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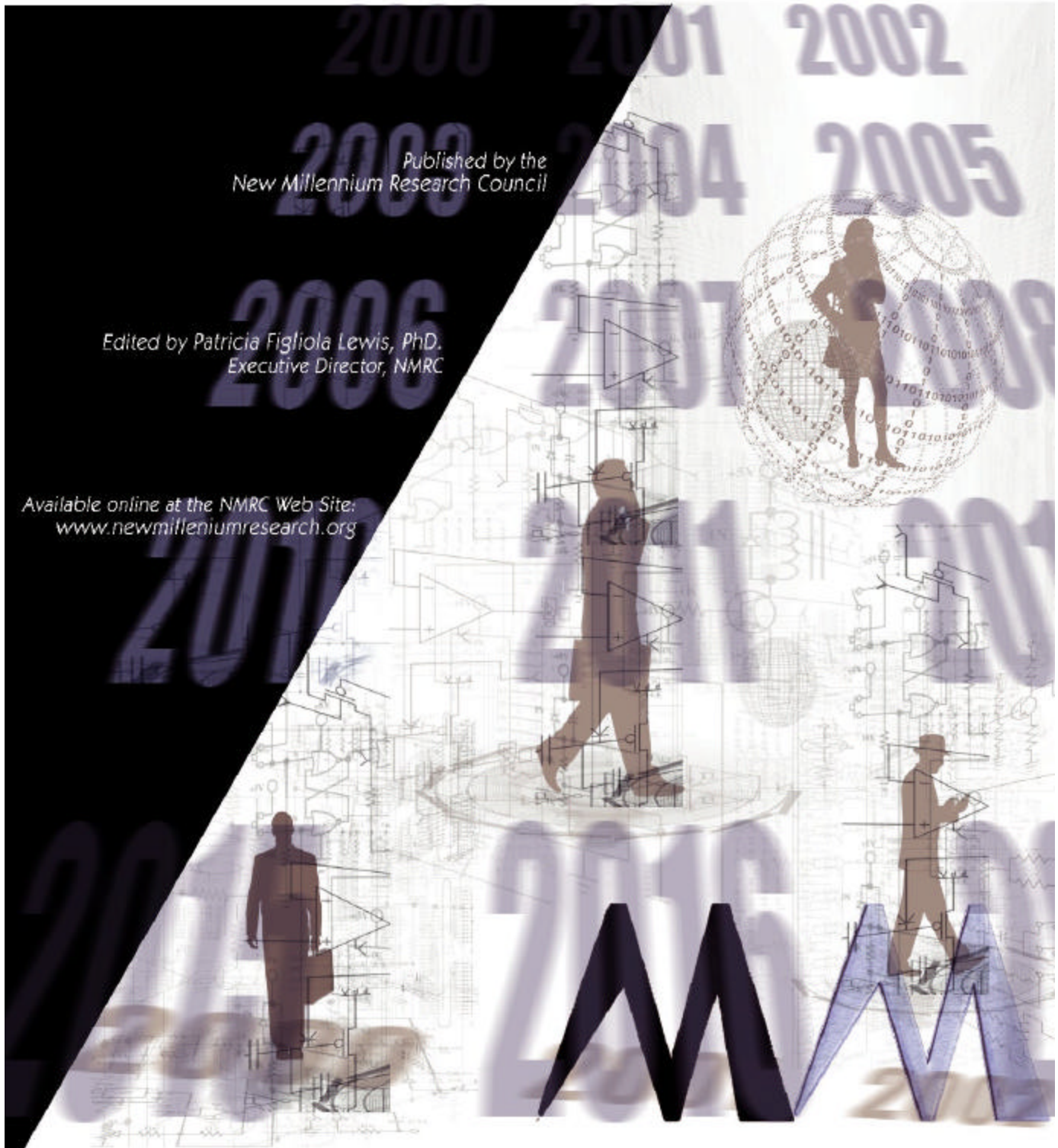
the New Millennium Research Council

Reflections on the Fifth Anniversary of the Telecommunications Act of 1996

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Introduction: Common Themes 5 Years Out

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The 1996 Telecommunications Act was supposed to deregulate the industry and usher in a new era of competitive services for consumers nationwide. Five years later, the Act gets mixed reviews. This collection of essays captures a wide range of perspectives on the Act – what has worked, what has failed, and what Congress and the FCC could have done better.

Overall, the authors, while applauding the efforts to compromise amongst competing industry factions in crafting the Act, do not believe that Congress “got it right” in very many places. They offer contradictory views on why this is the case. Some authors believed that the Act stifled the FCC’s ability to loosen the reins when appropriate through micromanagement; others believe that Congress left so many loopholes in the Act that the FCC was able to run counter to congressional intent.

A few supporters of the first view – that Congress micromanaged the FCC – cited the 14-point checklist as an example of Congress’ micromanaging the FCC. The checklist, instead of providing positive guidance, eliminated the possibility for flexibility as market forces changed. Supporters of the second view – that the FCC overstepped congressional intent – cited many different examples in support of that view, for instance, the “failure” of the FCC to employ Section 706 to grant more broadband relief.

In addition to those overarching views on the Act, there were a number of other common themes running through the essays.

Many of the authors, in a variety of ways, took Congress to task for trying to predict the future – both as to how technology would develop as well as which services consumers would want. This mistake had the effect of rendering the Act technologically obsolete almost from the beginning. Notable failures, according to the authors, were open video systems and a nearly complete failure to recognize the future impact of the Internet.

One of the most significant failures in this regard, however, was Congress’ assessment that it could foster local competition with a promise to the Bells that they would be able to offer long distance service. While that “carrot” may have been appropriate in 1995 while the Act was being debated, it certainly is no longer. If anything, it seems to be the large long distance companies that need further enticement to offer local services, as local competition has grown most rapidly in those states where the Bells have been allowed to provide long distance. So, it should be no surprise that a number of contributors suggested that it is time to end the long distance prohibition on the Bells.

Another theme was that investment has been the greatest in those market segments where there is the least regulation. More than one author cited cable deregulation and the proliferation of cellular and personal communications services as two of the most significant successes in the wake of the Telecom Act. Investment has stalled, however, in market segments that remain heavily regulated. For example, unbundling as a regulatory tool to foster competition was judged a failure by a few

authors. Instead, facilities-based competition has proven to be a large success and should be encouraged. Why? Because the free market entry facilitated by unbundling is destructive of investment incentives. Only those companies that are building their infrastructure remain healthy after the 2000 industry shakeout. Put another way by one of the authors, “we cannot regulate our way to competition, innovation, and low prices.”

Finally, most of the authors expressed in some way their belief that like services should be regulated – or not regulated – alike. In other words, it is time to regulate services (if appropriate), not service providers. A few even ventured into recommending how this could best be done. Section 706 was cited by three authors as the most appropriate tool to achieve this goal. Another suggested requiring automatic sunset of regulations unless they are affirmatively renewed. Others believe that Congress needs to reassess the Act and make changes where necessary.

The authors take different paths in reaching their conclusions, but the majority of them, to varying degrees, ultimately credit the Act with some significant policy successes. Further, they believe that the Act was an important “first step” that has yielded progress towards achieving competitive markets and providing consumers with a greater choice of services. Ultimately, however, the authors agree that more needs to be done – that the framework laid out in the Act and developed over the past 5 years needs to be updated to accommodate rapidly changing technologies and consumer expectations.

Consideration of the discussion and recommendations in these essays would be a positive first step for the new Bush Administration, the Congress, and the FCC towards further deregulation and competition in the telecommunications industry.

Winning Ugly

The 1996 Telecommunications Act was not pretty.
But its obvious flaws should not hide the lessons behind its subtle successes.

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It is not news that the Telecommunications Act of 1996 was less than a miracle cure for the dual maladies of monopoly and over-regulation in telecommunications markets. That story should have been written before the Act was signed into law, when special interests were defending their turf against more aggressive reforms. What is newsworthy in the five years since enactment is that some aspects of the law have actually worked pretty well, and that we can learn a lot from comparing these successes to the flops.

Five years out, these look to be the big-ticket economic achievements of the Telecom Act: abolition of monopoly state telephone franchises; striking down the ban on telephone company provision of video service; and cable rate deregulation. And here are the apparent failures: using permission to compete in long-distance as a carrot to entice Regional Bell Operating Companies (RBOCs) to open local markets; “unbundling” local telephone networks at any feasible point for resale to competitors; and Open Video Systems, a common carrier approach for new cable television competitors.

While long distance telephone rates have fallen sharply in the last five years, consumers would clearly enjoy additional competition. Indeed, 20% of New York households subscribe to Verizon after just one year of providing long distance service and one million households have rushed to SBC long distance in the Lone Star State in just four months. But RBOCs offer long distance service nowhere else – banned by law. The Telecommunications Act erected a 5-year-plus

obstacle course for the Bells to traverse to gain entry rights. We do not know if this is helping speed local competition, as it ostensibly aimed to do, but we can be certain it has retarded long distance rivalry. Prices would fall even faster were RBOC entry permitted.

In local phone markets, the elimination of state monopoly telephone franchises has been a very positive development. Yet, the unbundling procedure, crafted to speed new competitors into the market by allowing use of the incumbent phone company's network at regulated (cost-based) rates, is a shambles. Competitive local exchange carriers have made a courageous run at the market, and invested billions. But equity values in Year 2000 plummeted (absolutely and relative to even the poorly performing Nasdaq). Financial markets have learned that businesses based on renting key infrastructure from one's rivals are difficult propositions. Capital investments will not be optimized for the reseller, and coordination problems abound. Most fundamentally, entry is completely free – an appealing textbook notion actually destructive of investment incentives. When a firm's business model can be duplicated by simply leasing the same infrastructure at equal (open access) terms, long-term capital gains are elusive.

Facilities-based competition, however, is alive and well. Firms building competitive delivery systems had a bad 2000, but not a disastrous one. Wireless access providers Winstar and XO remain healthy, as are fiber-link owners Level 3, Metropolitan Fiber Systems, Williams, and Time

Warner Telecom. Compared to the virtually universal financial devastation wreaked on the resellers of digital subscriber lines (the four leading DSL wholesalers, Covad, Rhythms, Network Access, and NorthPoint all lost over 95% of their market value in the last few months of 2000, and NorthPoint is now in bankruptcy), constructing a rival network appears the more protean route to competitive success.

Cable television rate controls were eliminated by the Act as of March 31, 1999. Incredibly, rates have risen far less in the 21 months since (using the most recent CPI data) than they did during the six and a half years they were regulated following the 1992 Cable Act (annualizing and subtracting the overall rate of inflation). The controls were not merely ineffective, however, as they also discouraged investment in cable systems, programming, and service upgrades. Now, with controls moot, cable operators are expanding into digital services and providing broadband Internet access to millions of households.

In some markets, cable companies are getting competition from new rivals. The Telecommunications Act eliminated the telco-cable cross-ownership ban, allowing phone companies to provide cable TV service to local customers. This has had a surprising effect. While Ameritech (now part of SBC) took advantage of the reform to provide cable TV to about 250,000 households, the big impact has been to welcome over a half-dozen well-financed new "overbuilders" into the market. Firms like RCN and Western Integrated have invested several billions of dollars to provide head-to-head competition to both phone and cable monopolists in cities such as Washington, DC, Boston,

Philadelphia, Los Angeles, Denver, Dallas, and Chicago. It will take several years before these build-outs near completion; recall that the initial cabling of America took decades. But the competitive pressure that these upstarts, with modern systems and bundled voice/video/data services, bring to erstwhile monopolists far surpasses the trivial – or counter-productive – impacts of either the 1984 Cable Act or the 1992 Cable Act, both of which promised to promote new rivalry.

Meanwhile, Open Video Systems – the "unbundled" approach to cable competition – has lagged behind. Just 60,000 customers nationwide are served by this method of programming delivery. Compared to the millions of households offered competitive cable service by plain old cable franchises, the experiment in separating conduit from content in video has once again, as in the nine years of "video dial-tone" rule makings that produced lots of paper but few subscribers, proven a failure.

The success of the Telecommunications Act is in encouraging facilities-based rivals. That more competition has yet to materialize is attributable to the Act's restrictions on long distance entry, its timidity in opening local cable markets (still restricted by anti-competitive municipal rules and state "level playing field" statutes that protect incumbents), and its primary omission: not unleashing wireless. A phalanx of new fixed and mobile wireless providers could energize market rivalry if only the spectrum hoarding of the Federal Communications Commission were quashed. That bold step, however, awaits the Telecommunications Act of 200x.

Promoting Investor Confidence, Imposing Gridlock

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For all of its well-meaning intentions and rhetoric about loosening the grip of government, the Telecommunications Act ended up centralizing all fundamental telecommunications policy in the Federal Communications Commission (FCC), effectively federalizing the 50 states with respect to local competition and preempting the judicially-supervised modified final judgment (MFJ) with respect to Bell entry into long distance. This centralization satisfied investors' desire for greater "certainty" and "predictability," unleashing a torrent of inexpensive capital. The increase in investor confidence was, by far, the most positive result of the Act.

However, to assuage the concerns of the habitually warring and suspicious factions in the industry (and in the Congress itself), the Telecom Act did not simply establish broad policy goals (i.e., competition in all markets and less regulation) and then leave it to the FCC to achieve them. Rather, Congress, perhaps concerned that the majorities of the FCC and Congress are usually from different political parties, and in any case enjoying the attentions of all the industry factions, felt it necessary to micromanage the implementation. For example, the statute specified three separate pricing methodologies for interconnection between incumbent and new local telephone companies, established a detailed system for negotiating, mediating and arbitrating interconnection agreements, and specified a 14-point checklist to be satisfied before a Bell could offer long distance services. There is nothing substantively wrong with these policies except that they took away much of the freedom of the implementing agency – the FCC – to adjust policies later in light of unexpected or changed circumstances.

While this micromanagement may have been necessary to get broad support for the Act, the result has been a legal gridlock that has, so far, thwarted achieving of the Act's fundamental objectives.

If the Act took flexibility from the FCC, it took even more from the states. With respect to local competition, it is useful to recognize that the Telecom Act was neither revolutionary nor innovative. This has been often overlooked by Washington-centric reporters and financial analysts. The Act largely codified into national law and policy the results of many experiments conducted by state public utility commissions (PUCs) over the prior decade to introduce local competition.¹

Unfortunately, this state-by-state process – with its admittedly untidy look of "muddling through" – did not provide the certainty and predictability sought by investors. Because the PUCs were operating under often archaic state laws that broadly directed them to regulate in the "public interest," PUC decisions were neither predictable nor uniform. Even "pro-competition" PUC decisions sometimes looked serendipitous, and where local competition emerged, its foothold seemed tenuous. And there was a general perception that the telephone incumbents wielded political power in many state capitals.

Thus, by establishing one law encompassing one local policy and by federalizing the PUCs' competition initiatives under the direction of the better understood FCC, the Telecom Act of 1996 dramatically changed institutional investors' risk assessment and hence willingness to sink capital

into all industry segments, particularly local start-ups.

But the certainty and predictability proved illusory. The state-by-state experimentation, which was inexorably leading to vigorous local competition wherever there was a substantial market demand, largely ceased. The Act froze much of local competition around the technological and market perceptions and realities of the mid-1990s. Of course, the Internet – virtually unmentioned and unconsidered in the Act – has emerged dramatically and challenged some of the foundations of the Act, making it less relevant with each passing year.

Ironically and not appreciated by investors, the “muddling through” of local competition is actually less risky than a single federal policy because it allows for a continuous and low-risk process of field experimentation, testing, and fine-tuning of policy before major investment bets are placed. By contrast, it is difficult for the FCC to make any small decisions: everything becomes a case of national significance. Since almost every FCC decision leads not to finality but to litigation, fundamental decisions end up made not by an expert agency but by judges and their law clerks. Similarly, because the FCC is a national agency, it is almost impossible for it to make rules that are tailored to the circumstances of a particular locality. Yet local telecommunications, by definition, vary across the country and require different approaches: New York and Montana are so different from each other in needs and circumstances that no national policy will be optimal for either state or for the investors in each state’s telecommunications infrastructure.

The Telecom Act also gridlocked the entry of the Bell companies into long distance markets. The flexible standard of sec. VIII(C) of the MFJ² became the detailed, specific and rigid “14 point checklist” of the Telecom Act. Each of the 14 points on the checklist became a point of contention, friction, and delay. Ironically, by the end of 1995, at least two Bell companies (New

York Tel and Illinois Bell) were ready to seek interLATA relief under the VIII(C) standard on the basis of competition in their major markets (i.e., New York and Chicago). Whether their initial applications would have been granted is, of course, unknowable. But it is certainly arguable that Judge Greene and the Department of Justice would have allowed them to enter to establish the regulatory carrot that would encourage other BOCs to open up and to begin to free themselves from the MFJ stick.

One major strength of telecommunications policy innovation in the United States has been its ability to make incremental but steady changes based on real-world experience and observation. In contrast, other countries’ policy changes were part of big “omnibus” national communications legislation, involving blue ribbon commissions, national coalition politics at the highest level, and labor versus government strife, all of which tied up the process forever. The United States, in contrast, progressed towards competition in a series of numerous regulatory skirmishes before state commissions, courts, and legislatures, but without a single plan or a decisive battle. That is, until the 1996 Act, which emulated the omnibus model. And, sure enough, the progress to competition and deregulation has slowed down since then.

In the guise of promoting competition, the Act and the FCC regulations that followed have created an enormous regulatory apparatus and set of requirements. And while there are many beneficiaries of such detailed regulations - not the least of them the communications bar - the Act has created a set of companies and industries whose very survival is by the good graces of regulators. This dependency relationship is not one that makes for a healthy policy environment or acceptable investment risk.

An evaluation of the Telecom Act must therefore consider whether the temporary gain in investor confidence has been worth the loss of innovation,

experimentation and lower policy risk. With the benefit of 20-20 hindsight, it probably was not.

If telecommunications competition is presently gridlocked, what should be done? If statutory micromanagement is a root cause of the gridlock, additional statutory micromanagement in the form of further amendments is not the solution. For better or for worse, everyone now understands the current version of the Telecom Act.

Rather than micromanaging the substance of telecommunications policy, Congress should focus on broad goals and an easy process.

Congress needs to have greater confidence that the FCC will not undercut it and the FCC needs to have more confidence in the state PUCs. The FCC and the states should have clear authority to promote competition through focused experiments and with regulatory flexibility. Gridlock can also be reduced by a "Telecommunications Regulation Sunset Act" that requires every regulation to sunset at a date-certain (which can be extended by affirmative decision) or when objective measures are achieved.

Clearly, we are not yet at the stage of substantial competition and complete deregulation, but it is time to chart an end-game scenario and work towards it.

Where Do We Go from Here?

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The fifth anniversary of the Telecommunications Act of 1996 this February and the post-election transition to a new telecommunications policy team combine to provide a good opportunity to review the success of the Act. The Act was greeted by great fanfare and garnered the support of most interest groups. Some hardliners carped, but the verdict to Congress was, "Well done!" What a difference five years, tens of thousands of pages of Federal Communications Commission notices and orders, dozens of court reversals and remands, a sour stock market and, last but not least, the Internet can make. Praise has given way to dissatisfaction by industry, government, and consumers. Calls for re-opening the Act are proliferating.

Has the Act Been Successful?

The Conference Committee declared the Act's purpose to:

. . . provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans.

This statement expresses four goals:

- To increase competition
- To expand and rationalize universal service
- To encourage investment and innovation
- To reduce government's role.

The Act's implementation under FCC Chairman Reed Hundt emphasized encouraging competition of various sorts with local Bell companies. The first FCC post-Act order, spelling

out TELRIC, UNEs, resale, and other terms of interconnection, stands as a monument to that effort.

The jury is out on Commission efforts to create competition. Even now, the basic ground rules for incumbent/entrant interconnection are tied up in the courts; the sector is hampered by financial uncertainty; new entrants are in disarray and full retreat from initial business plans; and, most importantly, not enough consumers are enjoying more choice or better quality of service. On the other hand, billions of new capital has been committed; the entry of new competitors can be observed on thoroughfares in most major cities; and, many business users have more and better options. Most believe the future is bright for well-managed entrants.

The verdict on universal service is clearer. Not only did the Kennard Commission follow up and fill in the details of the broad changes mandated in the Hundt interconnection order, it also implemented the Act's universal service language. The universal service program overall has generally matched Congressional intentions, although income-based and geographic service differences continue to challenge policy makers.

Realization of the third goal, fostering investment, is more problematic. Section 706 directs the FCC and state commissions to:

". . . encourage the deployment on a reasonable and timely basis of advanced telecommunications capability. . . by utilizing. . . [varied] methods that remove barriers to infrastructure investment [including regulatory forbearance].

The FCC has consistently claimed credit for inducing investment, but it is instructive that investment has grown fastest in the areas least regulated by the agency – wireless and broadband backbone facilities in particular. The surge in investment in sectors administered by the FCC is arguably the product of technological opportunities, market demand growth accompanying general economic expansion and, very importantly for new entrant investment, rosy financial market conditions.

The Commission has assumed that promotion of *competition* alone is sufficient to ensure timely, reasonable, and high levels of infrastructure investment, even without offering much theoretical or empirical support for that proposition; or, factoring in the clear and substantial negative investment incentive effects borne of regulatory delay, risk and episodic transfers of wealth from incumbent shareholders.

If progress toward the first three statutory objectives is uncertain, however, there is little room for debate on the fourth – regulatory forbearance.

The FCC has deregulated few activities. Nor has it eliminated or attenuated its rules under the terms of various sections of the Act urging and enabling regulatory forbearance by the Commission. The Commission's obligatory review of its rules has been half-hearted. Its greatest success has come in the international arena, where it has streamlined much of the international regulatory program. Ironically though, that effort has been driven by WTO constraints rather than by the 1996 Act.

Problems with the Act

The 1996 Act is technologically obsolete. It is backward looking and directed toward longstanding issues growing out of the breakup of AT&T and the uneven development of market competition under the 1934 monopoly-oriented statute. The debate and drafting of the Act

preceded the explosive growth of IP technology, the take-off of fiber optics, the "mobility" revolution, the "Internet" phenomenon, and other changes only now taking form.

Ownership restrictions, regulatory boundaries and classifications, the FCC's internal structure, and federal rules crafted when industries were distinctly divisible and clear lines divided broadcasting, cable, and telephony, no longer make administrative, economic, or bureaucratic sense. Five years of interplay between Moore's and Metcalfe's Laws has transformed the post-divestiture marketplace that largely defined the 1996 Act.

What Should Congress do?

We need a national telecommunications policy that reflects the current tempo of technology and market change. What we have is a collection of rules, based on old regulatory categories and technological distinctions, specially tailored and differentiated for particular markets and firms based on a tangle of conflicting precedent and reckoning of the balance among different policy objectives. Harsh language indeed. But, as Casey Stengel might say: "You can look it up!"

Congress and the FCC should recognize that old regulatory models and concepts cannot keep pace with technological and market change in an age of packet networked, intelligent user devices. Recognition of the mismatch between government processes and market developments means reversing the current presumption that change has to be controlled lest bad things happen.

Determining and drafting needed statutory change will be tricky and well outside my ken. But, let the debates begin. One approach would be to elevate on the FCC's agenda and to make more binding on their day-to-day activities and rulemakings the two largely neglected goals of the 1996 Act – deregulation and capital formation incentives – while insisting on true technology

neutrality. Rules to advance competition or universal service should and would survive if they are tailored to meet the test of clear, beneficial impacts on consumers and investment.

Other possibilities include drafting language directing symmetric treatment of facilities used to provide Internet services; or to focus on a regulatory scheme for "broadband infrastructure" that does not discriminate among alternative technologies. Whichever path is chosen, the language should get government out of the way of investment and creation of consumer welfare and put an end to the current scheme of regulatory handicapping.

In the fiscal arena, the Congress should move quickly to provide tax credits designed to encourage broadband network investment. The principle of using "tax expenditures" to influence economic activity is well established. The corporate income tax has long been a tool of US national economic policy. The Congressional Budget Office expressed it best: ". . . the

corporate tax is used not only to raise revenue but to influence economic activities that might not otherwise be undertaken."

The clear connection between telecommunications investment and realization of other important national goals establishes a firm foundation for supporting telecommunications tax incentives as an important tool of macroeconomic policy. The forward-looking nexus between telecom investment and the macro economy are strongest in the case of broadband networks, particularly local and regional distribution facilities. In recent years the information technology sector can be credited with much of the surge in the stock market and performance of the national economy.

Historic growth of the Internet, and firms that supply it, cannot be sustained without elimination of the bandwidth constraints resident in local and regional networks. Tax credits tailored to address that problem would combine nicely with changes in the regulatory regime.

Why Johnny Can't Do Warp Ten

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Imagine traveling at warp ten, the infinite speed that exists only in science fiction. At warp ten, you are ubiquitous; you are everywhere at the same time. This is like being everywhere at once on the Internet, something you can almost do today. But this is only horizontal movement -- movement across geography. What if you could also travel at warp ten in other dimensions, such as knowledge management, information processing, information retrieval and presentation, games and chatting, and other forms of entertainment? You are on your way towards doing this, too, as entrepreneurs find faster ways to rearrange bits into an almost infinite number of arrangements. Now imagine what it would be like if you could put all of the dimensions together -- warp ten in all dimensions all at the same time. Sounds exciting, but you would need to rewrite the US Telecommunications Act of 1996 to let this happen.

The progress in telecommunications since the passage of the US Telecommunications Act of 1996 (Act) has been tremendous. Intense competition has caused the number of subscribers to increase 250 percent, the average monthly bill to decrease almost 15 percent, investment to increase more than 200 percent, and the number of new services to grow daily.¹ Unfortunately, these statistics apply only to mobile telecommunications, an area left largely unregulated by the Act, and not to traditional telecommunications. For traditional telecommunications, the number of telephone lines has increased only 16 percent, average monthly expenditures for service have actually increased, and total investment has increased only about 5 percent since the Act was passed.² A review of the statistics for the Internet, another area left largely unregulated by the Act, would show even more remarkable differences between regulated and unregulated telecommunications.

Of course, it is unfair to compare mobile and Internet communications with traditional telecommunications because traditional telecommunications is so much larger, or is it? There are 192 million telephone lines and 97 million mobile subscribers in the US, a gap that continues to narrow ever more rapidly.³ According to the International Telecommunications Union, the number of

mobile subscribers will surpass the number of telephone subscribers worldwide by the end of 2003.⁴ Voice traffic is forecast to be less than 1 percent of the total telecommunications and Internet traffic by 2007.⁵ If the differences in progress between regulated and unregulated telecommunications are not due simply to differences in size, what is the cause?

The painful fact is that, in an attempt to create competition in telecommunications, the Act increased the amount of regulation for traditional telecommunications, causing it to remain the slowest growing and least innovative area of communications in the US. To be fair, this is not the fault of Congress or the industry regulators. The local exchange companies and the long distance companies were so anxious to gain regulatory advantage that they lobbied hard to ensure that there were numerous restrictions on competition. As a result, telecommunications companies and regulators have spent countless months debating network unbundling, cost-based prices, collocation, resale discounts, and subsidies for schools, libraries, healthcare facilities and high-cost census-block areas instead of developing and enabling the global networks and customer-driven services that the wireless and Internet companies are pursuing.

What is to be done? First, we should eliminate the artificial distinction between local and long distance. This boundary was created over 100 years ago and outlived its usefulness long ago. Unfortunately, the intense lobbying effort involved in writing the Act caused Congress to codify this fictional boundary by creating rights and responsibilities that vary depending on whether a company is classified as an incumbent local exchange company, a competitive local exchange company, a long distance company, or some combination of the three. Removing this distinction will be difficult because the change could create winners and losers in the industry. What is needed is a package deal, which may include allowing local and long distance companies to merge so that they do not have to worry about which gets into the other's business first.

One benefit of removing the local-long distance distinction is that this removes the need for separate interconnection and unbundling arrangements for local and long distance. Companies would be free to negotiate arrangements that make sense for the markets involved, including simple uniform schemes. Furthermore, because local and long distance would be integrated, incumbent local exchange companies would lose their incumbent advantage in interconnection. Even though a former incumbent local exchange company would have a large local footprint in its traditional market, it would have little or no footprint elsewhere on the globe. As a result, there could be a balance of negotiating power for interconnection for global networking, making it difficult for an incumbent to disadvantage competitors.

The second thing we should do is eliminate the artificial distinction between traditional

telecommunications, mobile telecommunications, and the Internet. Customers should be free to purchase any communications package that makes sense to them and that companies can assemble using whatever technologies do it best. Removing these distinctions also removes the need for separate interconnection and payment arrangements for traditional telecommunications, mobile, and Internet. This opens doors for innovation, integration, and growth.

The third action we should take is to loosen our grip by deregulating most retail services, decreasing the restrictions on mergers and divestitures, and clarifying which regulator does what. Deregulation and clarification of regulatory roles are critical for investment because they decrease risk and make market entry easier. Mergers and divestitures are necessary for the traditional telecommunications companies to shake themselves out of their nearly 100-year-old industry structure. Think how different telecommunications would be if former FCC Chairman Reed Hundt had not stopped a potential SBC-AT&T merger by calling it unthinkable. Local and long distance mergers would have eliminated the need for the Bell Operating Company 14-point checklist and the resulting local-to-global-to-local networking companies would have been competing vigorously in developing new products and expanding local footprints in the US and internationally.

The ultimate lesson learned from the Act is that, no matter how hard we try, we cannot regulate our way to competition, innovation, and low prices. This is where the Act failed and where changes are needed if we are to move and innovate at warp ten.

The Telecommunications Act at Five

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On the fifth anniversary of its enactment, it would be exaggeration to suggest that the Telcom Act of 1996 has lived up to its promise. After all, its vision was made clear right in the preamble: “An act to *promote competition* and *reduce regulation* in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid growth of new telecommunications technologies.” To the same effect, the Conference Committee report stated the Act was intended “to provide a *pro-competitive, deregulatory* national policy framework.”

Five years later, competition in various segments of the telecommunications marketplace is not as robust as the legislation’s framers must have (or at least should have) hoped it would be. And there hasn’t been much meaningful deregulation under the supposedly deregulatory framework. So, the reality has not matched the rhetoric.

This is not to say that some progress towards the goals of the ‘96 Act has not been made. For example, competitive local exchange carriers (CLECs) now serve about 7% of local lines nationwide, a 53% increase just since the end of 1999. And the Federal Communications Commission (FCC) just recently granted two more applications for the former Bells to offer long distance services – bringing the number of states which now have the benefit of this additional competition to four! There have been positive developments on the wireless front as well, with most consumers across the country typically having a choice of five or six facilities-based providers, and of pricing plans offering buckets of minutes on an “anytime, anywhere” basis. (In the marketplace, anyway, the

distinction between “long distance” and “local” is rapidly being rendered obsolete, even while the Commission faces the prospect of considering 48 more RBOC applications seeking permission to enter the “long distance” market upon showing that their “local” markets are open to competition!)

Perhaps history will judge that, under the circumstances, with the various industry interests fighting each other tooth and nail to preserve every conceivable regulatory advantage while seeking to disadvantage their real and imagined competitors, the ‘96 Act was the best that could be accomplished under the circumstances. Put more positively, when we look back, perhaps we will judge that it proved serviceable as a transitional bridge to the piece of legislation that at some future point we surely will see: “The Telecommunications Deregulation Act of ?????.”

In a broad sense, the most problematic aspect of the ‘96 Act is that rather than providing more specific deregulatory direction (say, for example, the extent of the unbundling of the local network required), Congress left too much open-ended discretion in the hands of the agency regulators. Would you believe the statute contains almost 100 delegations of authority to the Commission to act in “the public interest”? Indeed, Section 271 itself – the provision containing the famous 14-point checklist – includes the further requirement that the Commission find the application is in “the public interest.” Small wonder that with these and other such indeterminate delegations of authority (see, for example, Section 254, the universal service provisions) the first five post-‘96 Act years have been such a litigation feast.

In only a somewhat more narrow, but nevertheless very important sense, the Act's perpetuation of the traditional "stovepipe" model of different regulatory regimes for services with different names – "cable," "information services," "telecommunications," "broadcast" – which are now converging in a competitive marketplace may prove to be a serious obstacle to achieving an appropriate [de]regulatory regime. For example, in the aftermath of the Ninth Circuit's *AT&T v. City of Portland* decision holding that cable modem service is "telecommunications" subject to Title II's common carrier provisions, the Commission is now forced to wrestle with questions such as whether it must regulate this particular broadband service and whether other broadband services (say, DSL) should be treated comparably.

But do not despair – completely! Maybe the first problematic aspect of the Act, the broad discretion granted to the Commission, will now prove to be not as much of a hindrance to more robust competitive development after all. While the bias of the post-'96 Commission has been to use the broad discretion to micromanage competitive development, the new commission, under Michael Powell's leadership, may well find ways to use the same discretion to take actions that reflect a more deregulatory bias. The new chairman seems to have an appreciation that, with technology evolving so quickly, regulatory micromanagement is an increasingly hazardous occupation. Or as he put it recently at a Progress & Freedom Foundation conference: "[O]ur bureaucratic process is too slow to respond to the challenges of Internet time."

Indeed, Powell may yet find ways to lead the Commission to use its discretion to fashion a

regime which will contain legacy regulation to narrowband services, while refraining from regulating all currently unregulated broadband services (e.g., cable) and deregulating those currently regulated (e.g., DSL). Hint: Revisit Section 706 and interpret its forbearance authority more expansively.

So, I'm optimistic that the new commission can achieve much in the way of reform on its own if it puts its mind to it. For instance, there are definitely some aspects of the merger review process that can be reformed absent legislative action.

But, if you ask me to suggest just three itsy-bitsy changes to the Act going forward, they would be:

- Mandate the deregulation of all broadband services, regardless of technology platform.
- Curtail the commission's authority to use the license transfer process to duplicate the competitive analyses performed by the antitrust authorities and as a forum for imposing conditions unique to the merger applicants that more appropriately should be considered in a generic rulemaking proceeding.
- Sunset all of the delegations of "public interest" authority to force Congress to decide what it really wants the agency to be doing. The sunset period can be sufficiently leisurely to give Congress a chance to figure it out, but it's not too much to ask that Congress be more specific than: "Go forth and do whatever three of the five of you commissioners think makes sense today."

The 1996 Telecommunications Act and Universal Service

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The 1996 Telecommunications Act took significant steps toward opening telecommunications markets to competitive forces. But, Congress was ambivalent about the universal service commitments of the old system. On the one hand, they recognized that competition would require reform of universal service; on the other, they expanded the overall commitment. As a result, there has been an inherent tension between a competitive marketplace and a system of cross subsidies to support universal service. Last year, the Federal Communications Commission (FCC) took action to reduce these tensions by reforming universal service, but more needs to be done, particularly at the state level.

Universal Service Subsidies

A major goal of U.S. telecommunications policy has been to provide telephone service to as many Americans as possible at a reasonable price. To do this, state and federal regulators have employed a tangle of implicit and explicit subsidies to keep rural and residential rates affordable. The central mechanism is the subsidization of local residential phone rates by long distance, and in some cases, business rates.

The Changing Environment for Universal Service

In the regulated, technologically stable telephone environment that existed when the universal service system was developed, the distortions to the telecommunications market were manageable because the regulation of monopoly prices was an easy way to transfer wealth

between consumer segments. Prior to the 1996 Act, subsidies could occur with little competitive affect since local competition was nascent. Moreover, the technology was relatively stable, essentially consisting of the circuit switched phone network over wires.

In the 1990s, this began to change. The Internet and the development of packet-switched and broadband networks make the shift to a fixed-price system more likely.

Most significantly, the 1996 Act opened up the local market to competitive forces. But, one of the keys to making competition work is aligning prices with costs. If prices are above costs for some items and below for others, competitors will focus on the former rather than the latter. If prices are aligned with costs, however, the market disciplines itself, rather than relying on regulatory intervention with respect to prices.

Getting prices right in a competitive environment is critical if the market is to send the right signals to stimulate investment. Because the cross-subsidy rate structure distorts investment decisions for both telecommunications companies and consumers, the universal service system threatened to slow investment in technological advances, especially packet-switched and broadband networks. In addition, by pricing some services and areas below cost without any explicit universal support for actually serving the area, incentives to build out or upgrade the network are reduced.

And this is exactly what has happened. The most robust competition in local phone service has emerged in business markets in metropolitan

areas where prices historically – and as a result of government regulatory prescriptions – often exceeded costs. Competition has been slower to develop in the subsidized side of the marketplace – residential and rural – where current revenues do not always justify investments.

The 96 Act and Universal Service Reform

The 96 Act did two things with regard to universal service. First, it provided that a new set of institutional users – schools, libraries, and rural health centers – would be eligible to receive universal service funds to subsidize not only phone usage, but also the costs related to hooking up to and using the Internet. Funds for those recipients are provided through an explicit universal service fee paid by all telecommunications carriers. Those funds, however, go not only to the institutional users listed above, but also to the Lifeline/Linkup programs¹ and to support service in high-cost areas (primarily to small phone companies in rural areas). A fee on interstate long distance and wireless calls and charges paid by long distance companies to local telephone companies finances the overall universal service fund. Second, the Act charged the FCC with extending universal service support to advanced services (e.g., residential broadband) if those services became widely used over time, although defining this was up to the FCC and the Joint Universal Services Board.

But while increasing cross subsidies, the Act also directed the FCC to make all subsidies explicit (based on universal service charges appearing on phone bills, not on hidden cross subsidies created by charging more for some services than for others). Congress at least partially recognized the inherent conflict between price subsidies and a competitive telecom marketplace. Consistent with this, the FCC has recognized that “implicit [universal service] support can also delay or deny the benefits of competition to residential or high-cost customers if a competitor finds that it is

unable to compete against the incumbent’s artificially low rates.”

Progress Since the Act

The FCC has made substantial progress in implementing the market-opening provisions of the law, but until recently, the implementation of the universal service provisions has lagged and the traditional system of cross subsidies has remained the backbone of the nation’s commitment to universal service.

In 2000, the FCC took major steps to reform the universal service system, principally by implementing a version of a proposal by the Coalition for Affordable Local and Long Distance Services (CALLS). The FCC:

- Reduced implicit cross subsidies by reducing time-sensitive long distance access fees while raising fixed-rate monthly subscriber line charge (SLC)
- Enacted some geographic rate rebalancing so that rural high-cost users now pay a slightly higher SLC than urban lower cost users
- Increased support targeted to low income users (e.g., Lifeline).

In spite of the fears of some opponents of these changes, consumers took almost no notice of them (in large part, because the changes were revenue neutral and not overly large).

But more needs to be done.

To bring competitive markets in line with universal service commitments, states should also take steps to reform universal service and rebalance local retail rates. Some states, such as Maine and Illinois, and countries such as Canada have engaged in significant rate rebalancing to bring costs closer to prices, including reducing the costs of interstate long distance service while raising some local service rates, and they have

done so without experiencing significant decreases in subscribership.

The FCC and states should also resist pressures to extend the definition of universal service to include the Internet or broadband communications. Universal service subsidies for the Internet beyond schools, libraries, and rural healthcare centers make no sense in an environment where so many people who could afford Internet access are still choosing not to acquire it. Similarly, with less than 5 percent of American households subscribing to broadband,

we are a long way off from mandating subsidies to support broadband subscription.

Conclusion

Policy makers have taken steps in the right direction to bring the universal system in sync with the new competitive marketplace. However, not only should more be done at the state level, but policy makers should avoid expanding the old system in ways that are inconsistent with the new telecommunications environment.

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This article is based on a PPI policy brief, "Social Policy in a Competitive Marketplace."

Where We've Been and What's Ahead

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The fifth anniversary of the landmark Telecommunications Act of 1996 and the end of the Clinton-Gore Administration marks a good opportunity to take stock of telecommunications policy changes over the last eight years and the challenges that lie ahead. By any objective measures, the Clinton-Gore era succeeded in fostering innovative economic growth through telecommunications, creating millions of new jobs, and fostering inclusion by bringing more Americans into the Digital Age.

The numbers speak for themselves.

- In 1992, virtually no classrooms were connected to the Internet. In fact, in those days before the web browser, the Internet was a technically forbidding place, inaccessible to the vast majority of Americans. As we entered the 21st century, approximately two-thirds of all public school classrooms (not just schools) have Internet access. Today, a majority of Americans now have Internet access at home – a number that tripled since 1997.
- In 1992, wireless phones were used only by elite businesses. Since then, wireless subscribership has grown nine-fold, to almost 100 million customers. And the price of a mobile phone call has dropped dramatically, cut by more than half during the same period.
- Domestic and international long distance rates have also fallen dramatically. Domestic long distance rates stand nearly a third lower than they did in 1992, while international calling rates have on average been cut in half – and seen even more dramatic drops for specific destinations.

- In local telecommunications markets, almost 7% of telephone lines are now provided by new entrants, up from almost zero in 1992. In effect, the Telecom Act created a whole new industry.
- Another major development is that broadband services have roared into our lives. Today, broadband communications – primarily cable modems and DSL lines – serve over 4 million Americans, a number that continues to grow by leaps and bounds every year.

These successes did not occur by accident. They were aided by deliberate policies and legislation pursued by the Clinton-Gore Administration, sometimes with the support and sometimes over the objections of the Congress. Consider a few examples:

- The 1996 Act's "E-Rate" connects classrooms to the Internet
- The 1993 Budget Act's spectrum auctions and spectrum clearing ended high-priced duopoly cellular service
- The 1996 Act and the Federal Communications Commission's (FCC's) and state commissions' vigorous implementation of it opened the door for local telephone competition
- The 1997 World Trade Organization Agreement on Basic Telecommunications spread deregulation and competition worldwide, lowering international calling prices and creating U.S. jobs
- The FCC's general "hands-off" policy with respect to the Internet and the 1996 Act's cable rate deregulation fueled broadband growth.

So what will allow the next Administration to proclaim as good a record? The real test of the new Congress and Administration will be whether they can resist the temptation to rearrange the spoils of past wars, and focus on taking positive steps into the future. The Communications Act itself is out-of-date and needs fundamental overhaul.

But legislation should not simply revisit the 1996 Act and its implementation. Instead, fundamental statutory changes are needed to end "regulation-by-pigeonhole," which today lies at the core of U.S. communications laws.

The Communications Act of 1934, and every amendment to it since, set up a set of categories – "common carrier," "telecommunications," "information service," "cable service," "broadcast," "commercial mobile radio service," etc. Regulatory obligations and benefits are assigned by pigeonhole. But Internet technology, delivered both by wire and over the air, obliterates the pigeonholes. Drawing clear lines between pigeonholes is impossible. Yet our laws routinely rely on these distinctions - even to determine who must design equipment to be compatible with wiretaps and who is not required to do so. Cable open access and voice-over-Internet-protocol are just two of the policy issues battering the regulatory pigeonholes.

Another aspect of "regulation-by-pigeonhole" is the Communications Act's jurisdictional chaos. The FCC regulates "interstate" communications and spectrum, the states regulate "intrastate," and localities regulate the use of critical rights-of-way – and all levels of government regulate taxes. Convergence makes it imperative to

fundamentally reexamine the assignment of regulatory responsibilities between the federal government, states and localities. In a world in which all networks are interconnected to deliver worldwide service, today we have a confusing "rats' nest" of rules that adds even more regulatory pigeonholes.

The result drives capital away from building competing networks and creating consumer choice. For example, companies that will never use tariffs must spend money to create and file them with state regulators in order to be licensed. The state-licensing regime itself is archaic: there is simply no reason why every state must license every telephone company. A single, nationwide license that is nothing more than simple registration should suffice. And these nationwide licensees should be entitled the same rights as state-chartered carriers, including the right to obtain and use rights-of-way.

Unlike the EU, the United States has done little to examine this next phase for regulatory reform. While it is convenient to pillory the Federal Communications Commission for this state of affairs, the real job for tackling this problem lies first in the Congress. Change the statute and the FCC will follow.

We have come a long way in the past eight years. We lead the world in creating the New Economy. And we can stay there, if Congress and the new Administration build on the accomplishments of the last eight years, and keep their eye on future-looking reforms.

America's New Communications Hubs

How the Telecommunications Act of 1996 Has Revitalized the Nation's Cities

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Night after night for the last two years, a familiar routine has played itself out on the streets of Manhattan. As the cross-town traffic bleeds out through bridges and tunnels, non-descript vans fan out across the city, setting up shop over manhole covers that provide access to the tunnels below. Workers, with a rare sense of urgency among New York City street crews, busily gather the equipment they'll need to push fiber optic cable through the 4-inch conduits that line the gridiron of Manhattan's street system: air-compressors, nozzles, flares, and flashlights. Meanwhile, in old buildings along the West Side Highway that once housed the presses of Manhattan's publishing industry, construction crews work through the night installing diesel generators, high-capacity air conditioning units, and car-sized backup batteries in order to bring a new Internet data center online.

This scene is just one example of a phenomenon that is transforming cities across the entire nation. Competition in the telecommunications industry, spurred by the Telecommunications Act of 1996, is revitalizing America's cities. By phasing out the complex system of cross-subsidies which used to force urban businesses to subsidize rural telephone subscribers, and breaking monopolies on local telecommunications markets, the new regulatory environment has let innovative firms forge ahead in building a new communications infrastructure for the 21st Century. Over the last two years, a fundamental physical transformation has taken place in metropolitan America. A nearly invisible construction project involving thousands of

buildings, tens of thousands of workers, and hundreds of thousands of miles of fiber optic cable, has silently built a new communications infrastructure for North America.

The pace of construction has been spectacular. Between 1990 and 2000, capacity on international undersea fiber optic cables linking the world's cities increased some 225 times.¹ Long haul inter-city networks in North America grew from 2,085,000 fiber strand miles to over 3,500,000 miles between 1990 and 1998.^{2,3} It is estimated that private firms such as AT&T, Sprint, and Qwest had \$17 billion invested in long-haul network capacity in 2000, to rise to \$30 billion in 2002.⁴ Within cities and their surrounding suburbs, incumbent local exchange carriers (ILECs – the old Bell companies) and competitive local exchange carriers (CLECs – new upstarts like RCN) have built over *15 million miles* of fiber to link telephone switches and office buildings into broadband metropolitan communications grids.

Yet little attention outside the telecommunications sector has been paid to the massive investment in physical infrastructure that is needed to support the many connections made possible by the Internet. The hype of the Information Economy's 'plenty' – cheap technologies for processing and transmitting information – often obscures the painstaking decisions that firms must make regarding the infrastructure necessary to support millions of Internet users. Some pundits claim that Internet traffic is doubling every sixty days, and even the

most conservative estimates are that it doubles annually. The current infrastructure simply cannot support these massive new loads.

Contrary to futurists who predicted urban decline in the Information Economy as Internet use and data communications continued to grow (thereby enabling an exodus to less populated suburban and rural areas), new urban communications

hubs are providing the expansion base for the future Internet. Just as cities served as hubs in the era of ship (New York), rail (Atlanta), and air transport (Chicago), cities now serve as hubs for the information infrastructure. Laying fiber optic cable requires enormous up-front investment, and thus it makes sense to build in the biggest markets first. In fact, as Table 1 shows, the cost of bandwidth is still very sensitive to distance.

Table 1. Sample Bandwidth Rates from New York City

| Destination | Capacity¹ | Per Unit Price (\$ per Mbps per year) |
|--------------------|-----------------------------|--|
| Washington | 2.5 Gbps | 148 |
| Washington | 622 Mbps | 401 |
| Washington | 155 Mbps | 564 |
| London | 2.5 Gbps | 1,162 |
| London | 155 Mbps | 2,323 – 2,510 |
| Dublin | 2.5 Gbps | 5,250 |
| Dublin | 155 Mbps | 5,758 |
| Paris | 155 Mbps | 10,510 |
| Frankfurt | 155 Mbps | 10,510 |
| Milan | 45 Mbps | 12,222 |
| Vienna | 45 Mbps | 16,222 |
| Prague | 45 Mbps | 16,222 |
| Tokyo | 45 Mbps | 40,644 |
| Hong Kong | 2 Mbps | 144,640 |

Source: Compiled by author from listings Band-X Online Bandwidth Exchange. [<http://www.band-x.com>]

¹ 1 Gbps (gigabits per second) = 1,024Mbps (megabits per second) = 1,048,576 Kbps (kilobits per second). 1 Gbps is approximately 19,750 times the capacity of a typical 56Kbps dial-up modem connection.

Businesses that locate in major world cities have always done so to minimize their costs of travel and recruiting by minimizing their distance from other companies and the worker base. Many futurists in the 1990s forecast that the proliferation of bandwidth would undermine the economics keeping cities together. Not only were they wrong about the death of cities, but it appears that central city and metropolitan

economies are stronger than ever. In fact, advanced telecommunications hubs complement the knowledge-based industries that drive cities by providing an infrastructure to export their valuable ideas and services.

There are four components of the nation's new communications infrastructure. These components serve similar functions for

production, storage, and distribution in the Information Economy that earlier infrastructures did for industrial and mercantile economies. These four components are:

- *Information highways* – the transcontinental and undersea fiber optic lines which move data at light speed from city to city.
- *Information ports* – the neutral, third-party sites where communications carriers interconnect their systems into a single, global network. Also called 'carrier hotels' or 'telco hotels'.
- *Information warehouses* – the secure, climate-controlled structures which house row upon row of communications equipment, such as Internet servers and switches. Also call 'data centers' or 'co-los'.
- *Information factories* – the broadband-ready offices and homes which produce and consume the nation's information products.

These components of the nation's new information infrastructure are the result of tens of billions of dollars of private investment in the five

years following the Telecommunications Act of 1996. This investment will provide a solid foundation for economic growth in America's cities and metropolitan areas for decades to come.

However, some cities are not receiving any investment in new communications facilities at all, and are at great risk of being left behind in the race to get "wired". In the United States, Detroit, Cleveland and Philadelphia are among a number of large cities that lack a comparable telecommunications capacity. The new Administration needs to address this geographic "Digital Divide," which has left entire cities, neighborhoods, and communities behind in the Information Economy. While downtown businesses can choose from dozen of competing carriers, smaller businesses are often bypassed or neglected. Through incentives and assistance programs, much can be done to foster the diffusion of this new infrastructure to all levels of society, without the need for excessive regulation that might stifle the innovation and competition that has flourished since the reforms of 1996.

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This article is based on the new report, [America's New Communications Hubs: How Competition In The Telecommunications Industry Is Revitalizing America's Cities](http://www.informationcity.org), which will be released on February 25, 2001. It will be available exclusively through the Taub Urban Research Center website at <http://www.informationcity.org>.

The Promethean Illusion Continues

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In Greek mythology, the Titan god Prometheus is regarded as the protector and benefactor of man. He gave mankind a number of gifts, including fire, and was considered a patron of craftsmen and artisans. From this myth sprang the term "Promethean," which in more common vernacular has come to mean life-giving or life-enhancing; boldly creative or defiantly original; or, inspiring and done with great forethought.

When Congressional legislators and President Clinton signed the Telecommunications Act of 1996 into law on February 8, 1996, policy makers of all political stripes heralded it as a Promethean moment. In unusual unison, policy makers boasted that they were creating a bold new world for communications companies and consumers; a veritable telecommunications Nirvana seemed set to dawn.

Regrettably, however, this apparent Promethean moment was no more a reality than the Greek myth. In almost every way possible, the Telecommunications Act of 1996 has been an unmitigated failure. Whether judged against previous deregulatory initiatives or the Act's stated goal of promoting increased competition, investment, and entrepreneurialism within this sector, the Telecom Act has not lived up to its over-hyped billing.

The reasons for this failure are numerous, and when explained in technical terms, appear quite complicated. In reality, however, what lies at the heart of the Telecom Act's failure is a rather simple concept which might best be described as "Chicken Little complex": a persistent and all-embracing apprehension held by legislators and regulators who fear that if they let go of the reins

of power, the proverbial sky will fall on telecom companies and consumers.

Legislators and regulators often conjure up an endless parade of horrible possibilities that they fear would befall this market if all operating restrictions, price controls, and other regulatory "safeguards" were removed completely. Policy makers appear fixated with fears of potential price hikes, possible job losses, temporary service outages, or other imagined calamities.

Consequently, since its inception, a troubling paradox has characterized the structure and plain language of the Telecom Act. On one hand, in reading through the Act's legislative history or reviewing the many speeches policy makers have made about the legislation, the student of the bill is struck by Congress' genuine interest in promoting – as the preamble of the Telecommunications Act sets forth – a "pro-competitive, de-regulatory national policy framework" for this sector.

On the other hand, even if the student of the Act takes this pledge at face value, they are immediately left wondering why a "pro-competitive, de-regulatory framework" entails hundreds of pages of legislative language, a litany of meticulously detailed regulatory requirements and obligations, and a significant delegation of broad and exceedingly ambiguous authority to regulators at the Federal Communications Commission (FCC).

In essence, therefore, the Telecom Act is a statute at war with itself. In true "have-your-cake-and-eat-it-too" fashion, Congress attempted to engineer an illogical balancing act between the

contradictory goals of promoting increased competition and that of preserving the regulatory status quo. Simply stated, *Congress wanted market competition but did not trust the free market enough to tell regulators to step aside and allow markets to function on their own.* Consequently, the FCC, the Department of Justice, state Public Utility Commissions, and the courts, have treated the industry as a plaything to be endlessly toyed with.

Exhibiting a unabashed regulatory hubris, these bureaucrats actually believed they could “create competition” if they just tried hard enough. And trying hard meant regulating a lot. Hence, the situation five years after the passage of the Telecom Act is only slightly rosier than it was in 1996, not because regulation has helped improve matters, rather because technology has continued to evolve in spite of the continued presence of burdensome regulation.

Although it may not be politically realistic to expect this situation to be remedied in the short term, an enlightened Congress and principled FCC could correct the flaws of the Telecom Act by proposing an ambitious reform agenda to complete the deregulation of this industry. The principles governing this agenda should be as follows:

- End quarantines. End all remaining market restrictions and quarantines on a strict timetable, say by 2003.
- End forced access. Stop the spread of mandated open access. Allow voluntary negotiation, freedom of contract, and complete pricing flexibility. Encourage private dispute resolution mechanisms to solve interconnection controversies.
- Demand parity. Mandate *deregulatory* parity between formerly distinct industry sectors by borrowing a page out of the pages of trade law and adopting the equivalent of a “Most Favored Nation” (MFN) clause for telecommunications

which stipulates: “Any communications carrier seeking to offer a new service or entering a new line of business, should be regulated no more stringently than its least regulated competitor.”

- Free the spectrum. De-zone and fully privatize the electromagnetic spectrum by creating unambiguous and fully-flexible property rights in use. Disgorge more spectrum from federal agencies for immediate auction. Eliminate artificial caps and controls on spectrum aggregation.
- End entitlements. Comprehensively reform and then devolve universal service programs (including the “E-Rate” program) to the states. Encourage the states to use direct, means-tested vouchers to provide financial assistance to the extent any is required.
- Reform antitrust. End unwarranted FCC antitrust meddling and merger review policies. Leave antitrust review to Department of Justice authorities.
- End the public interest charade. Eliminate the vague and frequently misused “public interest” standard.
- End broadcast mandates. Get out of the broadcast censorship and content control business entirely.
- End the Net censorship crusade. Stop proposing Internet censorship and mandatory filtering initiatives.
- Put the FCC to bed. Undertake sweeping FCC reform and propose a plan for eventual closure.

If Congress wants to effectuate a truly Promethean moment for telecommunications, it will follow the course outlined here. If, on the other hand, federal lawmakers continue to pursue a heavy-handed, pro-regulatory agenda that entails endless federal regulatory micromanagement of this fast-paced industry, they will have to contend with another Greek myth, that of Pandora and her fabled box.

The Promethean Illusion Continues

Adam D. Thierer, Cato Institute

Congress must admit it opened a Pandora's Box of problems in the Telecommunications Act of

1996 that now must be closed by completing the job of deregulation once and for all.

Give it Up: Why Self-Regulation Won't Work

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In the five years since the Telecommunications Act was signed into law, we have heard a lot of talk about Internet policy issues such as taxation and privacy – issues that were not even on lawmakers' minds when they debated the Act. Why? Because the Internet itself was barely on their minds at that time. Further, as the Internet developed, the Clinton-Gore Administration heeded industry's requests that it be allowed to develop self-regulatory means to protect consumers and the Bush-Cheney administration is likely to follow that track. Federal Communication Commission Chairman Michael Powell will surely take a more hands-off approach than his predecessors did in recent years – he has publicly stated that "the burden of proof is always against regulatory intervention."

There have been two particularly notable attempts at self-regulation: **online taxes** – led by the Advisory Commission on Electronic Commerce, a mixture of lawmakers and industry executives – and **online privacy** – led by the Online Privacy Alliance, a group of industry leaders. Both groups attempted to solve major Internet policy problems; however, both problems remain because **pure** self-regulation in these areas has proven an unworkable solution.

The Advisory Commission on Electronic Commerce sounded like a great idea. The group of 19 Congressionally-appointed state and local lawmakers and industry leaders would take on the difficult issue of tax collection for the goods and services sold over the Internet. Unfortunately, the group was fraught with trouble. There were disputes over who would be appointed to the commission and then more than a quarter of the participants skipped the first

meeting. In the end, the group degenerated into squabbling and was unable to make useful recommendations to Congress. Two-thirds of the nation's governors denounced the commission, calling it a forum for special interests.

Policy makers and industry leaders should proceed with caution in pursuing a self-regulatory model in areas like Internet tax and online privacy, as successful self-regulation requires four elements, none of which are present in either the tax or privacy arenas.

Better Understanding of the Self-Regulatory Process

Economists, government officials, and industry representatives do not have much practical experience with self-regulation. For example, there are no criteria by which policymakers can assess its effectiveness. There is no established mechanism for limiting dominant firms' attempts to manipulate policy outcomes in their favor. The self-regulatory process needs to be much better understood if it is to be implemented effectively and justify heavy reliance on industry self-regulation of the Internet. Consumers, firms and government would all benefit from more study of this neglected topic. Unfortunately, self-regulation's popularity is not hampered by our need for more understanding of it.

A Single Jurisdictional Body "In Charge"

The United States and other national governments do not have a single jurisdictional body to regulate the Internet. Self-regulation can preempt, complement, or replace public regulation; but the most effective outcomes occur

when government retains some co-regulatory role. In a successful self-regulatory model, which government entity would be the co-regulator? The regulation of the Internet does not rest neatly within the White House, Congress, the Federal Communication Commission (FCC), the Department of Justice, or the Federal Trade Commission (FTC), all of which have already played major roles in regulating the Internet. In contrast, plain old telecommunications is mainly in the domain of the FCC with oversight by Congress. To further complicate questions over jurisdiction, several international groups and quasi-governmental bodies have weighed in on Internet regulatory issues. There is no clear governmental "backstop" to act as co-regulator and ensure companies work to resolve problems and issues.

A Compelling Reason for Industry to Participate

In neither of these cases is there a compelling impetus for firms to participate in the self-regulation process. Companies are profit maximizers, so they are motivated to participate in the self-regulatory process only when it appears to be in their financial best interest. Every firm's resources are in high demand, and they are likely to rank participation in a self-regulatory process behind short-term priorities. To busy CEOs and presidents, abstract issues like online consumer privacy do not clearly affect the bottom line. The impetus for industry to self-regulate on Internet policy can come from two sources: the threat of government action or the loss of revenue due to consumer reluctance to use a service because of privacy or other concerns. So far, neither has proven enough to compel firms into action. Until they see the real

threat of costs to their business, executives will continue to call for self-regulation while failing to make genuine self-regulatory progress.

Industry Cohesion

The "Internet industry" does not have a strong self-concept or a ubiquitous industry organization. Proponents of self-regulation cite the successful example of the catalog sales industry. In that industry, self-regulation works because the Direct Marketing Association can bring all the major players to the table. It can even sanction members for misbehavior because membership is highly valuable to member companies. Internet-related alliances and membership organizations abound, but none of them speak for all the interested parties. None of them can punish their industry members by exclusion from the "in club." So, when government regulators turn to industry, there is no single group to tap. We've come a long way since a sanctioned monopoly (Ma Bell) was the only corporation regulators had to be concerned with – for better or for worse, the companies now doing business on the Internet are too heterogeneous to be assimilated.

The past five years have demonstrated that self-regulation is not a method for good decision-making in the Internet industry, yet there are a lot of complicated decisions to be made. No one wants to "wreck" Internet policy with burdensome regulation, but self-regulation will continue to result in useless deadlocks such as the Advisory Commission on Electronic Commerce's non-recommendations. For the good of the public they serve, regulators must pass appropriate regulations to guide industry instead of leaning on self-regulation.

Are You Better Off Today Than You Were Five Years Ago?

Residential Consumers and Telecommunications Reform

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Anniversary dates and Presidential elections are occasions for reflections on the past and hopes of a better tomorrow. As we approach the 5th Anniversary of the Telecommunications Act of 1996, it is a fair question for consumers, meaning in this instance, primarily residential consumers to ask, "Am I better off today than I was five years ago?" And, "What promises for a better tomorrow should I really believe?"

If these questions were actually asked about telephone service, the vast majority of American residential consumers would say: *"I am worse off, much worse off. My bills are higher and the whole mess is a lot more confusing. And I don't have all those choices that people talked so much about."* To some extent, they would be right. In most cities, residential telephone users have fewer choices for long distance carriers than they did five years ago (Qwest bought Frontier; Worldcom bought MCI and a dozen other carriers). While there are a growing number of new competitors for local service (remember that there was only one such company before), the competition for local plain old telephone service is almost always focused on big business users. It is true that the cost of some services has gone down, but overall consumers perceive that their total bills for telecommunications services – because in part they buy more things – has probably gone up.

The conventional wisdom is just the opposite of the aforementioned negative view. Conventional wisdom says long distance rates have plummeted and that all consumers have access to a growing array of new services for everything.

Conventional wisdom says that on balance everyone is better off today than they were five years ago. However, the conventional wisdom does not tell the whole story either.

The Telecommunications Act of 1996 was an analog bill. The "Zen" of the 1996 Act is radio waves, not digital 1s and 0s. Its core codified the key provisions and regimen of the 1984 divestiture order, known as the "modified final judgment (MFJ)." In other words, the 1996 Act cemented in place structures and rules designed to assure that the analog world of telephone as reorganized by the Courts for antitrust purposes remained in place during a transition to a competitive system that was itself based on an analog world view.

The Telecom Act of 1996 presents two problems. First, the original break-up order of the Bell System got it largely wrong for residential consumers. The 1996 Act itself simply blessed that wrong decision and codified it into law. Second, the Act was written based on the non-digital world and is not working well to promote the growth and expansion of advanced, digital services to consumers.

The distinction between local and long distance services that should have been eliminated in the Act remained intact. So, instead of seven "local-only" companies competing against AT&T and MCI, it would have made more sense to have seven integrated companies, each competing nationally. Moreover, the so called "break-up" was essentially illusory as long as AT&T owned Western Electric (now Lucent), with the local

companies as their biggest customer and the local companies getting nearly all of their "access revenues" from AT&T.

In those markets, New York and Texas, where the ban on long distance competition has been lifted, residential customers are beginning to see real rate reductions and real competition. New York residential customers are saving nearly 250 million dollars a year (and probably more) through enhanced local and long distance competition. It makes sense. The marginal cost of adding long distance calls to telephone service and to a consumer's bill is very small and there are logical economic reasons for the local phone company to offer cheap long distance to an existing customer. It does not make sense, however, for a long distance company with no other relationship with a customer to offer just cheap long distance. The experience in Texas and New York suggest that residential consumers will benefit from the elimination of the local/long distance distinction – specifically, an elimination of the long distance prohibition on local phone companies.

Residential phone competition is not the only problem with the 1996 Act. During the time the Act was being debated, many advocates focused on promoting the deployment of next generation, high-speed, broadband services to the public. The Alliance for Public Technology argued at that time and continues to argue today that the primary purpose of the Act should have been to encourage broadband deployment. Unfortunately, the only real mention of this idea in the Act was Section 706. Section 706 could have been read as requiring the FCC to consider the impact on broadband deployment of every action they took in implementing the Act. A three-year review would have then let the FCC decide whether more aggressive actions were necessary to promote universal broadband deployment.

Unfortunately, the FCC didn't see it that way. They waited three years before even looking into

the status of broadband deployment. They then equated Section 706 to promoting narrow-band advanced services, rather than true broadband capabilities and applications. The result is, in effect, a national commitment to digital subscriber line and cable modem technologies and services rather than true broadband to the home that supports capabilities sufficient to support two-way, interactive video applications for every home in the country – 200kbps is not broadband, 20 Mbps is!

Perhaps this is too negative a view of the 1996 Act. Long distance and other telecommunication costs for big business and heavy residential users have in fact gone down substantially, but light users and rural consumers haven't done as well. In addition, there is no doubt that in the last five years a number of dramatic changes have occurred in telecommunications. Wireless competition has exploded. The Internet is nearly universal and its capabilities continue to grow. It is interesting that these are the areas where the 1996 Act were most silent.

It is clear, that it is time now to take a closer look at the Act and consider revising it for the 21st Century. We need to re-think how the government tries to manage this industry. Complete deregulation of everything does not make sense, as this industry is too important to the public interest to put at risk. But, we do need public policy to promote changes that will hopefully result in more rapid deployment of advanced services to all Americans at affordable prices. We need governmental agencies to provide reasonable oversight of those policies. We need to assure reasonable consumer protections that the marketplace will work not only for the suppliers, but also for the buyers.

Unfortunately, the competing industry interests that resulted in the 1996 Act might suddenly realize that they have a mutual interest in a new public policy regime. AT&T and Worldcom, which account for nearly 90% of the residential long distance market, have basically said it is a dead

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business. They know that their futures are going to be in provider-integrated services to customers. The local phone companies want to offer integrated services as well, but need to be able to offer them inside single enterprises. Cable companies are also angling for more opportunity and regulatory freedom.

It is possible that telecommunications companies and their warring lobbyists could sit down at the peace table. And so long as effective consumer representation is at the table, it just might result in a much better deal for everyone.

The Telecom Act and the Internet

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Five years later, the Telecommunications Act of 1996 is universally scorned as a failure. However, the Act has been a mix of both success and failure for the Internet community. In fact, the Internet may have gained more than any other segment of the telecommunications industry from passage of the Act.

The Act was to have been a major achievement for the 105th Congress – the first significant overhaul of telecommunications law in 62 years. It was intended “to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” Unfortunately, once signed into law, the Act almost immediately became a disaster.

Key provisions of the Act were challenged and overturned in court on Constitutional and other grounds. Competition between telephone and cable companies never materialized. Basic telecom definitions and policies were rendered obsolete by technological advances or mired in bureaucratic wrangling. The result was higher prices for consumers, stalled progress in core technologies such as high-definition television and broadband Internet, and an environment in which the courts rather than the Congress dictated US telecommunications policy.

The Act simply had too many interests working against it. Coming before the Congress in an election year, with all of the House and one-third of the Senate up for grabs in addition to the White House, meant that compromises and pork were inevitable. The battle for reform quickly

became a battle for balance between conflicting industry segments so that no single segment would get too much or too little. Further, the telecommunications industry was highly fragmented and lacked consensus – the process presented a handful of large players with an opportunity to use the Act as a competitive weapon, with each company fighting both to secure its position and to punish competitors. This forced even the most reform-minded companies to abandon the public interest in favor of defense and offense. It also guaranteed that the Act would face immediate court challenges.

Another problem was that implementation rested with the Federal Communications Commission (FCC). That agency was by its own admission hampered by a structure that convergence has rendered obsolete. The FCC’s “bureau” structure was simply not flexible enough to deal with a communications industry in which telephone lines deliver movies, cable lines deliver telephone calls, and electrical utilities deliver broadband Internet. The result was bureaucratic gridlock.

Still in the formative stage in 1996, the Internet community was impacted directly by the Act in only a few places. But the implementation of the Act has touched on virtually every Internet service provider or company in the five years since.

Much of the impact has been negative.

The Communications Decency Act. The brainchild of Sen. James Exon, this bill was purported to be a means to protect children from online pornography. But that was largely an election-year red herring – by creating a new and

legally undefined standard of "indecentcy," the bill gave Congress a powerful tool to censor content on the Internet. The Communications Decency Act was enrolled in the Telecom Act when it passed. The Communications Decency Act placed web sites and ISPs at risk for any content the Congress wished to block. Fortunately, the courts overturned it almost immediately.

Reciprocal Compensation. Opening telephony networks to competition meant that the FCC had to establish new rates for incumbent and competitive local exchange carriers (ILECs and CLECs, respectively) to compensate one another for passing phone traffic back and forth. An unintended consequence was to make it highly profitable for the competitors to be paid for calls to ISPs. CLECs bought up hundreds of ISPs, while smaller service providers were encouraged by self-styled consultants to become CLECs themselves and base their revenue projections on ILEC funding. The FCC has attempted to reverse the damage by ruling such calls are not locally terminated, but by the time reciprocal compensation is sorted out, thousands of CLECs and ISPs will be forced out of business.

Regulatory Disparity. In implementing the Act, the FCC continued to view the telecom industry through its traditional lenses, with cable, wireless, satellite, local telephony and long distance all seen as separate and with little or no overlap. By the time cable companies had jumped into telephony and Internet services, the FCC was unable or unwilling to change course. The result was an unparalleled opportunity for one or two companies to build empires with which to crush competition. AT&T and AOL Time Warner did exactly that, closing access to the cable platform for thousands of ISPs while the FCC continued to pursue a policy of "forbearance." That strategy has also left open the possibility that the telephone companies could sue for regulatory parity, closing telephony networks to competition in the same manner that cable networks are closed.

The damage done by these three elements of the Act has been extensive, particularly in terms of the healthy, competitive marketplace the Act was designed to create. But there are a number of positive elements made possible by the Act as well.

The Online Family Empowerment Act. This was the first collaboration between Sen. Ron Wyden (D-OR) and Rep. Chris Cox (R-CA), and remains today as the most far-reaching and protective piece of Internet legislation ever crafted. Though it suffered a few compromises from the original draft, it was included as Section 509 in the Telecom Act as an offset to the Communications Decency Act. Section 509 did two critical things for the Internet community – it limited liability for ISPs from the acts of their subscribers and it provided a "good Samaritan" protection for ISPs. This latter protection allowed ISPs to remove objectionable materials from their servers without being liable for what they might miss. All three remain today as the core of US Internet legislative policy.

The "E-Rate." In 1996, only 35% of public schools had access to the global information superhighway. The E-Rate provided a much-needed incentive to wire schools not only in more affluent and easily accessible areas, but also in rural and poorer urban areas where it might not otherwise have been done. It gave the legitimacy of the Federal government to the whole notion that the Internet was a serious learning tool. Billions of dollars and thousands of schools and libraries later, the E-Rate has been a major factor in Internet penetration and closure of the "Digital Divide."

For all of these, the good and the bad, the Telecom Act cannot ever be regarded by the Internet industry as a failure. For this single piece of legislation set the tone for future Internet policy at the federal level with these words:

The Telecom Act and the Internet

Dave McClure, US Internet Industry Association

It is the policy of the United States. . . to promote the continued development of the Internet and other interactive computer services and other interactive media. . .

The Telecom Act of 1996 gave a fledgling industry its first hand up, its first lines on the

stage of public policy, and its birthright as the future of telecommunications. That makes the Telecom Act, even five years later, a vital piece of legislation whatever else it may or may not have achieved.

The Telecommunications Act of 1996 Five Years Later

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Commentators who focus on the status of local competition use the wrong benchmark to evaluate the 1996 Telecommunications Act. We should evaluate the 1996 Act by the goals Congress spelled out in the preamble: “to promote competition and reduce regulation *in order to* (emphasis added) secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”

Congress passed the Act to provide specific benefits to consumers: lower prices, higher quality services, and accelerated deployment of advanced services. Congress understood that competition was a means, among others, toward those goals, but not an end in itself. Further, Congress understood that competition alone would not advance those goals for *all* Americans, and therefore included universal service mandates in the Act.

How well, then, has the Act worked to advance its stated goals?

Prices: Stable in Telephony, Skyrocketing in Cable

Continued local rate regulation and declining long distance prices for many (though not all) consumers have kept consumer expenditures for wireline telephony relatively flat over the past five years, even as use has increased. According to the FCC, consumers spent, on average, \$51 in 1996 and \$55 in 1999 for both local and long distance telephony, even as the number of households with second lines increased by 11 percent and long distance minutes increased 22 percent. Average local residential rates remained

stable at just under \$20 for residential lines and \$40 for single-line businesses. Cable rates, however, rose more than 30 percent. Although average prices never tell the whole story, it appears that most residential and small business consumers benefited from stable local rates, declining long distance rates, but experienced sticker shock from monopoly cable rates.

Quality: Blocking the Low-Wage Path to Competition

Quality telecommunications services depend on two primary factors: adequate investment in physical plant and in the employees who install, maintain, and provide customer service. Historically, high-skilled, career union workers built, maintained, and serviced what was regarded as the best telephone network in the world. In contrast, cable companies and most of the new competitors have adopted a low-wage, high turnover labor policy, choosing to compete by reducing labor costs and fighting their workers' desire for representation. The result is a well-deserved reputation for poor service.

Local telephone customers began experiencing service quality problems in the mid-1990s as incumbent local telephone companies cut employment levels, substituted contract workers for career employees, and reduced investment in local networks in order to prepare for competition. Since passage of the Act, and under scrutiny of federal and state regulators, most of the Bell Companies have hired more technicians and customer service personnel to reduce service backlogs, while significantly increasing local network investment. As a result, there has been some improvement in local service quality in many states, but downward competitive

pressure remains, with resulting service quality problems.

Quality service remains a problem for cable customers. The roll-out of cable telephony has been plagued with problems, as AT&T discovers the poor quality of the plant it bought from TCI and fails to invest in its cable workforce. Long distance consumers find it harder and harder to reach a human voice or a permanent employee, as long distance companies compete to cut costs as they abandon the residential market.

Union representation has served as an important protection for workers and consumers against this cost-cutting race to the bottom. Since passage of the Act, a growing number of workers in the wireless, cable, competitive local exchange, and dot.com industries have sought union representation. Despite often fierce employer resistance, CWA now represents a growing minority of workers in these industries.

Accelerated Deployment of Advanced Services: E-Rate Success, but Many Barriers to Market Incentives

Here progress has been mixed. Let me start with a success story, the E-Rate. Recognizing that market forces alone would not ensure universal, affordable access to the Internet in the immediate future, Congress established and then the FCC implemented a program of subsidies to schools and libraries.

In its first two years, the E-Rate provided nearly \$4 billion to schools and libraries, with funding targeted to poor school districts. The E-Rate has helped assure that today virtually all schools and 63 percent of classrooms have Internet connections, compared to only 65 percent of schools and 14 percent of classrooms in 1996. But the job is not done. Poor schools still lag far behind wealthier schools in classroom Internet connections—39 percent versus 71 percent. We must continue to build upon this progress by continuing the E-Rate program.

There has been some progress in accelerating Internet access at home, although a digital divide remains. In August 2000, 41 percent of homes were connected to the Internet compared to 19 percent four years earlier. While the number of minority, low-income, and disabled households with Internet connections is growing, so has the gap between information haves and have-nots, with less than one-quarter of Black, Hispanic, poor, and disabled persons with Internet access at home.

Internet connection is still largely narrowband; there were only 4.3 million broadband lines in June 2000—2.2 million through cable modems, 1 million through DSL connections, and the remainder through wireless technologies. The broadband market demonstrates a demographic gap as well. These inequities are significant because broadband technologies have the potential to improve educational opportunities, provide greater access to public services and health care, increase social and economic participation by people with disabilities, stimulate economic development in disadvantaged communities, and enhance civic participation, among other benefits.

While there are many reasons to explain the slow deployment of broadband technologies, misguided regulation serves as one important factor that dampens or distorts incentives for carriers to invest in universal, end-to-end broadband networks serving all classes of customers. For example:

- The FCC's interconnection network element pricing methodology promotes resale competition rather than investment in new networks.
- The FCC's reluctance to regulate cable Internet access as a telecommunications service imposes regulatory burdens on DSL providers that cable broadband carriers do not bear. Moreover, a closed model for broadband over cable will stifle consumer

demand and sacrifice the Internet as an open, democratic communications platform.

- The continued separation of the long distance and local wireline markets slows return on investment in broadband networks by breaking the digital network at an artificial LATA boundary. With AT&T and WorldCom in recent months signaling their retreat from the consumer long distance business, it is time for policymakers to re-visit the statutory and regulatory framework that has kept the Bell Companies out of the long distance market in all but four states.

Conclusion

Five years since the 1996 Telecom Act, many challenges remain to ensure that all Americans have affordable, access to quality telecommunications networks. While it is important to ensure that regulation does not distort or deter investment incentives, it is also important to maintain regulatory oversight over service quality to block the low-road competitive path while maintaining strong programs to protect and advance universal service.

What Have We Learned?

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*The good of the people is the greatest law.*¹

--Cicero

*It is difficult to make our material condition better by the best law, but it is easy enough to ruin it by bad laws.*²

--Theodore Roosevelt

A democracy built on participation and freedom of choice must develop the habit of criticizing its laws; for, in no other way, can the people move toward their ideals. After 200 years of struggling to create a more perfect union, American policy makers and analysts hold this value as axiomatic. No matter the tactical concessions nor the last minute compromises, every law engages discourse and debate as part of its legacy. In telecommunications, that discourse may be heated or it may be arcane; but, at its essence, it embraces Cicero's great principle and Roosevelt's warning.

Debate over the potential and efficacy of the Telecommunications Act of 1996 arose at the moment of its first consideration, continued right through the President's signature, and shows no sign of diminishing. Its predecessor, the Communications Act of 1934, generated debate throughout its 62 year existence, so it should come as no surprise to find debate persisting after passage of the '96 Act. The arrival of an information economy and society has simply added fuel to the fire.

In considering the impact of the Act five years later, three central issues emerge: competition, regulation, and access.

Competition

Policy makers and analysts share near consensus on the importance of the Act's intent to promote competition. The vision of fully competitive markets offering the best prices to consumers was strongly endorsed by most, if not all, of the parties. To a large extent, the promoters of the Act saw the opening of markets previously run as regulated monopolies as vindication of the power of market forces. Fully open markets would best meet the requirements of the public convenience, interest, and necessity. Even those most wary of the market were willing to cede some acceptance to the arbitration of the market.

Against that criterion, the Federal Communications Commission's and the Court's efforts to create competition have fallen far short of the Act's mandate. Many consumers have yet to experience choice or better quality service in broadband, local telephone, or Internet service markets. Rather than the rough-and-tumble, head-to-head competition envisioned by enthusiasts, the absorption of the cable business by phone companies, and consolidation among the phone companies themselves, leaves free marketeers uncomfortable. Five years into the era of the Act, the telecommunications world defies the original confident predictions.

Regulation

Hand-in-hand with competition, the Act aims “To . . . reduce regulation in order to secure lower prices and higher quality services. . . .” The obvious allusion to market forces carries significance because of the belief that market forces are superior to regulation in the promotion of the common good.

Reduced regulation, the operational core of that vision remains beyond the horizon. Old regulatory assumptions creating boundaries between cable and telephone prolong the promise of competition. As convergence of media intensifies, support of important subsidies such as Lifeline remain the obligation of a few, even as the idea of universal service expands to encompass broadband and Internet. Regulatory obligations lack symmetry across convergent media, so that some providers are selectively favored. It’s time to move toward a modified common carriage regime for broadband, telephony, and Internet; to offer universal service as a bundle of choices; and, to share the burden of funding universal service among all of the players. That said, the Commission and the courts face difficult obstacles made all the more challenging by the narrow self interest displayed by most of the players. After five years, strategies to achieve deregulation must balance the demands of aggressive interests playing for high stakes.

Access

In Section 254, the universal service provision of the Telecommunications Act seeks to improve access for all Americans. And, though a relatively small portion of a large document, the commitment to access should be understood as carrying forward the highest ideals of a democracy. It is because Americans have built their edifice of democracy on the idea of freedom and justice for all – emphasizing the *all* – that access through universal service signifies more than a generous idea. In a society defined by

information technologies and services, access to those media constitutes the gateway to democratic participation. For without access there can be no participation; and, without participation there can be no democracy.

Consequently, from time to time, national attention focuses on those Americans who might not have access to the same opportunities as their fellow citizens, and the resulting discourse takes on the supposition of a “gap.”¹ The passage of the Telecommunications Act occurred coincidentally with national concern for the emergence of a digital divide. And, at this nexus, the Act does not disappoint. Interpreting original research conducted in the early 1990s that challenged the effectiveness of traditional universal service, the Act broke through to a new conceptualization of universal service as an “evolving concept.” The new idea, that universal service should offer access in whatever configuration best suits the needs of Americans, fits perfectly with the dynamics of a rapidly evolving technological environment. Granted, all attempts to achieve the idea encounter massive hurdles. Yet, for democracy to derive its just powers from the consent of the governed, a communicative process must thrive. That process demands much of us for it demands that we insure equal and equitable access for all. Thus, as a good start as Section 254 offers, the follow through must be even more vigorous; and, that has yet to occur.

Course Corrections

As we look to the next round of discussions about how to best implement the Act, three goals should be stressed. First, level the playing field for genuine competition. Second, work towards regulatory symmetry across convergent media. And, finally, pursue access for all users vigorously.

As we go forward, we should bring two caveats with our critique. Teddy Roosevelt’s caution should sober us – every law comes with inherent

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Jorge R. Schement, Ph.D., Penn State University

limitations, and too much can be asked of it. Thus we are wise to carry on re-evaluation and debate. However, Cicero deserves the last word. The goal of law is to serve the good of the

people; and, as we construct the terms of engagement for the information society, let us be clear in our goal.

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Randolph J. May is senior fellow and Director of Communications Policy Studies. The Communications Policy Studies program examines policies relating to deregulation of the competitive telecommunications industry and the implications of competition for reform of the Federal Communications Commission. Prior to joining PFF, May was a partner with Sutherland Asbill & Brennan in Washington, DC, specializing in communications and administrative law. He has served as Associate General Counsel of the Federal Communications Commission and as a Member of the Administrative Conference of the United States. In addition to writing a monthly column on regulatory affairs for Legal Times entitled "Fourth Branch," he has published over twenty-five articles and essays on a wide variety of topics ranging from communications law to constitutional theory. May received his A.B. from Duke University and his J.D. from Duke Law School.

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David P. McClure is president and chief executive officer of the US Internet Industry Association, the primary US trade association for Internet commerce, content, and connectivity. At the request of leading companies in the online services industry in 1994, McClure chartered the Association of Online Professionals (AOP) to represent the industry in Washington, DC. With the growth of the Internet as the primary online venue, AOP became the US Internet Industry Association in 1999. McClure earned a B.S. in applied science (physics and chemistry) from the University of Iowa in 1973. He holds an MBA in executive management from Kent State University (1983), and has done additional post-graduate work in organizational development. McClure has written and lectured extensively on management and technology issues, and is considered an authority on strategic business planning and technology integration for businesses. He is currently a contributing editor for business, industrial, accounting and Internet publications as well as numerous newspapers and e-zines, and is a contributing editor to the ISPWorld and E-Commerce World web sites.

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John Nakahata is a partner in the Washington, DC law firm of Harris, Wiltshire & Grannis. His practice focuses on the development of competition in telecommunications markets, and the convergence of communications technologies and services. Mr. Nakahata is well known for developing innovative solutions to complex policy issues. He successfully spearheaded the first-ever joint effort by local exchange and long distance carriers --including AT&T, BellSouth, SBC, Sprint and Verizon -- comprehensively to reform telecommunications subsidy mechanisms and interstate access pricing. He also represents emerging local, national and international telecommunications and Internet companies before the Congress, Executive Branch, FCC and state regulatory commissions. Before entering private practice, Mr. Nakahata was the Chief of Staff of the Federal Communications Commission under Chairman William E. Kennard and Deputy Chief of the Common Carrier Bureau, Associate General Counsel for Competition, and Senior Legal Adviser to FCC Chairman, Reed E. Hundt. Additionally, Mr. Nakahata served for five years as a legislative aide to United States Senator Joseph Lieberman (D-Connecticut).

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Eli Noam has been Professor of Economics and Finance at Columbia Business School since 1976. In 1990, after having served for three years as Commissioner with the New York State Public Service Commission, he returned to Columbia. He is the Director of the Columbia Institute for Tele-Information. CITI is an independent university-based research center focusing on strategy, management, and policy issues in telecommunications, computing, and electronic mass media. In addition to leading CITI's

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Jill Rothenbueler works as a consultant in Washington, D.C. She analyzes telecommunications and high-tech issues. She has researched the policy aspects of ultra-wide band technology and low earth orbiting satellites. Ms. Rothenbueler has also addressed space net assessment for a military client. The project's goal was to anticipate changes in the character of competition and conflict likely to emerge over the next 20 years due to the evolution of space control. She has also played an integral role in a major study of the space industrial base that examined whether the domestic space industrial base is sufficient to meet national security requirements for the next 15 years. Ms. Rothenbueler has published two articles on self-regulation of the Internet and one article on the military use of commercial satellite communications. Internet tax is one of her favorite topics. She has a graduate degree in public policy from Georgetown University with emphases in International Trade and Internet Policy and an undergraduate degree in technical communications from the University of Minnesota.

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Jorge Reina Schement is Professor and Co-Director of the Institute for Information Policy, in the College of Communications at Penn State University. His research interests focus on the social and policy consequences of the production and consumption of information. His book credits include *Tendencies and Tensions of the Information Age* (Transaction 1995), *Toward an Information Bill of Rights and Responsibilities* (Aspen Institute, 1995), *Between Communication and Information* (Transaction 1993) and *Competing Visions, Complex Realities: Social Aspects of the Information Society* (Ablex 1988).

Dr. Schement is a member of boards at the Media Access Project, Libraries for the Future, the Benton Foundation, the Advertising Council, the American Libraries Association, the Tomas Rivera Center and the Center for Media Education, as well as a participant in the National Latino Telecommunications Taskforce. He annually leads seminars at the Aspen Institute.

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Samuel A. Simon
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Samuel A. Simon is President of IDI and a nationally recognized authority on consumer and public affairs. He pioneered the practice of bridging gaps between industry and non-traditional consumer groups on public policy, marketing, and consumer affairs issues to achieve win-win solutions for clients. Most recently, he has adapted the Internet for use in public relations and public affairs, receiving national recognition for innovation in the media relations and grassroots mobilization arenas. Mr. Simon has also served as public relations and public affairs counsel to a variety of Fortune 500 companies. Until 1986, Mr. Simon served as president of the Telecommunications Research and Action Center, the nation's oldest and largest consumer group concerned exclusively with telecommunications issues. He entered the public interest movement immediately following law school, working as one of the first lawyers for Ralph Nader. Mr. Simon has written three books and numerous articles, testified before Congress, and appeared on national media, including such programs as Today, Face the Nation, This Week with David Brinkley, Nightline, Good Morning America, Prime Time Live, the Oprah Winfrey Show and CNN. Mr. Simon holds a law degree from the University of Texas School of Law.

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Adam Thierer
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Adam Thierer conducts research on how government regulations are hampering the evolution of communications networks, including telephony, broadcasting, cable, satellite and the Internet. He also examines the broader economic and constitutional aspects of telecommunications policy. Prior to joining the Cato Institute, Mr. Thierer spent nine years at The Heritage Foundation, where he served as the Alex C. Walker Fellow in Economic Policy. In that capacity, he covered telecommunications and Internet policy and also wrote extensively on antitrust, electricity and energy policy, the airline industry, and federalism. Before coming to Washington, Mr. Thierer worked at the Adam Smith Institute in London, England, where he examined reform of the British legal system. Mr. Thierer earned his bachelor's degree in political science and journalism at Indiana University and received his master's degree in international business management and trade theory at the University of Maryland.

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Anthony Townsend

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Anthony Townsend is Associate Research Scientist at NYU's Taub Urban Research Center. Anthony is currently pursuing a Ph.D. in Urban Planning at the Massachusetts Institute of Technology, and holds a Master of Urban Planning Degree from New York University's Wagner Graduate School of Public Service. He has served as a consultant to major telecommunications companies and Internet service providers.

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Endnotes

Promoting Investor Confidence, Imposing Gridlock

Eli Noam and Bob Atkinson

¹ Local competition (at least in the modern era) started when the New York Public Service Commission, in mid-1985, issued a Certificate of Public Convenience and Necessity to a company (Teleport Communications) proposing to provide local high-capacity private lines. By the early 1990s, many other PUCs had authorized "Competitive Access Providers" (CAPs) to provide unswitched local services. In so doing, the states had required "central office interconnection" (later known as "collocation" after the FCC ratified the various PUC decisions) and some forms of loop unbundling to facilitate non-switched competition. The pattern repeated for switched local services: in 1994 the NYPSC authorized the first competitive local exchange service in the country and by the end of the following year 14 "Competitive Local Exchange Carriers" (CLECs) had installed 70 competitive central office switches. Such issues as mutual compensation (now known as "reciprocal compensation"), number portability and database interconnection were being addressed and had been at least partially resolved on a state-by-state basis.

²"The restrictions...shall be removed upon a showing by the petitioning BOC that there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter."

Why Johnny Can't Do Warp Ten

Mark A. Jamison

¹ Source: World of Wireless Communications <http://www.wow-com.com/wirelessurvey/>.

² FCC, Trends in Telephone Service, 2nd Report for 2000, released December 2000; FCC, 1999 Statistics of Common Carriers, August 2000.

³ FCC, Trends in Telephone Service, 2nd Report for 2000, released December 2000; and World of Wireless Communications <http://www.wow-com.com/wirelessurvey/>.

⁴ International Telecommunication Union, *ITU World Telecommunication Indicators Database and ITU forecasts*, September 2000.

⁵ Ray L. Hodges and Lawrence K. Vanston, Technology Forecasts for Local Exchange Switching Equipment, Technology Futures, March 2000.

The 1996 Act Telecommunications Act and Universal Service

Robert D. Atkinson

¹ A federal program that subsidizes the initial telephone connection charges and monthly service costs for targeted lower income consumers.

America's New Communications Hubs

Anthony M. Townsend

¹ *International Bandwidth 2000*. Telegeography, Inc., Washington, DC.

² A fiber-strand file indicates a single optical fiber running for one mile. Other commonly used measures of fiber deployment are the sheath mile and route mile, which offer no indication of potential transmission capacity.

³ *Fiber Deployment Update, End of Year 1998*. Federal Communications Commission, Common Carrier Bureau, Washington DC.

⁴ "Multimedia Telecommunications Market Review and Forecast". Multimedia Telecommunications Association [<http://www.mmta.org/research/forecast.cfm>].

What Have We Learned?

Jorge R. Schement

¹ Cicero (60 B.C.?) *De Legibus*, bk. 3, ch. 3, sct. 8.

² Theodore Roosevelt (1902) Speech, 23 Aug., Providence, R.I.

¹ The language of gaps can be potent. In his second inaugural address, Franklin D. Roosevelt took the first step of his new administration by challenging the picture of America as the land of opportunity. He looked out beyond his audience and declared, "I see one-third of a nation ill-housed, ill-clad, ill-nourished"; and, in so doing tapped into the terror that America's promise could not be fulfilled.