

# CEPAL

## Review

*Director*  
RAUL PREBISCH

*Technical Secretary*  
ADOLFO GURRIERI

*Deputy Secretary*  
GREGORIO WEINBERG



UNITED NATIONS  
ECONOMIC COMMISSION FOR LATIN AMERICA

SANTIAGO, CHILE / DECEMBER 1983

# CEPAL

Review

---

Number 21

Santiago, Chile

December 1983

---

## CONTENTS

Introduction	7
Education in Latin America. Exclusion or participation. <i>Germán W. Rama</i>	13
A historical perspective of Latin American education. <i>Gregorio Weinberg</i>	39
To educate or not to educate: Is that the question? <i>Carlos H. Filgueira</i>	57
The role of education in relation to employment problems. <i>Juan Pablo Terra</i>	81
Development and education in rural areas. <i>Carlos A. Borsotti</i>	113
Pedagogical model and school failure. <i>Juan Carlos Tedesco</i>	133
Education and culture: A political perspective. Hypotheses on the importance of education for development. <i>Pedro Demo</i>	147
Styles of development and education. A stocktaking of myths, prescriptions and potentialities. <i>Marshall Wolfe</i>	157
Some CEPAL publications	175

## The role of education in relation to employment problems

*Juan Pablo Terra\**

This article is clearly divided into two parts. The first reviews the controversy on unemployment and underemployment problems in Latin America, their nature and causes, and the measures which should be applied to eradicate them. In general terms, the author's analysis places emphasis on certain aspects of ECLA's thinking, such as the importance of the concept of structural heterogeneity in the description and interpretation of the problems in question, and on criticism of the economic conception which assumes that their solution consists simply in increasing the rate of economic growth, and shelve the structural problems which obstruct the homogenizing propagation of technology and its benefits in the economic and social structure.

Part two focuses full attention on the relation between education and employment; its central thesis is that the most important problems of both (unemployment, underemployment, absolute or relative lack of schooling) are closely linked to the economic, social, cultural and political segmentation of society and that the interpretation of these problems and the policies applied must therefore take into consideration this decisive fact. In the writer's opinion, education's major problem today does not derive from its supposed over-expansion but, on the contrary, from the inequality that has characterized its distribution by social strata, geographical areas and sex, and the consequently limited access to it observable in some disadvantaged social groups. He acknowledges that the educational process which has taken place during recent decades in Latin America has aspects and implications which it is very difficult to evaluate, but he maintains that "when in doubt one must opt for education". In the last analysis, education is the population's right, and, above all, must make for the cultivation of knowledge and must be at the service of the whole of social life.

\*Collaborator in the Project on Development and Education in Latin America and the Caribbean.

## I

### Employment problems

#### 1. *The outlook of the 1960s and its loss of credit*

When the drive for development planning started in the 1960s in Latin America, the planning of education was regarded as an indispensable part of the system. This attitude was undoubtedly founded on a very clear and relatively simple interpretation of the role of education in development. From the standpoint of accelerated modernization, whose major features were urbanization and industrialization, Latin America would need large numbers of skilled personnel, of whom a considerable proportion would be destined to undertake activities in industry very different from the occupations characteristic of the traditional economy. To adapt the Latin American masses to this change seemed a difficult task; the level of skills of the economically active population was seen as one of the bottlenecks that obstructed development. Consequently, the essential function of educational planning was to adjust the occupational skills of the active population to the technical requirements of the new kinds of job that would necessarily multiply as development, particularly industrial development, made headway. This did not of course imply denying education other broader objectives—in reality, some plans proposed the pursuit of other ends such as cultural and social integration—, but it did introduce a new outlook whose lodestar was technical qualification and for which the most significant instruments were the projections of demand for technical fitness and occupational training.

This approach was grounded on a somewhat unorthodox version of the theory of human capital. This theory maintained that neither physical capital nor technology sufficed to account for economic growth. There were always other residual factors, outstanding among which was the 'quality' of the labour force. In the opinion of Theodore W. Schultz, education ceased to be, in the eyes of the economists, a consumer good and became a form of capital accumulation. This conception was incorporated into the 'orthodox' economic theories which, of course, advocated leaving this type of capital accumulation and its allocation to the free play of

market forces. However, in the 1960s, during the boom of planning-oriented thinking based on the visible evidence that the operation of the market was ill-fitted to resolve such problems, particularly in underdeveloped countries, the theory of human capital and the economics of education were placed at the service of educational planning.

It was, indubitably, an endeavour rather than an achievement. The planning drive was short-lived, so that it seldom went any farther than the effort of gathering and organizing information, starting a system of statistics, formulating a diagnosis and establishing a few objectives; when it did advance beyond these goals, its main task consisted in creating, reorganizing or modernizing the system of technical education.

During the succeeding years, the economic growth of Latin America, although little affected by planning, attained a very considerable rate. For the region as a whole, the average annual growth rates shown by the gross domestic product were 5.7% in the 1960s and 6.5% between 1970 and 1975.<sup>1</sup> Industrial development did even better, keeping up an average rate of 6.3% in the 1960s and 6.8% between 1970 and 1975.<sup>2</sup> The progress made in industrialization was therefore very significant; but it did not meet expectations with regard to the creation of jobs. Improvements in productivity were substantial in agriculture and even greater in industry, and for that very reason the increase in employment engendered by growth was extremely slight in agriculture and averaged only 2.8% per annum in industry. The major generator of employment opportunities was the tertiary sector.<sup>3</sup> Around 1970 agriculture provided 10% of the new jobs created, industry 30% and services 60%.<sup>4</sup>

Secondly, the growth of secondary and higher education was explosive, in response to the social demand of the middle and upper strata, although insufficient progress was made in primary education to resolve illiteracy

problems, particularly in the case of some social groups at the lowest levels.

For this reason, and because of industrialization patterns themselves demand for technical training was not in line with the projections—kindling scepticism as to human resource training methods and the validity of the projections—nor did it generate the problems that had been supposed. The training of the labour force was not, generally speaking, a bottleneck obstructing industrial development; on the contrary, some striking surpluses of skilled population were to be noted.

Consequently, the theory that during the 1960s linked education to development lost credibility. Economists and governments then turned their attention mainly to the difficulties generated by the global cost of the education system and the pressures caused by the so-called 'surpluses' of persons with schooling. Employment market problems began to be perceived as something more complex, with emphasis on unemployment and underemployment. The role of education in resolving these problems became far less clear and aroused a great deal of controversy; consequently, the part that education ought to play in the development process also began to look much more uncertain.

The resulting situation is definitely dangerous. The replacement of a simple and largely inadequate theory by a much more complex and subtly-shaded perception must always be hailed as progress; but this progress is worth very little if it leads to uncertainty and paralyzes policy orientations. Education needs clearly-defined and energetic policies; and human and social development, in which the rate and patterns of economic growth are involved, needs education.

Reflection on the subject becomes a more imperative necessity than ever.

## 2. *The subsequent view of employment problems*

Later discussions of the topic, in particular the bibliographical output of PREALC and ECLA in this field, are centred on concern as regards unemployment and underemployment. They explain that Latin America's economic growth, although its rate is appreciable, affords only partial occupation for the labour force. The implications are, from the economic standpoint,

<sup>1</sup>UNESCO-ECLA-UNDP, Project on Development and Education in Latin America and the Caribbean, *Informes Finales 3*, "La educación y los problemas del empleo en América Latina", table 3.

<sup>2</sup>*Ibidem*.

<sup>3</sup>*Ibidem*, table 5.

<sup>4</sup>*Ibidem*, p. 7.

underutilization of a basic resource and the contraction and segmentation of the domestic market; from a social point of view, a piling-up of serious problems, among which the worst are poverty and marginality.

a) *Unemployment*

The first component of this underutilization is *overt unemployment*. In 1976, PREALC estimated, on the basis of empirical information that was not exhaustive on account of statistical data deficiencies, that in 1970 the rate of overt unemployment in Latin America as a whole had been 5.8%, as the result of national figures ranging from 2% to 16%.<sup>5</sup> These rates, higher than those of the developed capitalist countries, were attributed to the insufficient growth of the Latin American economies. Long-term projections based on econometric models pointed to increasing rates of overt unemployment, which by the end of the century would reach, according to PREALC, 9.9%, and according to ECLA, 6.3%.<sup>6</sup>

Since then opinions have noticeably changed. If the earlier hypotheses had been correct, the fall in the growth rate after the petroleum crisis would have immediately aggravated unemployment. According to current data, however, urban overt unemployment, which had been 6.6% in 1970, would appear to have gradually declined to 5.8% by 1980, despite the lower economic growth rate recorded during the second half of the 1970s.<sup>7</sup> These facts cast serious doubt on the explanation based on the 'insufficient dynamism' of the Latin American economies, and much more still on the above-mentioned long-term trends towards increase. The comment is valid even though the exacerbation of the recession after 1980 did then raise the rate to 7.4% in 1982.<sup>8</sup>

At this point a few reasonable assumptions may be put forward on the basis of the known

series of overt unemployment rates, with all due reservations in view of the still inadequate coverage and quality of the empirical data available:

i) Before the petroleum crisis, average unemployment rates were higher than those characteristic of the developed countries. This difference was not imputable to a globally insufficient rate of economic growth, which suggests that neither could it be resolved by an acceleration of growth alone. The explanation ought to be based on structural differences between the societies concerned, and, in principle, the analysis should not be confined to the econometric variables included in the models used.

ii) Although the apparent contradiction with the loss of dynamism of the Latin American economies is not enough to preclude the possibility of a conjunctural explanation of what happened, the decrease in rates between 1970 and 1980 suggests a longer-term trend linked to the structural evolution of society. An explanation of this type has not been hitherto formulated, or at least has not gained currency.

b) *Underemployment*

The second component of underutilization is *invisible underemployment*.<sup>9</sup> This is a much vaguer concept. According to a first very simple definition, what is implied is the partial utilization of personal work capacity, when it does not take the form of limitation of the time worked.

This definition could cover two cases. The first would correspond to persons who waste the knowledge or skill they have acquired by working in a job which is beneath their qualifications—a problem very closely linked to that of the so-called 'educational surpluses'. The second would relate to persons with abnormally low productivity, usually due to deficiencies in respect of capital goods, technology, raw

<sup>5</sup>PREALC, *The unemployment problem in Latin America: Facts, outlook and policies*, Santiago, Chile, ILO, 1976, table 5.

<sup>6</sup>*Ibidem*, chap. III.

<sup>7</sup>PREALC, *Ajuste externo, empleo y salarios en América Latina y el Caribe*, in ECLA, *Notas sobre la economía y el desarrollo de América Latina*, No. 372, table 1.

<sup>8</sup>*Ibidem*.

<sup>9</sup>We are not taking into consideration here the other two notably less significant components: disguised unemployment and visible underemployment. See "La educación y los problemas del empleo", *op. cit.*, chapter III and notes.

materials or markets. Typical examples: the *minifundista* (smallholder) whose work capacity would suffice to farm a much larger tract of land, with substantially better results; or the unemployed town-dweller who, in default of productive employment, engages in very ill-paid and perhaps rather useless activities, such as looking after cars parked in the streets. In both cases, the idea of a partial waste of work capacity naturally arises.

The term *underemployment* as currently used in Latin America refers to the second concept. The generalized definition would seem to be full-time *occupation in low-productivity tasks*. But productivity is not always an available datum, and low productivity as an indicator is superseded by *low pay* and *low income*. This is a very serious distortion, since in many instances wages are low even though productivity is not. It appears, therefore, unduly equivocal to confuse underemployment with exploitation.

Even with reference to productivity, the concept, formulated generically, is highly problematic. What is normal productivity? The national average? A Latin American average? Some absolute level regarded as an acceptable minimum? A standard of reference drawn from the developed countries? The scale of underemployment will change according to the answer given. To ensure full employment for the population, must productivity be equal in all occupations? Must the country be a rich one? Is the term unemployment a synonym for poverty? Is it a synonym for inequality?

The concept becomes hazardous in so far as, being over-abstract, it loses contact with the point of departure and ends by applying the same word to social phenomena so diverse as conjunctural disguised unemployment, technological backwardness, regional or national inequalities in per capita income, and the poverty resulting from the irrational distribution of productive goods or from extreme wage disparities. In the last analysis, it is risky in so far as it confuses under the same head the partial utilization of work capacity; its full but inefficient utilization; and its full and efficient utilization, but at unfairly low rates of pay.

This underemployment, phenomenon customarily measured by income, has over and

over again been described as Latin America's principal problem.<sup>10</sup> In 1980, according to estimates, it affected 46 million persons, i.e., 41% of the economically active population.<sup>11</sup> But not only is it considered quantitatively much more significant than overt unemployment; it is also regarded as more serious; and for a variety of reasons. For each individual overt unemployment is usually a temporary state, although for some categories of the active population it takes on a cyclical or repetitive form; underemployment, on the other hand, is a predominantly chronic state. Secondly, overt unemployment primarily affects women and youth, whereas underemployment is more characteristic of heads of households and drags the entire family nucleus in its wake.<sup>12</sup> All this is admissible, even when reservations as to the concept of underemployment are formulated: most of the social phenomena assembled under that head are stable and chronic manifestations of social distortions. They are closely associated with poverty; they have a strong determining influence on the quality of life; they lead to social segregation; and they reproduce and perpetuate their vicious circles through the environment, through the cultural and economic inheritance, and through virtual exclusion from social power.

As seen in the mid-1970s, underemployment was not only on a dramatically large scale, but was also thought to be increasing.<sup>13</sup> However, the passage of time has not corroborated this trend. Today it is estimated that proportionally underemployment is decreasing slightly, although it continues to increase in absolute terms; this is partly attributable to the rural *minifundio's* loss of percentage weight, given the rapid growth of the urban population, where underemployment is less. At all events—like poverty—it has little chance of being reduced in absolute values; and still less of disappearing altogether.

<sup>10</sup>PREALC, *The unemployment problem in Latin America: Facts, outlook and policies*, op. cit., p. 1.

<sup>11</sup>PREALC, "Técnicas para la Planificación del Empleo en América Latina y el Caribe", in ECLA, *Notas sobre la economía y el desarrollo en América Latina*, No. 329.

<sup>12</sup>PREALC, *The unemployment problem...*, op. cit., p. 20.

<sup>13</sup>*Ibidem*, chapter III-C.

c) *Total underutilization of the labour force*

In the bibliography on the region overt unemployment and underemployment are often added together to arrive at what has been called *total underutilization of the labour force*. To this end the procedure adopted has been to express underemployment by a number of unemployed equivalents, taking as a basis the proportion of normal productivity or income represented by the productivity or income of the unemployed. Thus the 46 million underemployed in 1980 were considered 'equivalent' to 24 million totally unemployed; and the addition of these to the 6 million overtly unemployed gave a total of 30 million 'unemployed equivalents'.<sup>14</sup> Perhaps for certain purposes, and with an alert critical sense, it may be useful to handle so abstract an equivalence. But neither can it be concealed that the reservations suggested by the concept of underemployment increase after this transmutation. The moment at which the reservations become a formal objection is when these calculations are pressed into the service of the thesis of insufficient dynamism. Too often has this volume of underutilization of the labour force been accounted for in Latin America by inadequate growth of the economic product; and too often, also, have these figures been exhibited as proof that economic growth fell short of what was required.

Obviously, no one would wish to become an advocate of slow economic growth, or to argue that the resolution of social problems is independent of the increase in the product. The objections are of another sort: do the known facts really warrant the conclusion that it has been an insufficient growth rate that has prevented the reduction of unemployment and underemployment? Can it legitimately be inferred that a higher rate would *per se* absorb unemployment and underemployment?

Even in respect of overt unemployment, it may well be thought that this last expectation would be disappointed. Faster growth ought certainly to reduce the excess unemployment caused since 1980 by the severe recession; but the rest is a great deal more than doubtful. There are

countless examples of very rapid and even exceptional local or national development which have been coexistent with high unemployment rates. The problem unquestionably deserves very careful study.

But it is with regard to underemployment that there seem to be least grounds for such an expectation: Would rapid growth by itself bring about a more rational distribution of land? Would it lead to less concentrated allocation of capital goods? Would it make income distribution more equitable? Would it reduce technological segmentation? After the region's experience of economic growth, few would dare to reply to these or other similar questions in the affirmative.

Even setting aside the differences of style between 'labour-intensive' and 'capital-intensive' growth, the simple explanation that unemployment is an inverse function of the growth rate of the product is valid for overt unemployment and for some forms of disguised unemployment, but by no means for underemployment as a whole. Furthermore, it is valid in the context of conjunctural variations, assuming structural characteristics to be fixed. To begin with, 'frictional unemployment' is a classic designation for an incompressible quantum of unemployment which is required for the operation of the market, and is determined by structural characteristics of each economy and of each society, and which subsists even during periods when growth is avid in its demand for manpower. It seems indispensable to determine these parameters and to seek for their structural causes—which may range over such varied fields as territorial organization, cultural divisions, population shifts, occupational training or the efficiency of employment services and of methods of recruitment—before concluding that the difference from the capitalist developed countries is due to the growth rate of the per capita product; above all when in this variable no significant disparities are observable between Latin America and the countries aforesaid. This questioning of the most widespread interpretations of employment problems may seem to be straying too far from the central topic of the present article. But a satisfactory delimitation of the function of social policies,

<sup>14</sup>PREALC, "Técnicas para la planificación...", *op. cit.*, table 1.

including those oriented towards changing structural aspects of society, will not be possible without first clearing up the fallacy currently implicit in the thesis of 'insufficient dynamism': the economic assumption that all employment problems depend simply and solely on economic growth and are, therefore, in the last analysis, independent of the other dimensions of social life. Reinstatement of the unknown quantities at present existing with respect to the nature and causes of employment problems is an indispensable requisite for reflecting on the role that education plays or may play in this field.

d) *Technological heterogeneity and the informal sector*

In reality, the structural roots of underemployment have long been recognized in Latin America. ECLA has devoted a great deal of attention to the structural heterogeneity of the Latin American economies. It is a heterogeneity that finds expression in the coexistence of productive units which differ greatly in their characteristics: organization, size, technology, capital-intensiveness or labour-intensiveness. Some of these units seem survivals from a remote past, while others imitate the current or recent models originating in the more developed countries. It has been said, therefore, that a 'primitive stratum', an 'intermediate stratum' and a 'modern stratum' exist side by side. It is more than ten years since Aníbal Pinto and Armando Di Filippo established differences in productivity between the extreme strata ranging from 1 to 29,<sup>15</sup> and pointed out that the volume of persons working in the 'primitive' stratum almost doubled the volume employed in the 'modern' one.

This division into strata is, up to a point, a cross-section of the classification by branches of activity, although it does not divide up each of these in the same proportion. The 'primitive' stratum maintained the biggest volumes of production in agriculture and artisan activities; it accounted for only a minor proportion of mining, basic services and trade; and disappeared altogether in manufacturing.

<sup>15</sup>See Aníbal Pinto and Armando Di Filippo, "Notas para una estrategia de la distribución y redistribución del ingreso", in Alejandro Foxley, *Distribución del ingreso*, Mexico City, Fondo de Cultura Económica, 1974.

The concept of 'primitive', although it has a special significance, is, strictly speaking, inappropriate. If in anthropology it has been stressed that the so-called primitive peoples are not really primitive today, there is all the more reason for making it clear that these productive strata, integrated in many ways into existing national societies, have undergone a historical evolution that has radically changed their characteristics and their significance.

A concept related to this, and widely current today, is that of the informal sector. PREALC, closely following the ILO report on Kenya, defined it in the following notes,<sup>16</sup> highlighting the many-sided heterogeneity of economic life in the developing countries:

i) *Ease of entrance*, mostly because of the absence of the administrative processes which are required for the installation of bigger enterprises and, what is more, because of the small capital needs;

ii) *Family ownership* as the predominant form of organization of economic units;

iii) *Low level of labour force skills*, which are frequently acquired outside the formal education system;

iv) *Small scale* of activities;

v) *Use of domestic production resources*;

vi) *Labour-intensive technology*;

vii) *Competitive markets*, both for factors and output, as against the monopolistic or oligopolistic tendency of the formal sector. From the point of view of the individual workers, ease of entrance means a very elastic labour supply and consequently low incomes, compressed by competition and limited only by subsistence levels.

And other supplementary notes are added:

viii) *Little differentiation between owners of capital and contributors of labour*;

ix) *Limited role of wages*;

x) *Low degree of internal organization of enterprises*;

xi) *Weak external regulation*.

This type of definition by accumulation of descriptive notes, all of which are not always applicable, does not leave a very clear-cut

<sup>16</sup>PREALC, *The employment problem in Latin America...*, *op. cit.* p. 33.



concept; but at all events it is preferable to those that presuppose an etiology. In the case of one of these definitions, the informal sector would seem to embrace those persons who "do not work in organized enterprises and are the visible result of the manpower surplus".<sup>17</sup> Here emerges, *a priori*, the thesis of manpower redundancy—correlative to that of 'insufficient dynamism'—and the scarcely defensible assertion that all activity in non-organized enterprises is a manifestation of the redundancy in question.

The informal sector is an awkward subject; economic analysis is a much more comfortable process when it deals with the modern stratum and that of organized enterprises, where it has the invaluable support of the developed countries' economic and sociological thinking. Although there too they have discovered the

importance of a formerly underestimated informal sector, made up of activities which used to be outside the scope of orthodox conceptualization, it is indubitably very different from its counterpart in the developing countries. Whatever the conceptual obscurities that remain to be cleared up, it is an indisputable fact that a large proportion of underemployment is to be found in this sector; and that the differences which separate it from the formal sector are preponderantly structural, and exhibit, among their many dimensions, undeniable cultural connotations. This aspect of the problem alone warrants the inference that if the underemployment phenomenon is not to be misrepresented and wrongly diagnosed, there is an imperative need to examine it in all its sociological complexity.

## II

### Causes of segmentation of the employment market

The problem once stated in the foregoing terms, a question of capital importance was bound to call for an answer: What is happening in the employment market to account for the persistent survival of these pockets of wasted manpower? For if the market is assumed to be operating smoothly, the economy ought to provide employment for almost the whole of the population.

Of course—and this explains the 'almost'—an ineliminable residuum of frictional unemployment would presumably subsist in any event. A change of job, even in so-called full employment situations, is not an instantaneous process. It takes time for the available job and the right person to fill it to come together; the person concerned perhaps has to transplant himself to a different geographical area, move house, follow a course of training. Structural changes in the economy, migrations, conjunctural fluctuations, technological innovations, microeconomic

vicissitudes, and even personal possibilities of career advancement generate continuous changes of job. The result of these changes and the time they absorb is a quantum of frictional unemployment which may vary through time, or from one country to another, as conditions alter.

In discussing this topic it seems necessary to refer to the Marxist thesis of the 'reserve army', according to which the capitalist economies always leave a quantum of manpower unemployed, in order to reduce the workers' bargaining power and thus lower the cost of labour. There is indeed some truth in this—although not necessarily in accordance with the Marxist formulation—which all analyses of the labour market admit. When manpower is in short supply its price tends to rise; the higher cost of labour induces the entrepreneur to introduce more capital-intensive techniques, which cut down the number of personnel and at the same time eliminate pressure in favour of wage increases. It is easy to agree that this phenomenon combines with the demands motivated by frictional resistances to strike a balance, on the basis of a certain quantum of

<sup>17</sup>P.R. Souza and V.E. Tokman, "El sector informal urbano en América Latina", in PREALC-ILO, *Sector informal, funcionamiento y políticas*, Santiago, Chile, ILO, 1978, p. 28.

unemployed, between a fluid supply of low-cost manpower and a limitation of the investment in capital goods required by the more advanced and labour-saving technologies.

All this is understandable. But what is the reason for a behaviour substantially different from that recorded in the developed economies? Why such huge underutilization figures? This is the difference that is still unexplained. For some reason or other all the so-called manpower 'surplus' does not flow into the market as theory would lead one to expect. If there is a surplus, at least its absorption does not seem to be one of the aims of equilibria. A deep-seated technological, social and cultural heterogeneity appears to split up the market into juxtaposed worlds, between which there is virtually no communication, and which are not governed by the same laws.

Inevitably, tentative explanations of this segmentation have been put forward, since some writers are not content with reference to quantitative insufficient dynamism.

### 1. *The radical theses*

Some theorists, orthodoxly Marxist or United States adherents of radical currents of thought, have urged that the focal point of the problem lies in production relations and in the class conflicts connected with the production surplus. In their opinion, unemployment and underemployment derive neither from technological problems nor from the educational characteristics of human capital; on the contrary, capital chooses technology and resorts to other economic and political means in order to maintain that reserve of manpower which enables it to keep wages down and appropriate the economic surplus. It frequently happens that so much emphasis is placed on the deliberateness with which technology is chosen to achieve this result, that some of these explanations have been stigmatized as 'conspiratorial'.<sup>18</sup> Obviously, there does not seem much likelihood that the microeconomic decisions which determine the incorporation of technology can represent disciplined and intentional action in the service

of such a strategy. It appears more reasonable to suppose that microeconomic decisions are adopted within the ambit of each enterprise to further its own interests, and that any collective intention on the part of entrepreneurs is mainly directed towards containing wages and social pressures, either in the course of collective bargaining, or by political means, the latter especially when they can call upon the resources of an authoritarian State.

If this is so, entrepreneurs could hardly carry the adoption of manpower-releasing technologies to extremes without taking the irrational step of sacrificing the economic advantages and competitive capacity of their own enterprises. Consequently, the following are the inevitable questions that arise: Why should the reserve army be bigger than in the developed capitalist countries? Can it be that those countries are less capitalist than Latin America?

Once again: what the explanation does not explain is, precisely, the difference. According to the theory itself, the class conflict is a factor common to capitalism in developed and underdeveloped countries alike. There must be other explanations of the differences which should be sought in the articulation of the economic system with the social and political system.

This is an important point from the angle of education. If the reserve army thesis accounted for the resulting difference in the occupational terrain as proper to the system itself, not much room would be left for social policies, including educational policies, to change the mechanisms generating unemployment and underemployment. If, on the other hand, the difference may lie in the social and political system, the issue must be restated in new terms.

### 2. *The explanation of technological dualism*

Some of the answers given base their explanations on the existence of a technological dualism. The different strata of the economy use different technologies. The modern stratum, in which foreign enterprises are often predominant, uses extremely efficient capital-intensive technologies, transferred from highly developed

<sup>18</sup>See Claudio Salm, *Escolta e trabalho*, São Paulo, Livraria Brasiliense Editora, 1980, p. 6.

countries. It employs little manpower, carefully screened, to which it can pay high wages. When purchasing product designs, machinery, equipment and technical assistance, these enterprises import rigid 'packages of technology', adapted to the conditions of the developed economies. The inflexibility of these packages leads to deviation from the combination of capital and manpower that would be optimal for Latin American conditions. The overall result, reached in various ways—absorption of the saving necessary for the development of the less-advanced strata, product qualities and costs inaccessible to the members of such strata, limited employment of manpower, etc.—is an exclusive development style, responsible for simultaneous segmentation of production, the employment market, income distribution and the consumer market, and thus generating a feedback for its own exclusive tendency.

Unquestionably, these 'packages of technology', and the tiny margin they leave for seeking optimal combinations of capital and labour through appropriate technologies, constitute a notorious feature of certain activities, including several spearhead industries. There are serious objections, however, to an attempt to generalize this phenomenon and blame it for the global trend towards underutilization of the labour force. In many of the activities that are of most significance from the standpoint of employment, the rigidity of technology is a fiction. In the course of organizing production a thousand opportunities for saving capital and equipment and employing more personnel crop up, and this ought to suffice for the establishment of equilibrium. In most instances, the decision to renew machinery, equipment and technology is prompted by an economic calculation on the part of the entrepreneur; an assumption that microeconomic decisions are permanently biased by a propensity to squander capital seems too unrealistic, and pays no heed to the situation of the overwhelming majority of Latin American enterprises.

Even without sharing this conception of technological dualism pure and simple, it is worth while to point out what would be its implications in the field of education. If the attempt to account for segmentation in heterogeneous strata were based simply on the

rigidity of packages of technology, it is hard to see what part education could play in doing away with heterogeneity. Logically, therefore, from this explanation interpretations of the role of education derive which in no event propose so ambitious an objective. According to an extreme interpretation, the business of the educational system is to prepare the workers for productive performance in the modern sector: "The school is at the service of capitalist production". The diametrically opposed interpretation alleges that capitalist forms of production require a steadily decreasing proportion of skilled labour; to such an extent is technique incorporated in organization and machinery that for most of the personnel education is irrelevant from the productive point of view. "Neither is the school capitalist, nor does capital need the school".<sup>19</sup>

### 3. *Transposition of models in the framework of stratification and dependence*

There are other conceptions of segmentation which manipulate the 'technological packages' argument to explain the contrast between forms of production and its consequences, but which do not make technology an autonomous explanatory factor. Some of them have enjoyed and still enjoy particular prestige; they stress the view that peripheral societies, and especially those of Latin America, with their pronounced stratification, are subject to the demonstration effect of the developed countries' life styles. The upper and upper middle social strata imitate, sometimes with frenzied zeal, models of this kind, which the economies of the region cannot finance for all their inhabitants. To attain them the upper strata resort to power in support of very unequal income distribution and overspend on conspicuous consumption, thus cutting down the saving needed to increase the productivity of the backward sector. The imitation of models also extends to types of product, as well as to techniques for producing them. Thus modern production patterns find small markets for their products, inaccessible to the purchasing power of most of the population, and tend to maintain a

<sup>19</sup>Claudio Salm, *Escola e trabalho*, op. cit., p. 2.

high proportion of idle capacity. The interaction of these and other causes is conducive to forms of exclusive development which determine segmentation and prevent the diffusion of technology. The modern sector can provide jobs only for part of the population and the backward sector is left bogged down in low productivity and underemployment.

It is not possible to condense in one article, with the precision the subject deserves, a description and still less a critical analysis of the different variants of this type of explanation. Suffice it to say that in comparison with technological dualism pure and simple, the arguments that it adduces are much more comprehensive, take into account a variety of phenomena that cannot be overlooked, and link them up in decidedly more consistent explanatory systems. The imitation of life styles is not so much an economic phenomenon as a multidimensional social phenomenon which includes the idea of cultural penetration. This penetration—owing to the sharp stratification of the local population in terms of income and power, but also of cultural base and accessibility—operates differentially and generates diverse responses in the different parts of society. If the demonstration effect had equal incidence on all social strata, it is hard to see why it might be more responsible for the segmentation of the economy than the incentive of acquiring wealth and the consumer aspirations which operate in every capitalist economy. If a difference is to be sought that accounts for the peculiar phenomenon of Latin American segmentation, it will have to be found in a different, and already segmented, way of receiving the demonstration effect; or in a heterogeneous capacity for reaction to the stimuli aforesaid; that is, in any event, in a pre-existing stratification. And this, tautological as it may seem, is very important for putting employment problems in their true place.

These explanations, critically interpreted, throw into relief the force of the tension to which our societies are subjected by the global dephasing and the linkages existing between them and the world centres. But they also underline the fact that the reactions to this tension are conditioned by the internal dephasing and stratification pre-existing in these

societies; they show that the demonstration effect unleashes violent stimuli. These stimuli, such as the incentives of pecuniary gain and consumer aspirations, do not spontaneously generate, through the economic processes, either equality or homogeneity. Equitable distribution of the fruits of development is a policy objective, not a spontaneous product. On the contrary, when economic mechanisms operate on a heterogeneous basis, it should not be surprising that they reproduce and even multiply inequality.

#### 4. *The historical roots of segmentation*

But if the quest for economic mechanisms that explain Latin America's employment problems, as regards their specificity in relation to the developed capitalist countries, goes back to a pre-existing social heterogeneity, this means, up to a point, a return to square one.

In the first place, it is an invitation to look back into the past, where there is no trouble in finding some background elements of the first importance. One of them, still very close to us in time—barely more than a human life time—is slavery; another, more remote in origin but not always extinct, is the subjugation of the indigenous populations by the whites after the conquest. Large proportions of the descendants of those subdued by force, particularly when they remained in their environment and were socially segregated, today represent backward groups in these segmented societies. The descendants of immigrants from Europe, or from other developed societies, 'tendentially' coincide with modern segments. This corroboration of the historical continuity of segmentation is too obvious to be overlooked.

Continuity is one thing, however, and lack of mobility another; and the Latin American process is very far from being persistent. The growth of the rural populations legally freed from slavery or serfdom, and the concentration of land ownership, confined such population groups to the *minifundio* or compelled them to emigrate.

The indigenous populations and the descendants of slaves who migrated from rural areas to the cities went through the melting-pot of urbanization with its linguistic, educational

and occupational effects; settlers on poor land were impoverished and virtually excluded from progress. Even though the traces of that heritage of initial oppression can still sometimes be found in the conditions obtaining for the urban popular sector of today, their situation is substantially different.

##### 5. *The contributions of cultural dualism*

A few decades ago, the theories of cultural dualism tried to explain the processes whereby segmentation is transmuted and perpetuated through time. For the upholders of dualism the populations of the traditional and modern strata are differentiated by their cultures and particularly by their values. The modern entrepreneur, sometimes coming from developed countries, shares the capitalist ethic of accumulation; the technicians and workers respond, as in the developed countries, to wage incentives. In contrast, in the traditional strata, people work to satisfy their minimum material needs, but their code of values is different and in it solidarity and immediate concerns take priority. There is no visible unemployment; what work there may be is shared, and those who cannot work are protected. Accordingly, cultural inertia is the chief explanatory factor of segmentation. There is no question here of a problem of training for employment, nor even of a problem of formal education, but of a global phenomenon of a social and cultural character.

By the adherents of the theory of cultural dualism, which was largely based on the study of indigenous populations, the dichotomy is held to affect the structure of the basic personality, as it likewise affects the social structure, and the two sustain each other. Incorporating the traditional sectors into development calls for a complex cultural and social change whose centre of gravity lies in values; even for schooling, motivation is necessary.

When this emphasis on culture is carried too far, it tends to relegate to a secondary plane the basic structural conditions—for example, poverty and the meagerness of the land in the case of the indigenes of the Altiplano (high Andean plateaux)—to which culture is necessarily adapted and linked. But, viewed through its best exponents, this theory can

hardly be accused of simplism; it is a sociological conception which considers that the social structure and the cultural structure are mutually self-sustaining. To break down the barriers that shut in traditional society entails an attack on every front: demonstration effects, introduction of technology, changes in basic economic structures, food, health, housing, must all be associated with the educational effort to ensure its success.

But the problems generated by cultural dualism have not been identified in the backward areas alone. Migrants carried with them a cultural baggage whose content is incompatible with modern society, and on contact with it must be modified. Sociological studies have systematically shown the relation between these processes of urban acculturation and such phenomena as marginality, anomie, and of course, critical employment situations. Cultural inertia, from the standpoint of employment problems, played an important part in the urban segmentation of the active population.

The dualist theory of a quarter of a century ago, in describing the most typical Latin American countries, stressed the coexistence of modern geographical areas with others of a traditional character, and highlighted the resistance of the backward areas to the penetration of development. The study of the obstacles encountered revealed not only the meagerness of these areas' natural resources, the irrationality of their structure or the cultural inertia of their inhabitants: obstacles which might be called static. Processes were also found which helped to block penetration; for example, it was the young people, capable, enterprising and of course with the highest levels of schooling, who were the first to emigrate to the modern areas. As a result of all this, the backward areas were left with a negatively selected population, deprived of its most dynamic elements. Because they were traditional, they had high birth rates, which increased their proportion of inactive population; and because they were poor, they had high morbidity rates. The sums that families should have allocated to education and health were too heavy for their poverty to support. The flow of saving followed the same direction as human migration, seeking the opportunities opened up by the prosperity of the modern

areas. In consequence of these and other circular and cumulative processes, the diffusion of development was obstructed, and Latin America witnessed a stubborn perpetuation of backwardness and segmentation.

One of the most important contributions offered in the above-mentioned period is, undoubtedly, that of having made it clear that not only does social and cultural inertia perpetuate social segmentation, but also the dynamism unleashed by development itself may bar the progress of the traditional sector and, at the same time, may generate urban segmentation phenomena which are all the more marked the more intensive is that dynamism, precisely because of the clash between violent change and cultural inertia.

This is a surprising piece of evidence, necessitating a different way of introducing time into the hypotheses accounting for segmentation; and it acquires immense importance in face of the existing difficulties of explaining the peculiar features of unemployment and above all of underemployment in the region. Given the rapidity of Latin American population growth, urbanization and metropolitanization, and with due regard to the relatively recent historical background of intense social heterogeneity produced by extreme forms of domination, this line of theory perhaps makes it possible to explain, to a large extent, the segmented fashion in which economic, social and political systems are persistently reflected in the real conditions obtaining in Latin America.

And at the same time, perhaps it may allow more satisfactory explanations to be formulated for certain specific features that are particularly startling; one of them being the fact that poles of explosive growth—in respect of investment, production, occupation and population—<sup>20</sup> show high rates of unemployment while at the same time they are growing at a dizzy speed. This state of affairs, which seems to defy economic equations, has often been explained by alleging that, owing to the existing manpower surpluses,

the expectations of employment created always surpassed real employment openings. Perhaps this may happen, but at least a suspicion of an underlying contradiction lingers: Do such expectations still exert their attraction after employment opportunities have reached saturation point? Is it all an error of calculation? Is it merely a form of queuing up for jobs? Or do people realize that this stage is a sort of melting-pot through which they must pass in order to gain entry, for themselves and their children, to a different and desirable world, and that in the long run the transition will be worth their pains?

A detailed study of the transmutation undergone by these migrant populations before they achieve full employment—as opposed to unstable employment and underemployment—shows it to be astounding in its magnitude, since it is not merely occupational, but affects their entire culture, in the anthropological sense of the term, and even language, when the populations concerned are indigenous. A hard, traumatic, long-drawn-out transmutation, generating anomie and marginality. To explain away this metamorphosing population as a mere surplus of migrants, is an extremely dangerous simplification; perhaps it implies completely losing touch with the problem.

On the other hand, it would be useless to attempt to dissimulate the weaknesses of the theories of cultural dualism. Perhaps the worst of them is the concept of modernization itself; but this does not invalidate the preceding analyses. In any case, neither does it seem admissible to ignore the dimensions they have introduced into the statement of the problem. Simplified explanations, reduced to want of occupational training, confined to insufficiency in the rate of economic growth, restricted to an intrinsic characteristic of imported technology or to the capitalists' manipulation of technology to bring down wages, are not enough. And if they fail to explain, they may lead to false conclusions. To begin with, it is not surprising that they should have done much to create bewilderment as to the role of education.

Employment problems are not simply interchangeable modalities of a non-utilized manpower surplus. They are specific social facts,

<sup>20</sup>We cite, by way of examples, the city of Guayana in Venezuela, and Cotzacoalcos-Minatitlán, in Mexico. The fact, however, seems fairly widespread throughout the world.

sharply differentiated and conditioned by a heterogeneity which embraces social structures, culture and personality. It is true that this heterogeneity has its roots in history, but it also derives from the direction and from the very dynamism of current changes.

The perpetuation of these phenomena would certainly suffice to call in question the prevailing development styles, not only as economic but also as societal models. If the causes of this perpetuation include recalcitrance to cultural changes, or their hazardous or

traumatic character, it is for education to play a part in doing away with heterogeneity.

In that case, neither is it unconcerned with employment problems, nor is its duty confined to giving proper vocational training to the active population. On the contrary, its fundamental role, from this point of view, is to help in combination with other forms of change, to get rid of segmentation and to minimize the human cost of the changes; its function is to integrate society and fit it for equitable and participative development.

### III

## Some empirical evidence

Analyses of Latin American statistical data on employment and education help to reaffirm the image of a very intensive segmentation in which the cultural component is extremely significant. The education variable is indubitably associated with the occupational categories, although it does not strictly correspond to what is assumed in some of the most accepted social stratification schemes, particularly those based on the entrepreneur/wage-earner dichotomy. In contrast, it has a very strong linkage with geographical location—rural, urban, metropolitan and other urban areas—and, in particular, with the existence of population groups that preserve their indigenous language and culture. Urban activities, even if manual, tend to be associated with a certain level of general education. On the other hand, data are lacking on the comparatively important role that should be played by vocational teaching, except in the categories of technicians and university-educated professionals. A whole set of other facts underline the close association between the urbanization process and educational change.

History bears eloquent witness to the different kinds of resistance to the penetration of education in the various segments. These differential behaviour patterns indicate a trend towards the perpetuation of very low levels of

education with considerable proportions of illiteracy and incipient schooling or none at all in large segments of the population, despite the rate of educational expansion in general and the explosive development of secondary and higher education. This evidence gives the impression that in all likelihood educational deficiencies, in their turn, have a serious incidence on the maintenance of segmentation.

At the same time, with due regard to the fact that in some places and specialities there are population surpluses with high educational indexes, it can nevertheless be seen that the general tendency is for an increase in the level of education to reduce the risks of unemployment, especially at the upper levels. A reduction in the supply of secondary and higher education might result in relative shortages which could accentuate still more the inequality of income distribution and the adscription of the best educated to the upper strata.

#### 1. *Education and occupation*

Table 1 and figure 1, based on OMUECE samples from 11 Latin American countries, present a panorama of the educational profiles—percentage frequencies by years of study—for each of the socio-occupational strata defined under the ECLA/UNICEF Project on

Table I  
LATIN AMERICA (ELEVEN COUNTRIES):<sup>a</sup> LEVELS OF EDUCATION BY OCCUPATIONAL STRATA, 1960 AND 1970  
(Percentages)

Occupational strata	No schooling		1 to 3 years		4 to 6 years		7 to 9 years		10 to 12 years		13 years and over		Undeclared	
	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970	1960	1970
1. <i>Middle and upper strata in secondary and tertiary occupations</i>	7.33	10.72	15.31	8.43	35.34	24.72	10.45	15.06	15.87	14.00	14.12	12.37	1.56	14.70
a. Employers in commerce, industry and services	15.36	11.94	25.23	10.34	34.85	28.73	6.18	15.05	9.07	9.28	7.55	10.52	1.76	14.14
b. Management personnel in commerce, industry and services	7.92	10.82	18.42	6.00	34.27	21.08	10.51	15.20	15.92	14.64	11.44	17.46	1.52	14.80
c. Independent professionals and semi-professionals	6.66	7.61	11.19	5.91	19.71	12.85	6.42	7.43	9.89	8.85	44.62	48.29	1.51	9.06
d. Dependent professionals	1.95	6.88	5.52	2.70	23.00	12.16	8.31	9.09	25.37	21.33	33.37	27.54	2.48	20.30
e. Own-account activities in commerce	11.57	17.39	22.25	19.66	38.03	33.94	13.43	13.03	8.65	4.75	4.96	2.18	1.11	9.05
f. Employees, salesmen and subordinate personnel in industry, commerce and services	3.24	9.73	10.38	6.73	40.00	27.79	16.53	18.98	18.87	15.96	9.68	6.31	1.30	14.50
2. <i>Lower strata in secondary activities</i>	18.99	17.80	31.79	21.39	41.00	38.84	4.33	12.02	2.28	2.29	0.52	0.45	1.09	7.21
a. Wage-earners	16.99	15.96	32.28	21.35	42.55	40.39	4.33	12.17	2.21	2.19	0.48	0.42	1.16	7.52
b. Own-account workers and unpaid family members	22.45	22.73	29.27	21.44	38.79	34.55	5.32	11.72	2.58	2.64	0.68	0.55	0.91	6.37
3. <i>Lower strata in tertiary activities</i>	28.82	22.20	33.36	24.08	32.10	34.73	2.57	9.54	1.47	1.65	0.50	0.37	1.18	7.43
a. Wage-earners in services	28.98	21.77	33.45	24.17	31.88	35.23	2.53	9.42	1.46	1.57	0.50	0.38	1.20	7.46
b. Own-account workers in services and unpaid family members	24.45	20.52	31.09	22.69	37.56	33.46	3.74	12.08	1.69	2.71	0.50	0.56	0.90	7.98
4. <i>Middle and upper strata in primary activities</i>	25.07	25.85	26.46	24.56	27.16	26.98	9.60	8.33	10.12	3.37	0.64	3.01	0.95	7.40
5. <i>Lower strata in primary and extractive activities</i>	46.67	43.22	36.47	28.77	14.83	19.32	0.74	3.57	0.38	0.39	0.12	0.15	0.79	4.58
a. Rural wage-earners	47.52	44.75	35.41	28.02	14.82	18.85	0.83	3.10	0.37	0.34	0.12	0.13	0.93	4.81
b. Non-employer, own-account workers, and unpaid family members	46.05	42.49	36.96	28.91	15.04	19.57	0.73	4.30	0.45	0.52	0.10	0.15	0.67	4.06
6. <i>Others (residual)</i>	32.51	22.57	28.91	18.26	24.88	28.73	4.31	12.19	4.38	4.71	2.28	2.68	2.43	10.93

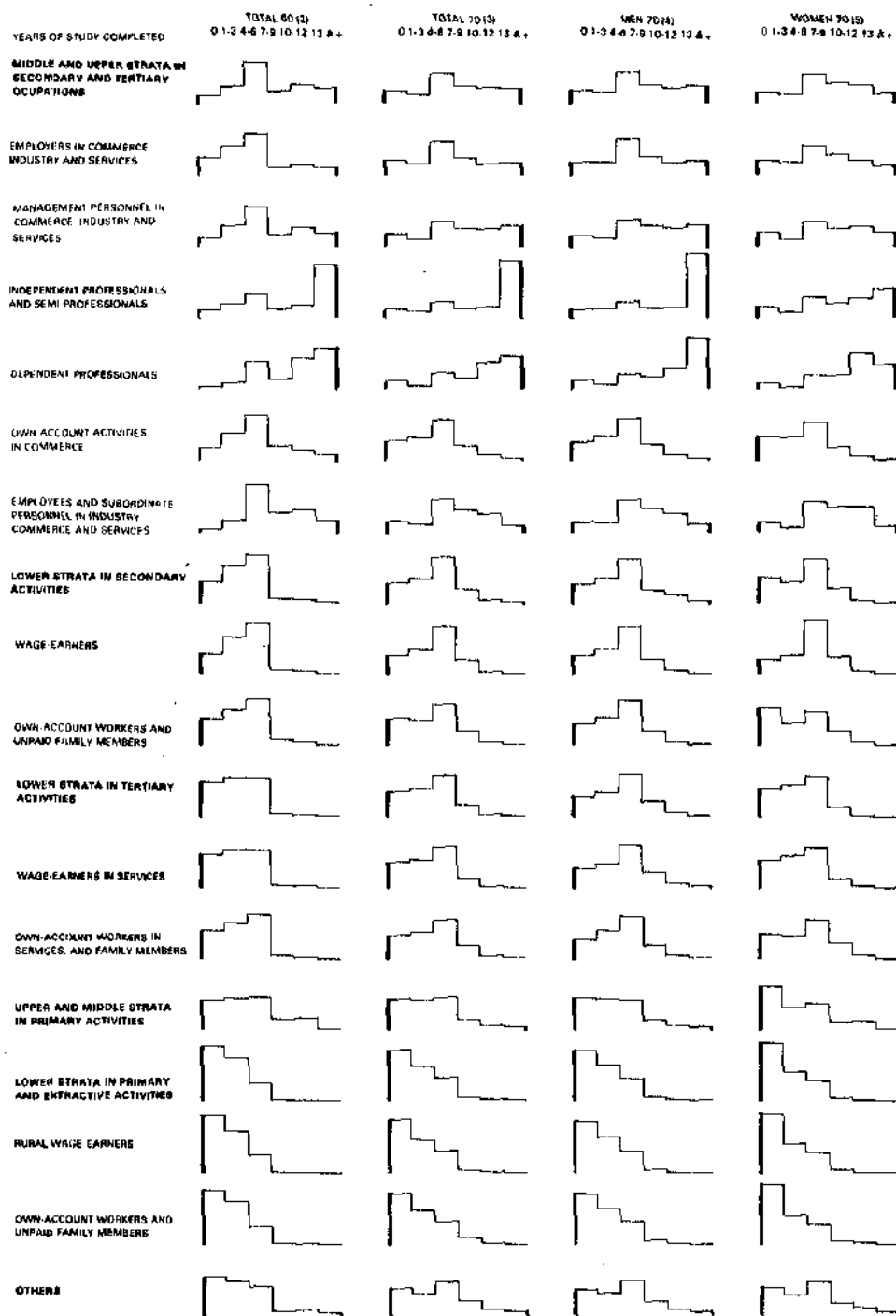
Source: Prepared by the author on the basis of data from ECLA-UNICEF, *Proyecto sobre estratificación y movilidad social en América Latina, 1960-1970*, Santiago, Chile, 1975-1979; basic tables using weighted averages.

Note: Corresponds to table 32 in *La educación y los problemas del empleo*, op. cit.

<sup>a</sup> Argentina, Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay.



Figure 1  
 LATIN AMERICA: EDUCATIONAL PROFILES BY SOCIO-OCCUPATIONAL STRATA, 1960 AND 1970



Source: Prepared on the basis of data taken from tables 30, 31 and 32 in *La educación y los problemas del empleo, op. cit.*  
 Note: Corresponds to figure 5 in the above-mentioned report.

### Stratification and Social Mobility in Latin America<sup>21</sup>.

An initial fact observed is the educational heterogeneity within the so-called middle and upper strata in the secondary and tertiary sectors.

In 1970 the employer group covers the whole gamut from those with no schooling to those with high educational indexes, the category comprising persons who received only primary education being slightly predominant. There is evidence of an obvious improvement since 1960, but not of a reduction of heterogeneity. The name 'employers' unquestionably embraces a wide range of social distinctions, between whose extremes the formal-informal division of enterprises becomes apparent. This emerges more clearly when attention is turned to own-account workers in commerce, a group which does not even show any improvement during the decade. The panorama exhibits still more contrasts if to the so-called middle and upper strata is added the primary sector, in which the overwhelming majority is divided into equivalent groups: those with no schooling, those with incipient schooling and those with incomplete or complete primary education. The improvement from 1960 to 1970 is almost imperceptible.

Employees and subordinate personnel in industry and commerce present an educational profile slightly better than that of employers.

Professionals, both independent and dependent, are categorically differentiated from the rest of the stratum.

The lower strata in secondary activities include industrial workers, and artisans and unpaid family members. The former have a very definite characteristic which is systematically corroborated by detailed occupational analyses:<sup>22</sup> a manifest concentration in the group with 4 to 6 years of study, a much smaller quota with secondary education, a rapidly declining proportion of those with incipient schooling—1 to 3 years of study—and 15% with no schooling at all. Except for this almost stable residuum,

primary education seems to have become an accepted thing among industrial workers.

As regards own-account workers, the profile is similar for men, but much lower for women; once again informal sector activities make their appearance here.

The lower strata in tertiary activities have perceptibly improved upon their 1960 level. For men the profile is very much the same as for industrial workers, with the same predominance of primary education.

It is remarkable that these lower urban strata have educational profiles so much superior to those of the middle and upper primary strata and a clearer trend towards improvement. As regards the lower strata in primary activities, a group in which rural wage-earners are predominant, it is not surprising that they show the most negative profile, with large numbers having received only incipient schooling and a predominance of those that have had none whatever, all this being accompanied by a patent trend towards stability.

Analyses of the younger generations, a group much more sensitive to change and more clearly reflecting the recent outreach of the educational system, definitely confirm some of these features. Table 2 summarizes the proportions of each of fourteen occupational groups represented by those with no schooling, those with incipient schooling and those who have had from 4 to 6 years of schooling around 1970, in the Latin American countries as a whole. The mean for farmers, fishermen, etc., is 37% with no schooling—the national percentages varying from 10% to 70%—, 32% with incipient schooling and 23% that have completed part or the whole of the primary cycle. These percentages, which are, as can be seen, extremely unsatisfactory, are closely followed by those for miners and quarry-workers and for domestic service. In contrast, for industrial and transport workers the picture is substantially different—and in some cases not very dissimilar to that of the commercial sector. For office employees, on the other hand, it is appreciably superior; although in this instance education may be said to constitute a technical requisite for the jobs they hold, a technical necessity is very far from obvious in the case of industrial workers. Behind

<sup>21</sup>See Carlos Filgueira and Carlo Geneletti, *Estratificación y movilidad ocupacional en América Latina*, Cuadernos de la CEPAL series, No. 39, Santiago, Chile, 1981.

<sup>22</sup>See *La educación y los problemas del empleo*, *op.cit.*, chapter VI, B.6.

Table 2

PERCENTAGES OF PERSONS WITH ZERO INCIPIENT AND MORE ADVANCED SCHOOLING IN EACH OCCUPATION, IN RELATION TO ECONOMICALLY ACTIVE YOUTH AGED 20 TO 29 YEARS

(Arithmetic means of percentages for each country)

Occupation of group	No schooling	1 to 3 years	4 to 6 years
1. Professionals and technicians	1.7 <sup>a</sup>	2.0	9.1
2. Management personnel	4.1	7.4	17.8
3. Office employees	3.1 <sup>b</sup>	3.5	17.1
4. Non-itinerant commerce	8.8	14.1	33.9
5. Farmers, fishermen, etc.	37.1	31.8	22.8
6. Miners and quarry-workers	21.2 <sup>c</sup>	27.2 <sup>d</sup>	34.6 <sup>d</sup>
7. Transport operatives	5.9	16.4	43.6
8. Industrial operatives (I)	9.4	17.4	42.3
9. Industrial operatives (II)	16.3	21.8	39.9
10. Other manual workers and day-labourers	18.1	23.4	35.4
11. Domestic service	23.3	27.3	32.7
12. Personal services	12.1	17.9	36.3
13. Looking for a first job	16.6 <sup>e</sup>	14.0 <sup>e</sup>	24.4 <sup>e</sup>
14. Miscellaneous and unspecified	17.9	17.4	26.7
Total	21.1	20.9	28.0

Source: OMUECE 1970, *Programa uniforme*, table 11.

Note: Corresponds to table 43 in J.P. Terra, *Alfabetismo y escolarización básica...*, *op. cit.*

The following notes indicate an arithmetic mean calculated without data from:

<sup>a</sup> Costa Rica.

<sup>b</sup> Panama.

<sup>c</sup> El Salvador; Panama.

<sup>d</sup> El Salvador.

<sup>e</sup> Colombia; El Salvador; Venezuela and Ecuador.

In no case is Argentina included, nor is Brazil or Haiti.

all this some other type of much more global phenomenon must surely lie.

The occupational distribution of youth with no schooling, incipient schooling or partial or complete primary schooling is particularly striking. To give some idea of general trends, table 3 presents the arithmetic means of distribution for 1 000 young people in each education group, and clearly shows the enormous accumulation of those with no schooling among farmers and fishermen, etc. Only on reaching the group with 4 to 6 years of study is a balanced distribution between agriculture and industry to be found.

The analysis gains in value if as well as the occupation the occupational category is introduced; table 4 shows, also by averages for national figures, the distribution of every 1 000 young people without schooling, by these two variables. It reveals that in some occupations

those with no schooling are essentially the own-account workers, in others the employees and in yet others both categories.

## 2. Educational and geographical area

The notorious internal heterogeneity existing in several of the occupational categories used above can be partly reduced if this schematic classification by socio-occupational strata is replaced by a detailed classification of occupations, albeit this type of itemized study cannot be carried out here.<sup>23</sup> But although such an analysis makes it possible to discern more clearly-defined features and to obtain more precise confirmation of certain notable regularities —such as that recorded

<sup>23</sup>See *La educación y los problemas del empleo*, *op.cit.*, chapter VI, B.6, which gives the educational profiles for 83 occupations in relation to six countries.

Table 3

**DISTRIBUTION BY OCCUPATION OF 1 000 ECONOMICALLY ACTIVE YOUNG PERSONS AGED 20 TO 29 YEARS, WITH ZERO INCIPIENT AND MORE ADVANCED SCHOOLING**

*(Arithmetic means of the permil figures for each country)*

Occupational group	No schooling (excluding Argentina)	1 to 3 years	4 to 6 years
1. Professionals and technicians	7 <sup>a</sup>	6	21
2. Management personnel	2	4	8
3. Office employees	12 <sup>b</sup>	13	54
4. Non-itinerant commerce	21	36	67
5. Farmers, fishermen, etc.	651	512	262
6. Miners and quarry-workers	7 <sup>b</sup>	8	8
7. Transport operatives	8	25	50
8. Industrial operatives (I)	57	119	218
9. Industrial operatives (II)	31	47	63
10. Other manual workers and day-labourers	30	44	48
11. Domestic service	52	70	55
12. Personal services	25	36	62
13. Looking for a first job	9 <sup>c</sup>	8 <sup>c</sup>	13 <sup>d</sup>
14. Miscellaneous and unpecified	87	73	77
<b>Total</b>	<b>1 000</b>	<b>1 000</b>	<b>1 000</b>

Source: OMUECE 1970, *Programa uniforme*, table 11.

Note: Corresponds to table 41 in J.P. Terra, *Alfabetismo y escolarización básica...*, *op. cit.*

The following notes indicate countries for which no data are available:

<sup>a</sup> Costa Rica.

<sup>b</sup> Panama.

<sup>c</sup> El Salvador; Ecuador; Colombia.

<sup>d</sup> Venezuela; Ecuador; Colombia.

Table 4

**DISTRIBUTION BY OCCUPATION AND OCCUPATIONAL CATEGORY OF 1 000 ECONOMICALLY ACTIVE YOUNG PEOPLE AGED 20 TO 29 YEARS, WITH NO SCHOOLING**

*(Arithmetic means of the permil figures for each country)*

Occupation	Total	Occupational category				
		Employer	Own-account worker	Employee	Family member	Unclassified Undeclared
1. Professionals and technicians <sup>a</sup>	6.5	1.4	0.7	3.9	0.1	0.2
2. Management personnel	2.4	0.2	1.1	0.9	—	0.1
3. Office employees <sup>b</sup>	12.1	0.1	0.3	11.4	0.1	0.3
4. Non-itinerant commerce	21.0	0.5	13.1	6.1	0.8	0.5
5. Farmers, fishermen, etc.	650.7	8.9	273.3	264.3	91.4	12.7
6. Miners and quarry-workers <sup>b</sup>	7.1	—	1.1	5.7	—	0.1
7. Transport operatives	8.1	0.2	1.9	5.7	—	0.2
8. Industrial operatives (I)	62.0	0.7	21.7	33.4	3.8	2.2
9. Industrial operatives (II)	30.7	0.4	6.2	22.4	1.3	0.3
10. Other manual workers and day-labourers	30.0	0.3	8.2	20.3	0.3	0.8
11. Domestic service	52.5	—	3.0	47.7	0.7	1.0
12. Workers in personal services	25.0	0.3	2.5	21.3	0.5	0.6
13. Looking for a first job	8.6	—	—	0.0	—	8.6
14. Miscellaneous and unpecified	86.6	0.7	8.3	19.4	12.0	46.0
<b>Total</b>	<b>1 000</b>	<b>14.1</b>	<b>341.7</b>	<b>460.4</b>	<b>111.5</b>	<b>72.3</b>

Source: OMUECE 1970, *Programa uniforme*, table 11.

Note: Corresponds to table 42 in J.P. Terra, *Alfabetismo y escolarización básica...*, *op. cit.* Argentina, Brazil and Haiti are not included.

In the following cases, the mean was calculated without data for:

<sup>a</sup> Professionals and technicians in Costa Rica.

<sup>b</sup> Office employees, miners and quarry-workers in Panama.

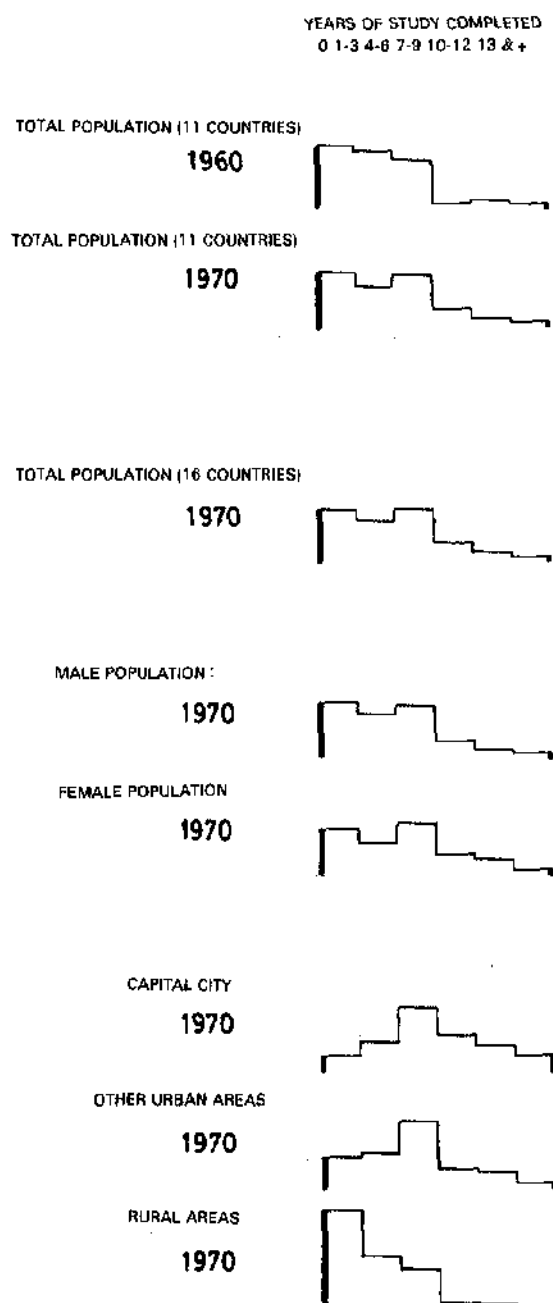
<sup>c</sup> Those looking for a first job in Ecuador, Colombia and El Salvador.

in the case of industrial operatives, who in most countries appear with high frequency at the level of 4 to 6 years of study—, the shortcoming is to some extent insurmountable, inasmuch as it is a limitation innate in any classification which is based only on occupation.

If the analysis is subdivided by geographical areas, it confirms this situation. By a very significant cross-cutting of the occupational groups, it demonstrates that educational status is partly a function of environment rather than of occupation, to the point of awakening doubts as to whether the regularities shown by certain occupational groups—farmers, industrial workers— derive from the technical requirements of the occupation itself or whether they correspond to a definite environment—rural area or industrial city, respectively. Table 5 and figure II show, separately, the educational profiles for capital cities, other urban areas and rural environments; the data given represent the weighted arithmetic means of national figures. The contrast is highly significant. In the capital cities, one-third of the active population has received from 4 to 6 years of schooling; a small proportion has lower levels, including only 8% with no schooling at all; an appreciable proportion has attended secondary school, and 8% has attained more than 13 years of study. In other urban areas, although there is still one-third with 4 to 6 years of study, the scale tips the other way: 17% without schooling, 19% with incipient schooling and only 4% with over 13 years of study. It must be pointed out that in both cases the same range of urban occupations is covered, although the proportions are not the same. But the major contrast is with the rural environment, where half the active population has had no schooling and where levels higher than the primary cycle are virtually non-existent.

This disparity is not due solely to a different occupational composition, nor solely to the location of agriculture in the rural areas, but signifies a contrasting division of each of the occupational groups. This can be clearly seen in figure III, which shows the absolutely disparate profiles corresponding to the same occupation in different environments. It is noteworthy that this assertion is valid for the middle and upper strata in the three sectors. And in particular it must be stressed that those in the primary sector show

Figure II  
LATIN AMERICA: EDUCATIONAL PROFILES OF ECONOMICALLY ACTIVE POPULATION, BY SEX AND LOCATION, 1960 AND 1970



Source: Prepared by the author on the basis of data table from 23 in *La educación y los problemas del empleo*, op. cit.  
Note: Corresponds to figure 3 in the above report.

Table 5

LATIN AMERICA (SELECTED COUNTRIES): DISTRIBUTION OF THE ECONOMICALLY ACTIVE POPULATION BY EDUCATIONAL LEVELS, 1960-1970<sup>a</sup>

(Percentages)

		Years of study completed						
		None	1 to 3	4 to 6	7 to 9	10 to 12	13 and over	Undeclared
Total 1960 (11 countries) <sup>b</sup>	100.00	32.71	29.55	25.79	3.71	4.21	2.82	1.21
Total 1970 (11 countries) <sup>b</sup>	100.00	28.15	20.77	26.36	9.81	4.65	3.12	7.14
Total 1970 (16 countries) <sup>c</sup>	100.00	27.48	21.46	26.67	9.78	5.05	3.15	6.41
Male 1970	100.00	28.44	22.72	26.59	9.40	4.11	3.02	5.72
Female 1970	100.00	23.97	16.86	26.91	11.07	8.44	3.68	9.07
Rural area 1970	100.00	49.80	26.02	18.77	1.46	0.70	0.20	3.05
Other urban areas 1970	100.00	17.02	19.33	34.39	11.34	9.20	3.57	5.15
Metropolitan area 1970	100.00	8.10	15.24	32.60	18.46	13.20	8.03	4.37

Source: Weighted arithmetic means of national distributions based on data from OMUECE, *Programa uniforme*, 1960: table 17; and 1970: table 6.

Note: Corresponds to table 23 in *La educación y los problemas del empleo*, *op. cit.*

<sup>a</sup> For 1970 by sex and area.

<sup>b</sup> Argentina, Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama and Paraguay.

<sup>c</sup> The same as in footnote <sup>b</sup>, plus Bolivia, Colombia, Nicaragua, Peru and Venezuela.

high levels of study only when they are located in the capital cities, and there in a sizeable proportion; which confirms that large or medium-scale agricultural entrepreneurs residing in the capital city—a tiny minority out of the total number of farmers—form part of the country's upper class and are a social and cultural phenomenon which has nothing to do with the rest. But it is also of great significance that the contrast is remarkably sharp in groups such as industrial wage-earners, employees, or own-account workers in the commercial sector.

In other words, the enormous educational disparity between urban and rural areas, and even more strikingly the capital city-rural disparity, colours all occupational categories. Underlying all this there is undoubtedly a very deep-seated difference, which extends to the nature of enterprises, even if they fall under the same head in a classification by branches of activity.

The educational disparity between these areas shows no signs of diminishing. According to studies carried out around 1970 on young

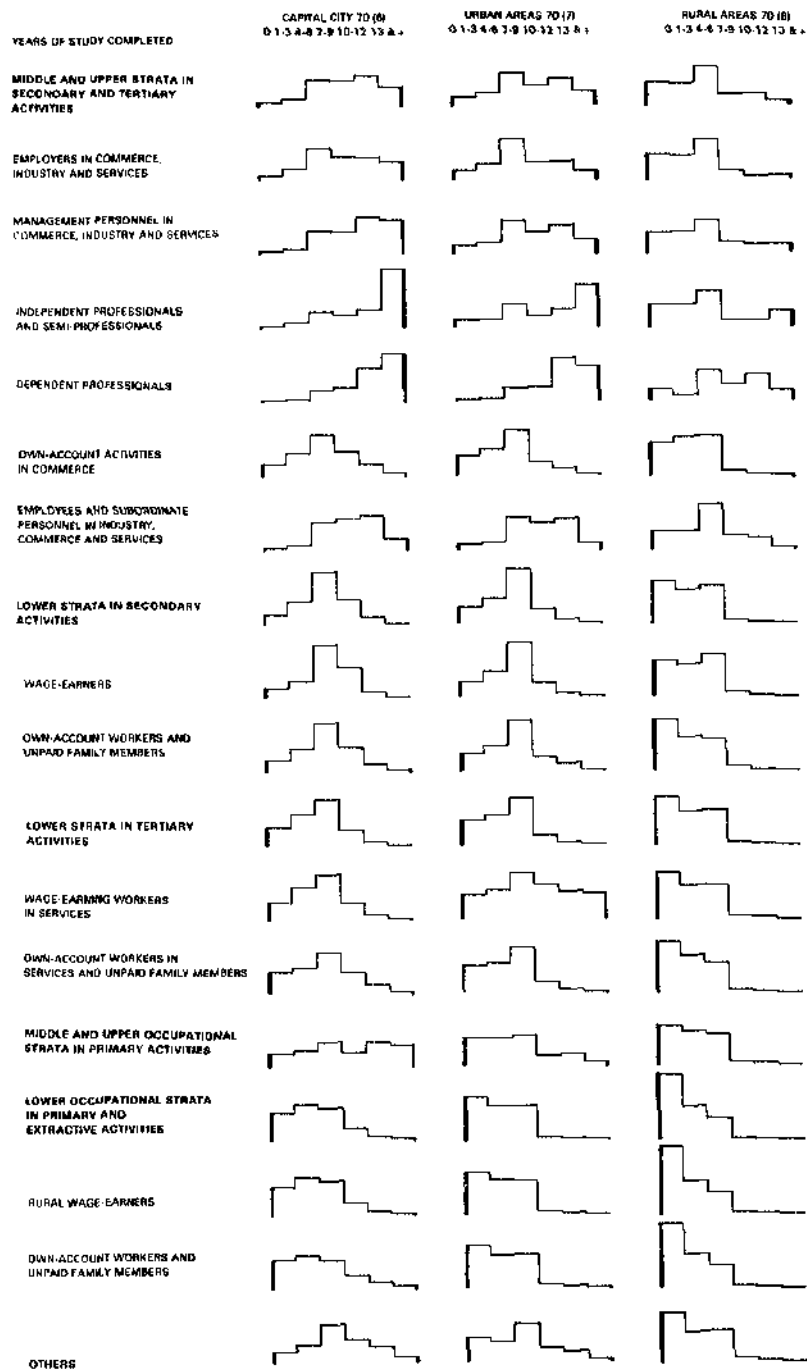
people of 15 to 24 years of age, in rural areas the average rate of illiteracy was still 31.1%, as against 7.6% in the urban environment as a whole and 4.5% in the capital cities. National rates ranged from 8% to 60% in rural areas, while the metropolitan rates varied from 1% to 10%.<sup>24</sup> During the 1960s, the ratio between mean urban and rural rates had if anything increased a little. The mean of juvenile illiteracy ratio fell by 45% in the capital cities, 27% in other urban areas and 22% in the rural environment.

Two phenomena, less clearly established from the empirical standpoint, deserve mention here. One of them is that the biggest and most constant inter-sex difference in rates occurs in the capital cities.<sup>25</sup> In principle this seems very surprising, since there is no question of different

<sup>24</sup>See Juan Pablo Terra, *Alfabetismo y escolarización básica de los jóvenes en América Latina*, UNESCO-ECLA-UNDP, Project on Development and Education in Latin America and the Caribbean, DEALC/24, table 7 b.

<sup>25</sup>*Ibidem*, p. 18.

Figure III  
 LATIN AMERICA: EDUCATIONAL PROFILES BY SOCIO-OCCUPATIONAL STRATA



Source: Prepared on the basis of data taken from tables 30, 31 and 32 in *La educación y los problemas del empleo, op. cit.*  
 Note: Corresponds to figure 5 in the above-mentioned report.

behaviour deriving from the need to surmount physical obstacles. Non-attendance at school in capital cities is not due to material difficulties in getting there, as might be supposed to be the case in the rural sector. Here an attractive hypothesis is that in the eyes of newcomers to the cities literacy seems a more urgent requisite for men, who have to lead an outward-related life and to enter the labour market; and that among women, more home-oriented as they are, the necessity is less imperative and the pull of cultural inertia stronger. As the difference between male and female rates is very wide in the capital cities of several countries where persistence of the indigenous tongues is appreciable,<sup>26</sup> it might be thought that among women the incentive to become literate is weaker—owing, for example, to the preservation of the indigenous language at home and in the neighbourhood—and that it proves insufficient to overcome the well-known obstacles encountered, in such cases, in the task of teaching and learning not only the national language but also reading and writing at the same time. If this were so, it would throw into relief the compelling force of the social requirement of literacy imposed upon men by their incorporation into the economically active population in large cities.

The other phenomenon was traced in the course of a follow-up of a youth cohort during a decade. The mean of the illiteracy rates for 12 countries in the group of young people who were 15 to 24 years of age in 1960 was 25.8%. This mean had fallen to 23.2% in 1970, when the ages of the group in question ranged from 25 to 34 years. At first sight such a decrease is striking, since it represents a progress taking place at age levels much higher than those of primary school attendance. At all events the reduction is far greater for men; in the case of male rates the average drops by 17%, whereas in that of female rates it declines only by 4%. Adult literacy attainment would seem to have occurred essentially among men.<sup>27</sup>

In the light of a comparison by geographical areas, the phenomenon becomes clearer. The mean of illiteracy rates does not

decrease for young people remaining in the rural environment, continues almost stable in urban areas other than the metropolis and increases by 5% in the capital cities. In other words, the reduction is associated with the transfer of some of these young people from the rural environment to other urban areas and, above all, to the capitals. Naturally, the newcomers to the capital cities bring with them a lower educational level; which explains why there the average rate of illiteracy increases. But in turn these migrants, as everything leads one to suppose, have to some extent become literate—being older by that time—in the course of the urbanization process. This would account for the fact that in the aggregate the illiteracy rates of the cohort in question decreased.

The urbanization of youth is accompanied by a cultural change which is reflected in late attainment of literacy, outside the formal school system and which is essentially observable among men. Once again the most attractive hypothesis would be to assume that at least in part, this is a matter of adaptation to the prevailing social requirements for full incorporation into economic activity, into a life of urban relationships, into city culture, which bring their pressure to bear by means to which little study has been devoted hitherto.

### 3. *The significance of segmentation*

In theory, it would seem that the educational requisites of the modern sector should consist essentially in an occupational training requirement, given the technical character of the jobs called for in enterprises in that sector; this must be to some extent true. But in practice, overall empirical observation testifies to a predominance of general education—the basic and non-occupational secondary cycles—over secondary or higher technical education.

We have already touched upon some aspects of the subject; let us now take a look at others. In most cases the specific skill needed is taught by the production system itself. The relative loss of prestige of the technical teaching of trades<sup>28</sup> is also due to the fact that schools have

<sup>26</sup>*Ibidem.*

<sup>27</sup>*Ibidem*, pp. 30-35.

<sup>28</sup>This is not a purely Latin American phenomenon, as it is substantiated, for example, by the ILO literature of the



difficulties in satisfactorily fulfilling this role: trades have become too many and various; work is increasingly conditioned by equipment and the organization of production, both of which it would be difficult and very costly to reproduce in schools and which, furthermore, are continually changing; it is very hard to predict the employment opportunities that the market will offer to each; many jobs are obtained through in-service training, linked in turn to progress in the occupational career, etc. Without denying technical education the importance which in any event it deserves, the education that the school can best provide, and which can hardly be given outside the classroom, is the general kind corresponding to the basic cycle—variable in its scope according to the countries' development—certain types of technical secondary education, and higher education.

But this is not enough to account satisfactorily for the demands for a general education, both primary and secondary, which, over and above reading, writing and a few elementary mathematical skills, appears to have so little to do with productive activities. And this seems just as difficult to explain as most social phenomena. But at all events it is felt to be of some use to formulate a few hypotheses in the light of which the existing fact may perhaps seem more comprehensible.

The first hypothesis: training for employment also implies habilitation for access to it; this involves previous insertion in the social environment and a capacity to fulfil the conditions imposed by the recruitment and selection mechanisms.

The second postulates that employers implicitly or explicitly assume that general education improves potentialities for subsequent in-service learning.

The third hypothesis is that, possibly, the product of education required by the enterprise is qualification for entering into social and functional relations, both within and outside the enterprise, much rather than as an instrument of the technical activities to be carried out.

But perhaps the most important of all is to recall that man is not only inserted as a productive force in a production unit: he is inserted as a human being in a society. It may be that this is why the segmentation of the market seems so closely linked to social ambits located in well-defined spaces and to the acculturation processes implied by the transfer from one environment to another.

#### 4. *Unemployment and education*

The very definition of underemployment and the mere description of its typical forms, whether in rural or urban areas, reveals the close relationship of this phenomenon with the global segmentation of society and, therefore, with the cultural discontinuities and the educational disparities of which empirical evidence provides such overwhelming corroboration. But, if this association seems to admit of no doubt, it may be asked, on the other hand, what relation there is between over unemployment and education.

Inter-country comparisons are not propitious to an attempt to formulate simple hypotheses, doubtless because each country's situation is determined by the behaviour of numerous structural and conjunctural variables. Comparison by educational levels, on the other hand, brings to light some interesting trends. Table 6 and figure IV show that in the main, although not always, the trend of unemployment gradually rises between those with no schooling and those who have had from 7 to 9 years of study. After that the mean of unemployment rates drops sharply, until for those with 13 years of study and over it is only half the rate recorded for those without schooling. There is a certain inter-country diversity of behaviour in the first sections of the curve, with some very atypical cases; but in contrast there is no exception whatever to the decline in unemployment at the level where the educational average is highest.

The global picture, however, merges certain phenomena between which a distinction must be drawn, since it intermixes data for the different ages, sexes and geographical areas. Unemployment, of course, is much greater among youth, and as people grow older stability in their jobs increases. But as the older

---

last decade; see, in particular, Mark Blaug, *Education and employment problems in developing countries*, Geneva, ILO, 1973, pp. 21 and 22.

Table 6

## LATIN AMERICA (SEVENTEEN COUNTRIES): UNEMPLOYMENT RATES BY YEARS OF STUDY, BOTH SEXES, (1970)

Countries	Total	No schooling	1 to 3 years	4 to 6 years	7 to 9 years	10 to 12 years	13 years and over	Years of study unknown	% without data
Haiti	14.1	12.3	19.0	24.3	33.4	30.1	16.4	9.1	—
Guatemala	1.3	0.8	1.2	2.4	3.9	3.8	0.5	2.1	1.2
Nicaragua	3.6	2.6	4.3	5.4	5.4	3.6	1.8	3.4	3.6
El Salvador	20.1	21.7	20.4	19.6	15.6	11.4	3.2	11.1	1.1
Honduras	2.0	1.2	1.6	3.3	3.0	3.5	0.8	1.4	1.1
Bolivia	3.9	3.9	3.0	3.6	4.9	4.9	3.1	4.2	3.5
Dominican Republic	24.7	27.9	34.7	24.6	19.2	15.6	8.7	21.3	10.3
Venezuela	5.0	5.0	5.4	5.5	5.0	3.1	2.0	5.6	7.0
Mexico	3.8	3.8	3.6	4.3	4.5	2.7	2.6	— <sup>a</sup>	—
Peru	5.7	2.7	3.6	6.4	8.7	12.8	6.6	5.6	3.2
Ecuador	3.3	2.6	2.8	3.8	5.0	4.3	1.8	2.6	2.6
Colombia	2.1	1.3	1.6	2.7	3.2	2.7	2.6	3.7	1.1
Panama	9.6	4.4	6.6	11.9	15.6	10.2	4.4	18.3 <sup>b</sup>	—
Paraguay	2.1	1.7	1.6	2.4	3.7	2.8	1.1	2.3	1.9
Costa Rica	7.3	8.8	7.1	8.6	5.8	3.0	2.3	25.0 <sup>b</sup>	—
Chile	4.5	5.4	4.8	5.0	5.0	4.0	2.2	3.5	14.3
Argentina	2.0	— <sup>a</sup>	2.1	1.9	2.2	2.0	0.9	2.2	8.3

Source: OMUECE 1970, *Programa uniforme*, table 20.

Note: Corresponds to table 26 in *La educación y los problemas del empleo*, *op. cit.*

<sup>a</sup> Denominator below 20.

<sup>b</sup> Denominator below 100.

The percentages at the end of each line represent:

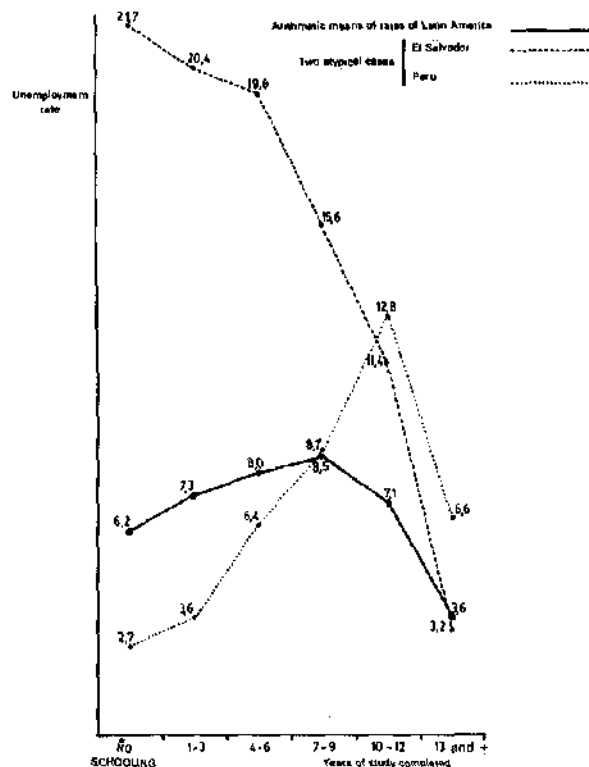
$$\frac{\text{Population for which no data on years of study are available}}{\text{Total without data}} \times 100$$

generations had, on an average, less schooling, the national figures seem to attribute to a low level of education a better occupational situation which strictly speaking is due to age. Furthermore, overt unemployment is a fundamentally urban phenomenon, whereas in the rural environment it is underemployment that is present on a massive scale. As educational levels are much lower in rural than in urban areas, the national figures make it look as though the higher educational level in the cities is the cause of their higher rate of unemployment. This mistake is avoided if the data are previously broken down by age, sex and area. Table 7 shows that for urban youth of the male sex, aged 20 to 29 years, the rate of unemployment is very high for those without schooling, but shows a clear decrease in the case of those with incipient

schooling and falls much lower still among those who have had 4 to 6 years of study. This trend is of course more marked in the capital cities than in other urban areas. In other words, for the male fraction of the urban active population, which is the larger, unemployment is gradually reduced as from the initial levels of schooling; educational deficiency at the basic levels is plainly associated with unemployment.

Indubitably this trend is not followed in the rural environment, a datum which must be added to the description of segmentation; and, conversely, unemployment increases slightly for youth of both sexes who have had from 4 to 6 years of study. Nor does it hold good for women in the capital cities, probably owing in part to the higher aspirations and the greater opportunity costs of economically active women in the middle

Figure IV  
LATIN AMERICA  
(SEVENTEEN COUNTRIES):  
UNEMPLOYMENT RATES BY  
YEARS OF STUDY, 1970



Source: Prepared on the basis of data from table 26 in *La educación y los problemas del empleo*, op. cit.

Note: Corresponds to figure 4 in the above report.

and upper strata. In any case, this does not invalidate the foregoing conclusions.

From the evidence that for urban youth of the male sex higher educational levels are definitely linked with lower rates of unemployment, some conclusions can be drawn, although it also raises some questions.

In appearance at least, the urban market, from the standpoint of stable job opportunities, privileges educands in proportion to their educational level, from the lowest to the highest, as it also does, of course, in respect of remuneration. This is abundantly confirmed by study of the educational profiles of the poorer groups. There are undoubtedly ample grounds for assuming that this partly accounts for the maintenance, in the urban environment, of social pressures in favour of higher educational levels, although it by no means explains them altogether. It also contributes, apparently, to the explanation of the different pace at which education makes progress in the urban and rural environments, which accentuates the cultural segmentation of society as a whole. Furthermore, it reduces the credibility of the theses that speak of hypertrophy of the educational system and of the surplus educated.

##### 5. Employment of the best educated

The discussion of the subject should not be closed, however, without first considering other questions. To begin with, there undoubtedly are, at least in specific places, significant surpluses in

Table 7

LATIN AMERICA (FIFTEEN COUNTRIES):<sup>a</sup> UNEMPLOYMENT RATES AMONG ECONOMICALLY ACTIVE YOUTH AGED 20 TO 29 YEARS, BY LOCATION AND BY EDUCATIONAL LEVELS, 1970

(Arithmetic means)

	Both sexes			Men			Women		
	No schooling	1 to 3 years	4 to 6 years	No schooling	1 to 3 years	4 to 6 years	No schooling	1 to 3 years	4 to 6 years
Capital cities	9.7	8.4	8.1	13.5	10.0	8.4	6.3	6.3	7.6
Other urban areas	8.9	7.8	7.6	8.9	7.7	7.2	8.5	8.0	8.6
Rural areas	5.0	4.5	5.3	3.7	3.3	4.2	8.4	10.2	10.3
Total for country	5.7	5.8	6.9	4.9	4.9	6.3	8.1	8.8	8.8

Source: J.P. Terra, *Alfabetismo y escolarización básica de los jóvenes en América Latina*, op. cit., table 39.

Note: Corresponds to table 29 in *La educación y los problemas del empleo*, op. cit.

<sup>a</sup> Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Venezuela.

certain intermediate and higher occupations, as there are persons whose activity does not seem to match with their training, and even some who waste it; these are irrationalities which must not be underestimated. It is also true that among the highly educated widespread feelings of frustration are generating social pressure; that these feelings are due to a maladjustment between the real occupational situation and the aspirations entertained, which can be assessed in different ways; but that the overall situation of occupational privilege cannot be denied.<sup>29</sup>

More serious is the objection based on the role that would seem to be played here by social stratification. The occupational privilege of the best educated is not the result of their education's being functional, but of the fact that they belong to upper strata which enjoy a substantial share of social power, by reason of which good posts are concentrated in their hands. Let us agree that this thesis too is not to be lightly discarded. The upper strata control important positions in the economic, political and educational subsystems, and this enables them to consolidate privileges via occupational regulations. It is also noted, and rightly, that employment of the highly educated in Latin

America has largely proliferated in the public sector, by virtue of the increase in social and community services and also because of the lack of an economic rationale. Here the issue is linked with what has been termed the creation of spurious employment, to the detriment of aggregate economic efficiency and in the service of a segmented and exclusive model.

This is not a point that can be settled with the empirical information available up to now, or by reference to employment alone; it is, moreover, one among many others that still call for careful research. Nevertheless, the data suggest that a high level of education is, in fact, keenly desired; and that the value set on it seems objectively justified. It must also be pointed out that in relation to the developed countries Latin America shows serious and persistent lags in primary education; it is following far in the rear, although at a rapid rate, the trend towards generalization of secondary education; and despite the explosive role of enrolment in higher education, this last still has a very restricted outreach, radically different from the mass coverage it attains in the central countries. From this standpoint, Latin America would seem to be a long way off modern models.

## IV

### Conclusions

Obviously the role of education in relation to employment problems is a subject which would require, even from a factual standpoint, analyses exceeding the space allowed to an article, and for which, moreover, the indispensable empirical base is still lacking. However, it would be an improper expedient to adduce these as reasons for not formulating conclusions, however *hypothetical they may be, once an effort has been*

made to unravel the major enigmas. The problem is not and never will be one that can be reduced to its technical aspects, important as these are; what it does constitute, like development, is a major political issue, in the broadest sense of the term. And it will never be possible to reach conclusions without first introducing assumptions whose source lies outside the field of analysis; nor will these conclusions ever be separable from the assumptions in question.

It is reasonable, therefore, to formulate and attempt to systematize conclusions based on the information obtained, always providing that they make no abusive claim to be scientifically demonstrated. We opt, therefore, for reproduc-

<sup>29</sup>Possibly this is partly due to a sort of nostalgia for bygone and even more marked situations of privilege, when university graduates were very few and constituted the power élite; as well as to comparison with the developed countries.

ing those drafted for the *Final Report* of the Project:

"In the first place, education is not for employment. Childish though it may seem to recall it, the aim of education is the cultivation of knowledge: a cultivation which implies the acquisition of knowledge but also, perhaps even more, the development of the capacity to think and learn. People needs to know who they are, what, they are, where they stand and to whom they can address themselves, in a physical and social world presented as extraordinarily complex by the accumulation of fragmentary data and their mass dissemination in modern societies. Knowledge and the capacity to acquire it are values in themselves. In some measure, people rightly seek them as such.

"Secondly, education is oriented towards the service of total social life. This would be unhesitatingly admitted even by the extremes of nominalism or pragmatism, which deny that knowledge has any value *per se*. Durkheim's classic definition may be incomplete, but it embodies unquestionable truths: 'Education, he says, is the active influence exerted by the adult generations on those that are not yet ripe for social life. Its object is to kindle and develop in the child a certain number of physical, intellectual and moral states which are demanded of him by the political society as a whole and the special environment to which he is individually destined'.<sup>30</sup> The integration of this 'society as a whole' is one of the basic objectives of education, and it is not by a mere whim that communication through the spoken and written language is one of the irreplaceable ingredients of all basic education. Every aspect of this integration touches directly or indirectly upon the economic structure and the world of employment. It is natural whenever a society comes up against a problem of territorial, cultural, linguistic or class segmentation which jeopardizes its integrity, education should adopt as one of its objectives the overcoming of the difficulty. Obviously this is not independent of the global political project, nor of the way in which social integration is conceived: as egalitarian or as sharply stratified,

with the accent on co-operation or with the emphasis on domination. Upon that political project depends the conception of the nature of the employment market problems for which a solution is needed, and what is understood by resolving them. If the employment question is not merely to reduce the number of overtly unemployed, but to eradicate underemployment (and therefore poor productivity and low incomes), then establishing educational objectives in relation to the global project of society means focusing education upon the solution of employment problems. From this standpoint, i.e., from the angle of its effects on the global structure of social relations, education, in a democratic even if only a moderately egalitarian conception, must fulfil the following objectives, which represents a free version of the list drawn up by Wolfe.<sup>31</sup>

- a) To act as an instrument of social cohesion assisting in doing away with social segmentation; to help to incorporate the backward segments —traditional or indigenous— in the communication circuits and in the progress of global society, without destroying their identity or disintegrating what is valuable in them; and to collaborate in the reduction of class gaps and the elimination of the cultural deficiencies which play a part in the reproduction of stratification and poverty;
- b) To act as an instrument of individual and collective social mobility, not only facilitating the utilization of individual capacities and the upward movement of the categories at the lowest levels, particularly the marginal groups, but also accelerating the cultural and social incorporation of migrants, particularly in the urbanization process;
- c) To act as an instrument of income redistribution, by helping to even out earning capacities;
- d) To allow access to political decisions and to a number of different forms of social power.

<sup>31</sup>This list is a free development and interpretation of four of the five points set forth by Marshall Wolfe in *El desarrollo esquivo: exploraciones en la política social y la realidad sociopolítica*, Mexico City, Fondo de Cultura Económica, 1976.

<sup>30</sup>Emile Durkheim, *Education et sociologie*, Paris, P.U.F., 1966, p. 41.

"Thirdly, and only after the foregoing aims are well established, education can and must give more direct training for employment. This, however, calls for some more exact definitions. To repeat what was said above, training for employment embraces a good deal more than technical teaching, i.e. teaching the activities that constitute the technical content of specific roles. Training for employment implies habilitation for access to it; preparation for the life of social and functional relations, inside and outside the enterprise, which performance of the role involves; and lastly, in widely differing degrees in different cases, training for the technical activities of the role. The first and second points are very important, since they underline the paramount significance of general education: experience has shown, as has been noted, that industrial workers in Latin America must have a primary school background, little though they read or write when they are operating their machine-tool. The last point needs very flexible interpretation: in the more complex technical roles, such as that of the engineer, it is of great importance; in roles such as that of the administrative employee, whose technical base is typewriting and perhaps some accounting, this is a very minor aspect and can even be coped with by the interested party himself. From a different angle, the other obstacles that limit technical teaching must be forgotten: problems of cost and efficacy in the teaching of certain trades; the slowness of the training process and the unforeseeable fluctuations of demand; the unpredictability of personal evolution; limitations of recruitment mechanisms and criteria, etc.

"Before going farther into the matter of training for employment, a distinction must be drawn between the role of education in relation to overt unemployment and with respect to different types of underemployment.

"A point that should be noted is the claim to account for overt unemployment by means of conceptual models compounded only of economic variables. It is true that such variables (demand, investment, etc.) can satisfactorily explain the conjunctural fluctuation of overt unemployment and also certain forms of structural unemployment, such as occur, for example, when a torrential rural exodus, caused by population pressure and shortage of land,

manifestly overflows the urban economy's very limited capacity for expansion.

"In other cases, however, the rate of frictional unemployment is structurally high, and this is due to the social organization of the employment market, and to problems of communication, of geographical distribution and even of personal incapacity to adapt to the changes of occupation required by macro- or micro-economic variations. In these instances, as long as no change is brought about in the aforesaid conditions, there is bound to be a high proportion of unemployed if the market is to operate. In other words, the time it takes a jobless person to find the vacant post suited to his abilities, is not the same in a developed country with excellent information systems, good transport services, equivalent housing conditions everywhere and institutions specializing in speeding up the process (and even offering refresher courses), as in a Latin American country where few or none of these conditions are fulfilled. One may sometimes wonder whether this is forgotten when the explanation of the high rates of unemployment in the Latin American countries is obsessively sought in 'insufficient dynamism'. Occupational re-training is a form of education which may help to reduce overt unemployment, but only in the framework of a market whose fluidity is improved in many directions.

"A second type of problem, indubitably more important, is that of the relation between underutilization of urban manpower and the urbanization process. Getting incorporated into urban society and training for the urban employment market is not so simple a matter as the physical move to the urban area. It is a process of acculturation which has to overcome considerable inertias. It has already been shown that in these conditions intensive economic dynamism sometimes coexists with high rates of unemployment. In seeking to reduce the unemployment problem to economic equations, it has too often been forgotten that Latin America is characterized by its impressive urbanization process. If the causes of high rates of urban unemployment and underemployment, as well as the markedly segregated character of a considerable proportion of the ill-defined and misunderstood informal sector, stem from this type of socio-cultural phenomenon, a major educational effort of a

specific kind, aimed at facilitating acculturation, could assuredly improve the situation.

"As regards rural underemployment, so different that the use of the very word 'underemployment' is a source of dangerous confusion, it must be urged that at the bottom of the problem is the distribution of land or the global shortage of it in relation to the volume of rural population. Here education cannot be asked for what it is unable to give. In default of structural reforms affecting the physical base, it can do little to assist in improving rural conditions. Perhaps its most important contribution (and a very important one) still is to facilitate the emigration of the population surplus and prepare it for a less traumatic transition. Obviously, if structural reforms are introduced its task is more complex.

"In the light of these considerations, the following closely interrelated questions need answering: does the maladjustment between the technical training of economically active persons and the technical characteristics of jobs act as a brake on the development of Latin America? Is it a cause of unemployment or underemployment? Does it produce other harmful effects? In consequence, can education, by giving technical training, help to activate economic development or to reduce unemployment and underemployment?

"The answer includes three points:

1. The categorically affirmative reply given in the 1960s was undoubtedly exaggerated.

In the first place, the modern capitalist forms of production, and in particular the transnational corporations, have shown themselves quite capable of getting by with fairly unskilled personnel, by emptying the jobs of technical content, giving in-service training, importing equipment with a high level of incorporated technology, and when necessary importing the technicians themselves. The problem lies in the resulting type of development: transnational modern enclaves, a markedly dichotomous structure of the economy.

Secondly the strength of the trends towards educational development was underestimated. Secondary and higher education expanded without waiting for the policies which the technical experts deemed necessary. In particular, when a type of technician was in short supply and those

available were very well paid, a course preparing for these specialized careers was instituted. If no competent educational institutions existed, and while they were expanding or were created, the youth of the élites studied abroad. After a time the supply tended to exceed demand.

2. However, in denouncing this exaggeration, to do which is nowadays a commonplace, a risk is incurred of forgetting that the shortage of skilled personnel has caused and actually is causing serious problems:

- a) In some cases this shortage seriously obstructs or retards development. This happens especially when a large number of small and medium-sized enterprises are concerned—the opposite case to that of the transnational corporations. Examples are easily found, especially in agriculture where the problem is reflected in the quantity, quality and competitiveness of products. In other instances, educational poverty stimulates over-concentration of development at its national geographic poles or in the more advanced countries, where the appropriate human resources are to be found, as well as the other conditions sought for.
- b) Even in the case of large transnational corporations, development varies according to whether they are of the enclave type, or are integrated with and supported by a sizeable quantity of smaller national enterprises which do depend upon the capacity of the local population. The diffusion of development is not the same. Obviously, when State or private domestic enterprises are to be created, entrepreneurial and technical competence is important. The lack of acquired skills has its repercussions in the shape of more training abroad and a more segmented economic structure.
- c) The excessively high rates of pay of technicians, when these are in short supply, increase the inequity of income distribution, consolidate privilege groups, encourage the inflow of foreign technicians and give too strong an impulse to the training of élites outside the country. Within certain limits, these last two effects signify ways of importing know-how and

techniques, but when they are carried too far they aggravate the denationalization of the élites and social segmentation.

3. It must also be recognized that the existence of far more skilled personnel than there are occupational openings causes serious problems:

- a) Surpluses produce a fall in income. The truth is that much of what has been written and discussed in this connection swells the problem to hypertrophic proportions. As was said before, surveys everywhere show the most highly qualified at the top of the social scale. The term 'proletarianization of the professionals' is often simply a reflection of nostalgia for the old days when the shortage of professionals made all of them members of closed oligarchies; or expresses their aspirations to attain the conspicuous consumption patterns of their counterparts in developed countries. Nevertheless, the problem does really exist in some cases and for certain occupations.
- b) These situations generate a twofold frustration: on the part of those who have acquired know-how which they cannot use and which earns them no intellectual, social or economic reward; and on the part of the country that bears the burden of a costly educational effort which it feels is not being turned to good account. These frustrations result in exacerbation of social tensions.
- c) Although impoverishment and frustration are ideologically exaggerated, they encourage the tendency towards a corporative protectionism aimed at strengthening privileges.
- d) A final effect is the emigration of highly-qualified persons, the 'brain drain' and a siphoning-off of economic resources invested in these experts which countries understandably try to prevent.

"In the aggregate these are phenomena, real or grossly exaggerated, which culminate in almost unmanageable problems, since the pursuit of egalitarian objectives is restrained by the risk of unleashing pressures which it will be impossible to control.

"The corollary of all this, is not only the possibility but the necessity of drawing up strategies and planning educational development. But these strategies and plans will be oriented in

the first place to the recognition of a right of the population, secondly to a global political project and only thirdly to an adjustment of the educational supply to the demands of the employment market. Even this last must be interpreted as something a good deal broader than teaching 'ways of doing' which correspond to the 'technical activities' of productive roles.

"Consequently, educational planning cannot be conceived merely as a technical process based on analysis of the operation and requirements of the economic system or of the growth objectives established for it. This would mean totally perverting the function of education.

"For this reason, and also because of the technical objections aforesaid which limit their validity, neither rates of return nor projections of demand for technical training are universally valid criteria, nor do they permit *per se* the definition of educational objectives and goals. Projections can, however, provide a framework for broader political discussion and help to define certain minimum requirements. Again, rates of return are useful elements in diagnosis, for the purpose of detecting shortages and bottlenecks or locating problematic surpluses.

"Since planning techniques are hardly more than auxiliary, since the problem is complex and insufficient information is available for a check to be kept on the effect of all variables, since the educational system is slow in its responses and demand is changeful and partly unforeseeable, educational planning will always involve large areas of doubt.

"To cope with such uncertainties, recourse must be had to very general criteria.

"The chief of these is, in nutshell: *when in doubt, stake on education*. A stake must be laid on the human, social and productive fertility of education. In the first place, on basic education for the population as a whole. But also on secondary and higher education, whether technical or humanistic. And this, in Latin America, signifies first and foremost the formal educational system, since the extreme youth and rapid growth of the labour force mean that in this way their characteristics can be very rapidly modified. When there are barriers to integration and social levelling it is idle to assume that they have only a cultural basis and to suppose that education alone will suffice to break them down. But they



do always have a cultural dimension (sometimes enormous) and adequate education can always exert pressure on them and help to weaken their resistance. Too high an educational level in the disadvantaged strata, in relation to other opposing forces and other structural obstacles, builds up equalizing pressures and erodes the obstacles in question.

"Secondly, the fertility of a high educational level cannot be rationalized case by case. The same thing happens here as in the relation between scientific research and technical progress. If humanity had not expended a tremendous effort on research, irrespective of its applicability, in vast fields of scientific knowledge, most of the great practical advances would have been impossible. The most spectacular cases in point have been witnessed in such spheres as nuclear physics or genetics. Economic application after a certain lapse of time is chancy, unforeseeable and implies a practical 'waste' of many efforts that make their contribution only through general and unapplied knowledge. There is an analogous relation between development—which implies creation, discovery of opportunities and mobilization of idle resources—and the educational level of the population. The fertility of the educational level largely eludes analysis, inasmuch as it generates pressure and opens up possibilities which ripen unpredictably or in a diffused fashion. But it is a good thing to admit

that it is inseparable from a substantial practical 'waste' and from the generation of an appreciable volume of pressures that remain latent.

"On this last very thorny point, too, it is better to formulate a few conclusions. The question is not one of accumulating tensions by multiplying them and refusing to consider the frustrated human potentialities and the unsatisfied aspirations. But the formula 'when in doubt, stake on education' takes into account the assumption that there cannot be endogenous development or participative change without social tension.

"Obviously, these pressures have corollaries of two types, at the levels of individual human cost and of accumulation of political and social pressures. In the last analysis it is a problem of political wisdom, once again inseparable from the global conception which this is not the place to analyse. But *vis-à-vis* those who are obsessively concerned for the radicalizing effects of the educational surplus, it is worthwhile to assert the confident belief, nurtured also by a great deal of experience, that a global improvement in the educational level of the masses may develop attitudes much more mature than radicalization pure and simple. Naturally, if what is wanted is simply to consolidate unjust inequalities and marginalization, education becomes dangerous. And so, probably, in the course of time, does the lack of education."