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THE TELECOMMUNICATIONS ACT OF 1996: BUSINESS ACCESS, AND IMPLICATIONS FOR INTEGRATED CARRIERS

by

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ABSTRACT

The Telecommunications Act of 1996 is a landmark piece of legislation. This thesis analyzes how the 1996 Act lowers entry barriers in the telephone, cable and broadcast markets, and the business implications of these regulatory changes. Lower access costs for businesses, it is hypothesized, will result from these legal and regulatory changes, and enable more rapid growth.

Technical change in the telecommunications industry was a driving force behind the passage of the Telecommunications Act of 1996. Traditionally regulation of telecommunications in the United States was a three-segment model. The three-segment model had separate regulatory regimes for print, radio, and telephony. This trifurcated approach makes increasingly less sense as technologies converge. The lines between media segregated by mode of transportation (paper vs. radio vs. landline) are quickly disappearing. Telecommunications is moving toward a digital, broadband world of networks which interconnect with one another.

I make a policy recommendation for an upcoming FCC rulemaking on access charge reform based on the changes in technology discussed above and the regulatory changes embedded in the Telecommunications Act of 1996. Lowering access charges towards cost and establishing a universal fund that recovers competitively neutral contributions for basic residential telephone service would better promote competition. To the extent that additional subsidies are needed regulators should carefully target subsidies to low-income families to keep their rates affordable.

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1.0 Introduction: Telecommunications Act of 1996

In February 1996, Congress passed and the President signed a sweeping bill that changed the ground rules for the telecommunications industry[1]. The Telecommunications Act of 1996 is the first comprehensive legislative overhaul of telecommunications law in 60 years.[2]. The Act effects virtually every sector of the communications industry: local telephone service, long distance telephone service, cable television, Internet services and television/radio broadcasting. The legislation proposes dramatic changes to the existing market structures of the communications industries. The Act allows long distance competitors, local phone competitors and cable TV operators to enter each another markets. The Act encourages a historic realignment of the communications industry by lowering merger barriers[3] and concentration limits[4]. Additionally, the Act expands federal authority by allowing the Federal Communications Commission (FCC) or another federal agency to set standards of decency for information communicated over the television, cable, and the Internet.[5] Finally, the Act preempts state authority by setting federal standards for the prices that local carriers must charge competitors for access to local telephone networks.[6]

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[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).
[2] Blumenfeld & Cohen, "Overview of the Telecommunications Act of 1996", http://www.technologylaw.com/techlaw, p. 1.
[3] Telecommunications Act of 1996, Section 601.
[4] Telecommunications Act of 1996, Section 202.
[5] Neal Friedman, "Telecommunications Act Imposes Control on Indecent Content on the Internet", http://www.commlaw.com, p. 1.
[6] Alfred Kahn, "Opening Up Local Phone Companies", Wall Street Journal, November 22, 1996, p. A15.

This thesis will show that:

- In 1996, competition did not develop in the local or long-distance markets because of carrier infighting over interconnection terms.
- In the next two to three years, competition will accelerate as carriers reach agreement on interconnection terms and new competitors enter the local and long-distance markets.

1.1 A Slow Start to Competition

When the Telecommunications Act of 1996 became law in February 1996, it was heralded as a breakthrough. The legislation was described as "pro-competitive" and "de-regulatory". The Act would "accelerate rapidly private sector deployment of advanced telecommunications".[7] Lawmakers expected to promote competition in the local, long-distance, and cable markets. It was hoped new competition would lead to the introduction of new services and lower prices.[8] It appears however that the 1996 Telecommunications Act's promise may have been premature.

Criticism of the Act intensified in the months following its passage. The FCC is bearing the brunt of the criticism as competition has not yet taken hold.[9] Critics claim the FCC ran roughshod over congressional intent by establishing national rules for interconnection.[10] These rules have not yet lead to significant competition in the local market.

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[7] House of Representatives, Report 104-458 (1996), p. 1.
[8] Mark Landler, NY Times, "A Year of Law But Scant Competition", December 23, 1996, p. D1.
[9] John DiIulio, Wall Street Journal, "How Bureaucrats Rewrite Laws, October 2, 1996, p. A18.
[10] Hudson Policy Bulletin, December 1996, (Hudson Institute 1996), p. 1.

Competition in the long-distance market has not flourished either. The three big long-distance carrier put through their steepest rate increase in several years.[11]

This thesis concludes that: long-distance prices are unlikely to go down nor will local residential competition become a reality unless access charges are lowered toward costs. The Interexchange Carriers (IXCs) currently price their long-distance service over marginal cost and subsidize the Regional Bell Operating Companies (RBOCs) by paying access charges to keep the price for residential service lower than marginal cost. Replacing this inequitable subsidy system with cost-based prices and a universal fund that recovers competitively neutral contributions for basic residential telephone service would better promote competition. To the extent that additional subsidies are needed regulators should carefully target subsidies to low-income families to keep their rates affordable.

1.2 Rise of the Integrated Carrier

While there was a slow start to competition in 1996, there was a great deal of merger activity after the passage of the Telecommunications Act.[12] Three examples are the NYNEX/Bell Atlantic, SBC Communications/Pacific Telesis, and the British Telecom/MCI deals.

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[11] Mark Landler, NY Times, "A Year of Law But Scant Competition", December 23, 1996, p. D1.
[12] The Yankee Group, "Bell Atlantic and NYNEX: Together at Last", http://www.yankeegroup.com, p. 2.

These three mergers are likely to be just the first wave in an industry reallignment.[13] After the NYNEX-Bell Atlantic merger was announced Eli Noam, the director of the Columbia Institute of Tele-Information and a former commissioner on the New York State Public Service commission said the following: "This is another step in the inexorable march of telecommunications to a world of four or five giant players."[14]

I agree with Professor Noam. As profit margins on basic telephone service go down because of increased competition under the Act, providers are likely to merge. Rather than build their own networks, carriers are likely to offer bundles of services that could include cable television, mobile-phone services, Internet access and basic phone service. Providers are likely to benefit from economies of scale and economies of scope by merging as fixed costs (administrative, hardware and software upgrades) can be spread over larger entities.

1.3 The Telecommunications Industry: Historical Background

The history of telecommunications demonstrates the power of a vertically-integrated firm. The United States telecommunications markets were long dominated by one monopolistic, vertically-integrated firm, American Telephone and Telegraph, or AT&T. After the American Bell Telephone Company's patents ran out in the 1890s, hundreds of small, independent telephone companies rushed to acquire business in existing markets as well as to open new ones. By 1907, the independents had competed prices down considerably

[13] At the time of this writing, both of these proposed mergers are undergoing review by federal and state authorities in several jurisdictions.
[14] Edmund Andrews, NY Times, "NYNEX and Bell Atlantic Agree to Merger", April 22, 1996, p. D5.

and captured over 50% of the market. [15] AT&T then reorganized its board of directors and named Theodore Vail as president. Vail subsequently used new technology to compete against independents, refusing to connect their exchanges to the new long-distance network. Thus, AT&T offered similar service at similar cost in local markets but also offerred long-distance service. AT&T refused to connect competitors local networks into their own long-distance network and a number of the independents folded.[16] AT&T was subsequently able to purchase numerous local-only companies at bargain prices (compared to what the companies had been worth prior to AT&T's advance), exploiting network externalities to increase the value of its long-distance network. AT&T started it's dominance of US telecommunications.

In response to complaints about AT&T's acquistion of the independent telephone companies, the Department of Justice threatened to file an antitrust suit against AT&T. In the 1913 Kingsbury Commitment the Department of Justice ordered AT&T to provide interconnection for the remaining independents in AT&T's long-distance network. AT&T also agreed to stop acquiring independent telephone companies; however, AT&T continued to enjoy almost blanket state and federal protection against competition in its own business.[17]

By 1934, AT&T was firmly established as the dominant telecommunications carrier. It owned about 80 percent of the nation's telephones and provided the only long distance

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[15] Peter Huber, "Federal Telecommunications Law", (Little, Brown and Company 1996), p. 11.
[16] Ibid.
[17] Peter Huber, "Federal Telecommunications Law", p. 17.

network. [18] The dominance of AT&T combined with the New Deal political climate led to the passage of the Communications Act of 1934.[19] The 1934 Act assumed that all telecommunications services would be provided by monopoly providers[20] AT&T's monopoly control of the telephone system continued for another 40 years.

The tide began to turn in 1974, however, when the U.S. Department of Justice filed an antitrust suit against the Bell System. [21] Eight years later, in 1982, a settlement was reached. [22] The main points of the settlement were that the Bell operating companies would become local access monopolies and retain all exchange operations within their control, and they would be required to provide equal access to all interexchange carriers. Thus, local access markets were recognized as natural monopolies and remained regulated as such while long distance markets became competitive. The Modification of Final Judgement (MFJ) also barred the RBOCs from providing long distance or information services and from manufacturing communictions equipment.[23]

The regulation of telephone carriers constituted one segment of the three segment model for the regulation of communications. Traditionally the communications industry has

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[18] Ingo Volgelsang, "Federal vs. State Regulation in US Telecommunications", WIK Diskussionsbeitrag, Nr. 134, October 1994, p. 4.
[19] Peter Huber, "Federal Telecommunications Law", p. 20.
[20] ALTS, "Implementing Local Competition Under the Telecommunications Act of 1996", pg 1, Association of Local Telecommunications Services (ALTS 1996).
[21] Ingo Volgelsang, "Federal vs. State Regulation in US Telecommunications", p. 6.
[22] Ibid.
[23] Peter Huber, "Federal Telecommunications Law", p. 291.

been divided into three distinct segments: common carriers, print media and broadcast media. Telephone companies have been regulated as common carriers: they are obligated to serve all on equal terms without discrimmination. Newspapers and magazines have been regulated in accordance with the First Amendment guaranteeing freedom of the press. Finally, broadcasters are subjected to a restrictive regulatory paradigm with government allocating scarce frequency on the radio spectrum.

For years, communication policy has been based on the assumption that it was possible to distinguish information transmitted in each of the three sectors: telephony, print, and broadcasting. In the 60 years since the Communications Act of 1934 was passed, information has become increasingly fluid and it is no longer possible to easily distinguish the ways that information is stored and transmitted.

The fluidity of information, called convergence, has forced regulators to reexamine the cracks in the three-sector model. Convergence, the merging of service providers, and a political backlash against regulation led to the new goal of unfettered competition. [24] Lawmakers decided to tear down the walls between the three sectors by passing the Telecommunications Act of 1996.

[24] For a discussion of the consensus that emerged during the 1970's and 1980's towards competition see "The Politics of Deregulation" by Alan Altshuler in the Telecommunications Revolution: Past, Present, and Future, edited by Harvey M. Sapolsky et al., (Routledge 1992).

1.4 Technology Advance in the Telecommunications Industry

Advances in telecommunications transmission and switching technologies are forcing a reexamination of existing telecommunications regulations. Separate regulatory regimes for print, radio, and telephony make increasingly less sense as technology has advanced and more content is being transmitted digitally. The lines between media segregated by mode of transportation (paper vs. radio vs. landline) are quickly disappearing as fiber-optic networks replace existing copper networks. As Peter Huber has said: "In digital systems a bit is a bit whether it represents a hiccup in a voice conversation, or the price at which AT&T stock is selling at this particular instant, or a strand of hair in a rerun of I Love Lucy."[25]

The two essential elements in telecommunications networks are transmission and switching. Most traffic is carried via copper wires or fiber-optic cable. Companies have increasingly deployed fiber-optic lines which cost much the same as copper wire to lay down and much less to maintain, but carry vastly greater traffic.

Fiber uses computer electronics to create its capacity and as computer technology has progressed rapidly so has the ability of fiber-optic lines to carry information. In addition to the surge in fiber capacity, the price of computer electronics to operate fiber transmission has been dropping at the rate of 10 percent per year for the last decade.[26]

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[25] Peter Huber, "Federal Telecommunications Law", (Little, Brown and Company 1990), p. 53.
[26] Jerry Hausman, "Proliferation of Networks in Telecommunications", (University of Michigan Press 1996) p. 20.

Switching technology is the other essential element of telecommunications. As digital transmission replaces analog transmission, electromechanical switching technology is being replaced by electronic switching. Computerized switching follows the same economic facts as fiber-optic transmission: as computer technology advances rapidly the price of switching drops correspondingly. The prices of switches have dropped from $240 per line to $130 per line in the last 10 years.[27]

The increased power plus decreased costs of switching and transmission has led to sharply lower prices in the long-distance market. Long-distance prices have dropped by almost 70 percent in the last 10 years. [28] Telecommunication operators are searching out new markets as their revenues from long-distance are descreasing. This is one reason operators pushed so hard for the 1996 Act's passage. The Act lowers barriers to entry for operators seeking new markets.

1.5 Overview of Thesis

In this thesis I will examine how the Telecommunications Act compels a restructing of the communications industry into megacarriers. Also, I will examine the likely effects of the Telecommunications Act on business, government, and consumers. By carefully exploring the language of the Act, I will explore the impact of the legislation on the players in the

[27] Jerry Hausman, "Proliferation of Networks in Telecommunications", p. 21.
[28] National Public Radio, "All Things Considered", August 8, 1996.

telecommunications industry. Will the Act usher in real reform in the telecommunications sector or growing industry concentration? Finally, I will make policy recommendations for an ongoing FCC rulemaking on access charge reform based on the changes in technology discussed above and the regulatory changes embedded in the Telecommunications Act of 1996.

In chapter one of this thesis I will discuss the historical background leading up to the passage of the legislation. Chapter two will cover the duties of telephone companies under the Act. Chapter three will analyze the cable provisions of the Act. Chapter four will cover the broadcast and miscellaneous provisions. Chapter five will cover the near and long-term impact of the Act on business, government and consumers.

The Act has seven titles. Title I allows local phone companies, and long-distance phone companies to enter one anothers markets. Title II changes the regulatory framework for broadcast services. Title III deregulates cable rates. Title IV streamlines the regulatory procedures of the FCC. Title V controls the dissemination of indecent material over new media such as the Internet. Title VI preempts the Modified Final Judgement (MFJ) which split up the Bell System and prohibits the Bell companies from certain lines of business. Title VII contains an assortment of provisions, ranging from consumer protection of privacy of information to new incentives for telecommunications research and development.

2.0 Opening the Telephone Network

This chapter analyzes the telephone provisions of the Act. This section of the Act is the most complex because the legislation attempts to undo rules that have been built up over the last hundred years which have protected the "natural monopoly" of local telephone service. The telephone provisions which are written into the first title of the 1996 Act cover "interconnection" (allowing competitors to plug into networks so they can offer local service to homes and businesses) and "universal service" (the federal guarantee of phone service to the poor and rural residents).

Title I of the Act imposes on telecommunications carriers a duty to "interconnect" with the facilities and equipment of other telecommunications carriers and not to install network features and function that do not compy with FCC regulations intended to promote network interoperability.

Under Title I, Telecommunications local exchange carriers (LECs) must permit other companies to resell their telecommunications services and connect with their network and services, just as if the connecting company were a subsidiary of the LEC. Telecommunications companies may voluntarily enter into interconnection negotiations dealing with issues such as pricing for resale and technical procedures.[29] If the parties fail to reach agreement, Title I allows state utility commissions to step in to arbitrate any

[29] Telecommunications Act of 1996, Section 252(a)(1).

disputes. If state PUCs fail to accomplish this task, the FCC will step in to make the interconnection occur. It is the imputation of new authority to the FCC over what is arguably a state matter which is the subject of current court action, which is summarized below in section 2.2.

2.1 Promotion of Local Exchange Competion

For decades, competitors in the telephone industry had restrictions on which markets they could enter. The FCC, state utility regulators and the 1984 AT&T consent decree set the boundaries on which businesses AT&T or the Regional Bell Operating Companies (RBOCs) could compete in. AT&T was once a regulated de facto monopoly and in 1984 it was broken up into seven RBOCs. AT&T had to divest its local exchange service, but could compete in the long-distance market. The RBOCs on the other hand retained a monopoly on telephone service in a local region but were prohibited from entering into the following three major lines of business[30]:

(1) the provision of long-distance services

(2) the provision of information services

(3) the manufacture of telecommunications products.

The RBOCs were quarantined into local markets for fear they would be able to reap some anticompetitve advantage in adjacent markets.

[30] Congressional Digest, "Special Issue on Telecommunications Reform", January 1996, p. 7.

The Telecommunications Act of 1996 preempts (overrules) these restrictions on the local and long-distance carriers. The long-distance operators such as AT&T, MCI and Sprint will be free to enter the local phone market and the RBOCs will be free to enter the long-distance market[31].

The federal government is offering the Baby Bells a massive quid pro quo to open up the local phone market: To get into the $70 billion long-distance busineses, the Bell monopolies must allow new rivals into the $100 billion local market. [32]

Consumers are likely to benefit from competition through lower prices and greater product choice. Competition has worked before in the telephone industry. Once competition was introduced into the long-distance market, phone rates dropped by more than 60%.[33] Prices should go down as the BOCs monopoly profits are eliminated.

There are two major ways in which the Act promotes competition in the telephone market:

(1) introducing competition in the local loop and

(2) removal of MFJ restrictions on the Bell Companies.

Section 251 and 252 of Title I of the act establishes rules to introduce competition in the local loop. These rules have three parts: the duties of all telecommunications carriers, the

[31] Telecommunications Act of 1996, Section 251.
[32] Telecommunications Act of 1996, Section 271(b)(1).
[33] Catherine Arnst, Business Week, "Phone Frenzy", February 20, 1995, pg. 92

duties of all local exchange carriers and the duties for all incumbent local exchange carriers (RBOCs).

First, "Each telecommunications carrier has the duty to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers" and "not to install network features, functions, or capabilities that do not comply with the guidelines and standards"[34].

Second, each local exchange carriers has the following duties[35]:

(1) not to impose unreasonable or discrimminatory conditions on the resale of its telecommunications services

(2) to provide number portability (allow users to retain the same number when switching carriers)

(3) to provide dialing parity (routing customer calls without the need for an access code) for competitors in the local loop and to permit access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays

(4) to provide access to local rights of ways such as poles, ducts and conduits

(5) to establish reciprocal compensation arrangements for the transport and termination of telecommunications.

Third, incumbent LECs have the following additional duties[36]:

[34] Telecommunications Act of 1996, Section 251(a).
[35] Telecommunications Act of 1996, Section 251(b).
[36] Telecommunications Act of 1996, Section 251(c).

(1) to negotiate in good faith the terms and conditions of these agreements

(2) to provide interconnection at any technically feasible point for the facilities and equipment of any requesting telecommunications carrier

(3) to provide unbundled access to network elements (subscriber numbers, databases, signaling systems and billing information) at any technically feasible point

(4) to offer telecommunications services for resale at wholesale rates

(5) to provide reasonable public notice of change in the information necessary for use of the incumbent LECs facilities.

(6) to provide nondiscrimminatory collocation of the equipment necessary for interconnection.

These interconnection rules are necessary because the FCC spent decades building up tightly integrated phone monopolies. LECs have substantial advantages over new competitors in the local phone market, such as economies of connectivity and scale. Since a LEC has little economic incentive to assist new entrants in the local market, these rules are a necessary step on the road to competition. LECs will therefore spend the next several years negotiating interconnection agreements with competitors.

There are exception to the interconnection rules. First, rural telephone companies are exempt from the network sharing requirements until the state public utility commission receives a request for interconnection that is technically feasible. Second, a state

commission may grant a LEC with fewer than two percent of the nation's access lines an exemption from the interconnection requirements.[37]

2.2 FCC's Implementation of the Local Competition Provisions

On August 8, 1996 the FCC released the First Report and Order on local competition.[38] This ruling attempts to remove competitive barriers by defining precisely the terms and conditions under Section 251 whereby local telephone competitors may interconnect with incumbent local phone companies.

The ruling was heavily pro-competitive -- much more pro-competitive than expected. The FCC ordered stringent pricing guidelines for the BOCs: including a 17-22 percent discount for resale of local lines, and a 0.2 to 0.4 cent range for the cost of using the switches of incumbent local providers. These price discounts to potential competitors were much steeper than the BOCs had expected. The BOCs were also unhappy with the ruling since the FCC set "national rules" rather than letting 50 PUCs decide what interconnection means.

In reponse to the stringent terms of the interconnection order, a coalition of local telephone companies asked the FCC to stay its interconnection decision until a federal court has a chance to review it. The lawyers for the local phone companies said that an

[37] Telecommunications Act of 1996, Section 251(f).
[38] FCC, "Implementation of the Local Competition Provisions in the Telecommunications Act", CC Docket 96-98, August 8, 1996.

appeal of the FCC was necessary because the commision "imposed an elaborate set of federal rules on the states without any regard to local needs and conditions".[39]

In early October 1996, the 8th US Circuit Court of Appeal issued a stay of the FCC interconnection order. The court claimed the FCC has overstepped it's authority by interfering in the pricing of intrastate telecommunications services, which have traditionally been under the jurisdiction of state PUCs.[40]

The stay of the FCC's interconnection order is likely to be a pothole on the road to opening up the local phone network to competition. The BOCs are not likely to sign an interconnection agreement with any of the 3 major long-distance telephone companies anytime soon. However, in the meantime, the BOCs are continuing to negotiate with smaller telephone competitors on interconnection agreements. The next section of the 1996 Act sets specific rules under which these negotiations will be conducted.

2.3 Negotiation of Interconnection Agreements

Section 252 of the Act sets forth procedures for negotiation, arbitration, and approval of the interconnection agreements[41]. These are mechanisms to ensure compliance with Section 251 of the Act. There are two routes whereby LECS and competitors can reach interconnection agreements: through voluntary negotiation or through compulsory negotiation mediated by the state public utility commission. Voluntary agreements need

[39] PRNewswire, "BellSouth Statement on August 8 FCC Order", August 29, 1996, p. 1.
[40] Louisiana Public Service Commission v. FCC, 476 U.S. 355, 360 (1986).
[41] Telecommunications Act of 1996, Section 252(a)-(d).

not comply fully with the interconnection requirements set forth in Section 251. States may only reject an interconnection agreement that discrimminates against a carrier not a party to the agreement or the agreement is not in the public interest. Incumbent LECs receiving requests for interconnection have 135 days to reach voluntary agreements with competitors that want to interconnect. If the parties do not reach agreement after 135 days, one of the parties may petition the State to arbitrate any open issues. If the state PUC is to be invited into the negotiation, the request must be made within 25 days after the voluntary negotiation time period has expired. Once the state steps in the matter must be resolved within 9 months from the time on which the LEC received the request to interconnect. If one of the parties alleges that the states decisions do not meet with the requirements of Section 251, these decisions are reviewable in federal court.

So far, the interconnection talks between the BOCs and competitors have generated more static than substance. To date no interconnection agreeements have been reached between a BOC and one of the three big long-distance companies, AT&T, MCI, or Sprint. Local service is only available to residential subscribers in a few markets such as Rochester, NY. It's unlikely that competitors will reach agreements on their own, so the arbitration procedures described above are a necessary part of the process.

All interconnection agreements adopted by negotiation or arbitration must be submitted for approval to the State utility commission[42]. States have 90 days to accept agreements arrived through voluntary negotiations and 30 days to accept agreements arrived through

[42] Telecommunication Act of 1996, Section 252(e).

arbitration. If the PUC fails to act within these time periods, the agreement is deemed approved. After accepting an interconnection agreement the LEC must make the same interconnection terms and conditions available to other potential competitors.

Over the last few years, before the passage of the Telecommunications Act, competition was starting to develop in the local telephone markets such as California and New York because of the efforts of state public utility commissions. For example, the California Public Utilities Commission required Pacific Telesis to sell their local service to wholesalers for up to a 17% discount on retail rates[43]. However, the 1996 Act accelerates this process by lowering competition barriers throughout the country.

The Act contains the following broad preemption provision to eliminate barriers to entry at the state and local level: "No state or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of probhibiting the ability of any entity to provide interstate or intrastate telecommunications services". [44]

The 1996 Act gives incentives to the RBOCs to lower their barriers to local phone competition. If the RBOCs lower their barriers to the local phone market, the RBOCs will be able to enter the lucrative long distance business. However, before the RBOCs can enter the long-distance market they must meet a complicated checklist of fourteen items. The FCC will verify that the RBOCs have met the checklist before they will be allowed to

[43] Pablo Galarza, Financial World, "Independence Day", April 22, 1996, p. 38.
[44] Telecommunications Act of 1996, Section 253(a).

offer long-distance service. The checklist includes items such as fair access to interconnections for Baby Bell rivals, equal access to telephone directory listings, "portability" on phone numbers when one switches companies and a system of reciprocal payments among competing local phone companies. The 14-point specific requirements on the RBOCs is as follows[45]:

(1) **Interconnection**: provide interconnection at any technically feasible point within their networks for the transmission and routing of telephone exchanges and exchange access services on a non-discriminatory basis.

(2) **Access to network elements**: provide non-discriminatory access to network elements on an unbundled basis at any technically feasible point.

(3) **Access to rights-of-ways**: provide non-discriminatory access to poles, ducts, and conduits owned or controlled by the RBOC at just and reasonable rates.

(4) **Local loop transmission**: provide local loop transmission from the central office to the customer's premises unbundled from local switching, and other services.

(5) **Local transport**: provide local transport from the trunk side of a wireline switch unbundled from switching, and other services

[45] CIX, "Telecommunications Act of 1996", http://www.cix.org, p. 8.

(6) **Local switching**: provide local switching unbundled from transport, local loop transmission, and other services.

(7) **Access to special phone services**: provide non-discriminatory access to 911, directory assistance, and operator call completion services

(8) **Access to directory listings**: provide white pages directory listings for customers of competitive carriers' telephone exchange services.

(9) **Access to databases and associate signaling**: provide non-discriminatory access to databases and associated signaling necessary for call routing and completion.

(10) **Access to telephone numbers for assignment**: provide non-discriminatory access to telephone numbers for assignment to the customers of competitive exchange services.

(11) **Number portability**: provide interim number portability through remote call forwarding, direct inward dialing trunks, or other comparable arrangements with as little impairment of functioning, quality, reliability, and convenience as possible

(12) **Local dialing parity**: provide nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays

(13) **Reciprocal compensation**: establish reciprocal compensation arrangements for transport and termination under rates, terms, and conditions consistent with Section 224 of the 1934 Communications Act

(14) **Resale**: offering telecommunications services that the RBOC provides for resales at wholesales rates minus avoided costs.[46]

Once the RBOC meets the terms of the competitive checklist the BOC must demonstrate that a facilities-based compeititor is providing local phone service within one of its in-region states. The BOC must file an application with the FCC to offer interLATA services originating in that state. The BOC will have to get FCC permission on a state-by-state basis. The FCC has 90 days to act on the petition. The FCC must seek the opinion of the Department of Justice (Antitrust Division) and give substantial weight to the Departments's recommendation but the DOJ's opinion is not be be viewed by the FCC as conclusive.

The BOCs stand to lose the most under the "checklist" approach used in the final bill. The original draft of the Senate version of the Act specified a "date certain" by which the

[46] Telecommunications Act of 1996, Section 271(c)(2)(B).

BOCs could enter the long distance market. This language was dropped in the conference committee and the House requirement for "facilities-based" competition to exist in the local market before the BOCs could offer long-distance was added. The checklist requirements guarantee that the RBOCs open the local exchange market to resale and facilities-based competition before entering the long-distance market.

Once approval is given, the BOC must establish a separate affiliate to provide in-region interLATA service. The separate affiliate must operate independently from its affiliated BOC; maintain separate books, records, and account. The affiliate must also have separate officers, directors and employees. The affiliate may only receive those telecommunications services and facilities from the regulated phone company that are available to competitors on substantially identical terms.

Because of the complexity of this process, the "stay" of the FCC's interconnection order, and a backlog of rulemaking procedures at the FCC that is expected to grow because of the Act, analysts do not predict that local competition will be in place until late 1997.[47]

AT&T is already offering local service to a handful of customers in Sacramento, California and intends to introduce service in Connecticut, Illinois and Michigan in the first half of 1997.

[47] Jon Auerbach, Boston Globe, "Report on the Telecommunications Act", February 11, 1996, p. A5.

Communications companies which have not traditionally been thought of as telephone providers will increasingly offer phone service. Under the Act, cable companies can now offer telephone service over their cable wires. The Act also deregulates the cellular and personal communications service (PCS) industry, increasing the ability of the wireless providers to compete with the phone companies. Finally, by lowering barriers to competitive entry, the Act may encourage Internet Telephony to offer "gateways" which will allow a customer to make phone calls over the Internet.[48].

Section 251, 252, and 253 of the Telecommunications Act offer the first glint of competition in the local market. However, court battles instigated by the BOCs are delaying the implementation of the Act. In passing the Act, Congress instructed the FCC to establish a quick transition from monopoly to competition. The BOCs delaying strategy is likely to cause gridlock as dozens of lawsuits are launched to influence the outcome of local competition in each of the states.

2.4 Universal service

Section 254 of the 1996 Act details the universal service provisions. Universal service has been a central goal of telecommunications regulation since the passage of the 1934

[48] The Economist, "Special Section on Telecommunications", September 30, 1995, p.7.

Communications Act[49]. Title I of the 1934 Communications Act gives the FCC the authority "to make available, so far as possible, to all the people of the United States, a rapid, efficient, Nation-wide, and world-wide wire and radio communications service, with adequate facilities at reasonable charges". [50] This statement has been interpreeted by policymakers as a mandate to develop policies that ensure universal access at reasonable prices, to the nation's telecommunications network. The 1996 Act puts the words "universal service" into U.S. law for the first time.[51] Regulators must make telecommunications access "affordable".[52] The Act defines universal service as an "evolving" level of communications services that takes account of technological changes. Advances in technology, the limited amount of competition in the local loop and the restructuring of the communications industry has forced a reexamination of universal service goals and funding mechanisms that support it.

Under the 1934 Act, universal service was defined as (POTS) Plain Old Telephone Service. However, in 1996 with the development of wireless phone services, cable television and the Internet a 1934 definition of universal service is no longer adequate. Some groups argue that the definition of universal service should be expanded to cover high bandwidth two-way communications networks that would be able to transmit voice, data and video.

[49] Peter Huber, "Federal Telecommunications Law", p. 20.
[50] 47 U.S.C., Section 151.
[51] Telecommunications Act of 1996, Section 254(b).
[52] Telecommunications Act of 1996, Section 254(b)(1).

The universal service issue is not simply a matter of connectivity as it was with the telephone system [53] but instead universal service has been linked to "access to information". Access to information includes a number of factors in addition to simple connectivity including: bandwidth of connection, the user's knowledge of computers, and the price of the information.[54]

The FCC is convening a Joint Federal-State Board to define the adequate level of universal service. [55] Over a period of 15 months, from February 8, 1996 to May 8, 1997, this board will be deciding what Universal Service is, who the beneficiaries will be, what it will cost, who will be responsible for contributing to support mechanisms, and who will be responsible for providing the actual service. This board will guided by six principles set forth in the Act[56]:

1) Quality and Rates: quality services should be available at 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 to rural and high cost areas: Consumers in all regions of the Nation, including low-income consumers and rural consumers, should have access to telecommunications services including services that are comparable to services provided in urban areas and at rates that are resonably comparable to those services provided in urban areas.

4) Equitable and non-discriminatory contributions: All providers of telecommunication services should make an equitable and non-discriminatory contribution to the preservation and advancement of universal service.

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[53] Sharon Eisner Gillett, "Technological Change, Market Structure, and Universal Service", Twenty-Second Annual Telecommunications Policy Research Conference, October 1994, p. 6.
[54] Brian Kahin, "Public Access to the Internet", (MIT Press 1995), p. 7.
[55] Telecommunications Act of 1996, Section 254(a).
[56] Benton Foundation, "Universal Service and the Telecommunications Act of 1996", http://www.benton.org, p. 1.

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 telecommunication services for schools, health care facilities, and libraries: Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunication services.

Universal service is defined as access to an "evolving" level of telecommunications services which will be periodically updated, taking into account technological advances. The Joint Board in recommending services for universal support shall consider whether the telecommunications services[57]:

1) are essential to education, public health, or public safety

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

3) are being deployed in public telecommunications networks by telecommunications carriers

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

The Act states that every telecommunications carrier that provides interstate telecommunications services shall contribute to the universal service fund set up by the Joint Board. However, the Board may exempt a telecommunications carrier if the carriers activities are limited to such an extent that the administrative costs of their contribution would exceed the amount collected.[58]

The FCC will be reworking the current subsidy system for universal service this year. The universal service recommendations which were approved on November 8, 1996 form

[57] Telecommunications Act of 1996, Section 253.
[58] CIX, "Telecommunications Act of 1996", p. 14.

the second part of a "trilogy" of local competition orders involving "interconnection", "universal service", and "access charge reform". The current universal service system is a rat's nest of implicit subsidies which promote telephone subscribership at the expense of deterring or distorting competition. The FCC recognizes that under the local competition encouraged under the Act, competition will drive prices to cost and a system of charges which includes non-cost based components is inherently unstable and unsustainable.[59]

Until now, the local exchange carriers have been solely responsible for the implementation of universal service in their individual service areas. Funding is provided by two types of universal service funds: one, which subsidizes service in high-cost areas and second, those that subsidize service to low income customers. Long-distance carriers contribute to these funds largely through the payment of access charges for the origination and termination of interstate telephone traffic. The BOCs use these access charges to keep local rates artificially low. By designating the BOCs as the beneficiary of these funds, this policy has the effect of detering competition in the local market.

Under the Telecommunication Act, any new universal funding mechanism should be "explicit, rather than implicit as many support mechanisms are today."[60] Regulators could impose contributions directly on all telecommunications services providers rather than loading universal service expenses onto long-distance access charges. By reforming the

[59] FCC, "Implementation of the Local Competition Provisions in the Telecommunications Act", August 8, 1996.
[60] Joint Explanatory Statement of the Committee of Conference at 131.

collection of universal service funds, the FCC will attempt to ensure the goals of affordable service are met by means that enhance, rather than deter, competition.

One of two possible scenarios for universal service is likely to emerge. First, the existing universal system can be scrapped as a number of telecommunications economists are urging.[61] The general subsidy of keeping local phone rates artificially low could be replaced with a system of targeted subsidies to low-income groups. The second scenario involves growing out of the existing universal service framework. According to Peter Huber, "with more providers offering more and more services, particularly higher value services that are not part of the universal service package, the subsidy burden on each service and provider will steadily shrink, and ultimately become unburdensome and non-controversial."[62]

I agree with the first scenario. The *general* cross-subsidy between long-distance users (via access charges) and local users serves no useful policy purpose.

Targeted subsidies for low-income households such as "Lifeline" services and "Link-Up-America" services have been successful over the last decade.[63] If targeted subsidies are expanded, access charges can be lowered without effecting telephone penetration rates.

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[61] Jerry Hausman, "The Proliferation of Networks in Telecommunications", p. 20.
[62] Peter Huber, "Telecommunications Act of 1996", (Little, Browwn and Company 1996), p. 56.
[63] Robert Wilson, "States and the Economy", (Praeger 1993), p. 193.

Significant gains in economic efficiency would occur if telephone prices were more cost-based and if the cross-subsidy for basic residential access were reduced or eliminated.

There is convincing evidence that subscription to telephone service is influenced at least as much by the level of long-distance rates as by the basic monthly charge. For example, the increase in local telephone rates during the 1980s, which was accompanied by a decrease in long-distance prices mainly due to decreased access charges, did *not* lead to a decrease in telephone penetration. Instead, the combination of lifeline service packages and lower long-distance rates actually led to an increase in telephone penetration rates during the previous decade.

2.5 MFJ Restrictions Overruled

The Act overrules the Modified Final Judgement (MFJ)[64] restrictions on the Baby Bells to manufacture telephone equipment once the FCC approves the Bells application for in-region long-distance. [65] The Bells need only provide in-region long-distance in one state in their region, rather than every state in their region, to be released from the manufacturing ban.

[64] United States v. AT&T 552 F. Supp. 226 (D.D.C. 1982).
[65] Telecommunications Act of 1996, Section 273(a).

Before lifting the manufacturing ban, Bells may collaborate with any manufacturer on the design and development of equipment, and can enter into research and royalty agreements.

Once the manufacturing ban is lifted, there are certain restriction. The Bells may only manufacture equipment through a separate affiliate.[66] The separate affiliate must have officers, employees, and books separate from the rest of the company (the separate affiliate requirement sunsets after three years, unless extended by the FCC). The Bells must not engage in a manufacturing joint venture with another Bell, unless they merge. Finally, technical information and standards must be made available to all Bell competitors.

Under the Act, Bells are allowed to engage in electronic publishing. Electronic publishing is defined under the Act as the dissemination of "news, sports, entertainment, business, financial, legal, consumer, or credit materials".[67] Electronic publishing must be done through a separate affiliate as is the case with the manufacturing.[68] The separate affiliate requirement for electronic publishing sunsets 4 years after enactment.[69]

The removal of MFJ restrictions on the Bell companies removes Judge Harold Greene from the central policy-making role he had in telecommunications since 1982. Many had questioned the appropriateness of such broad powers resting with a Federal judge and the ability of any judge to interpret all the complex technical and economic issues associated

[66] Telecommunications Act of 1996, Section 272(f).
[67] Telecommunications Act of 1996, Section 274(h)(1).
[68] Telecommunications Act of 1996, Section 274(a).
[69] Telecommunications Act of 1996, Section 274(g).

with telecommunications policy. As a result there was considerable pressure on Congress to lift the MFJ restrictions.

2.6 Regulatory Reform

Even though the preceeding provisions of the Act are more regulatory than *de-*regulatory, Congress planted the seeds of deregulation by extending the FCC's authority to forbear from enforcing any provision of the Act as well as any of it's regulations. The FCC may not issue new guidelines for the telecommunications marketplace unless they are clearly needed.

The forbearance clause of the Act directs the FCC from not to apply any regulation or provision of the Act to a telecommunications carrier if it determines that enforcement will not protect consumers and enforcement is not consistent with the public interest. In assessing the public interest, the FCC is to consider whether forbearance will promote competitive market conditions.

Another force encourgaging deregulation is the sheer number of regulations that need to be written within such a short period of time. The bulk of the rulemaking procedures that the FCC will conduct for the Act need to be written by the middle of 1997. The FCC is supossed to get it's job done and then the Congress is going to consider downsizing the agency. [70]

[70] Mark Lewyn, Business Week, "Showtime for the Watchdog", April 8, 1996, p. 87.

Forbearance by the FCC holds the best hope for a deregulated telecommunicaitons marketplace. It is still too early to tell but if the FCC can restrain itself from an activist role in the marketplace, the 1996 Telecommunications Act can live up to it's billing as a pro-competitve, de-regulatory piece of legislation.

The FCC will be tempted to micromanage the rulemaking process. However, the sooner the FCC can finish it's job the sooner telephone and cable companies can make investment decisions based on the new rules of the telecommunications game.

2.7 Access Charge Reform

One step the FCC can take to deregulate the telecommunications marketplace is to lower the inflated access charges paid to the Bells from the long-distance companies. Consumers currently pay about $20 billion for access charges to local telephone companies to connect long-distance calls. These charges constitute almost 50 percent of the cost of making a long-distance call. Even the Bells admit these access charges are two to three times the true cost of the service. If these overcharges are substantially reduced the long-distance phone companies will pass the savings onto consumers.[71]

[71] MCI, "Get Access Charge to Cost", http://www.mci.com/policy, p. 1.

As I discussed in the section on universal service, large gains in economic efficiency are likely to occur if the access charges are lowered because lower access charges have historically meant lower long-distance prices. Since long-distance demand has a high-price elasticity (between 0.3 and 1.1, depending on type of call), lower prices mean long-distance call volume will increase significantly, leading to greater economic efficiency. The gains in economic efficiency from lowering access charges toward incremental cost have been estimated at over $1 billion per year.[72]

Regulators should not subsidize local phone monopolies at the expense of other telecommunications competitors. In a fully competitive market, access charges would be lowered to cost.

[72] Jerry Hausman, "The Proliferation of Networks in Telecommunications", p. 35.

3.0 Cable Provisions: Cable Act Reform

Under the 1996 Act, the schizophrenic history of cable regulation has taken another turn. In the 1960's and 1970's the federal government began it's regulation of cable television to limit it's negative impact on local television stations. [73] In 1984 Congress passed the Cable Communications Policy Act, which was an effort to deregulate the industry by "minimizing unnecessary regulation that would impose an undue economic burden on cable systems". [74] The 1992 Cable Television Consumer and Competition Act was an effort by the federal government to re-regulate the cable industry. The 1992 Act placed most cable systems under rate regulation.[75] The 1996 Telecommunications Act, in turn, repeals many of the major provisions of the 1992 Act.

The first commercial cable television system in the United States was established in 1950. The impetus for early cable, known as Community Antenna Television (CATV), was to enable smaller communities that were poorly located for TV reception to receive programming from the public broadcasters. This was done via a master receiving antenna remotely located to achieve the desired reception of local broadcast signals. These signals were then amplified at the antenna site and re-transmitted by means of cable directly to the subscribers' homes.

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[73] Pool, "Technologies of Freedom", (Harvard University Press 1983), p. 156.
[74] 47 U.S.C 521(6) (1988).
[75] Prohias, "Longer Than The Old Testament, More Confusing Than The Tax Code: An Analysis Of The 1992 Cable Act", 2 COMMLAW CONSPECTUS (1994), p. 84.

Cable service quickly caught on with consumers. During the mid 1960's, the cable companies recognized the desire for more diverse programming and began to provide additional television signals not locally available.

The FCC, at first, denied that it had jurisdiction over cable TV. In March 1966 the FCC finally asserted jurisdiction and developed a set of regulations which were designed to prevent cable television from effectively competing with over-the-air broadcasting.[76]

In 1970, the FCC, viewing cable as an emerging and premature technology, enacted rules that effectively prohibited telephone companies from providing cable service. The thinking at the time was the telephone companies could provide cable service more quickly and cheaply than any cable provider. The FCC said the ban would preserve competition in the cable market.[77]

The 1984 Cable Communications Policy Act was Congress' first attempt to structure a national regulatory policy for cable television. [78] The primary purpose of the 1984 Cable Act was de-regulation. Congress expected unfettered competition from broadcasting, wireless, and satellite-based technologies would keep cable rates low. This expectation turned out to be premature.

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[76] Ross and Brick, "The Cable Act of 1984 - How Did We Get There and Where Are We Going?", 39 FED COM L.J. 27 (May 1987), p. 28.
[77] 21 FCC 2d 307, 325 (1970).
[78] Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779.

The expected competition from wireless and sattelite-based technologies never materialized during the 1980's. Backyard dish C-Band satellite television emerged only as a specialty service principally in rural areas, while "wireless cable" systems were slow to take off and were further limited by line-of-sight problems. Cable TV was left as the sole market power. Without effective competion, cable enjoyed playing the role of monopolist, resulting ultimately in charging its customers very high rates. A GAO study found that the rates for cable service and equipment increased at more than three times the rate of inflation in the three years following the passage of the 1984 Cable Act.[79]

In 1992, Congress intervened to regulate cable rates. The 1992 Cable Act adopted the presumption that most existing cable systems were not subject to "effective competition". Cable systems not experiencing effective competition were subject to rate regulation.[80] Under the 1992 Act, the FCC must assume there is no effective competition until a cable service provider shows otherwise. The result of the effective competion definition in the 1992 Act ensured that "virtually every cable system would be subject to rate regulation."[81] If a cable operator wanted to be freed from rate regulation under the 1992 Cable Act, the operator had to show that a rival could reach 50% of a market and has 15% of potential customers. This was the technical definition of "effective competition".[82]

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[79] Edward Markey, "Cable Television Regulation: Promoting Competition in a Rapidly Changing World", 46 FED. COMM. L.J., Dec 1, 1993, p. 3.
[80] Prohias cites 47 U.S.C. 543(a) (1988).
[81] Randall Bloomquist, "Cable TV Regulation: Curbing the Cable Beast", (Governing Magazine, January 1993), p. 1.
[82] 47 U.S.C. 543(b).

Under the 1996 Act, a cable system can be freed from price caps if the cable operator shows that it faces "effective competition" from local exchange carrier-provided video programming "comparable" to cable TV service. This newer, broader trigger is likely to deregulate cable rates within two to three years.[83]

Even where no such competition emerges, deregulation will continue anyway. Deregulation is suppossed to be accomplished within three years. Rate regulation is eliminated for the "upper tier services" (non-premium channels that are in addition to the "basic tier" of broadcast, educational, and government channels) after March 31, 1999.[84] Rates are freed immediately for small cable operators.[85] Small cable operators are defined as those serving less than 1% of all US subscribers and not affiliated with an entity whose gross annual revenues exceed $250 million, and which serves a franchise area with fewer than 50,000 subscribers.[86]

3.1 Telephone Company Provision of Cable Services

Cross-ownership rules which were adopted by the FCC in 1970 and included in the Cable Communciations Policy of 1984, prohibited a telephone company from providing video programming directly to subscribers in its telephone area. Regulators asserted that

[83] Robert Corazzini, "Telecommunications Act of 1996 Impact on Cable", http://www.commlaw.com, p. 1
[84] Telecommunications Act of 1996, Section 301(b).
[85] Telecommunications Act of 1996, Section 301(c).
[86] Ibid.

telephone companies could capatilize on their position as the monopoly providers of local exchange service and practice anticompetitive behaviors (i.e. cross-subsidization and discrimmination) to the detriment of both video competitors and consumers. [87]

In 1992, the FCC adopted rules that modified its cross-ownership rules and permitted local telephone companies to offer "video dialtone" services on a common carrier basis. [88] Under video-dial-tone, the telephone companies are allowed to transmit video services, but others would provide the content.

Many of the BOCs developed plans to offer video dialtone service, but since 1992 interest has shifted away from video dialtone and towards telephone companies offering full cable TV service with control of the content offered over their networks because the telcos would be able to profit from the content as well as the conduit for video programming. In Chesapeake and Potomac Telephone Company of VA v. United States, the court found the cross-ownership ban to be unconsitutional, violating the telephone companies First Amendent rights. [89] Congress attempted to overhaul this patchwork of regulation under the 1996 Telecommunications Act.

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[87] Thorne and Barrett, "Shifting Foundations: The Regulation of Telecommunications in an Era of Change", 46 FED. COM. L.J. (1993).
[88] Telephone Co.-Cable Television Cross Ownership Rules, 7 F.C.C.R. 5781 (1992).
[89] Chesapeake & Potomac Tel. Co. of Va. v. United States, 42 F.3d 181 (4th Cir. 1994).

The Act repeals the cross-ownership restrictions that prohibits a local exchange carrier from providing video programming within its service territory. Local exchange carriers (LECs) can now provide video service in four ways[90]:

1) As a cable system, under traditional cable regulation.

2) Using radio spectrum (so-called "wireless cable"), in which no common carrier or cable regulation applies.

3) As a common carrier of video programming, in which the LEC must provide video capacity to all programmers on a non-discriminatory basis, subject only to common carrier regulation.

4) As an "open video system", a new regulatory category, in which the LEC or affiliate cannot control more than one third of the system's capacity, and the remaining capacity is provided on a non-discriminatory (but not common carrier) basis; neither the LEC (or its programming affiliate), nor any programmer using the system requires a cable franchise or is regulated as a cable system

3.2 Cable Provision of Telephone Services

The power of local franchising authorities to regulate a cable TV operator offering telephone services is restricted under the 1996 Act. A franchise authority may not require a cable operator to obtain a franchise to offer telephone service. A franchising authority may not restrict or condition the provision of telephone service by cable operators, except it may require the cable operator to provide telecommunications services for institutional

[90] A.T. Kearney, "Telecommunications Act of 1996", http://www.itaa.org/atkarney.htm, p. 5.

networks. Finally, the authority may not prevent a cable TV operator from providing a telephone service without obtaining a cable franchise. [91]

As a practical matter, a number of cable operators underestimated the difficulty of breaking into the local phone service market. Two years ago, Time Warner's CEO Gerald Levin boasted "adding telephone to our basic cable services is a relatively small step... As regulatory barriers fall, cable will be in the telephone business long before the phone companies are in cable's". [92] However in October 1996, Levin said to investors "Time Warner is not interested in being in the telephone business.".[93] This change is due to unanticipated technical and marketing problems that the cable operators encountered.

Cable operators have been slow to upgrade their cable plant with upstream capacity. Only about 30% of Time Warner's cable customers have the upgraded lines necessary before the company could even offer telephone service.[94] Other hurdles operators have tried to overcome include providing enough power on cable lines to ring customer's phones and the cables industry's reputation for poor customer service.[95] Finally, cable operators felt once they started offering telephone service they would be forced under the Telecommunications Act's interconnection rules to resell connection time on their systems at wholesale rates.

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[91] Telecommunications Act of 1996, Section 303.
[92] Ellen Neuborne, USA Today, "Sorry, wrong number", October 14, 1996, p. 4B.
[93] Ibid.
[94] Ibid.
[95] Lisa Hook, Alpine Capital Group, "Cable Business Strategies", presented to Fall 1996 class on Competition in Telecommunications at the MIT Sloan School of Management, November 6, 1996, p. 5.

Given these execution problems, cable exectuives have decided the benefits do not justify the risk. Levin told investors that "we're unwilling to commit the very large amounts of capital that are required to offer residential phone service until we are more comfortable with its future."[96]

[96] Ellen Neuborne, USA Today, "Sorry, wrong number", October 14, 1996, p. 4B.

4.0 Broadcast Services

Although the broadcast provisions of the Act caused the most controversy before the the passage of the legislation. Ex-Senator Robert Dole threatened to derail the entire legislation until new spectrum allocation provisions could be added to the final bill.[97] Overall, broadcasters fared very well, securing free TV spectrum and greater flexibility in the use of the spectrum. The major new restriction on broadcasters are the new content regulations with the introduction of the V-chip and the passage of the controversial Communications Decency Act.

Broadcasters lobbied hard to obtain free chunks of valuable radio spectrum. Prior to the Act's passage, broadcasters intoned that without "spectrum flexibility" 1996 could spell the end of free TV. [98] On the other end of the debate economists held out the hope spectrum auctions could unleash a wave of new programming with more news, public affairs, and political broadcasting than ABC, CBS, and NBC ever provided. In the end, the broadcasters prevailed in their lobbying efforts. [99]

This chapter will discuss what's at stake as the broadcast provisions take effect.

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[97] Staff Reporters, Wall Street Journal, "Dole Targets Giveaway of TV Spectrum", January 11, 1996, p. A16.

[98] Bryan Gruley, Wall Street Journal, "Broadcasters Color Over a TV Spectrum, January 12, 1996, p. A2.

[99] Staff Reporters, Wall Street Journal, "I-Way Detours", December 27, 1995, p. 10.

4.1 Spectrum War

In 1987, the Japanese seemed poised to grab world leadership in the development of HDTV, thereby handing the U.S. another loss in consumer electronics. Quickly, the FCC initiated an inquiry into Advanced Television Systems (ATV) to make sure the U.S. was not left behind. In 1993, a "Grand Alliance" formed consisting of major players in electronics: AT&T, General Instrument, MIT, Philips, Thomson, Sarnoff Research Center and Zenith.[100] In 1995, this group delivered a prototype system to the FCC.

In 1991, the FCC agreed to allocate a portion of the broadcast spectrum for the transmission of HDTV broadcasts. The FCC set aside 6 Mhz for each licensee to make a smooth transition from Standard Definition TV (SDTV) to High Definition TV (HDTV). The idea was that stations would simulcast their programs for a period of 15 years, which would allow consumers enough time to scrap their old TV sets and switch over to HDTV.

[100] Mary Lu Carnevale, Wall Street Journal, "HDTV Group Plans to Merge Systems", May 25, 1993, p. B5.

Since then, video technologies have advanced faster than the Grand Alliance or the FCC expected. It was discovered that each broadcast channel could be split six ways to handle cellular phones, pagers, and pay-TV. One revenue stream was suddenly transformed into six potential revenue streams.

As technology changed, so did the broadcaster's business plans. HDTV suddenly seemed far less enticing than a multichannel future. The broadcaster's realized one HDTV channel could be multiplexed into six channels used for data transfer, paging, and other money-making purposes. Then the National Association of Broadcasters (the broadcasters lobby) began to demand "spectrum flexibility" which proposed that the broadcasters not be limited to transmitting HDTV on the new channel the FCC loaned to them.[101]

Many consumer activists and legislators were outraged that the broadcasters were given new channels without having to pay for them. The new channels are immensely valuable. The FCC estimated they could auction of the spectrum for $70 billion.

The broadcasters then began a public relations campaign to prevent spectrum auctions and to encourage spectrum flexibility. TV commercials warned of the end of free TV if stations were required to broadcast HDTV over the new spectrum. Local TV stations said they would need new field camcorders, switches, and microwave links to handle HDTV.[102]

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[101] Neil Hickey, Columbia Journalism Review, "What's at Stake in the Spectrum War", (August/July 1996), p. 41.
[102] Ibid.

Under pressure from the NAB, broadcasters were given spectrum flexibility under the 1996 Telecommunications Act.[103] Current holders of TV broadcast licenses received 6 Mz of digital bands on loan. Fifteen years from the passage of the Act either the new spectrum granted to the incumbents or their existing licenses are to be surrendered back to the government. The surrendered licenses can be auctioned off at that time.[104]

Senator Robert Dole and a coalition of consumer groups objected to this granting of new spectrum to broadcasters as "corporate welfare".[105] The Media Access Project in Washington, DC has called the spectrum provisions the "great spectrum giveaway".[106]

There are limited restrictions in the Act that the new spectrum bands must be used for HDTV. Broadcasters are allowed to offer "ancillary or supplementary" services over HDTV frequencies. In other words, the extra spectrum could be used by broadcasters to provide non-HDTV, pay-TV, paging and data services. [107]

In return for not delaying final passage of the Telecommunications Act, Senator Dole successfully secured a commitment from FCC Chairman Reed Hundt not to assign specific

[103] Telecommunicaitons Act of 1996, Section 201.
[104] C-Span, March 27, 1996, "Telecommunications Act of 1996".
[105] Wall Street Journal, "Dole Targets Giveaway of TV Spectrum", January 11, 1996, p. A16.
[106] Media Access Project, "The Great Spectrum Giveaway", May 17, 1995.
[107] Ibid.

HDTV bands to broadcasters until Congress completes hearings on the issue of auctioning off the new spectrum bands.[108]

4.2 Media Concentration Limits

Under the terms of the Telecommunications Act media concentration limits were relaxed. Effective March 15, the limit on the number of stations broadcaster can own was increased. A single company or network can own TV stations that reach as many as 35% of the nation's televisions (the old limit was 25%). Additionally, a FCC rule barring common ownership of a television station and a radio station in the same market was removed. Next, the limit of the number of radio stations that could be owned nationwide is lifted. No single broadcaster may own more than 8 radio stations in a local market. Finally, the FCC's prohibition about networks owning cable television systems has been lifted.[109]

4.3 V-chip

[108] Blumenfeld & Cohen, "Overview of the Telecommunications Act of 1996", p. 3.
[109] C-Span, March 27, 1996, "Telecommunications Act of 1996".

Legislators had two choices to choose from when regulating the flow of violent infromation over the television and via the Internet. The first choice prohibits broadcasting certain programs. The second choice allows viewers to screen the programs they choose to see through a ratings system. The V-chip which I will discuss in this section adheres to the second model. The Communications Decency Act, which I will discuss in the next section, adheres to the first model.

The V-chip is a computer chip which allows parents to block out violent or sexual content from the TV sets. The chip works similarly to other coding services, such as closed-captioning, that are now required on most television. Rating codes would be transmitted along with the television signal on the vertical blanking interval ("the black bar which can only be seen when the vertical hold is off").

The V-chip compares the rating codes broadcast to values preset by the viewer. If the rating codes are higher than the preset values the program would be blocked, and a blank screen would be displayed. Parents can activate the use of the V-chip through a secret identification code, which would prevent interference by children.

The FCC cannot require TV manufacturers to install V-chips in new 13-inch or larger TV sets before February 7, 1998, or two years after the Telecommunications Act was signed. Further, there are technical hurdles such as designing a ratings system which must be overcome which may delay the widespread use of the V-chip.

The Act authorizes the formation of an FCC advisory committee to issue "guidelines and recommended procedures for the identification and rating of video programming that contains sexual, violent, or other indecent material about which parents should be informed before it is displayed to children". [110] The FCC will wait one year before forming this committee and will form the committee only under the conditions that "distributors of video programming have not established voluntary rules for rating video programming".[111] U.S. Representative Edward Markey, who sponsored the V-chip legislation, hoped that public pressure will persuade broadcasters to rate shows without FCC intervention.

Television broadcasters have already formed a committee headed by Jack Valenti, chairman of the Motion Picture Academy of Arts and Sciences. This committee was given the huge task of devising a system to rate all television content. This task is particularly formidable because on a typical 70-channel cable system there is approximately 600,000 hours of programming. [112] The sheer volume of programming hours per day makes rating all television shows a daunting task.

On December 19, Jack Valenti and other Hollywood executives announced a rating system which lists a television programs suitability for children of different age groups. There are six different categories from TV-Y (Children of all ages) to TV-M (Mature

[110] Telecommunications Act of 1996, Section 551(b)(1).
[111] C-Span, March 27, 1996, "Telecommunications Act of 1996".
[112] Ibid.

audiences only). The ratings will be displayed briefly as a small icon in the upper-left corner of the TV screen at the start of a show. Newspapers and TV Guide are expected to publish the guidelines.[113]

4.4 Communications Decency Act

The Telecommunications Act of 1996 states that it is the policy of the United States to "promote the continued development of the Internet and other interactive computer services." However, for the first time the Act provides for the expansion of federal authority into regulating what is "indecent" on the Internet. The passage of this section of the Act has encouraged the software industry to develop blocking software and rating systems which can protect access to indecent or violent sites on the Internet.[114]

Legislators rejected the V-chip's parental control model for regulating objectionable material on the Internet. Instead, Congress attempted to directly regulate "indecent" communications on the Internet.

The Communications Decency Act (CDA) provisions of the Telecommunications Act makes it a crime to "knowingly" transmit indecent materials on the Internet. For example, if a person posts a prohibited message to a computer bulletin board or a Usenet

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[113] Roger Fillion, "Television Industry's controversial system", Reuters, Dec. 31, 1996, p. 1.
[114] Columbia University Institute for Tele-Information, "Transcripts from the February, 1996 conference on the Telecommunications Act of 1996", http://www.columbia.edu, p. 14.

newsgroup they would violate the new law. Since much of the Internet is by nature a public system in which it is difficult to screen out underage individuals, the provision would in many respects amount to a ban, though some individual World Wide Web sites and bulletin board services could probably circumvent the restrictions with password systems.[115]

The statute prohibits the use of interactive computer services to make or make available an indecent communication to minors. It defines indecency as "any comment, request, suggestion, proposal, image, or other communication that, in context, depicts or describes, in terms patently offensive terms as measured by contemporary community standards, sexual or excretory activities or organs." Violations are punishable by up to two years in prison and/or a fine under the federal criminal code.[116]

Civil liberties groups such as the American Civil Liberties Union (ACLU), the Electronic Frontier Foundation (EFF), and the Center for Democracy and Technology (CDT) filed a constitutional challenge to these provisions within minutes after the signing of the Telecommunications Act. Under expedited procedures set forth in the Act, a three judge panel heard arguments to the constitutional challenge beginning on March 21, 1996. On June 29, 1996 the three judges declared unconstitutional the CDA's ban on indecent or "patently offensive speech.[117]

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[115] Jon Auerbach, Boston Globe, "Report on the Telecommunications Act", February 11, 1996, p. A5.
[116] Neal Friedman, "Telecommunications Act Imposes Control on Indecent Content on the Internet", p. 1.
[117] Peter Lewis, NY Times, "Judges Turn Back Law Intended to Regulate Internet Decency", June 29, 1996, p. A1.

The panel celebrated the Internet as "the most particiaptory marketplace of mass speech that this country -- and indeed the world -- has yet seen". The judges said the Internet deserved at least as much, if not more, protection under the First Admendment as printed material receives. [118]

The federal government has decided to appeal this decision and the case will go directly to the US Supreme Court.[119]

The civil liberties challenge to the CDA was based on the definition of "obscene" versus "indecent" and how these terms are interpreted under the First Amendment. The First Amendment to the Constitution guarantees that "Congress shall make no law... abridging the freedom of speech". Note that there is no exception for sexual speech. However, the courts have interpreted the Constitution as allowing restrictions on pornography. Prior to 1973, the courts had ruled that sexually oriented speech was protected unless the work was "utterly without socially redeeming value". In the 1973 case, Miller vs. California, the Supreme Court laid out criteria on whether any work is "obscene". The three-part test follows[120]:

1) Would the average person, applying contemporary standards of the state or local community find that the work, taken as a whole appeals to prurient interest?

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[118] Ibid.
[119] Telecommunications Act of 1996, Section 561.
[120] EFF, "Communications Decency Act - Frequently Asked Questions", http://www.eff.org, p. 1.

2) Does the work depict or describe in a patently offensive way sexual conduct specifically defined by the applicable state law?

3) Does the work lack serious literary, artistic, political, or scientific value?

If a work satisfies all three of these conditions, then a work may be deemed to be obscene. An obscene work is not protected by the constitution, however indecent material has limited legal protection[121].

Indecent communications, which do not rise to the level of obscenity, can only be limited in order to serve a compelling state purpose and must be done using the "least restrictive means" possible. The Sable court found the protection of minors from access to indecent material is a compelling state purpose, but that "it is not enough that the Government's ends are compelling; the means must be carefully tailored to achieve those ends."[122]

Indecent material is sexually explicit expression that may be offensive to some or may be deemed inappropriate for children. An example of indecent speech is George Carlin's comedy monologue on the "The 7 Dirty Words". Indecency restrictions vary also on whether or not the material is transmitted in a broadcast medium such as radio or television or the material is transmitted via the telephone, newspapers or magazines.[123]

The FCC has the power to restrict indecent materials over broadcast media; however, it is prevented from limiting speech in private conversations or print media. At this time, the

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[121] Sable Communications of California v. FCC, 492 US 115; 109 S.Ct. 2829; 106 L.Ed. 2d 93 (1989).
[122] Jerry Berman, "Testimony before the Senate Judiciary Committee", July 24, 1995, http://www.eff.org, p. 4.
[123] EFF, "Communications Decency Act - Frequently Asked Questions", p. 3.

Internet does not work like a broadcast media where there are a few giant companies that broadcast programs into the viewer's home with limited viewer control or feedback. The Internet functions in many ways like a club or park where people come to gather and exchange information. Patrick Leahy, Senator from Vermont, in challenging the provisions of the CDA has said: "None of us want children to be delving into pornography, but let's not deal with it in a way that cripples one of the best communications successes in decades". He goes on to say: "I'm not going to close down a beautiful city park because periodically some idiot comes to the corner and shouts obscenities." In the past, the courts have established a "public forum doctrine" guaranteeing the right to speak in public parks and streets. [124]

The new Act also contains an "anti-flame" provision, which tries to discourage users of the Internet from harassing people online. The Act makes it a crime to "make repeated telephone calls or repeatedly initiate communications with a telecommunications device, during which conversation or communication ensues, solely to harass any person."[125]

The Conference Committee Report accompanying the Act states the new indecency provisions will "pose no significant risk to the free-wheeling and vibrant nature of discourse or to serious literary, and artistic works that can be currently found on the Internet, and which is expected to continue and grow". [126] However, critics of these

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[124] Edwin Diamond, "Law and Order Comes to Cyberspace", MIT Technology Review, October 30, 1995, p. 25.
[125] Blumenfeld & Cohen, "Overview of the Telecommunications Act", p. 4.
[126] Joint Explanatory Statement of the Committte of Conference, http://www.technologylaw.com/techlaw/creport.html .

provisions of the Act believe content regulation will squander the democratic potential of the Internet. Jerry Berman, of the Center for Democracy and Technology has argued, that "any regulation creating criminal penalties for communication of indecent material would have a substantial chilling effect on all who use interactive media. Such a chilling effect would severely inhibit the growth of the Internet as a political forum."[127]

The Telecommunication Act offers three categories of defense for Internet service providers that are not actively involved with transmitting "indecent" material.[128]

The first defense is an "access provider" defense. An Internet access provider can not be a violator "solely for providing access or connection to or from a facility, system, or network not under that person's control" Access is defined to include client and proxy server software, as well a wide range of browser functions.[129]

The second defense is an "employer's defense". The Act states: "No employer shall be held liable under this section for the actions of an employee or agent unless the employee's or agent's conduct is within the scope of his or her employment or agency and the employer (A) having knowledge of such conduct, authorizes or ratifies such conduct, authorizes or ratifies such conduct, or (B) recklessly disregards such conduct."[130]

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[127] Jerry Berman, "Testimony before the Senate Judiciary Committee", July 24, 1995, pg. 3.
[128] CIX, "Telecommunications Act of 1996", p. 21.
[129] Telecommunications Act of 1996, Section 230.
[130] Ibid.

The third defense is a "good Samaritan defense". The Act protects Internet service providers that take "good faith, reasonable, effective, and appropriate actions under the circumstances to restrict or prevent access by minors".[131]

Internet service providers that would like to be protected under the good Samaritan defense could deploy the MIT W3C Platform for Internet Content Selection (PICS) software which allows parents or other supervisors to restrict access to inappropriate Internet sites.[132] In a move announced May 10 to coincide with closing arguments in the court challenge to the CDA, 39 firms involved in the Internet access business agreed to deploy the MIT PICS standard in their Internet browsers. PICs can allow browsers to filter out inappropriate material over the Internet. The PICS standard can allow parents, teachers, or other supervisors to choose what level of violence, nudity, sex and obscene language they want to filter out. Internet browsers incorporating the PICs standard would read a "rating label" from an Internet site and decide whether to accept or reject a connection to that site. Organizations that develop Web sites would label their sites so a PICs-enabled browser can distinguish appropriate sites from inappropriate sites. [133]

The PICs standard would be used together with rating systems developed by organizations such as the Recreational Software Advisory Council (RSAC), a Massachusetts organization or SurfWatch, a California manufacturer of Internet monitoring tools. The key point is that families can choose which organization's rating system they want to apply

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[131] Ibid.
[132] ITAA, "Access Software in Cox-Wyden-White", http://www.itaa.org/telbill1.htm.
[133] Jon Auerbach, Boston Globe, May 10, 1996, Business Section, p. 1.

to their browser. Families can decide whether the rating system is too conservative or too liberal for their tastes.

Screening technologies such as PICs are more likely to restrict indecent materials instead of passing new indecency laws.[134] Market-driven solutions place responsibility for creating a safe and responsible Internet on the Internet community itself, and minimizes governmental regulation.

[134] ITAA, "Internet, Free-Speech and Industry Self-Regulation", http://www.itaa.org/intrpt01.htm.

5.0 Conclusions

Since the Telecommunications Act of 1996 was passed, the legislation has had a profound impact on the telecommunications industry. One only has to look at the mergers between communications giants such as the $21 billion merger between NYNEX and Bell Atlantic or the proposed $16 billion merger between SBC Communications and Pacific Telesis. The 1984 MFJ created seven regional Bell companies , now within eleven months of the passage of the Act there are only five regional companies left.

The Act sets in place a process for opening up every telecommunications market to entry. Legal entry barriers are being removed for local exchange, cable TV and the long distance markets. This is an improvement from the 1984 MFJ and the 1992 Cable Act which had assumed that local exchange customers were best served by monopoly providers. Regulators can no longer prohibit a telecommunications provider from entering the local market.[135]

5.1 Government Impact

Judge Harold Greene, who presided over the divestiture of AT&T under the MFJ, will be removed from a substantive telecommunications policy making role. For 12 years since the divestiture and until the passage of the Telecommunications Act Judge Greene was a

[135] In 1993, 46 states prohibited competition in local telephony.

key figure in setting national telecommunications policy. Judge Greene wielded enormous power since approximately three-quarters of US telecommunications assets resided with the RBOCs and Judge Greene's decisions on which markets the BOCs could enter had the effect of directing policy for a large segment of the telecommunications industry. Under the 1996 Act, the MFJ is dismantled and Judge Greene's power to set policy for the industry is eliminated. This will give the BOCs much greater flexibility to pursue joint ventures to provide service and greater flexibility to compete in new markets.

While Judge Greene's role in communications policy will be eliminated, the FCC's role in determining policy will be increased. Congress passed many of the implementation details of the Telecommunications Act to the FCC. The FCC will initiate over 80 rulemaking procedures in the next few years. These rulemakings cover everything from universal service and interconnection to cable system regulation and spectrum allocation. How the FCC decides on these issues will determine the future of competition in communications.

The early signs from the FCC's interconnection rulemaking is that the commission will micro-manage the process. The commission's aggressive approach of setting national pricing rules for the resale of telecommunication services produced a backlash from the BOCs. The BOCs and state utility regulators (NARUC) successfully challenged the pricing rules at the US Court of Appeals. This legal challenge has slowed down the process of opening the local market. Residential competition will be modest in the first

half of 1997 and depending on the outcome of the court battles local residential competition may slowly develop in the second half of 1997.

5.2 Business Impact

Because of the mergers competition in communications may seem to be decreasing. This is probably a short-term phenomenon. There are too many companies competing to pose a fundamental danger of monopoly. Under the Act new competitors such as long-distance companies and cable companies will start to offer phone service. It seems that the industry is moving toward regional markets where four or more huge telecommunications companies -- AT&T, MCI, one or more regional Bell companies and a cable company -- will offer every household local, long-distance, cellular, cable, and Internet access.

This level of competition may offer consumers the prospects of cheap one-stop shopping. New entrants in the local phone market will need to offer potential customers incentives to switch from their familiar phone company. The new competitors may offer lower prices, new services and a marketing blitz familiar to anyone watching AT&T, MCI and Sprint ads on TV. To achieve higher aggregate profits competitors may offer customers different "tiers" of services, much like the cable companies offer a basic tier for regular network broadcasts and an expanded tier for special channels. Allied companies are likely to offer discounts to consumers who purchase all their services through one provider.

Today most consumers have very limited choices when it comes to choosing a different local phone service provider or a different cable provider or a different wireless provider. In the future, if the companies offering these services integrate vertically and continue to offer customers all of the above, consumers will have a greater choice.

5.3 Consumer Impact

Consumers may initially be confused as they face a bewildering choice of options for local phone service, long-distance phone service, cable service and online services. One analyst from the Yankee Group has joked, that the "Cambridge Center for Adult Education should start offering classes in How to Pick Your Phone Company".[136] However, consumers may eventually benefit from lower prices and greater choice. Consumers who are comfortable staying with the "tried and true" are safe to stay with AT&T and their old regional phone company for local service. But consumers who are not happy with their current phone company soon will be able to switch and possibly pay lower prices. By 2005 when full deregulation should be in place, prices should fall about 50% to 70% from today's rates, according to Forrester Research, a technology market research firm in Cambridge, MA.[137] The driving forces for lower prices are the Act's requirements for "lowered barriers to (competitive) entry", "infrastructure sharing", and the "competitive checklist".

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[136] MIT Technology and Culture Forum, "The Telecommunications Act of 1996: Prospects, Projections, and Problems, (May 1996).

[137] Financial World, "Independence Day", April 22, 1996, p. 46.

Finally, universal service subsidies cost consumers approximately $20 billion per year. The distorted rates that result suppress competition in the local market and shift costs from some consumers to others. These transfer payments need to be re-examined so that they are better targeted to those in need, and to ensure that they do not hinder competition.

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