hedges and Olkin, 1985; Hunter and Schmidt, 1990; Light and Pillemer, 1984; Rosenthal, 1991).

Overcoming Disjunctions

Thus, there exists a wide gap between research findings and decisions taken by policy makers. Policy makers, even if they want to utilize the findings of research, face problems in interpreting the reports. Research reports are highly theoretical, limited and inconclusive. Policy makers feel that there will be a risk to utilize the results of the studies in practice.

It is true that, in the present scenario, researches in social sciences are losing their prestigious place. They are often charged as useless. But it is not true always. The total body of information and conceptualization of issues, that researches in social science produce, may exercise their impact on policy making. Although, researches in social sciences do not yield products in the same manner as researches do in physical sciences

but Meta-Analysis of researches has made it possible to summarize the results of studies on a single topic into 'one authoritative voice', irrespective of inherent differences.

"Meta Analysis", as described by Glass (1981), "is the attitude of data analysis applied to quantitative summaries of individual experiments. By recording the properties of studies and their findings in quantitative terms, Meta-Analysis of research invites one who would integrate numerous and diverse findings to apply the full power of statistical methods to the task". This technique has made us all the more hopeful that relationship bond between researches and policy making would be much stronger. There will be positive changes in the education system because decisions at any level would be governed by the generalized conclusions of researches and not by the whims of any person or party. We would be able to discover what we have learnt from the results of the studies conducted so far on a topic and what we have yet to find.

Education Resource Information Center (ERIC) is the largest and most diversified information center in United States. The purpose of its establishment is to acquire, select, abstract, index and disseminate the rapidly increasing research literature in the field of education. The utilization of high-speed computer technology has enabled the bibliographical citations to be produced, sorted and disseminated in a variety of forms for searching both manually and by computer. There must be a center at the national level to record research database with retrieval facilities. Although, the Society for Educational Research and Development, Baroda, has made some remarkable achievement in this area, it is just a beginning. Institutions like NCERT, ICSSR should plan to develop database for educational research. It will help Meta-analysts as well as policy makers to ground their decision on the findings of research.

To establish rapport and communicative dialogue between researchers and policy makers, middle persons are needed who may play the role of 'research brokers' or policy analysts to communicate to the practitioners what appears to be relevant to them. A 'research broker' is a person who conducts Meta-Analysis of research on a particular topic to come up with relatively valid conclusions from the entire body of research.

Policy-oriented research may also help in providing relevant results to policy makers. Such studies include survey work or any comparable data gathering, which may enable policy makers or practitioners to base their decisions on evidences rather than prejudice or guesswork. These studies may aim at finding out the solution to pressing educational problems, identifying and resolving the problems in implementing policy decisions, and monitoring and evaluating initiatives in educational practice.

References

- Azad, J.L. (1997) **Educational Planning and Policy Research in "Fifth Survey of Educational Research"**, NCERT, New Delhi, pp. 703-710.
- Broadfoot P.M., Nisbet J. (1981) **The Impact of Research on Educational Studies Br. J. Educ. Studies**, 29: pp. 115-22.
- Buch, M.B. (1974) **A Survey of Research in Education**, Centre of Advanced Study in Education, Baroda.

- Buch, M.B. (1979) 'Second Survey of Research in Education' Society for Educational Research and Development, Baroda.
- Caplan N. (1976) Social Research and National Policy: What gets used by whom, for what purposes and with what effects? *International Social Science Journal* 28: pp. 187-194.
- Cooper, H.M. (1989) *The Integrative Research Review: A Social Science Approach*, 2nd edn. Sage, Newbury Park, California.
- Cooper, H. & Hedges, L.V. (1994) *Hand Book of Research Synthesis*, New York, Russel Sage.
- Glass, G.V. & Others (1981) *Meta-Analysis in Social Research*, SAGE Publications, Bercely Hills, London.
- Govil, P. (2002) *Metal-Analysis: A Promising Technique of Research Integration*, University News.
- Hedges, L.V. & Olkin, I. (1995) *Statistical Methods for Meta-Analysis*, Orlando, F.L., Academic Press.
- Hunter, J.E., Schmidt, F.L. (1990) *Methods for Meta-Analysis: Correcting Error Bias in Research Findings*, Newbury Park, CA: Sage Publications.
- Husen, T. (1994) 'Educational Research and Policy Making'. *The International Encyclopaedia of Education*, Second edition, pp. 1857-1864.
- NCERT (1986) Third Survey of Research in Education, New Delhi.
- (1991) Fourth Survey of Research in Education, New Delhi.
- (1997) Fifth Survey of Research in Education, New Delhi.
- (1996) *Indian Educational Abstracts Issue 1*, July, New Delhi.
- (1997) *Indian Educational Abstracts Issue 2*, January, New Delhi.
- (1997) *Indian Educational Abstracts Issue 3*, July, New Delhi.
- (L998) *Indian Educational Abstracts Issue 4*, January, New Delhi.
- (1998) *Indian Educational Abstracts, Issue 5*, July, New Delhi.
- Keeves, J.P. (1990) "Issues in the Creation, Diffusion and Utilization of Knowledge", *Research Methodology and Measurement, An International Hand Book*, Pergamon Press, Australia, pp. 167-172.
- (1990) "Knowledge Diffusion in Education", *Research Methodology and Measurement, An International Hand Book*, Pergamon Press, Australia, pp.211-219.
- Landshere G.de (1994) *Educational Research History of the International Encyclopaedia of Education* second edition, pp. 1864-1873.
- Light, R.L., Hedges, L.V. (1994) *Summing up: the Science of Reviewing Research*, Cambridge, MA: Harvard University Press.
- Miller, T.I. (1989) 'Drug Therapy for Psychological Disorders', *Evaluation in Education: An International Review Series* 4: 96-97.
- Nisbet, J. (1994) Policy-Oriented Research, *The International Encyclopaedia of Education*, second edition, pp. 4556-4562.
- Rosenthal, R. (1991) *Meta-Analytic Procedures for Social Research* (Rev. Edn.), Newbury Park, CA: Sage.
- Trow, M. (1994) 'Policy Analysis' *The International Encyclopaedia of Education*, second edition, pp. 4550-4556.
- Weiss, C.H. (1977) *Using Social Research in Public Policy Making*, Health, Lexington, Massachusetts.
- (1979) *The Many Meanings of Research Utilization. Public Administrations Review*, 39: 426-31.

Perspectives in Digital Divide

Nighat Ahmad*

Abstract

Though the term digital divide was first coined only about a decade ago, it has become a matter of great concern in the development of nations. It pervades every sphere of human life including education, health, financial transactions, business and trade, communication and defence. The concepts about the causes of digital divide, the role played by different national and international agencies in its continuation or amelioration (the so called 'Actors in Information Technology'), the techniques of measurement of disparity in information communication technology (ICT or IT) among the nations and, within the country, among the various privileged and under-privileged groups, and measures to counter it, have undergone a great change during the last five years. An understanding of these concepts is essential in formulating policies for minimizing digital divide. It emphasizes the necessity of obtaining feedback on ICT usage in the country, which will be of great help in tackling the problem of digital divide in a systematic manner and in formulating policies that would enable a better use of Information Technology for the country's development.

Introduction

The term digital divide means different things to different people. Generally, the term "digital divide" refers to the gap that exists between those who have access to the Internet and those who do not. The phrase first surfaced in the mid-1990s in the United States. The understanding of the subject has undergone tremendous change since then. Today, digital divide is used in the context of accessibility to information technology, business opportunities, social and cultural well-being, and has come to include total human development in its ambit. Thus, digital divide is not simply 'have and have - not' of access to computers but it is a comprehensive ability to take the advantage of information technology for speeding up the process of human development, in general, and intellectualization of the individual at the grassroot level.

The understanding of the causes of digital divide, the interlacing cluster of events with both positive and negative influences on perpetuation of the divide, the responsibility of international and national official machinery, the business organizations, the various unions and associations safeguarding human rights, consumer rights, educational rights, etc., has undergone a sea of transformation. The emphasis has shifted

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from national and international level to each and every individual who is affected by the process of the divide.

The attempt to minimize the digital divide has become vital to the country's development. The problem should receive due attention it deserves right now, as every day, that passes unaccounted for, will tend to widen the gap and will make the problem more difficult to handle. The planning process to minimize the process of divide calls for the need to summarize the current perspectives in digital divide. This paper tries to highlight the various dimensions of the digital divide and tries to impress upon a well-coordinated and planned course of action.

TABLE 1
Factors Affecting Digital Divide and Meaning Thereof

<i>Terminology</i>	<i>Meaning thereof</i>
Key policy issues	What are the key policy issues in managing digital divide, which the decision makers should be aware of?
Potential impact	What is the likely impact of the policy on digital divide (positive and negative)?
Physical access	Is technology available and physically accessible?
Appropriate technology	What is the appropriate technology according to local conditions, and how people need and want to put technology to use?
Affordability	Is technology affordable for people to use?
Capacity	Do people understand how to use technology and its potential uses?
Relevant content	Is there a locally relevant content, especially in terms of language?
Socio-cultural factors	Are people limited in their use of technology based on gender, race, or other socio-cultural factors?
Trust	Do people have confidence in and understand the implications of the technology they use, for instance in terms of privacy, security, or cyber crime?
Legal and regulatory framework	How do laws and regulations affect technology use and what changes are needed to create an environment that foster its use.
Local economic environment	Is there a local economy that can and will sustain technology use?
Macro-economic environment	Is national economic policy conducive to widespread technology use, for example, in terms of transparency, deregulation, investment and labour issues?
Political will	Is there political will in government to do what is needed to enable the integration of technology throughout society?
Major Actors	Who can contribute to minimizing digital divide (such as international agencies, government departments, educational institutions, NGOs, business firms, private bodies, and personal level) and in what way they can contribute

Terminology

At the outset it would be pertinent to introduce the several terminologies that are in common use in the context of information technology. It is essential to understand their meaning to be able to address the problem of digital divide, as summarized in Table 1, as also to know nature of various Actors involved as shown in Table 2.

TABLE 2
'Actors' in Digital Divide

<i>Group</i>	<i>Actors*</i>														
International bodies	ITU, World Bank, IMF, ITC, WIPO, WTO, WCO, ICANN, ILO, UNESCO, UNCITRAL, UNCTAD, BIS, ISO, IEC, UPU, CoE, e-Learning,														
Private Sector Business forums	AGB, ICC, GHC, OPA, GBDe														
Internet Users forums	INTUG, CSIF														
Online rights organizations	EPIC, CDT, EFF,, GHC, AGB, GILC, PI, TACD														
Internet service providers	VSNL														
Consumer Protection Organizations	CPT, TACD, CI, other Consumer Groups														
Other Civil Rights Organizations	ACLU														
Bankers															
Government Departments	<table border="0"> <tr> <td>Communication Department</td> <td>Department of Home affairs</td> </tr> <tr> <td>Telecom Regulatory Agencies</td> <td>Departments of Education and Information</td> </tr> <tr> <td>Trade Departments</td> <td>Banking and Financial Sectors and Treasury</td> </tr> <tr> <td>Industry Departments</td> <td>Chambers of Commerce</td> </tr> <tr> <td>Commerce Departments</td> <td></td> </tr> <tr> <td>Consumer Protection Courts</td> <td></td> </tr> <tr> <td>Department of Justice</td> <td></td> </tr> </table>	Communication Department	Department of Home affairs	Telecom Regulatory Agencies	Departments of Education and Information	Trade Departments	Banking and Financial Sectors and Treasury	Industry Departments	Chambers of Commerce	Commerce Departments		Consumer Protection Courts		Department of Justice	
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Trade Departments	Banking and Financial Sectors and Treasury														
Industry Departments	Chambers of Commerce														
Commerce Departments															
Consumer Protection Courts															
Department of Justice															
Unions															
Companies	Commercial and Software Companies (e.g. Microsoft) Private companies														
Miscellaneous	<table border="0"> <tr> <td>Numerous Policy Organizations</td> <td>Human Rights Organizations</td> </tr> <tr> <td>Labour Unions</td> <td>IT Consultants</td> </tr> </table>	Numerous Policy Organizations	Human Rights Organizations	Labour Unions	IT Consultants										
Numerous Policy Organizations	Human Rights Organizations														
Labour Unions	IT Consultants														
Personal factors	Personal bent of mind, motivation and encouragement														

* For abbreviations, see Bibliography

Actors in Digital Divide

The matter of digital divide is of paramount importance to nations. The Secretary General of the United Nations is paying special attention on this issue. Coordination committees have been constituted at international level, and large amount of funds have been earmarked for tackling the problem of digital divide. Special attention is being given to the developed and under-developed countries. These committees have identified the various international and national bodies whose cooperation and active participation is essential in handling such a mammoth issue. The observations of these committees have been summarized in Table 2. The international and national bodies, the various government departments, and the individual himself, have been appropriately designated as 'Actors in digital divide' as their active role is essential in tackling this gigantic problem. Each actor has to understand and voluntarily accept his role and act accordingly.

Dimensions in Information Technology - A Category-wise Grouping

Apart from identifying the various Actors in the field of Information Technology, it is profitable to classify the various aspects influencing this process. The functional aspects have first to be classified in broad basic groups and then the key issues in each group can be identified to understand their impact on the use of information technology and digital divide.

The broad basic groups are Infrastructural Support, Trust, Capacity Building, Taxation and Trade, Employment and Labour, Technology Diffusion and General Government Environment. These have further been split up into sub-groups. The ICT infrastructure and supporting system includes those policies that affect basic ICT and its productive use in society, especially telecommunications, licensing and regulation, telecommunications privatization, spectrum allocation, internet domain management, banking and financial sector, standards setting, customs standardization, etc. Trust building encompasses those policies that affect business, government, and consumer trust in ICTs, and of each other online. Capacity building includes those conditions that build the necessary capacity to use ICTs effectively, including curriculum and materials, technical education, etc. Taxation and trade policies greatly influence the price of hardware and software, which overwhelmingly affects the affordability and thereby access to ICT. The employment opportunities generate interest in ICT. The initial opportunities of employment of IT personnel in the country and abroad have declined recently, forcing the technical personnel to look for jobs in other sectors. Technology diffusion and training in the use of ICT is the key issue for the backward and deprived groups within the country as well as at the international level. The General Government Environment including democracy, transparency, independence of judiciary and regulatory authorities play the most important role in the country. The key issues of these sub-groups and their potential impact on digital divide are as summarized in Table 3.

TABLE 3
Group-wise Classification of Key Issues and their Impact on Digital Divide

Group	Sub-group	Key Issues	Potential impact on divide
(1) Infra-Structure Support (The policies that affect information technology infrastructure and other supporting infrastructure in the financial sector, customs and standards).	A Telecommunication regulation and licensing	<ul style="list-style-type: none"> • Number of fixed lines • Number of mobile phones • Method of allotment • Interconnection agreements • Number portability • Uses charges versus flat rates 	<ul style="list-style-type: none"> • Greater competition and lower prices with increased number of licenses • Monopolies are slow to evolve and limit private networks • Fair and open allotment tend to increase quality of service and accountability
	B Telecommunication Privatization	<ul style="list-style-type: none"> • Whether telecom companies are privatized • Percentage of ownership by the Government • Means of privatization (Public IPO or closed private investment) • Management of new company 	<ul style="list-style-type: none"> • Government telecom are often required to pursue universal access requirements, which are often more relaxed in private companies • Privatization often leads to increased quality of service, but may reduce efforts to reach rural and low-income citizens. • Important in access, pricing, and local ICT sector
	C Spectrum Allocation	<ul style="list-style-type: none"> • Number of communication spectrum allocated (i.e. how many types of communication techniques allowed to be operated, such as broad band wireless, etc.) • Encouragement of non-profit organizations in allotment of spectrum 	<ul style="list-style-type: none"> • Out-of-date spectrum allocations leave no room for new technologies, making local development and access to these ICTs impossible, or block the entrance of competitors. • Important in access and local ICT sector
	D Banking and Financial Sector	<ul style="list-style-type: none"> • Functional country-code Top Level Domain Speedy and inexpensive domain registration process. • Active participation in international Internet governance 	<ul style="list-style-type: none"> • Countries have the ability to control their own country-specific top-level domain • Using the domain properly keeps registration monies within the country and builds national IT momentum
	E Banking and Financial Sector	<ul style="list-style-type: none"> • Electronic payments and settlements. • Financial standards • General transparency and solvency • International and automated funds transfers, credit verification, encryption 	<ul style="list-style-type: none"> • Financially sound banking and finance sectors, capable of handling electronic payments securely and across national boundaries are necessary for e-commerce.
	F Standard setting	<ul style="list-style-type: none"> • Existence and coherent adoption of ICT-related standards (internet standards, product identification, software it interoperability) • Source and control over standards 	<ul style="list-style-type: none"> • Without certain key standards such as Internet protocols, communications and business between countries is costly or impossible. • However, implementation may be prohibitively, expensive and tightly controlled by developed world countries, or the standard may exclude the needs of developing countries

<i>Group</i>	<i>Sub-group</i>	<i>Key Issues</i>	<i>Potential impact on divide</i>
	C Custom standardization	<ul style="list-style-type: none"> • international coordination (e.g. in WCO) • Handling of disputes and sanctions • Transparency and standardization of tariffs, automation, transparency of regulation and administration, cargo processing: workforce, and security, passenger processing. 	<ul style="list-style-type: none"> • Local Economic Environment • Macro Economic Environment
(2) Trust (The policies that affect how well business, governments and consumers trust ICTs and are willing to interact with each other)	A Electronic signatures	<ul style="list-style-type: none"> • Legality and scope of electronic signatures, potential for forged signatures and other authentication issues 	<ul style="list-style-type: none"> • Electronic signatures (of one form or another) are required to lessen paperwork (e-government, e-commerce) and make business and online services more efficient and less expensive. « However, the move towards online "paperwork" may phase out physical methods, completely excluding the "have-nots"
	B Data security	<ul style="list-style-type: none"> • Means and regulation of authentication and certification • Interoperability of "trust" services, encryption and cryptography export controls. • Availability of secure networks, secure settlement procedures. • Liability of network operators 	<ul style="list-style-type: none"> • Government telecom are often required to pursue universal access requirements, which are often more relaxed in private companies • Privatization often leads to increased quality of service, but may reduce efforts to reach rural and low-income citizens. • Important in access, pricing, and local ICT sector
	C Cyber crime	<ul style="list-style-type: none"> • Legal jurisdiction and international cooperation. • Harmful content definitions • Training of courts and enforcement agencies. • Enforced online record keeping. • Jurisdiction over service providers 	<ul style="list-style-type: none"> • Reduce up-take of local commerce due to consumer fears of abuse of information. • Lack of trust
	D Privacy	<ul style="list-style-type: none"> • Legality of online information collectors giving personal information to third parties. • Requirements for users to "opt-in" to online data collection and ability to "opt-out" • Ownership of personal information when a company goes bankrupt. • Dispute resolution. 	<ul style="list-style-type: none"> • If personal information is not secure, users will not trust data networks - for electronic commerce, for medical services, or even basic Net surfing - and will not benefit from its positive aspects.

<i>Group</i>	<i>Sub-group</i>	<i>Key Issues</i>	<i>Potential impact on divide</i>
	E Intellectual Property	<ul style="list-style-type: none"> • Duration of trademarks and patents. • Registration of foreign trademarks and patents and ability to produce generic products. • Scope of patents on derivative products. • Enforcement power of intellectual property agencies. • Type of patents allowed (especially in technological and software process) • Penalties for posting and distributing information online illegally. • Protection of indigenous knowledge. 	<ul style="list-style-type: none"> • Strict intellectual property laws are strongly desired by foreign investors and companies, which impacts the capitalization of the ICT sector • However, weak intellectual property laws have fostered the growth of ICT sectors in East Asian newly industrialized countries, and can lower (effective) prices for local consumers • Patenting of processes makes it far more difficult to transfer technology to the developing world, than only the patenting of end products.
	F Regulation of Content	<ul style="list-style-type: none"> • Definition of illegal and harmful content (child pornography, racism). • Anonymity and pseudo-anonymity. • Content rating. • Cross-rating with other media (TV, computer games). 	<ul style="list-style-type: none"> • Improving of technologies moderating Web content could have unforeseen censorship results in another country
	G Consumer Protection	<ul style="list-style-type: none"> • Ability for consumers to seek redress for faulty or misleading products sold online, especially across international boundaries (legal jurisdiction). • Limits on penalties. • Means of dispute resolution. • Advertising and marketing practices. • Handling of consumer complaints. 	<ul style="list-style-type: none"> • If local consumers don't feel protected, they will be unwilling to buy on line (halting B 2 C e-commerce). • If businesses feel they will be unduly or unjustly punished, they wont sell online (halting all e-commerce).
(3) Capacity Building The policies that can help build people's skills with ICTs	A Technical Education	<ul style="list-style-type: none"> • Funding for equipment, training, and connections in schools, libraries, and government. • Role of private sector sponsorship, teacher training; vocational education support, IT literacy and training programs within government; IT entrepreneurial training. • Equality of training across country (by race, gender, class, geography, etc) 	<ul style="list-style-type: none"> • Critical means to re-skill trainers, teachers and retrenched workers and prepare new job seekers in ICT for the new economy • Equitable, quality technology education is vital to bridging the divide.
	B Curriculum and Materials	<ul style="list-style-type: none"> • Quality and quantity of education. • Equality of materials across country (by race, gender, class, geography, etc). • Teaching policy and social issues to help students engage the information society 	<ul style="list-style-type: none"> • Equitable, quality education is vital to bridging the divide. • Technology education builds on basic education, and both are required. • Important in training and development of locally relevant content.
(4) Taxation and Trade The wider trade issues in tax and trade on ICTs	A Taxation	<ul style="list-style-type: none"> • Whether and how much to tax products sold on line. • Where tax is assessed (especially internationally). • How it is collected. • What products are taxed. • International coordination and cooperation. • Tracking of e-commerce. • General taxation levels 	<ul style="list-style-type: none"> • Many businesses believe high or overly complicated taxes will halt e-commerce • Important in ICT sector growth e-commerce

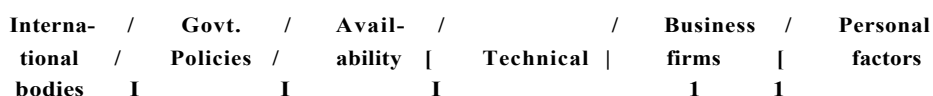
<i>Group</i>	<i>Sub-group</i>	<i>Key Issues</i>	<i>Potential impact on divide</i>
	B Tariffs and Trade Barriers	<ul style="list-style-type: none"> • Tariffs on ICT and components • Existence of equivalent local product and industry • Labeling of products as goods or services (and thus the relevant trade agreement). • Anti-globalization debate. 	<ul style="list-style-type: none"> • Can raise the price of ICT goods, making them too expensive for parts of the population. • But can protect local industries for long-term growth. • Important in pricing, ICT sector
	C Foreign Direct Investment (FDI)	<ul style="list-style-type: none"> • Percentage of foreign investment allowed in IT sectors. • Types of investments allowed (speculative, stock, fixed-capital only). • Ease of disinvestment in country. • Anti-globalization debate. 	<ul style="list-style-type: none"> • Long term investment can help grow the local ICT sector and overall prosperity of the country, easing the domestic and international digital divide. • Short term speculative investments make countries highly susceptible to shocks and can devastate economy, but it is strongly desired by foreign investors.
(S) Employment and Labour Some related workforce issues	A Collective Bargaining and Other Labour Policies	<ul style="list-style-type: none"> • Government position on unions - facilitating or allowing collective bargaining or attempting to hinder it; the strength of unions politically, wages, flexibility of companies to adopt new technologies and markets. 	<ul style="list-style-type: none"> • Unions and labour policy can play an extremely complicated role, since strong communications unions may resist deregulation and privatization of telecom (which can help lower access prices and strengthen telecom sector). • However, unions historically are strong voices for equity in access to technology, and can push the government and private sector towards causing the digital divide.
	B Brain drain counter measures	<ul style="list-style-type: none"> • How local skilled workers are encouraged to stay in the country and foreign workers are encouraged to immigrate. • Skills targeted and length of stay. 	<ul style="list-style-type: none"> • Skilled workers are necessary to run the economy, start new businesses and creatively adapt technology for local needs, especially in the IT sector. • Government can encourage the recruitment of skilled workers with marketing and monetary incentives. • Foreign workers help build the economy, but remit their earnings overseas (thus hurting the economy overall), especially if they are not allowed to settle
(6) Technology Diffusion The policies that can help spread ICTs through a society	A Universal Service	<ul style="list-style-type: none"> • Requirements for telecommunications companies to pursue universal access. • Requirements for public access radio and television stations, telecenters. 	<ul style="list-style-type: none"> • Governments can mandate the extension of access to regions which are not served by the market which equalizes access. • Public access broadcasting fosters local, culturally relevant content.

Group	Sub-group	Key Issues	Potential impact on divide
	B E-Government Policy	<ul style="list-style-type: none"> Type of services offered (e.g. information dissemination, public feedback, and online form completion). Commitment to open source Public access points. Use of ICTs in government departments and institutions (e.g. hospitals). 	<ul style="list-style-type: none"> Online public information makes government more transparent and can reduce corruption. The high cost of IT infrastructure roll-out to cater for e-government services and lack of managerial support and awareness within departments could slow process.
	C Private Sector and Civil Society ICT Infrastructure	<ul style="list-style-type: none"> Incentives to business to integrate ICT in their offices and industries. Incentives to NGOs adopting ICTs or providing ICT services to the public. Support and encouragement of local content development. 	<ul style="list-style-type: none"> Increases awareness, interaction, usage Builds trust.
(7) General Government Environment The policy issues that impact on ICT use and ICT investment	A Government Structure	<ul style="list-style-type: none"> Democracy and open participation in decision-making. Transparency (i.e. in decision making and procurement). Corruption Independent judiciary Independent regulatory authorities 	<ul style="list-style-type: none"> Empowered and resourced regulatory authority need to enable policy decisions Frameworks in place to encourage growth
	B Discrimination Policy	<ul style="list-style-type: none"> Legality of preferential treatment towards groups of particular ethnicity, religion, gender, age, disability status, sexual orientation, etc, in hiring and trade. Ability of subject of discrimination to seek redress Affirmative action programs for underprivileged groups 	<ul style="list-style-type: none"> Discrimination (current or historical) is a fundamental cause of the digital divide, and continued discrimination and the inability to seek redress among underprivileged groups will only perpetuate it. Government instituted preferential treatment toward the underprivileged may alleviate the divide, but has considerable social and political implications.

Breaking the Chain: Conglomeration of factors

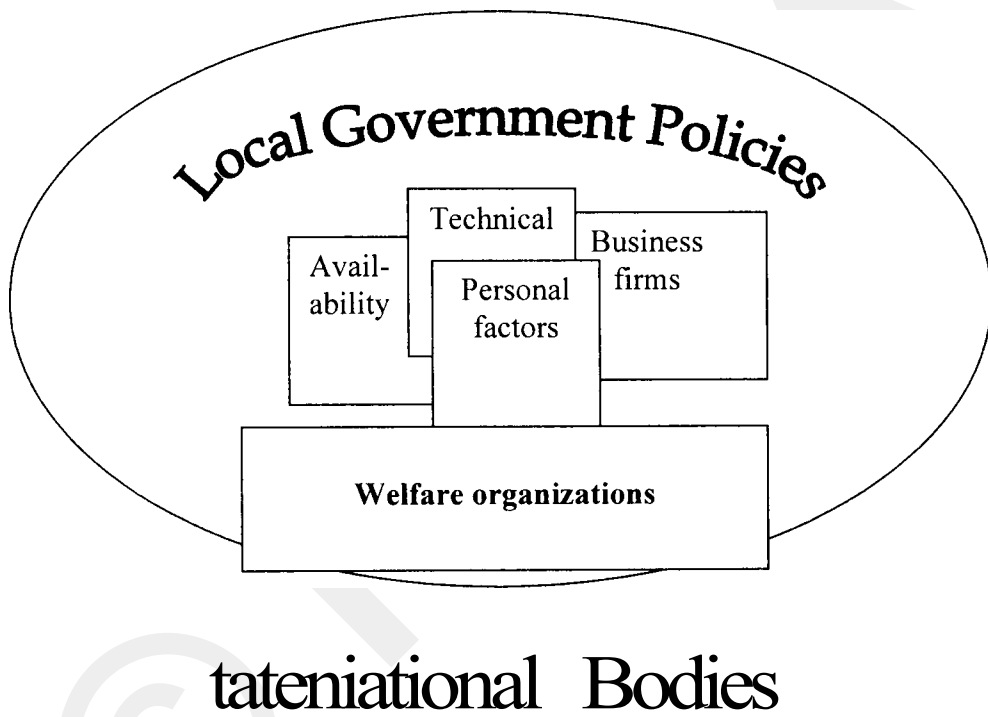
The factors affecting digital divide are not like a chain of events that one can break by severing one of the links, say that of availability of access to computers. Making computers available is only one step in this direction, but interaction of various factors is what is going to play a decisive role.

FIGURE 1



These factors are closely twined and glued to each other. They cannot be separated out. This is of the nature of a conglomeration, closely knit and intermingled with each other, each of them influencing more than one factor with both positive and negative feedback as depicted below.

FIGURE 2



Of these, the role of local government policies is of paramount importance. So an all round effort is required and all factors are to be dealt with simultaneously to tackle the problem of digital divide.

Measuring ICT disparity

Having identified the basic issues and the various 'Actors' in digital divide, the first task is to measure the disparity that exists among nations and among the various groups in each nation. Because of large number of factors influencing the effective use of information technology it is extremely difficult to measure ICT disparity at national and international level. Nevertheless, certain broad criteria have been laid down to measure the disparity in ICT usage, as summarized in Table 4.

TABLE 4
Criteria to Measure ICT disparity

<i>Criteria</i>	<i>Description</i>
Number of computer users	How many people use the technology in various countries
Infrastructure access	What telecommunications networks are in place, how many people have access to PCs to web-enabled phones to other handheld devices, where are PCs located (homes, workplaces, community centres)
Affordability	Is technology affordable
Relevant content	Do people know how to use the technology? Is it taught in schools, in vocational programs and are these programs affordable?
IT sector	How large is the local ICT sector and integration of ICT into existing industries in terms of jobs, GDP, and trade?
Poverty Indicators (Poverty, Literacy Employment, Health, Debt)	What challenges exist to widespread ICT use, such as illiteracy, infant mortality, and poor water quality? These factors are prominent in developing and under-developed countries, and tend to increase the digital divide.
Other factors (Geography, race, age, religion, <u>gender, disability</u>)	How is access to and use of technology distributed across demographic lines?

Feedback

The feedback information on ICT usage is the first step in managing the digital divide. It is obvious that there is a wide disparity in the use of IT in India in rural and urban areas. Further, where the facilities are available, the same are not being fully utilized. The technical know-how is by and large very primitive. There is also a lack of initiative at individual level, which is partly because of lack of adequate encouragement and partly because of difficulties, hindrances and red-tapism even in institutions of higher learning. Proper feedback information at the Government bodies coordinating and controlling higher education and training is imperative in the management of the problem of digital divide in academic institutions.

Conclusion

The attempt to understand the factors leading to perpetuation and increase in digital divide and the course of action to minimize it is of paramount importance to the nation's development. There are special problems for India, some of which are common to all the developing and under-developed nations, and some are particular to this country in view of the already existing disparity between people and groups with respect to culture, religion, backwardness, education and finances. The need of the hour is to get a

continuous feedback on divide in information technology at grassroots level and frequent review of the planning and implementation of the various schemes on minimizing digital divide. The information so collected should be made available to all the Universities in order to formulate the necessary policy to tackle the problem of inadequacies in the use of information technology, particular to individual institutions. Special committees for this purpose should be created at the national, state and district levels. Special attention should be directed not only to the academic institutions of higher learning but down to school levels in cities and villages. Both students and teachers have to be made aware of the problem ahead and be adequately trained to avail themselves of the maximum benefit from information technology. Though NGOs can play an important role in minimizing the digital divide to some extent, the main action has to be taken at the national level. The various government departments and agencies, that have a role to play as 'Actors' in this process, have been highlighted in the paper. As international influences have tremendous effect on a country's digital divide, active interaction by the Government at international level is essential to formulate rules for information technology which will be conducive to a positive influence and lead to a sustainable course of action in this direction.

Bibliography

- A.T. Kearney and Foreign Policy Magazine, "Measuring Globalization". *Foreign Policy*; January / February 2001, http://www.foreignpolicy.com/issuejanfeb_2001/atkearney.html
- [Bridges.org](http://www.bridges.org), "Spanning the Digital Divide: Understanding and Tackling the Issues". <http://www.bridges.org/digitaldivide/index.html>
- Mukhopadhyaya, D., (2002) "Information Technology for Quality Education of Learning Society" *University News*, 40(44), November 4-10
- Sansanwal, D.N., (2000), Information Technology and Higher Education, *University News*, 38 (46)
- Yerroju, Bhaskar A., (2003). "Digital Education for All - Need of the Hour", in *Globalization and Challenges for Education*, NIEPA, Shipra Publications, Delhi.
- UNESCO (2000b), "UN calls on rich countries to help bridging digital divide", 12 July 2000. http://www.unesco.org/webworld/news/000712_g8.shtml
- UNESCO (2001a), "Universal Framework for Cyberspace", <http://www.unesco.org/cybersociety/>
- Venkata, Subhramanyam. (2000). "India's Development as Knowledge Society", *The Hindu*, Tuesday, September 5, 2000.
- World Bank (2001b), *Online Statistical Database*, <http://devdata.worldbank.org/data-query/>
- World Resources Institute, website, <http://www.wri.org>

Abbreviations used in the paper

ACLU	American Civil Liberties Union	ILO	International Labour Organization
AGB	Alliance for Global Business	IMF	International Monetary Fund
BIS	Bank for International Settlements	INTUG	International Telecommunication Users Group
CDT	Centre for Democracy and Technology	ISO	International Organization for Standardization
CI	Consumer International	ITC	International Trade Centre
CPT	Consumer Project on Technology	ITU	International Telecommunication Union
CoE	Council of Europe	PI	Privacy International
CSIF	Civil Society Internet Forum	TACD	Trans Atlantic Consumer Dialogue
EFF	Electronic Frontier Foundation	OPA	Online Privacy Alliance
EPIC	Electronic Privacy Information Centre	UNCITRAL	United Nations Commission on International Trade Law
GBDe	Global Business Dialogue on E-Commerce	UNESCO	United Nations Educational, Scientific and Cultural Organization
GHC	Global Information Infrastructure Commission	UPU	Universal Postal Union
GILC	Global Internet Library Campaign	WCO	World Customs Organization
ICANN	Internet Corporation for Assigned Names and Numbers	WTO	World Trade Organization
ICC	International Chamber of Commerce	WIPO	World Intellectual Property Organization
IEC	International Electro-technical Commission		

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B O O K R E V I E W S

The World Bank. (2002): *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington: The IBRD/The World Bank, ISBN 0-8213-5143-5. Pages: 204, Price: not stated. (Softcover)

Pre-independence India gifted the world with several insights into modern education. Gandhi and his associates following summing up their experiments with education declared in the Wardha Resolution several landmark statements. We might refer to two: first, the state needs to abdicate much of the burden of education; second, education is not simply literacy.

Beginning with the latter, when one looks back and examines Gandhian experiments with education one wonders how high value he had set for the cognitive aspects of learning. A beginner experiments with tools of living and learns by grappling with living while utilizing most of his organs and senses. Some of our contemporaries describe this by a new term, the analog learning. This is different from learning symbols. Purpose of this approach was clear to Gandhi; it was to empower a person to master arts and means of living. The stated purpose of the World Bank mission on tertiary education too is empowering people for a living in the world of transitions. Sadly, however, the term tertiary remained in the Bank jargon as an intermediate between the two technical stools of basic and higher education. A poignant interpretation could have rendered the tertiary into empowerment of both basic and higher education.

Context of tertiary education is globalizing knowledge societies challenged by unpredictable and volatile fluctuations in demands for manpower. Such societies must therefore empower their population with capabilities for survival while crossing over professions. World Bank, as this report states, has recognized tertiary education as the key to enabling people and national systems of education to cross over multiple disjunctions in the evolving marketplace of professions. Gandhian ideal of cognitive empowerment seems to be most appropriate in this regard. An apt quote from the book states: "... far too many people in developing countries do not have the foundation skills required to survive - let alone the advanced skills needed to thrive - in our complex, competitive world. The challenges are to improve the quality of teaching and the relevance of learning, ..." (p.107).

Wardha Resolution had enshrined an extremely limited role of the state. This volume from the World Bank is a mishmash of multiple thoughts. State's role is highlighted, reflecting Rawlsian imperatives. Simultaneously, the World Bank emphasizes the centrality of market for education. Most importantly, this book does so without even referring to the GATS while delineating cross-border trades in educational offerings and cross-border systems of certifications or other similar intellectual property accreditations. Gandhi, while limiting state to the minimum, did not echo the Rawlsian rival Nozick but expressed the desirability and feasibility of social regulation. In fact, this report touches

upon regulation but limits that possibly to the national governmental context. Why should regulator be like that! Gandhi thought of social mechanisms. Such mechanisms in fact are constitutive of markets not of the neo-classical type that unfortunately this report seems to have as reference, but Gandhi's referred society appears closer to the Braudelian or Polanyi-type markets. The bloodless neo-classical market knows profit calculations alone. How can societies allow global profit-seekers to reap benefits locally, giving away such rights as exit, entry and solvency costless?

Education, especially the tertiary, must share several eminent ideals. Let us consider first the temporal dimension. Tertiary market for education, if allowed to adjust to the changing demands or contrarily to create demands for a certain group of professionals, raises questions like what must determine the quantity demands and what must ensure the quality requirements? Neither by theory nor by experience, we can be expected to believe that markets can play this role and that such manpower markets would get cleared! Even more importantly, most or possibly all the domestic markets are loaded with imperfections especially through absences of channels of signal. How, in the absence of or burdened with imperfections of information on both quantity and quality of skills or knowledge, that would be demanded by a possible world in future, the poor from less developed or the least developed countries can hedge risking very expensive resources of time, opportunities foregone and finance? This report suggests that uniformity or another catchword often used now, the policy-symmetries in the educational market would alleviate problems of the poor. Inter-alia policies, that poor countries ought to adopt, this report suggests, are the experience-set from the developed countries. Rationale of such assumptions surely seems unsound.

Another point seems to have been ignored. Much of this report is about incentive systems and their designing. The report goes about chronicling country policies. However, how do the demands for new knowledge get generated? Should we again revert back to adjustments post hoc to the demands in the market! An assumption that ordinary people are super calculators of potential market demands and that they are gain maximizers would be heroic. Possibly, social values and norms in particular values attached to reputation and such likes would need accommodation. Such feat, a pure market driven profit oriented education providers would fail to achieve.

A few country programs indicated in the report attempted enlarging autonomy of educational institutes. Release from government controls could often lead to undesirable outcomes. Contrarily, in view of GATS and the global trading in educational software increased, yet possibly distinctly different from the previous modes of controls would be needed. We should keep in perspective the fact that marginal cost of production of such softwares is near zero. Costs of entry and exit too are extremely low. Little durable investment by the provider is demanded. The educational market place is, therefore, in need of regulations.

Reputation of provider is rather important. This reputation can grow or be sustained only when a local market has the systems in place for local generation of software. Take the example of professional journals. Here more than 95% are edited, peer reviewed and

published and their contributors too are mostly from the advanced countries only. Absence of local providers reflects upon in the abstention of local professionals from the knowledge generation. Finally, the new growth theory, which provides background to this book, talks about spillovers. How, in the absence of local capabilities, spillovers can take place!

Similar to several other reports from the World Bank, this too provides us with reportage on the Bank, its instruments currently in use and the schemes under which a fund seeker could raise funds. In this respect, this report is very informative. However, for a reader who is looking for experiences, experiments and the summing up of advances in theories on tertiary education, such continuous reporting on the Bank's policies prove to be annoying and disappointing.

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National Assessment and Accreditation Council (NAAC) & Office of the Commissionerate Department of Collegiate Education (Govt, of Karnataka) (June 2003): ***Total Quality Management for Tertiary Education: Government of Karnataka Initiative***, (NAAC-Pub-106-TQMHB) Bangalore, Pages: 136, Price: Rs.100 (Paper Back)

Today, when the whole country is brainstorming for designing an ideal model for quality improvement in higher education system, the book jointly prepared by NAAC and Commissionerate Department of collegiate education (Govt, of Karnataka) would definitely provide a ray of hope in this direction. The steps taken by the Government of Karnataka for achieving excellence in the higher education system is prima-facie really admirable. The present publication helps to learn about the Total Quality Management (TQM) and its application in higher education in a very systematic and comprehensive manner. The subject matters has been carefully selected and explained with the help of self-explanatory sketches.

TQM is characterized by complete integration of the system for continuous improvement that results into the excellence in each and every sphere of an organization's activities. When any organization plans to adopt total quality approach, a number of changes become essential at all the levels and in every line of activities. It is being realized since long that the traditional system of higher education requires a complete change both in the process as well as in the approach. The application of TQM in the higher education system can be a right solution to the present demand of change, especially in the globalization era, when the quality would be measured in terms of globally acceptable parameters. Its application in our highly rigid education system is certainly a challenging task as the people in the traditionally run academic institutions are change-resistant. Also, the implementation of TQM approach requires a passion for

continuous improvement in the system with the clarity of vision and action plan. The book seems to achieve the objective of providing a clear direction for furthering the system to all those who may have any concern for the cause of higher education improvement in the country. The book has effectively been organized in four parts covering both the conceptual as well as practical issues, which must be addressed before planning for achieving total quality in the system of higher education.

The first part of the book, which is introductory, systematically describes the present scenario of higher education, especially, through colleges. The point-wise presentation supported with caricatures leaves an impression on the minds of reader in a very short period of time. This part, divided into four chapters, in fact, starts from the third chapter which gives an overview of the modern higher education system of the collegiate level education and focuses more on the developments during the last 15-20 years. Special focus is on the developments and trends in the higher education system of the state of Karnataka. The first and second chapters of this section detail out the contents and preface. The fourth and final chapter of the section is on achieving the educational leadership and this particular issue is of paramount significance when it comes to implementing the total quality approach in any organisation. The section systematically prepares the foundation for delving deep into the intricacies of the TQM implementation in higher education system. The book reader does not feel when he or she has moved from over-viewing the present scenario to the concerned issue of leadership for excellence in the educational services. This is a good skill of the editors that this chapter acts as a bridge between the first and the second part and makes the transition of reading a smooth and enjoyable experience for the reader.

The second part which highlights the Total Quality Management and related concepts has been divided into five sections. This part is very comprehensive and enables even a layman to become familiar with the concepts and tools of Total Quality Management. Starting with defining the quality, this part highlights the essential elements of TQM and presents the important tools and techniques for adopting the total quality approach in a brief but effective manner. Explaining the TQM, the help of Toast Maker's Story makes the reading interesting. The chapter on 'Team work for TQM' deals with the soft aspect of implementing total quality management in any organization. The next chapter explains all the important tools and techniques of TQM very precisely and effectively. The chapter on 'Barriers to overcome' makes the study on the subject complete. One can expect to gain the fundamental knowledge about the concept of TQM just after going through this section of the book. This reflects a good amount of work done on the part of all those who were engaged in the preparation of the book.

After going through the first two parts, one may have a natural question to ask regarding how to implement the TQM in any organisation and the answer lies in the third part of the book 'The TQM Road Map', presented into three chapters. The beginning of this part starts with giving the details of important elements for initiating TQM in an organization. The chapter starts with explaining the technique of SWOT analysis by taking the examples of higher education system and covers the important Japanese 5-S

concept. The next section suggests the point-wise implementation plan for total quality management. The last section of this part describes how the resources should be developed for effective quality management by creating synergy through integration of different sub-systems. It is this part of the book where an effort has been made to relate the TQM concept with the higher education system. Perhaps, this may be the reason why the issues concerned with initiating and implementing TQM have been discussed with special reference to the education system. This part, undoubtedly, gives a clear direction for gearing up to strive for achieving the excellence through Total Quality approach.

The last and fourth section of this book, which is a 'Handbook', covers all the steps that have been taken up by the Government of Karnataka towards the quality improvement in the higher education system of the state. This part highlights how the institutional arrangements have been made for the effective implementation of TQM plan in the state. The different procedures, policies and other supporting administrative plans explain how the Government is approaching towards a revolutionary change in the higher education system of Karnataka. The memorandum of understanding between the NAAC and the Commissionerate Department of Higher Education is a good example of creating workable synergy between the two organisations working for the same cause. The other sections of this part present a detailed outline of the TQM implementation plan in the state of Karnataka and address the issues of organizing and structuring through creation of task forces at different levels. The model for effective control of quality through evaluation and monitoring has also been presented very systematically. This section also includes annexures giving the performance appraisal formats for individual faculty members and basic teaching units of the higher education system. These formats reflect the importance of various parameters for measuring the quality improvement of the system.

The publication of this book is certainly an indicator of a beginning of the quality revolution in the higher education system of the country, which has been initiated by the Government of Karnataka in association with NAAC. A very good quality of presentation, throughout the book, makes the reader complete its reading in one sitting. The reader starts feeling the importance of quality improvement in our highly sensitive system of education which is the basis for all the growth and developments of the future. After reading it, one may like to be a part of this ever-sought quality revolution irrespective of the state or place of living. The presentation could be made more effective by including some case studies of the real experience of the TQM approach after its implementation but that might not be possible for the editors to include the real cases. Therefore, this aspect can be ignored, as the timing of the first edition of the book may be too early to include the actual experiences of the TQM approach in higher education. The fast expansion of educational services has though caused an exponential quantitative growth of degree holders in the country, yet the qualitative issues have always been under debate and questions. The publication of this book in such a situation is certainly admirable. The book presents a model for quality improvement, to all those who wish to strive for achieving excellence in higher education, in general, and to the other state level

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higher education departments, in particular. This certainly is a must read book for each and every stakeholders of the modern higher education system.

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Catherine A. Odora HOPPERS (1998): *Structural Violence as a Constraint to African Policy Formation in the 1990's*, Institute of International Education, Stockholm University, pp. 208, Price: n.a.

As the title of the book suggests the present publication is all about violence and the way it impacts policy formulation in education in the African countries that have been victims of a variety of violence. Violence as defined by Galtung in 1996 gets manifested in several forms. It can start "at any corner in the direct-structural-cultural violence triangle and is easily transmitted to other corners. With the violent structure institutionalized and violent culture internalized, direct violence also tends to become institutionalized, repetitive, ritualistic, like a vendetta." Having taken this definition as the starting point, the author establishes first a link between the act of direct violence of colonial conquest and the structural violence of the setting up of economic and political structures to safeguard the trophies won in that conquest. Then the cultural violence embedded in the discourses of 'development' is presented as discourses of concealment. It is these discourses, especially the permeation of 'development' thinking everywhere that make the structural and direct violence 'feel right.'

The thesis illustrates and analyses the processes of violation and occupation of foreign territories; of eliciting 'cooperation' from the conquered people in order to prevent them from mustering a collective voice, or undermining it where such formations are already in place. The author calls this "the active concealment of actual power relations; the creation of the sense of omnipotence in the conquering coalition in order to suggest the futility of resistance; and the infusion of altruism such as through foreign aid to the conquered territories as occasional indulgences that goes on simultaneously with the entrenchment of violence at a structural level." In fact, what is being discussed here is a familiar phenomenon for us, the Indians who, for the first time, when colonized faced the problems of indentured labour, exploitation of market economy and the utter ruin of their self-respect. In addition, they were gifted with communal turmoil, mass conversions and a system of education that supplanted the indigenous one. Still, no Indian study of the nature being reviewed here was ever attempted. There are plenty of studies in the disciplines of political science and history but a study that covers the economic and educational aspects too, along with them, still requires scholarly attention. And on top of them, we need a theoretical framework to go into that kind of study.

The present work is a meta-analysis of the manner in which the global relations are impacting national level policy formulation. In return for the aid, the colonized countries

are being pushed to accepting such terms that force them to compromise with their national sovereignty. What they are resenting is indirect rule over them. The definition of the term 'development' in their case is also getting re-defined so that they become transmogrified into an inverted mirror of other's identity, a mirror that belittles them and sends them to the end of the queue." The aid is given on condition of maintaining 'good conduct' and the governments are being subjected to "the cold gaze of the helper, demanding of the crier, scientific, ideological, and externally verified proof of the need." The study calls for the second liberation of Africa, a project of conscientizing the West. It calls for Africa being given a better chance than it has been given for a genuine recovery. It also reveals the meaning of globalization, which under the banner of 'market economy' conceals the existence of foreign economic and cultural policies in the conditions being imposed as attachment of the aid. The Structural Adjustment Programmes (SAP's) are one such example.

We are quite familiar with these Western tricks, therefore the present study should go well with their own perception of aid and its 'hidden' agenda.

It is a great piece of scholarly work worthy of being read closely by serious researchers.

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K. SUJATHA (1999): *Education of Indian Scheduled Tribes- A Study of Community Schools in the District of Vishakhapatnam, Andhra Pradesh*, International Institute for Educational Planning, Paris, Pages 197. (Paperback),

The social concern for the scheduled tribes arises mainly on account of the fact that they constitute nearly one-tenth of the total population of the country and form the 'core' among the 'poor'. These scheduled tribes, scattered throughout the country, belong to different tribal groups. Large disparities exist among different tribal groups in their mode of living. In addition to providing reservations on the employment opportunities, several welfare measures have been launched to improve their educational levels. There are agencies, which have implemented welfare schemes, and have multiplication of duties, but there is no proper coordination in implementation of these schemes. The book under review, covers this aspect, that is, education of scheduled tribes under community management. The slow progress of education among the tribes is due to the lack of availability of educational facilities.

In the study under review, the author selected around 40 per cent of community school teachers (370), 15 per cent of community schools (58) and 752 households for fieldwork on the basis of multi-stage stratified sampling method in Vishakhapatnam district of Andhra Pradesh. The main focus of the study was on the innovativeness of

community schools in terms of organisation, management and feasibility for scaling up and replicating their features in formal schools.

The study defines community school as a "system of education where the community and government are equal partners and the community plays a dominant and decisive role in the management and development of the school. The community establishes the structure of the school; the teacher is selected and paid salary by the community, while the administrative responsibility is vested with the government. "The idea of starting community schools was mainly due to difficulty in transporting education to tribal areas and involves community in development activities of the government. It was also conceived as an alternative system of education for providing access as also to improve school effectiveness by bringing innovative changes to overcome some of the perennial problems found in the formal schools. At present, there are 926 community schools in Vishakapatnam district constituting 50 per cent of the total schools in the area. The evidences show that there is lot of demand for community schools and there was good response from the community. The community co-ordinators felt that access to education was possible through involving the community.

The community schools are regional and have area-specific significance. Study reveals that salary of teachers in community schools is linked to the number students enrolled. The author noted that the average salary of a teacher in a community school is lower than that of teachers teaching in other types of schools. For instance, the average salary in government schools is nearly twelve times more than that of teachers of community schools. Similarly, the average salary of teachers in Ashram schools is eleven times higher than that of community schools.

Generally, community schools are established in those areas where very poor people live. Though the community schools have improved access to education, it has become more costly for the tribal households. The average household expenditure shows that the expenditure on education proved to be a burden on those households sending children to community schools, in spite of free education and other incentives provided and available from the government. Further, the study reveals that community schools have proved themselves quite successful in providing considerable enrolment, retention and importantly, good attendance record for the teacher. However, what is perplexing is their failure in ensuring the students achievement level. This is because of lack of competitiveness among teachers as the educational qualification and relaxed training for the community school teachers. One must remember that effective access to education does not guarantee school effectiveness.

Further, the study found that improvement of the quality of education not only lies in the provision of alternative materials and methods, but also upon the excellence of the delivery mechanism. It is clearly established that teacher competency is a major dimension of quality improvement, and it is here where the community schools have a problem. The teacher training is an important area of quality improvement, it should not be overlooked in favour of quantity.

The community schools have only two classes i.e. Grade-I and Grade-II. In the absence of higher grades, many students may relapse into illiteracy. The possibility of relapsing into illiteracy is greater because students have no alternative access higher learning. In view of this, the author rightly suggested upgradation of some of the community schools into primary schools upto with Grade-V. Such schools need to be identified on the basis of the availability of a competent teacher, viable students strength, better infrastructure, and availability of teaching-learning materials. Such an effort will provide an opportunity to arrest stagnation and repetition among many community school students.

The participation of the entire community has been integral to establishment and maintenance of the community schools. 'Village Education Committee' and 'Mothers Committee' were constituted for better co-ordination and streamlining of the management system. The VEC, as the Apex educational body at the village level, is responsible for identification of teacher, his/her selection and for monitoring teacher attendance. It meets once every month along with other community members, particularly parents of school-age children, and reviews activities. The mid-day meal scheme was introduced in all the community schools. The VEC and mothers' committee manage this scheme in accordance with the guidelines. At the school level, teacher is the convenor of VEC and mothers' committee meetings.

Finally, the author opined that though the community schools are providing education to tribal children, it is unethical on the part of the state to ask the parents of tribal children to contribute for their children's education. Primary education is a constitutional right of every individual child and an obligation of the state; therefore, such a partnership has a strong legal base.

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Louise PORTER (2002): *Educating Young Children with Special Needs*. London: Paul Chapman Publishing, pp.295+ Index, ISBN 0 7619 4125 8 (hbk) & 0 7619 4126 6 (pbk). Price: 16.99 for (pbk).

Policy planners and educationists in all countries have been confronted in the last few decades by the challenge of education of young children having special needs. A positive perception of the problem and response to the challenges of various kinds has been seen in recent years in the appearance of new texts and researches on the subject and in the greater allocation of funds for research. This book is one such effort, which in quite a comprehensive manner, can serve as a text for students and a guide to work with atypical children. The author has provided a collection of nearly a dozen chapters, in which five chapters are by authors other than Louise Porter, highlighting, in a way, her reckoning with the need of collaborating with multiple authors and use their effort and insights in a

positive manner. There are three Appendices, a chapter-wise bibliography covering 32 pages and an index.

The book is divided in two parts. Part 1 focuses on a detailed portrayal of the fundamentals of early years' education. This part includes four chapters and all are Porter's own contribution. Chapter 1 spells out the fundamentals of early education as it benefits children with disabilities, their educationally disadvantaging circumstances and the typical development of not attaining the milestones. A case is made for recognizing the atypical needs of atypical children lagging behind the normative groups, as the society has the basic responsibility of providing educational benefits to all children. Despite the difficulty of identifying the set of ideal components of early education programs for children with atypical needs, some core values have been derived from the philosophical foundations to suggest the recommended practices. The early education of children with atypical needs should aim at the ethical service delivery based on the generic principle of promotion of others' good, not involving oneself in any harm, recognizing the need of treating all the recipients of services judiciously, and give parents and children the right to disclose personal information about them discreetly. It advocates a perspective that values pluralism by working through the inclusion practices. Its focus on processes helps to build an argument in favour of naturalistic teaching. Emphasis is placed on 'play' to help children in their skill development as well as in meeting cognitive, emotional and action specific needs. Chapter 2 is on Parents' Collaboration and advocates the need of empowering all family members in the education of children with atypical needs. It recognizes the changing trends in parent-professional relationships over the years, which have transformed their roles from compliance to the power sharing with the opting of own role and level of involvement, and thereby direct programs to meet the needs of children and families. In addition to education, direct therapy, social support and advocacy, importance is placed on transition planning, respite care, counselling, and coordination of services and referral. The professionals have an obligation to listen to parents' concerns and aspirations and individualize the services, and not put the burden of conformity on parents.

The Identification and Assessment concerns are discussed in Chapter 3. Educators should use tests and other assessment tools by keeping in view the limitations as well as the positive qualities of tests and assessment, as the best assessment may be human/their gut feeling. Parents should be involved in all assessments and interpretations of test results. The process proposed for the identification of atypical needs in young children begins with the provision of learning opportunities, incorporates parent reports, teacher/caregiver observations, formal observations, standardized testing, determination of priorities, and program modification. If assessments are properly used, great benefits can accrue from identifying the needs of individual children and devising programs to satisfy those needs. Educational interventions must focus more on the individual to be helped than the label attached after testing. How to individualize the programs for children with special needs is the question addressed in Chapter 4. Certain principles are laid down as a guide as the program aims at facilitating competence, encouraging the

development of positive dispositions towards learning, providing emotional support and creating a supportive community.

Part II of the book describes some common instances of atypical development in each of the developmental domains, and the ways in which the practitioners can adjust early education programs to accommodate young children's additional needs. It is recognized that children do as well as can have difficulties in more than one skill area, and the developmental programs must take note of these in their recommendations.

The chapter on Vision (Chapter 5) is contributed by James D. Kenefick, and identifies developmental effects of impaired vision on children's acquisition of concept development, interpretation of spatial distances and positions, movement, hand eye coordination, some hearing difficulties, language and social skills and the motivation to explore one's environment. After specifying the components of vision, most common causes of atypical vision are described namely, strabismus, amblyopia, nystagmus, high refractive errors and defective colour vision. Indicators of vision difficulties are listed as eye use, gross motor skills, eye-hand coordination, and behavioural signs. Children having atypical development may be blind, cases of cerebral palsy, down syndrome, and gifted and talented. As some sensory and movement difficulties are common to many conditions, and it may be possible to modify many inclusive programming ideas, the specialist allied health professionals should be consulted to have additional programming ideas.

Daily Living Skills are considered important enough to be included in a separate chapter written by Zara Soden (Chapter 7). Young children should be able to organize the information received by them through sensory mode, to use their hands effectively and to perform basic self-care functions. Children's acquisition of self-care skills reflects cultural, class and family expectations as well as their inner capabilities, and particularly, the hand skills, such as those involved in dressing, toilet training, grooming and hygiene and self-feeding.

The chapter on Communication Skills (Chapter 9) is contributed by Bernice Burnip. Communication disorders are the most common disabilities of early childhood requiring special education referral, as these adversely affect academic, personal and social attainments. The development of typical language skills in infants requires a language rich environment, with care-givers communicating and responding to their conversation initiatives. Communication includes non-linguistic as well as language (expressive, receptive) problems. The causes of atypical language development may be hearing impairment, vision impairment, deficits in intellectual and oral-motor skills, and communication disorders may be of language, voice, fluency etc. The interventions in this domain should be based on sound knowledge of normal language development and a detailed assessment of child's difficulties, ranging between naturalistic methods and structured teaching of specific language skills. Children should be referred for specialist help if the progress with naturalistic methods fails to match the expected level of skills. Chapter 10 on Cognitive Skills and Chapter 11 on Emotional and Social Needs are by Louise Porter herself. To be connected with others, they need to develop warm

relationships with their adult carers and peers. Social skill interventions can aim to promote acceptance and mediate the children's use of social skills. Young children are motivated to play socially and are willing to accept the adult guidance. Yet anti-social behaviour may arise not because children are unskilled at pro-social alternative but because of the aggression working for them needing behavioural help. To this, Louise Porter has tried to respond in the last chapter (Chapter 12) on Guiding Children's Behavior. The practitioners experience significant behavioural difficulties in children not having recognized behavioural disorder and displaying typical development. The disciplinary practices or behaviour management reflect in general an imbalance of power between adults and children, often justified on the ground of children being immature. The discipline of children is in fact one of the most debated areas with conflicting evidence in different directions. In the pre-school years, the goal of discipline is to inculcate in children the confidence to take increasing responsibility for their own actions and for their effect on other people. There is contradiction between teaching children to explore in order to help them learn and teaching them to do what they are told so that they obey behavioural limits, the tension possible to be resolved by aiming not for compliance but for thoughtful and considerate behaviour, using means that increase the children's self-control rather than imposing controls externally.

The book makes an invaluable contribution as a text in an area of investigation, knowledge and practice (children having atypical needs), which craves for new information, measures, strategies and techniques. The book uses a very clearly defined format, and makes a very comprehensive presentation in understandable and lucid language. The book is written with a helping perspective and thus successfully meets the criteria of a good narrative text to be used by students and teachers at the undergraduate level and by the practitioners. What the book does not include adequately even to meet the needs of such people are the examples/illustrations/ demonstrations of dealing with children having problems in different areas of development. Such examples are greatly needed as support material to the text. They would have utilized the materials included in the Appendices even more gainfully if it could be integrated within the text. The book includes very few post-2000 references, which in itself constitutes a limitation for the researchers to consider it as a reference material for them. Nonetheless the book should benefit the targeted audience, such as undergrads, child psychologists and counsellors.

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Alan J. MARSH (2003): *Funding Inclusive Education: The Economic Realities (Monitoring Change in Education)*, Ashgate Publishing Limited, Hants GUIIHR. England, ISBN 0754608964, PP. 151 Price: \$39.95 (Hardcover)

Inclusive education, or the so-called education of the children with special needs, is being put on the national agenda of both developed and developing economies. Acts have been

enacted to provide necessary arrangement to take special care of these children who are constrained by their physical or mental deformities. In India, we have a Special Act known as "*The Persons with Disabilities Act, 1995*", under which, there exist provisions under section 26-31 to augment the facilities for education of children with disabilities and expand the facilities and efforts to enroll more and more children. In the same context, in England, the Education Acts 1988 and 1996; and the Special Educational Needs and Disability Act 2001 have provided dispensations and code of practice on the identification and assessment of special educational needs of such children who are confronted with these special needs.

The book under review is concerned with funding inclusive education for pupils with special educational needs which is an 'offshoot' of a Ph.D. thesis. In England, with the implementation of the 1988 Education Act and the introduction of Local Management of School, LEA's have been faced with strategic choices in four main areas in so far funding aspect of education is concerned. These are: resource definition, resource allocation, resource management, resource monitoring and evaluation. However, this book is mainly focused on resource allocation for inclusive education by formula funding and its associated links with the other three components.

Against the background of growth in special educational needs, expenditure has led many LEAs to direct resources towards budgetary control as well as towards the identification of individual pupil needs. Coopers and Lybrand, in 1996, used the term the '*SEN timebomb*' to describe the escalating budgetary commitments of pupils with special educational needs. Concerns about the management and inclusion of pupils with SEN have been voiced by the Audit Commission and OFSTED in 2002 and have highlighted deficiencies in the provision for pupils with '*Special Education Needs*' which related to:

- Poor framework of policy and strategy;
- Lack of clarity about the roles and responsibilities of LEAs and schools;
- Lack of monitoring and accountability;
- Poor targeting of resources; and
- Poor management and administration of the assessment process.

The book is in two main parts. Firstly, in Chapters one to four, a theoretical component provides the key questions viz: a thorough analysis of the conceptualization of special educational needs; an examination of the principles for evaluating a funding formula and a critique of Fair Funding/Local Management of schools. In Chapters five and six, there is an empirical component, which examines two national surveys and case studies from two LEAs. The empirical component focuses on the areas of resource definition, resource allocation and resource management. There are seven Chapters, the last one provides the summary and conclusions. The author attempts to examine seven self-designed key questions: How does the conceptualization of special educational needs impact upon inclusion policy within Local Education Authorities? What contradictions and tensions are apparent when the purposes of providing additional funding for special

educational needs are examined? What principles or criteria should be considered when evaluating a funding formula and how do they relate to the purpose of the additional funding? What have been the historical arrangements for funding pupils with special educational needs? What is the current practice in LEAs with regard to resource definition, resource allocation and resource management? What is the relationship between special educational needs and resource levels and how does this match professional views? Is it worthwhile for LEAs to differentiate financially between different levels of need?

It has been argued that the majority of LEAs are unclear about the definition of special educational needs (SEN) and about the overlap between SEN and social deprivation. Further, the problem is accentuated when the decision making process, whereby children receive different levels and forms of provision, is neither transparent nor self-evidently rational. If an LEA considers that a focus on educational outcomes should be the main purpose, then funds should be distributed to meet the needs of individual pupils thereby strengthening the hold of the 'Special needs pupil' discourse. These should be differential costs for different SENs and there should be accountability of SEN resources. On the other hand, if an LEA wishes to develop the 'School and Teacher Effectiveness' policy discourse and provide a focus on equity, then the use of an index of social disadvantage to fund schools might be justified on the grounds that this readily available information is well correlated with educational achievement data (pp 122-123).

While tracing the historical development of inclusive education in England, the reference of 1944, 1981, 1988 and 1993 Education Acts is significant. However, the framework reached its present form only in the 1970s. The 1944 Education Act provided a policy statement of moving as many '*defective*' children as possible out of the medical domain and places them firmly under an education aegis [p 13]. The 1970 Education (Handicapped Children) Act abolished the legal status of ineducability and made local education authorities responsible for educational provision for all children, whatever the nature or degree of their disabilities.

However, it is observed that SEN policy and provision vary very much from one local authority to another. These variations and their relationship with funding formulae have been explored by Evans et al (2001) and by Marsh (2002). The 2001 SEN and Disability Act delivers a strengthened right to inclusive education and has amended the 1996 Act and transformed the statutory framework for inclusion into a positive endorsement of inclusion. The 2001 Act also proposed a new Disability Rights Code of Practice for Schools to co-exist with the revised SEN Code of Practice which came into operation from January 2002.

In UK, the right to education for all children with SEN evolved during the last 25 years. There are eight criteria which relate to funding formula i.e. simplicity, equity, effectiveness, responsiveness to needs, efficiency and value for money, stability of funding, cost containment and the need to reduce and stabilize the rate of statements and accountability. The principle of allocating additional resources for the purpose of raising

the educational achievement of children with special needs has not been clearly distinguished from that of palliative care, compensation and positive discrimination. Positive discrimination is understood when the profound/multiple learning difficulties (PMLD) require higher levels of individual attention in terms of teacher time and financial resources.

There is a fundamental question regarding conceptualizing the special need of pupils which may not necessarily be synchronized rather articulated with school and teacher effectiveness, on the one hand, and funding SEN in achieving effectiveness and equality on the other. According to the author, the problem might suggest that the purpose of effectiveness maps more readily to the '*special needs pupils*' discourse and the purpose of equity is linked closely to the '*School and Teacher Effectiveness*' discourse. However, the author thinks that this is an over-simplification of the case and that, in fact, both discourses address effectiveness and equity but with different emphases.

An important strategy for designing a SEN funding formula is the combination of the purposes and policy discourses by allocating distinct and separate amounts for different formula components, [p 38]

There are three major functions of a Funding Formula: (i) a market regulation function; (2) an equity function; and (iii) a directive" function. The market regulation function determines the quality of schooling; equity consideration emphasizes providing more educational opportunities to pupils with special educational needs; the directive function is an instrument by which the LEA can implement policies using financial incentives e.g. by protecting the size of small schools or by encouraging the specific use of resources e.g. for the teaching of English as a second language to pupils from an ethnic minority background.

Formula Funding was proposed by Local Management of Schools as an alternative method of resource allocation to the three main systems of historic funding, bidding and officer discretion. Formula Funding can take into account the number of regulated pupils at a school who have special educational needs and the nature of the special education provision made for them. Fair Funding has now replaced Local Management of Schools. The new arrangements required LEAs to delegate all funding to schools except where it corresponds to LEA responsibilities of non-school activities, strategic management, access, school improvement and special educational needs. The government has gradually increased the target for delegation and, for 2002-2003, this was set at 87 per cent of the Local Schools Budget. The study provided evidence to answer Key Question 6 by stating that there did not appear to be a consistent professional view of resourcing. To Key Question 7, the conclusion was that financial differentiation was only a concern in an LEA where the level of funding for non-statemented SEN was set at a high level. [p120]

From policy point of view, it has been argued that cost containment and the need to reduce and stabilise the rate of statementing are important criteria by which the formula can be evaluated. If the number of statements continues to grow, then the main implication for LEAs is that, within the context of finite budget, these increases will exert

presence on the other already stretched budget areas and will impact upon the amount that LEAs are able to distribute for pupils with special educational needs but without statements, [p. 131]

The author has examined the recent trend in funding of inclusive education and provided empirical bases for conclusions. The principles of allocation of resources for funding inclusive education in UK has got a significant attention both at the national level as well as LEAs level. It is no wonder that methods of funding are passing through evolutionary stage. The book is informative, analytical and a timely released empirical work.

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Helen ABADZI (2003): *Improving Adult Literacy Outcomes: Lessons from Cognitive Research for Developing Countries*, Washington, D.C.: The World Bank, ISBN 0-8213-5493-0, Pages: 111, Price: not mentioned (Paperback)

It has been observed that adult literacy programmes in developing countries often have low efficiency and make relatively few participants literate. Though several countries formulated excellent policies and ambitious plans for eradication of illiteracy during the last three decades, most of them have faltered at implementation level and their achievements have been abysmal. In fact, the delivery of adult literacy programmes has a long and disappointing history. While the evaluation of the much acclaimed Total Literacy Campaigns launched in different parts of India during 1990s showed a success rate of 40 per cent, the literacy campaigns implemented during 1970's in several developing countries had an efficiency rate of about 12.5 per cent with few participants acquiring stable literacy level. This may be one of the reasons why a number of development agencies shy away from investing in literacy programmes.

Although the quest for improving the effectiveness of literacy programmes have generated a plethora of research studies, most of them have focused on the institutional development, motivational and methodological issues, adult education philosophy, policy and programme evaluation, little attention has been paid to teaching-learning aspects, especially cognitive dimensions of adult learning. What are the factors that influence the learning of adults? How to enhance the learning of adults? Since the emergence of brain scanning and imaging technique, considerable research has been conducted in the area of cognitive mechanisms that enable the learner's brain to perceive and interpret written pattern in a few milliseconds. The book under review critically examines relevant researches in this field and discusses the possibilities of their application to the acquisition of literacy by unschooled adults in lower income countries. As research on literacy is often carried out by adult educators who typically lack training in cognition and neuropsychology, this book may be of considerable value to those adult educators

who are interested in studying how adults learn, why they forget and what techniques should be adopted to impart stable literacy.

The 1990s witnessed tremendous expansion of researches on how people process reading information and how various parts of brain talk to each other. Few research studies were carried out in Portugal, Yugoslavia and Burkina Faso on unschooled adults aimed at understanding how literacy shapes the cognitive system, particularly the neural systems for spoken and written language. The book provides the details of a study conducted by the author in Burkina Faso during 2000-2001, which aimed at improving the effectiveness of literacy programmes by using innovative reading methods, sophisticated equipments and computers. The sample consisted of 450 rural learners whose age ranged from 7-40 years and who had undergone basic literacy training for a period of 1-3 years. It was assumed that the traditional adult literacy training programme may not be developing adequate low-level reading skills, mainly due to the traditional methods of teaching adults and slow pace of learning. It is argued that by increasing the speed and accuracy of learning by adults, it should be possible to provide stable literacy. Cognitive researches have revealed that time is of essence in reading. By the end of a literacy course of 3-6 months duration, learners should be able to read a word in about 1-1.5 seconds with about 95 accuracy, that is, 45-60 words per minute, compared to the Indian norm of the National Literacy Mission of reading 30 words per minute. At this rate, the readers decipher script's many features automatically and the automatic readers do not normally relapse into illiteracy. If they take longer, they forget by the end of sentence what they read at the beginning. Since non-literate adult's working memory may be too brief for efficient reading, by providing appropriate exercises, such as repeating increasingly longer series of digits and phonological awareness exercises such as deleting the initial or final vowel or consonants or rhyming, computerized tutorials, flash cards, the efficiency of reading could be improved. Research on human memory now offers some clear avenues of action, which may have direct implications for improving adult literacy. The brain physically changes as it learns; neural connections continue to be made throughout life. Schooled people have neural networks that the unschooled lack. The brain activity of non-literates monitored by PET Scans while doing language tasks tended to be more localized and its locations were different. By recording the changes occurring in the brain among learners of controlled group and comparing it with others, it was found that learners, who had been exposed to innovative methods, performed better in reading tests than the learners, in the controlled group.

Apart from discussing the Burkina Faso Case-study, the book provides valuable information on different aspects of cognitive science, viz., automaticity, phonological awareness, perceptual learning, forgetting, reading difficulties of adult learners, and their implications for instruction. As the author has pointed out, the replication of the cognitive techniques is beset with problems. The application of this sophisticated method may require 'better trained teachers', detailed performance monitoring and heavy reliance on tachistometer for the study of eye movement, brain scanning equipment to explore brain changes as learning occurs, computers and considerable investment in training and

infrastructure. The researchers argue that although the cost per learner may increase, the cost per graduate with stable literacy skills may decrease as the programme becomes more efficient. Surely, the Governments must determine whether the increased costs of more scientifically based literacy instructions are worth the benefits and whether an increased share of education budget for literary instruction is justified.

Apart from the cost factor, it may be rather difficult to replicate the research in other countries, mainly due to the peculiarities of different languages and cultures. However, some of the findings of this study can be integrated with the ongoing literacy programmes, specially the phonological awareness exercises, learning to count through local money and transactions, digit span exercise to help lengthen the working memory and simple visual tests. More applied research will be needed to determine which methods are more effective and how costs and benefits compare in different countries.

The publication of this book by the World Bank may be viewed as an indicator of its interest in adult education, which has been on the decline since 1990s. The interesting but innovative technique discussed in this book for enhancing the effectiveness of literacy programme, which may reduce the costs in the long run, needs to be tried out in several countries. It would be highly desirable for the Bank to fund similar studies in other countries which may ultimately enhance the efficiency of literacy programme and reduce the requirements of funds for adult education and in this manner, the Bank can make a lasting contribution to adult education.

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Geetha KINGDON and Mohd. MUZAMMIL (2003): *The Political Economy of Education in India: Teacher Politics in Uttar Pradesh*, Oxford University Press, New Delhi, ISBN 019566-3144, pp.283. [Price.Rs.595](#). (Hardbound)

The Constitution of India, Article 45, National Education Commission (1964-66), National Policy Resolution on Education (1968), National Policy on Education (1986) and its Programme of Action (1992), various five year plans in India and recently the 93rd amendment bill relating to Elementary Education as a Fundamental Right reiterate the goal of achieving universal elementary education. However, the goal still eludes. A number of factors from human capital theory perspective or school effectiveness or financing such as poverty, poor quality of schooling, poor infrastructure, high household cost of schooling, etc have been identified as the most important factors hindering the children not to be found in schools. Of late, the factors responsible from a macro perspective identified are the issues relating to governance and management viz, lack of teacher accountability, teacher politics, centralized management and the nexus between teacher unions and politics hindering the target of achieving universal elementary education. There have been rare analyses on the political economy of education focusing

on teacher politics and its various dimensions in India with a special reference to Uttar Pradesh. The book under review is an exclusive attempt to assess the nature and consequences of the politicization of education and teacher politics as well as it documents, compiles and examines the extent of penetration of the teaching profession into politics, especially in the private aided schools in the secondary education system in the state of Uttar Pradesh, where there is more leeway.

The grant-in-aid system to private schools had been the basis of the British Policy in Indian education. It continued to stimulate and encourage considerable expansion of education in the post-independence India. Grants-in-aid had been used as instrumental in mobilising private effort in secondary education. Private educational institutions with huge sums of grants-in-aid flowing from governments administer large number of institutions, enrolments and teachers. Indeed, the number of aided secondary schools increased so greatly that the problem of secondary education became virtually the problem of private aided schools and the question of grant-in-aid began to receive prominent attention. Including Uttar Pradesh and a few other states, viz, in Gujarat, West Bengal, and Maharashtra, private aided schools predominate (more than 80 per cent) in the total number of secondary schools.

The book under review examines the political economy of secondary education focusing on the teacher politics in the grant-in-aid or the private-aided - the privately owned but publicly funded schools are the major provider of secondary education in Uttar Pradesh. The book is planned into four broad sections running into fourteen chapters. The first section is a backdrop covering the evolution of political, constitutional and financial system of education, which is in place in the state. This first section runs into four chapters, the second chapter describes the evolution of the state, its political set-up, budgetary mechanics and the links between politics, administration and pressure groups. Chapter 3 provides the history of education and education policy in the state. Chapter 4 relates to public expenditures on education and details government spending on education and describes the place of education in the state plan priorities. It also presents the contribution of fees to state revenue and total education spending.

Section two is devoted to the main focus of the study - the interplay among factors relating to Constitution, Politics, Education and Teachers. Chapter 5 titled as 'Teachers Status in the Constitutional Provisions' explains the teacher's guaranteed representations in the State Legislative Council, legal challenges brought by various worker groups against teacher's assured representations in the Council, the motivations for such challenges, and controversy over institutionalized representation of teachers. Chapter 6 brings out the origin, changing role and actual position of teachers in Legislative Council, Legislative Assembly and Ministries. Chapter 7 highlights the factors responsible for the built-in-nexus between education, teacher and politics focusing on the changes brought in through the Education Act enacted in 1971 and the recent decentralization of powers to the village Panchayat Raj Institutions.

Section 3 concentrates further on the nexus between teacher unions and politics focusing on the evolution of teacher unions and their history, politicization and

composition of teacher unions and their movements; and strikes from chapter 8 through chapter 10.

The last section examines the political economy of educational finance and teacher appointments. Chapter 11 analyses the system of grants-in-aid, which depends fully on the political pulls and pressures. There are no criteria linking the grant to neither the inputs like student enrolment nor the output viz, student achievement or quality of education, etc. It is argued that the political pressures that have led to more and more private unaided schools being brought on to the grants-in-aid list, which substantially increases the financial burden of the state without leading to any concomitant increase in enrolment. When a private unaided (fee charging) school is brought on to the aided list that an existing private school stops charging fees and its teachers begin to get paid by the government treasury rather than out of fee revenues. It is vehemently argued that the practice of bringing private unaided schools onto the list of grant-in-aid is inimical to both equity and efficiency.

It is to be noted that allowing the proliferation of private unaided schools will have serious implications for the access and participation of students from low-income families, women and minorities. On account of this, a dual system emerges with the private unaided for the affordable and institutions managed by government, local bodies and private aided bodies (grappling with inadequate accountable mechanism of teachers and managers) serving for the unaffordable. Such a system would further widen inequities in the society.

Chapter 12 brings out the concessions and benefits secured by different teacher groups through the passage of various Education Acts and Rules, which facilitate to nullify the teachers' local accountability. The issues on pay-parity and non-salary benefits vis-a-vis the government school teachers and state and central government employees obtained by teachers in private aided schools is brought out in chapter 13. Teachers and their unions were politically capable of getting fully paid even during the periods of strikes. In short, any increase in total expenditures on education had been largely captured by teachers in terms of higher salaries and emoluments. The last chapter summarizes and brings out the implications emerging from the study.

Though the penetration of teacher politics in the state is multi-dimensional (bringing the unaided private schools under the list of government aided schools; educational finance through grants-in-aid; removal of pay anomalies or pay-parity; teacher appointments and other service benefits, etc), all these converge into the betterment of teachers alone and not for the education of the children, school infrastructure, etc. As rightly pointed out by the authors, the penetration of teacher politics in Uttar Pradesh is an "extreme case" of danger, which is reflected in a number of educational indicators of the state. Though it is a common observation that teachers' frequent political activities have converted educational institutions into 'political boxing-ring' in the state, the present book categorically brings out the robust nexus between politics, teacher unions and education in a scientific manner.

It is a fact that negligent attitudes of many teachers are protected by the strong teacher unions to get away with absenteeism, shortened teaching hours, engaging paid home tuitions, etc. Impact of teacher politics on educational outcomes (i.e., the consequences) is also equally important to examine, though it is a difficult task especially in terms of measuring the educational outcomes or the foregone educational inputs. The twin factors for this strong nexus identified are - education is not a political issue with the electorate at large and hence low priority in funding allocation. Second factor - politically influential teachers and their unions campaigned singularly for their own financial betterment and not for the improvement of school facilities. Teacher unions have never lobbied for increased resources, better infrastructure or longer school days.

It is pathetic that this kind of chain of various actions (the teachers' political activities) is getting strengthened for further decay of the delivery of public education system in the state. How to really make such a system work to deliver the goods and services to the public?

However, the book is a valuable addition to the existing literature on the Political Economy of Education in India, which painstakingly compiled and analyzed the politics of teachers, one of the major hindrances in achieving better educational development in Uttar Pradesh. It should be of special interest to the policy makers, planners, researchers in the field of teacher education and political economy. It is an interesting reading for anyone interested in education.

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Lesely ANDERSON and Nigel BENNET (eds.) (2003): *Developing Educational Leadership*, Sage Publications, ISBN 0761949372, 0761949380, Pages: 188, Price: £8.99 (Paperback),

The edited book, "Developing Educational Leadership", dealing with using Evidence for Policy and Practice for BELMAS, aims at relevant concern and professional development for experienced leaders in schools. Series explore the important issues related to policy for research and development as well as practices, productively informed by evidence from research with stronger justification and opportunity highly qualitative to support, clarify and signify BELMAS mission applicable to educational leadership. The selective collection ensures and enhances its beneficial nature and character for all in the field of public policy formulation. *Evidence informed policy and practice* (EIPP) has emerged as an important concept in the public policy. The availability and growing reliability as responsive evidence for elevated and improved public service and practice sounds as a key component of the government's modernization and updated agenda. EIPP is relevant, applicable and successful as a part and parcel element of the public sector especially in education and effective educational leadership to raise splendid educational standards.

The key figures and features in the field of EIPP appear significant to introduce and examine the vital role of informed educational leadership in the field of teaching as well as learning and practice. The research is based on applied analysis, conceptual theoretical study and relevant amplification of primary data generated current collection. In this way, this book assists readers for educational professional, policy makers, researchers, practitioners and students for all-round development of perceived and conceived knowledge, learning and other sorts of mental exercise in both levels such as micro and macro.

With a coherent flow, this book owes considerable and complementary areas of expertise having challenging, purposeful and systematic reviews. Contents of this series include Editor's Preface, Acknowledgements, Notes on Contributors and Introduction led by the editor. This book is divided into two parts and twelve chapters. The first part includes contributions of five authors and the second part contains seven contributors. They made attempts to explore and correlate between practice and research on the basis of reliable, systematic educational research and review, critical appraisal, accessible to a wide and varied range of users in useful manner and demonstration. Several organizations such as Pressure Groups University, researchers, think tanks, professional bodies and statutory organizations influence policy makers through assembly and presentation of evidence resulting increased public and political scepticism towards the path of public services. The positive actions to implement policies development, informed by evidence, would be more appropriate, effective and apparent in achieving their declared goal:

The best practice and 'league table', as a means of the government to attain an end, depends on the judgement of effectiveness of public services such as hospitals, local government schools and colleges based on increased availability of all types of primary data, information technology, capabilities of research community. But other factors such as the need to improve productivity, international competitiveness and excellence, security and accountability of government are noteworthy. The persistent criticisms, limitations and implication in the evidence to justify the claims of government and educational research led wide-range of scrutiny of the relationship between educational research findings and evidence for grand success in comparative degree denote a distinct lack of robust evidence from rigorous experimental trial available to inform policy making and practice but huge range of related initiatives intend to improve the evidence base for policy formulation and service delivery practice by the labour government in U.K. through initiatives such as General Teaching Council, the National College for School Leadership, (NCSL). The National Educational Research Forum, the Centres for the Economics of Education are the centres of wider benefit of learning. Hillage et al 1998, Tooley 1998 were critical of their quality, use and validity. But educational research lacks sufficient influence on policy formulation and professional educational practice due to practical bottlenecks. There is no denial of importance of good research and sound evidence practice. OFSTED (1995) attacked on well-established conceptual validity of reflective practice and topmost priority was given to objective data rather than

a subjective one. It is a self-evident fact that policy making decisions informed by sound evidence contributes major evidence-base for policy measure and strongly rational, real, general, conspicuous and relevant research programmes and findings as a base for action, presentation and discussions at the BELMAS. The themes of the book are discussed and expressed in its 12 chapters which are presented as follows:

Chapter-1 lay bare that teaching has always been a process informed by evidence. HARLES DESFORGES opines that everyone is familiar with the fact that teaching and learning pursuits have always been a continuous and life-long monitoring process attached with action, reaction and interaction activities responsive to wide range of topics through the exercise of expertise or wisdom on the basis of valid evidence-informed practice resulting in wiser, more productive and longer interpretations to linger subsequent decisions. As a matter of fact, the commitment to EIPP is not a strike against creativity or wisdom. It is no more than a challenge. EIPP provides identification, means of accumulating high quality evidence, means of reviewing, organizing and systematizing the evidence, means of transforming evidence into system-wide practice. Knowledge use, knowledge transfer or knowledge application are abrupt measures but skills and technological development in their implications form and application require a body of well-established scientific knowledge, good engineering skills, extensive financing ideas; so also liberal accountability, regime allowing for diversity, experimentation, competition and market for effective ideas are essential elements.

In Chapter-2, Judy Sebha states that the development of evidence-informed Policy, as the government strategy for research and development in education, is not new. Nutaley and Webb (2000) noted that Keynes was a great proponent of the importance of ideas and knowledge in policy making. The rational decisions based on knowledge and 'reasoned' experiment cannot be denied at any cost. Modernising government in U.K. has promoted the use of evidence in the policy process in improved forms. The impact of research on Primary to Secondary school transfer for teaching and learning up to 11-14 year old embraces quality assurance. Conclusively, the author opines public and political perception of education of practical evidence being judged on its ability. Moral obligation ensures standard research appropriate findings and assessment for informed policy and practice. But perfection is far-reaching.

The author of Chapter-3 to state Philips Davies identifies the feasibility of educational and wider social scientific research but all sorts of research and information are not of equal value. Systematic reviews are not necessarily different from the past experience of educational research, policy and practice. The main difference is growing, recognition of the potential of systematic reviews for educational research, policy and practice levels up to mark, regular and useful for private and public sectors. But the complexity of modern professional life exceeds capacity of the unaided human mind as Eddy, Hassel et al and Shachter (1992) remark.

In Chapter-4, James Thomas and Angela Harden are active enough to bridge the gap between research policy and practice more effectively in the field of education. The growing importance and interest and exclusive support evidence - informed policy and

practice in education - is an order of the day in the globalization regime. The EPPI centre promoted the use of research evidence within the classroom and in the formulation of policy. The authors have taken steps to reduce distortions and inaccuracies in their works through illustrations, principles and outlines to conduct systematic reviews into practice and workshops, assurance of review, quality, management and synthesis, training in review methods, contacts, experienced reviewers, educational materials, specialized research participation and dissemination of review for exploration.

Public domain research means investigation accumulation of openly accessible knowledge such as professional researchers in the universities and research institutes. Private domain research refers to institutional based research undertaken mainly by practitioners or groups of colleges or educational institutions or informing practice. The dissemination of validated research findings and beyond the research community is the next crucial stage of EIPP which leads to better achievements of the intended goals of practice and policy. If evidence is biased or fails, the research loses its claims to assist in determining goals but evaluating practice holds good.

In Chapter-6, *Foul is fair and Fair is foul*, Les Bell Ray Bolam and Leela Cubilo developed the reviews accompanied by debate regarding its desirability, nature and purpose. The authors state that Educational Leadership and Management are key factors in ensuring a school's success, effectiveness and performance for qualitative approaches based on investigation, instruction and leadership in case of U.K., North America, Australia, New Zealand, Scandinavia, Holland, Hongkong and Singapore. Generalization, in relevant studies - Confidence, Professional Judgement for action and scope for localization of school are - more than sufficient.

In Chapter-7, Philippa Cordingley emphasizes on relative information for practice. Knowledge and skills explore and develop the boundaries between the roles, responsibilities of researchers and users of research-based practice. In this critical age, differentiated answers are claimed on all levels. In Chapter-8, Marianne Coleman is attentive towards examination of correlations between researchers and practitioners at school and college levels. They play a unique role because research contains practical contextual knowledge and application of theoretical learning within a school and college, influencing practice through conceptual and institutional changes. In Chapter-9, Jacky Lumby states the failure and depression of educational research in late 1990s and that a significant dynamic trend led the government and practitioners to give topmost priority to applied research (1996). A constructive accumulation is needed to hold supremacy in determining and shaping the arena of research and its approach through value judgement and informing practice and policy. The author concludes that a willingness to embrace plurality may be the key for future prospects.

In Chapter-10, Charis Dark expresses that a politically determined objective and method of teaching need appraisal. PANDA performance and assessment reports and league need modification (OFSTED). The school development is now grounded in a managerial perspective. Self-critical and self-confident schools are information-rich and researchers are involved in decision making (Smith and Jonalinson 1989). The author

expresses the favourable impact of evidence-informed policy and practice (EIPP) in two ways: Information and data based; and its use at micro-level by influencing organization and management of Peers School in Oxford. The examples, evaluation, assessment, audit and review of school performances and using information and evidence across schools. The author advocates interviews and school-based research to shape the policy and practice through expertise. Teachers deserve opportunities to discover new ideas.

In Chapter-11, *WILL WALE* experiences personally as a researcher practitioner using research into school leadership in secondary schools in UK to prepare for headship within the framework of evidence- informed policy and practice (EIPP). The interviews allow him opportunity to explore in depth for personal aspects of leadership rather than persuasion of leadership role. Evaluation through evidence-generated research would pose a significant challenge. Identification of development of research ideas used and generated by evidence and practice holds the ground.

In the final Chapter 12, the authors *PETER IBBINS and HELEN GUNTER* consider the various recent reviews of educational researchers and comment on the EPPI Centre. They were responsive to systematic reviews. They include the importance of map as a vital tool for reviewers to enhance educational leadership and management such as NCSL. Too much research lacks objectivity in so far as it is ideological and politically biased. In conducting research, too much emphasis is given to originality and too little to validity. They discouraged arbitrary and flawed research as well as irrelevant research. The role of collaboration can be kept evergreen but it is difficult to attain in real life.

Overall, this book is essential for the planner and policy maker. Researchers and students would be happy to go through it, if they are eager to learn. The efforts and approaches of authors are worth appreciating. The presentation may ease the learner with attractive get up and moderate price. All learners would tend towards this book which is unique in practical approaches and analysis. Its language is technical in interpreting terms and lucid in expression.

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J. Patrick RAINES and Charles G. LEATHERS (2003): *The Economic Institutions of Higher Education: Economic Theories of University Behavior*. Cheltenham, UK: Edward Elgar, pp.237 plus Index, Price: £ 49.95; ISBN: 1-84064-991-7 (Hardbound)

This is an excellent book on the history of economic thought on higher education institutions. Economic behaviour of universities attracted the attention of economists from the days of Adam Smith. Today analysis of economic aspects of higher education institutions has grown to become an important area of research. The literature on economics of higher education institutions is rich with an extensive coverage of issues that include production and cost functions, demand functions, supply of faculty, funding

research, academic labour markets, returns to higher education, financial aspects, endowments, pricing, etc. Starting from the days of Adam Smith, all the economists who have studied higher education institutions from an economic perspective also noted, rather explicitly, the peculiar characteristic features of higher education institutions: higher education institutions have social functions; they possess important social, cultural as well as economic dimensions; they provide public service; they are different from commercial and business organisations; they produce human capital, even specialised human capital; their output is not necessarily tangible; and above all, they are not-for-profit institutions; yet these institutions are competitive institutions.

Raines and Leathers present in the book under review a critical review of writings on economic behaviour of universities, starting with the seminal writings of Adam Smith, and John Stuart Mill, and Thorstein Veblen to the contemporary post-War economists, particularly of US and UK, including John Kenneth Galbraith, Joseph Schumpeter, James Buchanan, E.G. West, David Riesman, Nicos E. Devletoglou, P.T. Brinkman, C.T. Clotfelter, J. Creedy, D. Garvin, Stephen Hoenack, etc. One does not necessarily find unanimity in the opinions of many economists on many economic aspects of higher education institutions. In fact, sometimes conflicting inferences can be drawn from several writings of even a single economist, like say Adam Smith. But there are also certain aspects that are clearly argued. Raines and Leathers make a commendable effort of putting together the objective and normative views of many economists, drawing from their several writings. After giving a historical description of the evolution of medieval universities in England, Scotland and Germany and the modern universities in USA in Chapter 2, the authors present a succinct review of Adam Smith's and J.S. Mill's analysis of English universities and Veblen's analysis of failures of American universities in Chapters 3, 4 and 5 respectively. The positive and normative views of Smith, Mill and Veblen on a wide variety of issues relating to universities, including endowments to universities, fees and other economic aspects were reviewed.

Universities of Adam Smith period were much smaller and certainly less bureaucratic. While Adam Smith believed strongly in students' consumer sovereignty, he also strongly felt that 'expence of the institutions for education' was 'no doubt beneficial to the whole society, and may, therefore, without injustice, be defrayed by the general contribution of the whole society.' He also recognised that education generated public benefits, and the education that generated public benefits included not only the basic education of children - the teaching of reading, writing, and arithmetic - but also university-level education; and hence 'publick' ought to provide for such kind of education. However, Smith devoted more attention to the education for the sons of 'gentlemen and men of fortune' than to the basic education of the 'common people.' It is quite important to remember that Smith discussed university education under the heading of 'duties of the sovereign' and stated that such education provided sufficient public benefits to warrant financing it from general revenue. Though Smith suggested reforms that essentially help in creation of a free market-like environment, he strongly favoured public as well as private subsidies. He felt that subsidies allowed more students to attend

universities than would have been the case if they had to pay the full fees, and that it was good, more students go for higher education. But, on the whole, Smith felt that market principles were relevant for higher education.

John Stuart Mill disagreed with Adam Smith on the applicability of market principles in education. He recognised the social benefits more clearly and more explicitly than Smith. Mill argued that popular education contributes to national wealth by increasing industrial skills at the middle management and supervisory levels. Education directly improves the quality of labour by elevating it from mere habitual memorized routine to an intelligent activity incorporating some element of imagination and initiative. Education also has indirect positive effects on productivity by enhancing the practical and moral quality of character, which contributes to higher standards of work and productivity as well as improved labour relations. Mill also recognised the special social functions of universities. Universities create 'the greatest possible quantity of *intellectual power*' and inspire the 'intensest *love of truth*'. It is not the function of the universities to 'make skilful lawyers, or physicians, or engineers, but capable and cultivated people'. According to Mill, people are not the best judges about education of their children, and, hence, the role of the state becomes important. He was very critical of private schools: they were an 'organized system of charlatenerie for imposing upon the ignorance of parents.' Education cannot be a marketable commodity, as consumers do not have sufficient ability to pay; they do not care sufficiently for it; and they are not sufficient judges of the value of education. He strongly felt that an enlightened government is 'probably a better judge of good education, than an average man - even an average founder' of a university.

While Veblen accepted the assumption of profit maximisation of the neo-classical economic models, he recognised that universities constitute a different type of institutions, with neither a formal proprietary interest, nor a marketable output. He accorded great social importance to knowledge, which is shaped by the universities. He also recognised the public benefits of higher education; and hence felt that students do not pay full cost of their higher education. Higher education is worth more than its costs to students. Veblen's economic model of university behaviour as a micro organisation is the focus of Chapter 6. His economic model of university behaviour explained the behaviour more of private not-for-profit universities - the 'university corporations' and the behaviour of 'discretionary officials' of the university - who appear both as an institution, i.e., a set of functions, duties, powers, and as individuals - with personal motives than public universities, though its relevance to the public universities can also be found. The university corporations produced inefficiency, waste and stultification. Drawing from the experience of Chicago and Johns Hopkins universities, Veblen noted the intrusion of business values into the university administration and their growth. He also found undesirable impact of the 'animus of these academic businessmen' on teaching. Influence of business habits on university behaviour was highly negative. In the business view, university is an academic enterprise; faculty members are employees to be hired at the lowest possible wages. He was also critical of competition among

universities. He found competition in US universities to be wasteful, producing serious negative consequences. He felt that universities should not compete, as scientific and scholarly research requires cooperation, rather than competition.

Many of the universities of the 20th and the 21st century are totally different from the universities of the earlier centuries. While students of the earlier centuries and even those of the early 20th century were found to be generally serious individuals, who wanted to be taught, during later part of the 20th century, student consumerism has become an important feature. James Buchanan and Devletoglou developed an economic diagnosis of the behaviour of universities in the era of student radicalism of the 1950s and 1960s. According to them, the economic effects of free tuition, and the effects of behavioural characteristics of faculty have been responsible to the nature and causes of universities' failure. Free tuition helped development of radical student extremism that led to attacks on the universities and put the traditional academic heritage at a crisis point. According to Buchanan and Devletoglou, universities' failures centred on three curious institutional characteristics of universities. They are: (a) taxpayers who finance universities do not control what the universities do; (b) students who consume the educational services do not pay and have no control over the quality or variety of services received; and (c) faculties who produce the educational services do not sell those services (p. 164). Buchanan and Devletoglou were primarily concerned with explaining why university education - a particular economic good - is viewed by the public as a free good. They noted that higher education actually resembles a conglomerate corporation.

The book concludes with a discussion on the emergence of new universities. Mill's social functions of universities are no more valued. Raines and Leathers aptly describe the new type of universities emerging all over as 'entrepreneurial universities,' engaging in 'academic capitalism' - market-like competition for funds from external sources. In a sense, Veblen's model of economic behaviour of universities explains the emergence of entrepreneurial universities and their nature. Transformation of universities into entrepreneurial universities is rightly regarded as a direct response to the changes in government support for universities in general and more specifically for research in universities. Public funding for research has been reduced. Within research, funding for basic or fundamental research receives no priority. The ability to do groundbreaking research is no longer important. In stead, faculty has to be entrepreneurial. Instead of basic or fundamental research, policy research has become the buzzword. Such research is expected to help the government in policy making, on the one hand, and in successful market innovations, on the other. Public policies are also directed towards promoting market innovations. Universities are undergoing rapid changes. The externally derived influence upon the mission of universities is haunting the academic world. University research is getting highly commercialised. The commercialised research and the close relationship between universities and industry are transforming universities rapidly into entrepreneurial universities. While universities want to capitalize institutionally from entrepreneurial research, individual faculty researchers may be interested in capitalizing personally by starting their own firms. Conflicts over ownership of intellectual properties

affect relationship between faculty members and the university, between faculty and students, and between students and the universities. As a result of privatising intellectual priorities, knowledge, which is a public good, which was traditionally made available to public by the universities, is getting restricted in distribution.

As Veblen noted, these forces produce different kinds of faculty: *true* scholars/scientists and *official* or «osi-scholars/scientists. The former are addicted to pursuit of knowledge. The values of this group hold the higher learning in the highest esteem, and their motives were purely those pertaining to scholarly and scientific research. While the true scholars possess intrinsic value, the later group have more 'advertising' value. Their scholarly/scientific reputation is with the 'unlearned laity,' not with their peers in a seminary of higher learning. The official scholars are most likely to defend the convictions of the well-to-do potential donors; and they also get popular approval.

The nature of financial operations of the universities is also rapidly changing. Many universities began using their endowments for venture capital projects and for other kinds of for-profit activities, which are largely extraneous to academic activities that traditionally have defined universities as specialized institutions. The university-industry connections that used to separate academic and commercial practices in the universities do no more make the distinction, as all activities in the universities are getting commercialised. Obviously, the traditional functions of the universities to advance and disseminate knowledge through research and teaching are being affected by such shifts towards more commercial activities. During the earlier periods, even after the state assumed responsibilities of financing universities, their independence and autonomy were never in trouble. With the growth of university-industry relationships and the increasing complexity of universities to be responsible to complex sources of funds, the autonomy of the universities, and the academic freedom of the academics are in peril.

All this is the first phase of the emergence of the new entrepreneurial universities. Raines and Leathers describe that, in the second phase, commoditization of instruction is taking place. The instructional activities of universities are becoming 'commercially viable proprietary products'. This is happening by transforming instructional material into digitised standardized courseware that can be profitably sold in the market - online and otherwise. This, many feel, would increase, rather than reduce, the costs of higher education. This would also help the university administrators to gain control over academics. As in case of normal industries, technology is used 'to discipline, de-skill and displace labour.' The growing tendencies in favour of untenured and part-time faculty are an indication of the same. This also changes the very nature of higher education. What students would seek are degrees, and not knowledge, from such commoditized instruction material.

It may be easier to explain the emergence of the entrepreneurial universities in terms of business behaviour. Universities have become eager, like best-business organizations, to pursue and exploit commercial relationships that bring revenue and vendable education products. As the authors rightly conclude, neither Adam Smith, nor Veblen, or Mill or

any one else would have favoured the emergence of the entrepreneurial universities, even when some of them favoured free market-like environment in university education. Raines and Leathers indirectly answer many critics who blame economists for the growing commercialisation of higher education institutions. As they convincingly show with extensive references to classical and modern writings of economists, certainly this is not the model advocated by any serious economist for the development of universities, though some have predicted in their evolutionary historical views the emergence of such institutions. Written in a lucid style, the book should interest any one interested in the development of higher education institutions around the world, and students of economics of education would find it indispensable, as it provides a rich critical synthesis of valuable writings and opinions of a long array of economists on universities. The book also has a lot of relevance for the policy makers engaged in university reforms. It may not be proper to complain about the omissions, as the book indeed gives a lot in terms of very valuable interpretative analysis of many writings on the problem. But one would be surprised at the omission of reference to some of the many contemporary economists and economists of education who worked in the same and closely related areas of research.

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