

**PUBLIC POLICY AND HIGHER EDUCATION PERFORMANCE  
IN  
THE STATE OF NUEVO LEÓN**

Third Draft  
May 2005

Organizational Performance and Policy Decisions in Canada, the U.S., and Mexico



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## About the AIHEPS Project

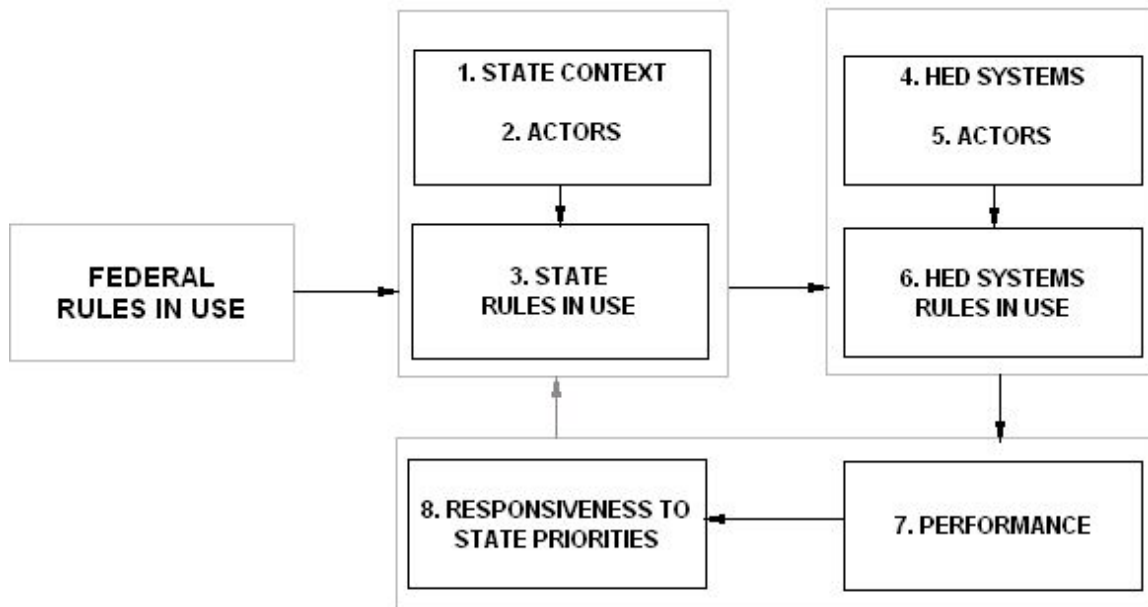
The Alliance for Higher Education Policy Studies (AIHEPS) was funded in September 1999 by the Ford Foundation as a three-year collaborative between New York University and Centro de Investigación y Estudios Avanzados (CINVESTAV) in Mexico City. In 2002, AIHEPS was given a second three-year grant with responsibility for the Mexican studies shifted to The Autonomous University of Puebla. The University of British Columbia joined the project to conduct comparative studies in three provinces in Canada. AIHEPS has two primary objectives: 1) to improve comparative understanding of how changes in higher education policies and the norms and values to which they give rise (rules in use) alter the nature of higher education services produced as well as the conditions under which they are provided; and 2) to serve as a vehicle for training a small cadre of younger policy scholars in all three nations. The project also aims at building capacity and making relevant information available to policy audiences. AIHEPS has completed or is in the process of completing 12 case studies of state or provincial higher education systems in Canada, Mexico, and the U.S.

This report describes Nuevo León's system of higher education and links the arrangements used to govern and administer higher education within that state (rules in use) to indicators of performance. The framework for this report draws on earlier work (Richardson, Bracco et al., 1999) as well the related work of Elinor Ostrom and her colleagues (Ostrom, 1999). We argue that colleges and universities in any state system try to achieve preferred goals within three nested sets of rules in use. The first set is established at the federal level, state leaders develop the second, and the third is a product of institutional governance.

Rules in use can be formal as defined in constitutions, statutes, court decisions, agency regulations, or governing board decrees. Rules can also be the informal practices that actors establish over time as they pursue preferred goals within the constraints of formal policy. Since rules in use can be changed, they represent the most accessible tools for influencing the priorities and performance of state higher education systems. The figure below provides a simple version of the framework as it has been used to organize the case report. A more detailed discussion of the conceptual framework and work plan for the project is available in a working paper (Richardson, 2004). Numbers in the figure illustrate the order in which the topics are presented within the text.

The case report begins with an overview of state context at the time of the study. The report next identifies major state actors (who may be either groups or individuals) and describes their behaviors as they engage in such ongoing tasks as planning, program approval, information collection and dissemination, and resource allocation. The focus of the case is on identifying rules in use that influence system performance on five different indicators. By examining system performance in relation to state rules in use, we are able to draw conclusions about the effectiveness of state strategies in promoting higher education responsiveness to state objectives. The report draws upon interviews with elected and appointed state actors as well as on documents, web pages, and archival data available to the general public.

## SIMPLIFIED AIHEPS Framework and Structure of this Report



States influence higher education systems through some combination of regulation and the use of market forces (steering). There are obvious advantages and dangers when either of these approaches is carried to an extreme. In practice most states seek some balance between the two, increasingly using market forces for fine-tuning. Part of our reason for undertaking this series of related studies in the U.S., Canada, and Mexico is to provide comparative information for state and provincial policy leaders as they examine the balance achieved by their rules in use. A review of the ways in which rules in use influence higher education performance seems particularly timely as state appropriations, the traditional approach to shaping performance, become an ever smaller proportion of institutional budgets.

The AIHEPS project has produced the following products, all of which are or soon will be available in Spanish and English on our web site: <http://www.nyu.edu/iesp/aiheps/>. Links to these products are also available through the National Center for Public Policy and Higher Education (National Center) and through several sites that are regularly visited by the Mexican audience for these products. Products are written according to a mutually agreed upon framework that facilitates comparative analysis.

Case reports for the Mexican states of Guanajuato, Jalisco, Nuevo Leon, and Puebla.  
Case reports for the U.S. states of California, New Jersey, New Mexico, New York, and South Dakota.

Case reports for the Canadian provinces of British Columbia, Ontario and Quebec (Quebec will be available in French and English)

Federal reports for Canada, the U.S. and Mexico.

A working concept paper that describes the history of the project, the framework guiding comparative work in the three countries, and graphic and textual representations of the plan for completing the remaining work.

A summary report of the younger scholars who have been involved with the project and their contributions.<sup>1</sup>

The following products are planned for next 18 months of the project and will be available on the web site as they are completed.

A synthesis report for Canada, for Mexico, and for the U.S. that incorporates insights from the relevant federal report, and from the state or provincial case studies. Each report will advance propositions about how rules in use and the policies that contribute to them influence performance. These reports will provide the basis for an international comparison scheduled to begin in June 2005.

A synthesis report that incorporates the results of the cross-national analysis of data from the three countries by the project co-directors that speaks to the question of how policy can constructively contribute to the attainment of public priorities.



New York University  
239 Greene Street, Suite 300  
New York, NY 10003  
(phone) 212.998.5515  
(fax) 212.995.4041  
[www.nyu.edu/iesp/aiheps](http://www.nyu.edu/iesp/aiheps)

Richard C. Richardson Jr.  
New York University

[Richard.richardson@nyu.edu](mailto:Richard.richardson@nyu.edu)

Rollin Kent  
Autonomous University  
of Puebla

[rkent@puebla.megared.net.mx](mailto:rkent@puebla.megared.net.mx)

Donald Fisher  
University of  
British Columbia

[dfisher@interchange.ubc.ca](mailto:dfisher@interchange.ubc.ca)

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<sup>1</sup> Since inception of the project, ten younger scholars have contributed to the research.

## Introduction

The data used in this report was collected by members of the AIHEPS team through visits to the state of Nuevo León where state and institutional officials were interviewed.<sup>2</sup> During those visits, members of the “Summers of Science” program – a program sponsored by the National Academy of Sciences in Mexico – collected information on the cost of education through a door-to-door survey of private institutions. In addition, AIHEPS members used documentary sources, statistics, and electronic sources as well as a series of thematic papers that illustrate specific issues and themes relating to changes in the system and policies of higher education in the states of Puebla and Nuevo León (and partially the states of Jalisco and Guanajuato, covered in the first phase of the AIHEPS project). Reference will be made to the following documents:

- Norma Vite-León. *The Importance of Local Conditions in Determining University-Industry Collaboration: the cases of Nuevo León and Puebla* (Vite-León, 2005a).
- Rollin Kent, *The Changing Role of the State in Mexican Higher Education: from the Crisis of Ineffectual Populism to Developmental Regulation* (Kent, 2004a).
- Rollin Kent. *Private Sector Expansion and Emerging Policy Responses in Mexican Higher Education* (Kent, 2004b).
- Rollin Kent, *La Dialéctica de la Esperanza y la Desilusión en Políticas de Educación Superior in México* (Kent, 2003).
- Rollin Kent, *The Transformation of Mexican Higher Education Policy* (Kent, 2005 Forthcoming).

## The State Context

Nuevo León is the eighth most populated state in Mexico with a population of just under four million, with less than 0.5% of indigenous population – making it the fifth state with the least percentage of indigenous population in Mexico. It is one of the larger states in the nation, but 85% of the population lives in the Monterrey metropolitan area (INEGI, 2000). The state borders to the north with the state of Texas, and the economic links to the US economy reflects this geographical proximity. The area is regarded as a stronghold of heavy industry (especially concrete, glass, and flour) and of large financial and manufacturing business conglomerates (Vite-León, 2005a). It is usually seen as the forerunner of economic progress in the country, and it has had a significantly higher industrial growth rate than the rest of Mexico (Vite-León, 2005a). The state has the second highest average hourly income in the nation, and the percentage of employees receiving higher wages is significantly higher than in other states (See Table 1) (INEGI, 2005).

Politically, Nuevo León has alternated between PRI (Revolutionary Institutional Party) and PAN (National Action Party) elected officials, yet both have shown equal attention to the interests of private industry. The industrial sector in this state is not only strong economically, but politically as well. Industrialists in Nuevo León have had a strong interest in higher education since the 1940's, but instead just lobby for their interests, the *regiomontanos* (term used to describe people from Monterrey) created a private

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<sup>2</sup> The following team members contributed to the data collection effort in Nuevo León: Rollin Kent, Amanda Azcona, Francisco Romero, Norma Vite, and Guadalupe Moheno.

educational institution that would use their worldview as a basis for the programs it offered. This institution is now the second largest university in Monterrey, and together with the Autonomous University of Nuevo León – the state’s public university – they dominate the higher education arena.

<b>Salary of Population in Number of Minimum Wages Received</b>						
<b>State</b>	<b>Less than 1</b>	<b>1 to 2</b>	<b>2.1 to 5</b>	<b>More than 5</b>	<b>None</b>	<b>Unspecified</b>
<b>2001</b>						
Nuevo León	3.30%	14.25%	52.14%	19.22%	3.05%	8.05%
Puebla	7.92%	23.49%	35.26%	11.03%	5.68%	16.62%
<b>2002</b>						
Nuevo León	3.30%	9.77%	56.21%	20.64%	2.80%	7.28%
Puebla	5.86%	24.34%	44.79%	12.28%	4.80%	7.93%
<b>2003</b>						
Nuevo León	3.37%	8.57%	55.49%	20.30%	2.23%	10.04%
Puebla	7.04%	24.18%	48.80%	11.88%	5.13%	2.97%
<b>2004</b>						
Nuevo León	5.28%	12.17%	52.99%	17.75%	3.03%	8.78%
Puebla	9.04%	20.48%	47.02%	14.16%	5.49%	3.81%

**Table 1: Salary of Population by Number of Minimum Wages Received (INEGI, 2005)**

The state has 43 institutions of higher education – not including teacher colleges (escuelas normales) – all but two of them located in the metropolitan area. The remaining two are located in the only two municipalities with more than 50,000 inhabitants outside of Monterrey, just an hour away from the city (INEGI, 2002). Their institutions of higher education include four private consolidated universities with international accreditation, a public university regarded by the private sector, state officials, and the general population as a high quality institution (also seeking international accreditation), five small public institutions, and tens of small private ones. Officials from the different IHED’s look at the higher education sector as an integral part of the state’s entrepreneurial activities. There is a palpable atmosphere of competition between the larger institutions, making use of strategic management and marketing strategies to, as one official stated, “help the incursion of the [private consolidated] institution[s] into new markets, those that are usually serviced by the public institutions.”, Nuevo León is a state with low political conflict within the higher education sector unlike Puebla and Jalisco, where there have been periods of conflict between the public university and the state government and between the public university and the private institutions of higher education. It is a state where the educational, social, economic, and political arenas share a pro-entrepreneurial consensus.

<b>Establishments</b>	<b>Puebla</b>		<b>Nuevo León</b>	
	<b>1991</b>	<b>2001</b>	<b>1991</b>	<b>2001</b>
Private Consolidated Universities	4	4	4	4
Private Non Consolidated Universities	14	81	9	33
<b>subtotal, private Institutions</b>	<b>18</b>	<b>85</b>	<b>13</b>	<b>37</b>
BUAP (a)	1	1		
UANL			1	1
Federal Technological Institutes	3	3	2	2
State Technological Institutes	0	10	0	0
Technological Universities	0	4	0	2
Other public Institutions	0	3	1	1
<b>subtotal, public Institutions</b>	<b>3</b>	<b>17</b>	<b>4</b>	<b>6</b>
<b>TOTAL</b>	<b>21</b>	<b>102</b>	<b>17</b>	<b>43</b>

**Table 2: Number of Institutions of Higher Education by sector (ANUIES, 1991; ANUIES, 2001)**

### **Actors**

State level actors that impact policy decision-making in the state include government officials in both the executive and legislative branches, and the institutions themselves. The actors that are considered for analysis are the state department of education, the state congress, the autonomous (public) university, the federal technological institutes, all other state institutions of higher education as a group, private consolidated universities, private non-consolidated universities, and the state council on higher education planning.

#### **State Department of Education (SEE)**

The State Department of Education (SEE) is a branch of the state executive government. The members of SEE are appointed by the governor and are responsible for the management of all levels of education in the state. Since the federal government ceded control of basic education to individual states in 1992, SEE focused most of its efforts to the improvement of basic education – leaving higher education mainly untouched until the late nineties. The SEE, through the State Undersecretary of Higher Education and Evaluation, reactivated the federally created COEPES (State Council on Higher Education Planning) and used it as a forum to advance priorities that needed to be addressed by the state. The SEE then took the opportunity granted by the Education Act of 1999 to set into motion an improvement plan for higher education. The strategy ran in two parallel paths: it sought to diversify the educational choices by creating two technological universities that would grant two-year degrees, and to improve the overall education system in a manner similar to what was done with basic education. Due to the autonomy of the state university and the dependence of federal technological institutes on federal decision-making, SEE has focused its efforts on ensuring the quality of existing private institutions and the pertinence and quality of future ones. With the help of sub-committees from COEPES, SEE has set up a quality tier system to be followed by all state-licensed institutions as well as a peer-reviewed system that regulates the creation of new programs and new institutions.

Other actions of the SEE have been directed at increasing the amount and quality of information available to the public. The program “Exporienta” was launched in 1999 with the goal of having as many institutions of higher education in one place as possible to enable interested persons to compare them and get information about their programs, costs, financial assistance, etc. By 2002, the “Exporienta” was held in three locations, included more than 70 institutions of higher education, and received over 54,000 visitors. The latest project of this kind, is a printed compilation of institutions that offer technology-oriented programs.

Although state law places the responsibility of managing higher education in SEE’s hands, there are no powers granted to the department – or even the governor for that matter – for doing so. Institutions of higher education that are licensed by the state have their license (REVOE) revoked by the governor if certain minimum requirements are not met. This is in fact the only legal tool with which both the governor and SEE can steer private institutions responsible for 26% of the state’s student population. Private institutions with a federal license, federal technological institutes, and the state university

with its constitutionally-granted autonomy are beyond the state's direct influence. This means that the institutions educating 70% of the state's student population are not legally required to follow any recommendation from the state government bodies. In order to ensure some articulation in the system, SEE has partially surrendered its authority to the COEPES so that its members are more likely to follow the decisions that are made through its sub-committees. The strategy has allowed SEE to borrow resources – like curriculum specialists – from the independent universities and to shift the burden of new program analysis to the COEPES sub-committees, but it has not improved its influence on the educational system.

### **State Congress**

The State Congress is not perceived as a very active participant in the higher education system of Nuevo León. Aside from appropriating funds for the Autonomous University of Nuevo León (around 36% of the university's total budget) every year, the State Congress has – through the Education Act of 1999 – placed the responsibility of managing higher education in the governor's hands. Although the law specifically states that the executive branch is responsible for the state higher education system – defined in the law as all institutions of higher education operating in the state – it is little more than a ceremonial appointment, for the law does not provide the governor with specific powers to affect those institutions with REVOES from the federal government or the autonomous university.

### **Autonomous University of Nuevo León (UANL)**

The Autonomous University of Nuevo León is the largest institution of higher education in the area enrolling over 50% of the students in the state. Like autonomous universities in other states, its charter gives it autonomy from both the federal and state governments. The state congress contributes 36% of its annual budget, but has been very careful not to interfere in any of the university's decisions. UANL is perceived by the SEE and other state institutions as a high quality university. Its programs are accredited by the newly created Interinstitutional Councils for Higher Education Evaluation (CIEES), and is currently seeking accreditation from the Southern Association of Colleges and Schools in the United States (SACS), as well as ISO certification for all its administrative processes. Since the early 1990's, UANL has made several changes to improve its performance. Before 1991, admission to the university was open. One of the first changes it implemented was an entrance examination to ensure that students met the required preparation to begin an undergraduate program. Since then, it has used strategic planning to change several financial processes, to build a library network, to improve the pertinence of its programs to the industrial requirements of the state, and to ensure students graduate speaking two languages. Individual colleges within the university are responsible for their links with industry and research projects, as well as for charging tuition and providing student aid. The university has also created a consulting board (Consejo Consultivo) with the intention of having representatives from the largest private enterprises in the state included in the planning and decision-making process.

UANL is involved in the state's policy-making process through its participation in the different COEPES sub-committees, and by providing SEE with experts in curriculum development, program evaluation, and other educational-related issues when requested.

When administrators from other educational institutions discuss public higher education, it is the UANL, and not the SEE, that is associated with it. This association is mostly due to the fact that all state institutions of education under SEE's supervision absorb together a much smaller number of students than any one of the UANL colleges do. The SEE has implemented UANL's entrance exam as the examination standard for secondary students in public schools, further enhancing this perception.

### **Federal Technological Institutes (IT)**

There are two Federal Technological Institutes in the state of Nuevo León, enrolling just over 3,000 students. IT's fall under the direct supervision of the Federal Undersecretary of Technological Education. Their programs, faculty, and improvements are approved by this federal body to the point that they cannot enter into contractual agreements with the local private sector without express consent from the federal government. Their involvement in state higher education policy is limited to their participation in the COEPES sub-committees and isolated agreements of cooperation between the IT's and the SEE, allowing students from the Technological Universities with a two-year degree to transfer to the IT's to get their four-year degrees.

### **Technological Universities (UT), School of Educational Sciences (ECE), and Other State Institutions**

Both existing Technological Universities were created in 1998 in an attempt to broaden the choice of graduating high school students. Programs offered by the UT's are aimed at industry-related fields that do not require a four-year degree. They offer associate degrees (Técnico Universitario) in areas related to industries that are present in the state. Even though UT's receive 50% of their operating budget from the state and the governor names the director of each institution, the officials interviewed comment that they do not coordinate their planning with the SEE. They state that they depend from the Coordinator for Technological Universities (Coordinación General de Universidades Tecnológicas) – an office of the Federal Undersecretary of Higher Education (SESIC) – and take part in the state's policy-making process through the COEPES, by providing the state with performance indicators, and granting access to their manufacturing labs to other state institutions.

The School of Educational Sciences (ECE) is an institution of higher education specifically created by the state to train K-12 teachers with the objective of improving basic education in the region. Its original mission was to attract the state's teachers that lacked an undergraduate degree and offer them a program that would allow them to teach and attend school at the same time. Once a significant fraction of the state's teachers had attained their undergraduate degree, ECE began to offer graduate programs in learning disorders and other education-related areas with the state's K-12 teachers as its primary student body, and allowing admission to its graduate programs to members of other institutions that were interested in them. In the past decade, as the number of teachers without an undergraduate degree in the state has decreased, the ECE has closed admission to the undergraduate program and has focused on creating graduate programs in areas that the SEE has identified as needed for the state teachers. Administrators at ECE conveyed that the original mission of the institution has been accomplished, and that they are now re-defining ECE so that it can become "an institution of higher education comparable to any of the ANUIES (National Association of

Universities and Higher Education Institutions) institutions, offering graduate programs including a doctoral program in the future.” Although the ECE is part of the federal system of teaching colleges (escuelas normales), administrators made clear that it is the SEE that is involved in the decision-making process for future programs, changes in organizational structure, and overall direction of the institution. ECE collaborates with the other state institutions by offering on-site training programs at the Technological Universities specifically designed for their faculty, training principals and other school administrators, as well as faculty for the Technological Institute of Nuevo León.

### **Private Consolidated Universities**

The state of Nuevo León has four private institutions of higher education that qualify as consolidated universities<sup>3</sup>, three of which are located in the Monterrey metropolitan area. The student population in these four institutions accounts for 24% of the total population attending an institution of higher education in the state (INEGI, 2002). All four are not-for-profit institutions, and all four hold international accreditations. Two of them are accredited by the Southern Association of Colleges and Schools in the United States (SACS) – a feat that has been accomplished only by four Mexican universities (SACS, 2004), and the other two hold accreditations from the Association of Advance Collegiate Schools of Business (AACSB), and the Accrediting Association of Seventh-day Adventist Schools, Colleges and Universities (AAA). They are among the twenty most expensive IHEDs in the state, maintaining their student population in large part by offering tuition discounts, work-study programs (where part of the tuition is paid through the hours worked on campus) and loans financed through SOFES – a fund managed by these and other private institutions that, with the help of the World Bank and a guarantee from the federal government, provides loans to students according to their economic needs. The three metropolitan-area institutions are seen throughout the state as in a class of their own and exert considerable influence in the educational arena. Their influence, however, is not directed at specific decisions or policies, but rather it permeates the state’s worldview and thus the institutions’ priorities are indirectly incorporated into the state’s.

### **Private Non-consolidated Universities**

As of 2001, there were 33 institutions in the state of Nuevo León qualified as private, non-consolidated universities (ANUIES, 2001). Their students account for 20% of the student population, distributed unevenly between institutions with thousands of students – the largest having over 7,000 – and others with less than 100. Although a few of these universities are registered as non-profit organizations, most are for-profit enterprises that have grown as the number of available spots in larger universities become less adequate to the number of students seeking admission. Some administrators from more consolidated institutions see these companies as a way to “alleviate a little the social pressure [for education],” while others see them as little more than diploma mills that should not be allowed to confer degrees. The SEE, while clearly stating that it is not interested in “hunting” for diploma mills, has made the improvement of this group of institutions the primary objective of its policy decisions.

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<sup>3</sup> For an in-depth look at private higher education and an explanation of the typology used in this document, see “Private Sector Expansion and Emerging Policy in Mexican Higher Education”, by Rollin Kent, 17th Annual Conference of the Consortium of Higher Education Researchers, 2004.

## **State Council on Higher Education Planning (COEPES)**

The State Council on Higher Education Planning (COEPES) is an entity created in each state by the federal government to articulate each region's actors of the higher education arena. In Nuevo León, its members include the presidents from every higher education institution, representatives from SEE, the Department of Economic Development (Secretaría de Fomento Económico), and from the Department of Labor and Human Development (Secretaría del Trabajo y Desarrollo Humano). Unlike other states, the COEPES in Nuevo León is actively involved in the policy-making process. SEE has empowered COEPES to make recommendations on applications for new REVOES, on minimum requirements for licensing on-line programs, on limiting the number of new programs in saturated disciplines (business, accounting, etc.), on actions to be taken with institutions that no longer meet minimum REVOE qualifications, and on other regulations pertaining higher education. These recommendations are taken by SEE and passed on to the governor who usually executes them as presented. As it is the case with the state government, institutions are not required to follow the recommendations that COEPES drafts. But since the institutions themselves are responsible for them, there is more compliance with the regulations that originate from COEPES.

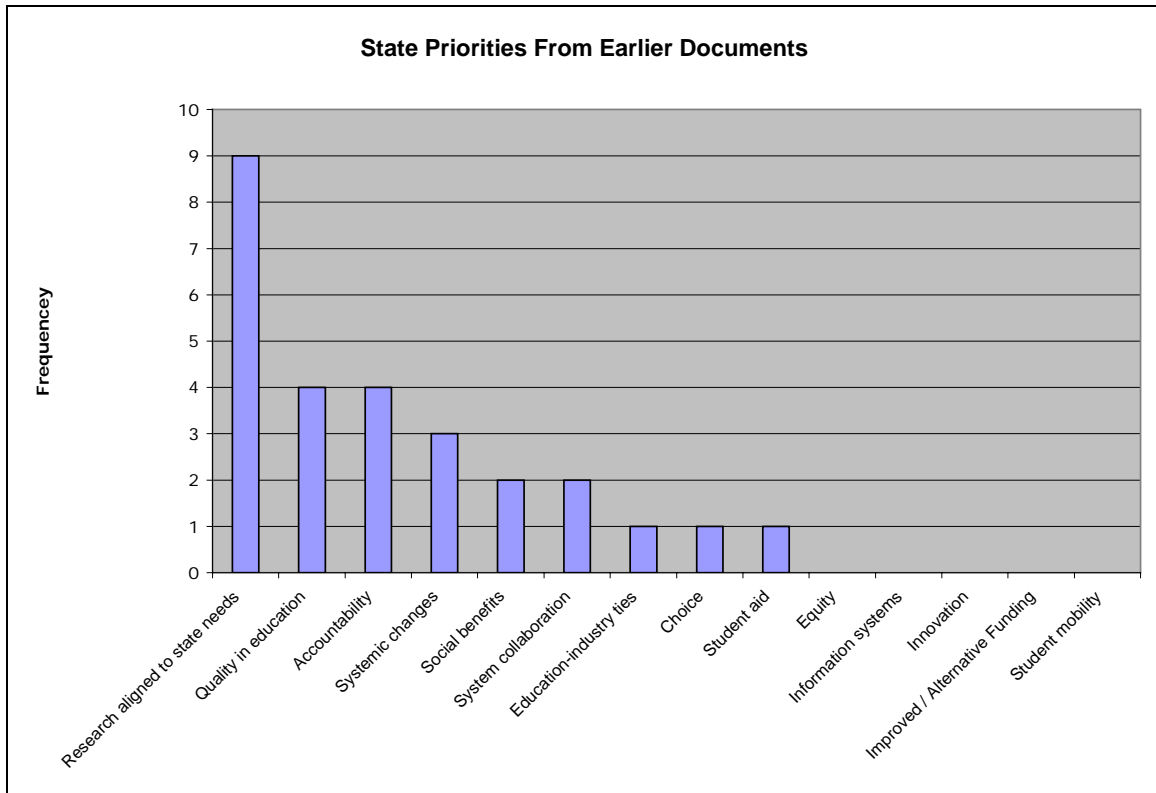
## **State Rules in Use**

The rules in use define the channels through which the interactions of actors takes place within the arena. These rules are defined by formal legislation (constitutional rules), by formal or informal agreements between actors (collective action rules), and by every day decisions and implemented policies of particular actors with some influence in the higher education arena. The following section describes the rules in use in Nuevo León in eight categories: planning, program review and approval, accountability, information, student assistance, economic development, tuition and operating support, and capital support.

### **Planning**

Since 1998, the state of Nuevo León has used planning processes borrowed from private industry including the general population and local corporations in the educational planning process. Using prospective planning, SEE has published six-year strategic plans for both elementary and higher education since 1990, documents that were used by congress to draft sections of the Education Act of 1999. Once the COEPES started functioning, SEE used it as a forum to discuss the state's educational needs, future expectations of the private sector, and educational evaluation.

The state's priorities on higher education – as evidenced from official documents – have changed according to the information provided by the planning exercises. During the first part of the nineteen nineties, the main priority for public higher education in the state was to align research projects with regional needs, followed in far second by ensuring program quality and institutional accountability (See Figure 1). By the end of that decade, state priorities had changed dramatically, with research alignment falling from first to sixth priority, and program quality jumping from a far second to first (See Figure 2).



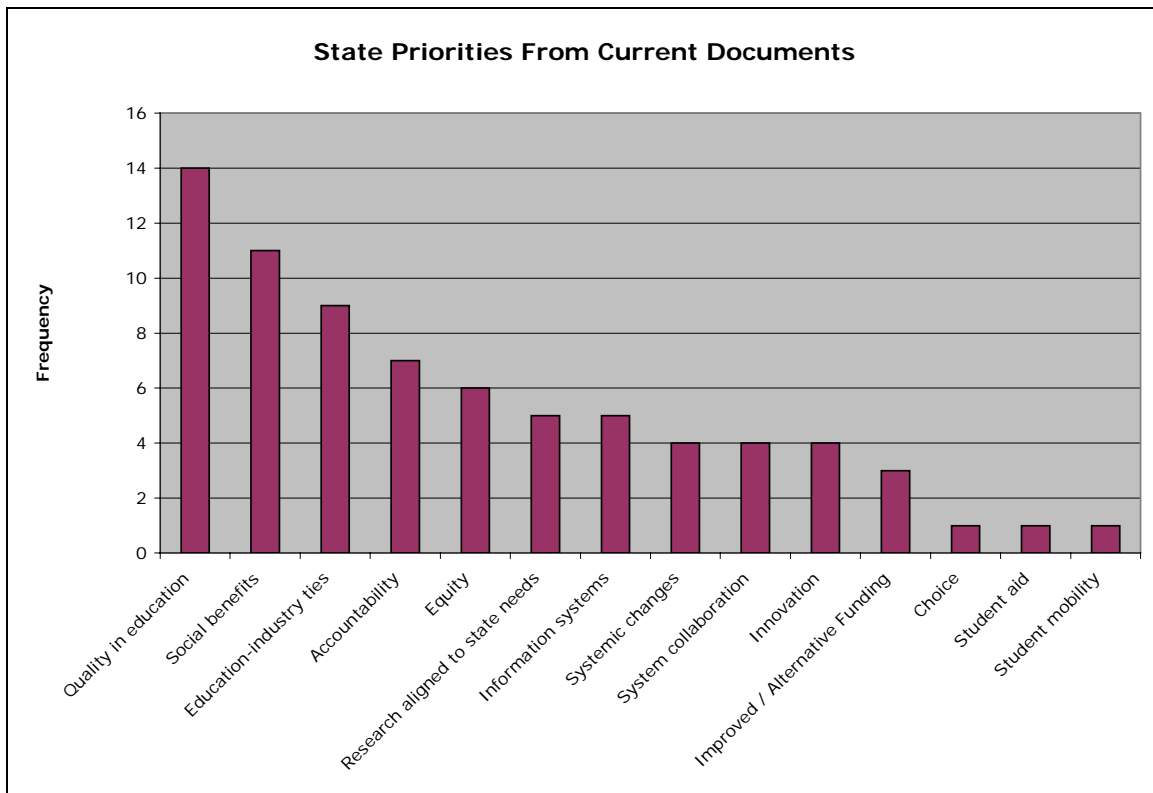
**Figure 1: State priorities determined by their frequency in official documents from 1993 to 1995**

The change in priorities has also been strongly influenced by the priorities of the three private consolidated universities in the city of Monterrey. Because of their standing as quality institutions in the state, they are usually seen as examples of the best practices in higher education. Thus, when these universities adopt a particular strategy, other institutions – including the state government – follow suit. In addition, all three institutions have strong connections with industry leaders and make considerable use of their suggestions to adapt their priorities to the needs of the private sector. This alignment makes the priorities even more appealing to the state.

### **Program Review and Approval**

The most visible decision-making process in the state is the process of program review and approval. According to the Education Act of 1999, the governor has direct authority to approve any new programs or institutions of higher education in the state, and is also responsible to ensure that those programs or institutions comply with the minimum requirements of the REVOE. Aside from the minimum requirements, the REVOES may be granted at the discretion of the governor, who uses SEE as the administrative tool to legitimize and document the decisions. SEE in turn consults with a COEPES sub-committee in charge of new programs and institutions. The process is then as follows: an institution requests a REVOE for a new program to the SEE. The SEE turns the application over to the COEPES sub-committee, where the members review the application and make recommendations on whether to approve it. This recommendation is forwarded to SEE who reviews it, complements it, and sends it to the governor. The

governor usually accepts the recommendation and grants or denies the REVOE accordingly.



**Figure 2: State priorities determined by their frequency in official documents from 1999 to 2003**

The process has allowed existing institutions to regulate the types of programs and institutions that are added to the system as well as the number of new campuses that existing universities can open. For example, business administration programs are routinely rejected because both the COEPES and the SEE agree that the state has reached a point where the job market for this particular program is saturated. Through the same process, existing universities were able to block private international institutions like the University of Phoenix from opening a campus in the state. This regulating mechanism is not perfect though. Aside from the state governor, the autonomous university and federal government can issue valid REVOEs for the state of Nuevo León. The UANL agreed to issue REVOEs through the same process the state government uses at the time of the COEPES activation, but such understanding between the federal and state governments was implemented only several years later. As a result, there were institutions that opened new campuses and programs in saturated disciplines without the approval of the state government or the COEPES. In addition to the private institutions with federal REVOEs, public institutions that depend directly from the federal government change their programs without having to go through the state's process. Both of the IT's and the UT's have their program changes mandated from the federal agencies responsible for them, and these are implemented with little input from the state.

## **Accountability**

The issue of accountability is one of the top five priorities for the state, and since it is tied directly to the number one concern of all actors in the region – program quality – the state has made considerable efforts to implement a working program. The SEE, together with the COEPES, has established a detailed plan to introduce state-guided accountability in Nuevo León. According to SEE officials, the system was created with the improvement of higher education institutions in mind and not to enforce a quality standard. The SEE's mission, they comment, "is not to hunt for diploma mills, but to help institutions to improve." They also mention that SEE does not have the resources to supervise institutional quality, and for that reason an accountability tier was created.

The initial stage is to ask all institutions with state-granted REVOEs to submit a self-evaluation to see if they comply with the minimum requirements for such license. If they do not meet the minimum requirements, they must present an improvement plan and show, in following years, that they are progressing towards those requirements. If they fail to present a program or to prove progress after some time, their REVOEs may be suspended or rescinded. If the institutions are in compliance with the minimum requirements, they are considered as having achieved the first accountability tier. The second tier consists of a self-evaluation on continuous quality improvement processes. The evaluation uses Total Quality Management standards to evaluate improvement strategies in programs, faculty quality, student-related processes, and overall institutional performance using indicators established by a COEPES sub-committee. The institutions can then achieve the third accountability tier by seeking ISO certification for their administrative processes. The fourth tier is the accreditation of the institution by ANUIES (National Association of Universities and Colleges) or FIMPES (Federation of Mexican Private Higher Education Institutions). At this point the institutions may seek to obtain the Nuevo León Quality Award in Education, the National Quality Award in Education, or international accreditation to achieve the final tier.

The accountability system is primarily directed towards the private non-consolidated universities in the city of Monterrey, although the consolidated institutions with state REVOEs must also comply with the first two tiers (even though all three are on tier five). The UANL, despite the fact that it is not required to comply, has shown its agreement with the policy by performing self-evaluations while seeking international accreditation (thus achieving the final tier). The IT's and UT's do not follow the state tier system, but their federal agency requires them to comply with their own accountability standards. Their performance indicators and methods of evaluation are mandated by the federal agency in charge of technological education. Private institutions with federal REVOEs are not required to comply with this accountability system, and for the most part they do not. For some institutions, like the SACS-accredited ITESM (Instituto Tecnológico y de Estudios Superiores de Monterrey), the perception is that their credentials guarantee an acceptable accountability level even when it is not the state's. Other institutions however, are perceived by their competitors as institutions whose immunity from the state government allows them to cut costs at the expense of quality and offer inferior programs with impunity.

## **Information**

The SEE has implemented an on-line information system for its basic education division that includes a statewide ranking based on performance indicators that is accessible to the general population. In higher education however, the system is in its infancy, and the institutions do not seem very enthusiastic about the idea. The information that is most easily accessible to the state – the one included in the self-evaluations – is confidential. Some institutions provide more information, but most limit themselves to answering what is required of them by law. Institutions with REVOEs from the federal government seem to be the most reluctant to share information with the state. ITESM officials, when asked about this commented that they have a very advanced information system that is used in their planning process, but the “performance indicators are not public and never will be made public.” Likewise, officials from the UT’s explained that their indicators – provided by the federal agency in charge of these institutions – are not published, but they are considered public documents and will be shown to whoever requests them. When it comes to performance information, institutions of higher education in Nuevo León do not agree with the SEE’s plan for an information system, and this has thwarted the state’s efforts to implement it.

One area where SEE has been successful is the dissemination of information regarding available programs and institutions to students. The SEE and COEPES worked together to offer the state’s population an event where prospective students could have access to information about the different programs and institutions in the region. The first of these events was launched in 1999 inviting 40 institutions of higher education to set up information booths in the “Exporienta” educational expo. Every year since then, the Exporienta has grown in both institutional representation and attendance. By 2002, the event included over 70 institutions and received more than 54,000 visitors. Through this event, the SEE also distributed a catalog containing information about the secondary education and technical education institutions available in the state. At the time of the interview, SEE officials were planning on creating a statewide catalog of available programs in higher education as well.

## **Student Assistance**

Student assistance in the state of Nuevo León is for the most part left for each institution to implement as desired. The issue of student assistance has been consistently among the state’s lowest priorities throughout the decade (See Figures 1 & 2), and since every institution has implemented its own assistance program, there seems to be no interest on the part of the SEE to get involved. Federal institutions (IT’s and UT’s) are authorized to give students discounts in tuition ranging from 50% to 95% depending on their economic needs. The UANL has a tuition discount program that is very similar to the federal schools, but it allows each college to decide how much tuition to charge and to set up the requirements for, and the amounts of, tuition discount. All private non-consolidated universities have some kind of assistance in the form of tuition discounts, work-study programs, or payroll deduction programs. Each institution defines the requirements and amounts that students can access. Private consolidated universities have the most extensive student assistance system. They provide tuition discounts based on economic need and academic achievement, opportunities for students to work within the institution to pay through work part of their tuition, as well as student loans provided through SOFES. This fund created by the universities and, with the help of the

World Bank, is the provider of funds for students of these institutions who require financial assistance to complete their education.

The federal government provides aid in the form of scholarships to students who wish to attend a public school and whose household income is less than four times the minimum wage through the PRONABES (National Scholarship Program for Higher Education) Program. This program requires that students apply for aid at the public institution where they are registered. The institution forwards these application to SEE, who reviews that all requirements are met and approves the application (SEP, 2005b). SEE's officials commented during the interviews that it has not been used much in the state because average family income is greater than the limit prescribed by the federal government. In fact, the state has consistently received 2% of the total number of scholarships available nation-wide in the three years that PRONABES has been implemented (SEP, 2005a). Furthermore, officials state that the amount of aid does not compare with the wages a prospective student would earn in the local industries, so it is not enough to convince a person to choose education instead of a job.

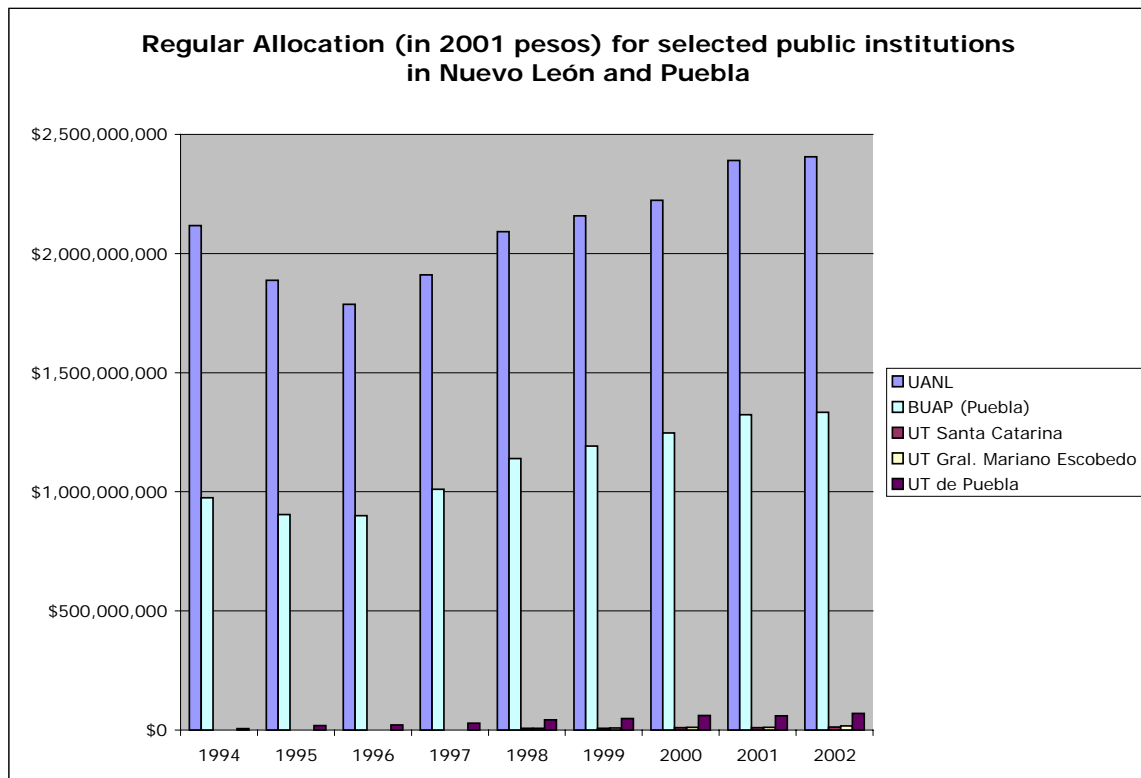


Figure 3: State and Federal Allocations for selected public institutions in Nuevo León and Puebla (SEP, 2002)

### Tuition and Operation Support

The largest portion of financial support from the state government goes to the UANL. The state contributes an average of 36% of the total operating funds required by the university. The rest is provided directly by the federal government. The appropriations process is based on annual negotiations between the university's president and the members of the legislative committee on education. For over a decade however, the results have not varied: the average contribution of the state does not exceed 37% and

does not go lower than 35% of the university's budget for that year. Both state officials and university officials seem to be satisfied by the process, and do not foresee any changes in the arrangement. The UANL has specified its need for more funds, but instead of going to the state government for them, it has created a plan to increase the number of consulting projects and other services to the private sector in order to generate an extra 30% in funds for special projects and facilities improvement.

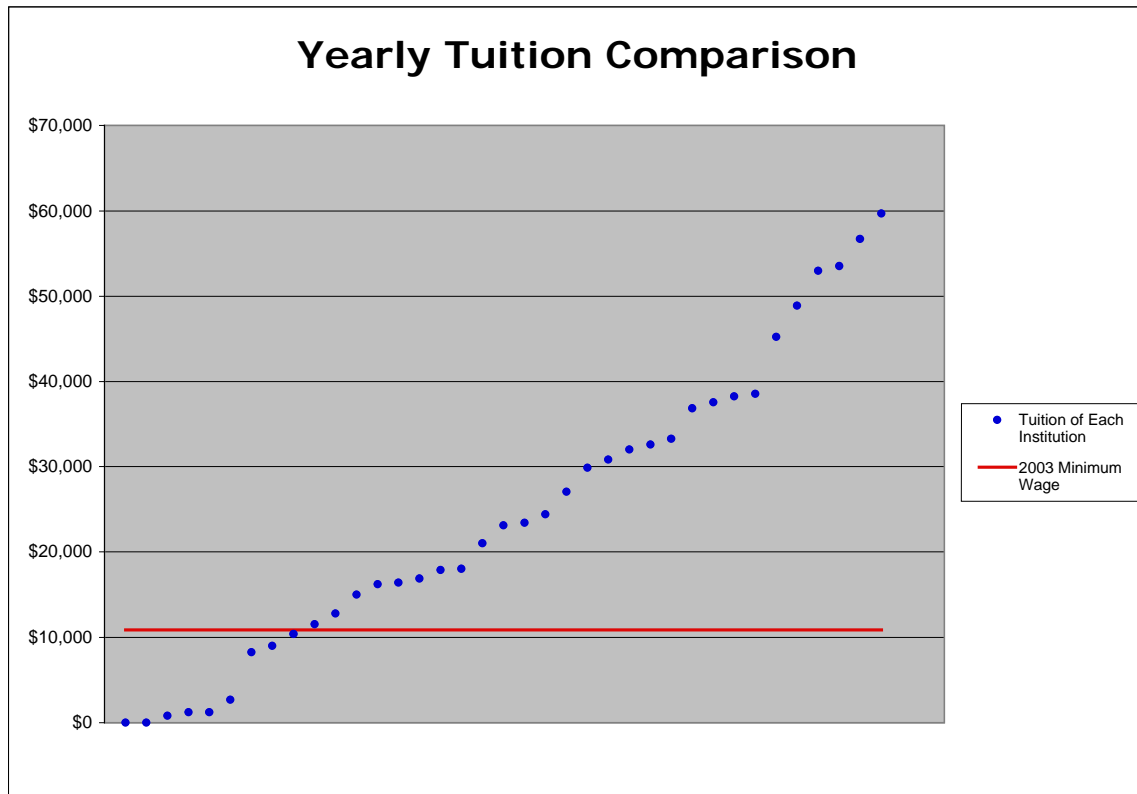


Figure 4: Yearly tuition of institutions of higher education in Nuevo León with the yearly minimum wage for 2003 in Nuevo León for base comparison. Each dot represents an institution.<sup>4</sup>

Other institutions that receive economic support from the state include the UT's, who were created with an agreement to receive half their operational support from the state. Although the directors from these institutions are chosen by the governor, the officials interviewed commented that in practical terms, these institutions are centrally managed by the federal office of technological education. Since state officials do not hire personnel or change the institution's budget without the office's approval, the state congress simply waits for the federal office to publish the year's budget and they appropriate 50%. It is worth noting that, since these institutions are small – with less than 1,000 students between both in the year 2000 – the amounts are not considered high and therefore are never contested (See Figure 3). The ECE is the only institution of higher education in Nuevo León whose entire budget depends on the state. They are required to generate 20% of their yearly operational costs through tuition, and the state provides the rest. The ECE presents SEE with its budget every year, and SEE forwards it to the governor who then recommends it to congress. Since ECE's programs are

<sup>4</sup> The data for tuition in private institutions in Nuevo León was collected, through a door-to-door survey at each institution in March 2003, with the assistance of Zoraide Dzul, Iris Cantú, Cindy González, Angela Guzmán, and Rosario Acevedo.

specifically designed for state primary and secondary teachers, and the institution is very small (with less than 200 students in the year 2000), congress appropriates the funds without question every year.

Tuition in the Nuevo León is not regulated. Both public and private institutions charge tuition according to their needs and marketing strategies, and make liberal use of their student assistance programs to attract desirable individuals with economic needs to their institutions. The UANL allows each college to decide the amount of tuition to be charged according to their programs and costs. Unlike other regions in Mexico, students in Nuevo León accept, and even expect, that public institutions charge tuition. Institutions of higher education in the state charge considerably more than in other states, and are well above the means of the lower income population (See Figure 4).

### **Capital Support**

From 1993 to 1998, the state invested in the construction of a central library for UANL and in the construction of both UT's. Since then, the priority for SEE has changed and no new projects have been started. The population's response to the new institutions has not been very enthusiastic, so the priorities for the state at this point, according to SEE officials, is to consolidate existing institutions before adding new ones to the system.

### **Economic Development**

Although the top priorities of the state include greater ties between the private sector and education in an effort to improve economic development, most activities that include the private sector have been due to the efforts of particular institutions without the involvement of the government. All institutions of higher education in the state make constant efforts to ensure that their educational programs are aligned to the needs of the local industry, providing human resources with knowledge pertinent to the local conglomerates. In addition, all private consolidated institutions and the UANL have advisory boards that are configured almost entirely by representatives of local industrial and financial institutions<sup>5</sup>.

### **Higher Education Performance**

The measures used to evaluate performance in the state of Nuevo León are: access and participation, degree completion, cost per capita (a rough estimate of system efficiency), choice (a measure of the educational possibilities available to low-income students), affordability, economic benefits, and non-economic benefits.

### **Access and Participation**

Like higher education, the state is not the main actor in secondary education, which is dominated by private institutions and schools affiliated to the UANL. Only 15% of the state's secondary education students are enrolled in a state or federal school. All others are evenly distributed between private institutions (some affiliated with the private

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<sup>5</sup> For an in-depth look at university-industry collaboration for the states of Nuevo León and Puebla, see "the importance of local conditions in determining university-industry collaboration: the cases of Monterrey and Puebla" by Norma Vite Vite-León, N. (2005a). The importance of local conditions in determining university-industry collaboration: The cases of Monterrey and Puebla. New York City: 78.

consolidated universities), and schools affiliated with the UANL (INEGI, 2002). In the same fashion as in higher education, there is an association for secondary education that is analogous to the COEPES. In this organization, school and government officials, together with representatives from the chambers of commerce, the manufacturing industry, and other members of industrial and financial conglomerates to ensure that the education provided at this level is pertinent to the economic needs of the region. The SEE has started an accreditation program that resembles the one for higher education to ensure that small private secondary schools provide the minimum educational requirements to allow students to be accepted in the state's institutions of higher education. In addition, the SEE has implemented in state schools the same graduation exam that the UANL uses for its secondary students. In this manner, students in the state system have an equal chance to be accepted at the public university than those who were enrolled in institution affiliated to it<sup>6</sup>.

Participation in higher education in the state of Nuevo León is low even with an absorption rate of 104%. The state has a 97% completion rate for students in elementary school, but completion drops to 83% for *secundaria* (7<sup>th</sup> to 9<sup>th</sup> grade), and plummets to 57% for *bachillerato* (10<sup>th</sup> to 12<sup>th</sup> grade) (INEGI, 2002). This means that only 48% of elementary students will enroll in a higher education institution. The proportion of students that are successful at reaching higher education is highly dependent on the type of school they attend. There is a greater proportion in higher education of students that were enrolled in private institutions than those that attended state, federal, or university-affiliated schools (See Table 3).

	Completion			
	Elementary	7th to 9th	10th to 12th	Combined
<b>State</b>	98%	88%	58%	50%
<b>Federal</b>	97%	77%	48%	36%
<b>Autonomous *</b>	n/a	n/a	38%	32%
<b>Private</b>	99%	92%	84%	77%
<b>Average</b>	97%	83%	57%	48%

\* Average data for elementary and 7th to 9th were used to calculate combined completion

**Table 3: Completion of primary and secondary education in Nuevo León by type of school attended (INEGI, 2002).**

### Degree Completion

Completion rates for the state of Nuevo León are high compared to the rest of the country. University and state officials agreed during the interviews that students perceive their education as a mean to better job opportunities, and that the local job market is highly competitive.

<sup>6</sup> During the 1980's and before, students from UANL-affiliated institutions were automatically accepted to the university upon graduation from secondary education. In an effort to improve the quality of students at UANL, university officials implemented the requirement of an entrance exam to all candidates in 1991.

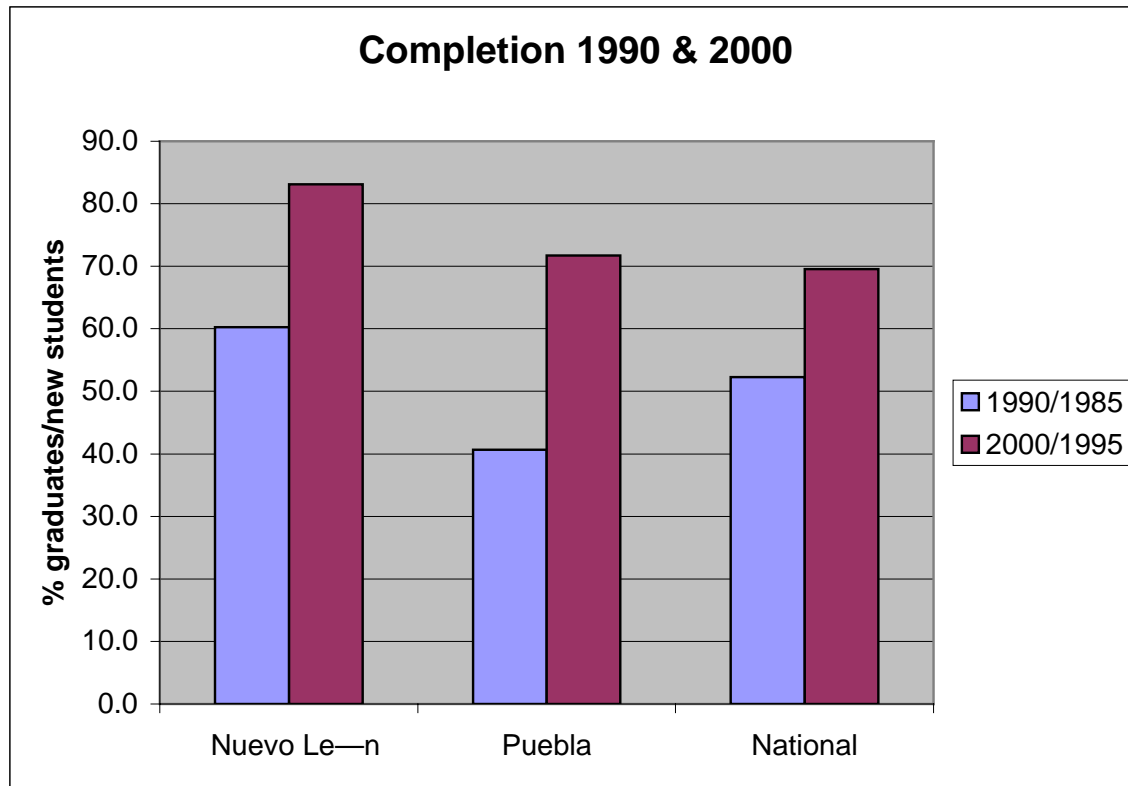


Figure 5: Completion rates for Nuevo León and Puebla (ANUIES, 1991; ANUIES, 2001)

### Cost per Capita

Public institutions in Nuevo León see the higher education system in terms of a competitive environment, therefore the concept of an efficient institution has been present in their planning. In 1994, the cost per capita of higher education for the state of Nuevo León was \$257 pesos (INEGI, 1990; SEP, 2002). By the year 2000, the cost had decreased to \$212 (INEGI, 2000; SEP, 2002). In addition, state appropriations for the UANL were just 2.07% higher in 2000 when compared to 1994 (SEP, 2002), showing that public institutions of higher education – especially the UANL – are working on increasing their efficiency as well as diversifying their sources of income instead of asking for greater funds from the state.

### Choice

The state's higher education system does not allow much choice to low income students in Nuevo León. The UANL absorbs a large portion of students that graduate from its own secondary education system together with some students from the federal and state secondary systems. However, there is simply not enough room at the university for all of them, and those without the economic means (or the exam scores) necessary to attend the private consolidated universities must choose between the few other public institutions and the private non-consolidated universities. The IT's can take in a very small percentage of students due to their size, and the UT's *Técnico Universitario* (two-year degree based on the American Community College system) is not perceived as an acceptable alternative to a four-year degree. According to university and state officials, the state's population looks for the increased status – and increased pay – of a

*licenciado* (a person holding a four-year degree). Anything different from that is not considered as an “advanced” education, and thus it is not acceptable. Furthermore, local companies do not make a distinction salary-wise between people with a two-year degree and those with a secondary technician diploma<sup>7</sup>. Therefore, students have no economic or social incentives to enroll in the UT’s. For these reasons, students’ only viable option is to enroll in those few private non-consolidated universities that are within their economic reach. Thus, it is no surprise that the Universidad Metropolitana de Monterrey, one of those institutions, is the third largest institution in the state with nearly 8,000 students enrolled in 2001 (INEGI, 2002). The capacity of the UANL and the IT’s for new students is quickly saturated with the demand from high school graduates. Those with not enough means to enroll in private consolidated universities are left looking for other alternatives among the non-consolidated private institutions with other public institutions – namely the UT’s – not having enough social or economic incentives to be part of the viable choices.

### **Economic Benefits**

The most palpable economic benefits derived from the configuration of the system of higher education in Nuevo León are the availability of human resources trained in areas of pertinence to the local economy, and the perpetuation and dissemination of the worldview of local business conglomerates and industries into the regional culture. The presence of local business leaders in virtually all institutions of higher education’s advisory boards has enabled them to have a direct input on the contents of educational programs offered in the state, and gives students the assurance that the programs are aligned to the needs of the job market. In addition, both the private consolidated universities and the UANL have implemented an “entrepreneur” program to give students the opportunity to run their own businesses. The original entrepreneur program was started by ITESM, whose officials claim that a large percentage of their graduates start their own business soon after leaving school generating jobs and strengthening the local economy. An in-depth discussion of these and other economic factors linked to higher education in the state can be found in Vite’s documents “The importance of local conditions in determining university-industry collaboration: The cases of Monterrey and Puebla” (Vite-León, 2005a), and “University-industry collaboration in Mexico: lessons for public policy” (Vite-León, 2005b).

### **Non-economic Benefits**

Non-economic benefits will be divided into three categories: educational contributions to the region, generation of capacity to access global knowledge and generation of knowledge, and the effects of a healthy civil society and socially cohesive culture (Medellin, 2004).

#### *Educational contributions to the region*

Current literature suggests that the effects of higher education regarding educational attainment are not limited to the training of new and better teachers, but that they extend to other areas as well. The current level of education of the population directly impacts

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<sup>7</sup> The secondary technician program is an option for students to be trained as computer technicians, electricians, and other technical fields as part of their secondary education.

the level of education of the next generation (Medellin, 2004). To account for these results, a measure of the general population level of education has been included, specifically the average number of years of education of the population, the illiterate population older than 15 years, and the adult population with graduate studies. The data shows a marginal improvement on all indicators with the exception of graduate studies (see Table 4).

<b>Educational Contributions to the Region</b>		
	<b>1990</b>	<b>2000</b>
<b>Secondary Education</b>		
<b>Retention rate</b>	56.10%	57.30%
<b>Students per teacher</b>	14.32	14.13
<b>General level of education</b>		
<b>Average number of years in education</b>	8	8.9
<b>Illiterate population older than 15</b>	4.77%	3.42%
<b>Population with graduate studies</b>	1.45%	1.16%

Table 4: Educational contributions of the higher education system to the state of Nuevo León (INEGI, 2002)

#### *Generation of capacity to access global knowledge and generation of knowledge*

The generation of knowledge allows the creation of national innovation systems which, along with the ability to access global knowledge, allow the population to adapt to new tendencies, adapt knowledge for local use and, through innovation, improve the regional settings (World Bank, 2002). Regarding the creation of an innovation system, the regional private sector does not consider the higher education system in the state as an important source of technological knowledge, while existing collaboration attempts are scattered and based on personal contacts between faculty members and specific companies (Vite-León, 2005a). The capacity to access global knowledge has increased in part due to the construction of new libraries by the state at the request of UANL and the expansion of libraries in private consolidated institutions, as well as the increased access to the Internet through institutions of higher education and the independent growth of this information medium (see Table 5).

<b>Capacity to Access Global Knowledge</b>			
	<b>1995</b>	<b>2000</b>	<b>Increase</b>
<b>Libraries</b>	439	443	0.91%
<b>Total available volumes</b>	1,978,399	2,595,720	31.20%
<b>Users of the Internet (national)</b>	94,000	2,712,000	2,785.11%

Table 5: Indicators of access to global knowledge for the state of Nuevo León<sup>8</sup> (INEGI, 2002)

#### *Effects of a healthy society and a socially cohesive culture*

There is a large number of documented health benefits from higher education to those who have a degree, their family and those who are geographically close to them (Medellin, 2004). The main indicators linked to education include a decrease in child mortality rates, an increase in average age of marriage, and an increase in the waiting

<sup>8</sup> Users of the Internet is a national measure due to lack of local data.

time for having children (due to the time requirements of an advanced education). In all three indicators, the state of Nuevo León performs better than the national average and the other three Mexican states studied (see Tables 6, 7 & 8).

<b>Mortality rate for children 0-14 years of age</b>						
	<b>1995</b>			<b>2000</b>		
	<b>Population</b>	<b>Deaths</b>	<b>Mortality</b>	<b>Population</b>	<b>Deaths</b>	<b>Mortality</b>
<b>National</b>	31,146,504	66,742	0.21%	32,586,973	52,750	0.16%
<b>Guanajuato</b>	1,642,778	4,499	0.27%	1,706,947	2,729	0.16%
<b>Jalisco</b>	2,048,779	4,104	0.20%	2,132,355	3,184	0.15%
<b>Nuevo León</b>	1,051,536	1,511	0.14%	1,137,528	1,363	0.12%
<b>Puebla</b>	1,703,877	6,428	0.38%	1,803,010	4,382	0.24%

**Table 6: Mortality rate for children 0 to 14 years of age (INEGI, 2000)**

<b>Average age at first marriage</b>				
	<b>1995</b>		<b>2003</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
<b>National</b>	23.2	20	27.2	24.4
<b>Guanajuato</b>	22.7	20	25.1	22.9
<b>Jalisco</b>	23.6	20.4	26.7	24
<b>Nuevo León</b>	23.8	20.8	26.2	24
<b>Puebla</b>	23.2	19.9	27.7	25

**Table 7: Average age of the population at first marriage (INEGI, 2000)**

<b>Distribution of births by education of the mother</b>						
	<b>No Education</b>	<b>Some elementary</b>	<b>Elementary completed</b>	<b>7th to 9th completed</b>	<b>Secondary completed</b>	<b>Higher education</b>
<b>1995</b>						
<b>National</b>	11.01%	15.79%	26.82%	24.39%	9.23%	6.34%
<b>Guanajuato</b>	33.51%	22.61%	30.04%	18.73%	5.82%	3.46%
<b>Jalisco</b>	3.42%	15.79%	33.16%	27.13%	9.70%	6.49%
<b>Nuevo León</b>	1.11%	5.34%	23.94%	42.62%	10.41%	12.25%
<b>Puebla</b>	13.77%	21.82%	29.54%	19.72%	7.53%	5.87%
<b>2003</b>						
<b>National</b>	7.40%	11.40%	27.50%	31.30%	13.80%	8.60%
<b>Guanajuato</b>	5.40%	16.50%	36.80%	26.20%	10.20%	5.00%
<b>Jalisco</b>	2.60%	9.90%	32.40%	32.80%	13.60%	8.70%
<b>Nuevo León</b>	0.60%	3.10%	17.80%	46.60%	17.50%	14.40%
<b>Puebla</b>	11.90%	16.10%	32.80%	23.20%	9.30%	6.60%

**Table 8: Distribution of births by education of the mother (INEGI, 2000)**

## **State Policy Effectiveness**

Although there are many actors within the higher education arena in Monterrey, two institutions dominate it both in number of students and in influence: the UANL and the ITESM. The state, instead of attempting to steer these giants, has tried to fulfill its public function by focusing on ensuring that small private institutions offer the quality and pertinence of programs that the state residents demand. In a way, the UANL and the ITESM have become complementary institutions. The latter works specifically to fulfill the needs of private industry, while the former has a strong commitment to benefiting the social environment where it is immersed. Institutions within the state emulate one giant or the other, unconsciously choosing the private-industry or social-benefit focus of their programs. In this manner, the state system has instituted a sort of division of labor for higher education. One that has not been due to governmental policy or intervention, and that it responds quickly and efficiently to changes in the market's needs as evidenced from the recent closure of two of UANL's programs because of low market demand.<sup>9</sup> The state's policy effectiveness depends directly on the support these two institutions provide. Those policies that have received their blessing are approved and followed by other actors in the state, while other policies are simply never implemented. The measure of effectiveness used in this documents answers the question of whether the state reached the objectives and goals that had set through the last decade.

## **State Objectives**

In documents from the early 1990's, the state gives greatest priority to aligning research with state needs, followed by ensuring quality and accountability in institutions of higher education, and by making changes to the existing system (see Figure 1). By the end of the decade, the priorities of the state had changed to reflect the priorities of the two largest institutions in the state. The top priorities are now ensuring quality in education, greater ties between industry and education, greater institutional accountability, and greater social benefits from education (see Figure 2). It appears that, instead of steering the institutions of higher education towards the state's goals, the large institutions have influenced the SEE and other government sectors to focus the state's priorities in those areas that they see as most important.

## **Policy Effectiveness**

The policy decisions made through out the decade do not support the priorities stated in earlier documents, but they are closely aligned to the newer ones. Most policies implemented in the last ten to twelve years have to do with ensuring quality and accountability for private institutions of higher education, a goal that was introduced to the arena by the private consolidated institutions of the region. The SEE took on this responsibility and in later documents turned it into a state priority. In a similar manner, the UANL undertook the project of opening a new library and information center to improve the availability of knowledge to the inhabitants of the city of Monterrey, goal that

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<sup>9</sup> The college of Philosphy and Linguistics closed the History and Philosophy programs and fused them into a Humanities program to respond to market needs. The director commented that there is no point in having graduates with a strong social sensibility if they cannot influence society because they can't find a job Carrizales, D. (2005). Desaparecen carreras de Historia y Filosofía en la UANL; el mercado, la causa. La Jornada. Monterrey, NL.

the SEE took as its own and worked together with the UANL to achieve. Later documents show as a priority projects similar to this one. The state's attempt to change the higher education system (a priority that was not in accordance to the institutions' priorities) resulted in the creation of two UT's – currently enrolling less than 1,000 students between the two institutions (less than 1% of the student population in the state) – a very small change in the system compared to other Mexican states. Even though those interviewed agreed that the number of available places for new higher education students is not sufficient, SEE officials during the interviews commented that increasing the number of public institutions in the system is no longer part of their plans for the future, and that they want to focus on strengthening the existing institutions before creating new ones. The priorities set by the state at the beginning of the decade that were not in agreement with the priorities from private consolidated universities and the UANL generated minor changes at best, while those that agreed with them – and especially those introduced by either sector – resulted in the implementation of long-lasting programs to address them.

Policy efficiency in the state of Nuevo León is highly dependent upon the support of the UANL and the consolidated private universities. In fact, most of the effective policies implemented in the last decade have been introduced to the arena by either the private institutions or the public university. The state responds to the leadership of these two sectors and implements through a collaborative body the policies needed to respond to a highly competitive educational environment that closely follows the needs of the region's industrial and financial markets.

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