

Capacity

Building

in Economics Education
and Research

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Capacity building in economics education and research. A note on the experience of Latin America and the Caribbean*

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The economics profession has been extraordinarily dynamic in Latin America. Most countries now have a significant number of professional economists who can handle complex analytical problems. Central Banks have been at the forefront in promoting professional expertise in economics, followed by think tanks and universities (there are currently 131 think tanks engaged in the economic analysis of public policies in Latin America). Although university-based academic research has played a significant role, one of the most relevant problems is the low-quality peer review in local journals, mainly because the academic community is still too small or close-knit to allow for objective review. A few finance and planning ministries have enhanced their economic capability, but most governments continue to operate with a relatively low level of economic expertise.

Improving the technical capacity of the legislative branch is also seen as a top institutional priority.

We propose a two-tier approach to graduate economics education. On the one hand, we favor financial support (increasingly in the form of loans from multilaterals and nonprofit organizations) to students who are able to pursue PhD programs in top schools in the United States and Europe. On the other hand, regional universities that offer high-level master's programs should be strengthened, while local doctoral programs should be limited to universities that have at least 15 full-time professors with PhD degrees from recognized institutions. These programs should be targeted at students who are not able to pursue doctoral programs abroad. Fiscal adjustment implies that

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universities have to charge competitive tuition fees, provided that there is access to educational loans.

The purpose of this note is to provide an overview of research, training, and practice of economics in Latin America, with special attention to those institutions that attract high-quality professionals and graduate students and produce relevant policy research. By *research* we mean "any systematic effort to increase the stock of knowledge" (GDN 2004), while *policy research* is aimed at the continuity or change of a practice (Crewe and Young 2002).

I. Context

The economics profession has been extraordinarily dynamic in Latin America. Most countries now have a significant number of professional economists who can handle complex analytical problems. Many academic economists have been trained in foreign universities, particularly in the United States, which has had a strong influence on the way the profession is taught and practiced. World-class economists work in the academic institutions, government (especially in the larger countries), and the private sector (especially banking institutions).

We want to address two main issues in this paper. First, we want to review the successful experiences in economic education and policy research in Latin America and the Caribbean in order to draw lessons on what has worked in capacity building. Second, we look at the region's strategies for scaling

up its capacity building in economic education and policy research. In this context, we discuss the main needs and challenges that need to be overcome, and the role that international donors can play in that process.

As Sebastian Edwards (2003) recently reminded us, 40 years ago two prominent Chilean economists –Anibal Pinto and Osvaldo Sunkel– argued that it was a mistake for Latin Americans to study economics in the United Kingdom, France, and the United States. According to these economists, training abroad was inadequate because of the unique problems of Latin America. They argued in favor of developing graduate programs in the region, with a strong emphasis on development economics, economic history, and history of economic thought. Their views were particularly influential in promoting a graduate program for Latin American students at the Instituto Latinoamericano y del Caribe de Planificación Económica y Social (ILPES), the teaching arm of the Economic Commission for Latin America and the Caribbean (ECLAC; the Spanish acronym is CEPAL). At the same time, and influenced by the prevailing view on the need to initiate local graduate training in economics, many universities developed their own master's programs. This was the case of Universidad Católica and the Universidad de Chile (both Economía and Ingeniería Industrial) in Chile; at Pontificia Universidade Católica do Rio de Janeiro (PUC-RJ) and Getulio Vargas Foundation in Brazil; at the Universidad de los Andes in Colombia; and at

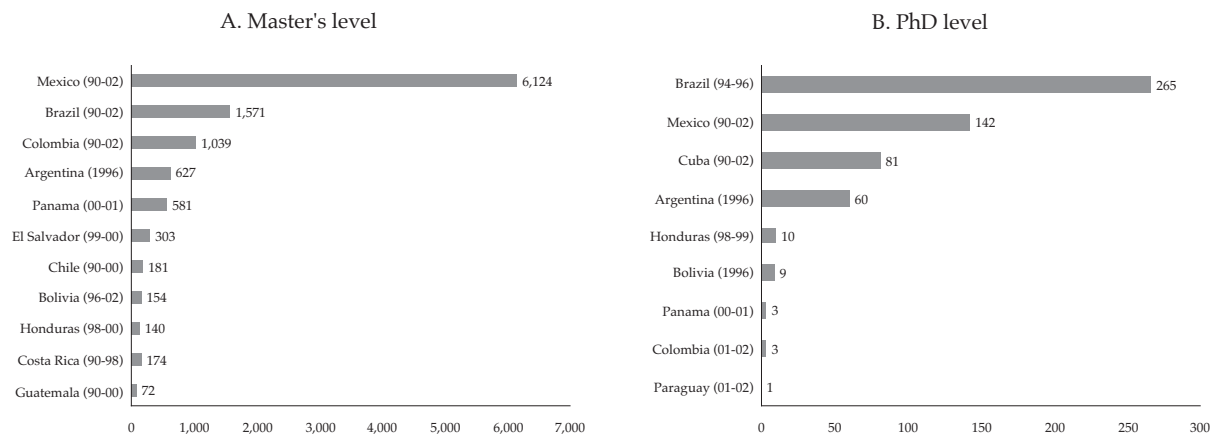
El Colegio de México in Mexico. These universities have excellent programs, as do other universities that created their programs later—such as the Universidad del Centro de Estudios Macroeconómicos, Universidad de San Andrés, and Universidad Di Tella in Argentina; and Instituto Tecnológico Autónomo de México (ITAM) in Mexico.

The existence of high-quality master's programs in the region has allowed a growing contingent of economists to seek doctoral training in the United States and Europe, contrary to what Pinto and Sunkel expected (see figure 1). Many of these students stay on in academic jobs at the faculties of major research universities in the United States as well as in the United Kingdom, and other European countries. Multilateral agencies have also recruited many economists from the region throughout the

years. Some of those that return to the region are actively participating in international conferences, publishing internationally, and training very good professional economists at local universities. Their research tends to be applied, and highly relevant for the region. As mentioned by Edwards (2003), these important developments contrast sharply with the situation described by Pinto and Sunkel in the early 1960s: "[T]here is practically no possibility in the Latin American university ... to carry the fundamental research that could serve as the base for a ... theory of development" (Pinto and Sunkel 1966, p. 86).

In spite of the substantial progress of the economics profession in the region, many problems remain. Political leaders have a strong bias in favor of applications rather than scientific research,

Figure 1
GRADUATES IN SOCIAL SCIENCES IN LATIN AMERICA AND THE CARIBBEAN
(Annual averages of years in parenthesis)



Source: <http://www.ricyt.edu.ar>

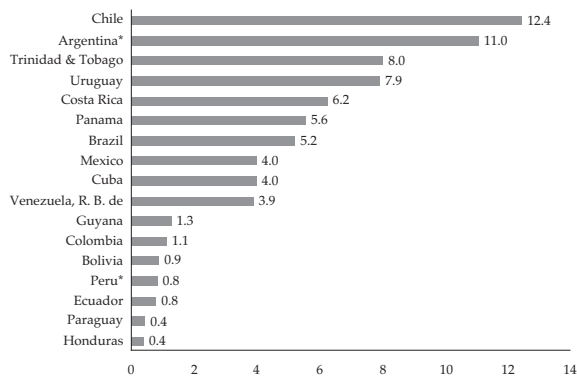
so public funding for theoretical research is quite limited. In recent years, however, although governments remain reluctant to support basic research, they are supporting a selective group of researchers who can do outstanding work. That is, rather than distributing resources as widely as possible, governments are more willing to fund individuals and small groups that belong to "centers of excellence." This practice is evident across the region.

For the scientific community, in general, one of the most relevant problems that needs to be tackled is the low quality of the peer review in local journals. This problem exists mainly because the academic community is still too small or close-knit to allow for objective review. According to figures from the Science Citation Index (SCI), which is produced by the Philadelphia-based institute that monitors scientific publishing trends, Chile produces more international papers per 100,000 population than Argentina, twice as many as Mexico, and three times as many as Brazil (see figure 2). Even then, according to the Universidad de Chile, Chile is producing only 50 PhDs a year in all disciplines. In terms of expenditures on research, Brazil tops the list. Figure 3 shows that researchers in the social sciences in Mexico are close to 60 percent of the total number of researchers; in Chile and Argentina this figure is under 20 percent.

In the area of training, the most important challenge today is to consolidate and guarantee the quality of a group of relatively young PhD programs

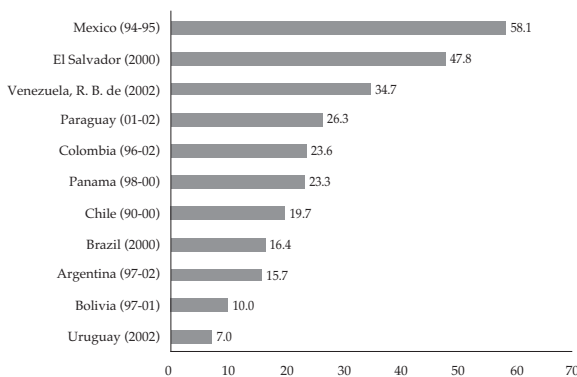
in economics. Some of the programs available today are located in Chile at the Universidad de Chile, in Argentina at the Universidad Torcuato Di Tella, and in Mexico at the Instituto Tecnológico Autónomo de México. The joint program of these three uni-

Figure 2
PUBLICATIONS REGISTERED IN THE SCIENCE CITATION INDEX PER 100,000 POPULATION
(Annual averages 1990-2002)



* Average 1990-2003
 Source: <http://www.riicyt.edu.ar>

Figure 3
SOCIAL SCIENCE RESEARCHERS
(As percentage of total researchers)



Source: <http://www.riicyt.edu.ar>

versities, described below, is called LADE. There are, of course, other doctorate programs offered by Latin American Universities. Universidad de San Andrés in Argentina and PUC-RJ in Brazil are good examples.

II. Successful Experiences in Economic Education and Policy Research in Latin America and the Caribbean

Several kinds of factors helped to enhance economic education and policy research in Latin America and the Caribbean. Each has played a different role.

A. The Role of Think Tanks

Think tanks have been a favorite vehicle for the advancement of the economics profession in Latin America. Although the term is intrinsically vague and elusive, think tanks are organizations that undertake analysis of scientific and technical characteristics related to public policies and that follow certain criteria related to the publicity of their work (Braun, Cicioni, and Ducoti 2002). Not all nongovernmental organizations (NGOs) can be considered think tanks. A think tank should follow scientific criteria: academic independence, peer review, and a commitment to high academic standards. However, think tanks are versatile in effectively targeting different particular audiences with specific publications. Think tanks regularly use the press, mass media, and newsletters aimed at policy makers, as well as seminars, conferences,

and scientific publications to disseminate policy research.

To be considered a legitimate think tank, there are also requirements regarding the organization's relationship with interest groups. Because a think tank can easily be captured by these groups, two basic preconditions must be met. On the one hand, funding should be diversified among various sources, including foreign donors that help developing a research agenda. On the other hand, research should be publicly disseminated, which helps to draw the line between think tanks and consulting firms. A precondition for a successful think tank is that it maintains research freedom and not be beholden to any specific interest. According to Dickson (1971), for an NGO to be considered a think tank, it should include the following characteristics:

- Use scientific methods (but not limited to scientific themes).
- Be multidisciplinary.
- Have strong connections outside the scientific community.
- Have a sense of freedom in the elaboration of its research.
- Be interested in overall (that is, general equilibrium) effects of policy actions.

There are literally hundreds of think tanks in Latin America and the Caribbean. They can be classified into four categories: (1) private research

centers; (2) political party foundations (intellectual organizations in charge of preparing the parties' political platforms); (3) advocacy NGOs that do not produce research but act as soundboards of certain ideas and ideologies; and (4) policy implementation think tanks. Although the distinctions are somewhat blurred, private research centers (PRCs) are the only type of think tank closely linked with capacity building in the economics profession. Since the 1960s, PRCs have been used to link the academic, philanthropic, and political worlds.

PRCs arose as a solution to the researchers' need for academic and financial autonomy (many universities had been subject to political interference and instability). They facilitated this goal by allowing researchers to obtain better salaries while providing independence. Several of the think tanks were also created with the specific goals of raising the level of public awareness of, and the quality of public debates on, economic policy, and thus of economic policy itself. University institutes were more academic than policy-oriented, somewhat distant from the policy world. As think tanks evolved, they gained importance in other roles such as the training of government technical experts for key decision posts, which followed a "revolving door" model –where people come and go from research centers to the government– that is common in the United States.

Think tanks have indeed changed significantly since the 1960s. Although they remain key strategic actors of the policy process, political systems have become increasingly complex because many other relevant political actors have entered the policy making game. The channels of influence of think tanks are no longer the traditional and more direct ones (such as political parties) but other groups in society that are decisive (the media, legislators, and so on). Moreover, think tanks are generally *outside* formal political arenas (Stone 1996), meaning that, although they are political actors in the sense of producing ideas that influence decision making, they play a role quite different than the role played by the state bureaucracy, legislative, executive, judicial authorities or political parties.

Although sources of funding may come from governments and the private sector, research freedom is a prerequisite in the attempt of economists to influence policy through analysis rather than lobbying. Their influence is limited to certain aspects of the policy-making process, such as agenda setting, developing policy alternatives, and shaping public understanding of issues. Of course, think tanks cannot be responsible for the final implementation of their proposals¹.

In a recent study, Miguel Braun and others (2004) underscore the factors that explain why

¹ See Acuña (1995) and Acuña and Tommasi (1999).

some think tanks are more successful than others in their ability to influence policy. They look in detail at the experience of four Latin American research institutes² and eight from other countries in Africa and Asia. According to their analysis, for think tanks to be influential,

they must conduct continuous, serious and accurate research with operational outputs, political feasibility and validated research methodologies. We have detected that, in Latin America, continuity over time, important budgets and the existence of close relations between think tanks and the business sector, as well as the existence of a window of opportunity due to a political, social or economic crisis, or to the fact that research is demand-driven by the government, among other factors facilitate the influence of think tanks on policy. Instead, in Africa, age is not such an important factor, since most think tanks were created in the 1990s. In this region, funding coming from philanthropy as well as the presence of stakeholders [on think tank] boards is a key and distinctive factor (2004, 3).

Recent research on the subject has emphasized a two-way relationship between research and policy

(see, for example, Garrett and Islam 1998; RAWOO 2001). Following Carol Weiss (1977), it is widely recognized that although research may not have direct influence on specific policies, the production of research may still exert a powerful indirect influence by introducing new terms and shaping the policy discourse³. This view acknowledges that policy making is a complicated political process, involving many actors, with outcomes that are hard to predict. In this context, think tanks do not have a clear path to influence policy. Their role in society cannot be compared with the formal arenas of political parties, legislators, and executives. The role of think tanks is much more informal, which gives rise to certain skepticism about their real influence and policy impact.

However, influential think tanks continue to attract the attention of politicians and the media. Although measuring impact is elusive, the proliferation of think tanks suggests that the generation of ideas and knowledge is a source of power that cannot be ignored. Policy and legislation needs to be grounded in solid theory and evidence, and the role of think tanks is to provide such theories and evidence. According to Braun and others (2004), there are two conflicting views on think tanks. At one end of the spectrum, think tanks are seen

² The Latin American Economic Research Foundation (FIEL) of Argentina, Group for the Analysis of Development (GRADE) of Peru, Center of Public Studies (CEP) of Chile, and Foundation for Higher Education and Development (Fedesarrollo) of Colombia.

³ See the Global Development Project "Bridging Research and Policy" <http://www.gdnet.org/rapnet/>. Peru, Center of Public Studies (CEP) of Chile, and Foundation for Higher Education and Development (Fedesarrollo) of Colombia.

as elite-ridden centers of power and governance behind the scenes. At the other end, think tanks are portrayed as independent centers of objective policy research guilelessly pursuing public interest goals, their influence counterbalanced by the competitive environment in which they operate. Neither extreme adequately portrays the multifaceted roles of these institutes.

In line with most of the recent literature on the subject, we see think tanks as political actors with a strategic position in the decision-making system as mediators between the cognitive and power fields (Belmartino 1999, 2-3). In order to exert influence on policies, think tanks strategically interact with other key actors of the political system. Their main role is to produce some practical, applied knowledge and translate the outcomes of research for different audiences. Think tanks are constrained by the formal and informal rules of the policy-making game and by their own organizational structure. These two factors make them more or less successful.

B. An Overview of Think Tanks in Latin America and the Caribbean

Based on a project funded by the Global Development Network (GDN), Braun and others (2004) built a think tank directory (available at www.researchandpolicy.org) that includes 193 nonprofit organizations engaged in the analysis of public policies in Latin America (68 percent of these think tanks are involved in the area of economics).

Research centers at universities were excluded on the grounds that they are not organizationally independent (this, however, does not detract from their research autonomy). The same is the case for foundations that are part of corporations or business conglomerates.

Only 13 percent of these organizations have annual budgets in excess of US\$1 million, suggesting that they are relatively small (44 percent have budgets between US\$100,000 and US\$500,000, while 60 percent have fewer than 20 employees). Although most of the think tanks have diversified sources of funding, "international organizations" are the most important source (especially the World Bank and the Inter-American Development Bank). Books and research papers –but not technical journals– are the most commonly used vehicles of dissemination. Speaking at and organizing public events are part of the activities of nearly 80 percent of the think tanks in the region; these events are a clear channel of influence. Meetings with policy makers are also regularly used. Frequent contact with the media, in the form of op-ed columns in newspapers, interviews, and the publication of research findings in magazines and newspapers is a common characteristic.

Think tanks also derive their strength for influencing policy from hiring highly qualified researchers, who usually have a PhD degree. Think tanks frequently incorporate external researchers or experts into their research teams when needed

in order to develop their research. In Latin America and the Caribbean, unlike Asia or Africa, think tanks in general do not include other stakeholders (such as the private sector and government). A think tank in Latin America and the Caribbean typically has between three and seven PhDs on its research team.

One key dimension that must be clarified to assess the role of think tanks is the proportion of demand-driven to supply-driven research. Demand-driven research facilitates influence (those that ask for research—including international agencies— can be key actors in the political game). In contrast, think tanks with endogenous funding are more inclined to supply-driven research. The drawback in this case is that the research agenda can be influenced by the most important donors, which can include business groups. Finally, the fact that there is a "demand" for research is common to all kinds of think tanks, regardless of their different organizational structures, procedures, or interests.

C. The Cognitive Map of Applied Knowledge in Economic Policies

In a recent paper, Santiso and Whitehead (2005) provide a first attempt at measuring the institutional density of research centers and the diffusion of applied knowledge in relation to economic policies in Latin America and the Caribbean. They argue that these centers provide adequate articulation between technical and political rationality deliberation as well as arenas of interactions between

"experts" and "politicians." Centers of excellence host technopols that operate as traders or bridge-builders. To use Hirschman terminology, they are *trespassers* of knowledge between the technical rationality and the political rationality.

The dialog between technical and political rationality is a rather recent development in many countries in the region. Santiso and Whitehead argue that even as late as the 1980s, the pattern of elite formation encouraged generalists rather than specialists (the student leader-cum-journalist who subsequently became a legislator-cum-lawyer). Political leaders tended to disregard intellectual or disciplinary boundaries. More recently, those who have attempted to imitate this style ended up with no political power - and no real field of professional competence, either. However, even today Latin American intellectuals have a taste for deep and fundamental issues—such as internal conflicts, income inequality, and poverty— so they do not limit themselves to "specialized" or narrowly "technical" areas of competence.

Central banks, perhaps because of their specialized functions and greater exposure to the outside world, have been at the forefront in promoting professional expertise in economics. Other specialized academic centers and think tanks have been able to attract experts with an interest in national politics. Several ministries of finance have also enhanced their economics capabilities - at least at the top levels of the bureaucracy. Some governments,

however, continue to operate with a relatively low level of economic expertise even today. The case of República Bolivariana de Venezuela is paradigmatic in this sense, and not just as a result of recent political developments in that country.

Capacity building in economic education and research has not been restricted to central banks and think tanks. Other institutions of knowledge –such as research groups at international organizations and government agencies, private consultants or research departments of banks, and university-based academic research centers– have played a significant role. In particular, multilateral organizations have benefited from ample funding and technical capacities, substituting in many cases –especially in small countries– local capacities for the production, dissemination, and implementation of policies. Some of these multilateral organizations are based in Latin America; examples are the Economic Commission for Latin America and the Caribbean (ECLAC), the Corporación Andina de Fomento (CAF), and the Facultad Latino-Americana de Ciencias Sociales (FLACSO). The major organizations, in terms of financial and technocratic resources, are, however, based in Washington, DC: the International Monetary

Fund (IMF), the Inter-American Development Bank (IDB), and the World Bank.

The IDB not only has a large research department with world-class economists –many of them Latin American– but it also promotes research throughout the region, through its networks of research centers.⁴ Research at the IDB focuses on the most prominent problems of the region, and the institution is truly a bridge between centers of knowledge in the industrial countries and local researchers throughout the region. More importantly, research outcomes have been highly relevant for the design of economic policies in various countries.⁵ The Office of Chief Economist for Latin America at the World Bank also conducts a research program –in addition to the global one in the Bank's Development Economics Vice Presidency (DEC)– that is highly influential in the region. The Bank has recently decentralized many of its centers of knowledge, basing its operational departments directly in the borrowing countries. The chief economist for Latin America is based in Colombia, generating positive spillovers into the local academic community.

At a more regional level, in the last decade CAF has increased significantly its research and knowl-

⁴ The Latin American Research Network of the IDB is one of the most important in terms of cognitive institutions support. Created in 1991, this network of nearly 300 research institutes has proven to be an effective vehicle for improving the quality of the public policy debate in Latin America and the Caribbean. More than 40 projects have been financed by this network since 1991, and 130 working papers published.

⁵ See Lora and others (2004).

edge capacity. By 2006 its research department employed 14 economists, most of them with PhDs and all them based in Latin American countries. The technical capacity of this institution is becoming influential, especially in the smaller countries that have greater dependence on its lending.

Turning to the role of government agencies, since the 1960s several countries created high-profile institutions—many of them at the cabinet level, reproducing the model of the Council of Economic Advisers in the United States—in order to attract a growing number of technocrats and improve the quality of policies. Prototypical examples are the Departamento Nacional de Planeación (DNP) in Colombia (see box 1) and the Instituto de Pesquisa Econômica Aplicada (IPEA) in Brazil⁶, but other examples abound (such as CORDIPLAN in República Bolivariana de Venezuela).

Technical capacities at the legislative level have been typically weak (with the possible exception of Brazil, where hundreds of well-trained economists are hired as congressional aides). Legislatures lack an office dedicated to evaluate economic policy in a systematic way, while at the same time these legislatures do not enjoy advisory services from multilaterals. As Javier Corrales (2004) has recently noted, ". . . the result is a major technical imbalance between the technical capacity of the Executive branch and

that of the Legislature. Ministers of Finance enjoy an informational premium that legislatures lack."

One potential side-effect of the lack of technical competence in congress is the prevalence of ideological opposition rather than detailed discussion of technical merits. Recent efforts at mimicking the role of the congressional budget office in the region (with the help of multilateral institutions) have ended in failure (República Bolivariana de Venezuela being an emblematic case). Many countries have opted for a model where national audit offices (*contralorías*) develop technical capacities, rather than congresses. The results, however, have been not entirely successful, as these institutions are highly politicized and very rarely attract top-rated economists.

Improving the technical capacity of the legislative branch, as done in the past for certain areas of the executive branch, is now seen as a top institutional priority. Legislators need an independent and nonpartisan source of technical analysis on economic affairs. This office should systematically analyze the economic impact of bills coming from the executive and should generate studies of previously enacted laws. In the 1990s, the IDB unsuccessfully attempted to create these offices across Latin American legislatures. One of República Bolivariana de Venezuela's most important policy reforms of the 1990s, the 1998 oil-stabilization fund,

⁶ IPEA is probably one of the largest cognitive institutions in Latin America; it had 600 employees in 2005, half of them economists and analysts. Nearly 70 percent of the 300 economists and analysts in IPEA hold PhD degrees.

Box 1. The Technocracy in Colombia

Long before John Williamson in his writings on the Washington Consensus coined the term *technopols* to describe the key role played by U.S. or U.K. graduate trained economists in the policy-making process in Latin America, in Colombia, since the early 1960s, *technocrats* was the term used for this new breed of bureaucrats.

Technocrats made their first appearance in Colombia as a result of the creation of the Monetary Board in 1963 and the powerful National Planning Department, which became the landing place for the newly graduated foreign-trained economists. With rare exceptions, the head of the Planning Department (a cabinet level position) has been a PhD economist with recognition in academic circles. The role of the technocracy as a key player in the policy-making process was strengthened under the Lleras Administration in 1966–1970. The president made wide use of the CONPES (Consejo Nacional de Política Económica y Social) as a vehicle to formulate policies that were based on documents prepared by the Planning Department. Moreover, the implementation of those policies was often delegated to the technocrats.

The role of the technocracy reached a high point during the López Administration (1974-1978). Not only were the powers of the Monetary Board advisers and the Planning Department enhanced, but –for the first time– a foreign-trained economist was appointed as finance minister. All significant posts at the ministry were assigned to technocrats (some of them becoming ministers of finance years later). More importantly, the leadership in the economic policy making was transferred completely to the finance minister; notwithstanding some exceptional periods, it has become a norm that finance ministers are chosen among professionally trained economists, most of them with graduate training in top foreign universities.

Another high point in delegating policy-making powers to technocrats was reached during the administration of Cesar Gaviria (himself a professional economist and former finance minister). This point was the delegation of monetary policy to an independent board, which has become a stronghold of the technocracy. Other than this decision, it does not seem that there has been any enhancement in the role of technocrats resulting from the 1991 constitutional.

Although technocrats have, on occasions, been appointed to other ministries, their influence has been much less important than in the economic policy arena. The career path of technocrats often involves academic work at independent institutions such as Fedesarrollo and the Universidad de los Andes, or international organizations. Very few technocrats have embarked on successful political careers.

Source: Cárdenas *et al.* (2005).

occurred after this office was created. The reform also boosted that country's congressional demand for technical knowledge.

III. Current Strategies for Scaling Up Capacity Building in Latin America and the Caribbean

The Latin American and Caribbean Economic Association (LACEA) was founded in July of 1992 in order to encourage greater professional interaction and foster increased dialogue among researchers and practitioners who focus their work on the economies of Latin America and the Caribbean. The idea of creating such an association of economists was first put into action during the April 1991 Washington, DC, meetings of the Latin American Studies Association. At a meeting attended by close to 40 participants, a seven-member organizing committee, led by Nora Lustig, was appointed. LACEA has since grown to an organization with more than 400 active members.

A. The Role of LACEA and Its Journal *Economía*

The organizing committee quickly obtained enthusiastic support for the idea of creating an association from a dozen leading scholars in the field.

This early support was critical to the success of the efforts to create the association. Soon after, the organizing committee identified the initial executive committee, drafted the association's bylaws, and applied for membership of the Allied Social Science Association (ASSA), officially launching LACEA.

Over one hundred prominent economists from throughout the region were invited and accepted the invitation to be charter members of LACEA. The first executive committee was selected, and Albert Fishlow –then professor at the University of California, Berkeley– was invited to become its first president. Nora Lustig, then at the Brookings Institution, was selected as vice-president.⁷ On July 1, 1994, the charter members officially approved LACEA's bylaws and its first executive committee.

Under Albert Fishlow's presidency (1993-97), LACEA became a member of the Allied Social Science Association (in January 1993) and soon began to host sessions at the annual meetings of the American Economics Association, the Latin American Studies Association, and the Econometric Society / Latin American Meetings. In 1996, LACEA began to host annual international meetings of its own. Since then, meetings have become an increasingly important gathering of economists. Thousands of

⁷ The other members of the executive committee were Edmar Bacha, Carlos Bazdresch, Guillermo Calvo, Michael Conroy, Vittorio Corbo, Carmen Diana Deere, Sebastian Edwards, Raul Feliz, Daniel Heymann, Ricardo Hausmann, Patricio Meller, and John Welch. Darryl McLeod, professor at Fordham University, was invited to become the treasurer of the association.

papers are submitted and strict criteria are applied in the selection procedures. Between 200 and 400 papers are presented during the annual meetings.⁸ LACEA has already held two meetings outside Latin America (in Madrid and Paris), with the purpose of strengthening links with the European academic community.

In the late 1990s LACEA expanded its activities in several directions. In conjunction with the IDB and the World Bank, LACEA formed the Network on Inequality and Poverty in 1998. It also started the Network on Political Economy (hosted by Fedesarrollo and Universidad de los Andes in Colombia) and a summer camp on International Economics and Finance, a joint initiative with the Center for International Economics at the University of Maryland. All these activities are carried out in conjunction with academic centers in Latin America and the Caribbean. LACEA's four thematic networks (Inequality and Poverty, Political Economy, Regional Integration, and International Finance) have continued to thrive, providing excellent venues for high-quality professional exchanges focused on some of the most crucial issues in the region. Each of these networks holds one or more academic meetings throughout the year in different countries in the region, providing crucial feedback and guidance to

junior and seasoned scholars, and allowing for further intercountry and interinstitutional networking and information sharing as well as for interactions among researchers and policy makers.

In 1999, at its Fourth Annual Meeting, held in Santiago, LACEA announced the launching of a new academic journal, *Economía*, modeled on the *Brookings Papers on Economic Activity* and *Economic Policy*. Its first issue was published in the fall of 2000; since then, *Economía* has been established as a central reference point in development discussions throughout the region. Also in 1999, LACEA was selected to be the Latin American and Caribbean regional partner institution of the Global Development Network, a World Bank-initiated network of research institutions around the world that generates and shares knowledge about development.

LACEA has a tremendous range within the region and even outside it, reaching economists, other social scientists, and development practitioners interested in Latin American institutional, social, and economic development. LACEA has over 1,000 members spread over 18 countries, covering more than 300 research institutes in the region. LACEA's professional standards are comparable with those of developed-world academic associations.

⁸ In 2004 the annual meetings were organized by the University of Costa Rica and INCAE. Two hundred and thirty articles were chosen for presentation and discussion in more than 70 contributed sessions. Such a successful conference held in one small country in the region (and in a more challenged subregion) was a great step forward for LACEA. The previous annual meeting had been held for the first time in a location other than the capital city of the major countries; it was organized by Universidad de las Américas - Puebla, Mexico.

To respond to growing membership, internal networking, activities, and interactions with other networks, and in order to be able to exploit additional opportunities fully –including more effective partnering with GDN and other regional networks– important steps have been taken to increase the operational capacity and degree of institutionalization of LACEA. A new site for LACEA's secretariat, with expanded responsibilities, has been chosen after an extensive review process. This secretariat will be provided for the next six years by a joint venture of two solid and prestigious institutions in Bogotá, Colombia: Fedesarrollo and Universidad de los Andes.

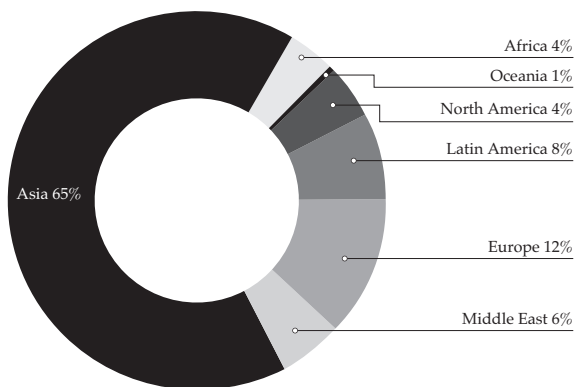
Along with its successes, LACEA faces many challenges, especially in relation to fund-raising efforts. To ensure the long-term sustainability of its current activities as well as to be able to grow and

advance in its objectives of coverage, quality, interaction with other disciplines, and increased impact on the link from research to policy, a secure source of funding is needed. New thematic networks (economic history has high priority) also need to be developed while strengthening the existing ones.

B. Latin American PhD Programs

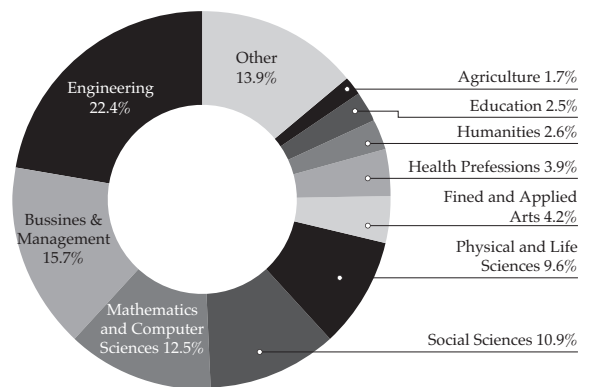
Figures from the Institute of International Education (IIE 2004) indicate that, of a total of 279,076 international students enrolled in graduate programs in the United States in 2004, 65 percent came from Asia and 8 percent from Latin America (Figure 4). The fields of study are distributed as shown in Figure 5, with the percentage of students enrolled in doctorates in the social sciences is 10.9 percent and in business and management is 15.7 percent.

Figure 4
INTERNATIONAL STUDENTS ENROLLED IN GRADUATE PROGRAMS BY PLACE OF ORIGIN, 2004



Source: IIE (2004).

Figure 5
STUDENTS ENROLLED IN DOCTORAL/RESEARCH INSTITUTIONS BY FIELD OF STUDY, 2004



Source: IIE (2004).

According to the Institute of International Education report, India is the country that has the most students enrolled in doctorate programs in the United States (17.5 percent), followed by China (14.5 percent) and Korea (9.7 percent). There are three countries from Latin America and the Caribbean in the top 20 list: Mexico, which ranks 8th, Brazil 15th, and Colombia 18th (Table 1).

According to local ministries of education, the global enrollment rate in graduate education (as a percentage of total population) is 0.64 percent in the United States, 0.11 percent in Mexico, and 0.02 percent in Colombia (Figure 6). As a consequence,

Table 1
RANKING OF INTERNATIONAL ENROLLMENT IN DOCTORAL AND RESEARCH INSTITUTIONS IN THE UNITED STATES, 2004

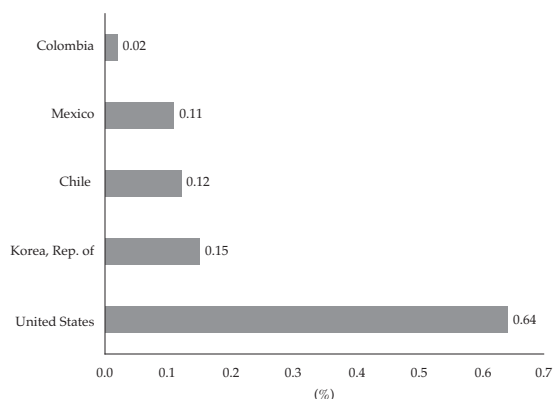
| Rank | Place of origin | Enrollment |
|------|-----------------|------------|
| 1 | India | 17.5 |
| 2 | China | 14.5 |
| 3 | Korea | 9.7 |
| 4 | Japan | 4.6 |
| 5 | Taiwan | 4.6 |
| 6 | Canada | 4.3 |
| 7 | Turkey | 2.2 |
| 8 | Mexico | 2.1 |
| 9 | Germany | 1.6 |
| 15 | Brasil | 1.2 |
| 18 | Colombia | 1.1 |
| 20 | Singapore | 0.9 |

Note: Percentages are of total international students.

Source: IIE (2004).

the percentage of professors with PhD degrees teaching in undergraduate programs in Latin America and the Caribbean is very low relative to those with PhDs teaching in the United States: 3 percent in Colombia and 5 percent in Mexico (Chile, with a figure similar to that of the United States, is an interesting exception) (Figure 7). In many cases in the region, university professors do not even have a masters' degree.

Figure 6
GLOBAL RATE OF STUDENTS ENROLLED IN GRADUATE PROGRAMS, 2001

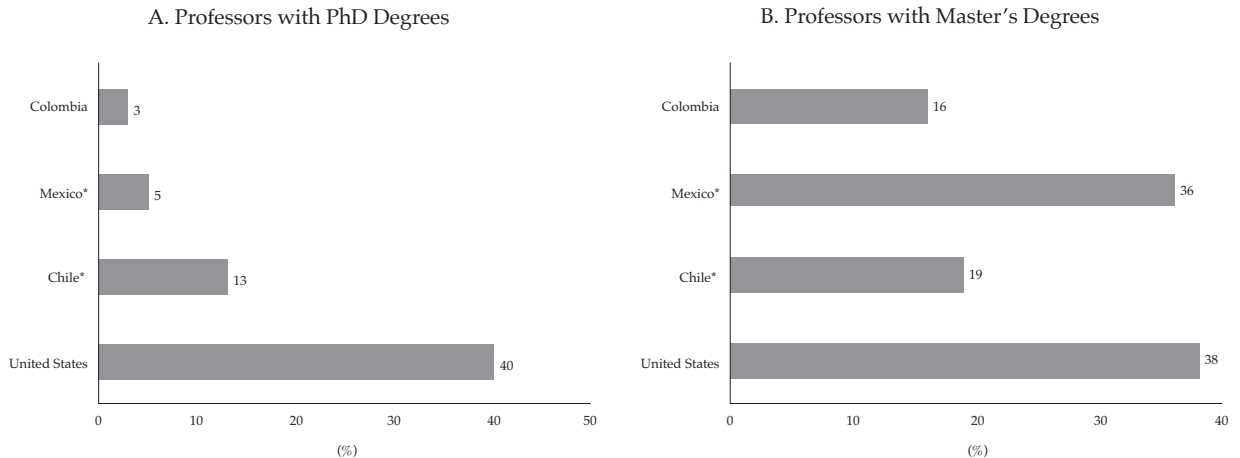


Source: Ministries of Education.

According to Convenio Andrés Bello (CAB), which is an organization that gathers information on cultural and educational programs in some Latin American countries, there is a total of 1,871 doctorate programs in different areas in its member countries plus Brazil and Mexico.⁹ PhD programs

⁹ Chile, Cuba, Peru, Colombia, Venezuela, Ecuador, Bolivia, Paraguay, and Panama are members of CAB.

Figure 7
PROFESSORS WITH ADVANCED DEGREES IN UNDERGRADUATE PROGRAMS, 2001



* Data are for 1995.

Source: Ministries of Education and World Bank (World Development Indicators 2005).

in business and economics represent only 2 percent of this total. Table 2 shows the number of business and economics PhDs offered by universities that belong to this association.

Given the few number of local doctorate programs in economics, PhD-level training –to a large extent– depends on travel to developed countries. This implies that there are issues related to financing that restrict the access of many Latin Americans to this type of education (see box 2 for a description of a model for financing graduate education abroad). In addition, few PhD programs can offer specialized training in the areas of most relevance for the key economic and social challenges in Latin America.

As a response to this situation, in 2000 a group of world-class universities in the region launched the Latin American Doctorate in Economics (LADE)

Table 2
PHD PROGRAMS IN BUSINESS AND ECONOMICS (2003)

| Country | Number of PhD programs |
|--------------------|------------------------|
| Bolivia | 1 |
| Chile | 1 |
| Colombia | 1 |
| Cuba | 4 |
| Ecuador | 1 |
| Panama | 0 |
| Paraguay | 2 |
| Peru | 13 |
| Venezuela, R.B. de | 1 |

Source: CAB.

program. This program gathers the Instituto Tecnológico Autónomo de México, Universidad de Chile, and Universidad Torcuato Di Tella (Argentina). The goal of the program is to train research economists who will carry out original research and contribute to the field of economics in Latin America. These institutions (as well as others in the region) currently offer MA programs that are very competitive (students are regularly admitted to the top PhD programs in the United States and Europe after they finish their local MA programs). However, not all students have the financial capabilities and personal readiness to travel abroad.

The association of three universities will help to attain a critical mass of faculty and students that will make the program feasible. Combined, these three institutions combined have more than 50 academics with PhDs from the best U.S. and European universities. These professors are responsible for a significant portion of the research published in the region, which covers a wide spectrum of theoretical and applied fields of economics.

The primary objectives of LADE are to enlarge the student population and to expand the teaching and research capabilities in the region. A particular emphasis will be placed in attracting candidates from universities that want to increase the number of PhDs on their faculties. Currently only a handful of universities in Latin America have a large share of PhDs their faculties. A similar effort will be made to attract candidates from

Latin American government bodies that need to increase the technical qualifications of their staff, such as central banks, offices in charge of social and health policies at the national and provincial levels, budget offices, antitrust offices, and so on. To date, the three institutions have financed all current costs, including tuition waivers and stipends for all students accepted into the program. To sustain this initial effort in the future, additional resources will be vital.

The program has been enrolling, on average, five students per year. Many students come from smaller countries, such as Bolivia and Ecuador. The goal of the program is to admit 10 students per institution each year. In Europe, the current enrollment rates is between 12 and 15 students per institution for a doctoral program.

C. Funding Research in Latin America and the Caribbean

During the import-substitution era, direct and indirect public support for the development of technological capabilities was the norm. Key players were the national science and technological councils, which were in charge of formulating science and technology policies and promoting scientific research and technological development. As argued by Melo and Rodríguez-Clare (2005), research and development involved an array of public research institutes and laboratories, located both outside and within public universities (see ECLAC 2002).

Box 2. Initiative for Financing Graduate Education Abroad: The Case of COLFUTURO in Colombia

Latin American students have depended on government agencies and some international organizations to fund their graduate education abroad. However, the size of the scholarship programs has been relatively small relative to programs in other regions of the world. In response to the need for high-level graduate education, several nonprofit institutions have been created in by solving the market failure associated with limited access to financial resources.* COLFUTURO, a privately run nonprofit organization, supports Colombian professionals with high academic performance to continue their studies at the master's or doctorate level. Through a loan-based system, incentives are geared toward the return of graduates to Colombia. Since its creation in 1991, COLFUTURO has helped a total of 1,319 students from several disciplines and regions of Colombia. Figure 8 shows that applicants grew from 193 in 2001 to 445 in 2004.

COLFUTURO initial endowment was US\$12.6 million (56 percent of this came from the local private companies and 44 percent from the Colombian government). Its net worth in 2006 is close to US\$26 million, reflecting the effective repayment of the loans given to students and the profitable investment of its portfolio. The total support given to students has been US\$36.6 million, of which US\$12.6 million are grants. The total number of supported students is 1,318 (360 of whom have received PhD degrees). Top destination schools have been the London School of Economics, Columbia, Harvard, Georgetown, MIT, and McGill.

COLFUTURO provides its beneficiaries with a maximum of US\$25,000 per year for up to two years. After returning, students must remain in Colombia for twice the time they spent overseas with financial support from COLFUTURO, plus one year. Beneficiaries have five years to pay the complete debt, which remains in US dollars. Fifty percent of the loan is written off, provided that the student returns to the country. For those who join the public sector or undertake teaching or research activities, an additional 10 percent is forgiven.

COLFUTURO supports professionals in disciplines such as management, engineering, sciences, and the arts. Selection is carried out on an independent and anonymous basis, and is made on academic merit, the quality of the study program chosen, and the student's second-language proficiency. Sixty-six percent of total students have returned to Colombia (64 percent in the case of PhD training and 96 percent in the case of other graduate studies and diplomas). The organization has created a program to facilitate the placement of its beneficiaries in the job market.

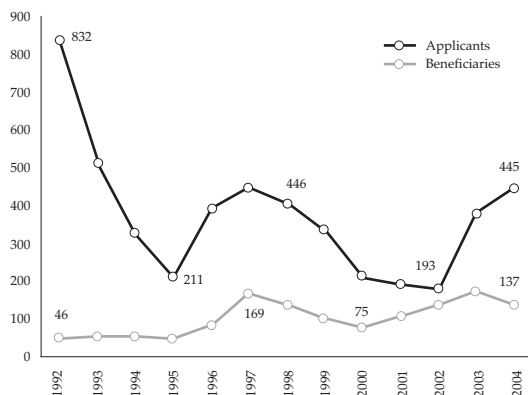
Finally, COLFUTURO plans to increase the number of beneficiaries from an average of 126 per year to 500 per year in the near future; it also plans to increase the return rate to 88 percent by 2013.

* For example, INCE in Argentina, CORFO in Chile, FUNDAYACUCHO in Venezuela, INABEC in Peru and IECE in Ecuador.

Source: COLFUTURO (2004).

In the case of the economics profession, with few exceptions –such as the Brazilian (Conselho Nacional de Desenvolvimento Científico e Tecnológico) (CNPq)– these public entities played a minor role in funding training and research. The basic model was supply driven and worked under the premise that it was sufficient for the state to organize and subsidize the supply of scientific knowledge and technological know-how as public goods.

Figure 8
COLFUTURO'S BENEFICIARIES AND APPLICANTS



Source: COLFUTURO (2005).

The crisis of the supply-based approach to research in the 1990s resulted in the adoption of a new model emphasizing demand-side incentives (ECLAC 2004).¹⁰ The basic idea is to promote the demand for technological innovation and technological transfer at the firm level. Demand

subsidies are ideally allocated in a horizontal and neutral way, resulting in a clearer separation between funding for technological modernization and funding for scientific research. This divide has increased the availability of funds for research, in part because the private sector has been more involved than previously in providing financial support for technology funds, often as a counterpart to public funds.

IV. Conclusions

Economics education has advanced significantly in Latin America during the past few decades. The region has a group of world-class universities that train students at the undergraduate and master's levels. Above-average students are able to pursue PhD degrees in the best universities of the industrial countries, particularly in the United States. Most of these students obtain some type of financial support, often from government sources such as central banks. Some of them return to their countries of origin to work in academia, the public sector, or –increasingly– in the private sector. Those who stay abroad are recruited by economics departments (the number of Latin Americans in academic tenure-track positions has increased significantly in recent years) as well as multilateral organizations. Many of these individuals position themselves at the forefront of the profession,

¹⁰ For a description of the process that led to this outcome, see Melo and Rodríguez-Clare (2005).

actively publishing in academic journals and participating in international conferences.

It is important to mention that the number of academics from the region who are actively engaged in the international academic scene has increased in recent years. Think tanks have been a favorite workplace for professional economists, although universities are becoming more independent and competitive, thus offering researchers attractive working conditions. These trends are very strong in the larger countries, such as Argentina, Brazil, Chile, Colombia, and Mexico, where affiliation with local universities and think tanks is now compatible with high academic standards and international exposure.

The smaller countries, however, have greater limitations in terms of economics education. Although some of them have very good universities, there are still severe restrictions for students who want to pursue high-level doctorate programs. These restrictions are related to the financial cost of these programs as well as to the opportunities for obtaining admission into U.S. universities. Countries in the region characterized by highly variable quality in their educational systems are at a disadvantage. To overcome this restriction, some Latin American countries have strengthened and, in some cases, introduced PhD programs in economics. This has been possible in universities where already there is a critical mass of 15 or

more full-time professors with PhD degrees from recognized institutions. The alliance between three universities in Argentina, Chile, and Mexico is a step in that direction. Unsurprisingly, many of its students have come from smaller countries such as Bolivia and Ecuador.

A two-tier approach where two systems coexist seems appropriate. On the one hand, the region should continue providing financial support (increasingly in the form of loans or scholarships from multilaterals and nonprofit organizations) to students who are able to pursue PhD programs in top schools in the United States and Europe. On the other hand, the region should strengthen its universities, especially those that offer high-level and master's-level specializations in areas such as finance, industrial organization, and regulation where there is great demand. In turn, these institutions can offer graduate training to students who do not want or are not able to pursue doctoral programs abroad.

Apart from some exceptional cases, the academic and research community still has difficulty in obtaining adequate funding mainly because fiscal adjustment has meant large reductions in government budgets allocated to science and technology. The system will continue to rely on universities that can charge competitive tuition fees and think tanks that have some form of external support. Multilateral organizations and donor countries have an important role to play.

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