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Higher Education in Transition: An Agenda for Discussion

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Introduction

Following the Second World War, higher education in Mexico began a process of modernisation and diversification that when completed had fundamentally altered the profile of the traditional university. The end result was a system of education in Mexico that was much more sophisticated (administratively, managerially, and academically), complex and diversified, and that offered significantly more options for education and training than the system prior to WWII. Significantly, this gave new social groups access to higher education for the first time thereby redefining the social profile of the student body (De Ibarrola, 1982; Rodríguez, 1996). However in recent years these early progressive developments have been threatened by shifts in the ideological, political, and social spheres. New contingencies, including reduced government funding and a shift in program emphasis, bring new challenges that must be acknowledged and discussed in Mexico is to continue to build on its past successes.

Prior to such a discussion, however, it is necessary to review the history and development of higher education in Mexico. It is possible to discern two basic stages in the development of a modern system of education in Mexico from the postwar period to the present (Fuentes, 1983; Ibarrola, 1986; Kent, 1992; Padua, 1994; Villaseñor, 1994; and Varela, 1996). The first phase began in the 1950s, continued until the end of the '80s, and coincided roughly with post WWII president Miguel Aleman's massive public works investments (Smith and Skidmore, 1992). Aleman's intent had been to foster economic development and industrialisation. In addition to the development of the basic infrastructure of Mexico following WWII (roads, dams, communications, etc.), significant investment was directed into expanding Mexico's educational and intellectual infrastructure. This desire to modernise Mexico's infrastructure and expand economic

development continued in 1952 with the appointment of Aleman's successor, Ruiz Cortines (1952- 1958) and López Mateos (1958-1964).

The numbers reflect the infrastructure expansion. During the '50s, the number of public universities doubled. Before 1950 there were twelve institutions ranked as universities in Mexico, ¹ including the National Polytechnical Institute.² Between 1950 and 1960, 13 additional public universities were established throughout the country ³ and in 1953 the National Autonomous University of Mexico (UNAM) ⁴ inaugurated its university city campus. In these early years, the conditions for advanced scientific research were also established and the role of "professional academic worker" (researchers and professors) was defined. Prior to this expansion, the "academic worker" was primarily a part-time hourly wage worker. This arrangement was not conducive to ongoing scientific discovery and development. Post 1950 however, full- time jobs were created for professors and researchers thereby de- proletarianizing the research establishment. This was an essential step towards creating a vibrant intellectual infrastructure in Mexico.

The degree of expansion can be more fully grasped by considering that in 1950, the student population in Mexico at the undergraduate level was under 30,000. This figure represented, at that time, 1.3 percent of the eligible student population between 20 to 24 years of age. Only six years later, enrolment had doubled! This is a dramatic expansion in services. By 1960 there were more than 80,000 students at the undergraduate level

As can be seen from the above table, during the '60s the rapid expansion of the university infrastructure in Mexico continued. Over the two decades between 1950 and the end of the '60s, there was a high annual growth rate of 9.7 percent. Four more universities were founded in that period ⁵ and despite the fact that universities were being established outside Mexico City to meet regional demand (a significant increase in educational access), more than half of university enrolment at the end of the 1960s remained in the capital city. During this time, universities in Mexico were further reformed and the gaze of academics turned outward. At that time, various changes were initiated that both consolidated the strength of academic institutions and began an internationalisation of Mexican education that has continued to this day.

The internationalisation of Mexican higher education had two components. First, during the 60s the National University (UNAM) provided an integrating function for many institutions in Central and South America. Students from all over the region came to the National University seeking graduate degrees. And though many countries, particularly in the Southern Cone (Argentina, Brazil, Chile, Uruguay) had solid Higher Educational Systems, many others benefited directly as UNAM graduates took their knowledge and expertise back to their own countries (primarily Central America and Columbia, Peru and Venezuela). In this way, educational standards set by UNAM were spread throughout the region.

Education in Mexico internationalised in another sense. Since the early 60s, the Mexican

higher educational system has become more sensitive to significant international trends. A number of factors contributed to this growing sensitivity. On the one hand, curricula expansion and the strengthening of graduate studies turned the attention of scholars to developments in other countries. This made students and their instructors sensitive to international trends and allowed development in other countries to percolate through the institutional structure in Mexico. Another significant factor was the development of faculty training and study programs that allowed, and even encouraged, international scholarship or student exchange. In short, Mexican universities participated in wider social and political shifts that attempted to leverage infrastructure development that occurred in the '50s towards greater participation in the global process of development and industrialisation (Urquidí and Lajous, 1967; King et al., 1972; Castrejón, 1996; Fuentes, 1983). This is not to say that local concerns were ignored. The internationalisation of Mexican education occurred within the guiding framework that research should contribute to Mexican economic, social and cultural development.

One of the more interesting aspects of the '60s expansion and internationalisation of higher education in Mexico was the general willingness to innovate and experiment that emerged among academics and students. The expansion of student enrolment, the strength of the student left, and a willingness to explore the contours of social change manifested itself in a flowering of critical pedagogy in late '60s and early '70s. For example, a trend towards critical or radical pedagogy emerged that found inspiration in a number of intellectual currents including the work of French Structuralists like Bourdieu. Probably the most famous example of the theory in action is the work of Paulo Freire (Freire, 1994; Freire, 1993; Gadotti, 1994). Freire's pedagogy was a highly efficient literacy method that did away with the class hierarchy and authoritarianism implicit in what he called the "banking" method of education. By doing away with these structures of oppression, Freire was able to capture the heart of those involved in the pedagogical process. This created an environment highly conducive to learning. As Gadotti (1994: 18) notes :

The participation of the learning subject in the process of the construction of knowledge is not just more democratic, but it proves to be more efficient. Different from the traditional conception of the school, which is based on methods centered on the teacher's authority, Paulo Freire shows that new methods, in which teachers and pupils learn together, are more efficient.

The problem with these new pedagogies, as Freire learned after he was exiled from Brazil, was they were highly political and highly successful politically. Their success depended on teachers immersing themselves in the life world of the student and using issues and concerns relevant to the students as grist for the educational mill. Freire's approach effectively politicized students. As a result of the effectiveness of these methods, significant change in pedagogical strategy was resisted and pedagogical technologies remained conservative and based on "banking methods" like lectures, regurgitation of facts, attainment of objectives, and so on.

The 1970s continued the cycle of expansion. This decade was characterised by generalised growth of the educational system and an unprecedented expansion in the number of

students, professors, support workers and facilities. This rapid expansion posed, not surprisingly, significant challenges for universities. In fact, changes were so profound that institutions were forced to rethink their policies and practices. This renewal, which also included significant expansion in institutional services and institutional employment in professional, administrative and support roles, contributed to further synergistic expansion.

⁶ The administrative response to the challenge of managing a burgeoning educational system was through the implementation of standardised formulas for the performance of academic and administrative activities, and the adoption of a general standards framework to be applied to all Mexican institutions.

The expansion of higher education in Mexico, initiated after WWII, began to draw to a close in the early '80s (Villaseñor, 1994; Padua, 1994; Arredondo, 1995; Kent, 1995; Rodríguez Gómez, 1995). From that point on things have changed significantly. Universities have, for example, experimented with different modalities of delivery. This has meant an attempt to open more avenues of access to university education - a so called "open university." This open university corresponds roughly to the distance-ed model familiar elsewhere and consists basically of self-paced instruction, coupled with tutorial services and administrative monitoring of the learning process.

In addition to experimentation with different modalities, the vocational orientation of the school population has changed. Compared to strictly academic disciplines, the technical side of higher education in Mexico has enjoyed a much higher rate of growth. In addition, while the enrolment distribution in most major areas of knowledge has remained stable, there has emerged new disciplinary focuses in fields of applied sciences, technology and computer science. In addition, new academic majors and graduate programs were created which focused mostly on "marketable" disciplines. This echoes the neo-liberal changes to the education system that has been initiated in all developed countries since the shift to the right began in the early '80s (Sosteric, Ratkovic and Gismondi, 1998; Roberts, 1998). At the same time the demand for the traditional applied disciplines like law, accounting, administration, medicine and civil engineering, became stronger. The shift in educational preferences towards marketable disciplines, as opposed to the liberal arts and sciences, is clear.

Another significant trend since the late '70s has been the shift in the balance between the public and private systems of education in Mexico. During this period, for example, the number of new private institutions expanded rapidly. This is a significant trend and it is important to keep a close eye on the development of alternatives outside the public sector for at least two reasons. First, this expansion of private sector educational facilities suggests that the private sector is gearing up to replace (or at least supplement significantly) the traditional education system in Mexico. While many might not see this as a threat, preferring instead to focus on the fact that this reduces the public cost of education, still it is important to note that shifts in the balance might have a significant impact on both the form and content of the higher education system in Mexico.

What might this impact be? It is certainly too soon to tell. However arguably, there is a potential to significantly alter the availability of certain types of education in Mexico. Typically, private institutions are limited both in terms of course offerings, and also in terms of the provision of facilities and human resources. Private institutions, operated on the profit model, tend to provide "practical" courses geared towards the requirements of the labour market and capital. There is less concern with liberal arts, philosophy, and basic research. Also, as some have pointed out, the shift to short-term market orientated education could potentially undermine the long term competitiveness of a country's scientific infrastructure (Sosteric, Ratkovic and Gismondi, 1998) by removing incentives to engage in critical basic research.

During this period there were also shifts in the way universities were administered. The dynamism and pedagogical and administrative creativity characteristic of the previous decade had evaporated from institutional reform in Mexico by the mid eighties. Universities shifted from long-term planning to short term administrative goals that could be achieved quickly and monitored easily with superficial ex-post facto evaluation formulas and productivity incentives. During the expansion phase (1950s to 1980s), as already noted, Mexican education grew in almost every respect. The main administrative challenge during this period was controlling this growth. This involved regulation and planning to ensure the sensible maturation of the educational system. Beginning in the 1980s, however, the system went into financial crises and the focus of the administration became dealing with the constriction of resources. Attempts to deal with the new contingencies meant evolving various control, evaluation and selective promotion strategies.

These then are the broad changes that the institution of higher education in Mexico has undergone since WWII. Following a thirty year period of rapid expansion in facilities and access, the educational system then began a process of constriction and change in the 1980s. There is no simple explanation for the direction of these changes. Many factors are involved. In order to get a clear picture of the reasons behind these shifts, we have to examine the politics of education in Mexico. To be specific, we need to include in our analysis an examination of the interests of a) the state; b) the general population; c) faculty members, students and workers within the institutions; and d) the international community. It is only by understanding the confluence of these influences and the needs of each of these sectors that administrators can hope to develop a comprehensive response to current shifts in the system.

The Political Economy of Higher Education

As noted above, one of the primary reasons for the expansion of the educational system following WWII was the undeniable priority that the Mexican government gave to infrastructure development and educational reform. During that period there was a great desire among the political elite to see Mexico modernise and develop and it was felt, correctly, that one of the principle infrastructure components for fostering modernisation

was a healthy education system.

However besides the general interest in expansion of the educational system, other factors conspired to push the agenda for educational reform. For example, the middle class constituency of Mexico, which had been created as a result of prior urbanisation and expansion, had a strong desire to see avenues of upward mobility expanded. Of course, one of the principle avenues for upward mobility is an open and advanced education system. So, as the new middle class grew in power, they increasingly threw their weight behind educational reform. As a class, the middle classes principally favoured the growth of basic and secondary education. However, as the numbers attending school gradually expanded, the supply of students who were capable of, and interested in, getting a university education also grew. Ultimately this growing demand put pressure on the government to expand provision higher education.

The ability of the educational system to provide avenues for upward mobility was also used to good effect for political purposes. Following the 1968 crises when President Díaz Ordaz sent troops to campus to quell a student uprising, the executive branch needed to reestablish its authority and political prestige among the middle class and intellectuals (Zermeño, 1981; Bartolucci and Rodríguez Gómez, 1983; Varela, 1996). They did this in the typical fashion by promoting the assimilation of dissident groups through co-optation into the state sector. The government did this by providing educational opportunities but also, and perhaps more importantly, by providing expanded employment opportunities in the public administration. In this way dissident intellectuals were removed from active political opposition. While not totally silenced, at least when they were working for the government they could be more easily monitored and controlled.

Government initiatives towards the expansion of higher education also fell in line with the then extant international consensus regarding the need to expand the social and technical infrastructure to encourage development. This broad international consensus translated into financing for educational projects from international agencies like the World Bank, the Interamerican Development Bank and private foundations such as Ford, Rockefeller and Mellon. As Rocío Llarena (1991: 57) notes:

The orchestration of this strategy (support for educational programs) was carried out by international agencies such as the Interamerican Development Bank, the International Bank for Reconstruction and Development, and the Agency for International Development. To this end, large amounts of funds for education were transferred in the form of loans, grants, scholar ships, etc. In this matter between 1965 and 1975, 451.9 million dollars were transferred to educational systems in Latin American countries.

As the educational system expanded, internal pressure for expansion also grew. Inside the academy, an openness and willingness to experiment with creative administrative and pedagogical solutions paralleled the expansionary phase. This willingness was in part spurred by the perception of those inside the academy that there was a need for reform. It has already been noted that pedagogical experimentation was a feature of these reforms. Here it is worthwhile pointing out that reform also meant curriculum reform. This meant

that educators were updating old programs and developing new programs. The growing availability of education "potential" put pressure on administrators and the government for expanded educational infrastructure to realise that potential.

The question at this point is, if there was such broad based support for educational expansion (from the public sector, from the middle classes, from the intelligentsia, and from the international monetary and development community), why was there an abrupt about face initiated in 1982. It is impossible to understand this shift without also understanding shifting politics and ideologies. To put it simply, the change in focus was directly related to broader ideological shifts (i.e., towards neoliberalism). In nations like the U.S.A. and Canada this ideological move was spurred by the general crises of accumulation that occurred in the mid 70s and early 80s. In fact, the economic and political conditions radically changed. Support for the Keynesian welfare state, and for forms of redistributive justice, disappeared in elite circles by the end of the 1970s. This was because the energy crises, internationalisation of capital, declining national growth and international competition made it difficult to sustain liberal democracy (Teeple, 1995) As Teeple (1995: 1) notes:

The 1980s was a watershed decade, a turning point in the history of capitalism. It was a period that witnessed the beginning of the end of a vast system of collective or state property in the so-called socialist countries, the establishment of computer- aided modes of production and distribution, the arrival of the global economy, and the adoption around the world of neo-liberal policies whose principle was the unrestrained economic power of private property. The decade signified the beginning of what has been called the triumph of capitalism (Teeple, 1995: 1)

In Mexico, the shift was catalysed by an economic crisis in the early 80s under the administration of president Miguel de la Madrid's. As in other nations, Mexico attempted to deal with the accumulation crises by adopting a conservative financial and fiscal policy. As elsewhere (Canada, U.S.A., New Zealand, Britain, Australia, and countries in Latin America), these policies emphasised the reduction of public administration, reduction of public spending, privatisation of government services and the streamlining of institutions and bureaucracies. The extent of the crises is apparent from the fact that in 1982, when Miguel de la Madrid became president, the public sector was going through an unprecedented budget deficit equivalent to 18% of GDP. The Central Banks reserves were virtually exhausted and public and private investment reached an almost total halt (INEGI, 1994: 745...).

In this context of crises and fiscal restraint, funding for education changed dramatically. The percentage of the national budget assigned to education was severely cut back. Whereas in the 1970s the percentage of the government budget devoted to education oscillated between 30-40%, during the 1980s this percentage fell to 20% (INEGI, 1994). In addition to this fiscal restraint, the way the money was spent changed. Public investment was shifted to concentrate primarily on making up for the deficiencies in elementary education, and to a lesser degree, on developing increasing the technological

focus on secondary education. Development of a publicly supported higher educational system became a secondary priority for government.

A critical component of the government response to the cash and accumulation crises was an attempt to shift the way the labour force was trained. Rather than providing occupational training for high level services and technology jobs through university education (as was the standard in the past), the goal was now to create an educational system that could turn students out into the workforce with the appropriate technical skills but without having to send them to universities. Basically, primary and secondary education were to be reformed to take into account the new requirements of capital and the labour market.

This is significant and perhaps marks a shift in the way the elite conceptualises the role of the educational system. It is well understood that with the advance of technology, capital has required an ever more expanded pool of skills. In the past, universities have been primarily responsible for providing training in these higher skills. However, university education is an expensive way to provide skills and as more and more individuals seek to acquire these skills, the cost to capital (through taxation) becomes prohibitive (especially in the context of global competition). A reasonable solution therefore would be to attempt to reduce the cost of providing skills to the workforce by restricting access to universities (through funding cuts) and by expanding basic technological education. This basic tech-ed would be much less costly because it would not come with the liberal arts and basic scientific skills that universities have attempt to transfer in the past (and which cost dearly in terms of additional hours of study).

These formulas for change in Mexico are congruent with the change of priorities evident in the policy shift of international organisations such as UNESCO, the IDB and the World Bank. These institutions recommended, not surprisingly, that funds be channelled to basic and technological education. As noted above, the goal of the shift in the education system has, at its centre, the efficient provision of a technologically literate work force. It is much like the way primary education was used during the industrial revolution to transfer basic skills to the workforce. The difference now is that the basic skill set needed by the average worker has changed. Rather than see the scarce resources of higher education utilised for the provision of basic skills, government and capital want to "refit" the primary and secondary education system to be more in line with current labour market requirements. It makes perfect sense.

This thinking and strategy is particularly evident in the creation of a private educational system servicing the labour market requirements of capital. For example, during the 1980s in Mexico, the number of private educational institutions - which provided a basic technological skill set without the "frills" of a university education - expanded rapidly. During the decade, almost 50 private institutions have been inaugurated. In this period the public sector added only one new university (in the state of Quintana Roo), a dozen higher education technological institutes, and about 30 universidades tecnológicas (that offer an

intermediate degree after 3 years of education). Note that what public sector expansion has occurred has been, significantly, in the provision of technological education.

The creation of new schools in the private sector, and the consolidation and expansion of those created during the previous decade has shifted the balance between public and private entities significantly. The proportion of students registered in public schools, a figure that remained unchanged during the 80s, fell to 80.9% in 1992. In 1995, just 3 years latter, the percentage had dropped even further to 78%.⁷

The shift in strategies is also apparent in the ongoing shift in disciplinary areas. Since the middle of the 1980s, there has been a drop in enrolment in the fields of agricultural sciences, the natural and exact sciences, and the health sciences. In 1989, agricultural sciences had an enrolment of 65,000 students, or 6.2% of the total enrolment. This had dropped to less than 3% by 1994. Declines in enrolment have been a featured part of the experience of the natural and exact sciences, though at a slower pace. In 1989 these fields accounted for 2.7% of total enrolment. The figure was only 1.9% in 1994. A similar trend is observed in health sciences. Between 1989 and 1994 its participation rates dropped from 11% to 9.5%. It is worth noting that in all three fields, total enrolment in 1994 was less than in 1989.

The administrative and management-related fields have maintained their growth tendencies. During the 1990s, slightly more than 50% of all students were enrolled in degree programs in these areas. An analysis based on specific academic disciplines shows that this expansion is due to increased demand in accounting, administrative and computer related fields.⁸ In the areas of engineering and technological education, there has also been a slight increase in recent years. The average annual growth rate has been 3.5%. This is due to the enormous demand for professional development in computer science related disciplines.

An Agenda for Discussion

In the international debate⁹ over the desirable innovations for universities, there is a notorious consensus regarding the fundamental problems - coverage, quality, and the "relevance" of education. Here relevance is a code word that refers to how well the system is meeting the labour market requirement of capitalism. In the new ideological environment, education reform that makes the system more "relevant" is taken to be a solution to economic crisis and a key step towards achieving autonomous technological development. Presumably, creating workers who fit into the niches provided them by the system will enable the system to run as smoothly and efficiently as possible.

These shifts are hardly unique to Mexico. Most other nations have engaged in educational reform. And like most other nations, there has been very little critical discussion about the long term implications of these fundamental educational reforms. That is, there has not been any significant degree of critical discussion on whether or not these trends are an

improvement, or whether current trends should be shaped in new, or modified directions. It is the task of this paper now to raise some questions regarding the long term efficacy of current educational trends and perhaps engage a larger international discussion on the more profound implications of educational reform.

Most of the discussion that should be taking place, but is not, revolves around the form and content of educational expansion. It should be obvious from the above that even the elite are not concerned with reducing educational opportunities. The expansion of private alternatives and the growth of technical education in the public sector is an indication of this. Thus it can be said that there is general agreement that education needs to be expanded. What is not agreed on is how that educational expansion should occur. Up until now, it has been the agenda of the governing elites (primarily in the developed nations like U.S.) which have set the agenda for educational reform.

Now it is time to question that agenda. We need to ask about the nature and scope of educational expansion. Numerous questions present themselves - all of which need critical attention. If universities are to continue to grow in Mexico and elsewhere, under what conditions should this growth take place? Will pedagogy need to change to meet 21st century conditions? And if so, how? Whose responsibility is the financing of the expansion and modernisation of universities? Can quality be assured despite the gradual privatisation of educational offerings? Does the shift away from liberal education and basic research undermine the long term ability of innovate? Addressing these questions immediately is an absolutely essential step if Mexico is to successfully realise progressive educational reform. In the final pages of this paper, we will point to some of the challenges that face the institution of Mexican higher education as we approach the 21st century.

Coverage and quality. The dynamics of change over the past decade created a bewildering variety and combinations of academic institutions. Differences in size and quality, ranging from large institutions with satisfactory levels of quality to very small entities with questionable standards, and any number of combinations between these extremes, are evident. In the past the discourse on educational policy placed coverage and quality as alternatives to each other. In the new environments it is imperative that both these objectives be reaffirmed otherwise we risk abandoning educational standards in favour of meeting the short term labour market requirements of capital. This has potentially negative long term implications, especially for countries like Mexico which compete with the industrial might of the U.S and Canada. Forsaking quality education may mean undermining our ability to innovate and reinvigorating a legacy of technological dependence.

In the context of coverage and quality it is also important to consider whether or not these twin objectives are attainable in the context of declining educational funding. Efficient educational systems and creative administrative reform can go only so far in adapting to changed funding environments. Therefore it is imperative that we examine the funding

limits beyond which quality education cannot advance without critical deterioration.

Equality, equity and quality. The objective of equality refers to the capacity of the higher education system to offer opportunities for advanced education to all those persons who meet the necessary academic qualifications, regardless of their social status, sex, age, or any other social or cultural condition. The ability to offer equal opportunities to all requires that supply be tuned to demand. This is a difficult task to achieve given the many pressures exerted by demographic shifts, educational policy at the elementary and middle school levels, and the shifting demands of capital and the labour market.

In Mexico, despite decades of expansion, there is still significant untapped demand. Less than 15% of eligible young people have access to higher education. Creating an equitable education system obviously means expanding demand and access. However despite recent expansion in the educational system (for example dramatic expansion of private provision of education), access to education continues to be stratified. Now however the stratification is more subtle. Some class groupings, while they have some expanded access to higher education, only have access to poor quality education outside of universities and outside of governmental regulations and standards. Thus, the neoliberal policy of allowing the unregulated expansion of private alternatives has created a two-tiered educational system. The key questions to be discussed here include discussions of not only the morality of a two tiered system but also the loss of human potential that arises as a result of streaming otherwise qualified individuals out of the upper tier of the education system.

Mexico, like most other countries, cannot afford to waste human talent and potential. Especially in the context of globalisation and increased competition, tapping the full potential of Mexico's human resource is critical for economic and social transformation and survival. Curtailing the development of higher levels of expertise potentially leaves Mexico dependent on external knowledge and unable to compete with industrial juggernauts. Therefore it is important to question whether or not the creation of a two tiered system adequately addresses the needs of all sectors in Mexico.

One possible solution out of the current difficulties that would leave space for private involvement at the same time that it reduces the potential negative outcomes of a two tiered system would involve significantly strengthening the accreditation bodies and procedures that authorise institutions to operate. By requiring all educational institutions to adhere to a basic set of guidelines and standards, the most pernicious consequences of a two tiered system might be mitigated. Up till now, policy in this area has been largely ad hoc. However the topic of accreditation and the question of who will accredit (government agencies, university governing bodies, or NGOs such as discipline specific entities and alumni associations) is worthy of further discussion for the reasons outlined above.

Regional Development. There can be no doubt that the higher education institutions modify the environment in which they are established. The creation of educational entities affects the surrounding land value by providing urban infrastructure, cultural activities and employment opportunities. Therefore, besides being the focus of attraction for an

increased demand for education, they also represent a magnet for regional development. There is an opportunity here to use institutional expansion and diversification to target regions in Mexico that would benefit the most from the development of regional educational systems. In addition to having an economic impact, this would also help decentralize the professional population of Mexico and perhaps help siphon expertise away from the major urban centres into areas where it is needed the most. Questions have to be raised about how best to leverage the expansion of education in Mexico to support regional development and whether or not current developments will hinder or encourage regional development.

Financing. The access to better standards and the expansion of capacity to meet demand have as a condition the extension of the financial base of operations. This is an absolute requirement and no amount of creative reorganisation will eliminate the need to fund initiatives. Lack of adequate funding leads inevitably to declining standards and declining ability to meet the substantive demands of the system. In the context of the economic recession, additional funding is problematic. The suggestion has been to link universities with the private sectors in order to recuperate the cost of education through loans and, perhaps more significantly, through the development and sale of university products and services such as hospitals and clinics, tutorial and consulting services, system management and technological designs and patents. This trend has been powerful and successful in as much as creating links between universities and the private sector is now considered standard practice in plans to reform universities. However it is important to question whether or not these shifts undermine the autonomy of the university and, in the long run, hamstringing the ability of the universities to maintain an innovative and competitive atmosphere (Sosteric, Gismondi, Ratkovic, 1998).

Evaluation and Innovation. The evaluation of yield and productivity has been established in universities as an essential component of the academic process. Evaluation has been related, specifically, to supervision and control of routine tasks, to selective incentives and in some cases to budget and spending accountability. However little critical attention has been paid to the efficacy of current evaluations strategies and whether or not they do promote the outcomes they are intended to promote. That is, the nexus between evaluation and innovation has not been established. It is important that we pay attention to the links between evaluation technologies and outcomes in order to determine whether or not current evaluation strategies are suitable and do not have unintended outcomes. The threat here is that evaluation will become more about disciplining academic workers and less about encouraging innovation.

Governability. University governability¹⁰ is understood as the group of "internal" political relations (between University authorities and all actors of academic life) and "external" political relations (between the university, the public sector and society). It is evident that the long standing pre-eminence of the state-university axis in the definition of such relations is no longer leading the way to establish the priorities and strategies that promote change. In its place a more complex scheme of relations is taking place, one in which the

traditional actors of university policy interact with a number of newly emerging elements (political parties and groups, non-governmental organisations business leaders, professional associations, religious organisations, social movements, etc.). The university's capacity to articulate stable and productive links that respond to the new demands and responsibilities of today's society constitute a key factor in the dynamics of the institution transformation. The seemingly paradoxical equation of greater autonomy and greater rapprochement¹¹ forces universities to design new instruments with which to satisfy the demands of society and of the state as the new century approaches. It is imperative that the design of these new instruments be critically assessed. Like other changes, leaving the development of the system to unseen forces will not necessarily lead to useful change.

Social Relevance. Although institutions cannot guarantee employment to their graduates, it is the responsibility of a university education to contribute to the formation of a more flexible professional labour market. A problem in the past has been that graduates have been orientated towards life in the public sector after graduation. However a shrinking public sector requires a reorientation of graduating students. This reorientation involves not only shifting the expectations of graduates about their future role in the labour market, but also improving the quality and applicability of their education. This does not mean that universities should become extensions of private sector interests and simply transfer skill sets that "the market" is thought to require. While it is true that institutions cannot remain aloof from their wider social responsibilities, it is also true that the market only provides short term guidance. University administrators cannot relinquish wider responsibilities to the long term development of the country at a social and economic level. A balance must be sought.

Globalization. Finally, as noted above, one of the underlying assumptions of the whole process of reform has been that reform is necessary to create in Mexico the ability to compete in a global marketplace. Whether or not this is possible, desirable, or even necessary remain largely unanswered questions. In other words it is an assumption to think that the changes that have occurred will necessarily lead to greater global economy. Evaluating the potential here will involve much more than simply accepting the doctrine of international organisations. Mexico's history of economic dependency, its colonial legacy, and numerous other factors must be taken into account before an adequate assessment can be made of these claims. Still, despite the uncertainty here, access to education and the expansion of educational resources are important sources of both individual and societal advancement. Gains achieved in the past should not be allowed to be uncritically dismantled. Mexico needs to develop an education policy suitable for meeting its own needs for technological, scientific and social development. Anything else is unacceptable.

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Endnotes

1. The Universidad Nacional Autónoma de México (1910), the Michoacana de San Nicolás de Hidalgo (1917), the Autónoma de Sinaloa (1918), the Autónoma de Yucatán (1922), the Autónoma de San Luis Potosí (1923), the Universidad de Guadalajara (1925), the Autónoma de Nuevo León (1933), the Autónoma de Puebla (1937), the Instituto Politécnico Nacional (1937) and the universities of Colima (1940), Sonora (1942), Veracruz (1943) and Guanajuato (1945).
2. The National Polytechnical Institute was founded in 1937.
3. The Universidad Autónoma of Morelos (1953), the Autónoma of Chihuahua (1954), the Instituto Tecnológico of Sonora (1955), the Universidad Autónoma Benito Juárez of Oaxaca (1955), the Autónoma of Estado de México (1956), the Autónoma of Tamaulipas

(1956), the Autónoma of Coahuila (1957), the Universidad Juárez of Durango (1957), the Autónoma of Baja California (1957), the Autónoma of Zacatecas (1958), the Universidad Juárez Autónoma of Tabasco (1958), the Autónoma of Querétaro (1959) and the Autónoma of Guerrero (1960).

4. The student body at the Nacional University's Ciudad Universitaria, totaled 25,000. This figure doubled in less than 10 years.

5. The Universidad Autónoma of Hidalgo (1961), the Autónoma del Carmen (1965), the Autónoma of Campeche (1965) and the Autónoma of Nayarit (1969).

6. Guillermo Villaseñor Concurr in this regard when he says: "The group of such strong mutations that have taken place in universities over the last 20 years, has been both the cause and effect of said expansion" (Villaseñor, 1994: 14).

7. Information provided by ANUIES and Sistema de Información Estadística 1995 (SINIES-1995).

8. The status of the "social sciences" is difficult to determine because the Mexican taxonomy joins social sciences with administrative sciences. As a result it is difficult to separate them in analysis such as this.

9. During the 90s, the debate regarding the crises, processes and alternatives for change for universities has undoubtedly been a priority in the study of higher education systems worldwide. In the Latin American context, there is an abundance of literature referring to these problems; however it is worth reviewing, among others, the texts from CEPAL (1982), World Bank (1994), UNESCO (1995), as well as compilations by Malo and Morley (1996) and Kent (1996).

10. The Orlando Albornoz article "La reinención de la Universidad los conflictos y dilemas de la gobernabilidad en América Latina y el Caribe" in Malo and Morley eds. (1996).

11. See in this regard the CEPAL (1992) document.

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