

Series Preface

Welcome to the latest installment in The Heartland Institute's *Legislative Principles* series. Each booklet in this series presents a set of principles central to the debate about a major public policy issue. Each principle, in turn, is carefully documented to enable readers to find the original sources, many of which are on The Heartland Institute's Web site (www.heartland.org). An electronic version of this booklet, also posted on Heartland's Web site, has links to the URLs of many of the sources cited.

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We hope the series forms a mini-library for elected officials, their staff, and concerned citizens. Kept on a desk or in a drawer, the booklets can form a ready reference on major legislative issues and policies. We also hope you will distribute copies to friends and colleagues who share your interest.

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This booklet is based largely on "More Broadband, Increased Choice and Lower Prices Begin with Regulatory Reform," by Hance Haney and George Gilder, published by the Discovery Institute in August 2008. Joseph Bast, president of The Heartland Institute, worked with the authors and several peer reviewers to edit and condense that text into the current work.

Herbert J. Walberg
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About The Heartland Institute

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Introduction

Why do we need principles of telecom policy?

Since the Great Depression, the telecom¹ industry has been subject to comprehensive regulation, with the Federal Communications Commission (FCC) in charge of interstate services and state public utility commissions overseeing intrastate services. This regulatory regime sufficed in the days of copper wires and mechanical switches but is anachronistic in an era of fiber optics, routers, cell phones, and Internet “teleputers.”

Today, telephone companies compete with wireless phone and cable companies using Voice over Internet Protocol (VoIP) to deliver phone service. “Cable’s digital phone service is now available to over 97 million U.S. homes and more than 13.5 million homes are now subscribing, with that number growing by more than one million per quarter in recent quarters” (NCTA 2009). Comcast had 5.6 million voice customers in August 2008, making it the fourth-largest landline phone provider behind AT&T, Verizon and Qwest (Fernandez 2008).

Wireline phone companies also face significant competition from cell phones. There were 163.2 million wirelines and 238.2 million cell phones in service at the end of June 2007 (FCC March 2008), and a growing number of cell phone customers are “wireless-only” or “mostly wireless.” More than one-third of the nation’s households fell into one of these two categories in 2007 (Blumberg and Luke 2008).

Cell phones will become more reliable and less costly in the future and they are beginning to feature television, location services based on global positioning systems, and Internet access. Wireless providers already have 35 million broadband subscribers (more than either the cable or phone companies), even though wireless broadband services are currently slow compared to DSL and cable modem services (FCC March 2008).

Cell phone companies and others are gearing up to add more speed. For example, a consortium that includes Google, Intel, Comcast, Time Warner, Clearwire, and Sprint Nextel plans to build a wireless broadband network based on WiMAX technology that will rival DSL and cable modem services in speed and is much

¹ By “telecom” we mean technologies and services used to communicate information, including data, text, pictures, voice, and video, over long distances. Telephone, cable television, and Internet access are the three major components of the telecom industry.

cheaper to deploy than DSL, cable modem service, or the 3G networks Verizon Wireless and AT&T are deploying. The consortium is determined to beat Verizon and AT&T to the market. Meanwhile, AT&T reported its 3G network, currently rated the fastest, would be available in 350 leading U.S. markets by the end of 2008 (AT&T 2008).

Even the largest firms are not immune to competition. AT&T lost 1.2 million landlines nationwide in the first quarter of 2008 (Cheng and Lavalley 2008) and more than 1.5 million more in the second quarter (AP 2008). One industry analyst estimates that Verizon and AT&T are losing residential phone lines at a rate of about 10 percent per year (Savitz 2008). Another analyst projects that by 2012 the market share of incumbent telephone companies will have dwindled to 51 percent, with potent competition from a variety of innovators using VoIP (SNL Kagan 2008).

The traditional rationale for utility regulation – that telephone and cable services are natural monopolies – is gone. Continued utility regulation – except as may be necessary for ensuring interconnectivity and number portability – is unnecessary and distorts competition in ways that harm consumers. So far, few states have faced up to this challenge.

The question is frequently asked whether it is necessary to remove all regulation, or whether consumers would benefit more from a combination of regulation and competition. The answer is that competition and regulation are incompatible. As Robert W. Crandall of the Brookings Institution pointed out:

The economic lesson from the history of regulation is that regulation and competition are a bad emulsion. Once the conditions for competition exist, it is best for regulators to abandon the field altogether. This is particularly true in a sector that is undergoing rapid technological change and therefore requires new entry and new capital. The politics of regulation favor maintaining the status quo, not triggering creative destruction (Crandall 2005, p. 166).

Distinguished economist and former federal regulator Alfred Kahn agrees:

The [telecommunications] industry is obviously no longer a natural monopoly, and wherever there is effective competition – typically and most powerfully, between competing platforms, landline telephony, cable and wireless – regulation of the historical variety is both unnecessary and likely to be anti-competitive ... (Kahn 2007).

Congress didn't act to deregulate the railroads until 1979, after President Jimmy Carter stated in a message to Congress that deregulation was necessary to avert an industry crisis. Without regulatory reform, telephone companies could face the same predicament, since current telephone regulation is modeled after former railroad regulation (Huber et al. 1999, pp. 214-220). Among other things, the regime forces the regulated entities to set some prices below cost (for example, residential and rural services) – forcing them to operate at a loss and discouraging competitive entry that would produce more choices for consumers; and set other prices well above cost – creating magnets for competition and eroding subsidies to support the services priced below cost. Eventually the system implodes.

Regulatory reform of wireline phone service is lagging behind wireless and cable, both of which were largely deregulated at the federal level during the Clinton administration when they faced much less actual competition than phone companies do now. Preemption of state regulation of wireless services in 1993 coincided with the auctioning of additional spectrum, because Congress assumed competitors would materialize. The elimination of cable rate regulation in 1996 occurred while cable operators still retained 91 percent of all subscribers, because Congress saw that new entrants such as direct broadcast satellite service providers were attracting many customers.

A few states, in particular Indiana, have taken the lead in regulatory reform. In March 2006, Indiana Gov. Mitch Daniels signed into law measures eliminating hidden subsidies in intrastate access charges, ending tariff filing requirements, permitting pricing flexibility, taking away from the state utility commission jurisdiction to regulate competitive services, streamlining provider-of-last-resort regulation, and assigning responsibility for consumer protection and broadband deployment to other state agencies.

These reforms may seem radical to anyone who remembers the days when incumbent phone companies were monopolies. But the monopoly era is over. The reforms enacted in Indiana are an appropriate and necessary response to the surge of competition that has transformed the telecommunications industry.

This booklet describes the beneficial results of what Indiana and other innovation leaders have done and how other states can follow their lead to reap the rewards of new investment in telecommunications services.

Recommended reading: Robert W. Crandall, *Competition and Chaos* (Washington, DC: Brookings Institution, 2005); George Gilder, *Telecosm: How Infinite Bandwidth Will Revolutionize Our World* (The Free Press, 2000).

1. Encourage new investment in telecom services.

New investment in telecom services produces wide-reaching economic benefits.

The main reason policymakers should undertake regulatory reform is to attract new investment to the telecom sector so phone, cable, and Internet consumers can receive the services they want at competitive prices. New investment in telecom is necessary to deliver this result, and the states that attract it will also reap the added rewards of job creation and economic growth.

The U.S. Internet of 2015 will be at least 50 times larger than it was in 2006 (Swanson and Gilder 2008). Internet growth at these levels will require a dramatic expansion of bandwidth, storage, and traffic management in core, edge, metro, and access networks. Building the infrastructure needed to cope with this exaflood² will be very expensive, likely requiring some \$137 billion in global new investment and \$50 billion in the U.S. over the next two years.

The good news is that this investment will be a powerful generator of new jobs and economic growth. A study by the Brookings Institution found “for every one percentage point increase in broadband penetration in a state, employment is projected to increase by 0.2 to 0.3 percent per year. For the entire U.S. private non-farm economy, this suggests an increase of about 300,000 jobs ...” (Crandall, Lehr, and Litan 2007). The authors call broadband “an important basic infrastructure that is expected to produce spillover and wide-reaching benefits across the economy.”

A study by Carnegie Mellon University and MIT’s Communications Futures Program, conducted for the U.S. Department of Commerce, found “between 1998 and 2002, communities in which mass-market broadband was available by December 1999 experienced more rapid growth in employment, the number of businesses overall, and businesses in IT-intensive sectors, relative to comparable communities without broadband at that time”(Gillett, Lehr, Osorio, and Sirbu 2006).

The Brookings Institution’s Robert Litan has measured the social benefits of broadband deployment and use resulting from

² An exabyte is one-quintillion byte units of information or computer storage. “Exaflood” refers to the massive growth in Web site traffic underway, rising from around 20 exabytes in 2006 to an expected 1,000 exabytes by 2015.

lower medical costs and costs of institutionalized living and more seniors and individuals with disabilities being able to participate in the labor force. “Considered together, these three benefits are estimated to accumulate to at least \$927 billion in 2005 dollars ... This amount is equivalent to half of what the United States currently spends annually for medical care for all its citizens (\$1.8 trillion)” (Litan 2005).

Those states that are leading the way in removing regulatory barriers to telecom investment have seen significant new investment in new services. According to a 2008 report by Ball State University researchers, during the 18 months following passage of HEA 1279, Indiana’s reform legislation, telephone companies reported investing more than \$516 million and creating more than 2,200 jobs in Indiana (Ball State University 2008). The study goes on to report:

- “According to FCC data, from July 1 to December 31 of 2006, nearly 400,000 new high-speed technology lines were installed in Indiana, a 33 percent increase from the previous six-month period. As of December 31, 2006, Indiana had 1.5 million high-speed technology lines, a 72 percent increase over 2005.”
- “Competing video service is now available from AT&T (U-verse) in select areas of Anderson, Bloomington, Indianapolis, Kokomo, Muncie and Bloomington. Verizon is offering fiber to the household Internet TV service (FiOS) in Fort Wayne, New Haven and Hometown.”
- “Washington, Indiana became the third city in the nation and the first in the state of Indiana to launch next-generation WiMAX wireless service in September 2007, reaching more than 6,000 homes and businesses. Other Indiana markets scheduled for WiMAX deployment during the first quarter 2008 will provide new, high-bandwidth Internet services to roughly 35,000 households in both underserved and rural areas.”

Recommended reading: Ball State University, Digital Policy Institute, “An Interim Report on the Economic Impact of Telecommunications Reform in Indiana: A White Paper,” February 15, 2008; Sharon E. Gillett, William H. Lehr, Carlos A. Osorio, and Marvin A. Sirbu, “Measuring the Economic Impact of Broadband Deployment, Final Report,” Carnegie Mellon University and MIT’s Communications Futures Program, February 28, 2006.

2. Repeal discriminatory taxes and fees on telecom services.³

Phone calls and cable services are taxed at two times the rate as clothing, sporting goods, and other household products.

The first thing elected officials should consider doing to encourage investment in telecom services is repeal discriminatory taxes and fees on telecom services. Taxes and fees on cable TV and telephone subscribers average 13.40 percent, twice as high as the national average retail sales tax of 6.61 percent (Tuerck et al. 2007). In other words, phone calls and cable services are taxed at two times the rate as clothing, sporting goods, and other household products.

The national annual burden on cable TV and telephone customers is approximately \$37 billion. Taxes reduce consumer demand for cable television by between 17.5 percent and 35 percent and for wireless telephone services by between 13.3 and 15.3 percent. Taxes and fees cause an annual “deadweight loss” to society of more than \$11 billion (Brito and Ellig 2006, Ellig and Taylor 2006).

Taxes also vary from one communication service to another and according to the technology used to deliver otherwise-similar services. A typical phone call placed with a wireline phone is taxed at 16.87 percent, while a call placed over a cell phone and billed at the same rate is taxed at 11.78 percent. If placed using a VoIP service like Vonage, the call in most states isn’t taxed at all.

A typical pay-per-view movie ordered through a cable TV box is taxed at 11.69 percent, while the same movie downloaded over the Internet using a service such as iTunes is not taxed. The new video services being offered by wireline phone companies will probably be taxed at 5 or 6 percent.

Communications taxes and fees are regressive with respect to income: Their rate as a percent of household income declines as household income rises. Poor households pay 10 times as much, as a percentage of their income, in taxes and fees on cable TV and telephone services as do affluent families (about 1 percent versus 0.1 percent). Public officials seeking to close the so-called “digital

³ Unless otherwise indicated, the statistics in this section are taken from David Tuerck, Paul Bachman, Steven Titch, and John Rutledge, “Taxes and Fees on Communication Services,” *Heartland Policy Study* No. 113, The Heartland Institute, May 2007 rev. June 2007.

divide” can lower the price of communication services by repealing discriminatory taxes and fees.

High and discriminatory taxes and fees are legacies of an era when cable and telephone companies had near-monopolies and could pass the cost of taxes and fees along to their then-captive ratepayers. Today, competition allows consumers to choose less-taxed alternatives, causing taxes and fees to distort buying and investment decisions. Policymakers should bring public policy up-to-date with the following changes:

- Local governments can reduce cable franchise fees, making sure they do not exceed the true economic cost of using public rights-of-way (Speta 2002). Regulations that impose costs on cable companies and their new competitors from the phone and wireless sectors should be avoided or repealed.
- States can adopt legislation that lowers and streamlines communication taxes, as Virginia and Ohio have done. States also can preempt local franchise laws that impose excessive fees or restrict new entry by competitors, following the example of such states as Indiana, Ohio, and Wisconsin. As this is done, it’s important to allow cable companies to operate under the same franchise agreements as their competitors.
- The federal government recently phased out a 3 percent national excise tax on all wireless and on wireline long-distance calls, a positive and long-overdue step. The federal government can go further by adopting legislation prohibiting states and cities from adopting discriminatory sales, use, or business taxes on communication services.

Recommended reading: David Tuerck, Paul Bachman, Steven Titch, and John Rutledge, “Taxes and Fees on Communication Services,” *Heartland Policy Study* No. 113, The Heartland Institute, May 2007 rev. June 2007; Scott Mackey, “The Excessive State and Local Tax Burden On Wireless Telecommunications Service,” *State Tax Notes* (July 2004): 181-194; Council on State Taxation, “2004 State Study and Report on Telecommunications Taxation,” Telecommunications Tax Task Force, Washington, DC, March 2005.

3. Oppose “network neutrality” regulations.

Attempts to legislate network neutrality risk a repeat of the disaster that was caused by the Telecom Act of 1996.

“Network neutrality” is a somewhat-flexible label given to ideas concerning the rights of Internet users to control the service they receive from Internet service providers (ISPs). It comes to the attention of policymakers when its advocates call for regulations that would prevent network providers from offering deals to one content provider unless they offer the same deal to all providers (Lessig and McChesney 2006). It is also often evoked as a free speech principle that network providers should not discriminate among messages based on their content.

In 2005, the FCC endorsed four principles of network neutrality that are widely supported by ISPs and their customers: (1) consumers are entitled to access the lawful Internet content of their choice; (2) consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement; (3) consumers are entitled to connect their choice of legal devices that do not harm the network; and (4) consumers are entitled to competition among network providers, application and service providers, and content providers (FCC 2005).

“Although the Commission did not adopt rules in this regard,” the FCC statement read, “it will incorporate these principles into its ongoing policymaking activities. All of these principles are subject to reasonable network management.” This is essentially where federal policy remains today, despite efforts to codify the principles into federal law.

Should the FCC or state regulators do more to enforce network neutrality? Most surely not. While the principles themselves may be sound, giving the FCC authority to turn them into a regulatory code and then to enforce it risks a repeat of the disaster that was caused by the Telecom Act of 1996, when thousands of pages of new regulations and years of litigation slowed innovation to a crawl and helped cause the telecom crash of 2000-2003.

Turning the principles of network neutrality into regulations would expand the FCC’s regulatory power over ISPs, preventing them from “throttling” service to heavy users or providing tiered service, where customers pay different amounts for different levels of access. This is the opposite of the pricing flexibility and freedom

to innovate that is required to encourage and reward new investment in telecom services and infrastructure (Costin 2008).

For years, some network neutrality advocates have predicted that broadband providers would contrive integrated content-conduit plays enabling them to reap profits from broadband content and destroy competition and innovation. This hasn't happened because content and conduit are naturally separate: If you have the best content, you want it on everyone's conduit, and if you have the best conduit, you want everyone's content on it. There are no synergies between creating attractive and original content and building powerful and available broadband networks. Consequently, the most profitable product in cable is not TV but open Internet service. The market will continue to push phone and cable companies to provide consumers with more choice, not less (Lee 2008).

Several prominent telecom experts sent an open letter to U.S. Representatives Joe Barton and John Dingell in 1996 that said in part, "By deterring product differentiation, net neutrality regulation could easily have the perverse effect of limiting or even destroying competition. Homogeneity imposed by regulation, in other words, could lead us back to monopoly" (Arrison et al. 2006).

Calls for network neutrality regulations are especially ill-timed because of the exploding demand for broadband services described in Principle 1. Billions of dollars need to be raised from investors and invested quickly to keep up with the demand for speed and bandwidth. Adoption of new regulations to enforce the vague principles of network neutrality would persuade many investors to stay on the sidelines, as occurred in the cable industry following re-regulation in 1992 and the phone industry following passage of the regulation-laden 1996 Telecommunications Act. In both cases, telecom investment crashed when investors saw that new rules would undermine expected returns on new investments. Investors returned to the cable industry in 1996, following repeal of price controls, and to the phone industry beginning in 2004 when the FCC scaled back network-sharing rules.

Advocates of network neutrality regulations disregard the need for a regulatory environment that protects and rewards the new investments needed in broadband infrastructure.

Recommended reading: Bret Swanson and George Gilder, "Estimating the Exaflood," Discovery Institute, January 29, 2008, <http://www.discovery.org/a/4428>; Timothy B. Lee, "The Durable Internet: Preserving Network Neutrality without Regulation," *Policy Analysis* No. 626, Cato Institute, November 12, 2008.

4. Reduce intrastate access charges on telephone calls.

Reform voice call termination rates so there is parity and technological neutrality.

A principal aim of legislators and regulators in regulating telecom service providers is to ensure that high-quality phone service is available and affordable everywhere. But there are dramatic variations in the cost of providing traditional (analog) phone service depending on population density. This type of phone service would not be affordable in many rural areas and would be more expensive in residential areas if rates were set according to cost.

A number of direct and indirect subsidy mechanisms provide support for rural and residential phone services. One of the indirect subsidies at the state level is intrastate access charges that long-distance and wireless providers pay to smaller rural local phone providers and new entrants who originate or terminate calls for them. Phone companies historically over-charged long-distance and business customers, and in some cases still do, so they can offer lower prices for rural and residential phone service and still recover their total costs.

Such cross-subsidies cannot be maintained in a competitive market if competitors can choose to serve profitable customers and ignore everyone else. Since competitors are free to choose their customers, cross-subsidies discourage competitive entry in high-cost areas when the incumbent is charging a lower price than a competitor would need to charge to cover its costs plus earn a reasonable profit. In the low-cost areas, competitive entry is extremely profitable when the incumbent's services are priced high enough to subsidize other customers. Competitors can profitably under-price the incumbent in low-cost areas while the incumbent is helpless to match the price decreases.

Consumers suffer the consequences. High-cost consumers are deprived both of competitive choices and ultimately of the heavily subsidized service they need. Low-cost consumers also are harmed – even if they have a choice of providers – because the inflated price charged by the incumbent acts as an umbrella that guarantees competitors also can maintain a high price without fear that the incumbent could cut its prices below theirs. Reforming voice call termination rates and removing the remaining implicit subsidies from intrastate access charges would spread the benefits of competition in both urban and rural areas.

In Indiana, the cost of intrastate access does not exceed the cost of interstate access. This policy of “parity” makes sense, because interstate access charges are fully compensatory and a telephone company does not incur a separate set of costs when it provides intrastate versus interstate access.

Reducing intrastate access charges does not necessarily mean forcing rural and residential consumers to pay higher prices for basic service. Indirect subsidization through intrastate access charges can be replaced with an explicit funding mechanism into which all competitors must contribute equitably and out of which any competitor who wishes to serve a high-cost area may receive adequate funding.

In some cases, reducing access charges would spur the deployment of broadband in rural areas without sacrificing consumer choice. Access charges were originally set to reflect the cost of analog phone service, which is more expensive to deliver than wireless or VoIP phone services. Smaller rural providers are still under “rate-of-return” or “cost-plus” regulation entitling them to recover their costs plus earn a reasonable return of approximately 10 to 15 percent. Since the return is defined as a percentage of the costs they incur, as costs go up so do profits. Moreover, since VoIP often deprives smaller rural providers and new entrants of access charges, current policies discourage rural phone companies from marketing VoIP services.

States should therefore consider reducing intrastate access charges for smaller rural providers and new entrants to remove a disincentive to market less-expensive phone services such as wireless and VoIP. It is not possible to preserve the status quo, nor is it desirable to postpone reform. If wireline and wireless phone companies are forced to charge or pay inflated call termination rates, they will lose customers to lower-priced VoIP offerings. If they are required to reduce intrastate access charges at least to the same level as interstate access charges they can provide a more competitive offering.

Policymakers could reduce intrastate long-distance rates for most consumers and promote the availability of flat-rate long-distance plans by reducing intrastate access charges. Ideally, the current system of high intrastate access charges and low interstate access charges ought to be replaced with parity and technology neutrality in call termination fees generally.

5. End requirements that telcos file tariff notices.

Incumbent telephone companies shouldn't have to give advance notice of their price and service decisions to competitors.

The requirement put on telephone companies to file tariffs⁴ in advance of their plans to alter rates, terms, and conditions is intended to prevent a common carrier from discriminating. This type of disclosure sounds harmless and pro-consumer, but it is often anti-competitive and harms consumers.

Many states allow tariffs to go into effect at the conclusion of a notice period unless the state utility commission chooses to conduct a hearing. In Illinois, for example, changes in the rates or terms of phone service go into effect after 45 days' notice to the state commission and to the public. Meanwhile, competitors (primarily cable companies using VoIP and wireless companies) are free to inspect the tariff and beat the incumbent to market with a competitive offering of their own.

In a competitive market, rivals take advantage of advance filing of tariffs to benchmark their prices and service conditions to what the incumbents plan to offer. Rivals can wait until they receive formal notice of an incumbent's plans before they change the price or quality of their product or service as necessary to avoid losing sales. This cat-and-mouse game reduces the incentives for both the incumbent and the rivals to innovate.

The FCC concluded in 1996 that it would be pro-competitive to neither require *nor allow* long-distance carriers to file tariffs because it would increase incentives for innovation, make it easier to offer discounts and customized service arrangements, and reduce the possibility of tacit coordination in price-setting (FCC 1996).

Tariffs may have been appropriate in a monopoly environment where there was no need to worry about information-sharing because there were no competitors. This situation no longer exists in intrastate phone markets. There should be no formal notification requirements.

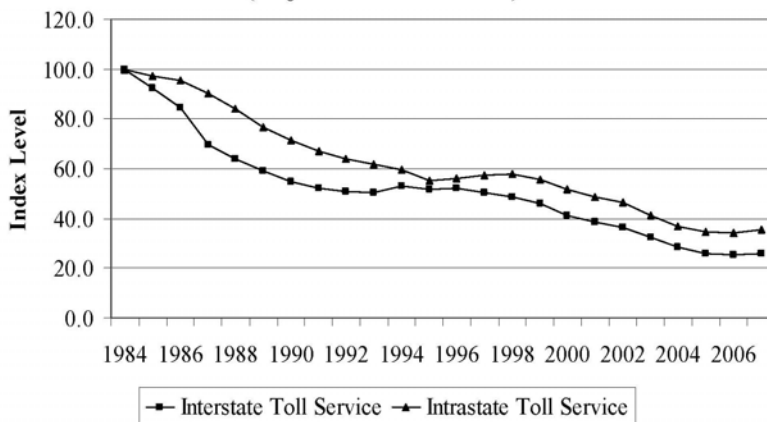
⁴ Tariffs are filings containing the rates, terms, and conditions of certain services provided by telecommunications carriers. ILECs file tariffs with the FCC for interstate local access service and with state utility commissions for local and intrastate service. Long-distance service and many broadband services have been detariffed. Tariffs are optional for CLECs.

6. Give providers greater freedom to set prices.

Competition, not regulation, is the way to ensure that prices are as low as possible.

Deregulation opened the long-distance market to competitors in the early 1980s and subsequently reformed vestiges of utility regulation that inhibited full competition such as implicit subsidies, tariffs and price ceilings and floors. The results were innovation, improved service quality, greater choice of providers, and lower prices. Average revenue per minute of long-distance calling dropped from 15 cents in 1992 to 6 cents in 2006, a decrease of 60 percent. During 2007, the price of interstate toll service rose 2.4 percent compared to a 4.1 percent increase in the overall consumer price index (FCC 2008, p. iv).

**Consumer Price Indices for Toll Service Since 1984
(Adjusted for Inflation)**

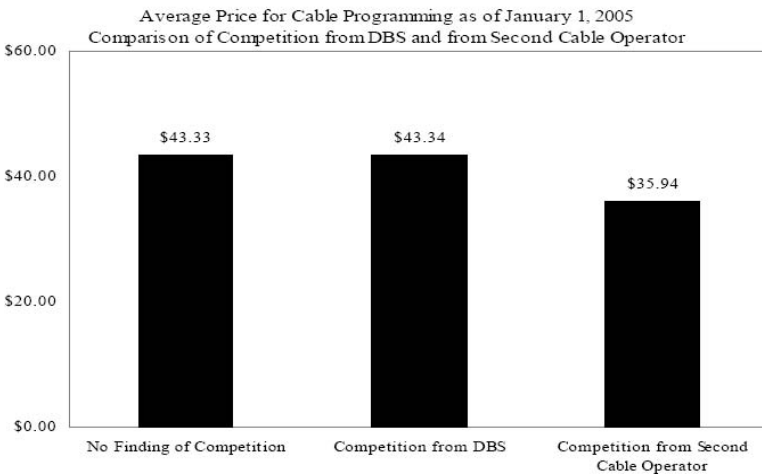


Wireless was completely deregulated early in the Clinton administration, and the average cost per minute of cell phone use has fallen 85 percent, from 47 cents in 1994 to 7 cents in 2006 (FCC February 2008, p. 8). Minutes of cell phone use are significantly less expensive in the U.S. than in Western Europe (where revenue per minute averaged 20 cents in the last quarter of 2006) and Japan (26 cents) (Ibid., p. 10). Price regulation in other countries has had the unintended effect of preserving higher prices (Littlechild 2006).

Full pricing flexibility could also bring more innovation, improved service quality, choice of providers and lower prices for local voice, video and advanced data services. Capping rates discourages competition by making it highly profitable to serve some customers and unprofitable to serve others. High-cost consumers are deprived both of competitive choices and ultimately of the heavily subsidized service they need as low-cost customers take advantage of competitive offerings. Meanwhile, the competition for low-cost customers is illusory: Competitors are free to charge unreasonably high prices because the incumbent is helpless to cut its prices selectively.

The story on pricing flexibility for cable services is somewhat different from voice. Federal price controls on cable television were lifted by the Cable Communications Policy Act of 1984 but then reimposed in the Cable Television Consumer Protection and Competition Act of 1992, and lifted once again by the Telecommunications Act of 1996. The rate of price increases for cable service was about the same under regulation as without regulation, as cable companies found ways around the price caps. Cable companies also were adding channels to the packages they sold. Rate regulation did have two clearly negative effects: lower viewer ratings for basic cable program services (a measure of quality) and a slower growth in consumption (Hazlett and Spitzer 1997, p. 2).

Competition has proven to be more effective than price controls in limiting cable price increases. Cable prices in 2005 were “20.6 percent higher in noncompetitive communities compared to prices in communities with second wireline cable operators, whereas cable prices were only 7.1 percent higher, 1.4 percent higher and about the same when compared to, respectively, prices in communities with low cable penetration, where a wireless cable competitor is present, or where DBS penetration is the reason for the effective competition finding” (FCC 2006, p. 5).



Those states that have removed restrictive video franchise requirements have seen new investment, more competition, and lower cable prices. “Consumers have enjoyed greater choice and a range of new services, including on-demand video and ‘a la carte’ content selection, at lower cost. Legacy cable providers have responded to new competition by lowering costs and improving service” (Titch 2007).

In January 2009, “intense competition for cable and satellite customers between AT&T U-verse and Verizon FiOS high-speed fiber providers has driven down rates for Internet, phone and TV service and is likely the reason that companies allow these savings to continue past the promotional period. In the past year, bundles of the three services have dropped in price by up to 20 percent, to as low as \$80 a month” (Consumer Report 2009).

There is scant dissent that telecom services should be deregulated when markets are competitive, but wide differences of opinion as to when there is sufficient competition to warrant regulatory reform. Opponents of deregulation have proposed that a market is competitive only when every consumer has a choice of providers or the incumbent loses significant market share. The FCC has rejected both of these ideas (FCC 1999).

As to waiting until every consumer has a choice of providers, the FCC concluded this approach might allow competitors to “game the system” in that they could prevent an incumbent from obtaining pricing flexibility indefinitely by choosing not to serve certain customers. Moreover, the FCC expressed the view that it isn’t administratively possible to determine the exact moment relief should be granted under this type of test.

Experience shows that a market is competitive anytime there are no barriers to entry, such as exclusive franchises or prohibitive investment costs, and where actual and/or potential competitors can offer reasonable substitute products or services (Baumol and Sidak 1994). This describes the telecom market, since phone companies, wireless providers, and cable VoIP operators provide services that large numbers of consumers consider substitutes in many circumstances. Technological change and regulatory reform have reduced barriers to entry, allowing dissatisfied consumers to take their business elsewhere. Competition, not regulation, is keeping prices low and consumers satisfied.

Recommended reading: Thomas W. Hazlett and Matthew L. Spitzer, *Public Policy Toward Cable Television: The Economics of Rate Controls* (The MIT Press and The AEI Press, 1997); William J. Baumol and Gregory J. Sidak, *Toward Competition in Local Telephony* (The MIT Press and The AEI Press, 1994).

7. Exempt competitive services from utility commission jurisdiction.

There is no reason for a utility commission to retain jurisdiction to intervene in a marketplace that has become competitive.

One way to reform regulation of competitive communications services is for the legislature to direct the agency with jurisdiction to use its best judgment in determining when regulation is no longer necessary. This was the approach Congress took with the 1996 Telecommunications Act. It didn't work.

Instead of deregulating telecom, Congress and the FCC re-regulated it. They imposed new layers of price controls and sharing requirements on high-speed access lines. They gave new powers to ever-eager utility commissions in the 50 states. They micromanaged negotiations between competitors. And the million-word law became a playground for lawyers and bonanza for bureaucrats. The 1996 act's failure to deregulate was a primary cause of the telecom and technology crash of 2000-2003 (Gilder and Swanson 2002).

Congress even included a provision in the 1996 law authorizing regulated entities to petition for regulatory relief, and provided that the petition would be deemed granted if the FCC failed to issue an appealable written decision within 15 months explaining why it was denying the petition. Ten years later, this provision has had only limited success.

Indiana took a better approach by prohibiting its state commission from exercising jurisdiction over communications services. Non-basic telecommunications service, commercial mobile service, advanced and broadband services, information services, and Internet Protocol-enabled communications services were all placed outside the state commission's jurisdiction by the 2006 law. Basic telecommunications service will follow after June 30, 2009.

As wireless and VoIP offerings have begun to steal significant market share from the incumbent wireline providers, it has been argued that those services should not be permitted to escape regulation just because they rely on different technology. Others argue regulation of the incumbent phone companies could be threatened unless regulation is expanded to cover their competitors.

The latter argument at least recognizes the fact that regulation imposes burdens such as subsidy obligations. If the same burdens apply to all competitors, regulation-based competitive advantages

and disadvantages will not distort competition. But if such regulation is unnecessary, then it imposes an unnecessary cost on providers and consumers and serves only to discourage investment in the industry. The best way to “level the playing field” among competitors is to eliminate, not add, regulations.

There is no reason for a utility commission to retain jurisdiction to intervene in a marketplace that has become competitive because the market will take care of most regulatory objectives. Partial regulation is unsustainable (see Robert Crandall’s observation, quoted in the Introduction), so the solution can only be to phase out current regulations. If competitive services are not expressly exempted from utility regulation, a state commission becomes a target for commercial rivals seeking a regulatory advantage, activists seeking to promote a policy agenda, or even a formerly regulated entity seeking protection.

Utility commissions in California and a few other states retain authority to regulate wireless services to the extent permitted under federal law. In Illinois the legislature authorized the utility commission to exclude wireless services from “active regulatory oversight,” which it did. Indiana, Michigan, Florida, New York, Texas and most other states have statutes expressly exempting wireless services from state commission jurisdiction.

VoIP services are expressly exempted from state commission jurisdiction in Indiana, Florida, Michigan, North Carolina, Ohio and a few other states. The FCC is currently considering whether VoIP is a telecommunications or an information service. If the former, it is subject to legacy telephone regulation unless the FCC elects to forbear from applying regulation (in which case the states would be preempted); if the latter, it is unregulated. The FCC already has ruled that certain VoIP services are interstate and therefore may not be subject to utility-type regulation by the states (FCC 2004).

Companies find it easier to plan massive investments in network upgrades when laws expressly provide that competitive communications services are not subject to the jurisdiction of an agency that practices utility regulation. Commission decisions do less to reduce regulatory uncertainty than statutes since agency decisions are subject to litigation and FCC review, and the commission itself can change its decision anytime it wants or merely threaten to change it when the commission wants something. Investment flows to the arena not only with the least regulation but also with the lowest threat of re-regulation.

The wisest approach from the standpoint of minimizing unnecessary risk and uncertainty is for states to remove all competitive services (including wireless, VoIP, and basic and non-basic wireline services) from state utility commission jurisdiction.

8. End or reform carrier-of-last-resort and build-out obligations.

In competitive markets, carrier-of-last-resort and build-out requirements can be replaced with competitively neutral subsidies.

A now-obsolete way to provide high-quality, affordable telecommunication services to all consumers in a monopoly environment was to award an exclusive franchise to one service provider and require it to extend service to all consumers at similar rates. The monopoly made it easy for the service provider to subsidize high-cost customers through rate averaging.

Exclusive franchises are now prohibited as a result of the 1996 Telecommunications Act, but the obligation remains on incumbent telephone companies to be carriers of last resort (COLR), providing service throughout the existing service territory at similar rates with their losses covered by federal and state high-cost funds. Similarly, even though cable markets are now competitive in virtually all markets, many cities still impose build-out requirements on new entrants, requiring them to submit plans to serve the entire community by some deadline.

The problem with both COLR and build-out requirements is that low-cost customers no longer can be forced to subsidize high-cost customers. Low-cost customers can now sign up with a competing service provider offering lower rates by choosing to serve only low-cost customers. The incumbent is still required to serve everyone else. But there are fewer low-cost customers to generate a subsidy for the high-cost customers, so an incumbent either has to be able to recover its costs from the remaining customers through rate increases, or policymakers need to find ways to distribute the cost of providing subsidized service to high-cost customers equitably among the competing providers.

The telephone rate averaging requirement should be eliminated. It can be replaced with a competitively neutral subsidy mechanism in which all providers participate, and retail prices in rural areas should be set no lower than prices in urban areas.

Next, an incumbent phone company should not be required to act as a carrier of last resort where the market is competitive and consumers can choose among multiple providers. In a competitive market rivals sometimes sign exclusive deals with property developers or landlords. If the incumbent has a COLR obligation, it may be required to build costly facilities to serve a single customer in an office park, shopping mall, or housing development.

The revenue may be inadequate to cover the cost without rate averaging. Regulation that imposes costs on some carriers but not others is anti-competitive.

The Indiana law addresses this problem in part by protecting an incumbent from having to provide communications service to occupants of multi-tenant nonresidential real estate if the owner, operator, or developer of the property does any of the following to benefit another provider: (1) permits only one provider to install communications facilities or equipment on the premises, (2) accepts incentives from a provider in exchange for allowing the provider the exclusive right to provide service to the premises, (3) collects charges from occupants for communications service, or (4) enters into a prohibited agreement with a provider.

Florida ended all carrier-of-last-resort obligations on phone companies effective January 1, 2009. It previously automatically relieved a carrier of last resort of its obligation to provide basic local telecommunications service to any customer in a multi-tenant business or residential property when an owner or developer permits only one communications service provider to install its facilities or equipment and under other circumstances. That approach was more comprehensive than, and superior to, Indiana's.

The case of cable service is similar. Incumbent cable companies often operate under mandates in their franchise agreements to provide universal service to the community. A "level playing field" could require that competitors be subject to the same requirement – that they "build out" their network to cover the entire community by some deadline. But there is no social purpose served by requiring that every customer be served before a single customer is given a second, third, or even fourth choice of cable provider. The "level playing field" goal can better be met by relieving both the incumbent and new competitors from build-out requirements (Skorburg, Speta and Titch 2007, pp. 17-19).

In high-cost areas where a carrier of last resort is necessary to deliver basic service, the provider should be allowed to choose the most efficient technology, such as VoIP or a wireless technology. Indiana takes this approach to telephone service, relieving the carrier of having to offer costly service using outmoded network facilities and then find a way to subsidize it.

Finally, competitors should be given the opportunity to become providers of last resort. Any provider ought to be allowed to bid for contracts to provide essential telecommunication service in high-cost areas and receive adequate and equitable support from an explicit funding mechanism, if it wins the contract. Incumbent providers that currently provide subsidized service should not be under any legal obligation to continue to serve areas where other providers have won the contracts.

9. Minimize government's role in broadband deployment.

Most broadband initiatives by municipalities have been costly financial failures.

There has been debate for years over government's role in building and operating broadband systems and whether current subsidies for traditional phone service should be expanded to cover advanced services such as broadband. Given the economic benefits of broadband, should governments use taxpayers' money to subsidize its more rapid or widespread deployment?

Municipalities around the country have experimented with building and operating their own broadband systems. Despite high hopes and often significant investments of taxpayer dollars, most of these systems have been financial failures. University of Denver finance professor Ronald Rizzuto audited the three largest and longest-running municipal communications systems in Iowa, often cited as successes by advocates of municipal broadband, and found the reality was quite different:

- “Cedar Falls’ municipal communications system had a negative annual free cash flow to equity in nine of its ten years of existence. Its internal rate of return is -7.24 percent, meaning it has been a poor investment for taxpayers and ratepayers.
- “Muscatine’s municipal system increased its total debt from \$20.30 million in 1998 to \$36.49 million in 2004. It is \$25,554,984 below its payback point after seven years of operation, and its internal rate of return is -84.7 percent.
- “Spencer’s communications utility appeared to achieve positive annual free cash flow to equity in 2003 and 2004 after four years of deficits, but it has received large subsidies from Spencer’s electric utility. Adjusting for these subsidies eliminates Spencer’s surplus. The combined investment by the two utilities is \$18,286,703 below its payback, and its internal rate of return is -45.79 percent” (Rizzuto 2005).

Telecom expert Steven Titch’s study of BVU OptiNet, a municipal fiber-to-the-home system in Bristol, Virginia, found a net operating loss and higher-than-expected marketing, interest, and programming costs (Titch 2005). “Even municipal broadband

operations regarded as successful, such as BVU OptiNet, are still millions of dollars short of breaking even,” Titch concluded.

The failure of most municipal broadband initiatives is partly the result of competition from private broadband networks that have been deployed without public subsidies. While there are some areas where broadband service remains uneconomical with today’s technology, those areas are continuing to shrink.

Connected Nation, a nonprofit organization, was formed to foster the creation of other partnerships between the public and private sectors to promote private investment in broadband. In Kentucky, for example, a Connected Nation project helped to increase the percentage of households with access to broadband from 60 percent to 95 percent. (Boulard 2008). The percentage of people actually using broadband jumped from 22 to 44 percent. Tennessee, Ohio, West Virginia, and Minnesota also have implemented Connected Nation models (Connected Nation 2009).

If lawmakers want to subsidize broadband, subsidies should be limited to unserved or underserved areas and employ an explicit and competitively neutral funding mechanism. But beware. The Universal Service Fund (USF) administered by the FCC, which subsidizes basic phone service, has been criticized for years as wasteful and inefficient (Vasquez 2006, McTigue and Ellig 2005). State programs are often no better.

A recent report by the U.S. Government Accountability Office (GAO) notes Congress, when it created the USF, anticipated that competition and new technologies would eliminate the need for universal service support mechanisms, but the explicit fund grew nearly 153 percent between 1998 and 2007 (GAO June 2008). Reform of the subsidy mechanisms has been seriously considered on many occasions but has proven to be politically impossible every time.

The best ways to promote investment in broadband appear in previous principles of this booklet: cut taxes and fees on telecom services and remove regulatory barriers to competition and consumer choices. Direct government subsidies or investment in broadband is unnecessary.

Recommended reading: Joseph Bast, “Municipally Owned Broadband Networks: A Critical Evaluation (Revised Edition), *Heartland Policy Study* No. 105, October 2004; Gary Boulard, “High Speed to the Hinterlands,” *State Legislatures*, January 2008; Connected Nation, www.connectednation.org, display on Web site last visited January 9, 2009.

10. Give a single agency responsibility for consumer protection.

Utility commissions rarely have expertise in enforcing consumer protection laws.

Identity theft, noncompliance with the do-not-call registry, fraud, loss of privacy, spamming, telemarketing scams, and unauthorized charges are examples of real problems consumers face in cyberspace. Although utility regulation and consumer protection are related, a utility commission is seldom better-suited than a state attorney general to protect consumers.

The lack of consumer protection expertise at the FCC was on display recently when the GAO found that although the FCC received 454,000 complaints between 2003 and 2006, it closed about 83 percent without taking any enforcement action (GAO February 2008). The agency has not set measurable enforcement goals, developed a well-defined enforcement strategy, or established performance measures linked to the enforcement goals. The GAO also found the Federal Trade Commission (FTC), which has primary responsibility for consumer protection throughout the economy as a whole, has specific goals and performance measures that allow it to target its enforcement activities and efficiently use its limited resources (GAO June 2008).

Indiana withdrew from the state utility commission jurisdiction to regulate telephone services, but it allows the commission to continue to require service providers – other than commercial mobile service providers – to report annually on service quality. The commission will not have jurisdiction over quality of service aside from mandating reports, however.

States should give a single agency responsibility for enforcing consumer protection laws to ensure uniform treatment of all commercial entities. The advent of robust competition in telecommunications makes it counterproductive to maintain redundant jurisdiction for telephone companies by increasing the risk of uneven enforcement, which could distort competition.

Recommended reading: GAO, “FCC Needs to Improve Performance, Management and Strengthen Oversight of the High-Cost Program,” GAO-08-633, June 2008; GAO, “FCC Has Made Some Progress in the Management of Its Enforcement Program but Faces Limitations, and Additional Actions Are Needed,” GAO 08-125, February 2008.

Conclusion

States discourage phone and cable companies from offering more competitive services and generating new jobs and economic growth by imposing taxes and regulations that are no longer appropriate for a highly competitive and fast-growing industry. Laws requiring cross-subsidies, utility regulation of competitive services, pricing inflexibility, tariff filing requirements, and consumer protection oversight in the hands of government staff whose specialty is regulation are not in the public interest. All serve chiefly as obstacles to investment that reduce asset values of all telecom suppliers.

Legacy regulation restricts service strategy flexibility and the creativity needed for real competition in the Internet age, even when pursued in the name of “competition.” By embracing regulatory reform, legislators can expand customer choice, decrease prices, and ignite the broadband expansion necessary to economic growth and technological progress.

The favorite argument of opponents of regulatory reform is that the time is not right because some consumers have fewer competitive choices than others. But the falling prices of long-distance telephone service and “triple-play” packages being marketed by cable and telephone companies show the competition that exists today is fully sufficient to protect consumers. If incumbent phone companies attempt to exploit consumers by unreasonably raising prices or degrading service, there is sufficient competitive pressure from VoIP and wireless services that they will face swift punishment in the marketplace. Incumbent cable companies face similar pressure from phone companies and wireless competitors. Today consumers are virtual regulators.

It would be wrong to withhold regulatory relief until competitors are in a position to serve every consumer or the incumbent loses a particular market share. These tests are inherently arbitrary, can be exploited by competitors, and are nearly impossible to administer.

This is a golden opportunity for states facing new challenges for jobs and economic growth. By removing the cobwebs of regulations that afflict telecom, policymakers can open up new technological opportunities and economic efficiencies that promise a direct economic stimulus. With simple reforms of outmoded laws, they can ignite innovation and a revival based on technologies and services tapping into new worldwide webs of glass, light, and air.

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