INDUSTRIAL RESTRUCTURING, PRIVATIZATION

AND COLLECTIVE BARGAINING:

THE MEXICAN CASE

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PRELIMINARY NOTE

This paper, instead of focusing upon labor law reform at the aggregate level, pays attention to the profound transformation of collective contracts in four Mexican privatized companies. We think that the evidence we present contributes significantly to the analysis of what has happened at the factory level in contractual terms, something that contrasts with the stand-off on labor reform at the level of the Federal Labor Law.

This perspective has benefited from the completion of a research project on labor flexibility and productivity which was undertaken in 1993 with the support of the International Development Research Center of Canada and the Consejo Nacional de Ciencia y Tecnología of Mexico.

As can be observed in the considerations we make in the paper, it is important to change the level of analysis to understand the process by which industrial restructuring has impacted on production procedures, systems of labor control and collective bargaining. Not only in Mexico, but also in Brazil and Chile, countries where the project on labor flexibility also was undertaken, this change of perspective helps to identify labor reform as a de-facto process, much more than a strictly institutional one.

The basis for this paper rests on products of this research project and some of the publications derived from it are the following:

Francisco Zapata (compilador), ¿Flexibles y productivos?

Estudios sobre flexibilidad laboral en México, El Colegio de México, 1998.

Edward J. Amadeo and Susan Horton (editors), Labor productivity and flexibility, MacMillan Press. Ldt. 1997.

Francisco Zapata, "Labor relations, productivity and enterprise competitiveness," report prepared for the Labour Law and Labour Relations Branch of the International Labor Office, Geneva, Switzerland, 1995.

Francisco Zapata, Estudios Sociologicos, El Colegio de Mexico

Estudios CIEPLAN, número especial núm. 43, septiembre 1996: "Flexibilidad laboral y mercado del trabajo en Chile."

This discussion of specific developments concerning the link between industrial restructuring, privatization and collective bargaining will focus on four companies belonging to three economic branches, for which we have information for the period 1989-1994, where most of the changes that could impact the link took place¹. The companies are Siderúrgica Lázaro Cárdenas-Las Truchas (SICARTSA) and Altos Hornos de México (AHMSA), located in steel production, Teléfonos de México (TELMEX) in communications and Cananea Mining Company (CANANEA), a copper mining concern located in the state of Sonora, close to the border with the United States.

These companies are very large in terms of capital investment and employment. In capital investment terms, they represent a value of approximately 8 to 10 billion dollars of productive equipment. Their national and international sales equal approximately the same amount of money. Therefore, their importance is quite substantial in the Mexican economy. In addition, they occupy a central role in their respective sectors: the two steel companies represent almost half of total steel production; the telephone company is a monopoly in the communications system of the country while the copper mining company provides 30% of national copper consumption.

In employment terms, the two steel mills employ more than 15.000 workers, while the mining company has more than three thousand workers. These three companies have four union locals that belong to the Sindicato Nacional de Trabajadores Mineros y Metalúrgicos de la República Mexicana (SNTMMRM). These union locals, numbers 271, 147, 288 and 65 have a relatively high degree of autonomy from the federation given that each local can negotiate its own collective contract.* The national union plays an essentially political role and sometimes intervenes in internal conflicts within the executive committees of the locals.

The telephone company employs around 58 thousand workers nation-wide. It has a national industrial union that has played a pioneering role in the formulation and implementation of productivity agreements both in the pre and post privatization periods.

Therefore, total employment of the companies considered here equals more than 70 thousand workers. Concerning the problem that we must focus here, the four companies have last ten years that have impacted their respective labor relations systems and have had important results in terms of productivity gains. However, these gains have resulted more from the fact that at least in the steel companies and in the mining company layoffs were central in their restructure. This did not happen in the telephone company where restructure was more a technological than an employment matter.

For each company, depending on the existence of specific information, we will address issues concerning labor relations practices, pay and productivity related policies, productivity improvement schemes, manpower utilization issues and labor management cooperation. We will conclude with a summary and conclusions section where we will try to make comparative considerations.²

Data for AHMSA, CANANEA and TELMEX for 1993 (Million Mexican pesos of 1993)

Indicator	AHMSA	CANANEA	TELMEX
Sales	2.431.128	1.411.845	20.704.655
Assets-Liabilities	3.647.256	5.365.030	30.955.611
Equity	1.142.385	3.165.686	15.382.872
Total Assets	5.976.147	6.141.074	43.543.636
Total Debt -% internal -% external	2.328.891 38.1 11.5 61.8	776.044 52.9 88.4	12.588.025 47.0
Employment -% administrative -% operative -% technical	10.980 16.2 72.2 11.6	3.573 15.0 65.0 20.0	63.025 23.5 76.5

Source: **Expansión** (Mexico City), August 1994 on the basis of data from the Mexican Stock Exchange.

Notes:

(a) SICARTSA is not traded in the Mexican Stock Exchange. Dollar estimates can be made with US\$1=MN\$3.5.

(b) According to **Business Week** (July 10, 1995), the market value of Teléfonos de México in 1994 was 14.9 billion dollars and it was the third largest company in the emerging market economies.

SIDERÚRGICA LÁZARO CÁRDENAS-LAS TRUCHAS (SICARTSA)

(a) Background

SICARTSA, the second largest steel producing facility in Mexico, with a production of around one million tons of steel products a year in 1993, sells steel rods, profiles and flat products for the national and international markets. In 1991, it was sold to the Grupo Villacero (SICARTSA I-high furnace) and to the Bombay-based Caribbean Ispat Ltd.³ (SICARTSA II-electrical furnace and the factory services unit) for approximately 580 million dollars, about half of its real value given the investments that had been involved in its construction.⁴ SICARTSA I and II contain the steel production plants that originally were a part of the old SICARTSA, built in 1974-76, as a state-owned company that also included an iron ore mine and a facility for repairs.

Before SICARTSA was broken up into plants I and II, the iron ore mine and the service facilities, it had around seven thousand workers who lived in a company town located in the municipality of Lázaro Cárdenas in the state of Michoacán, on the pacific coast of Mexico. These workers were and are represented by local 271 of the Sindicato Nacional de Trabajadores Mineros y Metalúrgicos de la República Mexicana (SNTMMRM) who also represents other steelworkers in the country. If employment of the three companies that were created from the old SICARTSA is added, no significant changes have occurred in the period 1991-1994.

In SICARTSA, labor relations operate within regulations established in the Ley Federal del Trabajo (Federal Labor Law-1931). Collective contracts are negotiated every two years since 1977, when the first contract was signed. Wages are negotiated every year and are closely supervised by officials of the Junta Federal de Conciliación y Arbitraje (Federal Conciliation and Arbitration Board).

The restructure of SICARTSA preceded its privatization in 1991, which includes the fragmentation of the old state owned company into four major components that negotiate the same collective contract with the same local 271. The restructure though implied (a) profound changes in the composition of the labor force, (b) modifications of the collective contract, especially in the 1989 negotiation, 6 (c) a weakening of the local union to maintain control over grievances and to participate in the administration of the contract. We will discuss each of these questions.

(b) Composition of the labor force

In the period 1989-1991, preparations for privatization included decisions to layoff personnel so as to make SICARTSA attractive for prospective buyers. Layoffs were selective, were focused in areas not directly related to production and affected mostly the unskilled and younger workers, both in age and seniority terms. Thus, experience in the productive process by SICARTSA workers was a guarantee given to investors in the process of privatization that culminated with the sale of the company to a Monterrey consortium and to a Bombay concern. At the same time, the automation of various sections of the plants made it important to keep people that could understand the new equipment mostly geared to supervision and control of the productive process. In addition, the continuous character of the production process imposes restrictions to the flexibility of manpower. On the one hand it requires permanent personnel at all time that can supervise on-line computers and that can execute regular operations (such as operating the high furnace). On the other hand, automation has not reached levels that allow for high turnover: management must have reliable, skilled and experienced personnel in charge of these facilities.

In relation to the composition of the labor force it is important to mention that many of those workers that were laid off in 1991 became employed in subcontracting companies that were in charge of maintenance, cleaning, transportation and other activities of SICARTSA. Subcontracts allow for a very flexible environment where the main contractor (in this case SICARTSA) is relieved of all responsibility on supervision of the labor force including hiring, accidents, unionization, etc. They also permit the flexibility of the conditions of work: wages, working hours, social security and other fringe benefits are limited to the legal minimums and are not subject to contractual clauses because usually these companies do not have unions.

The wage structure of SICARTSA remained the same that had been negotiated in the 1977 contract, including nine categories to which some subcategories were added to allow for the inclusion of a differentiation of skills, especially in the rolling mill and in the maintenance section. The differential between categories is approximately two to one: workers in category 1 earned on average twice what workers in category 9. Absolute levels of income were quite high relative to those existing in the jobs outside the steel mill: on average a SICARTSA worker earned around 3 minimum salaries in 1994, a year when inflation was very low.

One important priority of both the state-owned and of the privatized SICARTSA has been related to productivity. Defined in terms of the introduction of a new productive culture, workers become aware of the need to make the plant more productive and efficient. Workers pay more attention to what they do exerting themselves seriously to achieve the productive goals fixed by the company. To formalize this policy, contractual clauses have been added to relate production increases to earnings, such as a table of bonus payments by percentage increments above established wage levels for finished products that benefits all workers. If production reaches 12 thousand tons a week on average in a given month, workers get a bonus equal to 7% of their monthly wages. Starting at this level, for every one ton increase in that average, the bonus is doubled with a maximum limit of 21 thousand tons which is equal to 65% over the established wage level.⁷ This is a quantitative bonus, which, jointly to the assistance bonus, is the only payments related to productivity that exist in SICARTSA.

In 1988, another facet of this policy became effective when the state owned SICARTSA introduced quality criteria for the evaluation of work on the basis of the International Certificate of Quality under Norm ISO 9002, granted by the British Standard Institute. Opinion leaders were trained at the higher levels of management and communication mechanisms were developed to make everyone aware of the need to increase the capacity of the plant to deliver high quality products according to the client's needs. This policy was implemented through training courses and through the distribution of the company news sheet (called El Yunque) edited by the Press and Communications Office of SICARTSA where the principles and reasoning concerning productivity were published.

However, results were mixed because these mechanisms did not contribute to integrate workers to the collective purpose. On the contrary, the fragmentation of the working sections remained stable and workers continued to be much more involved with their shift supervisor and with the direct bosses in charge geared to achieve direct increases at their location in the company. But, at the same time, workers and supervisors became aware for the need to streamline productive processes and thereby increase efficiency. However, this awareness was threatened by the tensions that affected SICARTSA in the 1989-1991 period such as the long strike and the revision of the collective contract.

In the privatized SICARTSA (1992-1994) few if any efforts have been made to deepen the policy of total quality. The publicity that had been given to productivity and quality control by the state owned SICARTSA has been eliminated. The diffusion of information is very limited. El Yunque was replaced by Nuestra Voluntad, which is exclusively concerned with the social events organized by General Management such as football matches or the ecological initiatives made

by the corporation. There is no information concerning production, technical innovation or training. In addition, circulation of **Nuestra Voluntad** is restricted to the supervisory, non-unionized personnel. It does not have an impact upon the mass of workers who have become very distant from the general objectives of the company. This contrasts with the policies undertaken by the state owned SICARTSA that had become very much quality conscious at the end of its life.

(c)Modifications to the collective contracts in 1989 and 19918

In addition to having had to accept the collective dismissal of 1,119 workers, the 1989 revision to the collective contract of SICARTSA implied modifications to types of tasks, wages, work on holidays, filling of vacant posts, voluntary retirement, and to the administration of the company's resources. The common denominator to these modifications points towards the end of bilateral agreement with regard to these questions and to the recuperation by SICARTSA management of unilateral decision making capacity. Therefore, it points towards a serious loss of negotiating capacity by Local 271.

In relation to types of tasks, the revision substituted so called tenured for permanent employment, thus making employment rest on the company's willingness to have a person work for it without any contractual obligation to do so. Temporary and part time employment became also unrelated to the contract. On wages, the new contract stated that if a worker by any chance got paid more than what he was entitled to (by mistake or for any other reason), he had to ask time off to adjust the difference. For workers in the iron mine, instead of being paid from the moment they began their trip to the work site, they would be only from the time they effectively began work at the site. Compulsory rest periods for workers on continuous shifts were suppressed while at they same time provision was made for flexibility of tasks during shifts: workers were to perform additional tasks during shifts. Vacant posts are from then on to be filled by the company on its own criteria without having to inform the union, a change from the previous contract where this procedure was implemented with consultation with the union. Also, in relation to vacant posts, the company is not obligated to fill them as they become vacant: it can do so at its own wish. Voluntary retirement is also regulated and limited to 90 workers per year in the steel mill plus 20 workers more in the mine and concentrator. Finally, the company becomes sovercontent. After the strike, the contract became legal. The scenario was laid for the privatization of SICARTSA. From the point of view of the labor authorities, SICARTSA, both in terms of labor relations and in terms of employment, was restructured. Its competitiveness was enhanced by the decisions made in these respects.

However, it seems like the investors were not as convinced as officials about the new SICARTSA. In spite of having been of public knowledge that SICARTSA was for sale, this did not become formal because prospective buyers had other demands. In particular, they wished that SICARTSA would be fragmented into four different companies: this division coincided with the fact that not all components were as competitive as the others. Local 271 resisted the implementation of this demand but its resistance was crushed when the government informed it that it would make the company bankrupt, layoff all workers and begin from zero if they struck to defend the integrity of the company. The reaction of Local 271 and of the community of the city of Lázaro Cárdenas to this was very mixed. The union was divided into those older workers that would accept the layoff in exchange for severance payments and those younger workers whose severance payment would not be as attractive and that preferred to remain in the company. People in the city were very worried about the prospect of having SICARTSA closed so they also pressured for an agreement.

Therefore, in 1991, some months before contract revision was due, Local 271 was against the wall and accepted the fragmentation of SICARTSA into four different companies with the consolation prize that all four would be subject to the same collective contract. Local 271 would continue to represent workers but instead of doing so with SICARTSA, it considered doing it with four different companies. On June 23, 1991, when the new contract was signed, SICARTSA disappeared as a legal entity. The agreement established that there would common clauses for the four companies. There would be specific clauses for each company and the exclusion of several clauses that were a part of the contract since 1977, in particular those having to do with training, lighting and repairs of housing provided by the company to the workers. Additional clauses established that if a strike was voted in one company, that would not affect the other three and that each company was individually responsible for the observance of the contract.

In this negotiation, increases in several benefits took place: vacation, insurance, savings plan, special payments to wages were increased in different proportions.

(d) The defeat of Local 271

The process that took place between 1989 and 1991 contributed to a substantial change in the capacity of Local 271 to mobilize workers at SICARTSA. Leadership had played an important role to represent the steelworkers democratically by the celebration of regular union meetings, and the observation of the statute in matters relating to elections. This came from a very original position within the very disciplined SNTMMRM, which had been its trademark all through the years 1976 to 1989. Local 271 had progressively lost these capacities. Both because the management of SICARTSA and of the state-owned steel sector were pressured by the government authorities to respect the macroeconomic policy centered in adjusting the national economy to the conditions of the debt crisis (1982-1987), the union could not confront this position easily. It was up against the Mexican State. In addition, the absence of a national strategy to exert a concentrated pressure on these policies made it impossible for isolated unions such as Local 271 to do so by itself. This did not mean that it didn't try.

On the contrary, as we saw, when the Minister of Finance, chairman of the Board of Directors of SICARTSA, intervened in 1991 by menacing the union of disappearing the company by forcing its bankruptcy, Local 271 tried to react by acting together with the local municipal authorities. However, this reaction was too little and too late. The position of the Mexican State had already been tested in previous cases where these policies had been applied. Indeed, such had been the procedures used to close Fundidora de Monterrey and AeroMéxico in 1986 and also the procedure used to submit the Cananea miners at about the same time that the SICARTSA situation came up in 1989 (see the Cananea case later in this text).

Conclusion

It is important to note, as it can be drawn from the analysis presented above, that the process of restructure of SICARTSA, both in technical and in labor relations terms, took place while the company still was state-owned. Restructuring was more a function of the need to privatize than a consequence of making the steel sector more efficient. Indeed, as the situation in SICARTSA has evolved after privatization it

companies and that no new labor relations schemes been applied. In spite of having received companies that were "cleaned up", so to speak, of productive bottlenecks and of all but symbolic aspects of what Local 271 had been in the previous period, the privatized companies have not gone beyond what the state company had been able to accomplish. Sales, both in the national and in the international market have kept pace with what happened before; even, it can be observed that the state owned company had been much more active in the export market than in the internal market. Exports of steel to foreign destinations were higher than today. This can be explained by the fact that trade liberalization opened the Mexican market to foreign steel and the reaction of national producers has been to defend their markets in Mexico. Therefore, national producers are not as aggressive in foreign markets as they could be. In addition, protectionism has increased in market such as the American one where Mexican steel exports have had difficulties in getting to markets. From April 1992 to the present, American producers are succeeding in blocking steel imports coming from 19 different countries, and Mexico is among them. Customs rights are as high as 60% depending on the type of steel and affect about two million tons of steel valued at more than one billion dollars. Consequently, as privatization became a reality and as a restructured steel sector became more productive, markets were more difficult to penetrate thus relegating companies to the old national markets. Competitiveness becomes an issue that does not relate to a generalized process of trade liberalization. It concerns the capacity of national companies to maintain their market shares instead of being a way to go over the border and to world.

ALTOS HORNOS DE MÉXICO (AHMSA)

(a) Background

Built in 1942 from used equipment imported from the United States, AHMSA, the largest Mexican steel producing mill, is located in the town of Monclova, state of Coahuila, about 200 miles from Monterrey, in the northeastern part of Mexico. The decision to build a second steel producing facility in the country came from a growing demand for steel during the initial years of the process of industrialization through import substitution and the difficulties to find available steel to import during the Second World War. This second steel company added to what Fundidora de Hierro y Acero was producing since 1903 in the city of Monterrey. Production started in June 1944 with one high furnace which in time became five to level off at an installed capacity of 4.3 million tons. Between 1974 and 1978 AHMSA built a second facility, beside the old one, named AHMSA II where a totally new high furnace began

operations together with BOF converters and a continuous casting system. No space is available here to detail additional technical aspects of the AHMSA steel complex. Suffice to say that it is the largest in Mexico accounting for almost a third of the total steel production of the country. ¹⁰

(b) Privatization process

With a production of around 2.5 million tons of liquid steel in 1993, AHMSA was state owned until November 1991 when it was bought by the Grupo Acerero del Norte who bought also 29% of the Peña Colorada iron ore mine, Aceros Planos de Monterrey and the La Perla mine. As with SICARTSA, before privatization took place, investments had been made to modernize and restructure AHMSA so that it would increase its efficiency and be attractive to investors.

In the case of AHMSA's privatization a very interesting situation developed "where the buyers had mining expertise but no experience whatsoever in running a steel plant. They appealed to the Privatization Unit of the Mexican Finance Ministry for help on this matter. The Privatization Unit acted as a matchmaker, bringing the buyers together with Dutch steel maker Hoogovens. Eventually a deal was struck giving Hoogovens a five year management contract to run their steel plant in exchange for all expenses, fees and two and one half equity in the company. Thus foreign technical expertise was acquired in exchange for an equity participation." Additional technical assistance comes from USIMINAS (Brazil) and Engheneia (Canada).

(c) Composition of the labor force and unionization Locals 147 and 288, attached to the SNTMMRM, represent unionized workers. In 1993, total unionized personnel were equal to 7,745 workers, more than 80% of total employment at the plants. In the period 1989-1993, unionized personnel decreased dramatically from 15,580 in 1980 to 7,745 in 1993. Both locals have had a long history of militancy and have engaged in a series of strikes and protest actions. Perhaps the fact that Monclova is a company town and that almost all working people are related to the steel mill contributes to explain the high degree of conflict present in AHMSA.13 In addition, both local unions have a political committment to an opposition party, the Partido de Acción Nacional (PAN) which has won municipal elections on several occasions (1978-1981; 1981-1984; 1993-1996), thus ostracizing AHMSA workers from the benefits of PRI clienteles.

AHMSA workers are among the best paid workers in Mexico, earning at least three times the minimum wage at Monclova. In addition, contractual agreements contribute to increase the salary component of their earnings. Another element has to do with the highly fragmented skill hierarchy in the contract. The subdivision of skills in minute detail, often the result of contract concessions during the period when the local unions were powerful and succeeded in obtaining satisfaction to these demands that allowed them to hire new personnel to satisfy those requirements, made it very complicated to administer the collective contract. In this respect, the administration of the job structure was a source of conflict not only with management but also within the union itself. For example, some wildcat strikes had to do with the refusal of operation workers to make repairs of the machinery they operated arguing that had to be the responsibility of maintenance workers. At AHMSA, collective contract negotiations resulted in the adoption of multiple categories and levels within those categories that contributed to the development of a very heavy bureaucratic structure to process horizontal and vertical mobility. The company had to resolve some of its principal bottlenecks if it was going to modernize. This included the interpretation of clauses related to the procedures to manage all those categories, the calculation of salary differences to pay those workers that temporarily occupy categories that are located higher than the one they are entitled to, and the payment of bonuses to these categories. But, given the fact that AHMSA is one of the oldest industrial plants in Mexico with a powerful union this process made it exemplary of job control, to engage in such a process of modernization was a drawn out operation that took at least eight years to implement.

As in SICARTSA, labor relations at AHMSA operate within the regulations established in the Ley Federal del Trabajo (LFT). Therefore, collective contracts have been periodically revised, once every year until 1976 and once every two years since. Wages continue to be negotiated yearly since 1945. Negotiations are closely supervised both by the national executive committee of the SNTMMRM and by state officials of the Junta Federal de Conciliación y Arbitraje (Federal Conciliation and Arbitration Board). In contrast with SICARTSA, where Local 271 negotiates one contract for all companies, in AHMSA the two local unions negotiate two different collective contracts that are negotiated at different moments. In addition, many times they have not acted in a concerted way even when one of them was striking. Local 147 is more radical than Local 288 and their strategies are not always the same.

(d) Modernization and labor conflict

The restructuring of AHMSA began before the period of economic crisis that started in 1982 but intensified after the debt crisis began. During the De La Madrid presidential period modernization of its productive facilities in a context of deep tension with the local unions. In 1982, the Industrial Relations Department of the company made proposals to revise a series of contractual clauses. The local unions succeeded in blocking them by engaging in wildcat strikes and in diverse forms of protest which culminated in general strikes by AHMSA workers which resulted in 1,412 layoffs that later, in February 1983, were partly rehired because 57 labor activists were fired.

Mobilization in 1982-1983 was largely the result of the hegemony that a political organization called Linea Proletaria exerted on Local 147. This organization, which also had influence on local 271 in SICARTSA as well as in urban shanty towns dwellers, was identified with a radical posture concerning economic restructuring. Given the policies of De La Madrid government and especially of the Ministry of Labor the efforts of Linea Proletaria to counter restructuring were unsuccessful. 14 Macroeconomic policy did not allow for concessions at the company level. In the steel sector this was reflected in the blocking of demands for wage increases and in pressures to modify collective contracts. Relations were defined in black and white terms: thus, at the beginning of 1989, when the new president, Salinas de Gortari, had just taken office, the Director General of AHMSA stated in his opening address to the negotiators of the contract that the problem was "to modernize or to die." Indeed, at that moment, the Salinas government was starting to intensify the privatization policy. In the case of AHMSA this meant that at least 6,673 workers were to be laid off, 35 clauses of the contract had to be modified and many jobs had to be eliminated so as to make AHMSA attractive for prospective buyers. These pressures resulted in weakening the bargaining position of Locals 147 and 288: the risk of losing such a volume of jobs forced them to change their strategy. This was also the result of pressures coming from the executive committee of the national union which supported the position of the company and of the government in the Junta Federal de Conciliación y Arbitraje (Federal Conciliation and Arbitration Board) of the Ministry of Labor, where negotiations took place.

The first round between AHMSA and the local unions lasted from the middle of 1982 to the beginning of 1983 but continued all through the decade, finding a stable solution only after privatization was finished in 1991. Gradually, all through the decade, the local unions at AHMSA lost bargaining power, as many others in the country. In the AHMSA case, this loss was the result of critical defeats in actions undertaken by the local unions: such is the case of the 51 day strike that local 288 undertook in 1991, just before privatization was approved. Therefore, when privatization took place at the end of 1991, the scenario was laid for the new owners of the company to begin operations in a more streamlined environment with less pressure coming from the unions. ¹⁵

In AHMSA, restructuring preceded privatization, as in SICARTSA. It did not involve a fragmentation of the company as in SICARTSA. It was centered upon massive layoffs: 16 almost 10 thousand workers lost their jobs as a result of this "cleaning-up act" supported by the World Bank which, at that time, was instrumental in the finance of the modernization of the steel plant. Also, the long history of hostile labor relations, characterized more by confrontation than cooperation, was profoundly transformed by privatization, which in a certain way, implied a defeat of the union locals. However, one can get the impression, from the analysis of events that took place at AHMSA after 1986, when the restructure process started, that workers got more involved with circles of quality and commitment to clients than SICARTSA workers.

(e) Participatory schemes, total quality control and union locals

In fact, from 1986 on, AHMSA workers got involved with their first experiences concerning total quality control. A "Plan de Calidad Integral" (Integral Quality Plan) was put into place whereby a new philosophy of production would be adopted. Modular groups were put into place to reduce technological backwardness and labor conflict at the plants. Non-unionized personnel were exclusively concerned with this plan. But, in 1987, it was expanded to unionized workers who were trained in participatory schemes, better human relations and systems of administration of total quality. In 1994, one could count 227 quality circles in AHMSA involving 2,082 workers with differential participation according to their place of work. Work methods, quality of life, ecological issues, product quality, accident reduction were the questions discussed in these circles. Also, workers became acquainted with the need to care for their client's wishes, to do things right the first time around, to better oneself continuously, to work in teams and develop leadership qualities.

Quality circles were instrumental in making management aware of the fact that horizontal mobility is very difficult to implement in a steel plant because of the high degree of specificity of tasks involved around each job. People just can't be moved around because it is not possible to be skilled in the very specialized tasks that have to be implemented. In addition, it is dangerous to move people around because of high risks present in many work sections of the plant. Thus, only vertical mobility is allowed to take place and it must respect traditional seniority levels. In spite of the fact that promotion is taking place more and more through training and skill, management must maintain seniority within skills as a basic

Within this context, both union locals had a lot of influence in regulating life at the shop floor level. Union locals, seeing the writing on the wall, became aware that training and concern for quality were to taken as objectives to be incorporated into their strategies. Direct on-the-job training, education at the formal educational system, trips to the plants that were already using technologies that were being built at AHMSA in Austria, the United States and Brazil were a part of this strategy. But, also present was the closing of Fundidora de Hierro y Acero de Monterrey in 1986 that startled the union movement and made it aware that they had to change their ways if they were to survive.

It is interesting to note that as quality circles were put in place and as union locals began to get involved with the transformation of AHMSA, behaviors such as turnover and absenteeism also changed. Between 1988 and 1994, turnover and absenteeism decreased dramatically at the same time that overtime increased. The index of turnover goes from .89 in 1988 to .23 in 1994 in AHMSA I and from .37 in 1988 to .18 in AHMSA II. The index of absenteeism goes from 14.0 in 1988 to 6.1 in 1994 in AHMSA I and from 11.8 in 1988 to 6.1 in 1994 in AHMSA II. Overtime goes from 2.9 in 1988 to 10.0 in 1994 in AHMSA I and from 4.3 in 1988 to 10.9 in 1994 in AHMSA II. These figures are clear in expressing the changes that went on at AHMSA between 1988 and 1994, before and after privatization took place. It is a tendency that started before privatization and continued after it took place. Another indicator that reinforces these data is accidents. From 46.391 days lost due to accidents in 1988, one goes to 19.656 days lost by accidents in 1994. Thus, one can conclude that restructuring has involved changes in traditional working behavior at AHMSA.

Modifications to the collective contract also were introduced to support productive restructuring. If one compares the 1985-87 contract with the 1993-1995 contract some important clauses were modified in favor of the company and others in some way favored workers. The promotion system, which relied totally upon seniority, was revised so that management could intervene to fulfill its needs. This especially applies to temporary vacancies. Vacant posts were to be filled according to the needs of the operation without taking into account seniority or were not to be filled at all. Also, holidays were cut in exchange for an increase in the number of vacation days that went from 30 to 40 days a year. All kinds of clauses related to leave time were rescinded. Payments for overtime also were changed and increased fot those workers that, in addition to their normal working day, worked four or more hours.

CANANEA COPPER MINING COMPANY (CANANEA)¹⁷ (a) Background

Cananea is one of the oldest copper mines in Latin America. The property of Anaconda Copper Corporation for many years (1907-1972) Cananea miners symbolize one of the first instances of rebellion against the dictatorship of Porfirio Díaz in 1906. In 1972, when the government of Luis Echeverría (1970-1976) established the participation of the Mexican State in some companies that were judged strategic for national development, the mine became the property of a mixed company, with the State having minority ownership. From 1972 to 1982, Anaconda maintained majority participation in the property of the mixed company. In 1982, Cananea became a wholly state-owned company, status which lasted until September 1990 when it was sold to the Grupo Industrial Minera México (GIMM), after a drawn out process that started with a fictitious bankruptcy of the company that served as the excuse to privatize it. 18 Protracted negotiations culminated when GIMM, a private group focused on mining that also owns another important mine, La Caridad, located also in the state of Sonora finally bought the mine. Cananea is almost on the border with the United States, near the town of Douglas, Arizona, some 500 km from the capital city of the state of Sonora, Hermosillo. Employment at Cananea is around 3 thousand workers. Sales in 1994, before the devaluation of December 20, were equal to about 150 million dollars.

The mine produces copper, silver and gold and has proven reserves of around of 15 million tons of metallic copper: it can therefore operate until well into the twenty-first century at a rhythm of production of 140 thousand tons a year which is the present level of production. Installations at the mine have a long and differentiated history. The pit, the concentrator and the smelter were built in very different periods, have very variable scales of production as well as different levels of mechanization. As can be deduced, this means that productivity will be very different according to the equipment one analyzes.

(b) Restructuring at Cananea

Restructuring took place especially when the mine was state owned, between 1982 and 1989. Both employment and production increased in that period, just before privatization. From then on, both indicators have behaved erratically with a tendency to decrease as a result both of decreasing price levels for copper in the international market until 1994 and to

took two years to take effect. These two factors decreased employment by 25% and production in a similar proportion. Privatization has not changed this tendency and production at Cananea has increased very little in relation to what it was in 1987, around 106 thousand tons per year substantially below its installed capacity, which is 140 thousand tons

It is important to mention that restructuring is not a recent process in Cananea. Price fluctuations in the copper market are critical to explain expansions and restructuring that follow a cyclical pattern. Cananea is no exception to this rule and the 1982-1988 expansion of productive capacity as well as the 1989-1990 employment changes prepared what was going to become the 1993-1994 boom in the value of the production of the mine. Therefore, economic rationality is less conditioned by considerations of general economic policy or labor questions than by questions of modernization of productive equipment, training and other innovations.

It is only in the recent 1993-1994 period that labor questions have begun to be debated given that the other elements of the restructuring process are already concluded. It is only when labor practices become an obstacle to the efficient use of the modern equipment which measures are taken to correct them. Once it took over the mine, GIMM managers began to see that several clauses of the collective contract prevented a more intensive use of the new installed capacity and of the new technologies.

(c) Collective contract reform

However, these clauses were not in themselves the principal explanation for the relative inefficiencies observed by Cananea management because the increases in the productivity of labor resulting from the increase in productive capacity compensated what could appear as labor problems. Indeed, the rank of Cananea in the 500 largest companies went from place 75 in 1986 to place 32 in 1987 and place 18 in 1988, an impressive record. In addition, when bankruptcy was alleged to have taken place in 1989, copper price were going through their highest level in two decades. In reality, the rationale behind the modifications in the contract took place in the context of the labor policies that were being implemented as a result of the macroeconomic policy of the Salinas government. In that context, it did not matter if Cananea was or was not profitable; it had to be shown that privatization was an objective that transcended the specific economic results of the company 19. As data in note 22 show, productivperiod 1970-1978 to the period 1985-1992. There was no direct imperative to privatize in economic terms.

(d) Reorganization of work

The modifications to the collective contract follow dramatic changes in the forms of organization of work. The central aspect of these modifications concerns the structure and exchanges among jobs. Both the structure and the exchanges

Cananea. Production, employment and productivity 1912-1992

Year	Production (metric tons)	Employment	Productivity	Sales*	Exports** (1985=100
1912	21.844	4.315	.06		
1940	26.000				
1950	31.500				
1960	31.000				
1970	34.838	1.486	23.44		
1971	36.363	1.477	24.62		
1972	40.676	1.493	27.24		
1973	39.073	1.569	24.90		
1974	44.683	1.737	25.72		
1975	37.681	1.692	22.27		
1976	47.305	1.699	27.84		
1977	49.497	1.780	27.81		
1978	50.046	1.941	25.78		
1982				3.563	
1983				9.414	
1984	44.559			11.560	
1985	45.604	2.781	16.40	18.461	
1986	45.258	3.454	13.64	40.933	2.938
1987	90.764	3.775	23.75	332.846	139.364
1988	126.566	3.450	36.69	1.403.718	
1989	83.801	3.325	25.20		
1990	104.103	2.950	35.29		
1991	92.036	3.062	30.06	1.108.143	166.931
1992	106.000	3.232	32.80	895.838	188.125

Sources: Expansión, many numbers and Mexican Stock Exchange; the series for sales and exports (1986-1987) are for Compañia Minera Cananea; the series 1991-1992 are for Mexicana de Cananea.

^{*} and ** are constant figures deflated by the international index for copper prices reported by the Yearbook of International Financial Statistics of the International Monetary Fund (where 1985=1).

number of departments, promotion ladders, categories and wage levels have decreased. Mobility has increased deriving from the increased polyvalence of workers, that is to say from an increase in the jobs that one worker can perform at any onetime.²⁰

Exchange between maintenance and production jobs has been encouraged. This means that skills have become more interchangeable and fluid by making workers able to be welders, electricians and electronic repairmen simultaneously. The rules of internal labor markets are being modified through these types of measures. Rigidities associated to jobs have began to disappear and jobs are not anymore the property of specific workers as the old model of organization of work had it. However, it is important to say that these measures have created tensions at the level of payment systems. In spite of workers adopting polyvalence, they react negatively to the fact that salary levels have become more condensed. Some workers lose with this arrangement, especially those that having the same specialization were located in the higher levels of the wage structure and had to accept the same salary as everybody else. Thus, movements between categories can be made without changing wage levels and this has had negative impacts on the labor climate of the mine.

New ways of organizing jobs in Cananea have appeared together with the introduction of new equipment. Thus, in the new concentrator there are only four wage levels and eight categories: the number of promotion ladders also decreased making it easier for workers to move from one job to another within certain areas of the plant. Skills have also become more general and instead of having welders, mechanics, electricians or electronic repairmen, the new plant has only electromechanical-welders. The experience of the concentrator was taken as an example for the rest of the mine in spite of the fact that it does not modify the logic behind the old system: it only reduces what was an inflation of categories and levels. Thus, the reduction that took place was an answer to the rigidities that existed and enabled the company to become more flexible to fluctuations in the market and to internal labor pressures.

(e) Training

All these changes, in one way or another imply a reference to training or retraining. For workers to be mobile among skills, categories and wage levels they must acquire general knowledge. The experience of Cananea in this respect has not been encouraging because miners have tended to resist mobility.

Cananea miners did not accept mobility. Reasons given to this were on the one hand the absence of bonuses paid for polyvalence or extra payments made when workers were assigned to jobs in categories located higher than the ones they were permanently assigned to. Also, workers mentioned that management used mobility instrumentally to increase the number of tasks. Mobility is used to make workers work more than they would if they remained in their permanent assignment. This is the result of the perception of management that most workers have a propensity not to work. So, to make workers work, they are moved where work is available. Finally another reason mentioned for this resistance to mobility is the absence of knowledge to undertake certain jobs. Thus, workers refuse to do things they don't know how to do well. This means that the training system is not able to produce polyvalent workers because it was geared towards imitation of skilled workers by the unskilled workers. The traditional internal labor market was organized around the diffusion of experience, not to the acquisition of knowledge. Finally, formal training programs are practically useless because of the specific nature of technology; the unique character of most of the machinery,21 the high subdivision of tasks that limited what could be learned in each job.

(f) Modifications in labor relations

To changes in productive capacity and in internal labor markets one must add modifications in labor relations. The historic terms of the relationship between capital and labor at Cananea are centered upon the interpretation of changes in the content of some contractual clauses by management and Local 65 of the SNTMMRM.²²

As a result of the negotiation of the contract in 1989, there exist many misperceptions between management and the union leaders concerning the application of the clauses of the contract. According to the union, the key to labor peace is the respect of the contract. No consensus prevails given the management position of considering Cananea workers as trying to get away with labor practices that violate the spirit of the contract. When bankruptcy was declared in 1989, labor relations were questioned radically but through the Convenio de Reapertura (Reopening Agreement) the contract kept its validity in spite of having suffered changes.

(g) Implications of the Reopening Agreement

These changes were the following: (a) reduction in the span of application of the contract to the present installations of the company within the Cananea municipality so as to reduce the sovereignty of labor action beyond those limits; (b) free subcontracting for non-normal tasks such as construction, modifications of present installations and maintenance; (c) establishment of continuous shifts, increase in the number of working days and reduction of allowed absenteeism to decrease lost time in various non productive activities such as the suspension of work to present grievances or demands; (d) suppression of so called minimum work standards which were associated to customary ways of doing specific tasks and from now on will be specified by management; (e) elimination of seniority led promotions through the implementation of a system of vertical mobility linked to capacity; seniority only is applied in the case of two workers with the same capacity to do a certain job; (f) grouping of wage levels and of categories: this is the most controversial item in the changes implemented because if wage levels were compacted, the same did not happen with categories given that if they indeed were reduce horizontally, in vertical terms they remain the same: this is the fundamental question for workers because management pretends to change workers among categories and thereby change their incomes what is not the interpretation made by the union officials.

Since privatization took place, the personnel policy of the new management has an anti-labor flavor derived from its perception that the union officials were too powerful. For example, the managers of the state owned company were not inhibited from laying off personnel by the cost of indemnification or by the opposition of the union but essentially because they understood the function of Cananea to be, not only the production of copper but also the provider of employment opportunities. Now, this second priority having disappeared, the new managers are trying to attain the optimal level of employment for the mine in terms that are not just quantitative, as we have seen.

(h) Recent events at Cananea

Given that turnover and absenteeism has tended to decrease from 1992 to 1993²⁴ and given that many older workers have retired in advance, qualitatively speaking work had tended to intensify at the mine and thus the objective of management has been achieved. Also, temporal employment has increased a little from 1987 to 1994 in jobs that always were of a temporary nature.²⁵ This is not the same as subcontracted work which is being actively resisted by the local union and which is focused on machinery installation and maintenance of installed equipment and that often is related to their manufacturers or to other GIMM companies dedicated to these tasks.

Finally, in March 1993, the new management implemented a productivity agreement whereby given certain production objectives both management and the workers would try to achieve them. This agreement is essentially focused on the full utilization of installed capacity and of the working abilities of workers 24 hours a day 365 days a year. Thus, it is related to a program of intensification of work without rationalizing the use of inputs or of other elements that would be included in a larger definition of the concept of productivity.

The agreement is focused on continuity of production and on availability of workers. The local union has internalized the agreement trying to make it compatible with its objectives, one of which is the defense of jobs. Thus, if company management proposes the removal of 250,000 of material the union proposes the removal of 300,000 of material, an objective that would maintain the level of employment in the mine without layoffs. Also, given this objective, bonus payments derived from the agreement are fixed on the revised figure and this increases earnings for all workers in the mine. Thus, the local union by engaging in the administration of the productivity agreement has been able to obtain benefits for the workers.

Another way in which the union has become a part of the administration of the agreement is related to the introduction of technology to monitor the production process in the mine. Management, without consulting the union, tried to introduce equipment that did not function correctly and the delays caused by this immobilized the existing equipment. The union proposed and management accepted to consult with the union when such a situation arose thereby recognizing that workers had an experience and skills that would be useful in the modernization of Cananea.

However, the implementation of the productivity agreement, given that it is centered on collective objectives has meant that individual benefits that some workers received, through overtime or through payment for tasks, have disappeared. Also, some departments get a better deal out of the agreement than others given their strategic location in the productive process. Thus, earnings have not necessarily increased for those that did not have these opportunities or were not located in those areas of the plant. Therefore, workers manifest a negative perception of the productivity agreement by saying: the agreement means "more work for less money." In money terms the agreement does not seem to have paid off for the Cananea miners and that is one of the issues that can explain continuing labor dissatisfaction at the mine.

Thus, the balance at Cananea is that neither privatization nor changes in labor relations have been as important as

conditions and modernization of productive equipment for the explanation of its dramatic increase in competitiveness. Increases in the price of copper, renewal of old equipment, acquisition of new equipment with a much higher capacity to process ore have been instrumental in making Cananea a much more modern plant than was the case in 1982, when the Mexican State took over its property.

Teléfonos de México, S.A.²⁶

(a) Background

For most of the twentieth century, telephone communication in Mexico was controlled by Ericksson of Sweden, and International Telephone and Telegraph (ITT) of the United States. Given that the networks of the two companies weren't linked the country was subdivided according to the spaces that each company served. In 1948, Ericksson and ITT became one company, Teléfonos de México (TELMEX). Intense efforts were made to build one single telecommunications system. During the 50's this task was completed and important investments were made to expand the network to the growing urban spaces that were developing and that needed telephone service. Indeed, all through the most intense part of the process of industrialization by import substitution (1950-1970), TELMEX played an important role in facilitating national integration.

Together with the creation of TELMEX, its workers organized the Sindicato de Telefonistas de la Republica Mexicana (STRM) in 1950. Registered as a national industrial union,²⁷ the STRM had a long history of subordination to the official labor movement. This tradition was questioned with the election of Francisco Hernández Juárez in the union elections of 1976 that inaugurates a period of relative independence that has been instrumental in the explanation of the way in which the union has negotiated the modernization of TELMEX in the period 1990-1994.

Ten years after its creation, in 1958, the Mexican government acquired minority participation in TELMEX's equity and in 1972 total control through majority interest and thus the company became a state-owned company. Through the General Direction of Telecommunications of the Ministry of Communication and Transportation, the Mexican State regulates the activities of this company, which, in practical terms, was managed as a private enterprise.

In this period, foreign interests focused their activity in the production of equipment for the telecommunications industry. Ericksson and ITT, through subsidiaries such as INDETEL, engaged in production of machinery for TELMEX which was a captive market for their products. This allowed foreign capital to be present in a heavily protected internal market.

All through the period 1958-1990, TELMEX maintained this structure in terms of capital until privatization took place in September 1989. At the moment of privatization TELMEX had 5.3 million lines, 49.5 thousand employees: thus, there were 105 lines per employee and about 6 lines per 100 inhabitants.²⁸ It was a quite profitable company given that between 1987 and 1990, private profit in real terms more than doubled each year benefiting from price increases authorized by the government after privatization took place.*

(b) Restructuring in the eighties

During the eighties TELMEX had significant growth, in terms of lines installed, national and international calls and employment. As data in Table 5 show, growth rates for these four indicators have been very important. From data in this table one can underline the fact that employment has had the less intense rhythm of growth and that international calls have grown six times from 1980 to 1993. This means that TELMEX had had important productivity growth in a period when the Mexican economy experienced serious problems. Decisions that explain the behavior of these indicators were taken at the end of the seventies by management of the state owned company taking into account that digitalization could result in significant savings in investment, lower operation and maintenance costs, the possibility of offering new services, better quality of service, more flexibility for growth of the company and other benefits.

In addition to technological restructure, deregulation can contribute to explain those indicators. Changes in the tariffs authorized by the State and accelerated depreciation rates contribute to help the company maintain the rhythm of innovation. Both total income and profits grow significantly as a result of those factors and the rhythm of the increase accelerates from 1987 onwards. It is also to be noted that despite the fact that TELMEX must import most of the equipment it is installing as a result of technological restructure it has had a positive balance of payments. Investment in both plant and equipment has kept pace with a very aggressive strategy to modernize the company keeping always in perspective the general population growth and the needs of an economy progressively geared towards the international market where good communications are an imperative.

This process includes modifications of the organizational structure of the company and a transformation of the labor relations system. A so-called modular structure substituted the old hierarchical model of organization. Here, areas of total

Year 19		Calls			Employees		Lines	
	National		Inter- national					
80	402.193	100.0	47.265	100.0	27.568	100.0	2.665.080	100.0
81	461.237	114.7	56.742	120.1	29.566	107	2.870.644	107.7
82	510.284	126.9	55.358	117.1	31.385	114	3.034.044	113.8
83	520.455	129.4	52.003	110.0	32.509	118	3.221.310	120.9
84	563.652	140.1	55.643	117.7	34.683	126	3.383.229	126.9
85	608.391	151.3	60.623	128.3	37.487	136.0	3.574.690	134.1
86	665.225	165.4	69.600	147.3	40.662	148	3.776.100	141.7
87	724.549	180.1	77.717	164.4	44.700	162	3.984.900	149.5
88	768.566	191.1	103.58	219.1	49.995	181	4.261.673	159.9
89	860.647	214.0	141.500	299.4	49.203	179	4.702.508	176.4
90	951.048	236.5	168.200	355.9	49.912	181	5.189.802	194.7
91	.067.840	265.5	209.6	443.4	49.488	180	5.841.702	245.6
92	.221.291	303.7	306.45	648.4	48.937	178	6.545.880	245.6
93	357.999	337.6	323.58	684.6	48.771	177	7.373.814	276.7

results centers are thought to make the decision making process flexible, modernize systems and decentralize management. These areas contribute to establish differential strategies for the different clients of the company (business, private and public services) and allow for modifications of the relations of the company to its environment. It also allows for a better understanding of the workers, especially in terms of giving personnel sufficient autonomy in the execution of tasks. All through the period 1987-1989 these changes permitted that when privatization was decided the company had already experienced profound restructuring, technologically, organizationally and in labor relations.

Germán Sánchez, "Flexibilidad laboral y productividad del trabajo: el caso

de Teléfonos de México", manuscript, January 1995.

(c) Labor flexibilization

Total employment in 1993 was 41.449 workers. 57.6% were men and 42.2% women; their average age is around 33.9 years for both sexes. The most important part of total TELMEX employment (around 32.8%) is concerned with so-

maintaining the network. The other important segment focused on national traffic (20.5%) and international traffic involved only 5.2% of total personnel. This means that national and international traffic concentrates around 10 thousand TELMEX workers.

Workers are classified according to scales that can go from two to six levels. In addition, in some parts of the company such as in national traffic a more differentiated structure has been created to allow for incentives between workers that have more or less the same skill level. This differentiated structure rests on seniority that gives incentives for higher speed or dedication to the company. Vertical mobility is implemented through theoretical and practical examinations, the content of which is jointly decided by the company and the union and that respect seniority, given that workers can apply to take the exam according to their years of work. In some lower categories mobility is the result of personal request while in the upper categories the number of post available if predetermined and workers can accede to them only if there are openings.

Technological modernization, administrative reorganization, privatization and deregulation translate into substantial changes in the life of TELMEX workers. Despite the fact that no layoffs took place, neither in the pre-privatization period nor after it, uncertainty has grown, especially among workers concerned with manual or semi manual work. Thus telephone operators, who are mostly women, had to adjust to new equipment, to computerization, to less social interaction, and therefore to increasing intensification of work. Many people have had to change jobs or have had to move from their homes given that their activities disappeared from the company or location in geographical terms. Turnover takes place within the company among jobs and not in the external labor market. For example, in 1993-1994, 572 residence changes took place and 98 changes in department location.

(d) Training 29

Training is another dimension of the new TELMEX. Through the creation of the Technological Institute, all workers become familiar with the new technologies being introduced in the company. Courses in themes such as research and evaluation, planning, strategic studies, administration, engineering, computer training, open up possibilities for all TELMEX workers. Between 1991 and 1993, 24,314 courses were given for an attendance of 234,281 persons. The number of trainees duplicated between 1991 and 1992 while the average number of courses followed by each trainee was 9.4. Specific programs for new technologies, organizational techniques,

to expanding the range of skills that workers can exercise in their jobs (polyvalence) have also been given at this Institute. It is important to mention that courses on quality control have also been part of the curricula of this institute.

In the new working environment, borders between departments tend to disappear and the introduction of new equipment has meant that administrative personnel undertake tasks that previously were the privilege of maintenance personnel (such as the suspension of service for non payment of telephone bills). This adaptation results in the need to understand what the over changes mean for workers at specific locations of the company.

(e) Changes in the collective contract

Often mention was made that what TELMEX needed were changes in its collective contract. In particular, it was underlined that contractual clauses concerning hiring and layoff had to be modified. In this respect, the TELMEX union was part of the general arrangement whereby the company had to ask the union for the workers it needed. Layoffs were regulated by clauses that establish that if a worker is found guilty of a fault the company had to document the fault and document it within a 30-day period. It is to be underlined that neither hiring or layoff practices were modified when revision of the collective contract took place after 1987.

Indeed, the STRM succeeded in trading off changes in these matters with changes in other clauses especially those related to the impact that the new technologies would have on labor issues. After negotiations that were sponsored by the Ministry of Labor, it was recognized that contractual clauses had to be changed in departments where new technologies were being installed. The company had to inform the union about its objectives on these matters. Workers committed themselves to undertake tasks derived from the installation of the new equipment and that these commitments would be established by a joint commission that would regulate the new clause. Training in the use of the new technologies was adopted as compulsory. It was agreed that parameters of productivity would be established. The new technologies would be not only of benefit to the company but also would contribute to the betterment of work conditions. And finally, the company guaranteed that no layoffs would take place and that, on the contrary, new personnel would be hired.

Later, in the 1988 negotiation, this commitment was confirmed when 500 new posts were created and new definitions of working areas were adopted. The training program was also improved through increased interference by the Joint Commission in the determination of new courses, the contents of learning material, the type of instructors and the definition of who had to take courses. Clause 193 of the contract, concerned with technology, established that the union had the right to have specific information on company plans and that a joint commission would define technical and operational derived from the introduction of new technologies. In addition, productivity is defined as the search for an adequate combination between quantitative increase in production, quality increase, and betterment of conditions of work and training geared towards increases in productive capacity of workers. Finally, it was agreed that unionized workers would have access to research and development of software.

In 1991, other modifications of the contract included the redefinition of tasks and the decrease in categories that become "jobs" (puestos de trabajo) where specific responsibilities are defined deliberately in vague terms. Also, horizontal mobility is approved both within plants and between plants as well as geographically. These changes were accompanied by moves in the salary scale that implied massive vertical mobility: the cost of these promotions was around 300 thousand million pesos of 1991. Together with these changes in the contract, the agreement on quality productivity and training was signed.

(f) Labor relations in TELMEX

Tensions existed after Hernández Juárez became secretary general of the STRM in 1976. These tensions subsided in 1982 after the strike that had been declared was suppressed by the government through the so-called "requisa" (intervention) justified on the basis of the strategic role of communications in the economy. The leadership elected in 1976 learned from the 1982 experience that confrontation did not pay off and that other strategies had to be implemented to achieve the objectives of the workers. This change in union strategy resulted in a system of labor relations concerned with productive aspects. The union has succeeded in making its voice heard on matters that usually remain foreign to labor. The union has been able to concentrate workers demands at the shop floor level and to protect jobs, even when TELMEX tried to hire subcontractors for the realization of some tasks. The constitution of joint commissions between the company and the union for the analysis and elaboration of working rules in several areas such as technological modernization, training, safety and other matters has forced the company to share its strategic objectives with the union. At the same time, the STRM has engaged in a series of consultations with telecommunications unions in the United States, Canada, Great Britain

tioning labor questions in American corporations, such as Sprint. Thereby it has been able to counteract dynamically to the proposals of TELMEX management which often remains reluctant to accept this intervention but has to accept it given that it contributes to the fulfilling of its own objectives. Often, at the plant level, as a consequence of the high level of expertise of workers, acquired in the training programs, middle level supervision finds itself at a disadvantage in front of workers that know better. Thus, the type of labor relations that have developed in the period 1985-1995 have permitted TELMEX to modernize without major tensions, both when the company was state owned and when it became private.

(g) The negotiation of productivity at TELMEX³⁰ We have mentioned already a series of measures that in many ways have contributed to flexibilization of labor at TELMEX. All these measures can be considered as part of one single system denominated the General Program of Incentives for Quality and Productivity (GPIQP) which governs action to modernize the company. The GPIQP discards productivity defined in detriment of work conditions and centers its attention on increasing the quality of telephone service, the growth of the telecommunications system and the betterment of the conditions of workers. Many of these elements are derived from the Japanese proposals on a service culture based on a philosophy of quality. According to the STRM, the company must evolve from a bureaucratic to a creative ethos.

The principal objectives of the GPIQP were established in March 1992 and they are the following: (a) to satisfy the demand for better telephone service; (b) to achieve the goals of the company as derived from the concession to manage communication in the country;(c) to increase productivity and quality; (d) to increase coordination among the departments of the company; (e) to enable workers to increase their income on the basis of the increase in productivity levels; (f) to increase the quality of life of workers on the basis of a better administration of their leisure time. These objectives are all reflected in economic incentives received by the workers. Group and individual parameters having been fixed, workers must play according to planned objectives that define the level of the incentives. All through 1992 and 1993, the system was put into place by the design of parameters in each working area, the definition of measuring methods and the determination of the average levels of productivity that would be considered for the payment of incentives. The balance of the implementation of the program has not been

Unreliable data exists in some departments for the establishment of parameters. Hierarchical patterns excessively weigh on decision making and interfere with the flow of information and obstruct the possibilities for line personnel to know what they have to do. The fear of taking the initiative and refusal to accept knowledge and experience of unionized personnel cause mixed results. Perhaps on the strictly economic dimension of the program it is possible to say that workers have been able to maintain their income levels in terms of the quantitative fulfilling of the goals established in the GPIQP. Given these problems, a National Commission for the Evaluation and Follow Up of the program was established to monitor it in the different departments of the company. In 1994, some new measures were put into place such as a periodic survey to evaluate client perception of TELMEX, the conformation of analysis groups and additional indicators of productivity and their respective measures. From what this Commission has been able to gather, it seems like the principal bottlenecks derive from difficulties among nonunionized personnel that have trouble in formulating objectives that go beyond established goals. The non-unionized personnel do not stimulate participation in the analysis groups and do not accelerate the speed with which basic information flows among workers.

SUMMARY AND CONCLUSIONS

The presentation of events at SICARTSA, AHMSA, CANANEA and TELMEX with respect to labor relations practices, pay and productivity related policies, productivity management schemes, manpower utilization issues and labor management cooperation points towards some general conclusions that we would like to present now.

(a) Restructuring, privatization and collective bargaining

First, the fact that in the four companies restructuring took place before privatization and was considered as a precondition to a successful privatization biased the labor perception of the process because workers and unions perceived it in negative terms and braced themselves defensively.

In addition, given that restructuring focused on technological modernization, stream lining of operations and organizational renovation, labor aspects were always considered as a "problem" that had to be solved and not as a factor that had to be inserted into the production process. Thus, labor continued to be seen as a cost and not as an input.

On the other hand, management perception of workers and unions was always defined in terms of obstacles to the implementation of modernization. Efficient production was of-the-art technology, computerization of operations, no negotiation of employment or work conditions and unilateral decision making by supervisors.

Therefore, increased productivity reflects capital investment and transformation of organizational structure while labor questions, once solved in the direction desired, only contributed to that increase as a result of its disappearance.

This is well illustrated by the content of collective bargaining in the period 1989-1994. During this period, which coincides with the Salinas presidency, the high degree of coordination between the ministries of Commerce, Finance and Labor with regard to the need to restructure the enterprises resulted in negotiations where strict limits were placed for wage increases (so-called "topes salariales"). Decisions regarding fringe benefits were oriented towards their suppression or frozen at the levels they had in 1989. Thus, the revision of collective contracts in the four companies implied deep changes in the rules of the game at the level of the shop floor as well as in the negotiating system. Restructuring resulted in some cases, such as AHMSA and SICARTSA, in massive layoffs that made workers and local unions very uncertain about their future.

(b) Restructuring, production and productivity Second, restructuring is mostly related to the modernization of the productive system through acquisition of new equipment, computerization, stream lining of production facilities, and not particularly to the establishment of measures to increase productivity derived from the participation of workers. For example, at Cananea, investments that took place in the eighties, while the company was state-owned, resulted in increases in the scale of production but productivity itself did not increase much. The same happens in SICARTSA and AHMSA where modernization was focused on achieving productive goals of new equipment without much emphasis on the introduction of policies geared towards worker participation in production. Only in TELMEX is modernization directly linked to the establishment of productivity agreements perhaps because it is not scale of production but quality of service which tends to be the central goal of the company and where most of the improvements in productivity can be

Here, it is important to underline the fact that productivity, in spite of having been a rhetorical element in the modernization discourse of the Salinas administration³¹ was in fact

decision making (with the exception for what happened at TELMEX which represents the exception that confirms the rule). Thus, in 1994, the Pacto³² decided that productivity had increased by 2% in the Mexican economy and this was taken to be a figure that all enterprises had to consider for their contractual negotiations. No concrete results came out of the decision to design a method of calculation of productivity increase at the national level.

(c) Labor relations.

Third, labor relations at all four companies have experienced change, especially as a result of the modifications of the clauses of collective contracts, especially those that concerned horizontal and vertical mobility of personnel, sub contracting, wage structures, precarization of employment, working hours, reduction of hierarchical levels, etc..* However, it is important not to forget that labor, as a whole has become weaker at the national level. This has restricted spaces of negotiation that previously played a role at the local level: thus, if local unions were weak at the plant level, this could be compensated by the leverage that national organizations could play at the political level.

One indicator of the way in which national labor leaders could exert pressure on the management of large and medium corporations is their simultaneous role as federal deputies and members of the boards of important public social security institutions. Through these and other channels such as the fact the Confederación de Trabajadores de México (CTM) is a constituent sector of the Partido Revolucionario Institutional (PRI), the governing party since 1929, political links of the national labor movement were consolidated, and expressed through the corporate State. Thus, if these links weakened, as they did after 1989, then the leverage of local unions tends also to lose power and companies can then be free, as they were during the period 1989-1994 to revise contracts in the way they chose to.

Finally, we can say that productivity results can be achieved by different mechanisms that do not always include labor. Depending upon specific sectoral conditions, political arrangements, union histories, intensity of technological modernization and capital formation, labor relations policies such as the ones that are being pursued by the Mexican government from 1982 to the present, the results will be very different.

Thus, deliberate productivity promotion schemes have to be processed before they can become a reality at the enterTELMEX case, the union has been an active participant in the implementation of its productivity program and management has been willing to bargain that scheme. It is impossible to omit the fact that both the secretary general of the STRM and the chairman of the board of TELMEX were, all through the Salinas presidency, his 'enfant-gatés.' This element is central to explaining what happened with the productivity program in that company.

At the end of this discussion, it remains to be said that the links between labor relations, productivity and enterprise competitiveness remain highly specific to particular experiences and that no easy generalizations can be made out of specific cases, such as the ones we have presented here.

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Notes

¹Most of the basic data (essentially the case studies of the companies) for the analysis presented here comes from two research projects that were directed by the author in the period 1993-1996. Both focused on the relationship between labor flexibility and labor productivity: the first, financed by

Canada and the second financed by the Consejo Nacional de Ciencia y Tecnología (CONACYT), the Mexican government's agency for science and technology. I would like to thank both agencies for their interest in this topic and the authors of the company monographs for their dedication in the elaboration of their respective studies.

²In Mexico, there are two types of national industrial unions. One negotiates one single contract for all workers in the sector such as oil workers, railroad workers and other categories. The other, such as the SNTMMRM, take the form of a federation of locals which each negotiate its own contract. The National Executive Committee can help in the negotiations but the local union executive plays the central role.

³See Table 1.

⁴Incorporated in Trinidad-Tobago.

⁵For a detailed presentation of the construction and initial operation of SICARTSA, see Francisco Zapata (comp.), Las Truchas: acero y sociedad en México, El Colegio de México, 1978; for the labor relations question, Ilán Bizberg, La acción obrera en Las Truchas, El Colegio de México, 1982.

"See Selva Davillé, "Sicartsa: historia de la sección 271", in G. Bensusan (ed.), Negociación y conflicto laboral en México", Fundación Friedrich Ebert, 1991; Jorge Martínez Aparicio, "Flexibilidad laboral y productividad del trabajo: estudio de caso: Siderúrgica Lázaro Cárdenas-Las Truchas", mimeo, 1995. A good discussion of recent and not so recent events is Heather Williams, "A model of social movement strategy and application to Ciudad Lázar Cárdenas, Michoacán", mimeo, 1995.

The negotiation of the 1989 contract was followed by a two month long strike. Workers rebelled against the imposition by the national union of the modifications to the contract. The company, still state owned, tried to hire new workers, and the workers answered with roadblocks, marches and hunger strikes. They also walked the 700-mile road to Mexico City. However, in spite of this mobilization, SICARTSA workers finally returned to work on October 19, 1989 without the clauses of the contract they had tried to keep.

⁸The record was established in the week from October 15 to 21, 1994 when 28.230 tons were produced in the mill.

⁹For an account of the revision of the collective contract, see Jorge Martlnez Aparicio, "SICARTSA: de la reconversión a la modernización, 1986-1990," El Cotidiano, January-February 1992, n_45 and by the same author, "De la reconversión a la modernización en las relaciones laborales, 1986-1991," El Cotidiano, marzo-abril 1992, n_46.

¹⁰See, Isabel Rueda (ed.), Tras las huellas de la privatización: el caso de Altos Hornos de México, México, Siglo XXI Editores, 1994. Also, Salvador Corrales," Flexbilidad laboral y productividad del trabajo: el caso de Altos Hornos de México S.A.", manuscript, May 1995.
 ¹¹Steel production has evolved as follows between 1988 and 1994:

¹²Grupo Acerero del Norte is a large conglomerate, that, according to publicized information, groups 12 companies which employ 22 thousand workers in 16 states in sectors such as steel, mining, fertilizer production and energy. It is based in Monclova, Coahuila.

¹³See, World Bank Conference on the Welfare consequences of selling public enterprises: case studies from Chile, Malaysia, Mexico and the U.K., June 11-12, 1992, Washington D.C. Mexico, Vol.I, Backgropund Telmex by Pankaj Tandon with contributions from Manuel A. Abdala and Inger Ruprah, Country Economics Department, Public Sector Management and Private Sector Development Division.

¹⁴See Clark Kerr and Abraham Siegel, "Inter-industry propensity to strike," in A. Flanders (editor), Collective Bargaining, London, Penguin Books, 1969.

¹⁵For a general view of the period 1982-1994, see Francisco Zapata, El sindicalismo mexicano frente a la restructuración, El Colegio de México, 1995.

¹⁶However, in 1992 a rather serious mobilization took place in relation to the amounts of severance pay that laid off workers were receiving. The "March of Dignity" left Monclova for Mexico City where AHMSA workers staged a protest in the Zocalo (the main square of the capital).

¹⁷Figures of employment at AHMSA in selected years of the period 1980-1993 are the following:

¹⁸See Juan Luis Sariego, "Enclaves y minerales del norte de México. Historia social de los mineros de Cananea y de Nueva Rosita: 1900-1070," Tesis de grado para optar al grado de Maestro en Antropología Social, Universidad Iberoamericana, 1986; Miguel Angel Ramírez and Alejandro Covarrubias, "Cultura sindical y flexibilidad laboral en Cananea. Opiniones sobre la empresa, el sindicato y el trabajo," paper presented to the Seminar on Industrial and Social Restructuring, Xalapa (Veracruz), October 1992; Oscar Contreras, Alejandro Covarrubias y Miguel Angel Ramirez, Jorge Ibarra, Cananea, una mina en ruptura con su pasado, México, Miguel Angel Porr a Editores, 1998; Miguel Angel Ramirez Sánchez, "Flexibilidad laboral y productividad del trabajo en Cananea," Research Report, El Colegio de México, 1994.

²¹Number of departments, promotion ladders, categories and wage levels in Cananea in June 1987 and March 1994:

²²It is important to underline the fact that there are no more than five or six mines in the world such as Cananea. Equipment manufacturers make machines for each one of them and most of the more standarized equipment, such as high tonnage trucks, is made on request.

²³Union local 65 was created in 1935 from what had been the Gran Sindicato Obrero Mártires de 1906 and the Unión de Obreros de Cananea (1911). In 1947 it underwent a process of what came to be known as the "charrazo" identified with the taking over by State dependent labor leaders of radical unios such as the miners, oil and railroad national industrial unions. Since then, its secretary general has been Napoleón Gómez Sada.

²⁴Management published the following considerations in 1991: "The collective contract and the internal regulations date from 1932. Through time many conditions have been added that translate themselves in unproductive behavior. The application of 18 agreements allows for absenteeism equal to

¹⁹The acquisition of Cananea by GIMM gave this group almost complete monopoly control over Mexican copper production: in 1991 GIMM controlled 88.6% of national production.

²⁰Cananea. Production, employment and productivity in 1970-1978 and in 1985-1992:

Statistical Appendix

TABLE 1

Mexico. Sectorial distribution of the economically active population (1895-1980) (in percentages) and percent yearly variation.

Year	Agricul- ture	% Var.	Industry		Service % Va		Total % Var.
1895	62.50		14.55		23.0		4.761.914
1900	61.93	-0.1	15.66	7.6	22.4	-2.6	5.131.051
1910	67.15	8.4	15.05	-3.8	17.8	-20.5	5.337.889
1921	71.43	6.4	11.49	-23.7	17.0	-4.5	4.883.561
1930	70.20	-1.8	14.39	25.2	15.4	-9.4	5.165.803
1940	65.39	-7.0	12.73	-11.5	21.9	42.2	5.858.116
1950	58.32	-10.8	15.95	25.3	26.0	18.7	8.272.093
1960	54.21	-7.0	18.95	18.8	27.2	4.6	11.332.016
1970	39.39	-27.3	22.95	21.1	37.7	38.6	12.955.057
1980	25.98	-34.0	20.35	-11.3	53.7	42.4	21.941.693
1990	22.6	-13.0	27.9	37.1	46.1	-14.2	23.403.413

Source: Instituto Nacional de Estadística, Geografia e Informática (INEGI), Estadísticas históricas de México, 1985, Volume I, page 251. Data for 1990, INEGI, XI Censo General de Población y Vivienda, 1990.

TABLE 2

Mexico. The urban employment structure of Mexico: 1940-1989

Occupation	1940	1950	1960	1970	1980	1989
Owners, managers technician	4.5	7.6	9.4	14.1	13.4	14.2
Office workers	8.5	11.3	12.9	13.4	16.7	15.7
Sales clerks	5.6	4.0	7.3	4.5	4.9	7.0
Small scale employers: all sector	 rs	0.8	0.5	5.5	4.6	3.7
Self-employed and unpaid workers in commerce	20.8	14.5	11.8	7.5	6.7	10.3
Self employed and unpaid workers in other sectors	17.1	13.7	8.7	10.6	11.9	11.7
Manual workers: Industry	19.5	17.7	21.6	17.9	14.5	16.0
Manual workers: Construction	3.3	5.4	6.4	5.8	8.3	2.6
Manual workers: Transport	4.7	4.2	4.8	2.9	2.5	2.3
Manual workers: Services	5.3	13.1	9.1	10.1	11.2	11.7
Domestic servants	10.7	7.7	7.5	7.7	5.3	4.8
TOTAL (Urban)	100.0	100.0	100.0	100.0	100.0	100.0
% working in agriculture	65.2	58.1	49.4	40.3	29.5	

Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI), Estadísticas históricas de México, 1985, Volume I, page 251. Data for 1990, INEGI, XI Censo General de Población y Vivienda, 1990.

TABLE 3

Mexico. Structure of non-agricultural employment: 1980-1992

Sector	1980	1985	1990	1992
Informal sector				
Total	49.1	51.3	55.5	56.0
-Self-employed	18.0	23.5	30.4	30.5
-Domestic employment	6.2	6.4	5.6	5.5
-Small companies	24.9	21.4	19.5	20.0
Formal sector				
Total	50.9	48.7	44.6	44.0
-Public sector	21.8	25.5	25.0	24.5
-Large private companies	29.1	23.2	19.6	19.5

Source: Encuesta de hogares, in **PREALC Informa**, num. 32, September 1993.

are classified. Cananea is the only mine in the world that suspends activities for lunch, on Sundays and holidays. The average wage for unionized personnel is 3.5 times higher than the national minimum wage and for each peso earned as wages four are earned as fringe benefits" (La Jornada, August 21, 1991).

²⁵Turnover and absenteeism at Cananea: 1992-1993

²⁶Type of employment at Cananea form 1987 to 1994 ²⁷See Germán Sánchez, "Flexibilidad laboral y productividad del trabajo: el caso de Teléfonos de México," manuscript, January 1995. Also Pilar Vásquez, "El telefonista sostiene su apuesta: la revisión contractual de 1990," El Cotidiano, núm. 35, mayo-junio de 1990.

²⁸A national industrial union corresponds to a union that groups workers in an economic sector subject to a federal jurisdiction, that is to say that has plants in more than one state in the country. National industrial unions are present in sectors such as oil, railroad, telecommunications, mining and metallurgy, electricity generation and distribution, radio and television transmission, fertilizer production and others.

It is important to underline that all national industrial unions, with the exception of the Sindicato Nacional de Trabajadores Mineros y Metalurgicos de la Republica Mexicana (SNTMMRM) to which we referred to earlier in relation to steel, have only one collective contract valid at the national level while the SNTMMRM has as many contracts as local unions belong to it. ²⁹These figures compare with 27 million lines, 156.5 thousand employees, 173 lines per employee for France Telecom; 25 million lines and 245 thousand employees and 102 lines per employee for British Telecom. ³⁰See Pankaj Tandon (with contributions from Manuel A.Abdala and Inder Ruprah), "Mexico: vol. 1: background, TELMEX," World Bank Conference on the Welfare consequences of selling public enterprises. Case studies from Chile, Malaysia, Mexico and the UK, June 11-12, 1992, Washington D.C.

³¹See, E. Arena, "Privatization and training: the Mexican case," InterDepartmental Project on Structural Adjustment, International Labour Office, Occasional Paper n_ 19, Geneva, December 1994.

³²What follows is derived from Germán Sánchez, "La negociación de la productividad en TELMEX: un recuento," El Cotidiano, n° 64, September-October 1994. This article is based on company and union documents related to the implementation of the productivity program such as "Programa General Permanente de Incentivos a la Productividad," mimeo, 1992; "Programa General de Incentivos a la Calidad y a la Productividad," mimeo, June

Comisión de Modernización presented at the 17th and 18th Conventions of the STRM that took place in September 1992 and September 1993.

33For example, see Carlos Salinas de Gortari's speech on May 1, 1990 where paragraph 8 mentions the need for Mexico to have a participatory working class, aware of the challenges of the nineties.

Million tons	Year N	Million tons
7.8	1992	8.5
7.9	1993	9.2
8.7	1994	10.2
8.0	1995 (est.)) 11.0
	7.8 7.9 8.7	7.8 1992 7.9 1993 8.7 1994

Source: Iron and Steel International Institute, as cited by **Siderurgia**, (Mexico City) año V, n 33, 2/95

Unionized	Non-unionized	Total
15.210	3.470	18.680
17.169	4.008	21.117
15.580	3.939	19.519
7.745	2.901	10.646
	15.210 17.169	15.210 3.470 17.169 4.008 15.580 3.939

Source: Fé Esperanza Cárdenas Cervera, "Efectos de la reconversión industrial sobre la fuerza de trabajo de la industria siderúrgica AHMSA: un caso de estudio en Monclova, Coahuila (México), Cuadernos de Investigación, Universidad Autónoma de Coahuila, n° 7, March 1992.

Indicator	1970-1978	1985-1992
Production (average tons)	42.240	86.860
Employment (average)	1652	3.253
Productivity (average) (tons per worker)	25.5	26.7

	June 1987	March 1994
Departments	25	19
Promotion ladders	81	60
Categories	369	242
Wage levels	136	4

Source: Ramirez Sanchez (1994)

	1992	1993
Turnover	11.49	8.30
Absenteism	13.00	11.92

Source: Ramirez Sánchez (1994) page 94

Type of employment	June 1987	March 1994
-Permanent	67.9%	69.5%
-Permanent workers		
in temporary jobs	11.1	1.8
-Temporary	19.0	28.7
	(N=2.471)	(N=2.164)

Source: Ramirez Sánchez (1994), page 95.