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# The Challenge of Assuring Universal Service in a Competitive Environment:

*What the Experience of the United States Might Suggest to Mexico*

By Richard McKenna<sup>1</sup>

## I. Introduction.

Telecommunications, one of the fastest growing industries in the world today, is considered a keystone element in a modern economy.<sup>2</sup> In order to assure the flow of investment and efficient management of this critical activity, many nations are turning to privatization of their telecommunications industries. Part One of this article addresses the experience of the United States, where telecommunications along with other "public utility" services generally have been in private hands from the outset, and where a central element in federal policy is now both an increase in competition and a decrease in regulation. The experience might provide some guidance for Mexico, addressed in Part Two of this article, where the move to privatization is well under way.

A particular aspect common to both nations is that Mexico and the United States have vast areas that are lightly populated.<sup>3</sup> Both nations, then, must face the question: How can a competitive approach to telecommunications be integrated, while assuring that efficient service is provided to the entire nation?

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1. The author is an attorney who, for the past twenty-four years, has been employed by GTE Service Corporation to furnish counseling and advocacy to GTE's domestic telephone operating companies with specific reference to the FCC. The author would like to express his appreciation to Ms. Donna Thayer of the Student Editorial Staff for her assistance with the portion of this article pertaining to Mexican telecommunications law.
  2. Larry Irving, Janet Hernandez & Wendy C. Chow, *Essay: Steps Toward a Global Information Infrastructure*, 39 FED. COM. L. J. 271, 274 (1994).
  3. *Id.* at 278. At the end of 1992, more than fifty countries across the globe had less than one telephone per one hundred people. Additionally, approximately fifty million people are on official waiting lists for telephone lines.
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## II. United States.

The Telecommunications Act of 1996, signed into law by President Clinton in February of 1996 (the "1996 Act"), proposes to open the telephone network to competition nationwide while eliminating unnecessary government regulation. This is the culmination of more than twenty years of history during which the model for telecommunications service in the United States has been converted from what was assumed to be a natural monopoly to what is expected to be a universe of highly competitive firms.

Among other things, the 1996 Act<sup>4</sup> delineates a Universal Service<sup>5</sup> program designed to assure that basic telecommunications are furnished throughout the United States. In addition, it provides for special services or special rates to benefit medical service providers, schools and libraries.<sup>6</sup> Following is a brief review of the background of telecommunications, which discusses the statutory mandate currently being addressed by the Federal Communications Commission (FCC).

### A. THE OLD WORLD.

A primary concern with transitioning to a purely competitive environment is the possibility of firms engaging in what is known as "cream-skimming." Cream-skimming occurs when firms cluster their resources in order to serve only the more profitable sectors, while leaving unserved (or underserved) areas of dispersed populations, as well as areas where the provision of service is unusually costly, or areas where the population lacks the means with which to purchase service.

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4. All statutory section references in this essay are to title 47 United States Code unless otherwise stated.
  5. The 1996 Act makes only one change in the Universal Service mandate adopted in 1934: inserting the phrase "without discrimination on the basis of race, color, religion, national origin, or sex..." so the § 151 provision authorizing the FCC now reads: "For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid efficient, nationwide, and world-wide wire and radio communications service with adequate facilities at reasonable charges, for the purpose of national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication, and for the purpose..."
  6. 47 U.S.C. § 254 (1996), reprinted herein as Appendix I.
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In the Old World, this problem was resolved by telephone companies serving as common carriers<sup>7</sup>, or more specifically as what is termed Carriers of Last Resort (COLRs). Such COLRs are common carriers legally committed to serving all customers within an identified area.<sup>8</sup> Under this arrangement, telephone companies were given a sanctioned monopoly in exchange for undertaking COLR obligations, while state regulatory agencies exercised prescribed powers of regulation over COLRs to ensure against abuse of monopolies to the disadvantage of the public. In the case of interstate and international service, common carriers were subject to regulation by the FCC under Title II of the Communications Act of 1934, as amended.<sup>9</sup>

A dominating factor in this Old World was a vast company known as the Bell System, or informally as Ma Bell. The Bell System owned local telephone companies serving more than eighty percent of the population, while its Long Lines division provid-

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7. "Common Carrier" as defined in the Communications Act is essentially circular: "The term 'common carrier' or 'carrier' means any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or in interstate or foreign radio transmission of energy, except where reference is made to common carriers not subject to [the Communications] Act . . . ; but a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier." 47 U.S.C. § 153(10). "[R]eviewing courts have fashioned the following two-part test for common carriage: '[T]he primary *sine qua non* of common carrier status is a quasi-public character, which arises out of the undertaking to carry for all people indifferently. This does not mean that the particular services offered must practically be available to the entire public; a specialized carrier whose service is of possible use to only a fraction of the population may nonetheless be a common carrier if he *holds himself out to serve indifferently all potential users...*' [and:] 'A second prerequisite to common carrier status [is] ... that the system be such that customers transmit intelligence of their own design and choosing.'" *Southwestern Bell Tel.Co. v. FCC*, 19 F.3d 1475, 1480 (D.C. Cir. 1994) (*citations omitted*).
  8. The focus of this essay is investor-owned companies. In addition, more than 1.5 million access lines in the United States are served by cooperatives. Among government-owned companies are Puerto Rico Telephone Company, owned by the Commonwealth, and in Alaska, the Municipality of Anchorage d/b/a/ Anchorage Telephone Utility.
  9. At the federal level, regulation of common carriers has proceeded for sixty-two years under the Communications Act of 1934, as amended (the "Communications Act"), 47 U.S.C. § 151 *et seq.* Comparable regulatory regimes have been established in each of the fifty states as well as other territories comprising the United States of America. Under the Communications Act, common carrier regulation is governed by Title II, 47 U.S.C. §201 *et seq.* This includes regulation of carrier rates under §201, applying prohibitions against unfair discrimination under §202, regulating carrier tariffs under §§203-205, regulating carrier facilities under §214, and regulating carrier depreciation and accounting under §220. To the extent common carriers, broadcasters or others who make use of the radio spectrum, this is regulated by the FCC under Title III of the Communications Act, §301 *et seq.* The courts have also recognized ancillary jurisdiction of the FCC under Title I §151 *et seq.* *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-178 (1968). The 1996 Act does not replace the Communications Act; it makes large and small additions — notably a mass of entirely new provisions added at the end of Title II — and makes many modifications.
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ed on an essentially monopoly basis the country's interstate telephone service and much of its intrastate long-distance telephone service.<sup>10</sup> The local telephone companies serving the remainder of the population were owned by a variety of independent firms and thus were known as Independents.<sup>11</sup> Rivalries existed between the Independents and the Bell System but there was little or no direct competition, since each local firm possessed the exclusive right to provide service in its certificated geographic area.

The lack of competition in intrastate and interstate service made it relatively simple to guard against cream-skimming. Regulators and companies together set prices so that the financial needs of the firm were met on an overall basis without closely relating costs to customers. For regulators, the point of greatest sensitivity was ensuring that charges to residential customers would be perceived as reasonable, inasmuch as residential customers were numerous and, when aroused, capable of voting out of office either the regulators themselves or the political forces that appointed them.

This concern resulted in practices at the state level whereby business customers would be charged more than the cost of service in order to fund lower rates for residential customers. At the federal level, a complicated scheme was set up that essentially overcharged interstate customers relative to cost. The surplus was then in effect transferred to the benefit of the residential ratepayer.<sup>12</sup> However peculiar the long-term economic consequences of this plan, it was politically necessary. But the plan required a closed system where benefits could be transferred for political reasons without fear of competitors taking advantage of the resulting disparities between cost and price.<sup>13</sup>

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10. The corporate entity was American Telephone and Telegraph Company, known as AT&T. I avoid using that name here because of confusion with the later Interexchange Carrier known as AT&T.
  11. It did not escape the attention of the telephone pioneers that telephone service profitability is directly related to population and traffic density. It is a fair generalization that what had been the population and traffic centers of the country in the first couple of decades of the twentieth century came to be served by the Bell System, while much of the remaining area of the United States was served by independents. Some of these Independent locations subsequently became important centers of population and traffic density.
  12. Much of the history here summarized is addressed in Richard McKenna, *Pre-Emption Under the Communications Act*, 37 FED. COMM. L. J. 1, 18-52 (1985), which was cited by Justice Brennan's opinion for the Court in *Louisiana Public Service Comm'n v. FCC*, 476 U.S. 355, 369-370, 372 (1986). For a discussion of this case, see Richard McKenna, *Preemption Reversed: The Supreme Court's Decision in Louisiana Public Service Commission v. FCC*, 39 ADMIN. L. REV. 43 (1987).
  13. In the Old World, even the Supreme Court emphasized the non-competitive nature of the industry. *FCC v. RCA Communications, Inc.*, 346 U.S. 86, 91, 93, 97 (1953). The Court rejected the notion of a national policy in communications favoring competition "without careful qualification." The Court noted the comprehensive regulatory scheme of the Communications Act, holding that the FCC, in authorizing a competitor, "must at least warrant, as it were, that competition would serve some beneficial purpose such as maintaining good service and improving it."
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B. CHANGING THE OLD WORLD.

By the late 1960's, however, a new spirit was under way. After the Supreme Court upheld the FCC's assertion of jurisdiction over cable television based on the agency's ancillary powers,<sup>14</sup> the agency precluded telephone companies from providing cable television service,<sup>14a</sup> and opened the way for non-telephone company vendors to furnish terminal equipment.<sup>15</sup> Major barriers to the operations of Long Lines' competitors crumbled in the 1970s.<sup>16</sup> In due course, the courts would uphold the FCC opening the terminal equipment market even more broadly to competition by requiring telephone companies to unbundle and deregulate Customer Premises Equipment.<sup>17</sup> The courts also approved FCC action requiring that "Enhanced Services" be unbundled and deregulated, and in the case of the Bell System companies, furnished by an entirely separate subsidiary.<sup>18</sup>

These developments were interwoven with prosecution by the United States Department of Justice of its antitrust case against the Bell System, which led to the disassembly of that system in 1984 under the terms of the "Modified Final Judgment" or "MFJ."<sup>19</sup> Essentially what had been Long Lines — shorn of its local service affiliates — now became under the new terminology an Interexchange Carrier ("IXC") known as AT&T. Seven separate Bell Operating Companies continued to provide service under the severe restrictions of the MFJ. Many of these restrictions — especially the exclusion of the BOCs from furnishing "intraLATA"<sup>20</sup> service — are to be eliminated in due course by virtue of the 1996 Act.

Common carriers not undertaking COLR obligations and accordingly not certificated as such at the state level have generally been treated by the FCC as non-dominant and thus excused from the detailed and burdensome federal regulation<sup>21</sup> that applies to

14. *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-178 (1968).

14a. *But see* § 302.

15. The FCC overcame the resistance of state commissions to its policy that vendors other than the telephone company would have the right to furnish terminal equipment to customers. *North Carolina Util. Comm'n v. FCC*, 537 F.2d 787 (4th Cir.), *cert. denied*, 429 U.S. 1027 (1976). And it created a set of interconnection standards (today embodied in 47 C.F.R. § 68.01 *et seq.*) that would permit outside vendors to offer their equipment for use in the network. *North Carolina Util. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir.), *cert. denied*, 434 U.S. 874 (1977).

16. *MCI v. FCC*, 561 F.2d 365 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 1040 (1978), *compliance directed*, 580 F.2d 590 (D.C. Cir.), *cert. denied*, 439 U.S. 980 (1978).

17. *Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982).

18. *Id.*

19. *United States v. AT&T*, 552 F.Supp. 131 (D.D.C. 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

20. LATA stands for "Local Access Telecommunication Area".

21. The 1996 Act eliminates the doubts addressed in *AT&T v. FCC*, 978 F.2d 727 (D.C. Cir.), *cert. denied*, 509 U.S. 914, 113 S.Ct. 3020 (1993), about the extent to which the agency may suspend or eliminate Title II requirements as to various categories of common carrier; now the FCC has under § 160 a broad power to forbear from imposing unnecessary regulation.

telephone companies.<sup>22</sup> In the case of intrastate communications, common carriers are subject to regulation by administrative agencies authorized under state statute; the impact of such regulation often varies greatly as between IXC's and incumbent LEC's.<sup>23</sup> Jurisdictional conflicts between federal and state authorities have been legion and are a dominant theme in much of the history recounted supra.

The elimination of the closed non-competitive world meant that it was no longer feasible to transfer the equivalent of funds back and forth among different services and jurisdictions to meet purely political objectives. A stop-gap system adopted in the early 1980s funded the cost of service to the residential customer by (i) a federal charge against all customers and (ii) charges against IXC's.<sup>24</sup> But over the long term, this would not suffice because in a competitive world, where the price of a particular service is inflated to generate the funds for this cross-subsidy process, competitors will seize this opportunity to force out surplus profits. Thus, surplus generated on long-distance interstate and intrastate service — services now subject to heavy competitive pressures by aggressive IXC's, including AT&T, MCI and a great many others — would no longer be available to fund lower prices for residential customers.

The 1996 Act accelerates the development of this problem by seeking to assure completely competitive telecommunications at all levels. Recognizing this problem, § 254 of the statute charges the FCC, in conjunction with a federal-state joint board,<sup>25</sup> to develop a workable plan that will assure Universal Service throughout the nation.

The Act sets out certain "principles" in §254(b) and definitions in § 254(c). The core of the statutory scheme is set forth in §254(d), which says all carriers furnishing interstate telecommunications services "shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the [FCC] to

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22. Without getting lost in the intricacies of terminology, it suffices to say that a Carrier of Last Resort or COLR, known as a telephone company in pre-1984 terminology, a Local Exchange Carrier or "LEC" in pre-1996 terminology and an "incumbent LEC" under the terminology of the 1996 Act are equivalent concepts.
  23. While the sweep of federal and state utility regulation is broad, firms functioning as common carriers are private enterprises, not branches of the government. Utility rate regulation in the United States is governed by long-standing constitutional principles reiterated by the Supreme Court in *Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989), and discussed at length in Richard McKenna, *The Special Constitutional Status of Public Utility Regulation: From Munn to Duquesne Light*, 21 U. WEST L.A. REV. 31 (1990). The nub of these principles is that the courts will not permit confiscation of the utility investor interest under the guise of regulation. As to whether the court will apply this principle to regulation imposed on firms that are not public utilities, see Richard McKenna, *Paradox, Asymmetry, and Switcheroos: Approaching Constitutional Law from an Unexpected Angle*, 23 J. MARSHALL L. REV. 333 (1990).
  24. *NARUC v. FCC*, 737 F.2d 1095 (D.C. Cir 1984), cert. denied, 469 U.S. 1227 (1985).
  25. Under § 410(a), a joint board is comprised of members nominated by the states and members nominated by the FCC; it has the duties and obligations of an administrative law judge, and issues a recommended decision. Final action is taken by the FCC.
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preserve and advance universal service.”<sup>26</sup> In effect, all carriers are required to support service to cost-intensive customers by contributing to a common fund to be allocated among the carriers that provide service to those customers. Thus, Universal Service is funded not by the U.S. Government, but by industry money employed under a scheme to be developed and implemented by the FCC in cooperation with the states.

Perhaps hoping to avoid the extended controversies between the FCC and the states that have bedeviled policy in the past, Congress provides in §254(f) that a state may, but is not required to, adopt regulations not inconsistent with the FCC’s rules to preserve and advance Universal Service.<sup>27</sup> A state plan would be funded by carriers providing intrastate services, and it must not “rely on or burden Federal universal service support mechanisms.”<sup>28</sup>

The Universal Service statute also furnishes benefits specifically addressed to schools, libraries and health care providers. Section 254(h)(1)(A) provides that, upon a *bona fide* request, carriers shall furnish telecommunications services necessary for providing health care services at rates reasonably comparable in rural areas to those charged in urban areas. Section 254(h)(1)(B) requires discounts for telecommunications services to schools and libraries. Universal Service support is to be made available for both of these purposes.

One of many proceedings initiated by the FCC to implement the 1996 Act is entitled Federal-State Joint Board on Universal Service.<sup>29</sup> In this proceeding the FCC, in compliance with the time limit specified in § 254(a)(2), promptly issued its Notice of Proposed Rulemaking and Order Establishing Joint Board (the “D.96-45 Notice”).<sup>30</sup> Under § 254(a)(2) the FCC must complete this proceeding by May 1997. The D.96-45 Notice asked for comments, proposals and suggestions. On November 8, 1996, the Joint Board released a Recommended Decision.<sup>31</sup> The FCC will consider this recommendation in light of comments to be submitted no later than December 1996, as well as reply comments submitted in January 1997.

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26. Irving, *supra* note 2, at 278. “Some states are leading the way toward attaining this goal through creative policymaking within their own boundaries. For example, New York has developed a program that enables low-income households to receive basic service for as little as one dollar per month plus usage charges, with installation charges as low as ten dollars. A proposal to require all providers (including cable systems) to contribute toward universal service expenses also is being considered in New York. California has established a fund to provide telecommunications equipment and services for the deaf and other with disabilities. California also requires telephone companies to contribute toward a fund that helps low-income households receive telephone service.”

27. 47 U.S.C. § 254 (f).

28. *Id.*

29. CC Docket No. 96-45 (D. 96-45).

30. FCC 96-93 (released March 8, 1996), 1996 FCC LEXIS 1223.

31. Recommended Decision, D. 96-45, FCC 96J-3 (released Nov.8, 1996), 1996 FCC Lexis 6259.

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Whatever the FCC's choices, there is commonality with the underlying issues faced by many other countries. This is particularly true in the case of countries such as Mexico which have vast areas that are sparsely populated. However, there are also differences between the United States and Mexico in terms of the previously recounted history and its future implications. Interested readers should follow closely the next stage of this matter in the United States when the FCC adopts and implements its Universal Service plan.

### III. Mexico.

Mexico also is undergoing drastic changes in its telecommunications industry and facing many of the issues now being confronted in the United States. These changes primarily came about as a result of excessive government control and a hostile attitude toward foreign investment.<sup>32</sup>

Mexico shares at least one primary concern with the United States — provision of services to outlying areas. This problem becomes apparent when looking at the statistics on the number of phone lines in Mexico's different geographic regions. For instance, Mexico City, which is Mexico's largest urban center with 24.7 percent of the population, contains 36.1 percent of the country's total phone lines. This amounts to an average of 11.62 phone lines per one hundred people. The rest of the country averages only 6.74 phone lines per one hundred people. Since the majority of the country consists of outlying rural areas, the average number of phone lines for the entire country was only 7.95 per one hundred people as of 1994.<sup>33</sup>

The global trend toward privatization has seen positive results in most countries. In Chile, for example, prior to privatization the number of main telephone lines increased at a rate of 25 percent per year. Since privatization, the increase has exceeded 75 percent annually. Similar results were achieved in the United Kingdom. There, households using telephone service rose from 78 percent in 1984 to 90 percent in 1994.<sup>34</sup>

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32. Brent Lee Vannoy, *Comment, Mexican Telecommunications: Privatization and NAFTA Open the Door for U.S. Expansion Into Mexican Markets*, 17 HOUS. J. INTL. L. 309, 311 (Winter 1994). In 1970 the Mexican government under the control of President Luis Escheverria Alvarez began restricting foreign investment and took direct control over much of the economy. For instance, the government now determines the exchange rate, prohibited foreign involvement in certain areas such as insurance, limited foreign ownership in some industries such as mining, and prohibited foreign participation in financial services.
  33. Edward Czarnecki and Andrea Katz, *The Rural Dilemma: Private Investors are Crucial for Rural Telephones in Latin America*, LATINFINANCE, 73 (July/Aug. 1996).
  34. Irving, et al., *supra* note 2 at 274.
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## A. BACKGROUND OF MEXICAN TELECOMMUNICATIONS.

Although Mexico does not share historical development similar to that in the United States, several results can be compared. In 1972, the Mexican government took control of the telecommunications industry through a government controlled entity called Telefonos de Mexico S.A. de C.V. (Telmex). At that time, the system was inefficient and outdated, and had a difficult time controlling its costs. Notwithstanding the scarcity of phone lines nationwide, twenty percent of Mexico's phones were not functioning at any given time, and the waiting period for new service exceeded six months.<sup>37</sup> Internal funding, as well as loans from foreign government credit agencies and multilateral banks, has proven insufficient to provide telecommunications in Mexico's outlying rural areas.<sup>36</sup> After several years of continuing decline, advances in technology and global economic pressure began to change Mexico's attitude toward privatization — not only in the telecommunications industry but in its entire economy. These advances pointed out to the public the need to provide a more efficient system that would be more responsive to consumer needs.<sup>37</sup>

However, the government wanted to ensure that privatizing the telecommunications industry, and introducing competition, would not make it more difficult to promote universal service.<sup>38</sup> For instance, privatization and competition increases the risk that providers will engage in cream-skimming. Thus, it was believed that establishing a purely privatized system without conditions would violate an important objective of Mexico's telecommunications law: to promote adequate social coverage with better prices, diversity and quality, while developing a healthy competition among telecommunication service providers.<sup>39</sup>

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35. Vannoy, *supra* note 32, at 312. The system had deteriorated so badly that fax machines were virtually non-existent in 1989.

36. Irving, *supra* note 2, at 72.

37. Vannoy, *supra* note 31, at 314.

38. Czarnecki, *supra* note 33, at 73. Previously, rural services were financed from revenue from the more profitable activities just as was the case in the United States. It was customary for revenue to be transferred from international and domestic long distance services to ensure provision of services in rural areas that are much more costly. In a number of countries, support for rural telecom development has taken the form of subsidies to the dominant network operators. Normally, the subsidy is paid by the general customer base and applied to the cost of providing services in high cost areas.

39. Telecommunications Act, art. 7. Article 7 states, "The objective of this Law is to: foster the efficient development of telecommunications; exercise the State's authority over telecommunications in order to guarantee national sovereignty; develop healthy competition among telecommunication service providers so that they can provide users with better prices, diversity and quality; and promote adequate social coverage."

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A critical factor in the push for privatization was a desire to stimulate the economy<sup>40</sup> The government began to realize that the economy and the telecommunications industry functioned in a symbiotic relationship — if the telecommunications industry could be improved it would provide a much needed boost to the Mexican economy, which in turn would contribute further to improvements in telecommunications.<sup>41</sup>

Privatization was intended to improve services offered to Mexican citizens and businesses. Both the rural and corporate sectors suffered from the inadequacies of the system. As mentioned earlier, rural areas were often left with minimal or no service at all and businesses were often left without the means to perform the most basic transactions. The Mexican government believed that privatization was the only way to improve services to both the rural and urban areas.<sup>42</sup>

There could be no justification for continuing with the present chaotic condition — largely induced by a failure to make timely investments — when Mexico's enormous market and high demand was very attractive to investors. When Telmex was finally offered publicly, investors aggressively purchased as many shares as they could acquire.<sup>43</sup>

International leaders also encouraged Mexico to privatize the industry, believing that government-run enterprises were less desirable than their more efficient privately-owned counterparts. Both developed and developing countries had begun to recognize that private investment and competition are crucial to telecommunications development. In the last decade, more than a dozen countries have privatized their telecommunications sectors, and at least as many are expected to begin privatization within the next five years.<sup>44</sup>

Technology advancements also played a role in the move toward privatization. Many companies were installing private networks that were relatively inexpensive and offered superior quality services. Therefore, the government realized that for Mexico to have any financial return from its telecommunications industry, the government-run enterprise must be sold.<sup>45</sup>

Mexico authorized the sale of Telmex in December 1990. A controlling interest in the voting stock of Telmex was authorized for sale to a consortium consisting of Southwestern Bell, Grupo Carso of Mexico and France Telecom.<sup>46</sup> Southwestern Bell and France Telecom planned expenditures totalling US \$13 billion to make Telmex the premier telecommunications provider of Latin America.<sup>47</sup>

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40. Vannoy, *supra* note 32, at 314. One of the first steps toward privatization came with the election of President Carlos Salinas de Gotari in 1989. With Gotari's election came the Mexican government's new perspective that telecommunications privatization was essential to revitalize the economy.

41. *Id.*

42. *Id.* at 315.

43. *Id.* at 316. Telmex sold 1.5 billion shares in the U.S., Europe and Asia.

44. Irving, *supra* note 2, at 274.

45. *Id.* The same qualities that make the private networks attractive — inexpensiveness, mobility and ease of installation — also made them difficult to regulate and tax.

46. See David Drez, Comment, *Direct Foreign Investment in Mexico's Telecommunications Market*, *infra* at 116.

47. Vannoy, *supra* note 32, at 317.

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Despite the transition, the government retained substantial regulatory powers over the industry. The Mexican regulatory system has been called the best in Latin America. This regulatory structure allows Mexico to support complex international communications, while promoting universal service to markets that otherwise would be unserved or underserved.<sup>48</sup>

B. CONCERNS WITH PRIVATIZATION.

With the newly privatized industry, Mexico now faces many of the same regulatory issues as the United States. The government must balance the interests of investors against the need for broader, more reasonably priced service.<sup>49</sup>

As mentioned previously, the Mexican government was concerned with ensuring that basic services are provided even to unprofitable rural areas — the same problem addressed by the United States under the 1996 Act. Rural telephone access is one of the most difficult problems facing the telecommunications industry worldwide.<sup>50</sup>

To ensure universal service, Mexico reached a concession arrangement with Telmex's private interests that required an enormous amount of revitalization to the telecommunications system. Specifically, 500,000 new lines are to be installed annually; service was to be extended to ten thousand towns with a population exceeding five hundred; there was to be a four hundred percent increase in the number of pay telephones; and the system was to be digitized to provide fiber optic links between larger cities.<sup>51</sup> Essentially, Mexico traded the new Telmex owners government approval in return for their obligation to provide universal service.<sup>52</sup>

This mechanism of concession requirements imposed on a single company is comparable to what was being done in the United States in the old world. Will Telmex face competition that is not subject to those requirements? Will the introduction of competition permit a reduction in detailed regulation of Telmex? Will it mandate such a reduction in Telmex regulation to allow Telmex to be competitive? The experience of the United States teaches that these kinds of questions will have to be grappled with to ensure continuing improvement in telecommunications throughout Mexico.

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48. *Id.* at 320. Some believe this superiority may be a result of Mexico's close proximity to the United States and its need to interface with the U.S. system. Irving, *supra* note 32, at 276. The U.S. has been eager to share their regulatory experiences with countries undergoing adjustments in their telecommunications regimes. This cooperation stems from the United States' desire to aid in the development of a global information infrastructure.

49. Vannoy, *supra* note 32, at 321. The government also wanted: (1) to ensure that anti-competitive practices weren't established by providers in an effort to discourage start-up providers, (2) establish criteria for market participation, and (3) provide rules and forums for dispute resolution.

50. Czarnecki, *supra* note 33, at 73. The more profitable private infrastructure projects have already been targeted by foreign investors. It will likely take additional legislative and regulatory reforms, as well as innovative project financing techniques to facilitate the inflow of private capital into rural telecommunications.

51. Vannoy, *supra* note 32, at 321.

52. *Id.* at 322.

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C. NAFTA'S EFFECT ON MEXICAN TELECOMMUNICATIONS.

The NAFTA is expected to provide such benefits that Mexico is projected to become a model for other Latin American countries, with significant benefit to its privatized system.<sup>53</sup> The combination of market liberalization, growing consumer demand, and increased infrastructure investment is expected to create a foundation for significant growth in Mexico's telecommunications market.<sup>54</sup>

The NAFTA also requires that telecommunications regulations be reasonable and nondiscriminatory.<sup>55</sup> Most trade treaties only require that countries treat foreign providers the same as they treat their own domestic providers.<sup>56</sup> National treatment still allows heavy restrictions to be placed on foreign industry so long as the same restrictions are placed on domestic industry.<sup>57</sup>

It is hoped that, as a result of the NAFTA requirements, all services currently available in the United States will become available in Mexico within a relatively short time. There is a substantial market for services that are available only in the United States, and the NAFTA will allow United States providers to supply those services to Mexico without excessive restrictions. This goes beyond the national treatment standard and actually helps to set the telecommunications policy for each country.<sup>58</sup>

Canada and the United States also will benefit from a standardized telecommunications system. Domestic and international providers should be able to anticipate what standards will govern a given proposal, and can thereby take steps to improve service with clear knowledge that they are in compliance with applicable laws and regulations. Regulatory agencies also will be able to ensure compatibility with international rules.<sup>59</sup>

Finally, regulatory agencies will receive increased responsibility under the NAFTA requirements. Agencies may restrict access to public networks by placing conditions on licensing and the resale of licenses. They also have the power to set standards for interfacing with networks.<sup>60</sup> The NAFTA regulations also allow providers to afford connectivity at reasonable prices, while retaining the ability to maintain profitability, and with the ability to provide access to areas that otherwise would be left without telecommunications services.<sup>61</sup> This is particularly important considering Telmex's position following privatization in Mexico.

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53. *Id.* at 324. NAFTA is expected to generate revenues of US \$100 million a year for value-added or enhanced telecommunication services.

54. Czarnecki, *supra* note 31, at 72.

55. North American Free Trade Agreement, art. 1302(1), drafted Aug. 12, 1992, revised Sept. 6, 1992, U.S.-Can.-Mex., 32 I.L.M. at 605 (entered into force Jan. 1, 1994) [hereinafter NAFTA].

56. Vannoy, *supra* note 30, at 324. National treatment means that each nation must treat foreign and domestic providers equally.

57. *Id.*

58. *Id.*

59. *Id.* at 325. NAFTA regulations are viewed by many as more explicit as to their requirements. This gives foreign investors security that they will know all the requirements in advance and be able to comply with the regulations.

60. *Id.* at 326.

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Appendix I

Title 47, United States Code.

47 U.S.C. § 254. Universal service.

(a) Procedures to review universal service requirements.

(1) Federal-State Joint Board on universal service.

Within one month after February 8, 1996, the Commission shall institute and refer to a Federal-State Joint Board under section 410(c) of this title a proceeding to recommend changes to any of its regulations in order to implement sections 214(e) of this title and this section, including the definition of the services that are supported by Federal universal service support mechanisms and a specific timetable for completion of such recommendations. In addition to the members of the Joint Board required under section 410(c) of this title, one member of such Joint Board shall be a State-appointed utility consumer advocate nominated by a national organization of State utility consumer advocates. The Joint Board shall, after notice and opportunity for public comment, make its recommendations to the Commission 9 months after February 8, 1996.

(2) Commission action.

The Commission shall initiate a single proceeding to implement the recommendations from the Joint Board required by paragraph (1) and shall complete such proceeding within 15 months after February 8, 1996. The rules established by such proceeding shall include a definition of the services that are supported by Federal universal service support mechanisms and a specific timetable for implementation. Thereafter, the Commission shall complete any proceeding to implement subsequent recommendations from any Joint Board on universal service within one year after receiving such recommendations.

(b) Universal service principles.

The Joint Board and the Commission shall base policies for the preservation and advancement of universal service on the following principles:

(1) Quality and rates.

Quality services should be available at just, reasonable, and affordable rates.

(2) Access to advanced services.

Access to advanced telecommunications and information services should be provided in all regions of the Nation.

(3) Access in rural and high cost areas.

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Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

(4) Equitable and nondiscriminatory contributions.

All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.

(5) Specific and predictable support mechanisms.

There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.

(6) Access to advanced telecommunications services for schools, health care, and libraries.

Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h) of this section.

(7) Additional principles.

Such other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this chapter.

(c) Definition.

(1) In general.

Universal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services. The Joint Board in recommending, and the Commission in establishing, the definition of the services that are supported by Federal universal service support mechanisms shall consider the extent to which such telecommunications services—

(A) are essential to education, public health, or public safety;

(B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;

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(C) are being deployed in public telecommunications networks by telecommunications carriers; and

(D) are consistent with the public interest, convenience, and necessity.

(2) Alterations and modifications.

The Joint Board may, from time to time, recommend to the Commission modifications in the definition of the services that are supported by Federal universal service support mechanisms.

(3) Special services.

In addition to the services included in the definition of universal service under paragraph (1), the Commission may designate additional services for such support mechanisms for schools, libraries, and health care providers for the purposes of subsection (h) of this section.

(d) Telecommunications carrier contribution.

Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service. The Commission may exempt a carrier or class of carriers from this requirement if the carrier's telecommunications activities are limited to such an extent that the level of such carrier's contribution to the preservation and advancement of universal service would be de minimis. Any other provider of interstate telecommunications may be required to contribute to the preservation and advancement of universal service if the public interest so requires.

(e) Universal service support.

After the date on which Commission regulations implementing this section take effect, only an eligible telecommunications carrier designated under section 214(e) of this title shall be eligible to receive specific Federal universal service support. A carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. Any such support should be explicit and sufficient to achieve the purposes of this section.

(f) State authority.

A State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service. Every telecommunications carrier that provides intrastate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, in a manner determined by the State to the preservation and advancement of universal service in that State. A State may adopt regulations to provide for additional definitions and standards to preserve and advance universal service within that State only to the extent that such regulations adopt additional specific, predictable, and sufficient mechanisms to support such definitions or standards that do not rely on or burden Federal universal service support mechanisms.

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(g) Interexchange and interstate services.

Within 6 months after February 8, 1996, the Commission shall adopt rules to require that the rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas. Such rules shall also require that a provider of interstate interexchange telecommunications services shall provide such services to its subscribers in each State at rates no higher than the rates charged to its subscribers in any other State.

(h) Telecommunications services for certain providers.

(1) In general.

(A) Health care providers for rural areas.

A telecommunications carrier shall, upon receiving a bona fide request, provide telecommunications services which are necessary for the provision of health care services in a State, including instruction relating to such services, to any public or nonprofit health care provider that serves persons who reside in rural areas in that State at rates that are reasonably comparable to rates charged for similar services in urban areas in that State. A telecommunications carrier providing service under this paragraph shall be entitled to have an amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State treated as a service obligation as a part of its obligation to participate in the mechanisms to preserve and advance universal service.

(B) Educational providers and libraries.

All telecommunications carriers serving a geographic area shall, upon a bona fide request for any of its services that are within the definition of universal service under subsection (c)(3) of this section, provide such services to elementary schools, secondary schools, and libraries for educational purposes at rates less than the amounts charged for similar services to other parties. The discount shall be an amount that the Commission, with respect to interstate services, and the States, with respect to intrastate services, determine is appropriate and necessary to ensure affordable access to and use of such services by such entities. A telecommunications carrier providing service under this paragraph shall—

(i) have an amount equal to the amount of the discount treated as an offset to its obligation to contribute to the mechanisms to preserve and advance universal service, or

(ii) notwithstanding the provisions of subsection (e) of this section, receive reimbursement utilizing the support mechanisms to preserve and advance universal service.

(2) Advanced services.

The Commission shall establish competitively neutral rules—

(A) to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries; and

(B) to define the circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users.

(3) Terms and conditions.

Telecommunications services and network capacity provided to a public institutional telecommunications user under this subsection may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value.

(4) Eligibility of users.

No entity listed in this subsection shall be entitled to preferential rates or treatment as required by this subsection, if such entity operates as a for-profit business, is a school described in paragraph (5)(A) with an endowment of more than \$50,000,000, or is a library not eligible for participation in State-based plans for funds under title III of the Library Services and Construction Act (20 U.S.C. 335c et seq.) [20 U.S.C.A. § 355e et seq.].

(5) Definitions.

For purposes of this subsection:

(A) Elementary and secondary schools.

The term “elementary and secondary schools” means elementary schools and secondary schools, as defined in paragraphs (14) and (25), respectively, of section 8801 of Title 20.

(B) Health care provider.

The term “health care provider” means—

- (i) post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools;
  - (ii) community health centers or health centers providing health care to migrants;
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- (iii) local health departments or agencies;
- (iv) community mental health centers;
- (v) not-for-profit hospitals;
- (vi) rural health clinics; and
- (vii) consortia of health care providers consisting of one or more entities described in clauses (i) through (vi).

(C) Public institutional telecommunications user.

The term "public institutional telecommunications user" means an elementary or secondary school, a library, or a health care provider as those terms are defined in this paragraph.

(i) Consumer protection.

The Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable.

(j) Lifeline Assistance.

Nothing in this section shall affect the collection, distribution, or administration of the Lifeline Assistance Program provided for by the Commission under regulations set forth in section 69.117 of title 47, Code of Federal Regulations, and other related sections of such title.

(k) Subsidy of competitive services prohibited.

A telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition. The Commission, with respect to interstate services, and the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services.