
2. EDUCATION AND TRAINING IN LATIN AMERICA

The basic general skills acquired in formal education are the foundations upon which people's employability is constructed, so it is important to inquire into the coverage and quality of elementary, secondary and higher education in the region. This perspective is useful not only in order to evaluate the skills of the current labour force but also to be able to make projections about what the situation will be in the future when children and young people who are at school today enter the world of work. In the first part of this chapter we outline the recent evolution of formal education in the region as a whole and in the countries we are analysing.

2.1 FORMAL EDUCATION

The education systems in Latin America today give wide coverage, indeed, in some countries primary education coverage in total and more than half of the age group complete secondary education. But the panorama is very heterogeneous as there are big variations between different countries and within individual countries. For example, in the English-speaking Caribbean the indicators are very positive whereas in Central America (apart from Costa Rica) levels are very low. States that developed their education systems early, which is what happened in the Southern Cone (Argentina, Uruguay and Chile), are in a privileged situation, but in other parts of the continent it is only in the very recent past that significant numbers of adolescents entered secondary education. Internal heterogeneity can be found in the differences in educational expectations between urban and rural populations, or between young people in poor households and young people in households with more acquisitive power.

One positive aspect of the education system in the region is that as a rule there are **equal opportunities** for males and females, and in some countries like Chile, Argentina and Brazil, this has reached the point

where the study life expectancy of female students is greater than that of males (Table 2.1).

To go more deeply into the situation of formal education we will now focus on the four countries selected for this study. Starting at the very beginning of the 19th century, two of them developed **educational systems** that were structured along the lines of the European model, they widened their coverage during the 20th century and have now attained high rates of participation in all three educational levels. This means that schooling is practically universal at the primary level and coverage at the secondary levels extends to the majority of young people in that age group. This is the situation in Argentina and Chile. In Brazil and Peru on the other hand, the educational systems have always had low coverage rates, but coverage was greatly extended towards the end of the 20th century and today their rates of secondary education are almost on the same level as those of Argentina and Chile. Three of the countries invest similar percentages of GDP in education: Chile heads the list with 4.4% of GDP, followed by Brazil with 4.3% and then Argentina with 4.1%. Peru invests less: only 3.1% of GDP goes on education (Table 2.2).

However, **school attendance rates are still very unequal**: they are higher for students from good socio-economic backgrounds than for those who come from poorer households. In the youngest group, children of 6 to 12 years of age, these differences today are very small, but in the 18 to 23 age bracket the gap is wide, and even in Argentina and Chile the differences between young people from the first and fourth quintiles have worsened (Table 2.3).

This gap in access to the higher levels of education between young people from poorer households and those who are better off is the result of two simultaneous processes:

- Repeating a year: due to the fact that so many students have to repeat a year they are backward, over-aged, and they stay in primary and secondary education much longer than they should.
- The deterioration that comes from educational wastage.

This problem is aggravated by the need to have mastery of the basic skills of reading and writing and applied arithmetic in order to acquire the minimum skills for employability (SCANS) in today's labour market. It is almost impossible for children and young people who drop out of the educational system without acquiring these basic skills to compete for a decent job.

Schooling and the labour force

The dissimilar histories of the educational systems in the countries we are analysing have important consequences for schooling levels in the labour force. Workers in the countries that developed their educational systems early are better educated (Argentina and Chile). In Peru the average educational level of the urban labour force is high too. On average, the labour force in Brazil has approximately three years less schooling than in the other countries, labour force educational levels in urban areas are well above those in rural areas, and there are even big differences within the urban work force. In the other three countries the mean is ten to eleven years of schooling but in Brazil it is only around seven years. And although this should be enough to acquire the minimum basic skills, this only happens if education is of good enough quality and if it is evenly distributed. As we shall see below, this is not the case in Brazil (Table 2.4).

Technological progress, and the fact that the manufacturing and modern services sectors are so broad, means there is an increasing demand for human resources with higher educational levels and/or technical training. Therefore we should analyse not only workers' average levels of formal education but also the offer of human resources with high educational levels, which presumably means vocational or technical training.¹⁷ A cross country comparison shows that Argentina and Chile improved in this respect in the 1990s, and at the end of the century somewhat more than a fifth of the population of working age had vocational or technical training. But in Brazil only a little more a tenth of this population group were in this situation. In Peru, yet again, the high level of educational coverage is reflected in the fact that nearly 30% of people in the 25 to 59 age bracket have two or more years of post-secondary education. This leads to the next question, which is whether staying in the educational system and obtaining certification for post-secondary education really means that an individual is vocationally and technically skilled (Table 2.5).

17 ECLAC defines people with "vocational qualification" as individuals who have completed five or more years of studies additional to secondary education. The criterion for "technical qualification" is having completed two to four years of post-secondary education.

Education in Latin America: quantity without quality¹⁸

Formal education in the region has evolved in a positive way in the dimensions outlined above, but there are also negative aspects such as high repetition rates and the backwardness this leads to, the fact that large sectors of the population (especially children and young people from poor households) drop out of education early, and the fact that the quality of education is poor. Throughout the region, completing many years in the educational system is no guarantee that skills have been acquired. In an evaluation of 15-year-olds carried out by the *Programme for International Student Assessment (PISA)* in 2000, students in Latin America ranked very low in reading, maths and sciences in a sample of more than forty countries. As regards reading, which is considered a basic skill for employability (SCANS, 1992), not only was the average of the test results very low but 80% of Peruvians, more than half of Brazilians, 48% of Chileans and 44% of Argentines were at the “1 or less” level of low skills (in the OECD the average in this category is 18%). Students at level 1 can only make simple connections between a text and common or ordinary knowledge or recognize the explicit themes of a text, and those who are below 1 cannot do even this. In contrast, at the other end of the scale at level 5, young people show a capacity for complete cognitive comprehension, they can infer information from a text and formulate and evaluate hypotheses about what they have read (*Programme to Promote Educational Reform in Latin America (PREAL)*, 2005, p.31). Only between one and two percent of students in Argentina, Chile and Brazil are at this level, and in Peru the figure is below one percent (Table 2.6).

Educational achievements in the countries analysed: shortcomings and differences

At this point we can sketch out a panorama of the educational achievements of the countries we are analysing from the perspective of basic training for productivity and for decent work.

¹⁸ On this point the authors have followed *Cantidad sin calidad. Un informe del progreso educativo en América Latina*. Santiago de Chile: PREAL, 2005.

- Coverage: In all four countries primary and secondary education coverage has increased markedly, and although there are still differences between urban and rural populations, and between students from households in different social strata, the exposure that young people now have to formal education for a considerable number of years ought to be enough to enable them to learn the basic skills necessary to perform in a relatively modern labour market.
- Higher education: Another important question is what proportion of the population have higher education. This is problematic since the situation today is neither equitable nor efficient, the dropout rate is high, an excessive number of years are needed to complete each level, and there are big differences in these indicators between the poor and the rich so people do not really have equal opportunity.
- Quality of results: Just as serious as the above is educational performance in terms of quality of outcomes. In one of the four countries the vast majority of 15 year-old students have not reached even basic standards in mathematics or reading and writing, and in the other three countries half this age group are in this situation.

This raises two questions: How can we account for the inequity that stems from such a high percentage of young people having failed to acquire these basic skills at the appropriate age in the 21st century? What are the repercussions of this on an individual's possibilities of being trained for skilled jobs in a modern labour market? The answers to these two questions constitute a problem and a challenge as regards the possibility of raising productivity and creating more decent work.

Recent changes in educational systems: educational reform

Starting at the end of the 1980s and continuing through the 1990s, all four countries implemented integrated educational reform. These initiatives all followed a common model, but the implementation processes were different in each case and the outcomes also differ considerably. The experience began in Chile, where school management was decentralised to municipalities, the educational system was re-structured, a financing system was set up that was linked to enrolment in the school chosen by the par-

ents, and higher education was reorganised with fixed payments and many institutions stratified in a defined system. Thanks to strong backing from multilateral credit organizations, this reform model was taken up in other countries. This occurred in a context of state reform which was geared to improving the administration of scarce resources, putting a brake on universal-coverage social policies, and transferring costs to the private sector. The plan was to decentralise the unified educational system in the country and delegate the management of schools to intermediate administrative levels like provinces or municipalities, and this was expected to make for curricular flexibility and school autonomy, and as a consequence, efficient outcomes. In this context, efficiency is taken to be the result of a production function of schooling costs whose product is the performance of students on knowledge acquisition tests. Various factors conspired against the success of these reforms:

- Lack of continuity in public policies: in several countries policies were cut short when there was a change of government.
- The countries started from different initial situations - some had centralised systems (Argentina and Chile) and others already had a federal model (Brazil) - and this complicated implementation of new structures.
- The reforms coincided with an enormous increase in enrolments.
- In the decentralisation process responsibility was passed to government levels that did not have experience of managing education.
- Budgets were tight, and one of the consequences of this was that teachers' unions rejected the reforms, and social and institutional segmentation was perpetuated or aggravated.

The only country in which reform was continued, evaluated and relatively successful was Chile. In Argentina the initiative caused great confusion, various administrative levels were superimposed on each other, different curricula were employed in different provincial systems, and there were problems of inequality between provinces and within the same province. A new education law has since been promulgated which has tended to restore the organization of schooling to its previous situation but has left provincial administrations in charge of the management and financing of schools. There were also reforms in Brazil and Peru, but these were handled in a different way and their scope was much more limited than in Chile or Argentina.

It is beyond the scope of this study to make an in-depth evaluation of the educational reforms that were implemented, but they deserve this examination as they contributed to many of the unfavourable consequences mentioned above. This does not seem to have been because the reforms were badly conceived in themselves, rather it was because no appropriate steps were taken to gain the support of the different actors in the educational system, and there was a lack of continuity in the political decisions underlying implementation.

2.2 SPECIFIC EDUCATION AND TRAINING STRUCTURES FOR TRAINING FOR WORK

Technical schools

Before examining vocational training outside the formal educational system we should dedicate some space to secondary technical education, which has a strong tradition in the region.

In most of the countries technical schools offering industrial specialisations have been set up. In the 1960s, in a period of import substitution industrialisation, these schools spread throughout the region. In some countries they accounted for a sizeable proportion of secondary school enrolments (in Argentina nearly a third) and in the 1960s and 1970s they played an important role in preparing trainees for work or to go on to technical university courses. Brazil developed federal technical schools with a high technological level and financing from large central government budgetary allocations, the SENAI schools were also highly rated, and there were technical schools in the more industrialised states. Chile too had a widely extended technical secondary education system, but this played a lesser role. These technical schools were usually not typical vocational schools since they offered general education, basic technological training and technical knowledge in specific fields like chemistry, mechanical work or construction. Their trainees left with a general labour training base which enabled them to progress to specific training as apprentices in the workplace, or to go on to further education.

During the educational reform period in the 1990s, these schools met different fates. In Brazil the federal schools became technological institutes

or universities, and the state schools continued with the support of local governments. In Chile the reform led to the division of secondary education into two branches with science and humanities on one side and technical-vocational training on the other. The technical-vocational branch has lower academic and social status, its trainees find it more difficult to enter a higher education system that is more restricted, and information about their levels of performance in the world of work is inconclusive (Gallart, 2003a). In Argentina institutions deteriorated over a long period, but then in the reforms of the 1990s the technical schools were abolished and a system of multi-subject teaching was introduced which in some cases included a technical modality. In 2006 a technical education law was passed whereby technical teaching was reintroduced, and today there is a programme to strengthen technical schools which involves allocating funds for equipment and to finance institutional projects. In Peru there was little change in the private technical secondary schools and they still account for a significant proportion of enrolments in secondary education.

On the whole, technical schools have survived in the countries we are analysing but their standing today is far lower than it was in the 20th century. In evaluating the experience, we can conclude that these schools have managed to cope with the problems stemming from lack of policy continuity, but quite apart from that they suffered from serious defects such as very flimsy coordination (except in a few specific cases) with vocational training and the world of enterprises. They tended to adopt a more academic style and they became more like ordinary secondary schools but with a greater emphasis on technological-scientific subjects and on workshop and laboratory activities.¹⁹ While acknowledging that this kind of formal education for work has its shortcomings, it should still be borne in mind for the future since there are many such educational institutions that function well, there is a demand in society for secondary education geared to the world of work, and the demand for their trainees in the current process of economic recovery is increasing.

¹⁹ For further details see Gallart, M. A. *La escuela técnica industrial en Argentina*. Montevideo: ILO/Cinterfor, 2006.

Vocational training: origin and development

In countries that started late on the road to industrialisation like those of Latin America, where there was no prior tradition of training for industry, this kind of training was consigned to **paraformal education**²⁰ which was generally the responsibility of institutions specifically set up for this purpose: the National Vocational Training Institutions. A particular model of vocational training was developed whereby training for work was not shackled to formal education or reduced to direct training for specific workplace tasks, but was a type of occupational training closely linked to the practical situation. It had some educational components that were more theoretical, it was implemented by national institutions devoted to this activity, and it was maintained and very often managed by the state. This began in Brazil at the start of the 1940s with the National Industrial Training Service (SENAI) in the context of the development-oriented government of Getulio Vargas. Industrialists from Sao Paulo, where the biggest industrial pole in South America was taking shape, played an important role in this process (Castro, 2002). The original SENAI had two significant features that it has retained right up to the present day: it is financed through a payroll tax levied on industry, and it is managed by entrepreneurs. Brazil initiated this kind of organization and it is in Brazil that these institutions are most widely spread. The SENAI caters specifically to manufacturing industries, and over time other such institutions were set up for different branches of production. These are the SENAC for trade and services, the SENAT for land transport and the SENAR for agriculture.²¹

Vocational training has spread far beyond the various states in Brazil. Similar institutions, each with its own individual characteristics, have been set up in most of the countries in the region, in many cases with ILO support. Their purpose is to support industrial development by providing for the training needs of the new population groups that are entering industrial employment, people who very often come from a rural background

20 The term "paraformal" refers to training that is predominantly practical and is structured in courses that can be connected up but are not part of the formal education curriculum and are not inserted in the pyramid of primary, secondary and higher education.

21 The so-called S System also includes technical assistance for micro and small enterprises (SEBRAE) and urban cooperatives (SESCOOP). In addition to training and technical support services, the S System provides education and health services for workers (SESI).

and have low educational levels. **National vocational training institutions** were set up in various countries in the 1950s (the National Training Service, SENA, in Colombia), in the 1960s (the National Training Institute, INA, in Costa Rica) and even in the 1980s (the National Institute of Technical-Vocational Training, INFOTEP, in the Dominican Republic). In most cases the state is responsible for the management and funding of these training institutions, and they are generally under the supervision of the Ministry of Labour. They have tripartite management systems made up of the state, employer organizations and trade unions, but the state is usually the senior partner, and in many countries trade unions are restricted to a minor role. These institutions are responsible for the planning and execution of training programmes financed by the state.

Originally the most common financing system was a payroll tax, but subsequently in many countries this was changed to a scheme whereby finance came from the public budget or through allocations of tax credits. In Chile not only was the financing system changed, but the actual execution of training is sub-contracted to other organizations and the national VTI is now mainly responsible for allocating funds. In this study we will not go in depth into the question of the institutional development of the VTIs,²² but it is important to deal with some aspects that have an influence on the general characteristics of training in the region and also on some differences between these institutions in the four countries we are studying.

In Argentina, the national vocational training institution, the CONET, was set up at the end of the 1950s. It only engaged in a minor way in vocational training activities and it was more focalised on technical education in schools. In Brazil the mother institution, the SENAI, has not only survived but has grown in complexity and size, it has centres throughout the country, its courses cover a huge number of occupational profiles, its technological centres provide consultancy services for enterprises, and besides training and learning it is also involved in technical schools, which are among the best in the region. In Chile the original VTI, the National Training Institute (INACAP), was founded in 1966. It was privatised in the 1970s by the government of General Pinochet, and the National Training and Employment Service (SENCE) was set up as the body responsible for administering a system of financing based on a tax exemption scheme and on subsidising

| 22 It is understood that ILO/Cinterfor will develop these aspects in another report.

demand from enterprises and users, the latter being defined as target groups such as the unemployed and young people at risk. The actual execution of training is contracted out to numerous training organizations, both public and private, and the overall aim is to stimulate a training market. In Peru, the state VTIs that parallel the aforementioned institutions are the National Service of Occupational Training in Industry (SENATI), the National Service of Training for the Construction Industry (SENCICO) and CENFOTUR for tourism. However, unlike in other countries, these do not have a near monopoly on vocational training financed and managed by the state. In Peru the state also executes other training programmes and finances other institutions, some public and some private, such as the Occupational Education Centres (CEOs), which provide occupational and technical training on courses that usually run for less than a year, for young and unemployed people who may not have completed secondary education. The CEOs are outside the academic hierarchy and not connected with it, and at the moment they are changing to a new model and are now called Centres of Technical-Productive Education (CETPROs). People do not need an educational diploma to be admitted to a CEO or a CETPRO. Implementation of this new model began in 2005 and it is organised in two cycles: a modular basic training cycle which even people who are functionally illiterate can enrol in, and another cycle that consists of a training itinerary in a specialised subject. The aim of this restructured system is to achieve better coordination with the market (Jaramillo, Baanante, Valdivia and Valenzuela, 2007).

The 1997-2006 Labour Training Programme of the Centre for Labour Training and Development Services (CAPLAB)²³ played an important role in implementing the new CETPROS model. In 1996, the Swiss Agency for Development and Cooperation together with the Ministry of Labour and Employment Promotion, contributed to the creation of the CAPLAB, whose main objective is to integrate socially disadvantaged young people and women into the labour market. Its activities are centred on improving labour training at state-run occupational education centres (CEOs), and it manages a programme that intervenes directly in 60 CEOs at locations on the coast and inland in Peru. Every six months, 30,000 young people complete their training at these CEOs and are incorporated into the labour

²³ Centre for Labour Training and Development Services – CAPLAB. Report on Outcomes and Effects of the 1997-2006 Labour Training Programme.

market either as employees or by setting up their own businesses (see Box 1: CAPLAB, Peru).

It should be borne in mind that alongside the state VTIs and the public vocational training programmes and institutions there is also a **wide offer of training from the private sector**. In some fields these organizations are certified and subject to state regulations (for gas fitters, plumbers, builders, etc) but in others they are ruled only by the law of supply and demand, and this is the most common situation in training for administrative occupations (accountancy, secretarial work and administration) and in the field of new technologies (computers, electronics). This private offer consists of profit-based organizations and also NGOs. The demand for education from society is strong. For example, in the 1998 Permanent Household Survey for the Metropolitan Area of Buenos Aires, some 28% of the total population in the 15 to 60 age bracket reported that they had taken or were taking training courses outside formal education, and of these people more than 60% did so in pursuit of labour market entry (Gallart, 2001a).

There is also **on the job training**. This is provided directly by enterprises themselves, but the volume involved tends to be small except in the case of some programmes in large multinational enterprises in which technological development is important (e.g. Volkswagen and Ford), and in dual learning systems supported by enterprises that are mostly of German origin.

Training programmes for young people

Another source of training for work in the region that has developed more recently is a system of plans for young people and unemployed workers that provide short, locally-based courses geared to semi-skilled occupations. These courses usually involve providing some financial support for subsistence, and they are followed by periods of work experience in enterprises.²⁴ Many systems like this were in operation in the 1990s, they were usually under the auspices of the Ministry of Labour and were financed through specific-purpose national funds. Today there are fewer; they only continue in some of the countries that originally implemented them.

²⁴ The initial model was Chile Joven, which followed the scheme set out in the United States Job Training Partnership Act.

The most important programmes at the regional level were those that followed the Chile Joven model and had IDB support. Hundreds of thousands of young people in Argentina and Chile were trained in this way and the system spread, with greater or lesser success, to other countries in the region.²⁵ These programmes consisted of courses geared to semi-skilled employment, curricular design was based on occupations for which opportunities for work experience in enterprises were available, and execution was subcontracted to private or public training institutions. This period of work practice was a necessary condition for the course, and it ensured that course content was consistent with the demand from enterprises. The training lasted for approximately three months and was followed by another three months of real practice in the workplace. In most cases the young people were paid a subsistence allowance for the duration of the programme, and afterwards tutors helped them in the search for labour market entry. Evaluations after the initial stages of the project showed a moderate improvement in occupational insertion, but there was concern about the cost of programmes of this type and this volume, and in fact in most countries when finance from abroad came to an end the programmes were significantly cut back, as in Chile, or closed down altogether, as in Argentina.

At the present time it seems that two kinds of programmes predominate:

- First, there are programmes that immediately follow secondary education and are aimed at getting young people to stay longer in education, delaying their entry into labour activity and at the same time providing them with skills and credentials to give them better access to the labour market. These involve financial incentives and/or flexible, modular study programmes which in many cases are part-time, and this enables the young people to finish their studies without being bound by fixed study schedules. At the present time programmes like these are in operation in Argentina, Chile and Brazil (see Box 2: Chile Califica, Chile).
- Second, there are programmes that try to help young people seeking work by connecting them with enterprises that are usually small and medium size, and by providing counselling to help with labour market entry. There are programmes of this type in Argentina, Brazil and Chile (see Box 3: Primer Paso, Argentina).

| 25 There were programmes of this type in Argentina, Brazil, Chile, Colombia, Peru and Uruguay.

The current panorama of vocational training in the region

The offer from training institutions is very varied between different countries in the region and within each individual country. In the 1980s, training was widely criticised for offering only a limited range of educational possibilities and for the fact that the programmes lacked relevance, and most VTIs subsequently embarked on or consolidated reform processes geared to generating offers that were new in terms of content and training modality. Today, in a good proportion of VTIs in the region, we can find three kinds of changes that emerged in response to the criticisms of the 1980s. First, progress has been made in the technical-pedagogical field, and today competency-based training, modular design, training based on projects and the use of ICTs in training are common in VTIs in most of the countries. In addition, in almost all cases, employers have been brought into the area of defining curricular content, and not infrequently they are also involved in monitoring the performance of trainees in the workplace.

The second sweeping change has been the introduction of mechanisms to improve and assure the quality of management, and this is so widespread now that VTIs in the four countries in this study have incorporated quality management processes and have had their training centres certified under ISO 9000 standards adapted to training. Besides this, training centres have been given more authority and autonomy so they can cater more closely to local demand.

The third change has been the introduction of new services for users, such as SENAI specialist technological development centres in Brazil, SENCE experiences to coordinate training, education and local development in Chile, technical assistance provided by the SENATI for the implementation of quality assurance in enterprises in Peru, and even mechanisms to recognize and certify skills acquired through experience to help people pursue a training itinerary or to improve employment insertion in Argentina, Brazil and Chile.

There are still complaints from enterprises about poor quality and backwardness in training and education, and there have been various experiences in which enterprises have made an effort to increase their investment in training their workers, above all in large enterprises in the structured economy. There is also other new investment in this area like state subsidies, and this tends to be focalised on groups that are vulnerable to unemployment such as young people and rural populations. It should be noted

however that in experiences like the tax exemption scheme in Chile it is very often better-educated employees who reap the benefits of the training provided.

To sum up, in the region as a whole and in the four countries we are focused on in particular, there is great demand from society for education and training for work. This is clear from the fact that large numbers of people are attending numerous education centres and taking programmes offered by a very wide range of institutions. This demand is for formal education and for a set of skills that are quite traditional and more suitable for work in an office than in a workshop or factory. A negative aspect in this panorama is that the demand from enterprises is not formulated in a very specific way, although there have been efforts to set up sector committees that include employers and aim at establishing training requirements, such as in SENAI and SENCE initiatives and efforts by the Ministry of Labour in Argentina to establish skills profiles in some occupational areas.

The main actors in training are as follows: the state, which finances, manages and supervises vocational education; enterprises where work and production are located and which are very different from each other and have different possibilities depending on whether they are large or small; trade unions, which participate in the management of national vocational training institutions and in some cases, such as Argentina, manage their own vocational training institutions (see Box 4: UOCRA Foundation, Argentina); NGOs, especially those devoted to helping the most unprotected groups in society; and lastly, and perhaps most important, there are the users of training, that is to say the people who want to be trained and can be trained. Today, it is difficult to coordinate all these actors, although in almost all the countries in the region efforts are being made to generate mechanisms to facilitate fluid intercommunication, to avoid parallelism in the various training offers, to make the training offer more relevant to employment, to correct the problems associated with poor quality and backwardness, and above all to foster the medium and long term training that is so necessary in a long term process like education. Examples of these kinds of mechanisms are the “Chile Califica” permanent education and training project, which has been in operation for six years, the proposal to set up a national skills certification system in Brazil, and a project to promote permanent education and training that was recently given the go-ahead in

Argentina. The country that has furthest to go as regards the systematic structuring of training efforts is Peru.

We have examined various aspects of training that countries have in common, and we shall now turn to their differences.

2.3 COORDINATION BETWEEN TRAINING, EMPLOYMENT AND PRODUCTIVITY: A HISTORICAL OVERVIEW

It is evident from the literature on education and employment that there is a close connection between suitable training for the labour force, their employability, and their ability to be more productive (given the appropriate investment and organization conditions, obviously). The economic development, modernisation and industrialisation process is **heterogeneous** and asynchronous because different processes are at work in a given country, and this applies even more between different countries. Thus there is differentiation on various levels:

- Differences between large and small enterprises.
- Differences in the size of domestic markets, which makes for different development possibilities.
- Differences between branches of the economy: some sectors are geared to domestic consumption and others to export, and they are at varying distances from the global technological frontier.

Another important characteristic is **labour market segmentation**. There are big differences between labour markets in different regions in the same country. There are also differences between large enterprises on the one hand, which can organize and finance their own specific training and cream off the candidates with the best formal education and experience from the labour market, and medium and small enterprises on the other. The latter tend to be reluctant to invest in training because their best workers are often lured away by larger, dominant enterprises. Lastly, there are micro-enterprises, which account for a large employment sector, but their demands for training are not clear, and even if there were, there are no institutions geared to training in the management and technological skills that are needed to develop productivity on this scale.

One very important characteristic in Latin America and the Caribbean is the sheer volume of non-registered employment in which labour laws, or at least social security regulations, are not respected. Approximately half the workers in the region are in the **informal labour market**. This ranges from profit-seeking enterprises that may be technologically advanced but still employ workers informally, to trade, construction, the clothing industry and informal transport enterprises, which work very intensively but whose employees are often unregistered.

Technological change, labour market segmentation and variations in economic policies all have an impact on what characteristics training ought to have. Each specific set of circumstances generates different demands, and in order to establish equitable access for people to obtain labour competencies and to raise productivity it is vital to have flexible training with a wide general skills base and an offer that includes a range of specialised subjects. Therefore we should establish what characteristics training ought to have if it is to respond adequately to the current context.

We can identify three factors that combine to delimit and characterise the coordination between training, employment and productivity.

- 1) The demand from enterprises for workers with specific skills, and the ability of the enterprises themselves to supplement the external training of possible candidates and of their current labour force.
- 2) The work of training institutions: schools, vocational training centres, NGOs and private institutes that offer their services in the “training market”.
- 3) The users of training, that is to say the population demanding work, who should be trained and inserted in employment.

The coordination among these three factors is the result of historical processes and is different in each of the countries we are concerned with, and also within the individual countries, as it depends on the role and weight that each factor has.

There are big differences between the four countries we are studying as regards the history of their training offer and of the population’s access to it, and also as regards how their productive and occupational systems are structured. In Argentina, the educational system developed early but industrialisation was a slow process, it mainly followed the import substitution model and had relatively modern but traditional technology (metalwork and textiles), and this model continued throughout the 20th century.

In this scenario, for many years the basic educational system and training in the workplace seemed to be enough. Recent technological changes in industry reached minority employment sectors and the need for training in these areas was met by contracting private training institutions in an ad hoc way as the need arose. Then, in the 1990s, there was an economic crisis and a sizeable proportion of industry was eliminated, unemployment soared to unprecedented levels, and the progressive deterioration of the education system was exacerbated. This process culminated in the crisis of 2001 when large swathes of the population were plunged into exclusion, young people because they lacked training and experience, and adults because they had been made redundant or because their skills were obsolete. The economy subsequently revived and starting in 2003 there was strong economic growth, and this has made it possible to utilise installed capacity and improve work and employment conditions. However, there are signs that industrial productivity is still low, most of the economically active population work in enterprises that have five or less employees, and around half of paid workers do not have social security coverage. The above-mentioned difficulties in the educational system and vocational training imposed limits on this growth process in terms of equity and productivity. Nevertheless, in Argentina and Chile economic growth has been based on the export of basic commodities or of products with low levels of transformation such as soya oil, but these sectors employ only a small part of the population, and tackling the problems outlined above is not usually a priority for governments.

In Chile there was a generalised restructuring of industry on the macro level, new enterprises emerged and the economy was opened to international competition. There has been continuity in policies, and this has fostered relatively steady economic growth. Reforms in the Chilean training system have been carried much further than those in any other country in the region and the coverage provided by formal education is very wide, although there are still serious problems as regards quality. However, there does not seem to have been any significant improvement in equality of opportunities for acquiring skills or accessing good quality higher education. In the new vocational training scheme the state administers the funds and grants tax credits to enterprises, and these in turn contract private training organizations for their courses. These are organizations that are regulated and grouped by branches of activity. This is how vocational training is responding to the needs of enterprises. These kinds of courses account for

most of state investment in training, but they have been criticised for orienting their offer to large enterprises and for concentrating on the training of middle and high level employees in these firms.

A Social Investment Solidarity Fund was set up to respond to the demand from society, and finance was allocated to training programmes for young people at risk of exclusion, like the Chile Joven programme. As we have seen, this model spread to a large number of countries in the region thanks to support from multilateral credit organizations. In the 1990s there was an enormous amount of investment of this kind in the region and the programmes reached hundreds of thousands of young people.

Brazil is a case apart. The SENAI came safely through the storms of the 1980s when serious questions were asked about the costs and efficiency of large national vocational training institutions. The SENAI was able to serve the needs of industrial growth in Brazil, in particular in the regions and poles where development was concentrated, thanks to its very good image with the general public, support from the employers' confederation (which manages it), and the fact that it was efficiently organised and technologically up-to-date. Although its actual scope is rather limited in the context of the country's immense population, its future is guaranteed because it has responded well to the productive sector and has been a viable channel for mobility for generations of workers in the industrial regions.

Under the government of Fernando Henrique Cardoso, a project called the 1995-2002 National Plan for Worker Qualification (PLANFOR) was set in motion. This programme operated on so vast a scale it was simply unprecedented in the region. Its objective was to expand vocational training as part of public employment policies, and to train or re-train the main mass of workers in basic, specific or management skills. It came under the Brazilian Ministry of Labour and was financed from the Workers' Protection Fund (FAT), which is managed by a tripartite commission and whose funds come from a 1% deduction on the payrolls of formal enterprises. The PLANFOR was executed at the state level and was controlled by state and municipal employment commissions in which the unions also had a voice. The courses were contracted out to vocational training agencies throughout the country. In the 1995-2002 period, when the plan was in operation, the Brazilian state invested USD 1,456 million in the training of an average of 2.5 million people per year. This was the most massive training effort ever undertaken in Latin America. The PLANFOR officially came to an end in July 2003 when

a new government came to power, but the programmes have continued under another name, the National Qualifications Plan (PNQ). However, there are problems with the new system: its budget has been cut back and there are long delays in the release of funds. Evaluations show that results have been positive, but this has had little impact on policy decisions.²⁶

Of the four countries in this study, Peru is in the most difficult situation. As we saw in the previous section, educational coverage is very extensive but the quality of this education is still problematic (GRADE - PREAL, 2006). As regards vocational training, in the 1990s the SENATI underwent a process of reform in which the teaching-learning methodology was changed, and instructor profiles, equipment and infrastructure were improved. In 1997, enrolment in the Occupational Education Centres (CEOs) amounted to 228,000 trainees in approximately 2,500 institutions throughout the country.²⁷ At the present time these centres are being modernised and changed into CETPROs, but the outcomes these changes will produce is not yet clear (Grade, 2007). The model implemented by CAPLAB, described above, has very interesting prospects, and although it is only operating on a small scale at the present time, it is expanding (see Box 1: CAPLAB, Peru).

With the dawn of the new century, vocational training programmes **changed their focus** and they are now attempting a more integrated approach in which basic education and vocational training are linked, so as to reach the great majority of the population and allow enterprises to play a significant role. Chile and Brazil are taking this route.

In 2002 in Chile, a programme was initiated to build up a system of permanent training. This initiative came from the Ministries of Education, Economy and Labour, and it is financed by the Chilean government and the World Bank. It is based on training by skills, and its aims are to improve schooling levels, to widen access to technical training and quality training, to certify labour skills, abilities and dexterities, and to make the labour market function more smoothly. This is the “Chile Califica” pro-

26 For further information see Montero Leite, Elenice . “El mercado de la formación profesional en Brasil: financiamiento público y administración privada. Particularidades y perspectivas” in Galhardi, R; Martínez Espinosa, E. et al. *Financiamiento de la Formación Profesional en América Latina y el Caribe. Un estudio comparativo de buenas prácticas*. Montevideo: ILO/Cinterfor, 2007.

27 Saavedra, Jaime and Chacaltana, Juan. “Los jóvenes pobres y la capacitación en Perú”, in Gallart, M.A. (coordinator) *Formación, Pobreza y Exclusión*. Montevideo: ILO/Cinterfor, 2000.

gramme: it is in operation throughout the country and its lines of activity are adult education, technical training, the certification of skills, and labour training and information (see Box 2: Chile Califica: Chile).

In 2007 in Brazil, the National Confederation of Industry (CNI) submitted a proposal entitled “Education for New Industry.”²⁸ This was based on a diagnosis that showed that one of the main factors limiting economic growth was the fact that the labour force had low levels of education. This was increasingly evident in the face of the challenges posed by the incorporation of new technologies and the spread of industry to areas that previously had not been industrialised, all of which indicates that the services provided by the SESI and the SENAI should be decentralised. This proposal is based on investment and organization that the SENAI and the SESI already have, and it involves expanding these organizations’ functions to cover unsatisfied demand for general and specific training. The aim is to raise enrolments to 16.2 million in the 2007-2010 period: 7.1 million of these in basic and continual education (SESI) and 9.1 million in vocational education (SENAI). The projected investment for this amounts to 10.45 thousand million reais.²⁹ This training is part of a strategic plan to develop industry and meet the demands of the enterprises that make up the confederation. These enterprises are calling for an improvement in basic skills because workers should be able to read manuals, interpret graphics and share knowledge among themselves. The main focus, then, will be on secondary education, but the other activities the SESI and the SENAI are engaged in will not be neglected. It is expected that 75% of students at the secondary level will have access to vocational education (see Box 5: Education for New Industry, Brazil).

We are now in a position to give a general outline of the coordination between training, employment and productivity in the region. While it is true that the offer of formal education and vocational training is considerable, there is a serious problem as regards coordination with the productive sector, and there is a tendency for the training offer to operate separately from real applications in enterprises. One factor behind this trend is that the productive system is very heterogeneous. The **entrepreneurial sector** nominally participates in the tripartite management of most national VTIs and is consulted by the government, it plays an even

| 28 CNI-SESI-SENAI. *Educação para a Nova Indústria. Sumário Executivo*. Brasília: 2007

| 29 The exchange rate is approximately 1 USD = 2 reais.

more important role in the SENAI of Brazil and indirectly in Chile too, through the demand for SENCE services. There is little genuine financing from entrepreneurs: funds come mostly from payroll levies or tax exemptions, which in either case means public money. Private financing for training mainly comes from fees for courses paid by private individuals. Enterprises are reluctant to invest more in this area for the classic reasons that they tend to invest only in specific training for workers who cannot be appropriated by the competition, and they do not finance more general training as this becomes an asset for the person who is trained rather than for the enterprise that pays (Becker, 1975). This problem, combined with the fact that the return on training is a long term process, leads to a serious problem of disinvestment in human capital, and it is in an effort to compensate for this that the state provides funds. The question, then, is how this state investment should be distributed. One route is to opt for large organizations, but the big traditional institutions are frequently criticised for having large budgets that are often absorbed by high fixed costs, and for not making enough evaluations. On the other hand, when funds are used to contract numerous smaller training organizations, as is the case in Chile, the criteria whereby courses and users are selected are open to criticism because the state ends up financing training that is not systematic and tends to benefit individuals who are already in a privileged situation thanks to their previous education or their employment niche.

Equity can be defined as access for the whole population to the skills that can make individuals employable and consequently productive, but it emerges that the people who have benefited least from formal education are those whose access to opportunities to acquire these skills is very limited. In the region the demand from society for education is very strong and it is channelled into many different kinds of courses that are low cost or free, but whose relevance to the labour market is questionable. This training offer includes large-scale programmes for unemployed young people that are offered by a variety of institutions and their costs are usually covered by state subsidies, but evaluation of these courses is very irregular. However, the economic sectors that are most integrated into the formal system and that pay higher wages usually obtain the employees they need by contracting workers who have already been trained in good quality systems or have been employed in small enterprises. Large enterprises can

do this because they employ a smaller proportion of the labour force and pay higher wages. Therefore, reaching the equity and productivity objectives that would really make decent work possible is very problematic in Latin America and the Caribbean.

At this point we can return to the three factors specified above that delimit and characterise the coordination between training, employment and productivity: demand from enterprises, the complex of training institutions in the “training market”, and the population that demands work and training. The fourth great protagonist that emerges from the history of training in the region is the state as financier. Since national VTIs first came into being, the state has been involved in their tripartite management systems, and it has developed into the main financier of the training that is actually executed by training institutions, enterprises or NGOs.

Demand from enterprises is often channelled through large firms that implement in plant training. When state finance is available in the form of tax credits or subsidies these firms take advantage, but if there is no such system in operation they will still organize specific training at their own cost. This is clear from studies of the system in Chile, which concluded that state financing has not contributed to increasing the amount of training provided by this kind of enterprise (Martínez Espinosa, 2007). Small and medium enterprises in the formal economy have recourse to the “training market” and contract private courses or use vocational training services. Micro-enterprises in the informal economy do not usually have the benefit of adequate training providers.

Training institutions move in their own universe: technical education within the educational system is geared to two objectives, to give training for work and training for continued study. But if there is little demand for labour, and educational credentials become devalued, there is a risk that the system will move even more in the academic direction. For vocational training institutions, on the other hand, there are tensions between the shifting policies of different governments, institutional continuity which is hard to change, and the real demands of the labour market, which are not always well expressed by entrepreneurial lobbies. There are many small private training organizations like schools, vocational training centres, academies, etc., and they have to find a way to navigate between the demand from individual and corporate users and public and private finance. Apart from exceptional cases like the SENAI,

there is no coherent, organized offer in the region that responds to a variety of demands and not only offers courses but also provides infrastructure in terms of workshops and laboratories, the necessary up-to-date equipment, teacher training and the updating of curricula.

One last point is that the users of training, that is to say individuals who seek training, are faced with a wide range of options that they choose from depending on their educational or occupational trajectory. If they have reached the middle or higher levels of formal education and they live in an industrialised urban centre, they will probably be able to obtain good formal employment or accede to good quality training. If their social and cultural capital is at a lower level but still sufficient and they have quality secondary studies and/or experience in formal employment in medium or large enterprises, they will be able to benefit from specific training in the form of on the job training or improvement courses. The remainder of the population, in other words people who have not managed to insert themselves into these trajectories, include many individuals who want to obtain decent work and improve themselves. These people are the users of low-cost or free courses of variable quality in the market. This market sector is not regulated; there is no quality control, so efforts to obtain education in it do not always yield a good return in terms of employability.

As we have seen in this chapter, there are few effective mechanisms that support positive coordination among the factors involved. There are difficulties in the coordination between formal education in the educational system, and vocational training is characterised by large quasi-monopoly institutions and a very fragmented training market. This situation does not foster access to employability competencies for the majority of the population, which is an indispensable condition for productivity as defined in this study.

Table A: SOCIO-ECONOMIC CHARACTERISTICS

Countries	ARGENTINA	BRAZIL	CHILE	PERU
Total GDP ^a (USD millions)	183,196	797,365	115,247	79,383
Population ^b	38,971,000	190,127,000	28,349,000	16,436,000
Socio-economic development characteristics	Strong growth interrupted by severe crises. Agro-industrial model.	Moderate growth with fluctuations. Industrial and agricultural export model.	Moderate steady growth with anti-cyclical policies. Export of primary and extractive products.	Moderate growth. Extractive export model. Large informal domestic market.
Employment: employment rates ^c	2005 52.1 2006 53.8	2005 50.9 2006 51.0	2005 49.1 2006 50.1	2005 60.5 2006 60.8
Quality of employment (social security coverage) ^d	63.6	60.4	93.2	33.0
Work productivity ^e	USD 29,516	USD 17,560	USD 30,359	USD 12,841
Informal economy ^f	43.6	49.1	31.9	54.9
Inequality ^g	Decile 1 % 1.1 Decile 10 % 41.7	Decile 1 % 0.9 Decile 10 % 49.8	Decile 1 % 1.3 Decile 10 % 44.9	Decile 1 % 1.8 Decile 10 % 36.1
Poverty ^h	26.0	32.8	18.5	42.0
Main challenges	To maintain constant growth models. To gradually integrate informal workers into formal employment.	To incorporate sectors of poverty into formal employment.	To improve income distribution.	To extend the formal sector. To develop the economic capacity of the informal sector.

Sources: a) 2005. ECLAC, Statistics Yearbook 2006, p. 89.

b) 2006. ECLAC, Statistics Yearbook 2006, p. 23.

c) Employment rates: people employed/working-age population. Urban population including informal employment. ILO Labour Panorama 2006, p.33.

d) 2005 Argentina, Brazil and Peru, 2003 Chile. Percentage of employed urban population with social security coverage and/or pension. ILO Labour Panorama 2007, pp. 72.

e) GDP per employed person in United States dollars. ILO Employment Trends Team/Skills Department, 2007.

f) 2005 Argentina, Brazil and Peru, 2003 Chile. Percentage of people employed in production units of up to 5 people and of urban self-employed workers. ILO Labour Panorama 2006, pp. 62.

g) 2005 Argentina and Brazil, 2003 Chile and Peru. Percentage of people in urban population whose income is in the first and in the last decile of the distribution. ECLAC, Statistics Yearbook 2006, p. 77-78.

h) 2005 Argentina and Brazil, 2003 Chile, 2001 Peru. Percentage of people in urban areas whose daily income is less than twice the cost of a basic food basket, including people who are destitute. ECLAC, Statistics Yearbook 2006, p. 74.