The World Bank and the Privatization of Public Education: A Mexican Perspective

Gian Carlo Delgado-Ramos and John Saxe-Fernández
National Autonomous University of Mexico, Mexico

Abstract

A close inspection of current privatizing programs of public education, particularly higher education, in both the North and Global South1, shows radical impacts and consequences as "market forces" reconfigure: a) the number and type of potential students; b) the structure and content of study programs; c) teaching procedures as well as d) the types of science and technology emphasized. The effects on the skill acquisition of labor, the growing "links" and dependencies created by the "marriage" between universities and multinational corporations, the increased brain drain –from the "Global South" to the "North"- as well as the chronic technological dependency of underdeveloped countries that is being fostered, are topics addressed in the paper. An overall assessment of World Bank´s critical role in these processes is offered.

Keywords: World Bank, higher education, public university, privatization, technological dependency, brain drain Global south.

On the World Bank (WB)

Under Washington´s initiative, the Bretton Woods conference celebrated in mid-1944 in New Hampshire, aimed at providing the US with a "new economic order" that "could keep the nation´s economy pumping away so that the war-shocked world could be rebuilt and the US system saved from a possibly fatal shock of another 1930´s like depression".[2] To solve these problems the meeting established two new organizations: the International Bank for Reconstruction and Development (IBRD or World Bank) and the International Monetary Fund (IMF). Since the US at that time controlled two-thirds of the world´s gold, the Roosevelt administration naturally insisted that the postwar economic system rest on gold and the US dollar. Thus, both institutions were

designed, as historians Gabriel and Joyce Kolko point out, not merely to implement disinterested principles,

> but to reflect the United States' control of the world´s monetary gold and its ability to provide a large part of its future capital. The IBRD was tailored to give a governmental framework for future private investment, much of which would be American[3]

The United States dominated the WB and the IMF, and these institutions, and the powerful dollar, were used by Roosevelt, first of all, "to force the British Empire to open up to the American goods and investment"[4] and soon after, as powerful tools to do the same with the rest of the world. According to Dean Acheson, present at the creation of this new international economic architecture[5], the aim was to create not just an American dominated international marketplace, but one that did not need excessive state interference or high tariffs. The GATT arrangement –later on the World Trade Organization-, was central to these aims[6]. Thus, in this paper the WB and IMF are treated as state and class instruments of US national private interests and not as "international financial institutions" or as "multilateral instruments" as Roosevelt , not without sarcasm, liked, and seriously demanded, to label them. They have been vital tools of "Pax Americana". The United States maintains to this day a decisive percentage of the voting power within the *World Bank Group*, which includes a host of institutions created after 1944.[7]

At present, the United States holds 16.39% of the voting power within the IBDR and 23.68% in the IFC (the International Finance Corporation) the World Bank's division in charge of promoting private investment worldwide). Considering that 80% of the votes is needed to approve any proposal within the WB, the United States has the power to "neutralize" any action threatening its interests, which is tantamount to a veto power. The U.S. holds a similar position within the IMF, where it controls 14.17% of its voting power. 85% of the votes are needed to ratify any decision.

Naturally, as former head of the US Treasury Henry Morgenthaou pointed out, under the encouragement of the WB,"… international trade and international investment can be carried out by businessmen on business principles"[8] Morgenthau refers, of course, to American and other entrepreneurs from the "North".

This is amply demonstrated by IFC's *modus* operandi: Functioning on an organizing mechanism of "clusters" or work groups (many of which in turn have sub-clusters), IFC encourages its international private "partners" to actively engage in the business of privatizing and putting in foreign hands the main –and strategic- assets of host nations.

For example, among IFC partners in the "Water & Sanitation Cluster," there are multinational companies such as Vivendi, Ondeo (Suez) and Thames Water. Companies and state institutions in the "Natural Resources Cluster" include, among others, Conservation International, the US Agency for International Development (USAID), World Trade Organization (WTO) and the Inter-.American Development Bank (IBD). Likewise, in the "Global Partnership for Youth Development" cluster are to be found American Express, Cisco Systems, Kellogg Company, Microsoft, Nike Corporation and USAID. All other "work groups" are also linked, by this mechanism, with "selected" multinational companies, most of them US based.

The World Bank and the Commercialization of Higher Education

The commercialization of the higher education is basically carried out as part of the "Washington Consensus", which includes as one of its features, the privatization of public universities[9]. According to Santos, this has been a two-stage process. The first from the 1980s to 1990 aimed at the expansion and consolidation of a national market for higher education. Once such a "national market" developed, the second stage, from 1990 on, centered on stimulating the creation of a "transnational" market on higher education, under US-European dominated World Trade Organization and of course, the World Bank. In this context, higher education is defined and treated exclusively as a mercantile operation.[10]

By 1998, when the "second stage" was well underway, the WB published a report; "The Financing and Administration of Superior Education*"* which laid out an agenda for educational "reform".[11] With the intention of adjusting the educational system to "present and future needs", the Bank followed the suggestion of Frans van Vught,[12] then president of Twente University in the Netherlands,[13] in the sense that "…the reform agenda of the 90s, and almost certainly extending well into the next century, is oriented to the market rather than to public ownership or to governmental planning

and regulation"[14] Central to WB's higher education programs, the report calls for its privatization, deregulation and "orientation by the market".

Notwithstanding the long historical experience of the European university as the centre of humanistic and scientific knowledge production, and as a key public institution, for the WB education, science and technology are commodities, and consequently they must be conceived and managed through "market" mechanisms and solutions. This means that education is framed in a context of limited supply and is available for a certain price.

Looking at the demand side of the phenomenon, the financing of higher education acquires a peculiar connotation. This has to do, in the Bank's own words, with the fact that "…when the government shifts cost to the students, it must introduce a parallel system of financial assistance".[15] Thus, the WB Report proposes these specific steps:[16]

1. The introduction of substantial increases in registration costs
2. Charging full fees for room and board
3. The introduction of mechanisms to investigate economic resources of students applying for grants and loans.
4. Loans for students based on market interests rates
5. The improvement of the students' loan payments by subcontracting private companies.
6. Implementation of a graduation fee imposed on all students.
7. Promotion of philanthropy to establish foundations for direct operation of universities or to grant scholarships to students.
8. Improving the quality of education by entrepreneurial training.
9. Offering for sale, research projects findings, training courses and all university services by means of concession agreements (multiple service agreements) or by subsidies.
10. Increasing the number of private institutions with a progressive decrease in public education.

Regarding these guidelines, The World Bank states that

> …much of what may look like the agenda of the neoliberal economist may also be more opportunistic than ideological. With taxes increasingly avoidable and otherwise difficult to collect and with competing public needs so compelling on all countries, an increasing reliance on tuition, fees and the unleashed entrepreneurship of the faculty may be *the only* alternative to a totally debilitating austerity.[17]

In Mexico, the "unleashing of the entrepreneurial potential" of education to which the WB refers to has been "well" understood by the local and powerful elite. Since the 1990s, through its deputies and senators, the private sector has introduced into the legislative agenda new bills that call for opening the education and public health sectors to private investment based on "service-rendering projects" agreements (see below); an operational scheme similar to that of multiple service contracts sponsored by the WB in Mexico´s public oil and electric enterprises, leading to the "sector's de facto privatization.[18]

The WB and its country managers argue that it is necessary to reduce all "non-productive" expenditures (and the public education budget is considered as such), so that, the money can be spent in other public needs such as health, security and infrastructure. This argument vanishes when it is considered that a major portion of the public sector –including all those mentioned above- is being privatized using similar arguments. The WB statements concerning social issues in the "Global South" are mere sophistries when one takes into account that its operational budgetary recipes heavily restrict social priorities within the political policy framework.

Fostered by both the WB and a "conventional wisdom" built on a massive and costly "public relations campaign" (usually financed through WB "public sector loans") the privatization of public assets is presented to the public as the only alternative to current economic stresses and distresses. It really responds to the private sector´s interest in pillaging the public treasury, strengthening what has been described correctly and extensively as a key feature of this process: "the privatization of profits and the socialization of costs". The roads in Mexico, for instance, have been privatized, bankrupted by one or several multinational and local firms or contractors, and then returned to the public sector ("rescued") twice. After massive public expenditure, now they are in the process of being "re-privatized" again. Through this

mechanism, billions of dollars have been transferred to the private sector. This has been sponsored through WB´s "modernization of the Mexican road system" loans and programs. At present for each toll peso collected in the country's highways, 70 cents go to the payment of what is officially known as the "rescate carretero" ("roads rescue").

But this is just the tip of the iceberg as the privatization program as a whole is plagued with similar cases in virtually every sector of the economy being "modernized": the privatization of the Mexican banking system has been a massive financial disaster. The costs are conservatively estimated in the hundreds of billions of dollars over the last ten years. But the pattern repeats itself in airports, sugar mills, sea ports, railways, airlines, food distribution enterprises, etc. However, much of these schemes have greatly benefited international bankers –such as City Group-, and easily identifiably multinational corporations from the "North" that operate in the "Global South" under the protective umbrella of state instruments of their country or origin, such as the WB, the IFC and other diplo-military and security arrangements.

The educational system as a whole is now being thrown into this scheme. Presented to the public as a major effort at "educational reform", its privatization is being fostered through highly conditioned WB loans to the public ministry of education, universities and research and development units, such as the National Council on Science and Technology (CONACYT). By encouraging the "entrepreneurial spirit" in the education institutions (at all levels: primary, secondary and tertiary), the Bank is basically eroding the scarcity power that the academy and scientists still exercise in defining study plans and scientific and technological development programs. Since according to the Bank´s reasoning, the "market" (i.e. the private sector) should "decide" on these matters, there is a growing gap between the problems affecting the population at large and the national research and development agenda. The WBs "conventional wisdom", is really a linguistic code that must be deciphered as it conceals the actors and main beneficiaries of the privatization programs. As James Petras has pointed out, "the market" is an analytic economic category. It does not "demand" nor does it "decide" or "urge". What we are facing is an anthropomorphic distortion of economic processes. It is the Chief Executive Officers, the decision

makers of organisms such as the WB and the IMF who really "demand", "decide" and "urge". Not "the market".[19]

Petras' remarks help in understanding the full meaning of codified phrases by the WB such as its claim that

> ...a greater reliance on market signals brings a shift in decision making power not just *from government,* but also *from higher educational institutions* –and specially from the faculty, to *the consumer or client,* whether student, business or the general public.[20] This statement must be considered as the WB´s main campaign motto for the commercializing of higher education under the argument of the search of quality and efficiency.

It is also a major thrust against what it calls "the isomorphic reproduction of the "classic university" based on free research and teaching, and what it claims to be "the excessive power of the faculty".

Data gathered by Santos indicate that worldwide spending in education is estimated at around 2,000 billion dollars, more than global automotive sales. According to Merril Lynch analysts cited by Santos, capital growth in education has been exponential, showing one of the highest earning rates of the market: 1000 pounds invested in 1996 generated 3,405 pounds four years later. That is an increased value of 240%, while the London Stock Change valorization rate accounted on the same period for 65%.[21] Other 2004 data indicate that, current commercialized education, incomplete as it is, already generates around 365 billion dollars in profits worldwide.[22] It is, indeed a juicy business that could greatly expand if higher education is formally defined and treated as a "commodity" under the World Trade Organization's (WTO) General Agreement on Trade and Services (GATS).[23]

Such a process of commercialization under the GATS requirements of 'avoiding discrimination against foreign multinationals entering services markets', as Rikowski has explained in detail, can be achieved by four modes of service supply. These are: 1) through "cross-border" supply (as the on-line educational services or on-line universities already on a boom stage); 2) through the supply concerned with the "consumption abroad" where the consumer travels to the service supplier (tightly linked to the brain drain process); 3) through what is called the "commercial presence" where the services suppliers establish themselves in the foreign market as a

legal entity in the form of a subsidiary or branch (i.e. the University of Florida of Panama), and 4) by the "presence of natural persons" from another country which means that those subsidiaries might operate with employees from the matrix country.[24] In such a context it is important to point out that any dispute must be solve through the WTO's Dispute Settlement Process under the operation of tribunals in which only member states are allowed to participate with no outside appeals procedures.[25]

Up to now, the United States, New Zealand and Australia have been most enthusiastic with the "benefits" of the GATS since, as Santos points out, these countries are at the top of the exporting education services business. The European Union, on the contrary, has "liberalized" the education sector with some restrictions in order, first, to get prepared, then to compete in the world market. It is a policy geared at strengthening the internal market in education as well as the homogenization and standardization of the general education framework policy, prior to complete the "liberalization" of the sector. For the business interests involved, bilateral and multilateral agreements on education liberalization and privatization are the best bet, at least in the short term.[26]

The WB insists that to achieve quality and efficiency in higher education, "a great productivity" is required, further stating that, "…the main higher educational productivity problems lie not so much with excessive costs, but with insufficient learning"[27]. Therefore the following step, according to the Bank, is to redefine the evaluating parameters of the universities' budget in terms of a commercially verifiable performance.[28] This means measurements based on standardized indicators focused in criteria that are of interest to the "market", that is, criteria based, first of all, on national and foreign entrepreneurs' requirements and interests.

As a case in point, the WB states that,

> among Mexican universities there is an increasing realization that regular operating subsidies from the government will not grow. Hence, the private sector will be the source for the extra income required, involving faculty and students in this effort. Some departments are beginning to generate income on their own, through the sale of services, specialized courses, etc. Even in disciplines where this was once unthinkable, this is happening by imitation.[29]

In a similar way, the WB's *Country Assistance Strategy 2002-2006* (for Mexico) encourages a "new educational culture" in which, "…supervisor and parent participation will have to focus less on process and more on actual results, as measured by published student scores in standardized national tests."[30] Everything indicates that, for the WB, the content of teaching and the process of educating new generations, are no longer important.

In early 2004 and following the WB recipes and instructions, the Mexican government announced its intention to make any new funds to public universities, conditional on the application of standardized proficiency examinations. This way of dealing with the new funding to finance the efficiency and quality of Mexican universities, said the government, would benefit the private sector. It should be clarified that actually they are not talking about any real increase in public expenditure for higher education, but of its being frozen and its potential reduction, while it is substituted by highly `conditioned' private loans, donations or other arrangements of this kind. In addition, the remaining public budget would be assigned to different functions because, as the WB has indicated, the "…Mexican government is very keen to increase demand-side financing –that is, financing students rather than institutions, to improve access to higher education."[31]

Ironically, while the economic crisis worsens, unemployment amongst the young grows the most and salaries shrink to a critical point, the tendency to privatize higher education is dramatically reducing the number of total enrolments as public options are becoming "limited" options. This is a recipe for class conflict. By placing private institutions as the alternative, higher education is transformed into a commodity that can only be afforded by high-income families and only partially by the middle class. This class scene is central in any objective assessment of a "standardized evaluation system" now being fostered by the WB and the local authorities, which clearly responds to the necessity for Capital to rank the work-force according to the amount that the client (the student) is "willing" to pay.

In an extraordinary statement on the "externalities" of its Agenda, the WB acknowledges that in Latin America, "...the statistics indicate that the proportion of students attending private institutions has more than doubled over the last 15 years. But, at the same time the proportion of people being educated nationwide is dropping

at a worrisome rhythm."[32] This is a case either of institutionalized schizophrenia or cynicism that becomes more striking if one takes into account that in 2004, Cuba, the only country in Latin America not under WB modernizing programs, was ranked at the very top of the region´s educational achievement list (measured by the population´s years of schooling) with an average of 11 years of education nation-wide in contrast to Colombia with around 7 years; Chile with 8.5 years; Mexico with 7.3 years; Argentina with 9 years; or Brazil with 6.1 (the data's source is diverse)[33].

In the case of Mexico, while in the decade of 1980 the primary and secondary cycles were mainly covered by public institutions; according to OCDE data, by 1999 the percentage of students attending private institutions accounted to 7,4 % in primary (first 6 years of schooling); 13,4% in "lower secondary" (7^{th} to 9^{th} year) and; 21,4% at the upper secondary (10^{th} to 12^{th} year of schooling).

This trend to the privatization of public education, along with the recent emphasis on technical schooling of middle and higher education (basically training a skilled workforce), is better understood in the context of the worldwide trends and changes being observed in the workforce and in the South-North/North-South transfers of workers.

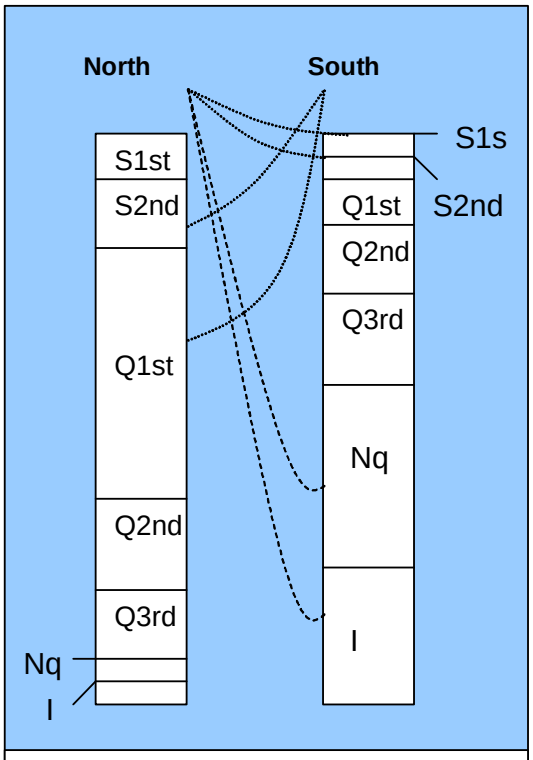
Educating the world's workforce

Chart 1 indicates a general approximation of the composition of the workforce and the transfer tendency between the North or capitalist central states (shown in the left block) and the South or the capitalist periphery states (shown in the right block). The classification of the workforce segments does not respond to just "years of schooling" which can be tricky when, among other things, it takes into account those individuals that have just one year of schooling in each level. Even so, here, in this chart, we take the years of schooling into account. In part this is because the national and international data is made in such a way and the segments employed are also based – and named- by the type and content of education as a function of the workforce to be prepared. This is a way of partially avoiding the multiple "black boxes" behind the official indicators that might make difficult a deeper analysis. For example, the difference of years that each country takes into account for primary, secondary and tertiary education levels had recently allowed China, by reducing the years of its

primary education program, to achieve the United Nations' Millennium goal of "universalizing the primary education" (Conference sponsored by the UN and the WB in Jomtien, Tahilandia, 1990).[34]

Keeping all this in mind, from Chart 1 it can be said that, regarding the illiterate group of people (denoted in the chart as I) or those with no schooling at all is almost nil in the North, but it is an considerable proportion of the South's population- in some regions - almost half. For example the Mexican illiteracy national average is around 11% of the population[35] but in the southern regions of the country, like Chiapas and Guerrero, the illiteracy rate increases to nearly the half of the population, particularly within the indigenous one.[36] In other Latin American countries the percentage is even higher like in Brazil (21.2%) or Colombia (19.8%).[37] The total illiterate population in Latin America and the Caribbean is around 39 million.[38]

Chart 1: Workforce composition & labor transfers



I. Illiterate
Nq. Non-qualified
Q3rd. Qualified of 3rd class
Q2nd. Qualified of 2nd class
Q1st. Qualified of 1st class
S2nd. Scientists of second class
S1st. Scientists of first class
…... Labor Transfers

The same proportion within the North and the South is present with the "not qualified" (NQ) segment, where we would locate elementary education (this category includes the population that has some or has completed the first six years of schooling).[39] In Mexico this segment accounted for between 37.8% and 47.3% of the population in 2000, the figures changing according to the source.[40] In other Latin American countries the percentage is around half of the population or even more: in Argentina 49.6%, in Brazil 56%, in Chile 42%, in Colombia 19.8%.[41]

Image 1

Source: Delgado-Ramos, Gian Carlo and Saxe-Fernandez, John. Imperialism and World Bank. Popular. Spain, 2004.

Qualified people of the third class (Q3) have an education corresponding to technical junior high school (some lower secondary education or between the 7th and 9th year of schooling) In the North, this is also a minority group, while in the South they are in a third position, although of course, smaller than that of the NQ, and obviously of the I segment.

In Mexico the Q3 group accounts for the 24.4% of the total population and, 19.1% if those with the 3 years of schooling are included.[42]

Qualified workers of the second class (Q2) are those who have senior high school or some "upper secondary education" (10th to 12th year of schooling). Whether they are in the technical, scientific or humanist fields they are a meaningful and important group because of their numbers in both regions (the North and the South). They fill most of the ranks of "technicians" in both the South and North. There is a difference between the North and the South here. In the South, those who studies in private institutions are employed as some type of First class segment's (Q1) workforce. This is not so with the Q1 group in the North. In the North, that labor segment (of "first class" technicians) mainly include those that hold either a technical Bachelor's degree or, at the top of this group and in smaller numbers, a technical Master's degree. The percentage is difficult to determine because the group it is not defined mainly by the number of schooling years but by the "type" of education. In Mexico the percentage of population that has at least one year of "upper secondary education" is 16.8%.[43] If segments Q3 and Q2 are added in order to get what it is generally known as "secondary education level" the percentage for Mexico shows as between 29% and 41.2% depending on the data.[44] In other Latin American countries, for example, Q3 and Q2 accounts for 13.5% of the total population in Brazil; 36% in Chile or 21.4% in Colombia.[45]

Scientists of the Second class (S2nd) are those having a non-technical Bachelor's or a Master's degree or a PhD degree, and who carry out, at the most, basic activities of science and technology research. This is the smallest group after that of the Scientists of the first class (S1st) or of those scientists involved in the development of advanced science and high-tech. It should be noted that the S2nd and S1st in the North are considerably larger groups than in the periphery, probably because they receive larger stimuli and resources than those in the South.

Again, the percentages are difficult to determine because the different categories are defined by the type and quality of education and not mainly by the number of years of schooling. Even though, in Mexico, if we include in the S2nd category some Bachelor's degree (undergraduate) education (at least one year) and we add the S1st to same group usually known as the "tertiary level of education", the percentage from the total population is only 11%.[46] In other Latin American countries such percentage is 8.4% in Brazil, 15.8% in Chile and 9.9% in Colombia. All this numbers shrink when we look at the percentage of the population holding a Bachelor's degree. In Mexico this accounts for only around 7% of the population. This figure includes those with a Master's degree, a PhD or postdoctoral degrees. These represent no more than the 2.5% of the country's population).

In the metropolitan countries, the tendency is to increase the Q1 groups, reducing the size of all groups below in the hierarchy of groups, and to open the possibilities of slightly increase those groups located above. (This is not necessarily so, however, because, among other factors, of the extended privatization of the sector), In the South, the `Peripheral' countries, on the other hand, the tendency is to broaden the Q3 block (and, to a much lesser amount the Q2 group), especially to satisfy the demand of trained technicians capable of satisfying the necessary requirements to operate, maintain and fix the machine-tools that the North transfers to the South, whether by sale of technology or through *maquila* factories in the periphery's territory.

This is one of the fabulous "comparative advantages" that some well-placed "personalities" in the social sciences tell the periphery to take advantage of. The groups downward could be reduced a little, to the extent in which the demand of Q3 and Q2 encourages this. The first class scientists, the S1st group, and a very few of the second class scientists (the S2nd group) of the periphery will continue being financially drawn in to the capitalist central states (as the brain drain), especially if the scenario in which resources for their education –in the periphery—continue to diminish or are privatized, and this situation persists.

For instance, in Mexico Conacyt has reduced by almost two thirds the number of scholarships for graduate studies abroad, and has cancelled the formal mechanisms established to repatriate scientists that benefited from the scholarships. This is happening at a time when the president of that institution proudly announced that the

brain drain phenomenon must not be seen as such, but as "a natural export" of "Mexican ambassadors".[47] This line of "reasoning" seems to be compatible with the basic posture and aims of a government presided over by a former CEO of Coca-Cola. But it is important to realize that the brain drain phenomena has important costs to the Global South because these countries pay for those "ambassadors"' education and because it directly affects, in the most negative way, the capacity of the South to develop its own scientific, technological and research and development agenda. But, most importantly, because the loss of brains also implies the relative elimination of highly qualified social leaders.[48]

The "brain drain" figures speak for themselves. In the last 40 years Latin America has "exported" to the North 1.1 million scientists and researchers, an average of 27,500 experts per year. Direct economic cost for the education expenditures of this massive transfer of highly trained human resources has been estimated at, at least, 30 billion dollars.[49] However, this might by a gross underestimate of the real direct costs, as we are dealing with all governmental investment in education, which includes aspects from the teaching and research infrastructure to the general overhead expenditures for each professional career being lost to the North. And that means, from kindergarten to the attainment of at least, Master or Doctoral degrees. That cost is estimated at US$200 thousand dollars per career. If this estimate is correct then, the direct cost of the "brain drain", over 4 decades, would be around 200 billion dollars. Needless to say, the "qualitative loss" of this brain drain is immensurable.

The aforementioned "guidelines" did not originate within the walls of national educational ministries or research and development institutions but rather in the WB. Consider that, all funds that Conacyt assigns for scholarships abroad, come from Nacional Financiera, a historically important developmental institution that now functions as a "clearing house" of a great deal of the heavily `conditioned' loans that the WB "grants" to Mexico. Consequently, for graduate aspirants, while the options to access what is left of the national science and technology establishment continue to diminish, their opportunities to study abroad also tend to lessen. This shall result, in the best of cases, in an increase of the Q1 section of the population, –due to the loss of subjects in S2nd and S1st that have to compete with their peers not only in the North,

but also in their own country; as a consequence of the relative ease with which the metropolitan workforce can move between the metropolis and the periphery.

In contrast, the opportunities that the periphery's workforce has of legally moving towards the North are highly restricted and selective (including the opportunities for the two scientific groups, the S2nd and S1st). This is yet another contrast between what is going on in the real world and the neoliberal rhetoric on the urgent and "necessary" liberalization and deregulation of the economy as a whole.[50]

It is well known that when men and women of the periphery migrate to the North (if they do not die in the attempt) their services (generally of the I and Nq categories) are bought in the market under the stigmatized label of "illegal work", and thus, they carry out the worst jobs for the least money. What we have, then, is the perfect recipe for fostering underdevelopment by the "liberalization" of trade and capital multinational corporations and the WB, coexisting with high trade protectionism and subsidies to key sectors, as well as a highly protective work "market" in the north. Free mobility of the workforce would make such benefits for capital impossible.

This is an upside down welfare state on a global scale and has been, all along, the expected result of the application of so called "neoliberal policies", promoted in the Global south by the WB through its loans and through its debt and new credit line negotiations. In this process it is of crucial importance the collaboration of those in power in the Global south holding public office. More than "presidents" or cabinet members, they have been properly labeled by former Costa Rican president Rodrigo Carazo, as the "country managers of the WB in each Latin American nation".[51]

It is not surprising that WB's loans for the Latin American education sector have been dramatically increasing during recent decades. In the case of Mexico it went from 61 million dollars in 1990, to 218 million in 2004. In Latin America, the total of the WB's highly conditioned loans for education during the same period is estimated at more than $4.6 billion.[52]

The impacts have been profound. In the case of Chile the most important part of its education system has been privatized since 1981. According to physicist Carlos Bunge, most university training and research in the hard sciences (physics, biology,

chemistry, engineering) have been drastically reduced in favor of courses in "business administration", "corporate public relations"[53], as demanded by "the market", ie, that country´s business class; in Argentine, since 1995 the "Higher Education Act" allows the universities to decide whether they are going to collect fees or not and, in Mexico there has been a great deal of pressure from the WB and the business community to privatize public universities and their considerable scientific-technological research programs and infrastructure, particularly the National Autonomous University of Mexico (UNAM) which carries out nearly the half of all the scientific research in the country. UNAM is considered as the biggest university complex in Latin America, and its teaching and research quality is ranked at the very top of the region according to the *Academic Ranking of World Universities 2003*).[54]

In the Mexican case the co-participation of the national power elite was and has been a key factor to successfully achieve the WB's Agenda in education, which is closely related to the Mexican workforce qualifications, as demanded within the context of the *North American Free Trade Agreement* (NAFTA). In 1990 former secretary of Public Education, Manuel Barttlet, signed an agreement with Mexico´s private sector to establish new institutes of higher education under the direct management of Mexican businessmen. By 1999 there were 40 of this "modern" institutes (National School of Professional and Technical Education – CONALEP), financed through three WB's loans. This is more than all existing public universities.[55] At the same time a national Fund for the Modernization of Higher Education (FOMES) was established with the goal of promoting the private interests and perspectives in the "public institutes", by promoting short specialization courses (usually lasting 2 years).[56] In addition, a National Center for the Evaluation of the Higher Education (Ceneval) started operation. Its function is to evaluate, for a price, all candidates that apply for entrance in any public institute. This is done through a unique test designed by specialists and scientists selected by the business community.[57]

After "preparing" the national market for private higher education and the same year the NAFTA was signed (1994), and at a time when the so called "trinational mercantile parameters on education" (US, Canada, Mexico) were established –in Aboites' words- "former Public Education secretary of Mexico, Ernesto Zedillo, adopted as his own the WB's Agenda" here described. Among the first measures he

took, was to establish the Program for the Improvement of Faculty - PROMEP (a kind of a market "certification" program not only on the quality, but mainly on the content of what is to be taught).It reinforced the FOMES program and the Ceneval's unique test.[58]

By 1998, the WB lunched a 180 million dollar "higher education financing project" which was co-funded by public funds from Conacyt and private donations.[59] The project, said the WB, "would have a positive impact on the coverage, quality and equity of higher education". By "developing a private sector student loan scheme, it will contribute to increased equitable opportunities for participation in higher education"; and, at the same time, "it will improve the quality of the education" because, as the *Sonora Student Loan Institute (ICEES)* and university administrators have pointed out. "…the students who bear some part of the costs of their education, whether they pay this up-front or borrow against their future earnings by taking out student loans, tend to be more motivated and academically successful."[60]

The basic aim of this student funding program was to stimulate either the enrollment of students in private institutions (through direct WB's funding of the Society for the Promotion of Higher Education – SOFES; a financial intermediary of private universities, members of the Mexican Federation of Private Universities – FIMPES which represents the most important private institutions in Mexico) or to obtain some sort of social legitimacy by using the high fees already being charged by the University of Sonora (a public institution). The idea was to settle all discussion on fees avoiding any public discussion, and by further modulating the social reaction with a strong scholarship program financed by the WB (through the Sonora Student Loan Institute). It is important to take notice that Sonora was chosen because its public university already charged high tuition fees, before the WB's project came into action, therefore the WB's program stimulated the privatization of a public university minimizing "political risk".[61] The goal was not to educate poor people. If that had been the case, the Bank could have selected a Mexican state with a high percentage of the national undergraduate population such as Oaxaca or Chiapas and not Sonora with just 4 percent of the total.

All of these actions have had a deep impact at UNAM, as indicated by the adoption of a wide "modernization" of teaching programs' content of its Schools and Faculties; a

reduction in public financing and a considerable increase in private grants and loans for high quality research now being carried out by the UNAM's scientists and researchers. Charging higher registrations costs and board fees has been an explosive issue in Mexico. By proposing such an increase, the previous university administration had to face a student and faculty strike that lasted a whole academic year (1999-2000). The Rector and his advisers were forced to resign and the imminent divestiture process then being implemented by the administration under WB guidance as well as the privatization of the University, were stopped.

Such student and societal rejection of UNAM's dismemberment and privatization is now labeled a "ferocious resistance" by the WB. In response, the Bank and its *country managers are devising and implementing new mechanisms to defuse such ferocious opposition*. According to a WB statement widely quoted by the Mexican press, the Fox administration has agreed to, "…change the culture of Mexico's educational system, a change that will take time but that can start during the current administration."[62] In fact this "change" has started. The *Country Assistance Strategy (CAS) 2002-2006* for Mexico, has been updated. The new CAS blueprint for 2004-2008 includes funds for an "anti-corruption laboratory", for the year 2007-2008, that would be located at UNAM, with the purpose of "…sharing knowledge of the international experience on monitoring and evaluating governmental programs"[63] The proposal is to start with state initiatives involving the educational sector. By "international experience" the Bank means, that oriented by the market´s "imperative needs".

The "anti-corruption" project seems to be a mechanism geared at funneling funds to influence internal decision making at UNAM. It is intended to start operations at a time when a new university administration is supposed to in the process of taking charge of the institution. In this sense, this project would operate as a true WB Trojan Horse. Once a "change of culture" in favor of privatization is accomplished at UNAM through this "subtle" mechanism, the WB expects to spread its privatization blueprint to the rest of the educational system. At the National "Autonomous" University of Mexico, and in Latin America as a whole, the WB´s programs for higher education pose a fundamental threat for they undermine a basic premise for scientific research

and freedom of teaching, namely the capacity of researchers and teachers to operate within the framework of an "autonomous" community.

Privatization and Denationalization of Science and Technology

There are many instances in which the private sector already plays an important role in the education sector, particularly at the above mentioned institutes now operating at the university level. It finances computer centers, libraries or other aspects of the infrastructure, and services such as the qualifications of the faculty and certification of its services or the garbage management. The conditions for such financing vary and go, as previously mentioned, from the private sector´s participation in evaluating and "updating" study plans, to the control of patent rights with commercial potential, developed through public-funded university research, to the licensing of internal services (stationery and other shops, etc.) and other services such as the concession for handling and recycling garbage.

The privatization trend of science and technology now being fostered by both big corporations and powerful institutions, such as the WB, carries with it a profound change in the sense that science and technology will be driven by the fulfillment of market "requirements" and not by principles such as the universal evaluation and sharing of new discoveries and the advancement of knowledge. This, of course, includes research in areas not necessarily of immediate "market value".

This is a matter of the utmost importance affecting the South in particular ways, but, more than that, it has worldwide consequences for the North as well, as exemplified in the experience of the University of California at Berkeley (UCB) with the multinational corporation Novartis [64]. This is a typical case in which business goals and practices were incorporated into the management of a leading US university.

The leading WB working program on this very issue is *The Knowledge and Innovation Project*. It is planned to be in operation until the end of 2005 and its real "mercantile" aims come wrapped in the WB´s usual rhetoric, namely, "to stimulate research in new and lagging fields with scientific, economic, and/or social importance"; "to consolidate and improve peer review", to foster "participatory planning"; and "institutional strengthening", in this case of the deputy directorate of

scientific research of CONACYT. This is the public relations cover for the really important components of the WB's Project, namely, (a) to support joint action between universities/public research institutes, and the private sector by restructuring public science and technology institutes, providing matching grants for joint industry-academia projects, and funding technical assistance to universities to create and strengthen outreach. And, (b) finance: a technology modernization program that upgrades small and medium enterprises; private regional/sector technology support centers; special pilot programs that foster consultation among government, academia, and the private sector; and a pilot venture capital fund, managed and controlled by the private sector.[65]

From the WB perspective, the "modernization" of the Mexican R&D system should be based on specialization and technical criteria geared at satisfying the needs of foreign multinational enterprises having their *maquila* development and the workforce specifications it needs as central tasks. Therefore, the "best" science and technology development that the country can develop is one subordinated and controlled by multinational corporations under the NAFTA and WTO policies and expectations. The above mentioned is clearly spelled out by the WB when it states that, "…the potential impact of increased amount and effectiveness of investment in science and technology is illustrated by the maquila (in bond processing) sector."[66] And, it adds: "…increasing the performance of the system for knowledge and innovation throughout Mexico could therefore result in large gains in productivity and quality. The project would aim to strengthen firm-level capacity over the medium- to long-term via the restructuring of the system for knowledge and innovation -the set of institutions responsible for generation, diffusion and application of knowledge for productive purposes.[67]

In what seems to be a still more ambitious WB initiative, the *Millennium Science Initiative* (MSI), is geared at promoting the privatization of research and development activities by supporting and stimulating the operation of its multinational "partners", namely, "the sector of the "developing countries educational business". What is being fostered via this mechanism, is not only the privatization of science and technology developed by public universities, but also the "denationalization" of scientific-technological advancements achieved by the Global south.

Holm-Nielsen, a WB expert in higher education describes the MSI stating that it

> …is an umbrella for new lending, through which the Bank's client countries can borrow to improve their scientific and technological capacity. Projects under the MSI generally take the form of highly selective competitive funds to support research. These funds will differ according to a country's specific needs and circumstance, but they share a few essential characteristics. All MSI projects would provide targeted support that focuses on (i) research excellence, (ii) human resources training; and (iii) linked to partners in the international science community and in the private sector.[68]

The third point is the core of the matter because "high excellence" researchers are precisely those who are being linked to other projects but carried out in universities and/or industries of the North (thus the latter keep control of strategic research fields). Then, even if the WB participates "only as supervisor", its role is really greater that just that. Actually, the WB is strengthening a subsidy for the benefit of the private sector, because, at the end of the day, the loans from the MSI will be paid, by the public treasury of WB´s client countries. For the WB and the "north" it is a "win-win" scenario, as the benefits are privatized and, most of them are denationalized.

Holm-Nielsen states that the tools used by the WB include: "…a variety of mechanisms to stimulate research commercialization, and to place students in private industry."[69] The The MSI of the WB is a "rip off" blueprint as it contemplates on the one hand the absorption of qualified workforce educated with public funds, in favor of private enterprises (national and-or foreign) while on the other it leaves the host countries with an increased debt because, according to MSI specifications, no funds can be used for infrastructure financing. That must be paid for by national (either public or private) sources, since loan conditions provide that "…the MSI projects will fund research performance itself wherever found, but not the construction of buildings or major infrastructure for new centers or institutes."[70]

One of the key MSI programs originated when the *Science Institutes Group*, was being established. According to the proposal this initiative is dedicated to "promote development by closing the gaps in S&T between the developed and developing worlds". It is fundamentally financed by the WB and the Packard Foundation and it intends to "…garner support for revitalizing science research in the developing world"[71]. Most MSI efforts involve the participation of multinational enterprises. One

such effort was carried out in Chile (1999) and one of the corporations benefited by this endeavor was Microsoft. Similar MSI projects have been approved for Venezuela (April 2000) and Brazil (2001).[72]

Conclusion: Resistance

In 1908 Thorstein Veblen, the US economist, warned about the commercialization of higher education – including Science and Technology development. He noticed that the scholarly goals of inquiry and the pursuit of truth were being substituted by a business like attitude:

> Business principles take effect in academic affairs most simply, obviously and avowably in the way of business like administration of the scholastic routine; where they lead immediately to a bureaucratic organization and a system of scholastic accountancy…the underlying business-like presumption….appears to be that learning is a merchantable commodity, to be produced on a piece rate plan, rated, bought and sold in standard units, measured, counted and reduced to staple equivalence by impersonal mechanical tests". For Veblen, incorporating market principles in education would transform teaching and research "…meanly into a commodity to be produced, evaluated, purchased and sold.[73]

The consequences of all these trends and policies being implemented are deep seated because the public autonomous university is being estranged from national public interests, losing its critical capacity and that of generating the type of knowledge and technology required by the societies and economies of the Global south. All of this is happening at a time when multinational corporations and to a lesser degree local entrepreneurs are placed as "the key agents" in the transformation of higher education, as the new architects of universities and the guiding light that defines what scientific-technological research should be done, how, when and what must or must not be taught in school rooms, thus seriously undermining the autonomy required to carry on theoretical and scientific advancement based on objective or "idle intellectual curiosity".

In contrast to what happens in the North, in the case of Latin America, there is, historically, a lack of interest by the local private sector in promoting a national scientific and technological development system[74]. This increases the impact of foreign interests and actors in the direction and control in this crucial field. Under WB programs and loans, the local elite has been privatizing and denationalizing the public

university research and development establishment, one of the major pillars for any attempt geared at promoting national advancement.

Popular movements, of parents, teachers and students have succeeded, so far, in stopping the completion of the educational "reform" through the types of projects and programs described in this paper. To reverse current trends, these resistance movements require specific information on the strategies being implemented against the public interest. A clear cut perception of the actors involved is equally vital to determine who is accountable, and who are the main beneficiaries and victims of these schemes.

This is as important, to avoid generalizations and abstractions. As has been shown in this paper, the privatization of public education is clearly an attractive business deal. Like oil, gas, water and other natural resources of the "Global South", "public education" is being treated by the WB, multinational corporations and their local partners, as an attractive booty. From their perspective, the "public institutions of education and research" can be transformed, through privatization and denationalization into a juicy business that is above and beyond any consideration or limitation of a social nature. As the WB explicitly states: "higher education is a private and not a public commodity".

To reverse and give impulse to a truly educational project based on the national public interest, a prerequisite is to retake the instruments of decision, which have become increasingly alienated in favor of institutions such as the WB through the conditionality linked to all their credit lines. This is the foundation upon which to build a re-articulation of an economic model that centers on fostering the well-being and interests of the population as a whole.

Notes

1. To facilitate communication with JCEPS readers, the terms "the north" and "Global South" are used as equivalents to "developed capitalist or central capitalist societies" and " underdeveloped or peripheral capitalist societies". The terms "north" and "global south" are geographical and certainly not sociological-economic categories. Why "Global South" and not "Global North"?. South Africa is "north"; and the

central and northern section of Africa is "Global South". Japan which is in the East is "north"; North Korea is "Global South"? and South Korea is "North"?. The northern section of Brazil is "Global South" and the southern part of Brazil –which is more economically developed that its south-, would be "north".

2. Walter La Feber, *The American Age*, New York, Norton, 1989 p 410.

3. Gabriel and Joyce Kolko, *The Limits of Power*, Harper and Row, New York, 1972 p 16.

4. LaFeber, op cit p 411.

5. Dean Acheson, *Present at the Creation* New York, Norton 1969 .

6. By 1971 Nixon unilaterally imposed a surcharge on imports, thus violating the spirit and the letter of the Gatt, a cornerstone of the economic structure of Pax Americana.

7. The World Bank Group includes the IBRD created in 1944; the International Finance Corporation (IFC) established in 1956; the International Development Association (IDA), created in 1960; the international Centre for Settlement of Investment Disputes (ICSID) -1966-; and the Multilateral Investment Guarantee Agency (MIGA), established in 1988.

8. Kolko and Kolko, 1972, 16.

9. For "Global South" instances see M.P.Parameswaran, "Les tendance a la merchandisation de l´enseignement supérieur en Inde et dans l´Etat du Kerala", in L´offensive des marchés sur l´Université, *Alternatives Sud*, Vol.X (2003) 3, pp81-93; for Africa: Joseph Amougou, "L´univrsité africaine face a la globalization", *Alternatives Sud*, op cit pp 101-127;

10. Santos, Boaventura de Sousa. *A universidade no século XXI*. Cortez. Brasil, 2004: 17-18.

11. Even that the report was 'only' supported by the World Bank as part of its contributions to the *UNESCO* World Conference on Higher Education (Paris, France.

October, 1998), it widely reflects the views of the Bank's Board as it can be proved by the blueprint of the diverse WB's programs on education around the globe; some of them here pointed out. On this see John Saxe-Fernández, "La Banque mondiale et l´enseignement supérieur en Amérique latine et ailleurs", *Alternatives Sud,*op cit pp 55-66.

12. Frans van Vught, "Autonomy and Accountability in Government/University Relationships" in Jamil Salmi and Adriaan Verspoor, Eds. *Revitalizing Higher Education. London, Pergamon Press. 1994.*

13. This university conceives itself as "an entrepreneurial research university".

14. D. Bruce Johnstone, *The Financing and Management of Higher Education: a status report on worldwide reforms***.** World Bank – State University of New York at Buffalo. *1998.*

15. Johnstone, 1998. Op cit: 7.

16. See Johnstone, 1998. Ibid: 5,7

17. Ibid: 5.

18. See: John Saxe-Fernández,. *La Compra-Venta de México*. Plaza y Janés. México, 2002.

19. "Remarks" at Seminario Internacional, Programa El Mundo Actual, Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades, National Autonomous University of México (UNAM), fall 2000.

20. Johnstone, 1998. Op cit: 5

21. Santos, 2004. Op cit: 27.

22. The tendency of commercialization is already taking place. As Glenn Rikowski had written, "…on information gleaned from the EU GATS Infopoint, it appears education has already been lost to the GATS. For primary education, 20 countries committed themselves to GATS disciplines in 1994, and for secondary education 22

countries took the plunge. The EU is GATS-committed for both primary and secondary education." (Rickowski, Glenn. *Schools and the GATS enigma. School of Education,* University College Northampton. November, 2002). For profits data see: Avilés, Karina. "Sería un grave error dejar la educación al libre comercio: De la Fuente." *La Jornada, México. June 29, 2004*

23. The WTO agreements are: Trade Related Investment Measures (TRIMS); Trade Related Intelectual Property Measures (TRIPS); General Agreement on Trade in Services (GATS); Sanitary and Phytosanitary Standards Agreement (SPS); Financial Services Agreement (FSA); and specific agreements on agriculture, information technology and telecommunications.

24. Rikowski, 2002, op cit. Also see: Santos, 2004: 32-37.

25. See Rikowski, 2002. Ibid.

26. Santos, 2004, op cit: 36-37.

27. Ibid.6

28. Ibidem

29. Ibid: 17

30. World Bank, *Country Assistance Strategy, Report No. 23849*-ME Washington. April 19, 2002: 12.

31. Johnstone, 1998. Op. Cit:11.

32. Johnstone, 1998. Op. Cit:14

33. The data of Cuba is taken from the Ministry of Economy and corresponds to the year 2004; Mexico's from INEGI (www.inegi.gob.mx) for the year 2004; Chile from the Government of Chile for the year 2002; Brasil from the National 2001 Indicators; Colombia from the National Ministry of Education for the 2004; and those for Argentina is an approximation based on Barro and Jong-Wha's data for 2000.

34. For a critical análisis of the primary education transformations around the world in the last decades read: Andrade Oliveira, Dalila. *Educaçao Básica: gesao do trabalho e da pobreza*. Editora Voze. Brasil, 2000.

35. Barro and Jong-Wha's data for 2000 indicates that the illiterate population in Mexico (that does not reads and writtes properly) was the 12.4% of the total population. INEGI's (Nacional Institute for Geographic and Stadistic Information of Mexico) data indicates that for the same year was only 10.3%. Here we have used an average number. (See: Barro, Robert and Jong-Wha Lee. *Internacional Data on Educational Altainment: updates and implications*. Harvard University. 2000; and www.inegi.gob.mx)

36. Accordingly with INEGI's data for the year 2000, the illiterate indigenous population in the country accounted the 33.8%. In Chiapas the percentage was 43% and in Guerrero a 52.1% (www.inegi.gob.mx).

37. Data for year 2000. Barro and Lee, 2000. Op cti.

38. AFP. "En AL y el Caribe hay 39 millones de analfabetos, reportan CEPAL y UNESCO." *La Jornada*. México, 3 de febrero de 2005.

39. In Latin America and the rest of the South large shares of the population have only a few years of education Limiting the analysis to only the population who have completed at least one education level would discard a significant fraction of the population with some level of schooling. Therefore in the oficial statistics it is consider into each level those individuals who at least have one year of schooling in each level.

40. On one hand, INEGI's data indicates a 37.8% of the population. Nearly the half of this percentage (18.4% of the total population) represents the population with an incomplete primary education that ranges between the first to the fifth year of schooling. Only the rest (19.4%) of that group of the population has a complete primary education (six years). On the other hand, Barro and Jong-Wha's data indicates that the population with some primary education accounts a 47.3% of the total population.

41. Barro and Jong-Wha's data. Op cit.

42. INEGI's data. www.inegi.gob.mx

43. INEGI's data. www.inegi.gob.mx

44. INEGI's data for the year 2000 indicates that the percentage is 41.2% while Barro and Jong-Wha's data gives a 29%. Assuming that the Mexican governmental data is accurate, we can say that there an increased "technical trend" in Mexico´s workforce a number that would increase if we take into account the Q1 workforce with a bachelor technical degree.

45. Barro and Jong-Wha's data. Op cit.

46. INEGI's and Barro and Jong-Wha's data are the same in this case with 11.3% and 11%, respectively.

47. Rodríguez, Uriel. "Cerebros mexicanos en fuga." *El independiente*. México, 24 de enero de 2004. Also read: Castaños-Lomnitz, Heriberto. *La migración de talentos en México*. UNAM-Porrúa. México, 2004.

48. In addition to that aspect, the exponential specialization of education had been generating a loss of memory, particularly a loss of historical memory, increasingly reducing the production of critical and utopian thinking.

49. Schlachter, Alexis. "Ciencia, globalización y sostenibilidad." *Granma*. February, 10th, 2005. Cuba.

50. For example the United States policy on the issue clearly shows the need of that country of foreign brains but at the same time its tight regulations. Foreigners working in areas considered ''sensitive'' by the government such as chemistry, engineering and pharmacology, among others, are subject of a strong but attractive residence regulation. It is a type of control determined by specific lengthen of the clearance, recently extended for up to four years for students and two years for working scientists, with the goal of making it easier for them to remain in the United States for the duration of their work or study programs. As stated by Asa Hutchinson, under-

secretary for border and transportation security in the Department of Homeland Security, "this change sends a clear message that the U.S. highly encourages those with great scientific minds to explore studying and working in our country." (Lee, Kristen A., "U.S. relaxes visa rules for some scientist." *Herald Tribune*. February 15, 2005).

51. We follow the suggestion of Costa Rican former president Rodrigo Carazo who when using that term is referring to the Latin American holding higher offices in power, who follow as if blind mice, the Bank's prescriptions.

52. The amounts are in current US dollars (of 2004). See the World Bank Statistics on Education: http://econ.worldbank.org

53. Information from Mexican physicist Carlos Bunge, in interview with the authors.

54. UNAM is located in the 180th place of the 500 more important universities in the world, 92 of them in Latin America. No private institution entered the region's list. This report can be found in: http://ed.sjtu.edu.cri/ranking.htm

55. See the Implementation Completion Report (CPL-38050 SCL-3805ª SCPD-3805S) of the World Bank: *Technical Education and Training Modernization Project*. Report No. 30232. Washington, October of 2004.

56. Also the Inter American Bank (IDB) has been stimulating the WB's Agenda in the country. In this case, for example, by a grant for the Autonomous University of Guadalajara, to evaluate, adapt and expand two-year university programs that are closely linked with employment. (See: WB, *Higher Education Financing Project*. Report No. 17174. Washington. June, 1998: 8).

57. See Aboites, Hugo. "La privatización de la Universidad y la huelga en la UNAM." *Memoria*. No. 133. Mexico, March of 2000.

58. For a detail and critical analysis see: Aboites, Hugo. "*Viento del Norte: TLC y privatización de la educación superior en México*. Plaza y Valdés. Mexico, 1997.

59. WB, June 1998. Op cit: 4.

60. See: WB. June, 1998. Op cit: 1-2, 5.

61. Literal:

> …limiting activities to the strengthening of the ICEES loan scheme and the establishment of the SOFES program was preferred for the following reasons: (a) cost-sharing is still rather controversial in Mexican public higher education institutions and focusing on these two activities World allow a growth in the country's experience while minimizing political risk; (b) the experiences of a public and private institution World provide fruitful lessons for future investments; (c) there is a strong sense of commitment and ownership for these programs; and (d) the conditions in other status are not yet sufficient for the establishment of a local version of ICEES. (WB, June 1998. Op cit: 7).

62. WB, April 19, 2002. Op cit: 12.

63. WB, Country Assistance Strategy 2004-2008. Report No. 28141-ME. Washington, C.D. April 15, 2004.

64. In November 1998, the College of Natural Resources of the California University at Berkeley signed a controversial contract with the multinational corporation Novartis (now Syngenta). In it, the University granted all patent licenses of all discoveries realized by the Department of Plant and Microbial Biology regarding plants and microbes to the multinational corporation. This was done in exchange for 25 million dollars. The Students for Responsible Research Coalition was and is one of the main parties in the fight against the agreement and, in general, against the privatization process of the University of California. For details see Press Eyal and Washburn Jennifer, "The Kept University", *The Atlantic Monthly*, Vol 2885, N.3, March 2000 pp 39-54: For a similar case involving UNAM´s biotechnologhy lab and pharmaceutical firms such as Hoffman-Laroche, Dow Chemical, Sigma and Celera, see Delgado, Gian Carlo. "Biopiracy and Intellectual Property as the basis for biotechnological development: the case of Mexico." *International Journal of Politics Culture and Society*. Vol. 16. Nos. 2/2. Winter 2002. United States, 2002.

65. WB, *Knowledge and Innovation Project*. Report No. 17896. Washington. May, 1998. Also see: Mexico - Knowledge and Innovation Project (http://www-wds.worldbank.org).

66. WB, May of 1998: 2.

67. WB, May of 1998: ibid.

68. Holm-Nielsen, Lauritz. "Promoting science and technology for development. The World Bank's Millenium Science Initiative." *First International Senior Fellows Meeting*. The Wellcome Trust. London, United Kingdom. 2002: 3.

69. Ibid: 3-4

70. Ibid: 4.

71. Ibidem.

72. Ibidem.

73. Veblen, T. *Higher learning in America***.** Augustus M. Kelly, 1965. For a current appraisal of Veblen´s work see, Vidich Arthur J "The higher learning in America in Veblen´s time and our own", *International Journal of Politics Culture and Society*, Volume 7, No.4 Summer 1994 pp 639-668

74. On this see Gentili Pablo, "Report on the Crisis of Higher Education: The Permanent Crisis of the Public University, *Nacla Report on the Americas*, Vol XXXIII, N.4, January-February 2000 pp 12-23

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Author's Details

John Saxe-Fernández is a professor in the School of Political and Social Sciences of the National Autonomous University of Mexico (UNAM). He is in charge of the "The World in the 21st century" Research Program of the Interdisciplinary Research Center on Sciences and Humanities (Ceiich) at the same university. The author is a researcher of the National Council on Science and Technology (Conacyt) of Mexico and received the Prize "University 2000". His latest book is *Terror and Empire* (Plaza y Janés. Mexico, 2005).

Gian Carlo Delgado is an economist from the UNAM with a master degree on Ecological Economics and Environmental Management by the Autonomous University of Barcelona (UAB). He is member of the research program "The World in the 21st Century" at the Ceiich, UNAM. The author is a PhD candidate at the UAB under the sponsor of Conacyt. His latest book is *Water and National Security* (Plaza y Janés. Mexico, 2005).

The authors have published several books together such as *Imperialism and World Bank* (Centro Marinello. Cuba, 2004; Popular. España, 2004) and *Economic Imperialism in Mexico* (Plaza y Janes. México, 2005).