

Costs in Education: A Factor that could Influence in the Segmentation of the Mexican labor Market

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Abstract

This paper is the first part of a broader research that intends to demonstrate the existence of an institutional segmentation of the Mexican wage market. For institutional segmentation, we mean one which is generated by the Mexican government when it classifies the educational system into basic and non-basic. In this first part, we make a proposition¹ with the intention of studying wage inequality that is generated through schooling costs in an undeveloped economy with high levels of poverty.

Keyword: Education, Costs, Proposition, Segmentation, Institutional

1. Introduction

In Mexico, the Government classifies education as basic education (in general, the first schooling years), and another subsequent part which we could name as non-basic. The Mexican Constitution states that everyone has the right to receive education and also establishes that the education offered by the State should be costless. But in the same article it is determined that the basic education shall be compulsory and that all population of the country must have access to it. To emphasize the earlier position, the General Education Act refers to the obligation of all Mexicans to make children or underage pupils to get a basic education. The State sees this as a key obligation to impart what it calls basic education, in the sense of ensuring that everyone of schooling age or anyone interested in obtaining a certificate can achieve it without major hindrance. In general terms, the Government takes care of the costs. There are no tuition fees or annuities. There are free text books and in some circumstances free breakfast for students, and in some others, monetary support for parents or students.

Before 1993, basic education consisted only of what in Mexico is known as primary education- the initial six years for all students. Since 1993, the government included secondary education (three years after primary education) and preschool education (two years before primary education was also required). The idea was to strengthen the basic education, before and after. It was hoped that preschool education would endow skills and abilities of children, so they could enter the primary education with the highest level of preparation. In this way, it would raise the quality of this educational level. And secondary education would rise the years of basic schooling, on the understanding that this would have a bearing on the level of productivity of the future working population - it should be remembered that the country signed the North America Free Trade Agreement (NAFTA) in 1994. Somehow, the increase in basic schooling years was not only a proposal from the Mexican Government to deal with trade liberalization, with its main trading partner, the United States of America, but also a way to attract foreign direct investment. The classification that the Government did explicitly or implicitly generated a segmentation of the labor market because the Government gave all facilities- so that individuals who subsequently should be incorporated into the labor market could study the so-called basic education. In this regard, the majority of workers shall have at least basic studies. In addition, costs that were not covered by the Government and which were required for its realization, in general, were small².

¹To be understood as opinion or judgment that is to be proven.

² As noted above, these are studies provided by the State free of charge, and the costs that families must be carried out to their children to attend to them are meager. Although, we should into take account those in recent years, there have been many complaints before the deterioration of classrooms and schools in many parts of the country. Also there was still the problem

In the case of non basic education (high school, university and postgraduate students)³, it was not compulsory but it was supposed that in public schools these kind of studies were free⁴. Although they could study in public schools, it would be necessary take account of the associated costs and opportunity costs. In addition, students who could not enroll in public schools also had to consider the cost of private schools (paying registration fees, tuition and other related costs). Because given the low tuition in public schools in relation to the whole demand (the gap is greater at higher levels) there are students who have to pay this cost; this is provided that family income is sufficient to support the members who wish to do so. These costs are relevant in every school level, but as we will see, they will grow and become increasingly significant when advancing the grade. In our case, we suppose that the cost of non-basic education is the most significant and it will increase substantially from the lowest to the highest level. Before we continue, we should define some concepts:

1. The **indirect** costs are, in one hand, the materials used in the studies such as books (there are no free textbooks for students in non-basic education), notebooks, pencils, pens, backpacks, etc. On the other hand, there is the cost of food, clothing, transportation and other related items.
2. The **opportunity** cost is the one that refers to the cost of studying instead of working or doing some other activity. It emphasizes the individual's schooling level is increased⁵. From the point of view of this research the opportunity cost would be the loss of income that the individual could be getting in some work, but he did not get it because he is studying⁶.
- 3 Finally, a cost that although is not taken into account directly, is implicit in any study that you want to do in this regard: studying in a private school by choice or because there was no quota or they were not admitted in any public school. Private schools have gained space in the educational offering, mainly in the levels that are not a priority for the Government⁷. Initially its offer was only for students with enough family income to pay its annuities, tuition fees and other costs. Over time, some of these private schools, a minimum percentage, won prestige over time. Now, some students prefer private rather than public schools, since there is a society perception that they offer better quality in their programs. But this higher quality has a cost; the greater is the prestige of the school, the higher is the cost of carrying out the studies.

Therefore, the cost of studies in a country with high levels of inequality and poverty⁸ becomes an obstacle to the social and labor mobility, with the understanding that education is one of the main factors that affect it. If this cost affects the level of education that any individual can get, then family income and subsidies of the state, in this sense, become two components of primary relevance to determine that level. We suppose that in a country like Mexico the priority that is given to basic education creates segmentation that afterwards we will see inside the labor market.

that many schools ask parents a voluntary cooperation to address this material deprivation, and even in some occasions schools have demanded compulsory monetary fees.

³Since the year 2012, article 3 of the Mexican Constitution, the pre-university or the high school also appears as a basic education (taking in account it last level, the duration of basic education is around 14 years).

⁴"...en la mayoría de los países de Iberoamérica, el acceso de los jóvenes a este nivel es muy restringido, y el grueso de los jóvenes que acceden pertenecen a las clases medias y altas. Por lo tanto, el gasto mayor en este nivel tiene un carácter regresivo en la distribución de la oferta para jóvenes de distintos grupos socioeconómicos. El desafío en esta materia, para promover las capacidades de los jóvenes, no es reducir el gasto público en educación superior, sino ampliar su acceso a jóvenes de menores recursos". Juventud y Cohesión Social en Iberoamérica, CEPAL. Maybe downloaded from web-page: www.eclac.org (p. 122).

⁵We assume that the opportunity cost which enclosing a short-term effect, will have long-term consequences in an economy.

⁶We should remember which when the boys made their first non-core studies have an age between 15 and 16 years old, which is already officially considered by unions, employers and Government like working age. In addition, it should be noted that by the economic situation facing the country for decades, many children and young people in age of studying (mainly non-core), do not have the conditions to cover expenditure which generate it and they are marginalized to do them, so are forced to integrate into the labor market which in general are precarious jobs, or stay without doing anything, i.e., without working or studying.

⁷Lately in college and graduate school.

⁸ The CONEVAL (<http://coneval.gob.mx>) gives figures based on INEGI Mexico of 48.8 million people in poverty in 2008 and 52 million in 2010. Although we must know that definition of poverty, by others researchers locate it beyond 50% of the population.

This segmentation that we denominate institutional typifies education before society between a types of education which as its name suggests is the basic, and the other, what would really be the main interest of the school system (the non-basic education). So that, the workers would be classified by type of studies that they were able to achieve, given their family income, the support obtained from the State and the subsidies that the State assigns to each schooling level. If we suppose that education has positive effects on the productivity of the worker, the workers that only got basic education have low qualifications or basic qualifications. Moreover, for those workers with non-basic study levels, we could suppose that with each new growing level of studies, they could achieve better skills (specific and specialized) and they will be more productive. In addition, an increase in productivity could only be given in non-basic studies, so that, at higher the levels of studies, there would be higher productivity and better salaries. In the case of basic studies, we assume that these have been stigmatized, among members of society, as low quality and the differences between schooling levels at basic are almost imperceptible at the labor market⁹. Changes in productivity between different levels in basic education are minimal and have few impact on this segment of the labor market and, therefore, on the wages of these workers. Wage differentials in this segment of the labor market, we assume, will be more influenced by factors other than education. The firms that demand this type of workers will have the idea that these provide almost homogeneous labor productivity and offer similar wages for different jobs. We are talking about jobs with routine and repetitive tasks, in where exist a large percentage of those without job security or benefits, or contracts in writing, and therefore, the ranges of salaries are well defined and in general are low¹⁰. The supply of workers with basic education levels would be the most extensive and this is another factor that keeps wages down and which also makes labor positions for these workers more precarious, because there is an oversupply of such workers. The oversupply would facilitate the replacement of a worker given that the qualification does not vary too much between levels of basic education. Therefore, their training on the job position is minimal (they can be instructed in a very short period) because they will be running basic and repetitive tasks. On the other hand, the greater is the level of studies in non-basic education, the higher is the specialization and smaller is the supply of workers. The scarcer is the supply of skilled workers or with very specific skills, the salaries are biggest. In the sense of this paper, between greater is the level of non-basic studies, less is the number of individuals who can get these and perform this kind of jobs. The level of skill in this sense, increasing the productivity of the worker and this positively influences their salary - though we must always bear in mind that there are other factors that influence all worker's salary-.

2. Education in Mexico

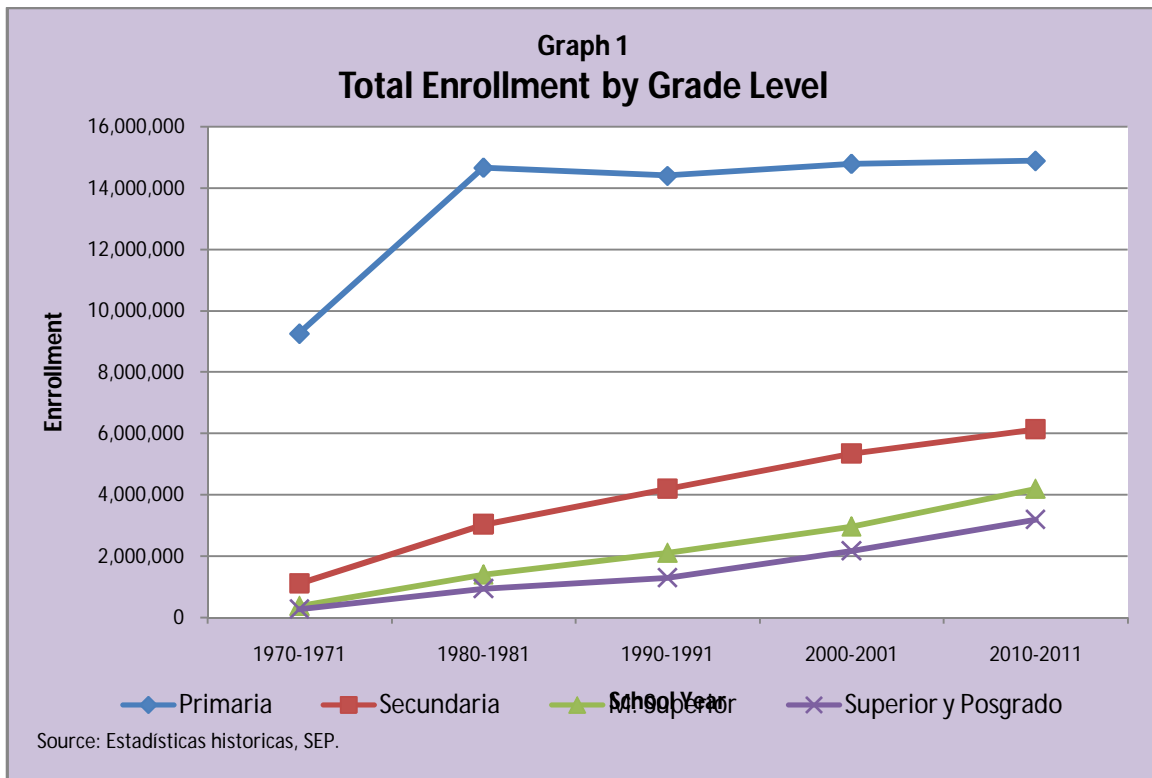
As noted above, the Mexican Government sets the obligation to study the so-called basic education to all individuals in age for doing so. Therefore, we would expect that almost all of the individuals, who require carrying out these studies, must be entered in these levels. Before 1993, only primary education was considered basic, the first six years of studies. Since 1993, for the purposes of this section, you should add three years of secondary education, to form what is basic education. In Figure 1, which is shown below, we can see school total enrollment by level of education, for school cycles ranging from cycle 1970-1971 to 2010-2011¹¹. There are no data on enrolment for year of schooling and educational level, in the period under study, therefore it is difficult to calculate the total number of students who completed the primary level and which entered to secondary. The primary level consists of six years of study and enrolled in the graph is total, that is, includes all students enrolled in the primary level (there are no data separated by each year).

⁹ One of the factors that affect this is the perception that society has about the quality of the studies offered by the State in these levels, in general, is that they do not have a good quality, which is also reflected among the employers in the country. Since Mexico joined the OECD, has held the last positions in terms of quality of education offered, mainly in basic levels.

¹⁰ A model that deals with training and its effect on the duality in the labor market can be found at *Luyando* (2011).

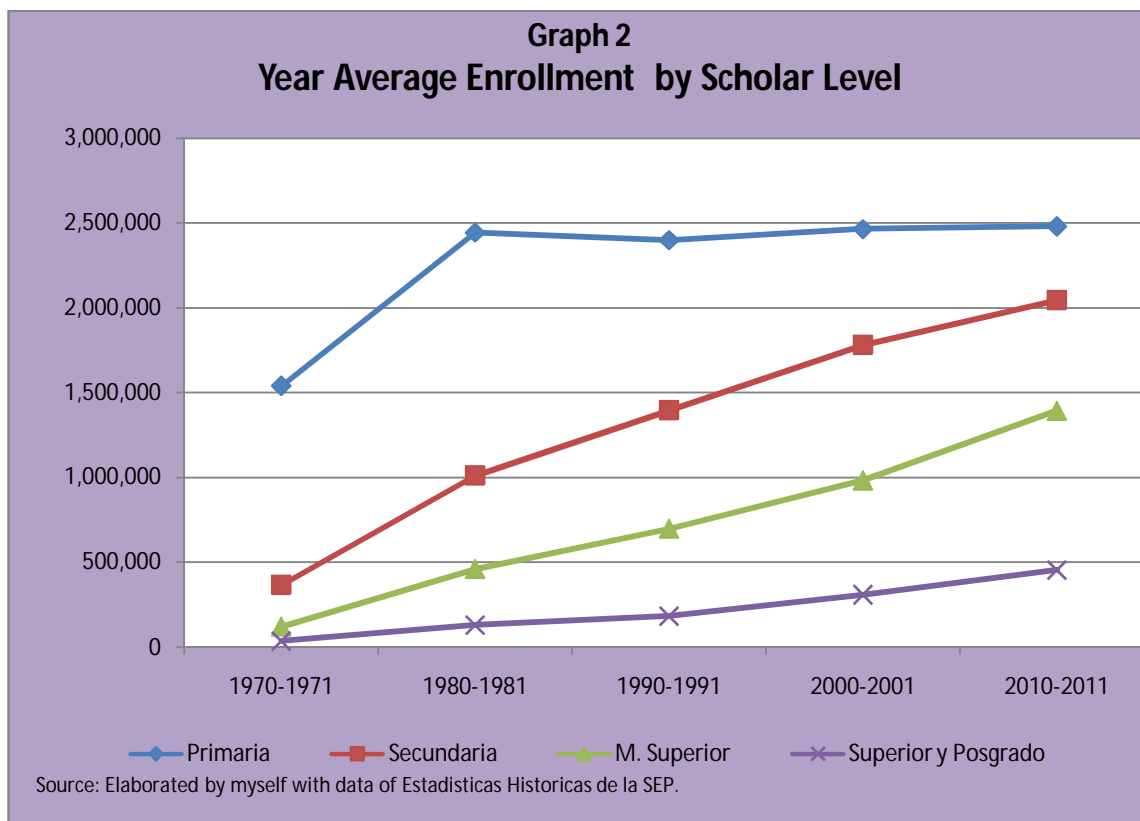
¹¹ The registration of the upper level and graduate is a joint figure in 1970-71 and 1980-81 cycles. Since the cycle 1990-1991 until the year 2010-2011 are already given separate figures. But to be able to analyze the period considered the joint registration of higher and postgraduate. In addition, we must point out that there are no data on enrolment for year of schooling and educational level for the chosen period, i.e. the primary level consists of six years of study and tuition of the graph is complete, covers all students enrolled at the primary level, there is no data separated by year. The same applies to the other educational levels.

Similarly, we are interested in calculating the total number of students who graduate from secondary and who get to enter pre-university level and those that ending the pre-university education and could enter the College and postgraduate school¹². To have an approach and to make any comparison, we divide the total tuition, in each school grade, between the numbers of years that the students did in each of them. That is, tuition total primary would be split among six, the secondary among three, the pre-university between three and professional and postgraduate between seven. With this, we are assuming that tuition is divided into equal parts at each school level, although in reality what we would expect is that you tuition should decline with the passage of the years, to a greater extent in the studies that are not basic and in lesser extent in the basic studies.



In the graphic 1, we can appreciate the big difference that exists between tuition total at the elemental or primary level (Primaria) and that is given in the following school levels. But to see an approximation more close to the real situation of this difference, such we have said before, each scholar level was divided by the number of years to get that level, such as show in the graphic 2.

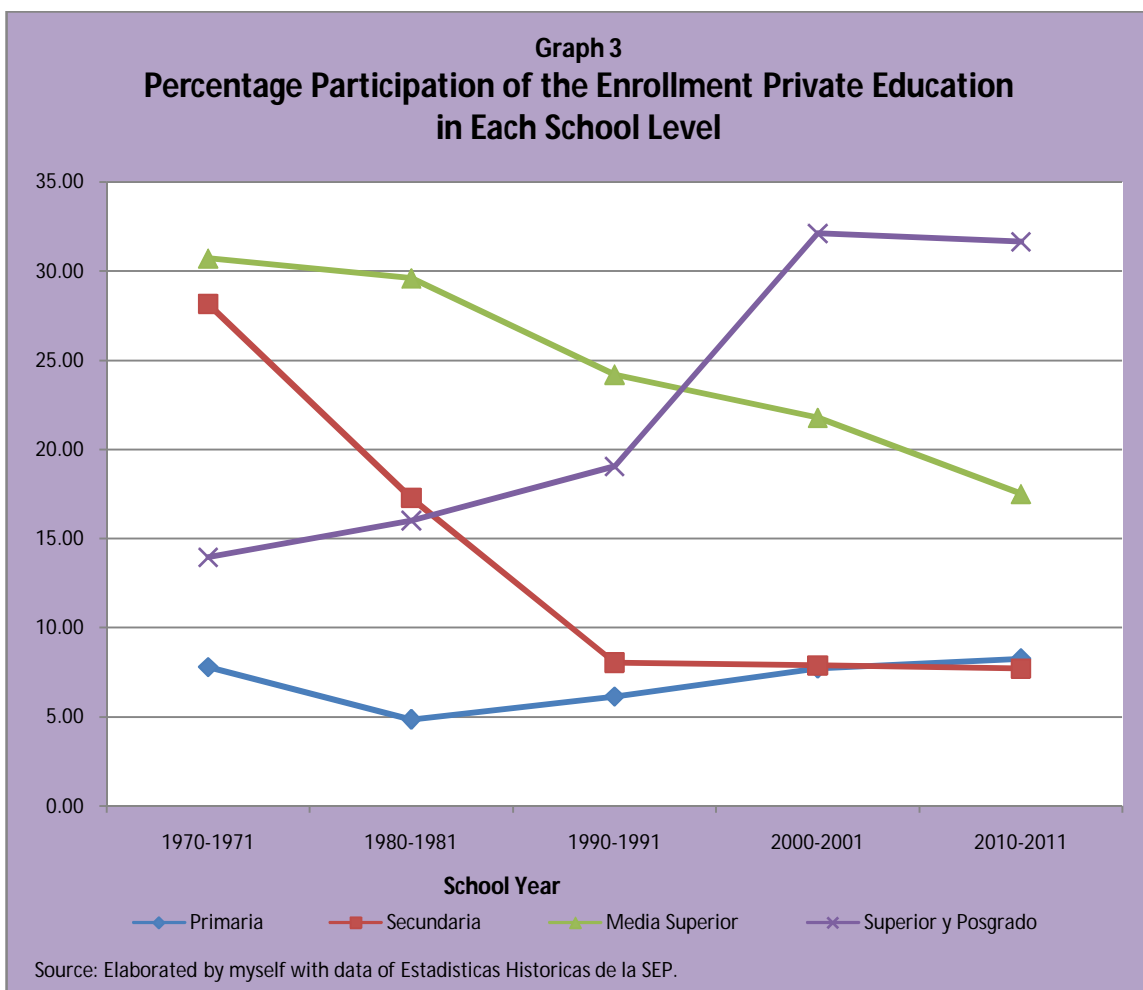
¹² At the University level the years of study vary from three to five and there is more variety in graduate school, but in general, we can talk about from one year to five, although they may be more than five. In both cases we take the median and we add it (four to three), this would give us in seven years, which we take as a reference to the number of years of higher and postgraduate. The primary level consists of six years, secondary three and the pre-university, in general, three.



In an analysis by cycle, one can see that in 1970-1971, there is a big difference between enrollment at the elementary level or primary (Primaria) and the next level, secondary or junior high (Secundaria), it could be said that two of every ten students manage to access to the next educational level. Of the persons that manage to have access to the secondary, only about three in ten will be able to access the pre-university or high school (M. Superior). A situation that is maintained between high school and university levels and postgraduate studies (Superior y Posgrado), that is, three out of ten with complete pre-university studies are going to gain access to university levels and postgraduate studies. For the 1980-1981 cycle, the situation most notable is the increase (around 60%) offer of enrollment school in the elementary level and the growing trend that has the enrollment at junior high and high school levels, and in lesser extent, in the university and postgraduate levels. At subsequent cycles can be observed that enrolment in elementary school has only slight variations, in fact, one can say that it remains without major changes.

For the cycle 2010-2011, eight out of every ten students who managed to finish elementary school could access junior high education. But recalling that the elementary and junior levels have formed since 1993, what now is known as basic education, and it might think having a treatment in block, this is not so, because the gap between one and the other remains when expected being compulsory and after seventeen years have been implemented, a similar number of people entered elementary would it do to the junior level - although, as you can see in the graph, has been given a major boost to enrollment in the junior high school throughout the period of study. For his part, seven of every 10 who are graduating from junior high school could enter to the high school studies, the latter another level which is given also great momentum and since 2012 is part of basic education (compulsory). It has been also promoted university and the postgraduate education (which since 2013 are the levels of non-basic education). But it should be noted that for this level the relationship that had in 1970-1971, does not change, i.e., for every ten students who graduate from the high school education, only three have access to university education and postgraduate studies. If we make a relationship between cycles and not in the same cycle, approximately, we can say that one of each ten of those who were studying primary in the 1970-1971 cycle, could pursuing upper studies in the 1980-1981 cycle. Following the same logic, two in ten of those who are studying primary in the 2000-2001 cycle, may pursue upper studies in the 2010-2011 cycle. Undoubtedly this shows some progress in this matter, doubled the number of students who can achieve higher levels of studies.

But this progress, largely, as it can be seen from the graph, is due to that enrollment in primary school since 1980-1981 cycle, does not have large variations and you could say that it remains more or less constant, while tuition at other levels has been on the rise since the aforementioned cycle. Two situations should highlight, the first is that although junior high education became compulsory since 1993, the aforementioned constitutional obligation has not been fulfilled. But in recent years progress has been made towards this goal, in fact, it shows that if the trend in secondary tuition could be, will merge with primary education in the coming years (perhaps in 10 years). But other time, we should note that this achievement, in much is due to that enrolment at the primary level has not had large variations. We also believe that a situation similar to the occurred between elementary and junior high will occur with high school education in the coming years. If the enrollment of secondary, in some moment, is similar to of primary, behavior of both is going to stabilize. If it tuition high school maintains the trend, in the long run it could reach to match the tuition of elementary and junior high school. On the other hand, although the tuition in university and postgraduate do not have the same dynamic of previous levels, has been increasing, but still remain few students who reach this level. And we should remember which theirs will become the only non-basic level of the Mexican educational system by 2013. If now we change toward the tuition at each private school level; we see a phenomenon that we could be expected, given the above. Elementary education (Primaria) as a symbol of basic education throughout the period of study has little private participation. On average his offer is only of seven percent of tuition total, something that one would expect given the requirement that the State offer this type of education. You can think it is a percentage of families who enrolled their children in such schools, waiting for them a higher quality in every aspect of education and greater opportunities for them in the following school levels.



Moreover, the tuition that is offered in the private junior high schools (secundaria) fell strongly between cycles 1970-1971 and 1990-1991. In the first cycle they got to 28% of tuition total and in the last cycle only to 8% of the total registration. It gives signs about a convergence in these two levels.

In this sense, one could think that the percentage of students who attend private schools in education elementary would be a good measure of those that possibly are looking for a junior high school private. After the 1990-91 cycles, the percentage between the two levels is very similar. The percentage participation of tuition at high school (Media Superior) level also has a decreasing, but less pronounced, trend goes from 31% in 1970-71 to 18% in the 2010-11 cycle. Contraction of tuition in private junior high schools and the broadening the coverage of tuition in high school level by the State will be affecting tuition in private high schools. But in the opposite direction, the difference between both levels tuition. It is also propitiating the decline in private tuition in a smoother sense. Finally, the only registration that it is growing in schools private is the University and postgraduate studies that from the year 2013 will be considered no basic education. Its share of the total, went from 14% in cycle 1970-71 to 32% in 2010-11, has increased more than twice. That is, the cycle 2010-11 to 32% of enrolment at the top level and postgraduate course was attended by private schools. From 1990 to the year 2000 enrollment grew quickly and was stabilized after that year. In this regard, notably, the difference between those who graduate from the high school level and those entering university and postgraduate studies, rather than converge are diverging (as shown in graph 2, although both are growing), this is certainly a factor that favors the high participation of the private sector in these educational levels, which are also those who have higher costs for who studied them, and therefore are possibly those that generate higher profits for who provides this type of service.

3. Proposition for the Study of the Phenomenon Raised

Becker (1981) related the human and nonhuman capital of parents with the human capital of their offspring through maximizing family's utility. In our case, we supposed that the parents want their offspring to have the best condition in their adult lives. In this regard, we are supposing that parents would spent a part of their income in the education of their children and they do not expect some reward in the future (a complete altruistic action), so they do not try to maximizing family utility. On the other hand, we supposed which level of family rent would indirectly influence in the job position that the offspring will get when they have to enter to workforce. In the sense which depending the level and quality of school, the offspring might get privileged scholar relationships that help them to find a better job and salary¹³. Therefore, this section presents a formulation where the family's income and the costs in educating are two of the main factors that influence the level of studies that an offspring will achieve. In an economy where we assume there are high levels of inequality and poverty so the level of schooling also depends of government budget in education, subsidies to education expenses for families (schools and books free of charge) and government programs which help to family income in poor communities.

First, we assume that the wages of workers in the economy are based on the level of schooling attained by them and other variables that affect it and that in general we call Z . Z could be variables such as sex, the type of employment contract, belonging or not to a Trade Union, the experience, the sector of the economy where works the individual, etc. Therefore, for every worker we have to:

$$(1) w_i = f(ES_i, Z_i)$$

We suppose that the school level reached by the worker was based on the wealth of his family during the period of their studies (Rf) and on the costs that the family had to face so that the individual could carry out school levels obtained (C).

$$(2) ES_i = f(Rf_i, C_i)$$

The family wealth has a positive relationship with the level of education achieved, i.e., the greater was the family wealth of student, the higher school levels could reach (if he so wanted it and had the capacity to carry them out). Moreover, the costs had a negative effect on the school level that could be achieved or which, in the end, the worker reached. That is, higher costs mean less possibility of reaching high levels of schooling. There is an inverse relationship between grade level and costs. Costs, which in turn, we assume can be divided into costs of opportunity (co), costs that are adjacent to the education (ca) and tuition fees and other related costs to perform some level of studies in private school (cp). The sum of these, give us the total cost studies.

$$(3) C_i = co_i + ca_i + cp_i$$

¹³Becker (1987) also pointed out that the market's endowments and rewards depend on luck, so that incomes are partially determined by interaction between luck and maximizing behavior.

The total cost is directly proportional to the level of education achieved. The opportunity cost we assume is increasing in the following sense: the opportunity cost of obtaining a level of postgraduate (Pg), is greater than obtain a level of University studies (U); and obtaining a level of University than obtain a level of high school (B); and obtaining a level of high school than obtain a level of junior high school (S) and lastly obtaining a level of junior high school than get elementary school (P).

$$(4) co^{Pg} > co^U > co^B > co^S > co^P$$

The surrounding costs, given our assumptions and what happens in Mexico, can also assume that between higher is the studies level, this type of costs should increase: requirements related to the material used in the studies and the one related to what is needed to carrying them out as: passages, food and sweets, clothing, etc.

$$(5) ca^{Pg} > ca^U > ca^B > ca^S > ca^P$$

Talking about the tuition, if the person always carry out his courses in private schools, we can assume a similar behavior the previous ones, so the higher is the study level highest is the cost of them in these schools.

$$(6) cp^{Pg} > cp^U > cp^B > cp^S > cp^P$$

In this way, the family wealth and costs, can say us in good measure the educational level which can reach an individual, which thereafter would seek to enter the labor market. The interaction between family wealth and the costs of education children's, under the previous assumptions, in general, it could provide three situations to reflect:

1. *The family income is greater than the total cost ($If > C$), in the period in which the studies are made:* the individual or individuals may be not have impediment to manage to the level of studies wishing in public schools and it will have the opportunity to conduct those studies in private schools - if your family believe which is the most appropriate for their training-. When family income is much higher than the education cost, we can say their offspring will have all the material conditions to achieve the desired level of studies, therefore, if society has the idea that private schools offer a higher quality than the public's, the family will prefer that their children to study in private schools or in their case in schools abroad where the quality of education is considered superior to the national. Although, we should always bear in mind that this situation also depends on the brain power of the individual or individuals, in order to carry out and approve the different educational levels.

2. *the family income is equal to total cost ($If = C$), in the period in which the studies are performed:*

2.1. In a first case, the individual or individuals still have the opportunity to make the level of studies wishing, but only in public school, which we assume are free of charge. If the above is true, the cp in this case, it will be equal to zero and the family income will exceed the opportunity cost and the surrounding costs. ($If > C^\alpha$, where $C^\alpha = co + ca$).

2.2. In the second case, if the family's needs are greater than the family can cover with the income that is not spent on tuition fees ($If = C^\infty$), the individual or individuals in addition to attend public schools, insofar as they have a chance (we assume, after secondary studies, for being an age where the incorporation to the labor market is legal), they should be incorporated into the labor market, to cover part of its surrounding costs and opportunity costs to continue exceeding the basic studies. In this case, we suppose that at least they could be able to achieve the basic studies (Bas). I.e. when $If > C^\beta$ where $C^\beta = co_{Bas} + ca_{Bas}$ (co_{Bas} and ca_{Bas} are the cost of opportunity and surrounding to carry out the basic studies), the household income is greater than the cost of opportunity and surrounding to carry out basic studies. Therefore, these individuals will have the opportunity to continue their studies, only if they can be incorporate a part-time into the labor market and so contribute for the payment of their cost of opportunity and the surrounding costs. I.e., when $If > C^\gamma$ where $C^\gamma = co_{SBas} + ca_{SBas}$ (co_{SBas} and ca_{SBas} are the cost of opportunity and surrounding costs of performing non basic studies), family income is greater than opportunity cost and the surrounding costs to carry out non basics studies, provided that the student or students can be working part time. In the event that these individuals could not get a job that allow them continue studying. They only manage to the basic studies and then will be devoted to work full time. In case they have not found work, they will become what in Mexico call *nini*, a person who does not study nor work.

3. The household income is less than the total cost ($If < C$), in the period in which the studies are performed: In this case we can assume that these individuals are able to do basic studies in public schools near their home.

At least that some of these individuals can get any scholarships thanks to their intellectual capacity or a governmental or private program.

3.1. A first consideration, if we can assume zero costs of private school, taking the surround cost to a minimum and suppose that the opportunity cost to early age is not high, we might consider a situation like this ($If \succ C^{\delta}$), the household income is a little more than the cost with these features. In this situation, the students may attend basic primary education in public schools, near their homes that do not ask for quotas or generate them extraordinary expenses. In such a way, that they have to perform the minimum expenses in school supplies and in transport, food or treats. If the situation is maintained and there is no sudden changes, the individual or individuals may pursue primary studies and perhaps secondary. The latter ensues provided that the costs of opportunity and surroundings would not rise too. In the case of the indirect costs, these depend greatly on the closeness of this type of schools¹⁴. The opportunity cost, has to do with the need of income families in rural and marginal areas of the cities, many children have to incorporate into the work to help the family, mainly in rural areas where children are incorporated from a very early age to work in agriculture.

3.2. A second consideration, the opportunity costs are so high that the individual will have to join the labor market from an early age. These are cases where child labor is needed to complete the family income. Families, mainly in rural and marginal urban areas, need the incorporation of children from an early age in family work. Commonly in the rural regions at agricultural and livestock sector and in the urban regions seek incorporated such as apprentices or helpers in precarious jobs, without benefits and with very low wages. In case of not finding a job, the family will prefer that the individual or individuals do not attend to school because these have a cost.

4. Some Conclusions

The Mexican State has raised the tuition in levels which were considered as basic education; first it did so with primary, then with education secondary and lately with pre-university education. The obligation of the State is to provide such type of education to anyone who requires it. Such is a situation that has still not been concretized, so there are still differences between demand and supply in the primary and secondary levels, and even more marked between the high school and pre-university education. Although, the rise in tuition seems to be a positive news, this is not so much when different data make us notice that while spending on education as a percentage of GDP has increased (in 1995 was 5.6% and increased to 6.2% in 2009¹⁵), the budget has not expanded on the scale required by the tuition growth, i.e. with a little over budget is helping a greater number of students, hence the data of OECD to Mexico indicate that the teacher-students ratio is the highest among OECD member-countries and, therefore, it is affecting the quality of education that is taught in Mexico, which regularly appears at the bottom of OECD stats, mainly referring to basic education which is essentially offered by the State. This paper makes a proposition on the school level that an individual can achieve based on family income and the costs faced by the family so their children can reach levels that are basic or higher. In a country with high levels of poverty and inequality, implementing the economic policies by Mexican government, especially the education policies and the social assistance programs, are affecting the level and quality of studies which can a child could achieve. And all this in turn has an effect in the labor market. Due to the above circumstances, a good part of the population of the country can only access state schools that offer free of charge, and yet within this free education, the level that can be achieved, also will depend on the family income-to-costs ratio and the number of places available in public schools to each scholar level. Education taken in this sense is assumed as a factor that has an impact on the productivity of workers in the labor market, and, therefore, the salary that they can get. If a good part of the workers in an economy with these socio-economic characteristics can access basic studies in public schools with low quality standards, then they will be allocated to jobs that require low-skilled and pay low-wage. In this same way, a high percentage of workers with these features will offer its workforce at the market and there will be an oversupply that will further depress their wages. Further, there will a low percentage of workers that have obtained non basic studies, and this will be reflected in the kind of jobs which may occupy and a higher wage level (on average).

¹⁴Such situations or problems can be seen mainly in the rural and marginal areas of large cities in Mexico. In these areas, there is insufficient supply of schools, i.e. the higher is the level of studies, the more difficult it is to find schools in these types of areas and the distance becomes an impediment so that families can send to one or several of its members to study.

¹⁵ Education at a Glance 2008, OECD Briefing Note for Mexico, consulted at www.oecd.org/education and Education at a Glance 2012, OECD Indicators Country Note for Mexico, consulted at www.oecd.org/edu.

Therefore, supply of these workers is lower and it also helps that their average wages are higher. We suppose that this situation is generating a division of the labor market, which we denominate: institutional segmentation. In this way we have constructed a proposal where we assume what is happening in the educational training of individuals, as a base to know what is happening in the market Mexican labor. A first empirical research about this proposal, named "Splitting in Labor Market Wage-Earning in Mexico through the Access to Education" has produced some good findings.

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