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ABSTRACT

This paper presents the views of the Inter-American Development Bank (IDB) on higher education in Latin America and the Caribbean and offers a strategy for how it can promote improvement. The paper attempts to produce an accurate assessment and useful policy implications. The first chapter, "A Mixed Performance," contains a general assessment of the current situation. The second chapter, "Deciphering Higher Education's Obscure Texts," identifies the key functions performed by the region's higher education systems. Chapter 3, "Policy Issues," analyzes significant policy trends in diverse national settings and sets forth the IDB views on performance to date and desirable reform. The final chapter, "How the IDB Can Help," discusses the aspects of reform that might attract direct IDB assistance through a lending strategy delineated according to higher education functions. The paper proposes guidelines for IDB action but does not specify the financial amounts that would support each action. A central contention of the paper is that the performance of Latin American and Caribbean higher education systems is quite variable across countries and sectors, as well as across institutions and units. (Contains 9 tables and 52 references.) (SLD)

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Higher Education in Latin America and the Caribbean

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Higher Education in Latin America and the Caribbean

A Strategy Paper

Washington, D.C.
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This paper, prepared under the responsibility of SDS/SOC, was written by Claudio de Moura Castro and Daniel C. Levy, with the assistance of Andrés Bernasconi. In order to keep the present paper reasonably brief, the bulk of the evidence, citations, examples and data to substantiate the arguments, as well as the qualifications to those arguments, can be found in the background paper *Higher Education in Latin America: Myths, Realities, and How the IDB Can Help*. Both papers will guide IDB policy. Although some implications for science and technology emerge in both versions of the higher education paper, this issue is addressed in another strategy paper.

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Introduction

WHY THIS PAPER

This paper presents the IDB's view of higher education in Latin America and the Caribbean and a strategy for how it can promote improvement.¹ The paper attempts to produce an accurate assessment and useful policy implications. Toward those ends, it strives to deal with higher education and avoid the tendency of scholarship and policy papers to skip over much of the large terrain beyond the universities and the tasks associated with them.

The first chapter presents a general assessment of the current situation. The second chapter identifies the key functions performed by, and needed from, the region's higher education. The paper goes on to analyze significant policy trends in diverse national settings and to expound the IDB's views on performance to date and desirable reform (third chapter). The final chapter discusses those aspects of reform that might attract direct IDB assistance through a lending strategy delineated according to the functions. The paper is not, however, a rigid blueprint. Drawing on its analytical concepts and data, it proposes guidelines for IDB action but it does not specify the financial amounts that would support each action. Regarding action by others, the paper does not aim to impose any view or policy. It does aim to influence, of course, as well as to build a

¹ Although the Caribbean falls within the IDB's purview, the paper's generalizations hold much more for the Dominican Republic and perhaps Haiti (adjusted for its poverty) than for Cuba or English-speaking countries; for example, the University of the West Indies has held in check many of the problems highlighted in Chapter I of this paper and this would suggest only selective application of the paper's generalizations there.

more fruitful dialogue with all interested parties. And it aims to identify partners interested in the kinds of reforms the Bank is prepared to support.

A central contention of the paper is that the performance of Latin American and Caribbean higher education is quite variable across countries and sectors, as well as across institutions and units within institutions. The diversity of functions contributes to the variability, a point which is made thematic in this presentation.

The paper focuses on four major functions of the region's higher education: (i) academic leadership; (ii) professional work; (iii) technical training and development; and, (iv) general higher education. The last function requires an initial explanation. It is post-secondary education that purports to be professional, and is so shaped in its curriculum, method of instruction, and rhetoric, but is actually "quasi-professional" or general education in that it produces graduates who do not find employment that directly corresponds to their fields of study. Judged by performance on its claimed functions, it is often non-functional, but judged by what it really does, or can do, it is a sort of general, additional, higher education. Failure to identify different functions contributes to sloppy assessment and inappropriate policies.

When evaluated by its average performance as the academic leadership or professional enterprise it usually claims to be, or by most measures of efficiency, the region's higher education ranks low. At the same time, however, all four functions are performed well somewhere, and any fair assessment should point to many successful reforms.

Fundamentally driving this paper is the conviction that higher education policy matters. It would matter simply on the basis of the substantial investment: years in the lives of millions of students, large public expenditures, etc. (see Tables 1 and 9). Moreover, for reasons of demography and expanding secondary school enrollments, economic change, and social aspirations, Latin American higher education will grow significantly in the coming years. But higher education policy also matters because it must be linked to development, to building societies that are more productive, informed, prosperous, just, fulfilling, and democratic. Although higher education has for centuries played important roles, never before has there been as great a need for human resources to be so nurtured through advanced formal education. Latin America's very modernization and integration into an increasingly global economy and society depends to a significant degree on higher education. The IDB thus rejects the view that higher education can be marginal to national development or that the state can be marginal to higher education. But it also rejects the view that higher education can play its role well if only it is expanded and nourished with more generous public funds. In other words, because significant size and growth are givens and vital tasks must be carried out, it is crucial that close attention be paid to the scope and quality of higher education's performance. It is in that context that the paper argues for important additional reform.

The IDB can make a difference. It cannot substitute for domestic reform, and it will not revert to its robust financing of widespread university development and growth (1962-74). Nor, however, will the IDB surrender the notion that a sound higher education system—already with over seven million students and the likelihood of significantly more in coming years—is a *necessary* component of national development and must be seen and treated as such. Higher education plays a crucial role already and must play an even stronger one in the future. It is necessary for economic development, as this paper emphasizes, and for social and political development. But such development requires the reorientation and reallocation of rules and resources, a

process the IDB can promote by working with local reformers.

The Bank has had long experience in supporting higher education reform. In fact, the IDB was easily the largest external funding contributor in the Golden Era of assistance (1960s and early 1970s) and has remained the most involved since that time (Levy forthcoming). From its first project in 1962, through 1984, the IDB disbursed \$540,732,000 to higher education, a category that does not include science and technology or agricultural research and extension, which together accounted for a larger share of resources than "higher education" in that period, though all these categories added up to only a small portion of the IDB's total portfolio. The IDB's main early higher education targets were national universities but by the early 1970s private universities got 30 percent of the resources and other public institutions also took a large share. Thereafter, most funds went to central government agencies which distributed them to individual institutions. For the overall period, central agencies account for half the money, public universities for 40 percent, and private ones for 10 percent (but since these figures are not adjusted they overrepresent the more recent years and thus the central agencies).

The aims of the IDB were broad. Although they did not follow a clear blueprint, several goals stand out. Growth and increased access were seen as a key to national development but the composition of the loans suggests that reform was also part of the agenda. Interinstitutional diversity was emphasized, especially where it promised innovation. Centralization of some services and facilities was part of the agenda, as many universities had started as little more than autonomous professional schools. Another thrust was to build academic quality as conventionally defined at the international level (full-time teaching, research, graduate education, etc.). Among other factors that determined the IDB's investment by country, an attempt was made to boost several Central American and other poor countries where reform-oriented small systems could grow rapidly on the basis of new structures and principles.

The present proposal reflects a natural and required shift in activities for the IDB. It retains similarly broad goals but it is directed to a changed world. Moreover, our understanding of some development and educational processes has improved. And lessons from prior IDB efforts in higher education should come into play, including the positive impact possible when loans are carefully targeted to feasible projects that are high priorities of domestic reformers. However, the absence of widespread domestic reform properly attuned to incentives, finance, governance, and quality often means that the targets of reforms become niches that offer only partial relief to systemic problems.

The Bank supports criteria for higher education that are generally valid for this type of investments. Its loans should fund activities that make economic sense, generate more benefits than the market can capture, or represent to a social priority that could not get sufficient support from market forces alone. In addition, in an area where expenditures are significant and the immediate clients are generally in the upper half of the income distribution, equity considerations deserve attention. In general, the Bank favors projects with strong and sensible reform components because they improve efficiency, raise benefits, and/or improve equity. All the policies proposed herein relate to these general goals.

A Mixed Performance

The performance of higher education in Latin America and the Caribbean is mixed. Average educational performance is poor in several comparative senses: lower than in most other regions, low for the level of investment, and lower than it used to be. Yet this generalization subsumes an extraordinary amount of variation and leads to a stereotype that is a faulty basis for considering reform. A review of the evidence shows a complex and mixed picture (Albornoz, 1996; Balán and Trombetta, 1993; Brunner, 1990; Drysdale, 1987; Levy, 1986; Navarro, 1995; Schwartzman, 1996; Task Force, 1994). The predominantly negative assessment is accurate but incomplete, and "crisis" rhetoric is too generalized. There is much that is right, including tasks that have long been well performed, widespread reforms over recent decades, and new changes underway.

ACCOMPLISHMENTS

Led by the public universities, higher education has historically produced a stream of well-prepared professionals for the private and public sectors (Lorey, 1993). It continues to do so, despite the fact that many poorly prepared students are also graduating. Rates of return remain positive, even according to analyses performed by critics of publicly supported higher education (World Bank, 1995; Schiefelbein, 1996:34).

Higher education also deserves credit for many impacts that are neither just economic nor "educational" in a narrow sense. Different countries, policymakers, and societies seek different mixes of outcomes from higher education and what is considered "good" depends partly on values and political choices; it is thus easier to talk of educational

performance than total performance. In any case, universities in Latin America and the Caribbean have often played a crucial role in promoting democracy or in using the space available for critical thinking and expression. University-based intellectuals have enriched national thought, sometimes articulating alternatives to official policy and sometimes playing a major role in developing it. Universities have at times been crucial channels of political modernization and, for better or worse, have sometimes fostered political legitimacy and stability (Levy, 1980). Socially, they have been vehicles of mobility (Schwartzman, 1996:23) and delivery of important services, such as health. By 1980, women accounted for more than 40 percent of enrollment in most countries and today, given their majority in most large systems, they probably account for over half of the enrollment in the region's institutions of higher learning. Additionally, the public university often plays a vital role in producing and disseminating national culture and in building a national identity. And although academic research performance is typically far below what is expected or claimed, it is also fair to note that national and other public higher education institutions have usually done a major share of the good scholarship that Latin America has managed to produce. Some conventional indicators credit these institutions with roughly 80 percent of the research undertaken and a major share of the national science and technology effort.

Thus, this paper's economic development focus does not purport to capture the totality of higher education's contributions. But the Bank believes that much of what is academically, socially, culturally, and politically desirable is consistent with sound economic policy. Policies that violate sound eco-

conomic criteria are not automatically wrong but carry a big burden of justification and are unlikely candidates for Bank collaboration.

Most of these tasks continue to be done well but are now performed by a different mix of institutions than was the case a few decades ago. A great deal of the change has come about through adaptation to external conditions, such as increased demand and evolving job markets. Most change has occurred outside the realm of large-scale planning or national legislation. A conspicuous example is the growth of a heterogeneous private higher education, which accounts for nearly 40 percent of enrollment, a proportion that is higher than in most of the rest of the world.

Higher education in Latin America and the Caribbean has also changed as a result of explicit large-scale initiatives. Here, a major example concerns the alliance between domestic reformers and international agencies, which peaked in the 1960s and early 1970s (Levy, forthcoming). That effort is the major historical precedent for today's international preoccupation with reform. It helped to expand access, promote diversification among institutions, and develop new tasks within higher education. It greatly expanded the pockets of academic excellence at individual universities, research centers, graduate programs, and the like, increasing the size of a genuine academic profession.

Finally, the last few years have seen a surge in higher education reform. Accreditation, for example, has grown from almost nothing into an influential movement. As with many other highlights of the contemporary reform agenda, this one moves ahead in some places and at least commands increased attention in others. For example, the agenda of the Dominican Republic's Initiatives Group for a New Academic Pact is consistent with key ideas in this paper.

What marks the more successful countries in the region is, admittedly, not the absence of weak institutions but the coexistence of the positive and the negative. The most striking national example of

considerable market-oriented success is found in Chile. Reform has created new problems alongside some persisting ones, and the purpose here is not to extol the Chilean reform as a panacea or full-fledged model to emulate, but rather to highlight the positive, path-breaking features of what has been accomplished there. Institutional autonomy has played new roles in innovative student and financial markets, while state subsidization has yielded substantially to mixed private and public funding. Performance-based state funding has increased, costly university enrollments have been held in check while other institutions respond to post-secondary demand, and evaluation systems have emerged (Brunner, 1992).

Chile is not alone in its ability to launch public policy reforms that grapple with the entire higher education system (although reforms in many other countries quite properly emerge in more piecemeal fashion). Breakthroughs that many thought impossible just a few years ago are worth noting (Wolff and Albrecht, 1992). Argentina's new national legislation allows public institutions to charge tuition and make their own admission decisions, though major public university rectors have reiterated their commitment to the constitutional guarantee of free tuition. Most state universities in Mexico now charge tuition, which had generally slipped to only token amounts in recent decades, and many actively seek other nongovernment income (Ornelas, 1995; Kent, 1996). They increasingly use a new nonprofit national evaluation center to help screen student applications. Additionally, public technological institutes have proliferated, shattering traditional public university monopolies (which universities sometimes willingly and cooperatively surrendered). The institutes are usually very different from universities in function as well as governance. Meanwhile, some public universities (e.g., UNICAMP in Brazil, Simón Bolívar in Venezuela) have broken from typical patterns in governance, finance, academic standards, and so forth.

Where public higher education has changed too little or too slowly to meet various student or job market demands, private institutions have often filled the void. To be sure, many emerge basically to absorb

student demand not met by the public sector, despite its often maligned massification. Most of the new private institutions are not academically innovative and the education they offer is often weak. Others, however, are academically serious and innovative, and some make a reasonable claim to being non-profit and having a "public mission." In any case, if the comparison is to the public average and the public range, rather than to the public leaders alone, then the most appropriate intersectoral generalizations on academic levels emphasize overlap rather than the superiority of either sector. Even in Brazil, which has roughly 35 percent of the region's private enrollments (and is the most common example when private institutions are maligned as markedly inferior and a fraud, and whose public universities have annual per student costs near US\$10,000), the first comprehensive data from testing students a semester away from graduation in three careers shows a mix: the public institutions predictably dominate in the "A" category, but there are few institutions there, and while the "B" category shows mostly private and public together, private institutions predominate in the middle or "C" category, and in "D." In the bottom or "E" category there are twice as many public as private institutions (based on data from INEP, 1997). Moreover, where the region's private (or public) institutions do reasonably well in any of the four functions, a failure to conform to vaunted notions of what a "real university" should be is not evidence of unworthiness. Finally, most of the private institutions classified as academically mediocre or weak feature aspects of the modernization agenda: i.e., institutional differentiation, private funding, vastly improved scores on standard efficiency measures, limited political conflict, new forms of choice and accountability, and a greater sensitivity to the job market than much of their public competition displays (Levy, 1986; Balán and Fanelli, 1993; Carlson, 1992). Whether one approves, disapproves, or is undecided about this sort of modernization, it certainly defies the criticism that Latin American higher education is unchanging.

Furthermore, the dynamism and differentiation of the private sector is not limited to universities or other institutions that concentrate on first degree

education. An array of freestanding private centers which do not offer such degrees is integral to the higher education scene in almost all countries (Levy, 1996a; Calderón and Provoste, 1990). They are not the result of central planning; on the contrary, they often arose in opposition to mainstream public policy (Brunner and Barrios, 1987). They are quick to evolve, to adapt to shifting environments, and to do much of what public universities either never did or are now seen by some to do inadequately. They operate in competitive markets, earn their own money, and govern themselves. They are important in social and policy research and sometimes in related graduate training, though rarely in basic science and technology. They provide services to democratic governments, businesses, and a surging group of social service, grassroots, and advocacy NGOs. Of course, they also have problems and serious shortcomings.

The public sector has not stood still in terms of research centers. First, public agencies have created countless partnerships and contract relationships with private centers. Second, important research centers exist within many government agencies. Third, there are many autonomous or university-affiliated public centers, often in fields of specialization where private centers hardly exist. They receive government money but usually maintain a degree of flexibility in management and relationships with external actors that is uncommon for public universities.

Some of the most outstanding examples of excellence and serious scholarship take place in graduate schools, usually with public funding. Even though this level of education is also contaminated by poor quality and failure to carry out claimed tasks, it still deserves recognition for outstanding programs that feed a selective job market and boost national development (Albornoz, 1996:27).

SHORTCOMINGS

The shortcomings of the region's higher education systems should not be underestimated. Some of the shortcomings have resulted from ill-advised prac-

tices. Others have resulted primarily from problems or changes emanating elsewhere, to which higher education must respond more or better than it has. Even among those who substantially agree on the shortcomings that need addressing, there is no need to agree or argue incessantly about the source of the shortcomings; different observers may legitimately emphasize different sources. Nonetheless, the focus of this paper must be on what higher education itself, and those concerned with it, can do to improve things. Thus, subsequent sections of the paper devote more space to how to deal with shortcomings than to elaborating on the accomplishments to date, because the goal is to improve policy.

The accelerated expansion of higher education that began in mid-century occurred in conditions not conducive to acceptable levels of qualitative performance. These conditions included economic underdevelopment and instability, other fiscal constraints, technological backwardness and dependence, political repression and turmoil, and cultural indifference to science and research. The number of higher education institutions grew much faster than the base of adequately prepared human resources, whether secondary school graduates or professors. Expenditures on higher education grew enormously, burdening education budgets and arguably diverting resources which could have gone to the chronically underfunded primary level (though none of today's common scapegoating of higher education sheds light on the fundamental reasons for primary education's underfunding and underperformance). A misallocation of public resources between primary and higher education does not lead to neither equity and efficiency. Hence, beyond higher education's mediocre average educational results per se, the juxtaposition of those results to the expenditure of public funds is preoccupying.

Reports on internal efficiency repeatedly find a lack of institutional planning, management, and monitoring (Winkler, 1990). Accountability is too rare. The low number of students per professor is a worry, as is the ratio of students to administrators. Too many of the entrants never graduate, or spend far longer in school than the prescribed duration of their pro-

grams. Fixed budgets are too high when compared to flexible or performance-based expenditures, and the portion of the budget allocated to personnel costs is disproportionately large compared to investments in infrastructure. Most of these disturbing indicators are serious enough to place a heavy burden of proof on those who would dismiss them. And even where the data refer principally to public universities, these institutions still hold the bulk of enrollments and expenditures. Meanwhile, on the private side, it is not very reassuring that the most potent defense mustered against the charge that private institutions tend to be academically weak, sometimes scandalously so, is that this is also true of the public sector. In countries like El Salvador and the Dominican Republic a sole, troubled public university is surrounded by many dubious private institutions along with just a few academically solid ones. Even the stronger private universities and the freestanding research centers tend to be small, narrow in scope, and marginal to basic research and advanced education, at least in scientific and other costly fields. The efficiency of private institutions is often very limited in academic meaning and in impacts for society; as with higher education's low average performance, so with low efficiency: while certain forms of privatization have helped and should be expanded, other forms are problematic. Privatization is far from an effective cure-all, and there are unworthy as well as worthy institutions in both sectors, the balance varying considerably by country. (A common additional critique—but a wrong one, this paper argues—alleges poor external efficiency, plagued by underemployment and a relatively weak and declining rate of return.)

Meanwhile, a host of less readily quantified indicators suggests that outdated curricula, a lack of pedagogical materials, and passage through the system despite minimal effort and gain are common features of both the public and private sectors. In addition, access has sometimes been lax and unduly politicized in those few places where a university operates its own upper-secondary cycle from which students receive an automatic pass to the university level (it is worthwhile to note that here too reformers have recently achieved some measure of success). A

strikingly inappropriate rigidity, in the absence of credit systems, is that students usually cannot change their field of study without starting all over again. This feature would be troublesome for any higher education system but is especially so for the large proportion of students who are unable to get jobs in their fields upon graduation. Although internal conflict is natural within public institutions, notably those that value participation and debate, the difficult challenge of reconciling this with the need for sound academic and economic policy has often been poorly met. Where detrimental conflict and other political factors penetrate too far into academic affairs, they sustain policies that are rational in the short run for given individuals and groups but not for the development of teaching and research. However, it is important to resist stereotypes of omnipresent hyper-politicization. And, in many countries, military repression has severely damaged academic freedom and performance.

Internationally, new technologies and organizational innovations affect the transmission and generation of knowledge. The traditional model of the classroom centered around a lecturer becomes just one option among many. Computers, videos, television and the Internet create an array of new alternatives. Modular learning strategies also figure in. The geographical boundaries of teaching shatter, and the physical location of resources becomes less restrictive. The fundamental logic and economics of knowledge transmission is altered. But, notwithstanding the pioneering efforts of some agile private institutions and some large public institutions, Latin American and Caribbean higher education usually remains very distant from these trends. As a result, the existing institutions forego too many of the benefits of technical progress, and risk being bypassed by other more aggressive institutions, such as those providing distance education via the Internet.

Such shortcomings of individual institutions also point to other areas in which scattered pioneering efforts must yield to much more widespread activity. Among these are increased ties among higher education institutions. When it comes to the needs and opportunities presented by new technologies or

expensive undertakings that require economies of scale, (e.g., certain graduate programs or research facilities and projects), innovative cooperation or consortiums are often sensible answers. Similarly, much more cooperation is needed between higher education institutions and relevant publics. References to the inadequacy of present links too often come across as another blow in the barrage leveled against higher education, yet considerable opportunity lies ahead for higher education to respond to and also launch innovative initiatives. Higher education can benefit from carefully crafted links, building its resource base, visible contributions and public legitimacy. Although these links should increasingly include the job market, the point is a wider one: higher education should bolster its ties with society's many sectors and activities. The mix of ties would logically be different for higher education's different functions and institutions.

As serious as all the shortcomings identified so far is the fact that they too seldom generate the kind of political or administrative reaction that would lead to their correction. Indeed there is cause to worry over the replication of the shortcomings in many fast-growing graduate programs. Impunity and perpetuation of the status quo are indefensible, but each of the major forces that propel sounder higher education elsewhere in the world has been weak in Latin America. For example, accountability to consumers or funders, useful state controls, and a highly developed academic ethos are lacking. Some countries have constitutional provisions allotting a percentage of the national budget to the public university. Such measures may provide a sense of security and ample resources for inadequate performance. On the other hand, when not implemented, they fuel both cynicism about public policy and false beliefs that the key to improvement lies in entitlements. A particular concern that is relevant for public policy, and therefore for this paper, is the disconnection between performance and the reward structure: there are too few rewards for excellent performance, and too few sanctions for incompetence or irresponsibility.

Higher education's shortcomings have often translated into a worrisome loss of legitimacy and pres-

tige. A common perception among employers, funders, scholars of the field, and others laboring within higher education itself is that the reality is dismal and worsening. It is also distressingly common for abuse to be heaped on public universities, bashing them for ills that go well beyond their own responsibility or reasonable ability to solve. Insofar as possible, this paper attempts to understand the difficulties, note the accomplishments, and propose policies that focus more on improvement than blame.

THE CONFUSION BETWEEN MISLEADING WORDS AND THE REAL WORLD

The term "university" is widely used as a loose synonym for higher education. Passing reference is often made to diversification, but rarely is it seriously examined. No one explicitly denies the differentiation, but few make it integral to their analysis and policy. In reality, some places that are not called universities do a large share of what is traditionally conceived of as university work, while (much more commonly) places called universities do very little of that work.

Much of the confusion in terminology stems from the differentiation and complexity that has emerged over time and multiplied in recent decades. For one thing, as noted, some of the solid academic work (advanced degrees, meaningful publications, dialogue, evaluation, and graduate education) is performed in relatively autonomous research centers. When universities perform such work, they do so

only within limited units. Moreover, at different times, the region's higher education has been inspired by diverse European and U.S. models, further contributing to complexity.

In recent decades, higher education has assumed technical training and development roles as part of a widespread tendency to push to the post-secondary level a good deal of training as well as normal education once offered at a lower level, and to serve the need for training that once took place on the job. Many technical programs and institutions pursue the benefits of official political parity and parallel treatment with universities, and the system shows scant ability to understand and design policies that are adequate to this further differentiation across and within higher education institutions.

Policies of *homologación* (in Brazil, *isonomia*), that is, treating all alike, reinforce the tendency of institutions to aspire to be, or claim to be, what they definitively are not. And where public policy recognizes more than one form, it too often glorifies and rewards the places that purportedly perform academic leadership tasks, perforce belittling those that carry out other higher education functions and even those that, in fact, perform the academic leadership work better than universities but lack the official university nomenclature.

Misleading attitudes and values penetrate institutions as well. For example, teaching is deprecated as a lower task and faculty are driven by the rewards system to publish research (or what passes for research) (Gil 1995).

Deciphering Higher Education's Obscure Texts

TOWARDS A TYPOLOGY

Rather than pretending that all higher education pursues the same enshrined ends, or otherwise trivializing much of what it does, we should deal as much as possible with its true functions. Taking up the challenge set forth by a recent paper prepared for the Bank (Schwartzman, 1996), the following typology is based on four functions that are fundamental to the diagnosis, proposed reform, and IDB strategy presented in this paper. They are: academic leadership, professional work, technical training and development, and general higher education. The Bank values each of these functions as essential to modern higher education and rejects the common tendency to regard academic leadership as the *best* and technical or general education as the *worst*. Therefore, a key policy rationale for the typology is to help improve the performance of each function by treating it with the most appropriate resources, rules, and incentives. This rationale applies also to countries or regions within countries that have not yet achieved a level of development that puts advanced academic pursuits, or resource-demanding professional work, within reach.

This is a tentative typology with limitations. Whereas higher education does much socially, culturally, and politically, the coverage of the typology is specified largely in economically relevant terms and with emphasis on teaching and learning. Nonetheless, the functions are more than particular fields of knowledge or methodologies, and, within each, we can consider higher education's commonly identified functions of teaching, research, and extension (a limited term for the sort of joint efforts, service, and accountability we have

in mind). Each of our four functions encompasses teaching, research, and extension but, crucially, each should also define and mix these three categories differently. An additional difficulty regarding coverage is a lack of mutual exclusiveness since a particular task might reasonably be placed in more than one category, or on the border between two, and multiple tasks get intertwined.

Another limitation is that a typology aimed at functions must be applied to a real world constructed of institutions which undertake more than one function. Thus, application of the typology will sometimes prove complex, difficult, and debatable; but it will often prove to be rather straightforward, and even in challenging cases the typology should provide guidance. The question is not whether the typology can solve all issues, but whether it helps to clarify thinking and improve policy.

The difficulties of application are not so much failures of the taxonomy as they are realities of institutions performing several functions and getting confused about which rules and incentives are proper to each. Indeed, most universities try to perform different functions in many of their units or courses. The taxonomy might be equally useful in such cases because it would delineate functions to which rules conceived for other functions are often wrongly applied. To be clear, the problem is not inherently the mixing of functions within institutions or even within internal units; indeed universities sometimes play positive roles in integrating various tasks, providing healthy mixes for otherwise more isolated tasks. The problem comes when institutions are insufficiently attentive to their own functional differentiation.

Academic Leadership

A historic function of universities and related institutions is academic leadership. The discovery and transmission of knowledge lie at the core of the higher education system, its extension and preservation. But in addition to the academic payoffs that most directly and clearly define the purpose, these epicenters of the most advanced thinking and learning provide much of the leadership for modern political, economic, and cultural life beyond their own walls. The academic leadership function is thus essential for society as well as for higher education itself, and must be appreciated as such (though it is fair to point to the reproductive as well as productive aspects of the function). Some semblance to the Ivy League or Oxbridge is needed to ensure competent leadership.

The teaching and research that pertain to this function may go together seamlessly in a mutually reinforcing way, especially connected to the graduate level, though they may also proceed more separately. Similarly, the study of science can be pursued in various organizational settings, but universities and other higher educational institutions, or enclaves within them, have been unsurpassed in this endeavor. Although the academic leadership function can be based in both private and public schools, high costs alone make the private alternative much less frequent, and extremely rare for research not aided by public funds. No serious advocate of privatization can escape this fact. A related point is that the academic leadership function abundantly illustrates how functions go beyond training and service to students alone: in its intensive preparation of future leaders, in its path-breaking research in both sciences and humanities, and in its guidance, performances, and so on for broad segments of society and government, the academic leadership function clearly connects to a broad view of national development.

Although the term academic leadership inevitably speaks to a rather elite function and will be politically bothersome to some, it does not denote socio-economic elitism but instead expresses the reality,

worldwide and historically, that a certain kind of teaching and research occurs only where levels of intellectual preparation and funding are unusually high. The academic leadership function accounts for only a small portion of national higher education enrollments, even in rich countries. For example, although figures vary with the rigor of definition, academic leadership is an apt description for perhaps only some three percent of the more than 3,000 U.S. higher education institutions. (One could credibly bring the figure higher by including top liberal arts colleges, but could also move closer to one percent by limiting the count to colleges and universities where virtually all faculty do serious research.) On the other hand, the function looms larger when gauged in terms of expenditures: costs per student are unavoidably high, teachers who are leading academics are the best paid, the student/teacher ratio is low, and research adds greatly to the financial load. Yet, the total cost for a healthy academic leadership enclave is modest for what can be produced, since even in relatively wealthy countries these activities are not carried out in every institution of higher education. What may well be expensive is financing the many institutions that claim to be engaged mostly in this function.

Doing research and preparing the future intellectual elites calls for a great deal of autonomy. This means considerable latitude to engage in internally defined scholarly endeavors which, in turn, depend on a certain distance from the marketplace. Hence, the need for substantial public financial support, balanced by the equal need for protection from overly directive government. This is where ample academic freedom makes most sense. Protection is also needed from some pressures generated by fast or very large growth within institutions. The academic leadership function should be evaluated mostly by peers. Again, such views may be derided as elitist but true leadership merits the treatment; indeed, it requires it (Clark, 1983). However, against the stereotype of a self-absorbed or lax ivory tower, is the conviction that this education must ultimately be as accountable as any other and that it must continually be reviewed not only internally but by the toughest international criteria and competition.

Two main problems are associated with this function. First, while it has expanded in recent decades, it remains far too sparse in the region. Second, what does exist is perennially at risk of being absorbed, watered down, or confused with other functions. Among other approaches, the idea of national and even regional centers of excellence makes sense, both in order to expand the size of the academic leadership undertaking and to reduce the number of poorly prepared or funded pretenders. For example, at least one excellent library should be available to all engaged in a nation's serious academic work. A healthy by-product would be the promotion of inter-American integration as exemplified by MERCOSUR, NAFTA, and the like.

Professional Work

The professional function is principally to prepare students for a specific job market requiring advanced formal education that is rather extensive in duration. This involves imparting the expertise to deal with fairly concrete challenges, such as caring for the sick, designing buildings, or handling legal disputes. Traditionally, then, we are talking about medical doctors, dentists, veterinarians, and those engineers, architects, and lawyers employed in tasks that directly use the skills they learn in their programs of study. In addition, in recent years a large number of other professional fields have been created, including computer sciences, modern engineering specialties, and many other careers.

Like the academic leadership function, the true professional function is not a mass undertaking. It includes leadership not only within the specific field in question but sometimes beyond it as well. Indeed, the region has a rich history of professionals who have become political and other leaders. But specific professional practice is usually the immediate goal and focus of the basic curriculum. The center of gravity or principal *raison d'être* remains direct preparation for jobs, and this ought, therefore, to be the principal yardstick used in evaluating quality. Even this preparation leaves room for leadership and thoughtful initiatives, however, and it is necessary to interpret job market signals and, where possible, to

anticipate emerging job market requirements, rather than simply to react slavishly and often belatedly.

Professional work also includes the applied research conducted in some of the renowned schools. In fact, much applied research and development (R&D) takes place in the top engineering and medical schools, and this is an important higher education contribution. (Indeed, academic leadership has often emerged within such schools, reflecting the functional mix that can occur within units.) But this does not mean that research is always essential to preparing competent professionals or to professional extension. Professional schools rarely need to do research systematically in order to discharge their main role. Regarding extension, many services make particular sense for the professional function, as exemplified by good schools of agriculture, the fine arts, and so forth.

Not all professional schools are very selective. It is possible to provide serious professional education to large numbers of students. A modern society requires many people with specific skills to perform tasks where on-the-job learning, self-learning, or improvisation are inadequate alternatives. To program computers, design houses, or keep sophisticated accounts for business firms one typically needs to spend time in a higher education institution learning how. And the principal role of professional schools is to supply society with graduates with these advanced and specialized skills. At the same time, good professional training remains a necessary, though insufficient, condition to carry out the research and extension appropriate to professional higher education.

Professional education has fallen prey to twin problems: looseness, when it drifts into quasi-professional education (discussed below), and excessive rigidity, when it becomes too isolated and curricula become narrow or outdated. But professional education has also sometimes steered a successful course between those pitfalls. In fact, higher education in Latin America and the Caribbean has certainly carried out the professional function more than the academic leadership function. Here, a sense of loss

is less one of an unrealized dream than of deterioration. A good example is the teaching staff: traditionally it was composed largely of the nation's leading professionals. As higher education grew, the percentage of practicing professionals on staff was reduced by the often helpful but sometimes problematic influx of academic experts without professional experience. Furthermore, on the clearly negative side, the percentage of practicing professionals was dwarfed by recent graduates who had neither practitioner nor academic skills. And professional education needs both the practitioners for the applied subjects and the academically strong for the fundamental disciplines and for fostering professional depth of understanding, flexible and considered judgment, and appreciation of relevant societal concerns. While ideal professional education seeks the best blends, care must be taken not to deprecate direct professional training when the substitutes are academic pretensions that cannot be achieved in reality or that unduly push aside basic professional needs.

A related danger is that, lodged inside the university, professional education can get too isolated from the professions themselves and their markets, especially in the face of sociopolitical demands for expansion. Results include underemployment, wasted resources, excessive state employment to avoid political unrest, deprofessionalization, and delegitimation.

The key control mechanism required by professional training is the market. The market should largely determine needs regarding numbers and curriculum. The specific market for the professions can also help determine teacher pay, lest the school lose the ability to hire the teachers who are leaders in their fields. The market also must help determine competence, for diplomas themselves are inadequate evidence of competence, no matter what automatic rights accrue through national legislation. The market for graduates need not be fully private, nor should we deny important social utility beyond pure market measures, but professional training must usually be driven more by economic than social or political demand. After all, the main purpose is to

respond to specific market demand, not to respond to pressure from students who want higher education diplomas. Since the supply of applicants for enrollment may be higher than the positions available in the specific occupations, a critical issue in professional education is adjusting the supply of graduates to existing market demand.

Professional education is a good candidate for the individual certification of graduates because specific skills are central to the market. Close ties to the professions themselves are obvious requirements for professional preparation, and are also logical for most professional research and extension. Similarly, accreditation by professional program rather than the institution, is a logical complement to the market. All this still leaves some room for the self-evaluation and peer evaluation most associated with the academic leadership function.

Technical Training and Development

Unlike the academic leadership and professional functions, the technical function is rather new for higher education. Most of what fits here either did not previously exist, or was handled at the secondary vocational level or in on-the-job training. Courses progressively moved to the post-secondary levels, following the commonly observed tendency for programs to drift upwards.

Technical higher education is the least involved with theoretical and broad-based cultural matters. It is probably the narrowest of the four functions. Narrower does not mean less important, however, and it is a relative term that allows for applied technical research vital to national technical development, and for extension that brings a better life for many when it entails, for example, the adaptation of appropriate technologies to local conditions. Still, technical training is the most closely linked to specific skills for the immediate labor market (e.g., bookkeeping, tourism managers, electronics, x-ray operators, physiotherapists). In contrast to a liberal arts education which provides a solid general academic foundation and leaves it to on-the-job learning to provide specific skills, technical education teaches the

specifics of an occupation and puts much less emphasis on general subjects. When different skills are required, the individual may return to school. The private sector often holds a high share of these enrollments, but both private and public sectors are involved (as with Costa Rica's private and public "parauniversities"), often depending on the technical field in question.

Like professional higher education, the technical function is sometimes costly, sometimes not, although it tends to be more inexpensive when it comes to teaching, because courses of study are generally shorter. Low costs are especially common in the private sector, largely because of the types of technical fields offered. Even in Latin America, some public technical higher education institutions work closely with industry and engage in applied R&D with considerable success. This new model of industrial technology institutes deserves much attention as a viable alternative to more common forms of higher education (CINTERFOR/OIT, 1996; Castro, 1989).

Technical higher education, both in training and development research, is still too small in proportion to the overall system (Mollis, 1995; Courard, 1992; Bracho and Padua, 1995). As in most of the world, but to a greater degree, disdain for manual labor, the high prestige of professional education, aspirations to academic leadership, and legal privileges for these other functions have undermined technical higher education. The usual problem with technical education is the tendency to mimic conventional higher education. Nevertheless, as a larger proportion of an age cohort moves to the post-secondary level, the practical and immediately applied nature of this education increases the chances of success for many students who may not excel at handling abstract concepts. Moreover, emphasizing practical applications makes it easier to teach the underlying theory. For those reasons, many countries see this mode of education as one of the most expeditious and efficient ways of meeting the increasing demand for access to higher education, and of offering meaningful careers to an increasing share of the population. (Of course, this leaves open the question

of under what conditions technical higher education or on-the-job training is most advised.)

Most of the needs of technical training parallel those in professional preparation. Above all is the need for a strong tie to the market, indeed with fewer qualifications than in professional work. As in professional schools, it is the market which largely defines teaching quality. But, in addition, since the technical higher education curriculum is so tailored to specific occupations, mismatches with the job market are a serious waste. As is the case of performance, governance and funding mechanisms should also be basically market-oriented. This again means ties to employers, including their representation in governance, technical assistance, testing mechanisms, and orientations to help technical higher education fit into its market. Ties to the market are also pertinent when we move beyond training to technical applied research and development.

General Higher Education and the Quasi-Professional Reality

Societies need people with a wide variety of skills. This paper deals largely with those skills for which a higher education is the means of skill acquisition. But differences exist in the nature of the skills needed. The technical and professional areas require knowledge that is specific to their performance. Fiscal law is required of accountants, structural calculus of civil engineers, anatomy of medical doctors; surgeons cannot learn their trade merely "by doing." In contrast, other occupations, including many that do not need less education, properly look to knowledge bases that are diffuse. They may require high educational achievements, but skills are not applied directly or literally to work situations. Managerial positions and most office occupations generally require more ability to learn and decision-making judgment than skills to apply mechanically to tasks (algorithmic thinking). In fact, at least half of the positions occupied by higher education graduates belong to this category and entail abilities that are increasingly needed by modern economies and societies.

These occupations pose a considerable challenge to education systems: How do they prepare people for positions where it is not possible for schools to teach the skills required directly? Countries like the United States have developed "liberal arts" programs which encompass a broad range of disciplines, often including the classics, some social science, history, and so on. For nonspecific occupations, students are offered nonspecialized, nonprofessional education.

Importantly, the case for general education has so far been made on economic, job-market criteria, as befits the focus of this paper. But compared to the technical and professional functions, if we also consider the broader social, cultural, and political aims of higher education (including cultivating more fulfilled and tolerant individuals and better citizens, and promoting and consolidating mass-based democracies), then the need for good general education becomes even stronger.

Largely by default, Latin America has taken a route quite different from general education by design. It provides a professional curriculum to most of its higher education students who wind up assuming positions best served by general education. In so doing, it is in effect providing "quasi-professional" higher education graduates. As described below, quasi-professional education is not a policy as much as it is an accident, reinforced by misunderstandings and inappropriate dreams and claims.

Latin American higher education was mostly professional in function until the enrollment boom of the sixties, which produced many more job candidates than the job market could absorb. Largely spared from this accelerated enrollment expansion were those careers that require significant fixed expenditures (medicine, dentistry, areas of engineering). Within given universities, then, professional and its hollow echo often came to exist side-by-side, not formally or effectively delineated. And it cannot be suggested here that the two are routinely easy to distinguish in practice. The boom involved most traditional fields, which are now saturated, as well as new fields that either lacked a defined job market or soon also became saturated. In some countries the

output of economists and sociologists became ten to twenty times larger than the creation of new positions truly fitting this training in the classic professional sense. Thus, graduates have increasingly ended up working in fields other than those of their studies. As a consequence, much of higher education has seemed, in job-market terms, "just" four or five years of additional schooling. It has remained a professional education in terms of curriculum, content, and sometimes staffing (often, however, stripped of the quality associated with much professional education), but it proves to be quasi-professional in that students cannot find jobs in their chosen fields. They therefore accept jobs in the large pool of occupations which, while benefitting from well-educated candidates, do not require their specific preparation. Typically, these jobs are the office, administrative, and commercial positions that abound.

In sum, the term "quasi-professional" describes an overflow, an oversupply produced by professional schools. Not only the process, but also the graduates themselves, may look professional, yet their destination differs. Thus, unfortunately, what these students primarily receive is not general education by design. These are not programs developed chiefly to teach broad knowledge or help students learn to learn better.

A very large share of quasi-professional enrollment is deprofessionalized in that faculties or fields produce a lower percentage of graduates who work in their anticipated areas. Law is a telling example, but even newer fields (e.g., sociology, economics, public administration, psychology, and journalism) are deprofessionalized (at least to the extent that their early years saw true professional job placement). These newer fields are where private enrollments in particular have expanded massively (Levy, 1986: 265-71, 355). Teacher training is a mixed case, so confusing that no sure and consistent categorization can be made here; it is a borderline aspirant to professional status, an area of study elevated into higher education but frequently providing a weak education for women.

The mismatch of the quasi-professional with the perceived job market should not be inherently regarded as a total malfunction. This education can be quite worthwhile as long as we recognize and treat it for what it is. In immediate economic terms, the issue is whether students in this category receive an appropriate education to prepare them for "general jobs;" the answer is not black and white. The British taught history and Greek to their civil servants; priests have often become leading figures in many areas. Nobody is saying they got the wrong education. Nor is it wrong that modern general higher education is usually an academic function that is not about academic leadership but about widespread diffusion with an emphasis on undergraduate teaching and learning.

Neither is all well or acceptable with this massive segment of higher education. The purpose of identifying this fourth function of higher education is not to legitimize an anything goes policy or the poor quality often found in quasi-professional education. The purpose is to acknowledge a reality and proceed to indicate where it is worthwhile (rather than just bad academic or professional work), where it is not, and how more of it can become worthwhile. The argument here is that much improvement is possible and desirable for general higher education. The pertinent economic (not to repeat here the relevance of other criteria for evaluating the worth of general higher education) concepts of quality ought to be *value added* and efficiency: is this education doing well in improving students' reading, writing, math, information gathering, and analytical skills in ways that eventually improve job performance or secure better jobs, given the expenditures that are made?

Performance across the large and heterogeneous quasi-professional category is extremely variable. As typically judged against the professional standards by which such programs structurally and normatively model themselves, the performance is usually poor and the inability to secure a job in one's field is taken as a failure and reflects badly on the school. But we should not equate private disappointment with inadequate provision of a social function (or even a private function).

Contrary to widespread impressions, there is no proof that quasi-professional education is basically a waste; empirical evidence on the subject is limited but not negative (Martínez, 1994:10-11; Muñoz Izquierdo, 1995). Earning functions suggest that graduates perform better in the market, compared to those without higher education. (Admittedly, we need comparisons of those who marginally enter higher education to those who marginally do not enter, rather than comparisons of higher education graduates to the mass of the rest of the population.) In those countries with large private quasi-professional sectors that obviously merit considerable criticism, it nonetheless seems simplistic to assume that hundreds of thousands of students voluntarily pay the full cost of an education that does not bring them important rewards. In sum, the assessment made here is that quasi-professional education may typically offer some value added, but much less than it should or could.

Accordingly, reformers should both reject excessively zealous, overgeneralized attacks on mass higher education and insist that great improvements could derive from transforming many quasi-professional programs into intentional general education. In many cases, this would include changing the curriculum and providing far wider mixes of disciplines. In those programs where only a small proportion of graduates are able to find jobs in the specialized occupations for which they have trained, it would be better to try to maximize the "learning to learn" dimensions of the course of study. This would be accomplished by adding more general disciplines and by emphasizing critical reading, writing reports, problem solving, and individual projects. Sometimes the curriculum and pedagogy of a disciplinary profession such as law develops these skills, but the reality is usually less felicitous. And again, the benefits of a true general higher education would multiply if we were to give ample consideration to noneconomic payoffs.

The real issue with the programs which perform the role of "general higher education" is not the saturation of the professions which correspond to the field of the diploma, but whether students (or society, in

the case of subsidized education) are getting their money's worth. Mediocre public education is often too expensive for what it is, and the quality of some private education appears to be unacceptably bad. Together with enriching and broadening the curriculum in the interest of appropriate general education, a major public policy goal should be to avoid excessive public expenditures in unexceptional courses and to deal with very poor quality in private institutions.

As far as control mechanisms go, quasi-professional studies should *not* be entrusted only to the market, which provides little specific feedback that could help to fine-tune programs and curricula. (In practice, however, the market may be used sometimes, as it is often difficult to know whether we are looking at professional or quasi-professional studies, given their frequent mixing within the same faculty.) Partly because mechanisms that should monitor and promote performance for other higher education functions do not fit neatly here, accreditation emerges as a viable alternative. It must be noninvasive and flexible. It also should allow for the incorporation of some autonomy and peer review.

Estudios generales and *ciclos básicos*, pioneered in the 1960s in Central America, Chile, Colombia, and other countries, and implemented elsewhere in ensuing decades, provide precedent and indicate that reform is much less likely to come as the wholesale importation of a liberal arts system than as an

adaptation from a base of quasi-professional education. Indeed, because even true professional studies often would benefit from greater scope in content, methods, perspectives, and exposure to research, and because in practice the line between professional and quasi-professional is not always easy to establish, some movement toward general education must come through faculties structured basically on professional lines.

To maximize the social usefulness of general higher education and hold costs in check, alternative means of instruction (such as correspondence, radio, television, and computer courses) could be developed. New instructional media offer opportunities to expand the system in order to reach clientele that otherwise would lack access. General higher education can thus reach poorer and remote areas. These new means, however, need to overcome public suspicion and disabling criticism from self-interested groups and ideological enemies. Therefore, they have to start well and be backed by a solid and reputable organizational structure to avoid the fate of the technically successful but politically weak initiatives of the past.

In sum, policy should aim to strengthen general higher education. As things stand, the most accurate term for most of what goes on remains "quasi-professional;" but the best term for the positive function that should sit respectably and proudly alongside the academic leadership, professional, and technical functions is "general higher education."

THE FOUR FUNCTIONS AND THEIR TREATMENT (A SUMMARY)

The following table sketches by way of summary the four functions thematic to this paper. As the table suggests, each of the four defines performance differently and requires different policies to operate well.

The table should help drive home the need for internal rules that accommodate and promote good performance across the different functions. It should also reinforce the same point for institutions that undertake more than one function, as is the case for those that hold the bulk of the region's enrollments and absorb the bulk of the funding.

FUNCTION	<i>Definition</i>	<i>Needs</i>	<i>Performance</i>
ACADEMIC LEADERSHIP	High quality research, teaching, and extension according to conventional international academic norms. Trains the intellectual elites.	Substantial public funding with a minimum of direct and invasive external accountability. Autonomy. Peer-based evaluation.	Too little of it but much more than formerly. Occurs both within and outside universities. Poorly delineated from other functions and inadequately protected within multifunctional institutions.
PROFESSIONAL WORK	Prepares for specific job markets requiring advanced formal education and for related tasks in research and extension.	Governance and funding mechanisms should be largely labor market oriented, including ties to professional associations. Individual certification desirable. Teachers sometimes need more practical experience than advanced academic education.	Traditional strength of the region's higher education. Drift into quasi-professional. Prone to rigidity and narrowness. Obsolete curriculum. Some model extension programs and good applied research.
TECHNICAL TRAINING & DEVELOPMENT	Short programs of practical skills-based training for middle-level positions in the labor market and, along with pertinent research, for a nation's technological development.	Governance and funding mechanisms should be primarily labor market oriented. Flexible management and curriculum.	Expanding, but too small as a proportion of the whole system. Tendency to mimic conventional higher education. Insufficient practice built into the curriculum and insufficient research.
GENERAL HIGHER EDUCATION	Teaching in what are called professions, but whose labor market is saturated or ill-defined.	Costs need not be high. Leading concepts of quality ought to be value added, along with efficiency. Accreditation should play the main regulatory role.	Programs would be much more useful if designed for general education. Much is low quality and some value added rarely means sufficient value added.

Policy Issues

With emphasis on the four functions, this chapter analyzes three policy issues crucial to the performance of higher education in Latin America and the Caribbean: (i) equity and public subsidization, (ii) incentives, finance, and governance, and (iii) quality enhancement and control. For each of the three it makes sense to consider the main problems, substantial areas where performance is positive or undergoing reform, and how reform should now be adapted to the four functions through sound policy. Note, however, that this chapter does not deal directly with priorities for Bank loans but with what the Bank believes to be good policies for the member countries. (Priorities for Bank loans are discussed in the last chapter.)

EQUITY AND SUBSIDY: WHO PAYS FOR WHOM AND WHAT?

This paper supports increased cost recovery. For public higher education, government funding should yield to a greater mix of private and public funding. This is a position on proportions, not on the absolute level of government support. The paper does not take a position on whether governments spend too much or too little overall, it instead identifies particular activities that might be given less or more than they presently receive.

The claims for cost recovery are familiar in international circles: higher wages usually provide adequate rewards for individual investment and therefore appropriate incentives to enroll, and subsidization means that the poorer citizens who lack access to higher education support the more privileged (World Bank, 1994:45; Psacharopoulos 1980; Brunner, 1996: 127, 146-148; on rates of return, see also Bennell; Bracho and Padua 1995). This critical feature of the system requires serious consideration given the calamitous situation of Latin America's

basic education which according to Birdsall (1994) is dismal by international standards. Defenses of total public subsidization based on comparisons to higher enrollment rates or public expenditures in developed countries ignore this point and the overall wealth of developed societies and their governments. The ability of the largely middle-class public university to exact constitutional provisions guaranteeing them a fixed and often high share of the national education budget illustrates the problem. Moreover, this paper recommends loans that improve equity and are given in ways (including directly to students) which stimulate serious student performance and competition among institutions.

Change in policy on supply subsidization runs up against severe political constraints. Yet, some countries show considerable progress in cost recovery. For example, in Chile, only one-third of total funding for higher education comes from the government, and in Costa Rica, public universities charge tuition. Alternatives to public budgets are growing in acceptance and reality in Argentina, Mexico, and other countries (Schiefelbein, 1996:16). Colombia has long been an internationally heralded example of loans for certain types of higher education. Some of the region's public institutions have followed the lead of private ones in generating income through sales, services, and contracts. Most of Venezuela's public universities now operate their own foundations with these ends in mind. Various fees have been added in different countries. And, nearly 40 percent of Latin American students are in private institutions, usually receiving no public funds or only limited public support.

These policy shifts should increase, but the generally valid case for greater cost recovery needs qualification:

- Market imperfections interfere with long-term investment and neat pictures of loans and student borrowing (Albrecht and Ziderman, 1992).
- There are strong external economies in higher education that wages do not capture. These include the acquisition of leadership skills and basic knowledge by students, or the roles played by universities in providing health care or promoting culture.
- Some careers have positive impacts on equity. Within education itself, examples include good teacher training and the development of sound teaching materials and textbooks.
- To say that lower levels of education are shortchanged is not necessarily to accept the assertion that higher education turns in a markedly inferior performance in terms of social returns and equity (Bennell, 1995).
- The main reasons the poor do not pursue higher education lie much more with the weaknesses of the lower educational levels of instruction than with financial policies affecting higher education.
- Most public students come from a middle class ranging from substantial privilege to modest backgrounds (whereas the very rich, like the very poor, are only a minority). As a result, reduced subsidies risk creating a less diverse student body.
- Even where fairness and efficiency would indicate a cost recovery policy, the confrontations and conflicts resulting from their untimely imposition could offset or outweigh the benefits.

It should be clear, therefore, that the IDB does not propose full cost recovery and that it regards tuition as only one of its components. To counteract the risks of increased social elitism, tuition must be phased-in and complemented with loans. Scholarships are appropriate vehicles of public funding, particularly in the case of poor students for whom

loans would present an unwarranted barrier. Those who can pay, should pay; others should receive assistance. In any case, the imposition of tuition is not a precondition for IDB loans. It cannot be overemphasized that the IDB, while advocating an increase in certain types of privatization, does *not* take the position that more privatization, even in finance, is always better, just as it does not advocate the total replacement of public authority by markets.

Moreover, the distinctions this paper draws on the basis of function and performance yield important qualifications. Many of the considerations about equity and other factors that justify subsidies can be illuminated with reference to the four functions:

Academic Leadership

The academic leadership function presents the strongest general rationale for public funding because Latin American countries have too few programs that truly fulfill this vital function, and the cost recovery case is often insufficiently attentive to inherent market failures. High quality, advanced education for academic leaders is very expensive and beyond the means of all but a small segment of the population, most notably at the graduate level. Basic research is often expensive and typically cannot rely on private interests and funding. In Chile, market-oriented reforms have created problems regarding facilities and activities that typically require ample public funding, including libraries, laboratories, and research in fields of study that do not lead to financial payoffs.) The degree of autonomy needed by this academic function calls for public funding tied to a minimum degree of direct external accountability. But this does not exclude the allocation of money through competitive mechanisms based on peer review. Indeed, public funds for basic research should be generated from a combination of automatic appropriations and competitive bidding.

Professional Work

The professional function draws its closest parallels to the academic leadership function where it trains

individuals for socially useful professions that may not be adequately rewarded in the job market, such as public administration and teaching, and also in its conduct of certain kinds of research. However, if the rewards to individuals are merely postponed, then loans are sufficient, even for some of the unprivileged who make their way into professional programs. Another justification for subsidy comes with some extension programs. Mostly, however, public budgets should give some ground to increasing income from tuition, contracts, and perhaps donations.

Technical Training and Development

The percentage of unprivileged students increases as we turn to technical higher education, but costs are not usually high and loans and the job market should usually be adequate incentives to allow tuition and contracts to be principal funding mechanisms. Yet some technical fields are very expensive or offer substantial social payoffs, as with some manufacturing and agricultural training. And technical training in many fields is integral to a technology transfer more valuable than the salaries the graduates could possibly garner. Similar statements hold for technical research and development. Here again some degree of public subsidy is warranted.

General Higher Education

Quasi-professional education should rely proportionally less than it does on supply subsidization. Where it approaches good general education by design, it could offer some justification for public subsidization (with payoffs in terms of citizenship and a more educated society, and service to students less privileged than their counterparts in professional and academic leadership units). But some justification is not the same as adequate justification for the often nearly total dependence that actually exist. In any event, subsidization of general education at the higher education level should never occur at the expense of the improvement of institutions of primary and secondary education that could carry out the function as well or better.

Increased cost recovery can come through tuition, with loans, in public institutions or through an increased enrollment share for private institutions. Increased tax incentives for philanthropic giving to both private and public institutions should be carefully but widely extended. Businesses should sometimes participate in the funding of general higher education, since they benefit from a better trained labor force. However, in practical terms, examples of such direct participation are rare. By selling services and custom-made courses, even general higher education can derive revenues, but direct payments for tuition of regular students remains an unfulfilled wish of policymakers.

INCENTIVES: FINANCE AND GOVERNANCE

In addition to equity and subsidization concerns about the amount of public money given for what purpose, there are concerns about how the money is allocated and spent. The present systems of budgeting and resource allocation are too often intertwined with governance patterns in an unhealthy cycle of impunity: there are too few rewards for socially useful behavior, and too few penalties for antisocial actions. Most funding to public universities is based on political weight and precedent or an overly simplistic input measure such as the number of students, or on a combination of the two (Brunner, 1993). This state of affairs involves many actors, including governments as well as institutions. Inside public universities, power spreads too widely among students, workers, unionized teachers, and individual professional and quasi-professional faculties. Many of these groups are powerful lobbies against academic reform or changes that would tie finance more to performance and, more generally, to increased accountability.

Paradoxically, government has been too near and too far. Too near, of course, where it has brutally repressed higher education, but also where it has bought political support by playing ball with existing anti-academic politics, sometimes through political parties. Too far, however, in the sense of requiring

too little accountability for its expenditures and lending inadequate support to valiant administrators and professors whose reform efforts run into political trouble. And too far as judged by the dearth of active partnership in worthwhile higher education activity and innovation.

The unsatisfactory results of the common power configuration have included the following:

- Excessive conflict and insufficiently resolute policy.
- Unholy bargains and debilitating “nondecisions.”
- Inefficiencies, including lost time.
- Inability to build or protect nonpersonnel expenditures.
- *Homologación* (standard funding and rules regardless of performance differences among institutions, units, or individuals), a practice which is the antithesis of a system of governance that ties resources to performance, and which hurts some inappropriately as often as it serves others inappropriately (Muñoz, 1996).

Reforming the perverse interplay between resources and governance is not basically a matter of substituting private for public financing, or of improving institutional management. Reform means getting the incentives right and making the system of governance functional.

The vicious cycle has been broken or is not an issue in some private universities and at many private and public research centers: their hierarchical organizations facilitate management, they garner most of their income from tuition or competitive funding, and they keep close ties to their markets.

Major reforms in national policy have also introduced innovation in governance. As mentioned, Chile moved toward a decreasing public share of total expenditures combined with much greater performance-based funding of the remaining public

part (Brunner, 1990). Mexico has taken significant steps (Ornelas, 1995; Kent, 1996) and evidence from there and São Paulo, Brazil (especially at the graduate level), suggests considerable institutional response when governments alter the incentive structure (Magalhães Castro, 1995). Furthermore, programs to reward more productive professors have made headway in many nations.

Clearly, many of the changes needed are not simply financial. Excessive power in the hands of students and teachers undercuts the legitimate authority and responsibility of managers, preventing the best from taking their duties seriously and allowing the weakest to evade their responsibilities. Byzantine regulations and legislation prevent meaningful decisions at the level where they make sense, thereby condemning institutions to paralysis. Lack of mechanisms to punish and reward personnel at all levels disarms managers of their needed tools. There is also the undue degree of partisan political penetration inside educational institutions. Unless these central impediments to good governance are tackled, reform is problematic and fragile at best. On the other hand, to see how certain types of participation undermine sound incentives is not to justify a general attack on democratic decision-making. Furthermore, beyond this paper’s focus on finance and incentives, a broader consideration of politics could elaborate on how a responsible governance of higher education can contribute to strengthening civil society and pluralist democracy (Levy 1997).

But the main point in this section has been support for an increase in performance-based public funding, and for avoiding the trap of *homologación* policies among institutions and within them. Yet, some qualifications and guidelines based on functions are in order:

Academic Leadership

The academic leadership function provides the most general justification for public funding and for autonomy. It is here that one can best remain true to a now much-denounced notion, however much it might be regarded by some as elitist, namely that

generous and regular public funding should be unencumbered by much direct, easily measurable accountability either to governments or to job markets (though, as the subsequent section on quality enhancement points out, this hardly means a lack of monitoring).

The Other Functions

For the other functions, automatic and largely unmonitored government funding should no longer constitute nearly all the income of public institutions. In fact if government funding were reduced, there would be less need to impose rigorous conditions on it. Otherwise, effective accountability mechanisms are required. A general condition for subsidies could involve meeting some of the justifications outlined concerning market failures. For general higher education, the main additional condition would be an acceptable minimal performance demonstrated through accreditation. Also, a competitive academic market, especially for students, must take greater hold in that setting. For the professional and technical functions, an influential governance role (not just input) by employers is crucial; accountability there would not be mainly to the state.

Common generalizations about the need to strengthen the state, planning, autonomy, accountability, and market links to business should yield to discrimination by function. Vital for some of what higher education does, and valid as "net" statements for the system, they would be negative for certain higher education tasks or require different meanings according to function. Regarding market links, for example, while general higher education should include sound business orientations and academic leadership units should prepare some top personnel and engage in joint research enterprises, neither of these two functions would have the degree of ties regarding curriculum, representation on boards, and the like, which are appropriate for professional and technical higher education.

QUALITY ENHANCEMENT AND CONTROL

The perception that quality is plummeting results in part from evaluating mass education by standards properly associated with academic leadership or professional education. It also stems from dire reality itself. As mentioned, professional schools should not be disparaged simply because they do not do research, and deprofessionalized courses should not be blamed for not leading to employment in the corresponding professions; still, there are serious problems of quality in Latin American higher education, and public policy to improve this situation should be the priority.

Concern with quality has led to widespread advocacy of formal evaluation systems and accreditation as routes to improvement. These routes merit more attention and implementation, but they are often dangerously overgeneralized. A common problem with proposals is that they gauge quality according to criteria that are most appropriate to academic leadership. In so doing, they ignore broader aspects of value added and the need for the other functions, pretend that quality is more susceptible to objective definition and measurement than it is, and push fearful institutions toward defensive and even deceptive postures (Kells, 1992; Moodie, 1986:4-5).

In a nutshell, the main caution is that no accreditation system should seek a general set of criteria applicable to the whole system. Nor should there be only two sets, for universities and technical institutes. The handling of diverse activities with overly similar mechanisms is an old mistake repeated in a new form, i.e. accreditation.

This is not to suggest that evaluation should be avoided. To the contrary, what is needed are many evaluations rather than one or none. These evaluations should include many that are not official. All ought to be geared to improve quality, reform the

incentives, gather and disseminate information, and foster informed choices in the relevant markets. There is considerable precedent: well-prepared students and professors make choices about where they want to carry out their activities, and employers routinely express preferences regarding whom to hire. As discretionary actors, foreign private and public agencies have evaluated potential targets and the performance they sponsor, and so have planted crucial seeds of an evaluation culture (Schwartzman, 1991). Traditional professions (e.g., medicine and engineering) have sometimes developed their own accreditation systems, and some fields more characterized by quasi-professional studies (e.g., journalism) are following suit.

Precedent for accreditation lies with top private universities seeking approval by regional U.S. associations. Brazil has leapt ahead of the rest of the region with a formal, serious, and well-run accreditation system for graduate education (Castro 1984). Colombia (Orozco 1994) and Chile operate national accreditation systems, with Argentina the latest to join the group, and there are stirrings and capacity-building in Central America and Bolivia. Progress in Mexico is evident in the creation of separate accrediting mechanisms and subsystems for science and technology, graduate education, and institutions in general. Yet, for all this, the link between evaluation procedures and quality improvement remains tenuous throughout the region, especially in those countries where evaluation mechanisms are merely a formalistic set of rituals for obtaining official approval of new institutions or programs.

The distinctions among the four functions are crucial, yet they receive too little attention. Each function could benefit from accreditation, but the benefit ranges from marginal to crucial and the type of accreditation should be tailored according to the function in question. Indeed, a sound accreditation system attuned to real functions and ready to reward their good performance would greatly reduce the tendency to mislabel undertakings or to pursue unreachable ones.

Academic Leadership

Although it can help, accreditation is not vital to the academic leadership function. The usual standards are easily met by academic leaders; and conventional measures of quality such as peer review and assessment of publications are appropriate and comfortable alternatives. Therefore, in this case, accreditation is an occasion for self-study and feedback which can also be used for adjustments and improvements as seen fit internally (but with an eye on competition with other academic centers).

Professional Work

To the extent that professional education can be evaluated by board examinations and the market, the need for accreditation is limited. But there is room for helpful accreditation if it can be tailored to the profession. Accreditation by program has precedent in Latin America and the Caribbean and offers hope of identifying the quasi-professional activities that probably should reorient themselves as general education. Also, as mentioned earlier, there is room for some evaluation by methods used in assessing academic leadership.

Technical Training and Development

With the exception of private providers in the areas of inexpensive and generic skills, such as secretarial training, bookkeeping, and computing, in which fraud or incompetence can be common, there is less reason for accreditation in institutions that concentrate on technical training. The job market is the basic mechanism for promoting and monitoring quality, and public technical institutes can come under direct government control where appropriate. While some parallel to professional accreditation is possible, the fast-paced changes of the job market are probably a better expression of needs. The market would often be less adequate, however, for evaluating needs involving technical research and development.

General Higher Education

A great need for institutional accreditation exists in the broad fourth category, regardless of whether it is basically bad quasi-professional education or basically good general education by design. Here the market is too slow, tangential, and indirect, although it should play a role. Here is where preoccupation with low quality is strongest, where the need to restrain unwarranted proliferation is greatest, and

where the need for information is keenest and its provision scant. Education authorities, directly or by delegation, have a major role to play in informing consumers (students, small firms, and others) about the performance and products of general higher education. Indeed, promoting transparency is probably more important than trying to impose quality standards on the diverse institutions involved in general higher education.

How the IDB Can Help

Most reform must continue to come about through local efforts by governments, institutions, and a range of private individuals, associations, and firms. The IDB should help because, notwithstanding its strong commitment to basic education, higher education is integral to both its ongoing economic agenda and its expanding social agenda. This paper has identified goals that can be accomplished through well-targeted assistance. Naturally, however, any general statement needs to be intelligently applied in national and subnational contexts that vary enormously.

Like the rest of the paper, this chapter deals only tangentially with science and technology, subjects of another strategy paper. However, a few pertinent points from a recent work (Mayorga 1997) can be endorsed here at least in passing: considerable overlap exists between higher education and national science and technology systems, though each confronts some distinct issues and realities; higher education plays a big role in determining the quality of R&D, as through the training of scientists and engineers as well as the production of basic research and technology; higher education's role is especially important in Latin America and the Caribbean because it accounts for such a large share of the region's research capacity.

STRATEGIES FOR LENDING

Although the Bank's expanded social agenda (50 percent of new loans are now in social areas) suggests that no single area will be the centerpiece that higher education was in the early years, the new social emphasis facilitates renewed attention to higher education as a major target, one that should be integral to broad development goals and efforts.

For this renewal, IDB financing will emphasize strategies based on lessons about what has worked in the past and on what is consistent with a more focused approach for the present:

- When measured against the money spent in the higher education systems that it assists, Bank financing will be modest.
- The Bank will be more selective in the assistance that it provides, meaning that few of the many potential actions and actors will benefit.
- Assistance will be targeted at high priority tasks and activities that can have positive leveraging effects.
- The Bank will enter into partnership with individuals and organizations committed to high priority reforms that have good prospects for success. Partnerships can include regional associations and lead to the promotion of Latin American integration as well as international academic cooperation.

A corollary to these strategies is to build upon successes and previous initiatives, based on the finding that the performance of the region's higher education institutions is mixed rather than hopelessly negative. The IDB can weigh in where there is life, competitiveness, positive dynamics, and responsiveness. Therefore, it can be reactive, in contrast with its active role in reforming primary education. In addition, rather than promoting one package with an externally hatched, rigid agenda, it can consider many specifics according to circumstance.

The domestic partners in reform can be ministries, provinces, institutions, units within institutions, and myriad private actors. In every case it is essential to identify the functions where the Bank's support would be most useful and to target resources accordingly. The IDB wants to work with those committed to reform. By choosing its partners and priorities well, it will demonstrate its strategies through its actions.

There is no shortage of governments and others wishing to effect reform; in fact, several countries are taking serious steps in this direction. However, their capacity to implement change might be inadequate. Accordingly, the Bank should support programs to increase governments' ability to undertake a reform program when the incapacity is not a matter of a deep-seated political nature. Examples include providing expertise and funds to establish sound accreditation and other evaluation and information systems which are appropriately tailored to the different functions of higher education, competitive funding mechanisms, and follow-up studies of graduates from programs in all four functions. Tools and criteria that help governments and the IDB to identify partners with true innovative potential are also important.

But emphasis on a reinvigorated role for the Bank, partnership, and building upon work in progress is only part of the picture. "Many packages" does not mean "any package." The IDB wants to support desirable change, which can include a major expansion of positive processes already in effect, or an acceleration of their pace, but it cannot back every initiative, let alone most ongoing policies.

It is important to be clear about what this means. It means that the IDB wishes to work with partners committed to a common agenda of change. If Bank-sponsored seminars, policy papers, ideas, or technical or financial assistance persuade some to become genuine partners, or favorably alters the balance of power at particular sites, that is a welcome outcome. It is likewise positive if good results with partners produce evidence and incentives that ultimately lead nonparticipants to participate. But the IDB is

not launching a campaign to convince antagonists or to impose reforms.

Recipients also need to realize that development bank loans are complex operations, demanding much effort and organization from clients. But for those who are prepared to embark on reforms, loans bring more than funds. When well designed and executed, they more than justify the administrative effort. They may also bring expertise and sound planning (clarifying the connections between goals and means), as well as commitment, visibility, and political protection.

TARGETS FOR LOANS

It is appropriate to explore how the general orientation to promote change can manifest itself in specific targets for loans. Just as a country's policies should increasingly operate to match resources with functions, so should the Bank's strategy. Its old strategy of university development from the 1960s and 1970s would now be inappropriate to the extent that it would include inefficient or hopelessly heterogeneous institutions, give too little to nonuniversity institutions, and fail to target sufficiently those functions where an IDB loan can have the greatest impact. A new strategy can focus more on the improvement of certain functions within the now ample terrain of higher education, as described in this paper.

The following broad lines of support help lay the foundation for what the Bank is trying to do. The clustering of the following material around the concepts of reform, public goods, and equity seeks to highlight the importance of those issues on the IDB's agenda for higher education. It does not mean to deny the overlap among the three concepts; nor does it imply priorities among them.

Support for Reforms that Improve Quality and Efficiency

Higher education loans should help design and implement key reforms, because changes are necessary to achieve improved quality and efficiency.

Reform requires restructuring and reorganization; it also requires the creation of good management tools, including information systems, linked to the overall establishment of solid ties between incentives and governance. Increasing the transparency of the entire system also should be a clear target for reform. Students should know more about what is offered to them, and employers and others should know more about the products of these institutions, particularly considering the progressive diversification of their functions.

Higher education institutions need to participate more actively in the so-called "information revolution," lest they fall even more behind. It is easy to conclude that this is an area deserving considerable financial effort. However, coming to grips with the new knowledge is about more than buying equipment. It also requires undoing institutional rigidities. What is the point of talking about electronic universities and links to the Internet if regulations require physical presence in classes? Bank projects should support the knowledge revolution, not just the hardware that would make it possible.

Some reforms at the central level may encompass all functions mentioned in this paper, and there is no reason automatically to frown upon such endeavors. But reforms targeted to specific functions hold more promise, as the needs and particulars of each function tend to be poorly served by legislation and regulation of the "one-size-fits-all" type. One obvious target for reform is making incentives compatible with function, rather than using dysfunctional carryovers from another function performed elsewhere.

Much boils down to the fact that reforms require sound incentives. If the incentives are wrong, correcting them is a major undertaking. Students should be rewarded for their efforts, teachers when they facilitate learning (and not just when they publish, especially when what they publish is of very little value), and administrators at all levels when they increase the institution's level of performance. If certain kinds of accountability are inap-

propriate due to ignorance as to performance and questions about the results achieved by the actors, new evaluation mechanisms are indicted lines of action. When governments believe that a sound system of accreditation is necessary to improve quality, the loan should address the issue.

When curricula are obsolete or out of tune with market needs, redesigning them can be a pursuit worthy of support. Ensuring that the proper textbooks are available to implement them is another possible line of action.

Inadequate or obsolete teacher training is one of the salient problems in the region, and a crucial point regarding the equity relationships between higher and lower education. For these reasons, projects to overhaul the preparation of teachers at all levels should be considered a priority. By the same token, any change in the higher education curricula will most certainly entail the need to retrain teachers. This is particularly the case with new areas of strategic interest to the countries. Support for fellowships for training teachers and for teacher training programs are other possibilities. Nevertheless, a program to train teachers is not by itself reform. Ample discussion, fresh ideas, and bold implementation are needed in the embattled arena of teacher education.

Some areas where there is reticence and even some opposition are prime targets for support. If the need for reform is strong and the opposition is not powerful enough to block resolute efforts by governments and others committed to policies favored by the Bank, then the IDB would like to provide instruments to help surmount hurdles to implementation. Examples include healthy partnerships with industry or social or public agencies. They surely could include distance education and more extensive use of new instructional media. Such courses might serve well the needs of technical programs, and may help quasi-professional or general education programs to reach areas with a low density of secondary graduates. Technological innovations for teaching deserve serious consideration for IDB funding.

Another area in which the Bank would support reform concerns internationalization. For academic, economic, and political reasons, the region's higher education must be more connected to international trends in teaching and research, and to increasingly international labor and consumer markets. Certain institutions and agencies have long been active internationally or are now getting involved. Many realize that increased economic integration within blocks such as Central America, North America, and the Southern Cone requires reforms in higher education. Where steps transcend what individual actors or even individual governments might do, the IDB can be especially helpful. The Bank's interest goes beyond the academic leadership function that is most traditionally associated with internationalization. It incorporates each of the functions described and their somewhat different set of needs and potential contributions.

In sum, the IDB welcomes requests for loans to reform higher education systems, eliminate systemic faults, and help implement fruitful experiments. The Bank cannot fund programs for expansion, even intrinsically good programs, which only tangentially relate to priority reforms. Yet programs which emphasize reform should not be closed to those who have already reformed and have essentially healthy organizations. Such organizations should not be classified as undeserving; giving to them bolsters reform models and sends signals about rewards for reform.

Moving Where Markets Fail and Public Goods Need Funding

Governments fund or partly subsidize a wide range of activities, some of them falling clearly into the category of public goods and others less so. Considering the scarcity of funds for development loans and the complexity of corresponding Bank operations, the IDB should target its higher education loans to investments where the impacts go significantly beyond what users can finance. In other words, the loans should pay for public goods and avoid those areas where market incentives are sufficient to encourage private funding.

However, depending upon function, much networking may be better done by individual professors or administrators or users. In any case, the IDB does not wish to become a substitute for private financing where it is feasible. Also, considering that much of the present private programs are in the quasi-professional areas and that there is growth potential in the technical area, a prime way that loans might benefit worthy undertakings in the private sector is by helping to create greater transparency, better accreditation systems, and a more rewarding environment for the operation of serious programs.

The IDB will assist in expanding the breadth of *academic leadership*. Therefore, many properly targeted traditional objects of assistance still make sense. The following list is indicative:

- Scholarships for graduate work of outstanding quality.
- Expansion of some high-caliber graduate and research programs, including ones that transcend national boundaries and involve regional, "horizontal" cooperation and networks.
- Promotion of critical masses of full-time professors and researchers by means of scholarship programs.
- Funding for research programs and projects and for development of basic disciplines, including new and hybrid ones.
- Support for very small, selective honors programs that place students on a special track, with extra mentoring and funds, isolated physical settings, and emphasis on group development of the academic ethos. Such programs have shown considerable promise (Castro and Spagnolo 1983; Fortes and Lomnitz 1991).

Although most of these pursuits are usually associated with public institutions, Bank support could also reach private or semi-private research centers and private universities. This means that those that have an academically advanced tone to their under-

graduate, graduate, or research programs could benefit from loans aimed at strengthening them.

Since there are fewer academically top institutions than superior enclaves within mediocre or mass and diversified institutions, support for academic leadership will have to target these enclaves rather than the entire university or school where they are located. The difficult issue to be decided case by case is whether the governance and overall atmosphere of the host institution is sufficiently sound to warrant supporting the enclave of academic quality.

Areas involving *professional work* also deserve support. This was an area mostly bypassed by the Bank's major assistance projects of the 1960s and 1970s. In areas critical for the economy, it may be worth supporting the quality improvements of selected programs. In addition, support could include the introduction of humanities and social science programs into professional curricula, the establishment of closer links with client-enterprises, associations of employers and the labor market at large, and the broadening of the products of professional schools through extension services.

Since it remains the least developed area of the region's higher education sector, *technical training and development* is a category in which there is a clear need to build capacity beyond the present and beyond what the market would do. National modernization and competitiveness requires expensive and specialized R&D skills and equipment. Often, technical schools offer the best environment for choosing and adapting technologies or even for pursuing a more ambitious course of technological development.

In addition to providing equipment for workshops and laboratories, loans can help schools to identify their market niches and design more innovative curricula. The area needs instruments to monitor markets and adapt courses to the occupations most in demand. Assistance could intervene to break bottlenecks and accelerate the evolution of programs along with markets, or to make available new

modalities of delivery, especially where public infrastructure is needed.

In contrast, quasi-professional or *general higher education* as a whole will not be a systematic priority for the IDB. The private sector can deliver educational services at tuition levels that are affordable to the average student. If governments wish to maintain subsidized or tuition-free education at this level it is not a matter that directly concerns the Bank.

Nevertheless, here too there may be room for tailored efforts. The main thrust would be to assist reforms aimed at turning a rigid and overspecialized curriculum into one more attuned to "learning to learn." This is what good general education is about. Rigid curricula geared to a particular profession should yield to more flexible ones, student electives, credit systems that allow transfers across fields, and general studies emphasizing the development of critical skills, written communication, and reasoning. It does not matter whether the field is law, administration, or psychology; the important concern should be to develop students' general skills by means of good reading, ample opportunities for writing and discussion, and analysis of meaningful theory.

The Quest for Equity

As has been noted, Latin American higher education has serious problems of equity. Hence, in line with the Bank's mandates, requests for loans to make higher education more accessible to the less privileged will be well received. This implies that the Bank may consider well-targeted scholarship and student loan programs. These programs could assist academically strong students from modest backgrounds.

Cost recovery in the form of tuition from those students who can afford to pay should be supplemented, usually through fellowships or loans to less affluent students. This is an important way to avoid excessive and often inequitable across-the-board subsidization of higher education. Particularly in the

case of professional and technical schools, the possibilities of partnerships with enterprises sometimes exist, and the sale of services is an obvious and well-tried practice.

On an exceptional basis, requests to extend or create programs in poorer regions could be contemplated, especially for technical education, as long as this does not repeat in these sites approaches that have failed elsewhere, nor sponsor pale versions of the courses offered in richer regions. Higher education is not considered merely a form of assistance but a down-to-earth investment that should show concrete results. More broadly, the Bank is ready to help those countries whose lack of size or wealth present obstacles to worthy reforms they seek to pursue; this is another example of where the Bank could step in where neither markets nor domestic governments can move adequately on their own.

Given the unavoidable selectivity of higher education, students are for the most part from relatively privileged backgrounds. Little can be done at this level to change this without compromising the quality of learning. Increases in opportunities for youths from lower socioeconomic backgrounds lie with improvements in the quality of the early levels of schooling, a task to which the higher education system should be strongly and continuously associated. At the higher education level itself, one way of increasing equity in funding is by reducing waste and inefficiencies, since they use up resources which could be directed to other investments that more directly benefit broader segments of society (e.g., basic education).

The Main Features of the New Higher Education Loans

The guidelines just proposed lead to the following stipulations:

- The institutions benefitting from the loan must display healthy organizational structures with an adequate system of governance, especially in terms of correspondence between that system

and the institution's functions. Responsibility for decisions lies with those who are well prepared and are in the appropriate hierarchical levels.

- The funding mechanisms must provide the right incentives, rewarding efficiency and productivity, and supporting educational quality in whatever function the beneficiary institutions are performing. In the case of professional and technical areas, as well as in the case of applied research, institutions are expected to obtain complementary sources of funding.
- In the case of institutions that lack the above conditions, it is possible to use the loan explicitly to reform governance and incentives, and thus to improve quality and efficiency. In fact, this is one of the areas where the Bank's presence can serve as a catalyst for reform.

The IDB welcomes requests for loans with the following three goals:

- To support broad reforms which reasonably seek improvements in quality and efficiency, including systems of information, evaluation, certification, testing, development and updating of curricula and training materials.
- To support programs in which the results reach significantly above the gains for individual students. In other words, in forms of education in which there is a strong component of public goods, requiring subsidies to complement or even replace alternative cost recovery mechanisms. These would typically include some aspects of the preparation of intellectual leadership, development of citizenship, research, technological development, changes in institutional management, and improvements in economic performance.
- Loans (or components of loans) geared to improvements in equity. This is particularly the case of scholarships for students who could not otherwise afford to attend school and also for

institutions located in poor countries and deprived regions.

While ample flexibility should be preserved in the design of loans, a typical project would likely include an allocation for organizational reform managed by the educational authorities, and a competitive fund to support initiatives in individual institutions or programs within institutions.

As in many other such Bank operations, a key factor in the loan consideration process is the potential reform leverage. However, the loans can contain physical investment components. Laboratories might need to be upgraded, libraries expanded, buildings adapted, along with many other "brick and mortar" works. This is perfectly normal and ex-

pected, as long as the operation makes sense in terms of its more fundamental rationale of promoting reform to increase quality and efficiency.

Finally, where appropriate, the Bank may fund research directed at implementing its efforts. For one thing, there is often a shortage of basic information to identify needs and demands, and to distinguish between successful and unsuccessful undertakings. Additionally, research could help translate this strategy paper's analytical categories into the concrete contexts under consideration, including investigation of how different functions are performed in different institutions. But any research to be funded would have to show clearly how it would provide important payoffs in facilitating policy reform.

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TABLE 1
Enrollments, 1994

<i>Country</i>	<i>Enrollment</i>	<i>Population^a</i>	<i>Enrollment Rate</i>
Argentina	1.054.145	2.711.000	38.9
Bolivia	154.040	676.000	22.8
Brazil	1.661.034	14.508.000	11.4
Chile	327.084	1.231.000	26.6
Colombia	561.223 ^b	3.197.000	17.6
Costa Rica	83.608	285.000	29.3
Cuba	176.228	1.118.000	15.8
Ecuador	212.985	1.082.000	19.7
El Salvador	108.063	565.000	19.1
Guatemala	112.621	919.000	12.3
Honduras	53.802	507.000	10.6
Mexico	1.304.147	9.452.000	13.8
Nicaragua	41.991	375.000	11.2
Panama	69.540	252.000	27.6
Paraguay	52.853	429.000	12.3
Peru	643.153	2.274.000	28.3
Dominican Rep.	112.798	747.000	15.1
Uruguay	74.842	250.000	29.9
Venezuela	601.100	1.915.000	31.4
Total	7.405.257	42.493.000	20.7%

a: CEPAL (1994), *Anuario Estadístico de América Latina y el Caribe* (Santiago, Chile).
b: 1993.

This table shows that higher education is huge and has more than reached the 15% cohort enrollment threshold internationally recognized to represent "mass higher education." By contrast, the cohort percentage for 1950 was about 2%, for 1960 still only about 3%. (Note: The total enrollment rate computed here for 1994 is a little high because of averaging country averages.)

TABLE 2
Public and Private Institutions, 1994

Country	Year	Universities			Other			Totals		
		Public	Private	Total	Public	Private	Total	Public	Private	Total
Argentina	1994	37	42	79	956	718 ^a	1674	993	760	1753
Bolivia	1995	11	24	35	44	2	46	55	26	81
Brazil	1994	68	59	127	150	574	724	218	633	851
Chile	1995	25 ^b	45	70	---	200	200	25	245 ^c	270
Colombia	1994	51	96	147	28	83	111	79	179	258
Costa Rica	1994	4	20	24	68	207 ^d	275	72	227	299
Cuba	1994	7	---	7	28	---	28	35	---	35
Ecuador	1995	15	8	23 ^e	73	78	151	88	86	174
El Salvador	1995	2	44	46	17	10	27	19	54	73
Guatemala	1994	1	5	6	1	2	3	2	7	9
Honduras	1995	2	4	6	2	3	5	4	7	11
Mexico	1995	39	49	88	383	199	582	422	248	670
Nicaragua	1994	4	7	11	---	3	3	4	10 ^f	14
Panama	1994	3	13	16	1	4	5	4	17	21
Paraguay	1994	3	12	15	39	18	57	42	30	72
Peru	1993	28	25	53	347	277	624	375	302	677
Dom. Rep.	1995	1	24	25	6	4	10	7	28	35
Uruguay	1995	1	1	2	10	9	19	11	10	21 ^g
Venezuela	1994	17	15	32	43	39	82	60	54	114
Totals		319	493	812	2196	2430	4626	2515	2923	5438

Source: García Guadilla (1996: 264).

- a: 10 undetermined institutions added.
- b: 16 public universities and 9 privates with state aid.
- c: Institutions that do not get direct state aid.
- d: Includes 176 institutions not recognized by the Ministry of Education.
- e: Some universities have "funcionamiento" but are not legalized and therefore are not in the national university council.
- f: Includes some that get state aid.
- g: The Instituto de Formación Docente, which trains for the primary and pre-primary level, has 25 campuses.

The surge in the number of postsecondary students was accompanied by the creation of new institutions, private and public. However, the private/public and university/non-university distinctions barely scratch the surface of the enormous complexity of the institutional scenario of Latin American higher education.

TABLE 3
Type of Institution, 1994

Country	Year	Politechnics/Universities			Technological and Other			Teacher Training Institutes			Other	Total
		Public	Private	Total	Public	Private	Total	Public	Private	Total		
Argentina	1994	37	42	79	---	---	---	---	---	---	1674	1753
Bolivia	1995	12	23	35	21	n/d	21	23	2	25	---	81
Brazil	1994	68	59	127	5	10	15	155	349	504	205	851
Chile	1994	25	45	70	---	73	73	---	127	127	---	270
Colombia	1994	51	96	147	16	33	49	---	---	---	62	258
Costa Rica	1994	4	20	24	68	207	275 ^a	---	---	---	---	299
Cuba	1994	7	---	7	9	---	9	12	---	12	7	35
Ecuador	1994	15	8	23	42	75	117	31	3	34	---	174
El Salvador	1994	2	44	46	15	6	21	2	---	2	4	73
Guatemala	1994	1	5	6	---	1	1	1	1	2	---	9
Honduras	1994	2	4	6	---	1	1	1	---	1	3	11
Mexico	1994	39	49	88	110	---	110	215	111	326	146	670
Nicaragua	1994	4	7 ^b	11	---	3	3	---	---	---	---	14
Panama	1994	3	13	16	1	4	5	---	---	---	---	21
Paraguay	1994	3	12	15	---	---	---	23	14	37	20	72
Peru	1994	28	25	53	228	212	440	119	65	184	---	677
Dom. Rep.	1994	1	24	25	---	6	6	---	---	---	4	35
Uruguay	1995	1	1	2	---	---	---	3	---	3	16 ^c	21
Venezuela	1994	17	15	32	26	16	42	---	1	1	39	114
Totals		320	492	812	541	647	1188	585	673	1258	2180	5438

Source: García Guadilla (1996: 266).

- a: 176 of these are not recognized by the Ministry of Education.
- b: Two of these are private with state aid.
- c: One of these has 25 campuses that have not been counted.

An important aspect of the institutional diversification has involved technological institutions of one kind or another. However, what is included in such categories is very variable. How much the institutions correspond to what this paper calls the technical function is a matter for further study.

TABLE 4

Institutional Complexity, 1994

<i>Country</i>	<i>Complex (with graduate level and scientific research)</i>	<i>Simple (only "licenciatura")</i>	<i>Total</i>
Argentina	10	69	79 ^a
Bolivia	11	24	35 ^a
Brazil	91	760	851
Chile	33 ^b	62	95
Colombia	69	180	249
Costa Rica	4	20	24 ^a
Cuba	35	---	35
Ecuador	10	19	29
El Salvador	8	38	46 ^a
Guatemala	5	1	6 ^a
Honduras	2	9	11
Mexico	---	---	---
Nicaragua	4	10	14
Panama	13	1	14 ^a
Paraguay	2	13	15 ^a
Peru	26	27	53 ^a
Dom. Rep.	25	---	25 ^a
Uruguay	2	19	21
Venezuela	26	88	114
Totals	376	1340	1716

Source: García Guadilla (1996: 267).

a: Includes only universities.

b: Some private institutions offer graduate degrees with foreign institutions.

There is also a differentiation by degree levels and tasks within institutions. As this table shows, most institutions concentrate on first-degree education.

As the text argues, many of the complex institutions really do only weak graduate work or research.

TABLE 5
Enrollment by Sector and Institutional Type, 1994

<i>Country</i>	<i>Year</i>	<i>Public Universit.</i>	<i>Other</i>	<i>Total</i>	<i>Private Universit.</i>	<i>Other</i>	<i>Total</i>	<i>Total Universit.</i>	<i>Other</i>	<i>Total</i>
Argentina	1994	618.399	221.842	840.241	124.749	89.155	213.904	743.148	310.997	1.054.145
Bolivia	1994	124.510	16.503	141.013	12.341	686	13.027	136.851	17.189	154.040
Brazil	1994	571.608	118.824	690.432	463.118	507.484	970.602	1.034.726	626.308	1.661.034
Chile	1994	151.570	---	151.570	59.994	115.520	175.514	211.564	115.520	327.084
Colombia	1993	135.527	65.705	201.232	232.877	127.114	359.991	386.404	192.819	561.223
Costa Rica	1994	60.728	2.885	63.613	17.483	2.512	19.995	78.211	5.397	83.608
Cuba	1994	36.755	139.473	176.228	---	---	---	36.755	139.473	176.228
Ecuador	1994	154.516 ^a	8.973	163.489	44.361	5.135	49.496	198.877	14.108	212.985
El Salvador	1994	30.499	2.883	33.382	72.536	2.145	74.681	103.035	5.028	108.063
Guatemala	1994	80.228	---	80.228	30.761	1.632	32.393	110.989	1.632	112.621
Honduras	1994	46.744	343	47.087	5.984	731	6.715	52.728	1.074	53.802
Mexico ^b	1994	751.300	223.800	975.100	145.545	183.502	329.047	896.845	407.302	1.304.147
Nicaragua ^c	1994	27.610	---	27.610	12.827	1.544	14.381	40.437	1.554	41.991
Panama ^d	1994	63.181	496	63.677	5.551	312	5.863	68.732	808	69.540
Paraguay	1994	20.121	8.027	28.148	21.713	2.992	24.705	41.834	11.019	52.853
Peru	1994	237.196	174.873	412.069	129.683	101.401	231.084	366.879	276.274	643.153
Dom. Rep.	1994	32.441	---	32.441	77.829	2.528	80.357	110.270	2.528	112.798
Uruguay	1994	62.026	8.298	70.324	1.992	2.526	4.518	64.018	10.824	74.842
Venezuela	1994	325.691	61.470	387.161	80.737	133.202	213.939	406.428	194.672	601.100
Total		3.530.650	1.054.395	4.585.045	1.540.081	1.280.131	2.820.212	5.070.731	2.334.526	7.405.257

Source: García Guadilla (1996: 270).

- a: Does not include data from the Universidad Politécnica Salesiana and the Universidad de San Francisco de Quito.
- b: ANUIES-affiliated institutions.
- c: In the private sector this includes universities and non-universities that are private but receive 6 percent of their funds as state aid. No information from two institutions.
- d: For universities: available data from three universities that represent the majority of the enrollments. For non-universities: estimated data.

Juxtaposing the enrollment data from this table and the institutional data from Table 2 shows that private institutions are, on average, much smaller than public ones. Sometimes smallness can be associated with innovation, other times, however, it is mostly associated with fragile and dubious institutions.

TABLE 6
Enrollment by Field of Study, 1994

Country	Year	Education	Humanities	Social Sciences, Law, Comm., etc.	Economics, Administrat., etc.	Medical and Health Sciences	Natural Sciences, Math and Statistics	Physical Sciences, Engineering, Architecture and Technol.	Agronomy, Veterinary Studies and Fishery	Unspecified	Total
Argentina	1994	12,214	84,281	163,600	148,737	131,212	39,959	124,765	25,444	10,263	740,475
Bolivia	1991	716	4,167	26,839	23,404	21,858	1,527	17,230	11,036	---	106,777
Brazil	1994	a	384,388	684,522	b	203,394	188,210	154,540	45,626	---	1,660,680
Chile	1994	26,037	39,437	58,235	68,001	17,052	8,073	82,254	27,995	---	327,084
Colombia	1993	91,814	21,422	66,010	162,387	47,927	7,374	147,920	16,369	---	561,223
Costa Rica	1994	14,483	4,189	24,820	a	5,292	3,966	7,635	1,962	15,726	78,073
Cuba	1994	72,040		16,686	7,681	36,660	5,923	28,886	8,352	---	176,228
Ecuador	1994	31,568	6,844	35,320	59,776	22,206	2,255	24,409	10,119	6,377	198,874
El Salvador	1994	7,535	11,080	23,198	22,918	15,133	2,650	18,822	1,199	---	102,535
Guatemala	1994	a	9,643	15,501	17,232	7,491	1,540	14,523	2,346	8,775 ^e	77,051
Honduras	1994	1,761	4,313	12,226	13,734	6,563	1,383	11,130	2,219	437 ^d	53,766
Mexico	1991	a	145,668	527,565	b	108,946	25,347	349,172	45,151	---	1,201,849
Nicaragua	1994	4,441	281	5,754	6,648	5,438	1,774	7,198	2,638	7,819	41,991
Panama	1993	2,447	b	11,739	12,944	2,709	2,520	10,927	788	---	44,074
Paraguay	1988*	154	2,994	8,948	5,010	2,731	3,208	5,083	806	1,497	30,431
Peru	1993	55,540	3,219	74,557	74,040	43,386	---	96,097	17,469	2,571	366,879
Dom. Rep.	1988	a	12,335	45,732	b	10,347	---	28,422	---	---	96,836
Uruguay	1994	256	1,158	4,533	2,537	1,056	1,850	f	424	---	11,814
Venezuela	1992	100,924	7,764	77,843	153,269	38,461	38,615	98,892	13,861	40,835	570,464
Total		421,930	743,183	1,883,628	778,318	727,862	336,174	1,227,905	233,804	94,300	6,447,104

Source: García Guadilla (1996: 271).

a: included in Humanities; b: included in Social Science; c: regional centers; d: tourism; e: only public universities (listed as g in the table but appears to be e); f: includes natural science; g: is listed as CRESALC, 1991 but if Paraguay 1988 should really be e, then g does not appear in the table).

TABLE 7
Current Enrollment by Level and Sector, 1994

Country	Year	Doctoral			Masters			Specialization			Totals Public	Total
		Public	Private	Total	Public	Private	Total	Public	Private	Total		
Argentina ^a	1994	1,804	251	2,055	2,144	1,516	3,660	3,926	449	4,375	7,874	10,090
Bolivia	1994	---	---	---	717	589	1,306	509	98	607	1,226	1,913
Brazil	1994	14,373	1,299	15,672	33,692	5,257	38,949	---	---	---	48,065	54,621
Chile	1994	---	---	---	4,332	166	4,498 ^b	2,629	207	2,836	6,961	7,334
Colombia	1993	71	5	76	2,900	3,338	6,238	5,245	12,453	17,698	8,216	24,012
Costa Rica	1994	---	---	---	1,022	---	1,022	196	---	196	1,218	1,218
Cuba	1994	267	---	267	2,142	---	2,142	8,209	---	8,209	10,618	10,618
Ecuador	n/d	---	---	---	---	---	---	---	---	---	---	---
El Salvador	1995	---	---	---	180	280	460	---	---	---	180	460
Guatemala	1995	---	---	---	451	---	451	596	---	596	1,047	1,047
Honduras	1994	---	---	---	115	36	151	131	---	131	246	282
Mexico	1993	1,901	250	2,151	22,207	8,983	31,190	14,056	3,384	17,440	38,164	50,781
Nicaragua	1994	---	---	---	181	---	181	526	---	526	707	707
Panama	1994	---	---	---	244	86	330	741	---	741	985	1,071
Paraguay	1995	---	---	---	210	194	404	110	40	150	320	554
Peru	1993	167	755	922	2,057	3,535	5,592	481	230	711	2,705	7,255
Dom. Rep.	n/d	---	---	---	---	---	---	---	---	---	---	---
Uruguay ^c	1994	122	---	122	196	---	196	---	---	---	318	318
Venezuela	1995	829	---	829	4,740	458	5,198	5,918	1,197	7,115	11,487	13,141
Total		19,534	2,560	22,094	77,530	24,438	101,968	43,273	18,058	61,331	140,337	185,393

Source: García Guadilla (1996: 276).

a: partial data; b: includes doctorate; c: only includes students in basic sciences, Universidad de la República.

The higher one goes in terms of degree programs, the more one sees public predominance. This reflects high costs and other needs of the academic leadership function, but it also reflects certain limitations of the private sector and some unwarranted growth of public programs that are more impressive in name than in substance.

TABLE 8
Professors, by Time Commitment, 1994

Country	Year	Full Time	Public Sector Half Time	By Course	Total	Full Time	Private Sector Half Time	By Course	Total
Argentina ^a	1992	11,550	21,498	68,203	101,251	---	---	---	---
Bolivia	n/d	---	---	---	---	---	---	---	---
Brazil	1994	52,863	22,422	---	75,285	9,118	57,079	---	66,197
Chile ^b	1994	7,537	2,175	6,802	16,514	---	---	---	---
Colombia	1993	9,805	2,312	8,382	20,499	4,376	2,085	29,263	35,724
Costa Rica	1994	1,524	528	1,229	3,281	894	310	721	1,925
Cuba	1994	23,339	---	782	24,121	---	---	---	---
Ecuador	n/d	---	---	---	---	---	---	---	---
El Salvador	1994	1,558	445	222	2,225	382	611	2,827	3,820
Guatemala	n/d	---	---	---	---	---	---	---	---
Honduras	1994	2,151	258	793	3,202	231	184	238	653
Mexico	1994	40,603	12,765	92,001	145,369	4,123	2,276	24,199	30,598
Nicaragua	1994	1,329	322	490	2,141	290	52	201	543
Panama	1994	1,459	---	2,337	3,796	44	4	321	369
Paraguay	n/d	---	---	---	---	---	---	---	---
Peru	1995	6,854	4,629	6,702	18,185	213	1,793	6,688	8,694
Dom. Rep.	n/d	---	---	---	---	---	---	---	---
Uruguay ^f	1995	976	3,072	3,057	7,105	---	---	---	---
Venezuela	1995	13,004	1,823	3,976	18,803	---	---	---	---
Total		174,552	72,249	194,976	441,777	19,671	64,394	64,458	148,523

Source: García Guadilla (1996: 279).

a: only universities; b: only for the 25 universities with direct state aid; c: includes only the Universidad de la República.

TABLE 9
Higher Education Budget

<i>Country</i>	<i>Year</i>	<i>Total</i>	<i>% of National Budget</i>	<i>% of Education Budget</i>
Argentina	1994	1,651,000,000	2.21	16.53
Bolivia	1994	77,352,331	6.10	26.82
Brazil	1994	2,269,420,000 ^a	2.83	35.50
Chile	1994	306,604,000	2.79	19.12
Colombia	1993	376,000,000	2.66	19.98
Costa Rica	1994	92,065,000	4.71	22.21
Cuba	1994	207,700,000	1.66	15.26
Ecuador	1994	108,000,000	3.73	21.43
El Salvador	1994	21,600,000	1.96	12.78
Guatemala	1995	53,650,501	3.42	28.60
Honduras	1994	27,277,628	4.10	20.43
Mexico	1994	927,813,330	2.34	10.36
Nicaragua	1994	26,080,477	6.26	33.91
Panama	1994	86,171,000	2.00	22.75
Paraguay	1994	39,724,845 ^b	3.63	19.27
Peru	1993	144,212,907	2.30	13.79
Dominican Rep.	---	13,770,500	0.85	9.99
Uruguay	1995	118,000,000 ^c	3.08	20.41
Venezuela	1994	867,850,065 ^d	6.79	43.62
Total		7,414,292,584	2.7%	20.43%

Source: García Guadilla (1996: 285).

a: Federal Budget. No information on state and municipal budgets.

b: Universidad de la Asunción.

c: Budget of the Universidad de la República, which accounts for the bulk of the higher education budget.

d: University budget.

By the 1980s, the myth that higher education could simply keep expanding through ample public subsidization was being re-examined. Falling subsidies in some countries highlighted the need to get more results, to break the cycle of impunity wherein subsidies keep increasing regardless of performance. Whether or not one argues that higher education gets too high a share of budgets, it is clear that it needs to reform to do better with the funds it receives.

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