

doc
CA1
EA953
90M24
ENG

DOCS
CA1 EA953 90M24 ENG
Market study on educational system
in Mexico. --
43259652

Market Study on Educational Systems in Mexico.

PREFACE

1. BACKGROUND 2

2. ECONOMIC ENVIRONMENT 3

3. MARKET ASSESSMENT 4

This market guide booklet has been prepared with the problems inherent to the initiating exporter in mind. However it is not exhaustive; individual circumstances, interests and needs will dictate how companies should tailor their approach and strategy to the Mexican market. While every attempt has been made to ensure accuracy in this study, no responsibility can be accepted for errors or omissions.

4. THE MEXICAN MARKET 5

Further assistance can be obtained by addressing requests directly to the Commercial Division of the Canadian Embassy in Mexico City located at Calle Schiller No. 529, Col. Polanco, 11560 México, D.F., Telephone 254-32-88, telex 177 1191 and fax (sending from Canada) 011 (525) 545-17-69; or the Latin American Division Department of External Affairs, Industry Science and Technology Canada, 125 Sussex Drive, Ottawa, Ontario, K1A 0G2. Phone 9950460 fax (613) 996-0677.

APPENDIX 16

Registration Procedures for Selling to the Mexican Government or its Decentralized Government Agencies

Trade Associations and Services - TRAINING PROGRAMS

List of Potential Agents/Representatives

Dept. of External Affairs
Min. des Affaires extérieures

JUL 4 1991

RETURN TO DEPARTMENTAL LIBRARY
RETOURNER A LA BIBLIOTHEQUE DU MINISTERE

MARKET STUDY ON EDUCATIONAL SYSTEMS IN MEXICO

1. BACKGROUND

INDEX

1.	BACKGROUND	2
2.	ECONOMIC ENVIRONMENT	3
3.	MARKET ASSESSMENT	4
3.1	TRAINING AND EDUCATIONAL SYSTEMS AND EQUIPMENT	4
3.2	BOOKS, MAPS AND CHARTS	6
4.	THE MEXICAN SCHOOL SYSTEM	8
5.	THE MEXICAN TRAINING SYSTEM	11
6.	MARKET ACCESS	15
	APPENDIX	16
I.	Registration Procedures for Selling to the Mexican Government or its Decentralized Government Agencies	
II.	Trade Associations AND SCHOOLS - TRAINING PROGRAMS	
III.	List of Potential Agents/Representatives	

1. BACKGROUND

Mexico has traditionally stressed the importance of education and training for the well-being of its population and the country's development. The Mexican Constitution states that all Mexican citizens are entitled to an education and also that all firms have to give their workers on-the-job training. This legal framework creates the basis for a continuous demand for educational and training services and the equipment and systems needed to grant them.

In 1921, the Secretariat for Public Education (Secretaría de Educación Pública - SEP) was created to enforce the Constitution and the Law on Education, which guarantee free and laical education to all Mexican citizens through the public school system. Both kindergarden and primary school levels are obligatory for children between the age of 3 and 14. Middle education consists of two levels: secondary school (secundaria) and high school (preparatoria or bachillerato), each of which usually takes three years, and which lead to undergraduate and graduate studies. There are also technical middle schools, which grant a technical degree without further studies. At the superior levels there are three alternatives: university, technical or teaching (normal) studies. At any level, from kindergarden to university, education is granted by public, state and private schools.

Mexico's progress in relation to education is undeniable. The percentage of total population without any education dropped from 44% in 1960 to 13% in 1980. At the mandatory primary school level, total students within the 6-14 age group in school increased from 63% in 1960 to 97% in 1990. Total student enrollment in kindergarden increased from 230,200 in 1960 to 2.3 million in 1989; primary school students grew from 5.4 million to 14.7 million and at the secondary level from 227,000 to 4.4 million during the 1960-1990 period. High school students doubled in ten years, as did college students.

At the same time, Mexico's Federal Labor Law entitles all workers to receive on-the-job training in order to improve their living standards and productivity based on general criteria spelled out by such Law. Mexico's total economically active population (population over 12 years of age seeking or having work) totals 32 million, of which 65% are men. Currently, Mexico has to create approximately one million jobs annually to absorb the new incoming labor population.

Mexico's population growth rate is closely related to the need for future educational and training services. Although the country's population growth rate has slightly slowed down, from 3.2% during the 1970s to 2% during the past decade, it still is one of the highest in the world. For 1990, total population is estimated at 86 million, of which 55% is under 20 years of age. By the year 2000, population is expected to reach 104 million, of which 41% will be under 20 and 61% under thirty years of age.

2. ECONOMIC ENVIRONMENT

With the objective of reducing the inflation rate, the Mexican authorities implemented a stabilization program, called the Economic Solidarity Pact, which features traditional austerity measures, entailing tight fiscal and monetary policies and unorthodox measures, such as price, wage and exchange rate controls. This program has been the cornerstone of Mexico's economic policy over the past three years and has resulted in a drastic reduction of the inflation rate, from an annual rate of 159% in 1987 to 52% in 1988 and 19.7% in 1989. An 18% inflation rate is expected in 1990. Along with the objective of consolidating the progress made in price stabilization, Mexico's macroeconomic policy in 1990 aims to reaffirm gradual and sustained economic recuperation, basically by establishing the necessary conditions to encourage national and foreign investment. In 1991, the Mexican authorities expect to reach an inflation rate equivalent to international levels and to relax price controls.

Mexico's gross domestic product (GDP), after increasing 3.7% and 2.7% during 1984 and 1985 respectively, diminished by 3.5% in 1986. In 1987, it increased a moderate 1.5% and an additional 1.1% in 1988. Domestic economic activity recovered for the third consecutive year in 1989 with a growth rate of 2.9% to reach \$200 billion (1). With an 84.5 million population, per capita GDP is estimated at Cdn\$2,550. During the 1990-1994 period GDP is expected to maintain an average annual growth rate of 2%-3%. In disaggregated terms, this represents an annual growth rate of 5.3% in the manufacturing sector, 2.3% in the services sector and only 0.6% in the agricultural sector. After several years of stagnation, public investment will grow 5% and private investment will also rise 5%.

In an effort to revitalize and open the Mexican economy, the Mexican Government undertook a series of structural changes, including the accession to the General Agreement on Tariffs and Trade (GATT) on August 24, 1986 leading to an extensive trade liberalization process: import permits were eliminated on all but 325 of the total 11,950 tariff items based on the recently adopted Harmonized System. Official import prices are no longer applicable, nor the 5% export development tax, and import duties were lowered from a maximum of 100% in 1982 to 20% in January 1988. The automotive and computer industries are also being opened up, through the elimination of prior import permits, to allow free entry of products in these industries.

According to official data from the Mexican Secretariat of Commerce and Industrial Development (SECOFI), Mexico's trade balance in 1989 dropped to a \$644.8 million deficit, down from a surplus of \$1.75 billion in 1988 and \$8.4 billion in 1987. Total exports increased 10.7% in 1989, from \$20.6 billion in 1988 to \$22.8 billion. Imports increased 23.9% from \$18.9 billion to \$23.4 billion, having already increased 48% from \$12.2 billion in 1988. During 1989, imports of consumer products grew 82%, while those of intermediate goods increased by 17% and capital goods by 18%.

Total Mexican imports from Canada increased 24% in 1989 and amounted to Cdn\$603 million, while total Mexican exports to Canada were valued at Cdn\$1,698 million. Mexico and Canada have traditionally been strong trading partners. According to Mexican figures, in 1989, 1.9% of Mexico's imports came from Canada, while 1.2% of its

1. Note: All values in this report, unless otherwise stated (Mexican pesos, Mex\$, Canadian dollars, Cdn\$, etc) are quoted in United States dollar equivalents.

exports were to Canada. This makes Canada Mexico's fifth largest exporter and sixth largest importer.

Such figures support the possibility expressed by Mexican and United States authorities of creating a North American free market. The negotiations of a free market agreement between the United States and Mexico are underway. With its coming into effect, and with the existing Canada-United States agreement, the feasibility of an open market across North America is probable.

3. MARKET ASSESSMENT

For the purposes of this market study, the product areas considered to fall under the heading of training systems and equipment are audiovisual equipment, including all image projectors, video equipment, closed circuit television and microphones; specialized classroom furniture and blackboards; computers and software; scale models; flight simulators; and educational and therapeutic material. Separately, we will analyze the area of technical and educational books, maps and charts.

3.1 TRAINING AND EDUCATIONAL SYSTEMS AND EQUIPMENT

Total apparent consumption of training systems and equipment has steadily increased in the last three years, from \$32.6 million in 1987 to \$47.8 million in 1989. Companies are investing increased amounts in training in an effort to reduce employees but increase productivity. As a result, total demand for training and educational systems and equipment is expected to grow at an average annual rate of 6% in the next few years and reach an estimated \$64 million by 1994. Imports have played an increasingly important role in this market, as their participation grew from 53% to 63% during the same 1987-1989 period. By 1994, imports are expected to total \$41.6 million.

TABLE 1
APPARENT CONSUMPTION OF TRAINING AND EDUCATIONAL
SYSTEMS AND EQUIPMENT
(\$000 of dollars)

	1987	1988	1989	1994p
Production	24,731	33,606	32,254	39,312
+ Imports	17,321	22,495	30,139	41,571
- Exports	9,405	16,595	14,601	16,927
TOTAL	32,647	39,506	47,792	63,956

The total market can be subdivided into the following large categories in 1989: Computers (47%), audiovisual equipment (27%), software (17%), specialized classroom furniture (6%) and other (3%). This market is, however, very difficult to assess accurately because it is hard to determine what items are to be included and, additionally, what proportion of total imports and local production within each category is actually used for

training. The total market assessment has therefore to be taken as an approximation only.

The domestic production of items here analyzed is heavily concentrated into computers, which represent 77% of total production, as well as 98% of total exports within apparent consumption. This is due to the presence in Mexico of assembly plants of the world's largest computer manufacturers, such as IBM, Hewlett Packard, Unisys, CDC, Honeywell, DEC, NCR, etc.

Local manufacture of furniture for classrooms also plays a major role, since it accounts for 90% of that market segment. In all other areas, domestic production is limited to basic items. All of the more sophisticated equipment, such as movie, slide, microfiche and overhead projectors, video equipment, flight simulators, specialized software for education and other therapeutic and educational materials are of imported origin, mostly because the volume of demand is too low to allow for economies of scale in production and locally made products are therefore not competitive locally or internationally.

Total imports by category and the proportion estimated to be used for training and educational purposes are listed in Table 2.

TABLE 2
TOTAL IMPORTS OF TRAINING AND EDUCATIONAL
RELATED SYSTEMS AND EQUIPMENT
(\$000 dollars)

	1987	1988	1989	% used for education
Computers	143,600	182,900	238,200	5%
Software	68,880	89,100	111,380	5%
Film projectors	994	522	451	100%
Other projectors	1,964	2,073	2,605	100%
Closed circuit TV	967	1,006	1,035	100%
Microphones	1,036	1,665	2,387	10%
Video equipment	22,743	74,369	118,520	5%
Scale models	2,514	1,729	1,916	50%
Flight simulators	1	3	0	100%
Furniture	208	512	1,007	100%
Therapeutic and educational material	225	162	491	100%
TOTAL	243,131	354,038	477,992	

Source: Import data published by SECOFI

The United States is the largest single supplier of training and educational systems and equipment to Mexico with a 70% global import market share. It is particularly strong in the area of computers and software, where it dominates imports with 80% of the market, due to the presence in Mexico of all major U.S. manufacturers. In the area of projectors, U.S. products are in highest demand (85%) with minor imports from Japan, Panama and Brazil, the latter benefiting from preferential tariffs as a member of ALADI. Microphones and video equipment are imported mainly from Korea and Japan, scale

models from West Germany and England, while in all other areas U.S. technology dominates.

TABLE 3
CANADIAN TRADE WITH MEXICO OF TRAINING AND
EDUCATIONAL SYSTEMS AND EQUIPMENT
(Cdn\$ 000 dollars)

	1988 IMPORTS FROM MEX	1988 EXPORTS TO MEX	1989 IMPORTS FROM MEX	1989 EXPORTS TO MEX
Computers	84,686	8,864	140,721	2,165
Microphones	155		590	
Video equipment		100		
Software	75	3	224	
Flight simulators		22		
Scale models	21	5	13	9
Furniture	480	35	736	18
TOTAL	85,417	9,029	142,284	2,192

Source: Statistics Canada - International Trade Division

Canada is a major importer of computers and peripherals from Mexico, of which it purchased Cdn\$84.7 million in 1988 and Cdn\$140.7 million. At the same time, the largest category of Canadian exports to Mexico are computers, amounting to Cdn\$8.9 million in 1988 and Cdn\$2.2 million in 1989. Other Canadian exports to Mexico are video equipment, flight simulators, scale models, software and furniture, although in very small amounts. No audiovisual equipment is imported from Canada.

3.2 BOOKS, MAPS AND CHARTS

The book publishing industry in Mexico includes two major areas. The larger one relates to textbooks, representing approximately 60% of the market, while the other covers all books for general readership.

The Mexican school system, ranging from kindergarten to college, has over 25 million students, the majority of whom (58%) are in primary school. According to Mexican law, the use of the free textbook is compulsory in all primary schools in Mexico. In 1989, a total of 86 million books were printed for free distribution among primary school students and teachers, in addition to five million books for adult educational programs. Over half of these books are printed by the government printing agency Talleres Gráficos de la Nación, while the remainder are produced by private firms on a contract basis. Since this area of the market is totally covered by Mexican Government agencies, it will not be considered for the purposes of this market summary. However, educational, technical and scientific books and university textbooks in general will be included in the analysis.

TABLE 4
APPARENT CONSUMPTION OF TECHNICAL
AND EDUCATIONAL BOOKS AND MAPS
(000 \$ dollars)

	1987	1988	1989	1994p
Production	146,600	154,534	163,441	198,851
+ Imports	20,094	24,814	40,233	56,429
- Exports	12,123	12,105	13,453	17,170
TOTAL	154,571	167,243	190,221	238,110

The total market for educational and training books, maps and charts in Mexico was estimated at \$190.2 million in 1989. This represented a 14% increase as compared to the \$167.2 million of 1988. Imports have traditionally covered between 10% and 13% of total apparent consumption. As a result of Mexico's trade liberalization policies and a favorable exchange rate, imports of books now represent a significantly higher proportion of the market, or 21%. However, the general structure of the market will not change significantly in the future, since domestic production is very important.

The Mexican book publishing industry ranks second after Spain in Spanish language publications. There are approximately 200 publishing firms in Mexico, employing close to 10,000 persons. In 1989 over 10,000 titles were published, of which 70% were reprints and 30% new titles. A total of approximately 100 million books were printed on the following subjects: general 39%, philosophy 2%, religion 3%, social sciences 13%, languages 10%, sciences 11%, technology 6%, arts 1%, literature 11%, geography and history 3% and children's books 1%. Of the total of books, 76% were originally written in the Spanish language and the remainder translated from other languages, mostly from English (20%). Additionally, over 40 million textbooks were published (excluding official textbooks) for the following grades: preschool 10%, primary 15%, secondary 41%, high-school 17% and college 17%. Mexico exports books to the U.S. and various Latin-American countries, mostly on general subjects, technology and social sciences.

In 1989, Mexico imported close to ten million books and over 15,000 titles, most of which were in the areas of general subjects, literature, technology, religion and philosophy. Total imports were valued at \$79.8 million in 1989, up from \$49.2 million in 1988. This growth was mostly due to the relative decrease in the cost of imported books, due to a favorable exchange rate, in conjunction with the increase in general purchasing power of the population since 1987. Educational books and those used for training are estimated to represent approximately half of those imports. Additionally, imports of maps and charts for education amounted to \$226.4 thousand in 1988 and \$310 thousand in 1989. It is expected that the book market will grow at an average annual rate of five percent in the next five years. Imports from the U.S. represent 50% of total imports of books, followed by Spain (33%), Argentina (3%), France (2%) and West Germany (1%). Canadian exports to Mexico increased from Cdn\$34,000 in 1988 to Cdn\$138,000 in 1989, while imports from Mexico were Cdn\$90,000 in 1989.

4. THE MEXICAN SCHOOL SYSTEM

The Mexican school system, including both the formal and technical areas, is overseen by the Secretariat for Public Education. Within each level, schools and universities can be under federal control, that is, directly financed and supervised by the federal government; under state or autonomous control, that is, financed by the state or central government but autonomous as to internal decision-making; and under private control. As was described in the background section, the formal sector covers from kindergarden (pre-school) to the university level. During the 1989-1990 school cycle, a grand total of 25.9 million students were enrolled, both in the formal and technical areas. The following table shows number of students and schools by level within the formal education sector:

TABLE 5
FORMAL EDUCATIONAL SERVICES
1989-1990 SCHOOL CYCLE

	# OF SCHOOLS	# OF STUDENTS (000)	FEDERAL	% CONTROL	
				STATE & AUTONOMOUS	PRIVATE
Pre-school	46,077	2,851	73.7%	18.9%	7.4%
Primary	82,137	14,675	71.8%	22.4%	5.8%
Secondary	16,475	3,339	61.3%	28.8%	9.9%
High school	3,430	1,341	13.6%	58.0%	28.4%
Educational	476	125	23.3%	45.6%	31.1%
Undegraduate	344	1,138	15.6%	68.7%	15.7%
Graduate	140	49	11.2%	70.0%	18.8%
TOTAL	149,079	23,518			

Source: Primer Informe de Gobierno - C. Salinas de Gortari 1989

The technical school system is divided into three levels: secondary school, medium professional level and high school. Each level is subdivided into four branches: industrial, agricultural, forestry and fishing schools. Approximately half of the students are concentrated in the industrial area. Additionally, for persons having completed primary school, for-the-job training programs are available. The following table shows students and schools in the technical sector.

TABLE 6
TECHNICAL EDUCATIONAL SERVICES
1989-1990 SCHOOL CYCLE

	# OF SCHOOLS	# OF STUDENTS (000)	FEDERAL	% CONTROL STATE & AUTONOMOUS	PRIVATE
Job training	3,083	449	25.4%	10.2%	64.4%
Secondary	2,623	1,061	100%		
Middle school	1,810	456	52.4%	13.9	33.6%
High school	800	397	100%		

Source: Primer Informe de Gobierno - C. Salinas de Gortari 1989

At the university level, students and facilities can be divided as follows:

TABLE 7
UNIVERSITIES

UNIVERSITY	# OF STUDENTS (000)
FEDERAL CONTROL	
National Polytechnic Institute	60.0
Regional Technological Institutes	86.0
Agricultural Technical Institutes	5.0
Fishing Technical Institutes	1.3
Other	24.6
TOTAL	176.9
STATE AND AUTONOMOUS CONTROL	
National Autonomous University (UNAM)	135.0
Metropolitan Autonomous University (UAM)	50.0
Other	596.7
TOTAL	781.7
PRIVATE CONTROL	179.0

Source: Primer Informe de Gobierno - C. Salinas de Gortari 1989

As can be seen, the largest single university in Mexico is the UNAM, followed by the UAM and the Polytechnic Institute. These also provide graduate studies. The concentration of students by study area at the university level is as follows:

Social and administrative sciences	42.8%
Engineering and technology	27.4%
Medical sciences	14.4%
Agricultural sciences	9.4%
Natural and exact sciences	3.0%
Education and humanism	3.0%

In 1988, the government assigned a budget of \$4.3 billion to federally support education, culture, recreation and sports. This amount has traditionally been one of the highest within the total federal budget. Of this amount, 47% was channeled towards basic education (pre-school to secondary), 14% towards middle grades, 20% to graduate levels, 5% to adult and indigenous education, 4% to research, 3% to sports and recreation and 6% to administration and supporting services. Of the total budget, 17% or \$750 million were used in the technical education system and 12% were granted to universities: \$237 million to UNAM, \$43 million to UAM and the remainder to state universities.

Total investment by the Administrative Committee of the Federal School Construction Program (CAPFCE), which is in charge of the construction of classrooms at all levels under federal and state control, was \$170 million in 1988, divided by educational level and type of area built as follows:

LEVEL	%	#CLASSROOMS	LABORATORIES	WORKSHOPS	ANNEXES
Pre-school	37%	6,301			4,679
Primary	1%	45			18
Training	2%	1	1	47	142
Secondary	24%	1,105	92	445	3,458
High school	17%	552	139	222	2,229
Graduate	11%	283	81	47	1,627
Other	8%	388		79	923
TOTAL		8,675	313	840	13,076

Source: Primer Informe de Gobierno - C. Salinas de Gortari 1989

Construction of areas for education has increased significantly in the past years. During 1979, 9,723 rooms were built, as compared to the 22,904 built in 1988 and 31,972 in 1987. During the present administration, investments will continue to be made in school construction and it is also expected that the private sector will increase efforts in this area. Basically all classroom furniture used to furnish these rooms is made in Mexico and few opportunities are open to foreign manufacturers, except in the area of specialized furniture, such as laboratory installations, special purpose furniture, language centers, etc.

5. THE MEXICAN TRAINING SYSTEM

There are two basic legal frameworks covering worker's training: The Mexican Constitution, which indicates that all firms, whatever their activity, are bound to provide their workers with training for their jobs; and the Federal Labor Law (issued in 1978), which spells out the specific way this should be done in order to increase the worker's productivity and standards of living. It indicates that an equal number of worker and employer representatives (from one to five based on firm size) are to constitute a "Mixed Training Commission", which has to be registered with the Secretariat of Labor. Their responsibility is to oversee the installation and operation of training systems and procedures and to develop training "Plans and Programs", which also have to be approved by the Secretariat. These have to be prepared every time the collective labor contract is renewed or at least every four years and have to cover all employees in the firm. They have to specify the number of employees by position, the programs and courses proposed with their objectives and contents by level and the registered instructor or training institution giving each course. Once approved, these plans have to be applied immediately. The actual training can be given either within the company or out of it, by the firm's own personnel, special instructors, institutions, schools or other organizations, as long as they are registered with the Secretariat of Labor. Once the training program has been completed, an official certificate is given to the employee.

According to official data provided by the Secretariat of Labor, the total universe of private companies legally bound to train their workers is divided as follows:

# OF WORKERS PER FIRM	# OF COMPANIES	# OF EMPLOYEES
1- 10	417,440	1,230,460
11- 50	70,241	1,508,186
51- 100	10,692	748,662
101- 300	7,514	1,253,406
301 or more	3,355	2,817,640
TOTAL	509,242	7,558,354

Source: Secretaría del Trabajo

As can be observed in this table, 82% of the total 509,242 companies have from one to 10 employees, that is, they are small companies. Nevertheless, these only employ 16% of all workers. On the other hand, 54% of the total 7.6 million workers entitled to training work in large companies, which only represent 2.1% of the total number of firms. These 420,000 small companies represent important opportunities both for training institutions and instructors, as well as for suppliers of educational and training systems and equipment, since they will have to start training their workers in order to comply with existing regulations.

The total number of firms and employees can be subdivided into the following economic areas:

AREA	# OF COMPANIES	# OF EMPLOYEES
Agriculture	27,349	191,813
Extraction	1,681	89,105
Manufacturing	104,641	3,181,443
Construction	19,544	221,281
Electricity & Water	707	90,630
Trade	172,706	1,553,604
Communications & Transportation	23,535	461,498
Services	136,500	1,440,213
Social Services	22,579	328,767
TOTAL	509,242	7,558,354

Source: Secretaría del Trabajo

The Labor Law has played an influential role in the training of Mexican workers. As of August 1990, a total of 416,583 firms were registered at the Ministry of Labor as actively training their 7.4 million employees. A total of 162,618 "Mixed Commissions" and 155,457 "Plans and Programs" were approved, covering 7.9 million workers. During 1989 alone, 19,000 commissions were created, 37,000 training programs were approved representing 1.8 million workers. Currently, the majority of the firms which have created their training commission and actually implemented training programs are the large and medium sized companies. Many small companies, even though bound by law to train their workers, still have not done so.

Workers being trained can be divided into the following areas: Agriculture, mining and oil extraction 1%, manufacturing 47%, construction 4%, electricity 4%, trade 15%, communications and transportation 4%, services 11% and other 4%. Many of these areas are dominated by government agencies, such as Pemex (oil), Comisión Federal de Electricidad (electricity), Teléfonos de México and the Secretariat for Communications and Transportation.

The government, through its direct administrative area, government entities and decentralized agencies, is the largest user of training facilities and systems, followed by the private manufacturing industry, which tends to have more sophisticated equipment. Special programs have been developed specifically for the following industries: textiles, petrochemicals, household appliances, footwear, automotive, food processing and packaging, construction, railroads and machine tools. These benefit an estimated 1.3 million workers in these areas.

Geographically, the states in which training is particularly stressed are closely related to the country's economic division. In the states where industry is more developed, more workers are trained, mostly because industrialists have perceived the strong relationship existing between training and increased productivity. The percentage of trained workers by state is as follows: Federal District 39%, Mexico 10%, Jalisco 7%, Nuevo León 5%, Chihuahua 4%, Coahuila 3% and Veracruz 3%.

According to a survey of 250 major, mostly private, Mexican companies, their annual training budget was \$22,000 and their per capita budget for training was \$35. Of the companies surveyed, 21% spent up to \$3,200 in training annually; 12% between \$3,200 and \$6,400; 8% between \$6,400 and \$9,600; 18% between \$9,600 and \$23,000; 9% between \$23,000 and \$32,300 and 33% over \$32,300. Companies within the latter group

are banks and financing companies, government agencies and, to a lesser degree, industry. The activity with the lowest average annual budget is commerce. Of the total budget, 30% is used to train blue collar workers, 18% office employees, 14% sales employees, 8% supervisors, 16% middle management levels and 14% executives. The objectives most cited for training are to comply with existing regulations, promotion, improve living standards, reduce personnel rotation, improve customer attention, reduce absenteeism and waste, and improve communications.

The large companies have a sufficient number of workers to train to justify having their own training facilities and instructors. According to the above survey, 82% of the firms reported having their own internal instructors. The highest percentages were reported in instructors for supervisors, middle management and office employees, particularly in banks and government, while those for sales personnel were high in commercial activities and those for blue collar workers in manufacturing. The lowest number was for executives. The firms with a higher number of internal instructors are in banking (97%), government (82%) and industry (81%). Smaller companies tend to hire the services of registered external agents and institutions in order to cover their training needs, although 72% of the companies surveyed also depend on courses given by specialized institutions out of the firm. This tends to be in general more expensive and puts a strain on certain companies' financing and cash flow in a time of scarce and expensive credit and an increased competition from abroad. It was also reported that small companies often do not train their workers either because they are not interested in it, or because they are not aware of the benefits of training to the company in increased productivity, or also because they do not know about available facilities, systems and possibilities.

There are at present 1,870 registered training institutions, 2,543 independent external instructors and 256,597 internal instructors. The latter are basically in the manufacturing sector (42%), commerce (26%) and services (21%). Most instructors are concentrated in the areas of Mexico City, the states of Mexico, Jalisco, Nuevo León, Veracruz, Guanajuato, Sonora and Tamaulipas. Of all the institutions registered, 15% offer their services to the manufacturing industry, 15% to the metalworking industry, 14% to the services sector, 13% to commerce, 10% to the construction industry and 9% to the transportation and communications sector. Other minor sectors include extractive industries, agriculture and public utilities.

Due to the high specialization needed in certain industries and the amount of workers they employ, many industrial sectors actually have their own training institutions to specifically target their training needs. These include: construction, sugar, textiles, federal transportation systems, metalworking, publishers, pharmaceuticals, tourism, petroleum, social security, automotive, chemicals, computers, telecommunications, metals, footwear, forestry, hotels and restaurants.

Regarding the different training areas, 42% of all public workers received administrative training and other courses to improve their job integration; 26% received technical training to perform their job better; 19% took general courses to complete their basic school education and 13% followed graduate studies and specialization programs.

According to the training plans and programs submitted to the Ministry of Labor by private sector companies, the courses in greatest demand are in the following areas: human relations and development, motivation on the job, industrial safety and security, production and quality control, productivity and efficiency, electricity, materials handling, management, accounting, communications, secretarial skills, sales and computers sciences. Formal education for adults has also become very important and there is

greater demand for basic reading and writing skills and for grade school to high school courses.

Training areas that were reported to have an increasing demand include:

- Productivity improvement
- Technical courses, in particular for industry
- Training evaluation
- Quality circles
- Instructor training
- Marketing and sales
- Administration of change
- Administration by objectives
- Administration of human resources
- Leadership
- Motivation
- Human relationships
- Financial planning
- Security and hygiene
- Data management and computer sciences
- Budgeting
- Worker/employer relationships
- Import/export transactions
- Fiscal matters
- General administration
- First aid
- Time management

The techniques most commonly used for training are oral presentations, group discussions, conferences by specialized personnel, case studies, round tables, games, dramatizations and programmed instruction. The companies surveyed reported using the following systems and audiovisual equipment for training:

EQUIPMENT	% OF COMPANIES
Blackboard	96%
Flip chart	88%
Slide projector	81%
Overhead projector	73%
Projector of dark bodies	45%
Film projector (8mm)	13%
Film projector (16 mm)	60%
Film projector (35 mm)	5%
Scale models	14%
Closed circuit T.V.	37%
Computers	39%
Special teaching machines	10%
Fixed pictures	47%
Video	70%

6. MARKET ACCESS

Sales in Mexico are usually made through local agents and distributors, normally operating on a commission basis. Decisions should be taken on whether to use an agent, joint venturing or licensing with a Mexican company. Mexico's market is highly competitive and companies which maintain an active presence in the market and establish a good track record by virtue of product performance, competitive price and service will do well.

All suppliers of equipment or services, whether local or foreign, to a Mexican Government entity must be registered with the Secretariat of Programming and Budget (SPP) and with the Purchasing Department of the agency itself. All purchases over a specified minimum are subject to bidding.

As a result of Mexico's accession to GATT, the Mexican Government has gradually opened the economy to international suppliers. Import duties have been lowered from a maximum 100% in 1983, to 20% since December, 1988. The official import price system has been totally eliminated and import permits are required on only 325 of the total 11,950 items in the Mexican Tariff Act, none of which correspond to this industry. Mexico adopted the Harmonized System of Tariff Nomenclature on July 1, 1988.

The import conditions for training and educational systems and equipment have improved significantly as a result of this commercial liberalization. Imports under this category are subject to a 0% to 20% ad valorem duty assessed on the F.O.B. invoice value. In addition, a 0.8% customs processing fee is assessed on the invoice value. A 15% value added tax is then assessed on the cumulative value of invoice plus the above taxes.

There are no official metric requirements applicable to imports into Mexico. However, since the metric system of units is by law the official standard of weights and measures in Mexico, importers will usually require metric labeling for packaged goods, although the English system is also used. Dual labeling is acceptable. Imported products should be labeled in Spanish containing the following information: name of the product, trade name and address of the manufacturer, net contents, serial number of equipment, date of manufacture, electrical specifications, precautionary information on dangerous products, instructions for use, handling and/or product conservation and mandatory standards. Mexico adheres to the International System of Units (SI). Electrical standards are the same as in Canada. Electric power is 60 cycles with normal voltage being 110, 220 and 400. Three phase and single phase 230 volt current is also available.

Prepared by:
Caroline Verut
for the Canadian Embassy
Mexico City
August 1990

MINISTRY OF PUBLIC EDUCATION - MEXICO

OFFICIAL

Phone

Title

LIC. MANUEL BARTLETT DIAZ REPUBLICA DE ARGENTINA NO. 28 PISO 2 OFICINA 310 COL CENTRO 06029 MEXICO, D.F.	5219574 5100478	Minister of Education
LIC. FERNANDO ELIAS CALLES REPUBLICA DE ARGENTINA NO. 28 PISO 2 OFICINA 329 COL CENTRO 06029 MEXICO, D.F.	5186799 5123545	Deputy Minister-Co-ordination of educational programs
DR. RAUL TALAN RAMIREZ CDA NETZAHUALCOYOTL NO. 1 CONJUNTO PINO SUAREZ EDIFICIO F PISO 4 COL CENTRO 06090 MEXICO, D.F.	5426093	Deputy Minister of technological investigations
PROFR. JUAN DE DIOS RODRIGUEZ CANTON REPUBLICA DE ARGENTINA NO. 28 PISO 1 OFICINA 207 COL CENTRO 06029 MEXICO, D.F.	5100733 5123355	Deputy Minister of elementary education
PROFR. JESUS LICEAGA ANGELES LUIS GONZALEZ OBREGON NO. 18 BIBLIOTECA IBEROAMERICANA COL CENTRO 06020 MEXICO, D.F.	5216762 5122385	Deputy Minister of grade level education
DR. LUIS EUGENIO TODD PEREZ SAN FERNANDO NO. 1 COL TORIELLO GUERRA 4050 MEXICO, D.F.	6557460 6557136	Deputy Minister superior levels and scientific investigation
PROFR. HUMBERTO ROBLEDO CASTILLO AV. DIVISION DEL NORTE NO. 2333 COL GRAL. PEDRO MARIA ANAYA 03340 MEXICO, D.F.	6500090	General Director Physical education
LIC. ENRIQUE KU HERRERA AZAFRAN NO. 486 PISO 4 COL GRANJAS MEXICO 08400 MEXICO, D.F.	6575364 6570988	Director General of Indian education
DR. ROLANDO DE LASSE MACIAS CDA NETZAHUALCOYOTL NO. 1 CONJUNTO PINO SUAREZ EDIFICIO F PISO 2 COL CENTRO 06090 MEXICO, D.F.	5426578 5426579	Director General of Agriculture and Livestock technical education and sciences of the sea.
ING. RAUL GONZALEZ APAOLAZA CDA NETZAHUALCOYOTL NO. 1 CONJUNTO PINO SUAREZ EDIFICIO F PISO 3 COL CENTRO 06090 MEXICO, D.F.	5427258 5427259	Director General of industrial technological education
DR. MIGUEL MESSMACHER SCHERNIAVSKY REPUBLICA DE BRASIL NO. 31 PISO 2 OFICINA 33 COL CENTRO 06029 MEXICO, D.F.	5216542 5128198	Director General of International Relations

WHEN SELLING TO THE MEXICAN GOVERNMENT AND ITS AGENCIES, IT IS
REQUIRED TO HAVE REGISTRY NUMBER AS FOREIGN SUPPLIER.
FOLLOWING IS RELATED INFORMATION.

REGISTRATION WITH SECRETARIA DE PROGRAMACION Y PRESUPUESTO
(SPP)

Following is a summary of Registration Procedures for Canadian Companies wishing to sell to the Mexican Government and its decentralized agencies.

Note: Registration procedures now cannot be done by the foreign (Canadian) supplier, and must be done by the company's official local agent/representative in Mexico.

To obtain registry, the following documents should be submitted to the Registro de Proveedores Office of the Secretaría de Programación y Presupuesto (SPP) (Ministry of Planning and Budgeting) located at the following address:

Registro de Contratistas y
Proveedores de la Administración
Pública Federal S.P.P.
Av. San Antonio Abad No. 124 - Piso 1
Col. Tránsito
06380 México, D.F.

- a) Applications for registration of foreign supplier forms SPP in original and 3 copies, all signed separately.
- b) A copy of the company's balance sheet and profit and loss statement with data not older than two months with respect to the date of application entry into the Foreign suppliers registry, also translated into Spanish and legalized by the Mexican Consulate.
- c) Copy of power of company's legal representatives in Canada notarized, and certified by Mexican Consul (documents mentioning full name of person or persons, legally authorized to sign documents on behalf of company showing his (their) signature.
- d) Copy of agency/representative contract in Mexico notarized and then certified by Mexican Consul.
- e) Copy of a document that proves and guarantees legal existence of company in Canada.
A certificate of incorporation from a Canadian -

Chamber of Commerce or Industry Chamber. This letter must be presented in its original form and must state that interested company has been legally incorporated in accordance to the laws of the country and must include the date of incorporation. The letter cannot be more than six months old from the date it was issued. In addition it must be translated into Spanish and legalized by the Mexican Consulate.

- f) Limited power to local agent to act on behalf of foreign firm on disputes and collection matters.
 - g) A photocopy of sample past invoices for each product to be supplied duly translated and legalized by the Mexican Consulate with the date and the names of the buyer and the seller underlined and highlighted.
2. Once application forms and supporting documents are approved, registration number is issued in two to four weeks time. To claim registration number, foreign firm's representative will have to present original and copy of HD-1 form "Declaración General de Pago de Derechos" duly paid.
3. To obtain HD-1 forms.
As first step, payment of \$366,000 Mexican Pesos (as of April 1990 and rate subject to changes) should be made at any office of the Secretaría de Hacienda y Crédito Público (SHCP) in cash, or with Mex. Peso bank draft in favor of the "TESORERIA DE LA FEDRACION" payable through a Mexican bank located in Mexico City and should be accompanied by four (4) payment forms DH1. Each form should be signed separately. Forms can be obtained at any SHCP's offices.

IMPORTANT

TO AVOID REFUSAL OF APPLICATIONS

- I Copies of documents b, c, d, e, f, g, must be translated into Spanish by certified local translator if done in Mexico. However if documents b, c, d, e, f, g and respective translations are done into Spanish in Canada, these do not have to be done by certified translator, as above, but documents and translations must be duly notarized, and then certified by nearest Mexican Consul in your area.
- II Original and copies of application forms must be signed separately by company's legal representative.

III Corporate name should appear exactly the same in all documents: (i.e.: spelling, company names which have changed over the years).

Legal representative's signature should be signed separately on following documents:

- . DH-1 Payment forms
- . Registry application forms (both pages)
- . Power of legal representative of company in Canada.
- . Copy of agency/representative contract in Mexico.
- . Limited power to local agent.

While every effort has been made to provide the above information accurately, the Canadian Embassy cannot assume responsibility for errors, omissions or subsequent changes in procedure which may occur.

Information
updated April/90
Canadian Embassy
Mexico City

GOVERNMENT SCHOOLS AND UNIVERSITIES - MEXICO



COLEGIO DE BACHILLERES

(SEP)
phone num

PROLG. RANCHO VISTA
HERMOSA NO. 105
COL. EX-HACIENDA COAPA
04920 MEXICO, D.F.
A.P. 103-012

6790441
6790816

ING. CALIXTO MATEOS
GONZALEZ
DIRECTOR GENERAL
PROLG. RANCHO VISTA
HERMOSA NO. 105
COL. EX-HACIENDA COAPA
04920 MEXICO, D.F.

6845138 Dir. Gral.

C.P. RAFAEL LARA CASTRO
DIRECTOR DE RECURSOS
FINANCIEROS
PROLG. RANCHO VISTA
HERMOSA NO. 105
COL. EX-HACIENDA COAPA
04920 MEXICO, D.F.

6843144 Dir. Finances

College Pre-University Levels



COLEGIO DE LA FRONTERA NORTE,
A.C.

(SEP)

BLVD. ABELARDO L.
RODRIGUEZ NO. 21
COL. ZONA URBANA RIO
TIJUANA
22320 TIJUANA, B.C.
A.P. L-92012
FAX: 8429393

842033

DR. JORGE A. BUSTAMANTE
PRESIDENTE
BLVD. ABELARDO L.
RODRIGUEZ NO. 21
COL. ZONA URBANA RIO
TIJUANA
22320 TIJUANA, B.C.

842393

Pres.

LIC. ALBERTO HERNANDEZ
SECRETARIO GENERAL
BLVD. ABELARDO L.
RODRIGUEZ NO. 21
COL. ZONA URBANA RIO
TIJUANA
22320 TIJUANA, B.C.

842033
842068

General
Secty

LIC. PILAR GREDIAGA KURI
DIRECTORA GENERAL DE
ASUNTOS ADMINISTRATIVOS
(RESPONSABLE DE
ADQUISICIONES)
CAMINO AL AJUSCO NO. 20
SANTA TERESA
10740 MEXICO, D.F.

6526288 Purchasing

Scientific training on matters
of ecology and problems common to border area



EL COLEGIO DE MEXICO

CAMINO AL AJUSCO No. 20
MEXICO 20, D. F.
APARTADO POSTAL 20-671

COLEGIO DE MEXICO, A.C.

(SEP)

phone num

CAMINO AL AJUSCO NO. 20
COL. SANTA TERESA
10740 MEXICO, D.F.
A.P. 20-671
FAX: 6526233
TELEX: 1777585COLME

5686033

LIC. MARIO OJEDA GOMEZ
PRESIDENTE
CAMINO AL AJUSCO NO. 20
COL. SANTA TERESA
10740 MEXICO, D.F.

5686033
EXT. 345

Pres.

DR. JOSE LUIS REYNA
SECRETARIO GENERAL
CAMINO AL AJUSCO NO. 20
COL. SANTA TERESA
10740 MEXICO, D.F.

5686033
EXT. 350

General
Secretary

DRA. BLANCA TORRES
DIRECTORA DEL CENTRO DE
ESTUDIOS INTERNACIONALES
CAMINO AL AJUSCO NO. 20
COL. SANTA TERESA
10740 MEXICO, D.F.

5686033
EXT. 314

Director
International
Studies

LIC. JOSE ANTONIO VALADEZ
DORANTES
JEFE DEL DEPARTAMENTO DE
PUBLICACIONES
(RESPONSABLE DE
ADQUISICIONES)
CAMINO AL AJUSCO NO. 20
COL. SANTA TERESA
10740 MEXICO, D.F.

5686033
EXT. 364

Purchasing

Investigation social sciences



COLEGIO DE POST-GRADUADOS

(SARH)

DOMICILIO CONOCIDO
CHAPINGO
56230 TEXCOCO, MEX.
FAX: 45077

42200

DR. LEOBARDO JIMENEZ
SANCHEZ
DIRECTOR GENERAL
DOMICILIO CONOCIDO
COL. MONTECILLO
56230 TEXCOCO, MEX.

45022

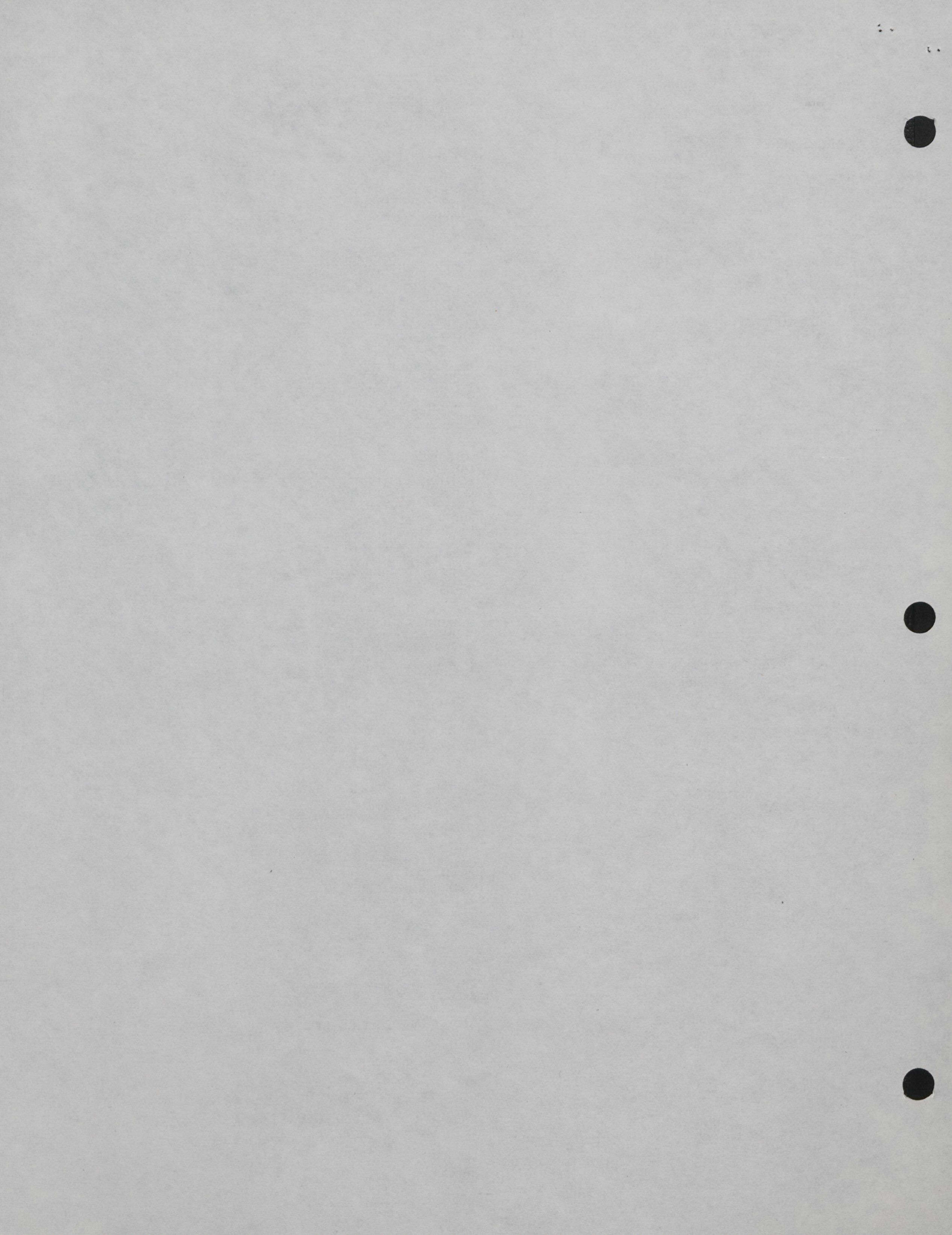
Gen. Dir.

LIC. LEONARDO FIGUEROA
PADILLA
RESPONSABLE DE
ADQUISICIONES
DOMICILIO CONOCIDO
COL. MONTECILLO
56230 TEXCOCO, MEX.

45301

Purchasing

Post Graduate studies in
agricultural sciences and
investigations in same areas



COLEGIO NACIONAL DE EDUCACION
PROFESIONAL TECNICA
CONALEP

(SEP)
phone num

AV. CONALEP NO. 5
COL. LAZARO CARDENAS
52140 METEPEC, MEX.
AX: 65855
TELEX: 174315

65800

ING. TEODORO GUERRA
RODRIGUEZ
DIRECTOR GENERAL
AV. CONALEP NO. 5
COL. LAZARO CARDENAS
52140 METEPEC, MEX.

65800
EXT. 1102 Dir. Gral

ING. RAFAEL BORBON RAMOS
DIRECTOR DE
ADMINISTRACION Y FINANZAS
AV. CONALEP NO. 5
COL. LAZARO CARDENAS
52140 METEPEC, MEX.

65800
EXT. 1280 Finances

ING. JORGE URQUEAGA
BLANCO
DIRECTOR DE PLANEACION
AV. CONALEP NO. 5
COL. LAZARO CARDENAS
52140 METEPEC, MEX.

65800
EXT. 1148 Dir. of
Planning

LIC. JAVIER NEME LEVET
DIRECTOR DE ADQUISICIONES
AV. CONALEP NO. 5
COL. LAZARO CARDENAS
52140 METEPEC, MEX.

65800
EXT. 1245 Dir. of
Purchasing

Technical Schools-Training



CONSEJO NACIONAL DE CIENCIA Y
TECNOLOGIA

(SPP)

CIRCUITO CULTURAL
UNIVERSITARIO EDIFICIO
CONACYT
COL. CD. UNIVERSITARIA
04515 MEXICO, D.F.
A.P. 20-033
FAX: 6553906
TELEX: 017-74-521

6557488
6553691

DR. MANUEL V. ORTEGA
ORTEGA
DIRECTOR GENERAL
CIRCUITO CULTURAL
UNIVERSITARIO EDIFICIO A
PISO 3
COL. CD. UNIVERSITARIA
04515 MEXICO, D.F.

6557488
EXT. 1000 Dir.
Gral.

DR. VICTOR ALCARAZ
ROMERO
DIRECTOR DE ASUNTOS
INTERNACIONALES
CIRCUITO CULTURAL
UNIVERSITARIO EDIFICIO A
PISO 2
COL. CD. UNIVERSITARIA
04515 MEXICO, D.F.

6557488
EXT. 2621 Dir. of
International
Affairs.

Promotion of investigation work
and technological work-scholarships

CONAFE

CONSEJO NACIONAL DE FOMENTO
EDUCATIVO

(SEP)
phone num

AV. THIERS NO. 251 PISO 10
COL. ANZURES
11590 MEXICO, D.F.
TELEX: 1763012

2504066
2504468

LIC. GERONIMO MARTINEZ
GARCIA
DIRECTOR GENERAL
AV. THIERS NO. 251 PISO 10
COL. ANZURES
11590 MEXICO, D.F.

5310782
5318358 Gen. Director

LIC. ISAI ALEJANDRO GOMEZ
DELGADO
JEFE DEL DEPARTAMENTO DE
ADQUISICIONES
AV. THIERS NO. 251
COL. ANZURES
11590 MEXICO, D.F.

5319298 Head of
Purchasing

Rural education



Consejo Nacional
para la
Cultura y las Artes

CRACOVIA NO. 90
COL. SAN ANGEL
01000 MEXICO, D.F.
FAX: 5508240

5488876
5508135

LIC. VICTOR FLORES OLEA
PRESIDENTE
CRACOVIA NO. 90 PLANTA
BAJA
COL. SAN ANGEL
01000 MEXICO, D.F.

5488876
5508135 President

LIC. ANDRES VALENCIA
BENAVIDES
SECRETARIO TECNICO
CRACOVIA NO. 90 PISO 1
COL. SAN ANGEL
01000 MEXICO, D.F.

5489722
5504033 Secretary
Technical
Areas

C.P. CARLOS REIGADAS
BARQUIN
DIRECTOR GENERAL DE
ADMINISTRACION
CRACOVIA NO. 90 PISO 1
COL. SAN ANGEL
01000 MEXICO, D.F.

5488855
5504171 Gen. Dir
Administration

Artistic and Cultural Development

UNIVERSIDAD AUTONOMA DE CHAPINGO
(ORGANISMO AUTONOMO)

DOMICILIO CONOCIDO
CHAPINGO
56230 TEXCOCO, MEX. 42200

DR. HUGO RAMIREZ MALDONADO
RECTOR INTERINO
DOMICILIO CONOCIDO
CHAPINGO
56230 TEXCOCO, MEX. 40035

Rector

SR. GUILLERMO GOMEZ HERRERA
JEFE DEL DEPARTAMENTO DE ADQUISICIONES
EXT. 5299 42200

Purchasing

DOMICILIO CONOCIDO
CHAPINGO
56230 TEXCOCO, MEX.

Agricultural and Forestry
management training
Agricultural University



UNIVERSIDAD AUTONOMA METROPOLITANA
(ORGANISMO AUTONOMO)

BLVD. MANUEL AVILA CAMACHO NO. 90
COL. EL PARQUE
53398 NAUCALPAN, MEX. 5767900
5767419

DR. OSCAR M. GONZALEZ CUEVAS
RECTOR GENERAL
BLVD. MANUEL AVILA CAMACHO NO. 90 PISO 5
COL. EL PARQUE
53398 NAUCALPAN, MEX. 5763390
5763886

Rector

Superior University education



UNIVERSIDAD NACIONAL AVENIDA DE MEXICO

UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO UNAM
(ORGANISMO AUTONOMO)

CIUDAD UNIVERSITARIA 04510 MEXICO, D.F. 5505215
6551344

DR. JOSE SARUKHAN KERMEZ
RECTOR
TORRE RECTORIA PISO 6
CIUDAD UNIVERSITARIA
04510 MEXICO, D.F. 5484040
5488035

Rector

National University of Mexico



UNIVERSIDAD PEDAGOGICA NACIONAL

CARR. AL AJUSCO NO. 24 COL. ZONA URBANA EJIDAL HEROES DE PADIERNA 14200 MEXICO, D.F. 6523399
6524399

phone num

LIC. JOSE ANGEL PESCADOR OSUNA
RECTOR
CARR. AL AJUSCO NO. 24 COL. ZONA URBANA EJIDAL HEROES DE PADIERNA 14200 MEXICO, D.F. 6521620
6521655

rector

LIC. ALEJANDRO SANTAMARIA VERGARA
DIRECTOR DE PLANEACION
CARR. AL AJUSCO NO. 24 COL. ZONA URBANA EJIDAL HEROES DE PADIERNA 14200 MEXICO, D.F. 6522761
6522994

Director of Planning

Teacher training and studies for degrees



KEEP RADIO EDUCACION (SEP)

ANGEL URRAZA NO. 622 COL. DEL VALLE 03100 MEXICO, D.F. 5756566
5596169
TELEX: 1764075

LIC. ALEJANDRO MONTAÑO MARTINEZ
DIRECTOR GENERAL
ANGEL URRAZA NO. 622 COL. DEL VALLE 03100 MEXICO, D.F. 5756566
5596169

Gen. Dir

LIC. ENRIQUE CASTAÑEDA
JEFE DEL DEPARTAMENTO DE RECURSOS MATERIALES (RESPONSABLE DE ADQUISICIONES)
ANGEL URRAZA NO. 622 COL. DEL VALLE 03100 MEXICO, D.F. 5599630

Purchasing

Educational purpose radio programs

CENTROMEX, S.A. Tel. 511-8966
 Paseo de la Reforma 325
 Col. Cuauhtémoc
 Del. Cuauhtémoc
 06500 México, D.F.
 Jaime García, Director; Pilar Guzmán, Administrative Manager.
 Specialized training center.
 Established 1970 • Personnel 40

COPARMEX Tel. 687-2821
 Montecito 38, 5o. Piso
 Apdo. Postal 18-1100
 Col. Nápoles
 Del. B. Juárez
 03810 México, D.F.
 Ing. Jorge Ocejo Moreno, President; Lic. Gustavo Serrano Limón,
 General Director and Secretary to the Council.
 Employers' association and specialized training school.

EDUCACION CONTINUADA DE LA U.A.G. Tel. 41-8926
 Montevideo 3301
 44620 Guadalajara, Jal.
 Arq. José Morales González, General Director.
 Training programs.

FERNANDEZ MORETTY ASOCIADOS, S.C. Tel. 543-7743
 Filadelfia 128-402
 Col. Nápoles
 Del. B. Juárez
 03810 México, D.F.
 Javier Fernández, Director.
 Human resources consulting, training, executive selection.
 Established 1979 • Personnel 10

GRUPO DANDO, S.A. Tel. 564-2622
 Insurgentes Sur 452, Desp. 301 564-3588
 Col. Roma Sur
 Del. Cuauhtémoc
 06760 México, D.F.
 Dr. Sergio Reyes, President; Lic. Ramón Adell, General Manager;
 Martín Márquez, Administrative Manager.
 Training and development, personnel evaluation and selection,
 advisers on organizational development, transfer of technology for
 internal training.
 Established 1984 • Personnel 20

IDIOMAS, S.A. DE C.V. Tel. 533-4143
 Génova 33, Desp. 801
 Col. Juárez
 Del. Cuauhtémoc
 06600 México, D.F.
 Robert F. Jacobus, General Director; Jose Luis Márquez, Finance
 Director; Joyce Walsh, Regional Director.
 English schools.
 Established 1969 • Personnel 360

IMIT, S.A. Tel. 557-1011
 Calz. Legaria 694
 Col. Irrigación
 Del. M. Hidalgo
 06000 México, D.F.
 Juan Manuel Lomelín G., General Director; Ing. José Enrique
 Pérez Romero, Assistant Director; Ing. Roberto Espinosa O.,
 Assistant Director; Dr. Héctor Martínez Frías, Assistant Director
 Institute for technical assistant to industry

IBM DE MEXICO, S.A. Tel. 250-9011
 Mariano Escobedo 595, 6o. Piso
 Col. Chapultepec Polanco
 Del. M. Hidalgo
 11560 México, D.F.
 Ing. Rodrigo Guerra Botello, President and In-Country General
 Manager; Lic. Héctor M. Meza C., Operations Director; Ing. Alfredo
 Capote Sánchez, Commercial Director.
 Mainframes, minicomputers, personal computers, electronic type-
 writers, software, supplies and accessories, customer services and
 educational services.
 Established 1927 • Personnel 1,745 • Telex 1771078

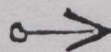
INFORMATICA NACIONAL, S.A. DE C.V. Tel. 687-0200
 Insurgentes Sur 949, 6o. Piso Fax 687-0398
 Col. Nápoles
 Del. B. Juárez
 03810 México, D.F.
 C.P. Fernando Rodríguez Montero, President; C.P. Ninel Hernández
 Romero, Administrative Director.
 Services.
 Established 1972 • Personnel 45 • Telex 177536

INFYTEC, S.A. Tel. 528-8363
 Río Grijalva 78, Desp. 3
 Col. Cuauhtémoc
 Del. Cuauhtémoc
 06500 México, D.F.
 Luis Torres, General Director; María Esther Páramo, General
 Consultant; Norma Montes de Oca, Sales Manager.
 Information systems and services.
 Established 1975 • Personnel 9

MMS DE MEXICO, S.A. DE C.V. Tel. 550-6694
 Iglesia 2-105
 Col. Tizapán de San Angel
 Del. M. Hidalgo
 11090 México, D.F.
 Miguel A. Soldi, General Director.
 Advisors and consultants of business training.

PERKIN ELMER DE MEXICO, S.A. Tel. 651-7077
 Macedonio Alcalá 54
 Col. Guadalupe Inn
 Del. A. Obregón
 01020 México, D.F.
 Ing. Danu Daniel Zavala Trejo, General Manager; Ing. Joaquín
 Cano, Sales Manager; C.P. Faustino Izquierdo, Administrative Man-
 ager.
 Distributors of scientific instruments, gas and liquid cromatographs,
 spectrophotometers UV-VIS, IR, FL, ICP. Thermoanalysis instru-
 ments, quality control devices, hospital and laboratory equipment,
 repair services, training courses.
 Established 1965 • Personnel 3 • Telex 1777312

TECNICAS PARA ADIESTRAMIENTO Tel. 524-5367
Y CAPACITACION, S.A. DE C.V.
 Patricio Sanz 1747, Torre A, 1er. Piso, Desp. 104
 Col. Del Valle
 Del. B. Juárez
 03100 México, D.F.
 Ing. Ismael Cantú de la Torre, General Director.
 Training programs.
 Established 1978 • Personnel 6



TRAINING (2)

SERVICIOS CENTRALES DE
INSTRUMENTACION Y
LABORATORIOS, A.C.

Tel. 559-2701

Patricio Sanz 1317
Col. Del Valle
Del. B. Juárez
03210 México, D.F.

Pascual Guzmán Alonso, General Director; Armando Cruz Garzón,
Administrative Director; Lucio E. Saldívar, Electronics Supervisor;
J. Marcos Concha, Mechanics Supervisor; Ernesto Meza, Training
Supervisor; Arturo Barrera, Consultation and Information Supervisor.
Scientific equipment maintenance, training, project consultants for
research laboratories.

Established 1976 • Personnel 48

INFOTEC

Tel. 652-5377

Av. San Fernando 37
Col. Toriello Guerra
Del. Tlalpan
14050 México, D.F.

Ing. Jorge Cepeda, Director.

Training, consulting and information services.

MANAGEMENT CENTER DE MEXICO, A.C.

Tel. 566-5422

Reforma 199-9
Col. Cuauhtémoc
Del. Cuauhtémoc
06500 México, D.F.

Raúl Peñalosa, Managing Director; José Aguinaga, Comptroller;
María Eugenia Pérez, Program Director; J. Carlos Barragán,
Accountant.

Seminars, courses, membership, business books.

Established 1966 • Personnel 25 • Telex 1761001

BANOCHEM, S.A. DE C.V. Tel. 515-2547
 General Méndez 3, Desp. 1 516-9185
 Col. Ampliación Daniel Garza
 Del. M. Hidalgo
 11830 México, D.F.
 George Bano, General Manager
 Chemical plant and laboratory equipment, pharmaceutical
 industry machinery, chemicals, pharmaceuticals.
 Established: 1966 Personnel: 4 Telex: 1772715

**ALTA DIRECCION ADMINISTRATIVA,
 S.A. DE C.V.** Tel. 255-2777
 Gutemberg 143 255-2907
 Col. Anzures
 Del. M. Hidalgo
 11590 México, D.F.
 Alonso Carral, Administrative Manager
 Distributors of computers.

ALVA NUCLEAR S.A. DE C.V. Tel. 543-2446
 Pitágoras 573, 2o. Piso 543-2451
 Col. Narvarte Fax 682-6304
 Del. B. Juárez
 Apdo. Postal 12-626
 03020 México, D.F.
 Ing. José Alvarez, General Manager; Lic. Silvia Ramírez,
 Head of International Trade; C.P. Alberto Pérez,
 Administrative Manager; Lic. Héctor Pérez, Biomedical Area
 Manager
 Imports and sales of reagents, lab accessories, radiation
 monitors.
 Established: 1969 Personnel: 19 Telex: 1772479

FORMALAB, S.A. DE C.V. Tel. 31-3203
 Priv. Constituyentes del 57 No. 118 31-3023
 Col. Constituyentes del 57 Fax 51-7193
 64260 Monterrey, N.L.
 Apdo. Postal 383
 66400 San Nicolás de los G, N.L.
 Ing. O. Francisco Medina Gaytán, General Manager; Ing.
 Eduardo Faz García, Sales Manager; C.P. Fernando García
 Espinoza, Administrative Manager
 Distributors of laboratory furniture and equipment.
 Established: 1983 Personnel: 50 Telex: 381702

PERKIN ELMER DE MEXICO, S.A. Tel. 651-7077
 Macedonio Alcalá 54
 Col. Guadalupe Inn
 Del. A. Obregón
 01020 México, D.F.
 Ing. Danu Daniel Zavalza Trejo, General Manager; Ing.
 Joaquín Cano, Sales Manager; C.P. Faustino Izquierdo,
 Administrative Manager
 Distributors of scientific instruments, gas and liquid
 chromatographs, spectrophotometers UV-VIS, IR, FL, ICP.
 Thermoanalysis instruments, quality control devices,
 hospital and laboratory equipment, repair services,
 training courses.
 Established: 1965 Personnel: 3 Telex: 1777312

HARRY MAZAL, S.A. Tel. 396-1133
 Laguna de Tamiahua 204
 Col. Anáhuac Fax 396-8649
 Del. M. Hidalgo
 11320 México, D.F.
 Harry W. Mazal, President; Héctor M. Tello, Managing
 Director; Erasmo Quiroz, Administrative Director
 Distributors of engineering, training, laboratory and
 scientific equipment.
 Established: 1948 Personnel: 104 Telex: 1777426

MEL DE MEXICO, S.A. Tel. 531-5841
 Lago Texcoco 189
 Col. Anáhuac
 Del. M. Hidalgo
 11320 México, D.F.
 Luis Cortés Pérez, General Director; Víctor Cortés Pérez,
 Sales Manager
 Distributors of laboratory equipment.
 Established: 1978 Personnel: 14

LECO MEXICO, S.A. DE C.V. Tel. 658-1877
 Guerrero 51
 Col. del Carmen Fax 554-6520
 Del. Coyoacán
 04100 México, D.F.
 Ing. José María Curto, General Manager
 Metallographic equipment, analytical instrumentation,
 refractory ceramics, accessories and supplies.
 Established: 1979 Personnel: 17 Telex: 1772870

**SERVICIOS CENTRALES DE
 INSTRUMENTACION Y
 LABORATORIOS, A.C.** Tel. 559-2701
 Patricio Sanz 1317
 Col. Del Valle Fax 559-6727
 Del. B. Juárez
 03210 México, D.F.
 Pascual Guzmán Alonso, General Director; Armando Cruz
 Garzón, Administrative Director; Miguel Angel Serrano Trejo
 Electronics Supervisor; Francisco Adrián López Damián,
 Mechanics Supervisor; José Luis Flores Galarza, Training
 Supervisor
 Scientific equipment maintenance, training, project
 consultants for research laboratories.
 Established: 1976 Personnel: 48

AGENTS/DISTRIBUTORS

EDUCATIONAL EQUIPMENT

EDUTELSA S.A. DE C.V.
INSURGENTES SUR 377-205
06170 México, D.F.

Attn' Lic. Enrique de la Torre Lozano
Phones 574-92-10/574-92-20/574-92-30
Tlelex 176 1012 (PROTME)

ALCHEMIA, S.A.
Universidad 1815-103
México 20, D.F. Tel. 548-22-21

JUEGO DUCTA MEXICANA, S.A. de C.V.
Cedro 215
México 4, D.F. Tel. 547-39-84

APARATOS S.A. de C.V.
Chocolin 10
09830 México, D.F. Tel. 685-40-50

MATERIAL EDUCACIONAL DE MEXICO, S.A.
Fuente Neptuno No. 40
México 10, D.F. Tel. 294-21-65

DEGEM SYSTEMS DE MEXICO S. DE R.L.
Fuentes Piramides 20-D
México 10, D.F. Tel. 294-21-39

NIP MAT EDUCATIVO
Barranca del Muerto 100-E
México 20, D.F. Tel. 534-65-50

DEPOSITOS UNIDOS, S.A.
Ave. Coyoacán 425
Col. del Valle
México, D.F. Tel. 523-29-77

CASA ALFONSO MARHX, S.A.
Carpio 187
México 4, D.F. Tel. 547-02-87

PROVEEDOR DIDACTICO INFANTIL
La Tienda de la Educadora
Blvd. Avila Camacho 2320
México, D.F. Tel. 393-42-30

REPRESENTACIONES UNIVERSALES ALBE,
S.A. de C.V.
Marte 103-302
México 6, D.F.

Tel. 782-05-40

LIBRARY E A/BIBLIOTHEQUE A E



3 5036 20074676 9

DOCS

CA1 EA953 90M24 ENG

Market study on educational system
in Mexico. --

43259652

