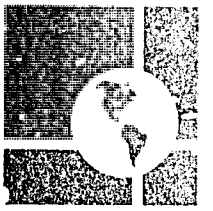

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5

Creating a High-Quality Work Force

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Creating a High-Quality Work Force

Creating a High-Quality Work Force for Sustainable Economic Development in Latin America and the Caribbean

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1993

Foreword

The Education and Human Resources Division of USAID's Bureau for Latin America and the Caribbean (LAC/EHR) has prepared this strategy paper to offer suggestions for improving the capacity of local vocational-technical education and training (VTET) systems to meet the demands of the private sector for technical skills. Whereas the former LAC/EHR publication, *Vocational Education and Training: Review of Experience*, pulled together the lessons learned from past USAID project experience in VTET, this document assesses the common problems facing vocational-technical education and training institutions throughout the LAC region today and offers a series of practical responses for USAID missions, many of which involve reforming long-standing government policies in education, training, and employment.

Because issues of human resources development are concerns for all sectors, vocational-technical education and training is likely to be an important component of all mission programs. Skilled workers are needed in the broad sectors of manufacturing, agriculture, and services, as well as in the narrower fields of tourism, banking services, data entry, and construction. Unless local institutions exist to properly equip individuals with the requisite technical skills, a labor shortage and all its attendant inefficiencies—high wages, low productivity, low output—could surface in key sectors of the economy.

Competition among the LAC countries for acquiring investment capital and capturing new export markets is becoming increasingly intense. Countries possessing a local education and training system that can produce highly skilled, highly trainable, and highly flexible workers able to adapt quickly to new technologies will be better positioned to exploit new market opportunities. Yet few, if any, education and training systems in Latin America and the Caribbean are able to produce workers of such a caliber.

The weaknesses of the LAC institutions are widespread and begin at the primary level where many students leave school barely literate and numerate. Secondary schools fare no better as their graduates often lack basic competencies in language, mathematics, and the sciences. Vocational-technical skills training, intended to build on the foundation of the general education system, is itself ineffective and unable to function as it should. While the general education system is hampered largely by insufficient resources and an inefficient and politicized central bureaucracy, the technical training system suffers from excessive government regulation, high costs, and isolation from the business community, its principal client.

Unless sound education and training systems exist to produce high-quality workers, no country in the LAC region, not even the most market oriented and democratic, will be able to achieve sustainable economic growth.

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Executive Summary

This paper examines the problems of vocational-technical training systems of Latin America and Caribbean (LAC) countries and provides USAID missions, other donors, and host country governments with a set of recommendations for improving and expanding technical skills development in the region in support of increased labor productivity and economic growth.

Investing in developing technical skills is seen as an important part of a society's efforts to build—through the education and training system—a competent, industrious, and flexible work force, a prerequisite for achieving broad-based, sustainable economic development in today's rapidly evolving global economy. While the characteristics of each country's vocational-technical education and training (VTET) system are different, the problems of these systems are similar enough to discuss in a general fashion. This paper is part of a broader effort of the Education and Human Resources Division of the Bureau for Latin America and the Caribbean to help USAID missions meet the strategic objectives of their country's programs by providing them with practical tools to use in human resources development (HRD). In this regard, HRD is viewed, not as an end in itself, but more broadly, as a means to achieve development objectives in all USAID program areas.

Why Should Governments, Employers, and Individuals Invest in VTET?

The literature on education is conclusive in demonstrating the strong linkage between investments in human skills development and positive economic outcomes. Past investments in vocational-technical education and training in developing countries have yielded returns high enough to justify expanding training activity (Metcalf 1985). Still, to experience such success, other supportive factors, such as a strong general education system, market-oriented economic policies, an adequate physical infrastructure, availability of credit, and an open investment and trade regime, must be in place. In this sense, a strong VTET system is seen as a necessary, but insufficient, requirement for promoting economic development.

Those developing countries with a highly skilled human resource base, such as a number in the Pacific Rim, are likely to enjoy increased economic prosperity in the future. As technology and capital become ever more mobile in the increasingly interdependent global economy, all that will remain rooted within national borders are the people who comprise a nation. Thus, each nation's primary assets will be its citizens' skills and insights. Those citizens best positioned to exploit the opportunities presented by a dynamic, open global economy will see their incomes rise while the less skilled will be consigned to a declining standard of living (Reich 1991).

Vocational-technical education and training also provides important equity benefits to society. With labor the principal asset of poor people, any intervention to improve their productivity and earnings facilitates their escape from poverty.

What Are the Critical Problems of Today's VTET Systems?

The current system of technical skills development in the LAC region suffers from a number of long-standing problems: public VTET institutions, including secondary schools, are often isolated from the employer community; instruction is expensive; training objectives are inappropriate; the quality of training is often poor; and trainees are often unprepared academically to grasp the complex aspects of technical trades.

In the private sector, firms are discouraged from investing in VTET because of an absence of in-house capacity to design and implement a training program and because of restrictive government laws and regulations. Legislated minimum wages above the market training wage, excessive social security charges, and government-set wage rates for various occupations are examples of how government intervention in labor markets reduces the incentives for firms to invest in training their work force.

Government also limits the supply of training provided by private institutions through excessive regulations that protect the right of public institutions to compete in the training market. Ceilings on tuition, for example, prevent many training centers from offering training in occupational fields with high equipment and instructor costs. Some governments also require private vocational schools to follow public curricula; this requirement reduces the creativity and flexibility of private institutions (Middleton and Demsky 1988).

Inadequate and, in some extreme cases, nonexistent labor market information systems prevent training systems from responding effectively to the changing skill demands of the economy. Public training institutions have miscalculated employers' projected demand for technically skilled workers. Consequently, many graduates are trained for jobs which do not exist, while too few are trained in areas of high demand.

How Can VTET Systems Be Made More Effective?

Any attempt to improve a VTET system will require a comprehensive approach. Such an approach should address three basic objectives:

- Strengthening the basic competencies of individuals in language, math, and science
- Encouraging private sector training by employers and private institutions
- Enhancing the performance of public training

These objectives respond directly to the deficiencies of VTET in the LAC region—poorly educated trainees, the private sector's underuse of training, and public training institutions' inefficiency to deliver training.

It is critical that young adults develop strong literacy, numeracy, and problem-solving skills so they can become productive workers. In addition to generating broad benefits to society, general education directly increases the access of the poor and socially disadvantaged groups to training and wage employment. Secondary vocational schools must concentrate on teaching the fundamentals of an academic education before introducing vocational-technical education. Applied learning methods that integrate elements of vocational education into the general curriculum to enhance student learning of academic subjects is an excellent way of stimulating student interest.

The private sector should be encouraged to expand its training. To achieve this, governments must create a favorable policy environment. Distortive public policies that discourage employers from investing in training must be removed, and excessive regulations of private training institutions must be relaxed.

Finally, publicly financed and/or provided vocational training must be made more efficient to conserve scarce public resources and to make it more responsive to the training needs of the productive sector. While the long-term goal of governments should be to attain a more rational level of involvement in vocational-technical education and training—a level that is limited to serving the training needs of the indigent or to building the capacity of employers to develop and manage their own training programs—for the foreseeable future government will continue to be a major provider of VTET. To improve public training, governments will need to focus on four areas:

- Identifying more accurately employers' skill needs
- Exacting greater efficiencies through improvements in the instruction, management, and accountability of public training institutions
- Strengthening the capacity of public training institutions to develop and implement training policy
- Shifting the funding of public training institutions from government sources to private sources

How Can USAID Improve VTET Systems?

Because of the broad scope and complexity of national VTET systems, no USAID mission has the resources to address every problem in the system. Thus, missions will have to adopt a targeted approach, one aimed at generating the highest return on the USAID investment. Improving the policy environment for VTET is, perhaps, the most expeditious and effective way of obtaining sustainable gains in the quality and efficiency of technical skills development.

Interventions aimed at increasing the investment of firms in VTET by encouraging governments to remove restrictive policies should be a priority of missions as employer training is by far the most cost-effective. Because most technological innovation enters developing countries through enterprises, the equipment and technical information needed to develop new skills is often found in firms. This accounts for the cost-effectiveness of employer training as the match between skills demand and training supply is ready-made.

Since private institutions, by nature, tend to be far more responsive to the demands of the labor market, an additional priority of USAID missions should be to further stimulate the these institutions to provide training. USAID missions should encourage governments to lift restrictive price controls and curriculum requirements on private training institutions. The role of government in this area should move from protecting competing public institutions to ensuring a minimum standard of training quality in all institutions by creating an accreditation program.

Finally, since public institutions do have a legitimate role in the provision and finance of VTET, although a narrowly defined one, it is important that they operate efficiently to conserve scarce public resources. Improving these organizations will require more conventional USAID project interventions involving long-term technical assistance to help build institutional capacity. Project assistance for these institutions should be targeted at improving their abilities to carry out the following:

- Identifying the skill demands of the labor market
- Instructing trainees
- Managing and evaluating programs
- Developing and implementing training policies
- Diversifying funding sources

Introduction

Building on the foundation provided through general education, VTET provides workers with the technical skills necessary for raising productivity. Investing in developing technical skills is an important part of a society's efforts to build, through the educational and training system, a competent, industrious, and flexible work force; this type of work force is a prerequisite for achieving economic and social development in today's rapidly evolving global environment.

While many agree on the virtues of having a skilled work force, views tend to diverge about the efficacy of VTET systems in developing countries. Numerous criticisms of these systems have emerged: training is costly, of poor quality, and frequently irrelevant; linkages between training providers and users are weak; incentives for businesses to invest in training are lacking; and secondary level VTET schools do not adequately prepare students for employment. These deficiencies can be attributed to inappropriate training objectives, poor labor market information systems with inadequate feedback, a constraining legal and regulatory environment, underfunded schools, inefficient public training institutions, and political inertia.

Without an effective VTET structure in place to develop a cadre of skilled workers who can learn and apply new technologies, adapt quickly to new opportunities, and enhance the efficiency and quality of production and maintenance, no country in the LAC region—not even the most market oriented—will experience sustained economic development.

Building on earlier research conducted in vocational-technical education and training by USAID, the World Bank, the International Labor Organization, the U.S. Departments of Education and Labor, and U.S.-based educational institutions, this paper examines the state of technical training in Latin America and the Caribbean, especially the role of publicly supported programs. In addition, this paper offers USAID missions, other donors, and relevant LAC country government agencies proposals for strengthening the provision of such training to ensure that the skills needed by the economies of the region are developed and that equity objectives for the poor and socially disadvantaged are effectively addressed.

Rationale for Investing in VTET

Promotes Economic Development

Historically, investments in VTET have generated rates of return sufficiently high to justify expanding the training activity (Metcalf 1985). The more efficient training systems enjoy greater success. The literature on education indicates a strong linkage between investments in human skills development and positive economic and social outcomes. Early research showed that education contributes directly to the growth of national income by improving the skills and productive capacities of the labor force (Schultz 1963). More recent research, however, demonstrates that the contribution of education to economic growth is even stronger if the complementarities between education and other forms of investment, such as physical capital, are taken into account (Psacharopoulos 1973).

While the correlation between education and economic growth is strong, other supportive factors also must be present: a strong general education system, a stable political system, market-oriented macroeconomic policies, an adequate physical infrastructure, the availability of credit and capital, a stable currency, and an open investment and trade regime. In this sense, investing in human resources development is seen as a necessary, but not sufficient, requirement for achieving economic development.

Increases Productivity

The recognition of the economic importance of having a skilled work force is longstanding. In his *An Inquiry into the Nature and Causes of the Wealth of Nations*, Adam Smith identified the skill, dexterity, and judgment of labor as one of the principal determinants of a nation's output. As other factors of production, such as technology and physical capital, become increasingly more mobile in the global economy, all that will remain rooted within national borders are the people who comprise a nation. Robert Reich, the U.S. Secretary of Labor, understands well the importance of people to a country's economic performance. In his *Work of Nations*, Reich asserts that each nation's primary assets will be its citizens' skills and insights and that those citizens who are best positioned to exploit the opportunities presented by a dynamic, open global economy will see their incomes rise, while the less skilled will be consigned to a declining standard of living.

Developing countries as well as developed countries need to improve productivity throughout the economy if they are to compete successfully in this era of rapid economic change. This requires not only capital investments and appropriate economic reforms, but also a work force who has the flexibility to acquire new skills for new jobs as the structures of economies and occupations change. The degree of change in Latin America is especially profound as the economic restructuring programs being instituted by many governments of the region are creating significant dislocations in the labor market. A responsive, flexible training system is

required to minimize the degree of labor force disruption and maximize the employment opportunities created in the expanding sectors of the economy.

Benefits the Poor

Vocational-technical education and training can provide equity benefits by raising the incomes of the poorest members of society. Most of the poor in Latin America are found in rural areas and in the urban informal sector. The principal asset of poor people is their labor, and improving their productivity and earnings is their main road out of poverty. Training in the rural and urban informal sectors can improve the productivity of the poor if the training is used to complement broader strategies, such as improving the general education system, to generate income.

Current Training Environment in the LAC Region

Structure of Training System

VTET is conducted in the LAC region by a number of public and private institutions and organizations that conduct both formal and nonformal training. Most of the formal vocational-technical education in the region is public, financed, and administered through ministries of education. These are mainly secondary and postsecondary vocational schools offering preemployment training to students. Diplomas are granted to graduates who can often matriculate to higher levels of education.

Nonformal training in the region is conducted by public and private institutions outside the established formal system. Employers and their employees, independent workers, the unemployed, and the underemployed often take advantage of this nonformal system. National training institutes are primary institutional forms, often as part of national training systems, such as those found in many Latin American countries. Most of these systems are financed by a national payroll tax, although efforts are being made to gradually replace the tax with user fees. A growing amount of training in the region is being provided by private, profit-oriented training centers. Both public and private centers offer in-plant training workshops, short-term programs, and apprenticeships. Independent voluntary agencies also provide nonformal training, primarily to the nonworking, less advantaged members of society.

Factors Affecting Skill Requirements

The success of VTET rests largely on the ability of private and public providers of training to respond quickly and effectively to changing economic conditions. In an era of rapid economic adjustment, the pressures are great for VTET institutions and employers to provide flexible training programs.

Three macroeconomic factors are increasing the uncertainty among employers and training planners about patterns of employment and the skills needed in society (World Bank 1991):

- Demographic trends
- Policy changes that open economies to international trade and competition
- Technological change

In many countries in Latin America and the Caribbean, population growth is outpacing economic growth, leading to high levels of unemployment and underemployment that pose significant social and economic problems. In areas where opportunities for wage jobs are scarce, self-employment in the rural and urban informal sectors is often the only option available to earn a living. In Latin America, a quarter of all workers are found in nonagricultural self-employment (Mazumdar 1987).

The liberalization of trade and investment policies sweeping the LAC region has created rapid decline in some industries and at the same time growth in other industries. These reforms often have been accompanied by government efforts to privatize parastatals and downsize the bureaucracy to reduce public inefficiencies. Collectively, these adjustments have produced considerable dislocation of workers across industries and sectors of the economy and significant changes in the types of skills that are required.

The introduction of new production technologies has mixed effects on employment and skill needs. When economies are growing, the jobs lost can be balanced by opportunities created in other sectors and industries. But, often workers are dislocated by jobs that require a higher level of cognitive and theoretical knowledge, and retraining can be difficult if workers lack the educational foundation needed for training to be effective.

Obstacles to Efficient Response

Vocational-technical education and training in the LAC region is constrained by a number of factors affecting employers, private centers, and public institutions. These factors include distorted incentives for investment in training by individuals and firms, weak training capacity in the private sector, and the presence of external social benefits from training not captured by workers or employers. Removing many of these factors is a legitimate role for the public sector as is the need to provide subsidized training to the disadvantaged for reasons of equity. The constraints affecting VTET differ, however, for each major provider. Because public training institutions are by nature less sensitive to the market for skills development than other training providers, their weaknesses are far more numerous. For this reason, and because they are a major player in the provision of technical training in the LAC region, public training receives more attention throughout this paper than does training provided by employers or private institutions.

Public Training

Government has become involved in the provision and financing of VTET in Latin America and the Caribbean principally to overcome, or to compensate for, factors that constrain training in the private sector. Not surprisingly, many of these public training programs have been plagued by inefficiencies. Public training, especially preemployment training, has not responded well to the signals of the local labor market. Consequently, too many participants of these programs have received training in skills that are not required by local employers. Such outcomes represent training wastage, a cost that resource-scarce developing countries can ill afford. This lack of responsiveness is attributed to four factors: weak linkages with employers, inappropriate training objectives, rigid management, and a reliance on inaccurate work force requirement forecasts.

Weak Linkages With Employers. In several countries of the LAC region, the public training institutions have not worked to cultivate a close working relationship with employers. At the same time, employers have been reluctant to provide much support to an institution that provides low-quality training services. Without the benefit of an established cooperative relationship with the local business community, managers and instructors of these public institutions are hindered from accessing the type of information required to link training to the realities of employment.

Inappropriate Training Objectives. Three misguided training objectives have served to distract public institutions from responding effectively to local training needs.

- Training targeted at helping to elevate the incomes of the poor has had a low success rate largely because of major imbalances in the labor market. When conditions of excess labor supply exist, vocational skills offer little advantage to new entrants to the labor market. Most entry-level jobs require few specific skills, and, when they do, employers usually prefer to hire and train educated workers with a general education because they often have lower wage expectations.

- Investing in training skills to create a reserve of skilled workers to attract new investment has been unsuccessful. Most of the vocational skills needed to operate a new enterprise can be developed quickly and more efficiently after the investment plans are complete and the required skills are identified. The exceptions are higher technical skills because of the longer training period required.

- Expanding vocational schooling to change the aspirations of youth for higher education has not been successful. Programs established to channel more youth into vocational schools have not succeeded as most graduates have not been able to find jobs that use their skills. Agricultural secondary schools intended to keep youth in rural areas also have been unsuccessful because of limited possibilities to enter into profitable farming and the pull of higher wage prospects in the modern and urban informal sectors.

Rigid Management. Because public institutions are shielded from private competition, accountability for employment outcomes is weak. Moreover, when public institutions attempt to enter training markets, they are often discouraged by regulations that restrict their ability to retain earned income, which reduces incentives for them to behave as true entrepreneurs. Training curricula are often determined by the government and rigidly administered preventing public institutions from responding effectively to locally identified training needs and from reducing the length of training to lower costs.

Reliance on Inaccurate Work Force Requirement Forecasts. In planning their programs, public training institutions tend to rely on work force requirement forecasts that do not reflect the realities of the labor market and thus yield inaccurate predictions of skill needs (Psacharopoulos 1984). Despite the wide and continued use of these forecasts, the dependence on this information for resource allocation has been the subject of much criticism. These forecasts are inappropriate for four reasons:

- They ignore substitution possibilities between different types of labor, between labor as a whole and other inputs in production, and between different mixes of final products demanded.
- They ignore the cost of training one type of labor relative to another.
- They have a very limited time horizon as individuals trained today are not likely to be in the same occupation at the end of their working life.
- They ignore the large informal sector.

Private Training

Training by profit-oriented, private centers and independent, voluntary agencies can meet an important share of skills needs without public financing. Most of this training is considered to be of superior quality to publicly provided training because of its market-oriented nature. However, these private organizations are frequently encumbered by excessive government regulations. Ceilings on tuition, for example, prevent many centers from offering training in occupational areas with high equipment and instructor costs. Some governments also require private vocational schools to follow public curriculum, thus reducing the flexibility of the program of the private institution (World Bank 1991).

Since most countries of the region do not offer student loan programs for vocational-technical education, the profit-oriented centers can train only those who can afford to pay, thus denying training opportunities to the many talented, but resource-poor, individuals of the region. This further limits the revenue base of the centers and, hence, their ability to expand into the more expensive occupational areas. Together, these regulations on private training and the lack of

capital available for students to finance their training reduces the overall amount of private training.

Employer Training

Most middle-level skills are developed through work experience and training during employment. Employer training can be highly efficient. Training costs are typically lower than those of preemployment training in vocational schools and training centers, and the economic impact of employer training can be high. But the amount of training conducted by employers is limited by a number of factors. Removing these constraints would greatly expand the level of skill development, generating significant productivity gains for the economy (Dougherty and Tan 1991).

Four factors cause employers to underinvest in training:

- Government intervention in labor markets reduces the incentives to workers and employers to invest in skills development: for example, a legislated minimum wage that is higher than the training wage, excessive social security charges, and government-set wage rates for various occupations.

- Small firms lack the management capacity to train their work force. Where management capacity is weak, training capacity is usually even weaker. In the LAC region, these firms represent the vast majority.

- Employers are often reluctant to invest in training for fear of losing the trained employee to another firm.

- Employers tend to exclude the disadvantaged from training programs. Employers prefer to invest in training for the best educated workers, reducing opportunities for the less-educated workers to upgrade their skills and earn more income.

Proposals to Improve Skills Development in the LAC Region

Interventions to improve the level of vocational-technical education and training in the LAC region should be aimed at achieving three basic objectives:

- Strengthening the basic competencies of individuals in language, math, and science
- Encouraging private sector training
- Enhancing the performance of public training

These objectives respond directly to the deficiencies of VTET in the LAC region—poorly educated trainees, underuse of training by the private sector, and gross inefficiencies in the delivery of training by public training institutions. Ideally, all three objectives should be pursued as all countries of the LAC region suffer to varying degrees from inefficiencies in their general and technical training systems.

Interventions aimed at strengthening training institutions through the development of new curricula and the training of instructors may require considerable funding to be implemented successfully; therefore, it may not be feasible for USAID to fund such activities because of constraints on the availability of new project money. However, prospects for pursuing objectives of a policy nature (such as removing some of the training constraints facing the private sector and opening communication between the private sector and training institutions) may improve because these objectives involve policy changes, activities for USAID that are going to be less costly.

Strengthen Primary and Secondary Education and Vocational-Technical Education

A strong primary and secondary education system, consisting of both academically and vocationally oriented secondary schools, is a prerequisite for achieving a highly productive economy. Thus, interventions aimed at improving the quality of the general education system should be a priority.

Academic Education

The development of strong literacy, numeracy, and problem-solving skills among young people is critical to their becoming productive workers later on as adults. In addition to generating broad benefits to society, general education directly increases the access of the poor and socially disadvantaged groups to training and wage employment. A strong primary education, in particular, is seen as the foundation upon which further education and training can build (Herschbach, Hays, and Evans 1992). Primary education also helps improve the productivity and incomes of the rural poor (Psacharopoulos and Woodhall 1985).

The growing use of modern technologies and sophisticated work applications and processes in the modern wage sector require job skills gained through good quality academic secondary education. To function effectively, workers need to be competent in the fundamental areas of language, math, and science. These skills are important, not only to immediate productivity, but also to the ability to learn new skills throughout a career. Secondary education also improves the productivity of the self-employed.

International competition may force those countries of the LAC region with significant modern wage sectors (such as Argentina, Brazil, Chile, Colombia, Costa Rica, Jamaica, Mexico, Panama, and Uruguay) to dramatically alter the way in which secondary level education is taught. Changes in the workplace are gradually rendering education as traditionally delivered less relevant to what its graduates need to know and how they need to perform at work. A movement is underway in the United States to reform secondary education to prepare students for the new, transformed workplace, which demands of its labor higher level skills and a capacity to learn new skills on a continuous basis (*America 2000* 1991). This demand is forcing U.S. secondary schools to create a more active learning environment that encourages its students to solve problems, think and function independently, and achieve competence in the knowledge and skill requirements of the workplace. Secondary schools of Latin America and the Caribbean may be pressured to adopt similar reforms as the effects of a more integrated hemispheric economy alter the workplace requirements of every country in the region.

Vocational Education

Following many years of donor support to traditional secondary vocational education, a consensus has emerged for a different approach. There is agreement that vocational education should not be provided at the expense of general education. It is critical that vocational secondary schools concentrate on teaching the fundamentals of an academic education before introducing technical education. Integrating elements of vocational education into the general curriculum is an excellent way of stimulating student interest. Further, unless there is a strong commitment to provide the funding necessary to create a high quality program, there is no reason to invest at all in vocational-technical education. Finally, to elicit more interest in technical careers from parents and youth, vocational education schools should prepare students for higher education in a related area as well as for immediate employment (Hull and Parnell 1991).

Most secondary vocational schools in the LAC region introduce vocational courses during years two or three and continue offering the courses through the final, sixth year of school. The rationale for introducing students to technical areas so early in the educational cycle is to facilitate the transition to employment for those students who do not complete secondary school by equipping them with a technical skill. Experience shows, however, that these students are less marketable to the wage sector than their academic counterparts who are educated less expensively. Students educated in the academic schools are considered more

attractive to employers because of the comparatively stronger core skills they possess, which facilitates the learning of new skills throughout their career. Moreover, the dominance of vocational education in these secondary schools forces most graduates to forego further training at the university level as they lack the academic prerequisites for entry. With opportunities for university admission limited, secondary vocational schools tend to attract less gifted students (Middleton and Demsky 1988).

Linkages between the vocational secondary schools and the business community are weak. Consequently, much of the technical training provided is unrelated to the skill requirements of the local economy. Programs to facilitate entry into self-employment or the formal wage sector are also lacking. The result is that a large percentage of vocational school graduates are unable to obtain employment and, if they do, it is often outside their area of training. Such external inefficiencies should not be tolerated in the LAC region where so many public education systems are severely underfunded.

Addressing these deficiencies will require a restructuring of the typical LAC vocational school curricula. The public educational systems should consider the following suggestions:

- Delay introducing vocational courses until year 5. The proportion of academic training must be expanded to ensure that students leave secondary school with a solid foundation of core skills and to open opportunities for students to continue their technical or academic education after graduation.

- Establish private sector advisory boards to strengthen links with the business community. Establishing a formal mechanism to receive continuous input from the private sector about skill demands and opportunities for employment is key to ensuring that students will receive training for the type of employment that is available.

- Establish cooperative education program with employers. Providing students with relevant work experience during school will enhance their skill development, assist in their selection of a career, and, ultimately, facilitate their transition to employment. To prepare students for entrance into the growing informal sector, programs in entrepreneurial development should also be offered.

- Provide adequate resources to ensure vocational training is of high quality. Savings that may be generated by scaling back the vocational curricula should be reinvested in upgrading the quality of vocational education. Additional funds are needed for teacher training, equipment and supplies, and instructional materials.

- Provide employment counseling service. Job placement rates are relatively higher in those schools offering employment guidance to students. To succeed, the school must have a strong network of contacts with the local firms. The school's private sector advisory board is an obvious entrée into the broader business community.

- Strengthen usage of signals from the labor market to determine training programs. Secondary schools need to develop their training program based on a mix of input from members of private sector advisory boards as well as from available statistical data and proxy indicators of labor-market demand and supply.

Encourage Private Sector Training

Training conducted by the private sector should be encouraged to expand. To achieve this, governments must create a favorable policy environment. Distortive public policies that discourage employers from investing in training must be removed and excessive regulations of private training institutions must be relaxed.

Employer Training

Because most technological innovation enters developing countries through enterprises, the equipment and technical information needed to develop new skills is often found in firms. This accounts for the cost-effectiveness of employer training as the match between skills demand and training supply is readily made (Dougherty and Tan 1991). Firms supplement informal learning by workers with on-the-job training, organized instructional programs provided by the firm or purchased from external training providers, and regulated apprenticeship.

LAC country governments can institute several policy measures to stimulate employer training:

- Exempt trainee wages from the minimum wage. High minimum wages make employers less willing to offer the entry-level training that would be otherwise provided if appropriately lower training wages could be paid. Employers could shift the cost of training in transferable skills onto trainees.

- Provide information to firms about opportunities and programs for training in human resource management. Many firms do not invest in training because they lack the capacity to develop and manage a training program. Helping firms to strengthen this capacity will enable them to expand and improve the quality of their training.

- Provide technical and financial support to cooperative training arrangements among small-and medium-size firms. In some countries of Latin America and the Caribbean, enterprise associations have been successful in establishing training operations and have been especially helpful in enabling small firms to achieve scale economies through cooperative training. Government provision of technical assistance and start-up grants can help to expand these institutional arrangements throughout the region.

Private Training Institutions

Private, profit-oriented institutions provide an increasingly large share of vocational-technical education and training in the LAC region. Growth in the region's service sector has resulted in an increase in these proprietary centers that offer courses in commercial and business occupations. This trend should be encouraged as private training has distinct advantages over public training.

Freedom from civil service salary regulations and ministry of education curriculum control gives private institutions flexibility to respond to changing demands for skills. Since information about costs and training outcomes is available to consumers, private institutions are held accountable for price and quality in the market place. While some of the training is of poor quality because of problems of deceptive advertising and exploitation, the majority of proprietary schools and voluntary training organizations produce superior students who are sought by employers. Good private training programs can also stimulate better public training by introducing the public institutions to competitive forces.

However, excessive government regulation of proprietary school prices, a laissez-faire attitude toward the quality of private training, and imperfect capital markets create unnecessary training inefficiencies (World Bank 1991). These can be remedied through specific government reforms:

- Governments should lift price controls on private training fees. Ceilings on tuition restrict competition with subsidized public institutions and prevent private schools from developing the resources needed to respond to newly emerging training needs.

- Governments should support systems to accredit private training institutions. A formal and continuing process of accreditation will establish minimal standards of quality. Associations of private schools can be encouraged to develop accreditation standards and requirements for public information as conditions of membership.

- Governments should provide opportunities for individuals to obtain loans for vocational education in the same way they provide loans for university education. Individuals have difficulty borrowing in commercial financial markets to finance their training because human capital is rarely accepted as collateral (Dougherty and Tan 1991). Consequently, without a government-subsidized, student-loan program, many talented, but resource-poor, individuals are denied access to proprietary school training.

Improve Efficiency and Effectiveness of Public Training

There is no blanket rationale for public involvement in nonformal vocational training. Ideally, governments should only intervene in this area for the following three purposes:

- To address market imperfections
- To offset weak private training capacity
- To improve equity

Under an efficient public training system, governments will selectively be involved in financing and providing training. The following table illustrates an optimal level of government intervention in vocational training.

Optimal Public-Training Involvement

PROBLEM	APPROPRIATE GOVERNMENT RESPONSE
Market imperfections	Deal with imperfections
Weak private training capacity	Build private capacity
Lack of Equity	Introduce selective scholarships

Currently, governments of the LAC region both finance and provide vocational training for each of the four reasons on the table. According to the World Bank, to better rationalize the public training policy, governments should seek to attain a more rational level of involvement as illustrated in the above table. In this regard, governments should perhaps subsidize training wages in cases where removing the minimum wage is not feasible, but should not provide the training. Ideally, a training wage should be legislated to permit employers to rightfully transfer the cost of entry-level training onto the employee. It is acceptable for governments to continue to provide subsidized training in poorer rural and urban areas, but preferably, these subsidies should be based on an individual means test to ensure that only the deserving receive the benefit.

Because governments, even under the most optimal public policy, will need to continue to provide or subsidize training through at least the medium term, it is critical that it be conducted efficiently in order to conserve scarce public resources. To improve public training, four key areas will need to be addressed:

- Identification of labor market skill requirements
- Efficiency of public training institutions
- Capacity of public institutions to implement policy
- Solvency of training

Identification of Labor Market Skill Requirements

Meeting the demand for skills training efficiently requires that planning systems identify and respond quickly to changing employment opportunities and skills demand. It is essential to develop accurate sources of information on skills needs and training capacity in enterprises and private training institutions, as well as in public agencies. Historically, work force requirement forecasting has been the main planning method for skills training, but it has proven to be highly inaccurate and inflexible. Better approaches are needed to identify short- and medium-term training needs (Psacharopoulos et. al 1983).

Improved monitoring of labor markets to identify incentives for training and shorter term changes in skill demands, with evaluation of training costs and outcomes, is needed to improve management of the training to respond to short-term training needs. Data on vacancy rates, unemployment by skill level, and trends in wages and employment provide evidence of market adjustment to economic change. In the medium term, planners can identify skilled occupations in which employment opportunities are likely to expand through the use of the following information:

- Placement and unemployment rates by skill level
- Economic returns to different levels of training
- Current vacancy rates
- Employer feedback about projections of employment needs
- Studies of graduate employment and wages by skill level
- Institutional capacity utilization rates
- Ratios of applications to admissions

To meet anticipated demand, the first recourse should be to expand employer and private training. Expansion of public training may be needed, but it should generally be held well

below anticipated demand for skills in recognition of the ability of employers and private trainers to meet any excess skill needs.

The simplest and, perhaps, most effective way to learn about the labor market is to build strong linkages between training institutions and enterprises to improve the flow of information on the demand for skills and the success of training in meeting the skill standards of employers. Creating a pipeline of market information on the demand for skills and their supply is crucial to improving training quality and efficiency. Among the more effective mechanisms are advisory and curriculum development committees with members representing employers and the training institutions, vocational guidance and placement activities, surveys of local employers, and supervised placement of trainees in workplaces.

Efficiency of Public Training Institutions

For public training institutions to respond efficiently to labor market requirements, they will need to develop strong systems of instruction, management, and accountability. Specialized professional staff are needed to establish relations with employers, to develop curricula and in-service training for instructors, and to provide vocational counseling services. Accountability for results and the use of resources can be improved by monitoring inspection systems and by building incentives for job placement and other indicators of outcomes into budget allocations. Local employer councils can be an important source of feedback on institutional performance. Consistently poor performance caused by an imbalance in the supply of, and demand for, skills is a signal to review and modify curricula and enrollment patterns.

Developing vocational and technical skills costs much more than general education, and inadequate budgets lead to inadequate outcomes. Meeting the recurrent costs of paying well-qualified managers and instructors and providing up-to-date teaching materials and properly maintaining equipment are essential to achieving favorable training outcomes (Middleton and Demsky 1988).

Improving the flexibility of training in currently underfinanced public institutions will be costly, however. Ways must be found to deliver instruction at lower cost. A first option in countries where public capacity is underused is consolidation into fewer, better-quality institutions. Lower costs per graduate can be achieved by reducing the duration of instruction and by improving the use of facilities and equipment.

Capacity of Public Institutions to Implement Policy

Implementing public training policy is a complex task that requires considerable professional and managerial capacity. The most successful donor-funded projects are those that place a high priority on strengthening this capacity (Herschbach, Hays and Evans 1992). To respond to the needs of the economy demands a degree of freedom from short-term bureaucratic

control; such freedom is difficult to achieve in government ministries. National training institutes, common in the LAC region, have been more effective than government ministries in this respect.

The structure of successful organizations varies considerably, but the key elements in effectiveness are usually the same:

- Governance that involves employers, worker organizations, and government
- Adequate and stable financing
- Ability to use resources flexibly
- High level of professional capability

In addition to managing training institutions, national training institutes can play key roles in other related activities, such as monitoring labor markets and training costs and outcomes, planning, providing professional services, establishing outcome standards, organizing temporary systems in response to worker dislocation, and developing private training capacity.

Solvency of Training

In the area of finance, the principal objectives of governments should be to ensure both the stability of funding needed to develop sustainable institutional capacity and the level of financing needed to improve public training. In the LAC region, the payroll tax is used to finance most national training institutes, the public providers of nonformal VTET. This has provided a stable source of financing, but done so at the expense of achieving program efficiency (Ducci 1990).

Locating additional public resources for VTET will be difficult in view of strained public budgets in the LAC region and pressures to address the underfunded formal primary and secondary system. The World Bank has stressed the need to increase public funding for primary education, given the significant externalities and the important equity considerations associated with education at that level. The case for public support for VTET is much less strong. Nonetheless, the external social benefits of training will often justify government financing of at least such central activities as policy, planning, and quality control, as well as of skills training for the disadvantaged and to support growth strategies.

This support will often be limited, however, and governments should seek to diversify sources of financing for training through direct-cost recovery from employers and workers who receive training benefits. Such a system of finance would also improve the efficiency of

training. Encouraging enterprises and private institutions to provide training would also help reduce the financial burden on public training institutions.

Payroll Levies. In Latin America and the Caribbean, the payroll levy, valued at 1 to 2 percent, is the most common source of funding for the national training institutes. Other forms of finance are general revenues and a levy grant or a rebate scheme that reimburses private enterprise for the cost of training (Ducci 1990).

While payroll levies are preferred to general revenues because they are a more reliable source of funding for training, they have a tendency to create large, inefficient bureaucracies, precisely because funds are relatively plentiful. In well-funded systems, resources are dissipated in ineffective programs with high unit costs caused by a failure to realize economies of scale, excessive administrative overheads may be tolerated, and funds may be wasted on ill-advised research projects or unproductive conferences. In addition, surpluses may lead to the use of payroll levy funds for purposes other than training, thus considerably weakening the benefits of imposing them (Dougherty 1989). Governments can minimize the potential for these inefficiencies by doing the following:

- Subjecting the levies to periodic review to guard against the accumulation of surpluses
- Varying the levies across sectors and industries to reflect the differing skill composition of the labor force and training needs
- Preventing training authorities from venturing into extraneous activities
- Ensuring that training services and courses provided are broadly based to reflect the range of the industry's need

Cost Recovery. Payroll levies should not be seen as a permanent solution to the problem of training finance. As national training institutes mature, alternate sources of finance become feasible, and enterprises become able to meet more of their own training needs. In this changing environment, reduction in the levy rate is appropriate. To the extent that charging for services is feasible, the public provider of nonformal training could be required to operate on a cost-recovery basis. The case for removing government support of formal secondary vocational education is less strong, however, given equity concerns to offer the same subsidized education as is currently provided to students of public, secondary academic schools.

Additional revenue for public, nonformal training institutions would come from the following promising sources:

- *Charging training fees.* The flourishing market in proprietary training in the LAC region indicates that many individuals are investing in training themselves. Moreover,

high private rates of return on training investment indicate that many individuals who receive subsidized training may be able to bear a larger share of the costs. Continued training subsidies for the poor are appropriate, but these should eventually be replaced by government-backed loan plans.

- *Marketing consulting services to private sector.* Over the years, the public training institutions of the LAC have developed considerable expertise in the provision of training services. By broadening the product base to include consulting as well as training, these institutions can gain additional income.

- *Selling production.* The sale of goods produced by training centers offers a limited source of revenue, as well as a useful market test of training quality. Although currently underexploited, this source can be encouraged by relaxing government restrictions on the ability of public training institutions to retain earned income. A balance must be struck, however, between providing training and producing goods for sale.

Government institution of these measures should promote greater efficiencies in providing training, as well as conserve scarce public resources for the underfunded primary and secondary education systems of the LAC region.

Strategy for USAID Missions

The objective of all USAID missions in the area of human resources development should be to encourage the development of a technical training system that can respond effectively to the changing skill requirements of the labor market. Since governments tend not to be sensitive to market forces, USAID missions should seek to stimulate greater participation by the private sector in the finance and provision of training.

As discussed, while most governments in the LAC region are actively involved in vocational-technical education, from an efficiency standpoint, this level of involvement is not rational. Government intervention is only justified for three reasons: (1) to address market imperfections; (2) to address weak private training capacity; and (3) to address equity concerns.

The most effective strategy for promoting greater participation by the private sector in technical training is to reform a number of government policies that discourage employers and individuals from investing in training and that impede private training institutions from adequately responding to the market.

Where applicable, USAID missions should seek to have governments of the LAC region adopt the following reforms:

- Stimulate Employer Training
  - Exempt trainee wages from the minimum wage as high minimum wages make employers less willing to offer entry-level training
  - Provide information to firms about opportunities and programs for training in human resources management to improve the capacity of firms to develop and manage a training program
  - Provide technical assistance and start-up grants to cooperative training arrangements among small- and medium-size firms to help them achieve necessary economies of scale to justify training investment
- Stimulate Training of Individuals
  - Provide opportunities for the economically deserving to obtain loans for enrollment in privately supplied training programs

- Stimulate Provision of Training by Private Institutions

  — Lift price controls on private training fees to enable private institutions to adequately respond to the training needs of the market

  — Support a system of accreditation for private training institutions to guarantee a minimal standard of quality in the private training market

- Increase the Efficiency of Public Training Institutions

  — Strengthen the linkages between employers and training institutions

  — Improve the ability of training institutions to understand the labor market so that the training provided is relevant to the needs of employers

  — Train staff so that they can better manage and evaluate training programs, and adjust policies as needed

  — Diversify the funding sources of public institutions so that they are increasingly more dependent for their income on user fees

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