# Qualification and Opportunity: an Analysis on the Relationship of Education and Labour Market in Latin America in the 90's and 2000's

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#### INTRODUCTION

Most Latin American countries experienced during the 1990's an expansion of schooling, towards the universalization. The governments of the region, supported by some proposals from international agencies, felt the need of placing education at the center of their public policies and, at the same time, rethinking their education systems. Thus, education occupied the public agenda in the last decade. Latin American countries made a commitment to guarantee their future generations a quality education for all. The compulsory basic education and the gradually expanding led the policy goals articulated with a growing demand from societies in the region (SITEAL, 2006).

Despite these progresses in education it was observed that the labour market in the same period has gone through deep changes and was not able to absorb all labour-available, which has caused increased unemployment and informality rates.

As a result of the unfavorable situation on the labour market already in the 80's, comes the need for economic reforms, promised that, in addition to overcoming the macroeconomic imbalances, the return to a pathway of the long-term growth and improved employment situation (Weller, 1998). These reforms occurred in the following decade, with a new implemented neo-liberal economic model, inspired by the Washington Consensus. This model advocated reducing the role of the State in the economy by opening trade, the external financing and privatization. Firstly, the model was consistent with expectations, but from the half of the 90's was getting its clear unsustainability, because the scenario was facing economic recessions, low growth and strong currency devaluations (Ernst, 2003). One of the most important consequences of this neo-liberal model was the deregulation of the labour market, with flexibility of job security rules and other kinds of protections. Concerning its effects and the way it was applied, the neo-liberal model differs among Latin American countries, but the consequences are convergent.

In recent years it has been noticed, in addition to the continuity of advances in education, a resume of economic growth and the restructuring and planning of the labour market, showing a recovery of the main labour indicators, which have been deteriorated in the 90's.

Some examples of these indicators improvement can be given: an increase in employment levels, rising incomes and growing formalization ILO (2007).

A commonly fact observed in literature is the positive association of education and employment - more opportunities and better quality. We can see in general two views – and some opinions between them. The first tends to establish an autonomous relationship in which the influence of education on the labour market variables is direct and the other minimizes this relationship, choosing other factors as more important.

As the light of the debate concerning this relationship, this article attempts to evaluate in what extent and under what circumstances the increase in the education levels of the population implies an improvement in labour market conditions. Specifically, our main objective is to measure and evaluate what was the influence of the progress in education's level of the Latin America population in the 90's and 2000's on two key variables of the labour market – employment and formalization – in these two different periods: the labour market falling down in the 90's and the recent recovery.

#### DATA AND RESEARCH

As far as possible, this paper has examined the region as a whole. However, for a more detailed analysis of the internal dynamics and public policies implemented in the countries, it has been selected a group of four countries - Brazil, Mexico, Colombia and Argentina, to make a more specific analysis. These countries represents almost 70% of the total population in the region and can offer a general picture of the Latin American labour market and education systems, showing patterns that can also be observed in other countries and trying to identify successful programs in these countries as a guide of policies in other localities.

The empirical analysis is based on the microdata of the national household surveys<sup>1</sup> from 1992 to 2007. These surveys are the main source of economic and social information of these countries, even though several of them have their limitations.

For the analysis of Brazil the PNAD's was utilized on the years 1992, 1997, 2002 and 2007. For Argentina, it was used the EPH for the same periods. In Mexico, the survey used was the ENIGH for the years 1994, 1998, 2002 and 2006, and finally, from Colombia, the ENH was used until 2000 and the ECH for the analysis of the years in the 2000's decade.

### **METHODS**

Two key indicators were used as a measure of the labour market dynamics: the employment-to-population ratio and the "formality rate". The employment-to-population ratio measures the proportion of the working-age population who are currently employed; the formality rate is the ratio between the number of workers formally and the employed population. Ulyssea (2006) shows that the discussion on the definition of formality is presented in literature in general dispersed and in an unorganized way. We use in this paper

<sup>&</sup>lt;sup>1</sup> The only research that does not have national coverage is from Argentina, which covers only urban areas.

the perspective that considers as formal those workers who has some social security protection.

Two different periods for each country will be examined, allowing comparisons among periods known because of their markedly unemployment and informality increase and others which have recently showed elements of recovery of these indicators. Although the dynamics observed in each country is heterogeneous, we have tried to establish similar patterns in each country.

The deterioration in employment indicators in the 90's because the neo-liberal policies was observed in all countries. The recent advances, on the other hand, that are occurring in greater or lesser degree in each country, were observed approximately in 2000 in Colombia and around the years 2002, 2003 and 2005 for Brazil, Argentina and Mexico, respectively.

For these proposed analysis, we used a method of decomposition of the variation in employment and formality rates between two years<sup>2</sup>.

This variation may be decomposed into two parts: one that takes into account the effect of changes in the population composition and one for the change in specific rates to each group. The amount in percentage points (pp) which is explained by the variation in the specific rate is given by the equation:

$$\Delta TX_{x,y} = \left(TE_{x,y,k} - TE_{x,y,j}\right) \times f_{x,y,j}$$

where  $TE_{x,y,j}$  and  $TE_{x,y,k}$  represents the specific rates of the variables x and  $y^3$  for the years j and k (with k > j) respectively, and  $f_{x,y,j}$  is the relative frequency of class x, y for the year j.

The  $\Delta TX_{x,y}$  values indicate the amount in pp of the variation in the total rate between j and k which is explained by the variation in the specific rate of any group between the two periods. This calculation is done weighing up the difference between the specific rates by the representation of that group in the population at risk. It may also be understood as the difference between the rates of years between j and k standardized by the year j. We assumed that the composition of the population has remained constant between j and k, analyzing only the impact of changes in the specific rates.

The total variation of all groups that are explained only by specific rates variations is given by:

$$\Delta TX = \sum_{v} \sum_{x} \Delta TX_{x,y}$$

<sup>&</sup>lt;sup>2</sup> Decomposition methods have been mainly applied to measure wage differential on worker groups, in the discrimination and inequality studies. The pathfinder papers are Blinder (1973) and Oaxaca (1973).

<sup>&</sup>lt;sup>3</sup> The same calculation can also be fulfilling for more than two variables. By the way, this paper using three variables: sex, age and education.

This value can be also seen as the difference between the general rate of the year j and the general rate of the year k, standardized by the specific rates of year j.

The estimate of the amount in pp which is explained by changes in the composition of the population is made as follows:

$$\Delta CP_{x,y} = (f_{x,y,k} - f_{x,y,j}) \times TE_{x,y,k}$$

This value indicates the amount of variation in pp of the total rate between the periods j and k which is due to changes in the composition of the population. The difference of the frequencies indicates the relative number of people that came in that group. If the value is negative, the group lost share in total population. This difference is multiplied by the specific rate to which these people would be subject in the year k.

The amount of total variation between the two periods is explained by the variation in the composition is given by:

$$\Delta CP = \sum_{y} \sum_{x} \Delta CP_{x,y}$$

If the groups that gained on participation between the two periods are those with higher rates, then the total rate tends to rise and vice versa.

As the light of these results it is possible to identify what was the influence of changes in the composition of the population – in the case of this paper, an increase of more educated people – when analyzing variations on the employment and formality rates. Moreover, it is possible to identify which were the main groups responsible for major advances – those with the highest values of  $\Delta TX_{x,y}$ .

From the identification of these groups, we may recognize and assess the results of public policies in labour market and education implemented in each country in these periods. Then, we check what were the main groups responsible for improvements<sup>4</sup> in employment and formality rates – because of the composition effects – and follows up this cohort (x, x+5) in the year k for several years k-j and the corresponding cohorts (x-j, x+5-j), where j=1, 2, ..., x. Thus, attempts to assess the main public policies adopted by countries to improve the educational level of cohorts who were the main responsible for advances in the labour market in the year k regarding changes in the composition of the population.

There are some population groups in which progress in educational levels may have been more beneficial with a view to the labour market than others. In Brazil, for basic education, for example, the improvements in educational levels have more influence for men than for women because of the difference between the employment and formality rates of successive groups of education is higher for males.

<sup>&</sup>lt;sup>4</sup> We consider only the possibility of improvement since it was observed that for the countries examined the change in the composition of the population in relation to education was towards more educated groups, which have traditionally better conditions in the labour market.

It's clearly, therefore, that the most efficient educational policies, considering the variables of the labour market, are those that provide progress in terms of years of studies for that classes which rates differences are higher.

#### PRELIMINARY RESULTS AND EXPECTED FINDINGS

Preliminary results for two countries show how complex is the influence of education on the dynamics of the labour market, indicating that we should not minimize its importance, nor establish an autonomous relationship in which the education influence directly on the labour market variables.

It was observed a change in the population composition for the two periods examined in Brazil and Argentina, showing a movement of workers towards more educated groups. Thus it was observed a beneficial composition effect, where occurred an increase in the number of workers moving to classes where traditionally the employment and the formalization is greater, especially those groups with high levels of education. However, these advances had quite different results according to the studied period and the country.

In the analysis of the 90's it was noticed that in both countries, despite the education improvement of the population, the dynamics of the economy and labour market in this period undermined the creation of jobs, especially those in formal economy.

Argentina, in recent years, saw that advances in education have contributed, but the great creation of jobs, with visible improvements in employment and formality rates in almost all groups, was the main reason for overall improvement. In Brazil, it was observed that recent advances in the levels of education had great importance for improving the labour market in the period, supplanted the slight drop in specific rates. Thus, we realize that the influence of education on the labour market does not occur independently. This relationship involves other factors such as economic development and new roles assumed by the State through the strengthening of work institutions and greater coordination of economic policies.

In the analysis of some groups where the results improvement were due to the effects of composition, we have noticed that some educational policies implemented in the 90's for the population of basic education had an effect only now, increasing the education of the young population.

Hopes for finding, furthermore, from Colombia and Mexico, an improvement in education during the 90's that were not sufficient to contain the fall of employment and insecurity in the labour market caused by neo-liberal reforms.

In the case of Mexico, however, it is also expected to observe a fundamental role of education, since there was an increase of over 40% in people with under graduations courses in the 90's, and this group has enormous educational difference of employment and formalization comparing with others groups. In addition, we can find little different patterns to that country due to the relations with the U.S.A.

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