# More Broadband, Increased Choice and Lower Prices Begin With Regulatory Reform 

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## SUMMARY

Incumbent phone companies are facing significant competitive pressure from voice-over-Internet Protocol (VoIP) services provided by cable operators and from wireless services. A prime example of this competitive pressure is the 2.7 million net access lines AT\&T lost in the first half of 2008 nationwide. It is estimated that AT\&T and Verizon are losing residential lines at a rate of about 10 percent per year.

One analysis 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.

The traditional rationale for utility regulation - that fixed landline telephone service was a natural monopoly - is gone. Lawmakers must face the reality that continued reliance on utility regulation not only is unnecessary but will distort competition in ways that will harm consumers. So far, few states have faced up to this challenge.

Indiana moved confidently into this new competitive era in 2006 by reforming utility regulation which inhibits competition and innovation. Specifically, it addressed the problem of cross subsidies by significantly reducing intrastate access charges; barring possible utility regulation of competitive VoIP and wireless services; providing pricing flexibility and eliminating tariff filing requirements; and transferring responsibility for consumer protection and promoting broadband deployment from the utility commission to agencies better suited to perform those tasks.

These changes enable phone companies to offer more competitive services, attract capital to fund broadband expansion, and remove obstacles to investment that reduce asset values of all telecom suppliers.

A survey of neighboring Midwest states indicates that significant and harmful vestiges of legacy regulation remain. These include:

- Hidden subsidies intended to hold some prices at or below cost. These subsidies cannot be maintained in a competitive market where competitors can choose to serve profitable customers and ignore everyone else.
- Tariff filing requirements which ensure that rivals will always have advance notice of an incumbent's intentions. This reduces the incumbent's incentive to improve its products or services and it relieves rivals of pressure to offer the best value proposition they can each and every day as the only way to avoid competitive surprises which may cause them to lose sales.
- Requirements to offer similar terms to all customers. These rules prevent incumbents from developing customized offerings, such as volume and term discounts, which are necessary to retain valuable customers who will contribute to the cost of maintaining service for everyone else.
- No constitutional or statutory prohibitions on imposing utility regulation on competitive providers. To the extent a utility commission may attempt to assert jurisdiction to regulate competitive services it is a target for commercial rivals seeking a regulatory advantage, activists seeking to promote a policy agenda or even a formerly regulated entity seeking protection.
- Rules which impose costs on some providers but not others - such as the requirement to act as a provider of last resort where the market is competitive and consumers can choose between multiple providers. These obligations are anticompetitive.
- The absence of restrictions on utility commissions from intervening in the marketplace to promote broadband deployment. This risks recourse to unnecessary and inefficient subsidies and overlooks the more valuable role that state economic development and education departments can play in promoting broadband deployment.
- Utility commission jurisdiction for consumer protection. This is redundant since the attorney general, commerce department or some other state agency already protect consumers. Redundant jurisdiction can lead to different consumer protection rules according to the type of service or provider. This could have anticompetitive implications.

Even when pursued in the name of "competition," legacy regulation restricts service strategy flexibility and creativity needed for real competition in the Internet age. By resisting regulatory reform, legislators will limit customer choice, increase prices, and cripple the broadband expansion necessary to economic growth and technological progress.

This is a moment of truth for Midwest states facing contraction of their traditional manufacturing industries. By removing the "statewide cobwebs" of regulations that afflict telecom, they can open up new technological opportunities and economic efficiencies that promise a direct economic stimulus of at least $\$ 20$ billion over the next five years. By simple reforms of outmoded laws, they can ignite a new spiral of innovation and revival based on new technologies and services tapping into new worldwide webs of glass and light and air.
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"The local loop is the most competitive arena in the global economy, with wireless, $3 G$ cellular, cable, wireline, satellite, even the power companies involved, and new generations of technology launched every year."

George Gilder ${ }^{3}$

"The industry is obviously no longer a natural monopoly..."

## Alfred E. Kahn ${ }^{4}$

Since the Great Depression the telecommunications 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."

The Telecommunications Act of 1996 began a process of gradual regulatory reform intended to lower prices, improve services and encourage the rapid deployment of new technologies. However the first thing some consumers noticed were lengthy delays waiting for new phone service or for repairs to existing service. ${ }^{5}$ Service quality declined in some places during the first several years after the new law took effect, particularly in the five states which comprised the Ameritech region - Illinois, Indiana, Michigan, Ohio and Wisconsin. ${ }^{6}$ Some observers believe that cost-cutting immediately before Ameritech was acquired by San Antonio-based SBC Communications, now AT\&T, was responsible for the

## ${ }^{3} I d$.

${ }^{4}$ Remarks of Alfred E. Kahn before the Federal Trade Commission (Feb. 13, 2007). Kahn is the Robert Julius Thorne Professor of Political Economy (Emeritus) at Cornell University who has also served as chairman of the New York Public Service Commission, chairman of the Civil Aeronautics Board, Advisor to the President (Carter) on Inflation, and chairman of the Council on Wage and Price Stability.
${ }^{5}$ See, e.g., "Not at Your Service: Competition Was Supposed to Make Telecom Companies More Attentive to the Customer; What Happened?" by Karen Jacobs, Wall Street Journal (Sept. 18, 2000) ("The Telecommunications Act of 1996, which deregulated the industry, was expected to reduce rates and improve service. By introducing local phone competition, the act was going to usher in a world in which carriers could offer a plethora of new services, battling each other to win the loyalty of the discerning customer .... In reality, though, consumers got only half the promise. Yes, they have a laundry list of new services. But in trying to be all things to all people, industry observers say, carriers have had to cut costs -- and customer service has been one of the casualties.") ("Some of the complaints involving Ameritech were particularly troublesome. Sandy Engelman says that when her elderly parents, in Grove City, Ohio, had their phone service halted in June because of line problems, she requested faster repair service, because of their advanced age, but wasn't able to get it. She says her parents, ages 86 and 91, waited to have their phone repaired for about five days, during which time her father had a stroke and wasn't able to receive attention for hours because her mother couldn't call for help. The stroke occurred around 3 a.m.") and "Ameritech Comes Under Fire Again from State Regulators," by Alan Johnson, Columbus Dispatch (Nov. 9, 1999) ("The The Public Utilities Commission of Ohio yesterday began hearings based on thousands of consumer complaints that Ameritech missed installation and repair appointments and failed to give credits or fee waivers when due. The PUCO staff alleges that Ameritech repeatedly has violated the state's Minimum Telephone Service Standards adopted in 1997.").
${ }^{6}$ Ameritech was one of seven regional holding companies established in the divestiture of AT\&T in 1983. It was the dominant provider of phone service in Illinois, Indiana, Michigan, Ohio and Wisconsin.
subsequent delayed installations and repairs throughout the region. ${ }^{7}$ The Ohio state commission reported receiving thousands of complaints, and one resident claimed that during a 5 -day wait her elderly father had a stroke and wasn't able to receive attention for hours due to an inoperative telephone, even though she advised an Ameritech representative of the need for prompt service. ${ }^{8}$

Was deregulation responsible for the service woes? The merger wouldn't have been possible if the 1996 law had not vacated a judicial decree governing the breakup of Ma Bell. But the reason for alleged underinvestment at Ameritech was not because the 1996 law was too deregulatory but because it deregulated Ameritech's local exchange competitors but not Ameritech itself. Pursuant to the law, the FCC implemented so-called pro-competition rules which deprived Ameritech and other incumbent phone companies of an appropriate return on investment by making it unrealistically profitable for new entrants to serve lucrative segments of the market. In addition, preexisting regulation of basic phone rates made it unlikely new entrants would compete for those customers. Therefore, regulation - not deregulation created the incentive and the opportunity for Ameritech to adjust its priorities.

Incumbent phone companies outside Indiana remain heavily regulated in statewide webs of bureaucracy that depress industry valuations and thus investment. If the service quality experience in the former Ameritech region in the wake of the overhyped 1996 federal law - which wasn't really deregulatory, as its supporters claimed - accounts for some of the reluctance to pursue regulatory reform, the skepticism is unwarranted. With the need for massive outlays for broadband infrastructure over the next decade to spur economic growth in the region, this paper examines the need for regulatory reform in these states.

In 2006, Indiana legislators passed the most comprehensive set of regulatory reforms in the country and Gov. Mitch Daniels signed the bill into law. House Enrolled Act 1279 eliminates hidden subsidies in intrastate access charges, ends tariff filing requirements, permits pricing flexibility, expressly provides that the state commission does not have jurisdiction to regulate competitive services, streamlines provider of last resort regulation and assigns responsibility for consumer protection and broadband deployment to other state agencies.

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

Competition is Thriving

[^1]Competition in the telecommunications industry got off to a slow start initially but began to grow rapidly in 2004 as a result of changes in the pro-competition policies implemented by regulators. Today, incumbent phone companies are facing significant competitive pressure from voice-over-Internet Protocol (VoIP) service provided by the cable operators and from wireless providers. AT\&T lost 1.2 million landlines nationwide in the first quarter of $2008^{9}$ and over 1.5 million more in the second quarter. ${ }^{10}$ One industry analyst estimates that Verizon and AT\&T are losing residential phone lines at a rate of about 10 percent per year for reasons that include VoIP and wireless substitution and a softening economy. ${ }^{11}$ Earnings reports for the second quarter of 2008 provide support for this view. ${ }^{12}$

Cable VoIP. Cable phone service is presently available to over 100 million homes nationally, and more than 15.1 million currently subscribe according to the National Cable and Telecommunications Association. ${ }^{13}$ Cable voice subscribership has been growing by more than one million per quarter. ${ }^{14}$

[^2]
## Rapid Growth Projected in Competitive Services



Sources: NCTA, FCC, CDC, SNL Kagan

Cable VoIP is a result of a $\$ 130$ billion investment by cable operators in network upgrades spurred by the deregulation of cable rates in 1996. ${ }^{15}$ When the 1996 law passed, there were several cable operators planned to offer competitive phone services in a venture that included Sprint Corp. ${ }^{16}$ These plans were shelved, according to Sprint CEO William T. Esrey, due the FCC's "pro-competition" policies: "If we provided telephony service over cable, we recognized that they would have to make it available to competitors." ${ }^{17}$ Thus, the local competition rules which were intended to speed effective competition actually delayed it. ${ }^{18}$ Cable voice services gained significant momentum beginning in 2004 when the FCC scaled back its pro-competition rules. ${ }^{19}$ Those changes prompted phone companies to

[^3]enter the video market dominated by cable operators, who in turn accelerated their entry into the voice market dominated by incumbent phone companies.

One study estimates that the market potential for cable voice service over the next 15 years to be 38.8 million residential and 1.6 million small business subscribers. ${ }^{20}$ The study also projects consumer benefits of $\$ 17.2$ billion over five years based on an estimated cost savings of $\$ 11.70$ per residential subscription per month ${ }^{21}$ and $\$ 811$ million in savings to small businesses over the same period ( $\$ 19.70$ per customer per month). ${ }^{22}$ Aside from these direct savings to customers who sign up for cable phone service, the customers who stick with incumbent local exchange carriers (LECs) typically also see lower bills because the incumbents have to lower their prices to retain customers. The study claims that the combined savings to consumers and small businesses equals $\$ 111$ billion over five years. ${ }^{23}$

On a state-by-state basis, this breaks down to $\$ 4.5$ billion in Illinois, $\$ 2.4$ billion in Indiana, $\$ 4$ billion in Michigan, $\$ 4.3$ billion in Ohio and $\$ 2.1$ billion in Wisconsin. ${ }^{24}$

# Projected Consumer Savings from Cable Voice Competition 

Billions \$


Source: Michael D. Pelcovits, Ph.D. and Daniel E. Haar

Cox is offering telephone and broadband to virtually $100 \%$ of its potential customer base and $25 \%$ of its customers subscribe. Sixty percent of Cox's telephone subscribers take video, voice and data

[^4]services from Cox and "churn [i.e., customers who switch providers] is much, much lower for the folks who are taking phone." ${ }^{25}$

Comcast, now the nation's fourth largest phone company, ${ }^{26}$ has a higher profit margin in phone than in video. ${ }^{27}$

Two experts predict that, "[a]ll told, the VoIP revolution threatens to knock the legs out from under the traditional telephone industry." ${ }^{" 28}$

Wireless. The other significant competitive force affecting wireline service providers comes from cell phones. There were 163.2 million land lines and 238.2 million cell phones in service at the end of June 2007. ${ }^{29}$ And a growing number of cell phone customers are "wireless-only" or "mostly-wireless." Almost one-third of the nation's households fell into one of these two categories in 2007, according to a study conducted by the Centers for Disease Control (CDC) of the U.S. Department of Health and Human Services.

Preliminary results from the July-December 2007 National Health Interview Survey (NHIS) indicate that nearly one out of every six American homes (15.8\%) had only wireless telephones during the second half of 2007. In addition, more than one out of every eight American homes ( $13.1 \%$ ) received all or almost all calls on wireless telephones despite having a landline telephone in the home. ${ }^{30}$

The survey reveals that young adults are more apt than older adults to live in households with only wireless phones, and that as age increases the percentage of adults who have "cut the cord" decreases. ${ }^{31}$ For example, $34.5 \%$ of adults aged $25-29$ but only $2.2 \%$ of adults aged 65 and over are wireless-only.

Some experts appear to believe that the popularity of cell phones among young adults may be an age attribute as opposed to a generational trait, i.e., cell phones tend to appeal to anyone who is young although as the young grow older they may place a higher value on certain features of landline phones,

[^5]such as reliability and sound quality. Verizon recently released a survey of 800 consumers showing that $83 \%$ intend to continue using their landline phone indefinitely. ${ }^{32}$ However, these assumptions are based on an evaluation of the merits and demerits of the competing voice services as they now exist.

Another explanation is that cell phone preference amongst the young is a generational trait - i.e., a habit which, once adopted, will stick - and a trend, because rapid improvements in the capability, functionality and quality of cell phones and wireless networks will make them more appealing in the future. Some experts believe that a trend has been established by young adults, who are society's trendsetters, and that other adults will follow their lead. ${ }^{33}$

Not only will cell phones become more reliable and less costly in the future, they are beginning to feature television; ${ }^{34}$ location services based on global positioning systems; ${ }^{35}$ the capability to monitor blood sugar levels in diabetics and track aerobic activity in dieters; ${ }^{36}$ and Internet access. Wireless providers already have 35 million broadband subscribers (more than either the cable or phone companies), ${ }^{37}$ even though wireless broadband services are currently slow compared to DSL and cable modem services. Cell phone companies and others are gearing up to address this issue, however.

For example, a consortium which includes Google, Intel, Comcast, Time Warner, Clearwire and Sprint Nextel are teaming up to build a wireless broadband network based on WiMAX technology that will rival DSL and cable modem services ${ }^{38}$ and is much cheaper to deploy than DSL, cable modem service or the 3 G networks ${ }^{39}$ Verizon Wireless and AT\&T are deploying. The consortium is determined to
${ }^{32}$ "New Survey Shows 83 Percent of Consumers Continue to Rely on Landline Voice Service for its Quality, Safety Features," (Verizon press release) Mar. 27, 2008.
${ }^{33}$ See, e.g., "More Americans Cutting the Cord," by Walaika Haskins, TechNewsWorld (May 14, 2008). ("the trend is moving up to older and more affluent households .... All three analysts expect the trend toward wireless households to continue and spread to businesses as well."); "Cutting the phone cord? Not so fast," by Andrea Coombes, CBS.MarketWatch.com (Oct. 11, 2004) ("For each concern, there is 'a dynamic going on in the market that in the next couple of years will change these people's thinking,' said Charles Golvin, a principal analyst at Forrester Research.") and "SNL Kagan Forecasts Rapid Shift in Composition of Residential Phone Service," (press release) Apr. 28, 2008 ('The maturing of the younger, more tech-savvy demographic combined with emerging technologies (such as femtocell) set to improve wireless coverage and reduce costs, will further promote the position of wireless services,' says Ian Olgeirson, Senior Industry Analyst for SNL Kagan.").
${ }^{34}$ "Mobile TV Spreading in Europe and to the U.S.," by Kevin J. O'Brien, New York Times (May 5, 2008).
35 "Global Positioning by Cellphone," by Larry Magid, New York Times (Jul. 19, 2007).
36 "Qualcomm plans move into health business," by Kathryn Balint, San Diego Union-Tribune (May 18, 2007).
37 "High-Speed Services for Internet Access: Status as of June 30, 2007," Industry Analysis and Technology Division, Wireline Cometition Bureau, Federal Communications Commission (Mar. 2008) at 7. See also: "The Mobile Connection: Wireless Broadband," Cellular Industry Association (Feb. 5, 2007).
${ }^{38}$ Clearwire, Sprint Nextel to form \$14.55B wireless company," by Michelle Chapman/AP, TIME (May 7, 2008)("WiMax promises faster download speeds than the latest networks run by cell-phone operators, and it's even seen as a potential competitor to fixed-line broadband. ...The new company is looking for a U.S. network deployment reaching 120 million to 140 million people by the end of 2010."). See also: "Clearwire: We're Ready for Primetime," Unstrung (Jun. 12, 2008) ("This will allow Clearwire to offer download speeds of ' 6 to 15 megabits per second per user,' Wolff says. Once that level of spectrum horsepower is in place, the company will be able to offer services such as wireless high-definition TV (HDTV) and mobile gaming, as well as more standard services, such as unwired Internet capabilities, claims Clearwire.").
${ }^{39}$ Remarks of Ben Shen, Vice President, Broadband Product Management, Sprint Nextel Corp. ("We think the WiMAX technology will achieve one-tenth of the current 3 G cost, and that will give us a lot of flexibility driving adoption by the mass consumer market."); and Remarks of William F. Wallace, Chairman, Digital Bridge Communications Corp. ("Why is WiMAX so economic in reaching smaller communities and other technologies? First, it is highly capital efficient, although it takes a lot of capital to reach many cities, within any one city [w]e spend $\$ 40$ to $\$ 60$ per household covered versus a DSL or cable company that is going to spend $\$ 800$ or $\$ 1,200$. It is
beat Verizon and AT\&T to the market. ${ }^{40}$ Meanwhile, AT\&T reports that its 3G network, currently rated the fastest, will be available in 350 leading U.S. markets by the end of $2008 .{ }^{41}$

There's also the possibility that cell phones may one day become free. The CEO of Google believes that your mobile phone could be free, subsidized by targeted ads. ${ }^{42}$

Even if many Americans are not prepared to cut the cord at the present time, cell phones are a good substitute for a large and growing number of people. Cell phones do not have to be a perfect or identical substitute for landline phones in order to prevent the phone company from unreasonably raising prices or degrading the quality of landline service if it wanted. The issue is whether consumers could cancel their landline subscriptions if they choose. The widespread availability and popularity of cable VoIP and wireless substitution proves that they can.

One analysis projects that by the year 2012 there will be 26 million households who opt for wireless-only phone connections and another 31.4 million cable VoIP subscribers. ${ }^{43}$ At that point no one could plausibly claim the incumbent landline provider is dominant anymore. Yet we predict there will still be a vocal few who argue for continued regulation because they have vested interests in the status quo. This means that, for lawmakers, the political challenge of enacting regulatory reform may not decrease if legislative deliberation is delayed, and there is little prospect of eventual consensus among the interested parties.

The strength of the competitive offerings, even as they are today, will act as a constraint on the behavior of incumbent phone companies in the absence of regulation. The incumbents will lose dissatisfied customers to a competitor if they unreasonably raise rates or sacrifice service quality. Considering the losses they are currently sustaining, they certainly cannot afford any more if they can help it.
a radically different set of economics.") at the 2007 Telecommunications Symposium:Voice, Video and Broadband: The Changing Competitive Landscape and Its Impact on Consumers (Nov. 29, 2007) sponsored by the Antitrust Division of the U.S. Department of Justice.
40 "Technology Group Plans Wireless Network," by Matt Richtel, New York Times (May 7, 2008).
41 "AT\&T Offers Nation's Fastest 3G Network" (company press release) (Jul. 10, 2008)
${ }^{42}$ "Google CEO sees free cell phone service," Reuters (Nov. 13, 2006).
${ }^{43}$ SNL Kagan Forecasts Rapid Shift in Composition of Residential Phone Service," (press release) Apr. 28, 2008 ("The SNL Kagan analysis illustrates the telcos' loosening grip on the market and the opportunity created for alternative services. In the past two years, the telcos' share has dwindled from $90 \%$ to $74 \%$ of total connections, with the five-year outlook estimating another $23 \%$ drop. The main competition in the space has come from the increased availability of IP voice services from cable operators coinciding with the phase-out of older switchedcircuit technology. SNL Kagan projects a steady increase in IP voice subscribers, reaching 31.4 million in 2012, putting cable's market share at $26 \%$. The 10 -year forecast shows cable penetration of homes passed stabilizing at $27 \%$.... Concurrent with cable's advance, SNL Kagan sees wireless replacement services gaining momentum, perhaps posing an even greater threat to telco's hold on the market. Approximately 12 million households currently opt for a wireless-only phone connection, with that number expected to increase to about 26 million in 2012 (equal to about $22 \%$ of market share.) "The maturing of the younger, more tech-savvy demographic combined with emerging technologies (such as femtocell) set to improve wireless coverage and reduce costs, will further promote the position of wireless services," says Ian Olgeirson, Senior Industry Analyst for SNL Kagan.").

## Market Shares for Voice Services



## No Longer a Natural Monopoly

Local phone service has been comprehensively regulated by public utility commissions because local phone competition has historically been considered impractical if not impossible both due to the enormous cost of building rival networks plus the fact that the cost of operating the network declines, on a per-customer basis, as more customers are added. These conditions can be expected to give rise to a "natural monopoly," as opposed to an artificial monopoly which is created through legislation or anticompetitive behavior. But affordable, ubiquitous wireless and VoIP services which can ride a broadband connection for a small cost have eroded the "natural monopoly" justification for regulation.

The transition from natural monopoly to naturally competitive has been apparent for at least a decade. For example, Judge Richard A. Posner of the U.S. Court of Appeals for the Seventh Circuit in Chicago observed in 1999 that a remarkable competitive transformation was occurring in the telecommunications industry:

With the advent of cellular phones, cable television, satellite systems, and low-cost fiberoptic networks, even local telephone service is rapidly becoming naturally competitive, though the refusal of state regulatory agencies to abandon their control over the pricing
structure of local telephone service means that most of the benefits of the new competition have gone to business users. ${ }^{44}$

Cornell Professor Alfred E. Kahn, formerly a leading regulator and advisor to President Jimmy Carter, recently confirmed that the transition is complete and that comprehensive regulation of landline phone services is both unnecessary and will likely harm consumers by inhibiting competition and diminishing investment. ${ }^{45}$

States have been moving cautiously to remove unnecessary regulation, such as eliminating price regulation and tariff filing for non-basic phone service, by creating statewide video franchises to encourage the deployment of broadband networks and by exempting competitive services from utility regulation. Indiana enacted one of the nation's most sweeping reforms in 2006. A study conducted by the Digital Policy Institute at Ball State University found that telephone companies reported investing more than $\$ 516$ million and creating over 2,200 jobs during an 18 -month period in Indiana alone following the enactment of HEA $1279 .{ }^{46}$

Indiana's neighbors in the former Ameritech region have adopted some important pricing and tariff reforms and in some cases have excluded wireless and VoIP services from state utility commission jurisdiction. But additional reforms should be considered.

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 than from one or the other. The answer is that competition and regulation are incompatible. As Kahn points out, regulation is frequently anticompetitive and discourages heavy investment in network facilities. ${ }^{47}$ Robert W. Crandall of the Brookings Institution advises policymakers to deregulate completely.

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. ${ }^{48}$

For example, incumbent phone companies - who are struggling to keep up with their VoIP and wireless competitors - might be able to reduce their costs by adopting more efficient VoIP or wireless technology. But service quality regulation was designed for circuit-switched service powered through a telephone company central office with a backup generator. VoIP and wireless services are not powered independently, nor do VoIP and some wireless technologies utilize a single circuit. Yet millions of

[^6]consumers prefer VoIP and wireless. ${ }^{49}$ The issue isn't whether there are also millions of consumers who prefer their traditional wireline phone service, but how will the phone company continue to pay for it if there are alternatives which cost less, have more features and improve every year in terms of reliability and sound quality? The phone company has to have flexibility to utilize more efficient technology to satisfy the demand of cost-conscious customers; and if there are customers who want to keep their traditional phones, the phone company has to be able to charge them a price which recovers the cost of providing the service.

Regulatory reform of landline phone service is lagging far behind wireless ${ }^{50}$ and cable, ${ }^{51}$ both of which were largely deregulated during the Clinton administration when they faced much less actual competition than the phone companies have 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. ${ }^{52}$

Congress' willingness to make these predictive judgments may in some respect reflect the fact that it waited too long to deregulate the railroads in 1979, when President Jimmy Carter stated in a message to Congress that deregulation was necessary to avert an industry crisis. ${ }^{53}$ States are not in the position of having to make a difficult predictive judgment with respect to phone service, since incumbent phone companies already face significant competition. Without regulatory reform, telephone companies could eventually face the same predicament as the railroads in 1980, since current telephone regulation is

[^7]modeled after former railroad regulation. ${ }^{54}$ Among other things, the regime forces the regulated entities to set some prices below cost (e.g. 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.

One reason policymakers should undertake regulatory reform sooner rather than later is so phone companies can offer more competitive services and maintain stock valuations necessary to attract sufficient investment capital for broadband expansion. Investors funded wireless expansion by the incumbent phone companies on the strength of their landline business, and now telephone companies require competitive market returns from both their wireline and wireless operations so investors will back their broadband expansion. Investors will back broadband if they perceive it has the potential to make money and will not be forced to subsidize local services.

One study estimates that a $7 \%$ increase in broadband adoption nationwide would lead to the creation of 2.4 million new jobs per year - 105,622 new jobs in Illinois, 52,863 in Indiana, 76,200 in Michigan, 96,312 in Ohio and 50,748 in Wisconsin - and various other tangible benefits (see Appendix I). ${ }^{55}$

[^8]
## Projected Jobs from More Broadband



Source: Connected Nation

The widespread availability of competitive alternatives to landline phone service limit the ability of incumbent phone companies to dictate rates or terms or otherwise injure consumers, because most of their customers now have a choice of providers. Comprehensive regulation isn't needed to protect consumers today, and will actually do more harm than good by limiting the ability of incumbent phone companies to improve their products and services and to adjust their prices in response to competition.

## Next Steps

States should ensure that all providers of voice services are subject to minimum regulation which does not discriminate on the basis of technology, just like in any competitive market. There are a number of features of utility regulation, discussed below, which were appropriate in a monopoly environment but which are now unnecessary and anticompetitive. By removing the "statewide cobwebs" of regulations that afflict telecom, Midwestern states facing contraction of their traditional manufacturing industries can open up new technological opportunities and economic efficiencies that promise a direct economic stimulus of at least $\$ 20$ billion over the next five years. By simple reforms of outmoded laws, they can ignite a new spiral of innovation and revival based on new technologies and services tapping into new worldwide webs of glass and light and air.

## Cross Subsidies

The principle aim of regulation in telecommunications is to ensure that high-quality phone service is available and affordable everywhere. But there are dramatic variations in the cost of providing service depending on population density. 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 subsidy mechanisms provide support for rural and residential services. For example, 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.

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 lowcost 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. Forcing an incumbent - but not a new entrant - to provide service at a rate which is below cost was justified as a temporary strategy for jumpstarting competition, but the strategy failed.

Consumers suffer the consequences. High-cost consumers will be deprived both of competitive choices and ultimately of the heavily subsidized service they need. Low-cost consumers will also be harmed - even if they have a choice of providers - because the inflated price charged by the incumbent acts as an umbrella which guarantees that competitors can also maintain a high price. Allowing the market to set prices and remove the remaining implicit subsidies from intrastate access charges would therefore spread the benefits of competition in both urban and rural areas.

For states, the most acute example of an unsustainable cross subsidy are the intrastate access charges which long-distance and wireless providers pay to smaller rural local phone providers and new entrants who originate or terminate calls for them. Access charges historically were set far above cost to generate significant subsidies for local service. For example, as part of the cost of making an interstate long distance call in 1984, a long-distance caller had to pay more than 17 cents per minute on average to subsidize someone else's local phone service. In recent years the FCC and incumbent local providers subject to competition have worked to remove implicit subsidies from interstate access charges. Interstate access charges averaged 1.51 cents per minute for large providers like AT\&T and Verizon and 3.78 cents per minute for smaller carriers as of February, 2007. ${ }^{56}$

However, intrastate access charges can be much higher - particularly the intrastate access charges that smaller rural providers and new entrants are permitted to charge.

- One provider in Illinois charges 21.46 cents per minute for intrastate access but only 8.73 cents per minute for interstate access.
- A provider in Michigan charges 14.05 cents per minute for intrastate access versus 4.33 cents per minute for interstate access.
- In Ohio, a provider receives 34.57 cents per minute for intrastate access and 28.69 cents per minute for interstate access.
- A provider in Wisconsin receives 13.67 cents per minute for intrastate access and 6.34 cents per minute for interstate access.

[^9]
## Interstate vs. intrastate access charges

cents


In Indiana, there is parity - the cost of intrastate access does not exceed the cost of interstate access. This policy 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. Maintaining subsidies simply requires 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.

The wrong way to address this problem would be to impose a universal build-out requirement requiring new entrants to serve an entire market. Build-out requirements were an appropriate quid pro quo for a monopoly franchise. However, new entrants face significant competitive uncertainty and a risk of failure. The safest course of action for a new entrant would be to avoid jurisdictions which impose build-out requirements in favor of those that do not.

But the subsidies generated by intrastate access charges must be reduced since they are particularly unsustainable in a competitive market. That is because VoIP providers don't pay them. ${ }^{57}$ Providers of VoIP service pay a lower charge (referred to as "reciprocal compensation") due to the fact the FCC has not clarified which type of compensation applies to VoIP traffic. Since VoIP providers can profitably offer lower prices for long distance than an incumbent landline provider, competition will erode the significant subsidies that intrastate access charges generate.

Adding to the problem is the fact that wireless service providers do not pay access charges for a large volume of wireless traffic, which the FCC has classified as "local."58 This helps explain why wireless providers were the first to offer flat-rate long-distance plans.

[^10]The trend toward flat-rate long distance plans - which most consumers prefer - creates a difficult challenge for wireline phone companies. Not only are they forced to pay more for access than their wireless and VoIP rivals overall, they are also forced to offer averaged retail rates even though it may cost them 28.69 cents per minute to complete one call and only 1.51 cents a minute to carry the next call. Average rates distort competition by creating artificial consumer categories - with low-cost customers who underwrite the subsidies more desirable to serve than high-cost customers who benefit from the subsidies. Policymakers could not only reduce intrastate long distance rates for most consumers but they could also 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 uniform rates.

Reducing access charges would also spur the deployment of broadband in rural areas without sacrificing consumer choice. Access charges were originally set to reflect the cost of copper-based, circuit-switched network technology that VoIP is rendering obsolete. Smaller rural providers are still under "rate-of-return" or "cost-plus" regulation which entitles them to recover their costs plus earn a reasonable return of approximately $10-15 \%$. Since the return is defined as a percentage of the costs they incur, as costs go up so do profits.

Smaller rural providers and new entrants are faced with a dilemma when they are entitled to assess high access charges and VoIP providers do not have to pay them and wireless providers pay them less frequently than wireline providers. Their customers may try to save money by making more use of the cheaper VoIP and, perhaps, wireless offerings. One phone company attempted to block its customers from accessing VoIP services, however the FCC intervened. ${ }^{59}$ Since VoIP deprives smaller rural providers and new entrants of access charges, it is reasonable to ask whether the right incentives are in place for these providers to invest in broadband technology which makes it possible for their customers to access VoIP services. As long as providers who are entitled to impose high intrastate access charges can require their broadband customers to subscribe to their voice service offering, they do have a strong incentive to deploy broadband. But consumers might be better off if they could choose to take DSL from the local phone company but not wireline local service - so-called "naked DSL," which is available to consumers in many areas. Many customers of smaller rural providers and new entrants who are entitled to impose high access charges may not get this option.

States should therefore consider reducing intrastate access charges for smaller rural providers and new entrants to remove a disincentive to deploy broadband, permitting more use of efficient VoIP technology as a way of reducing the need for rural subsidies over time.

It is not possible to preserve the status quo, nor is it desirable to postpone reform. If incumbent phone companies are forced to charge or pay inflated prices, 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.

Reducing intrastate access charges would put incumbent phone companies in a better position to attract investment to expand their broadband offerings and ought to be a key item in any agenda for promoting broadband deployment. It would also eliminate improper disincentives for smaller rural

[^11]carriers and new entrants not to adopt efficient new technology which would lower their cost of providing service, because that would reduce the cost-based subsidy they are otherwise entitled to receive.

## Tariffs

The requirement to file a tariff describing the service to be provided along with its rates, terms and conditions is intended to prevent a common carrier from discriminating. ${ }^{60}$ This type of disclosure sounds harmless and seems like it would be pro-consumer - even though it isn't considered necessary for legislatures to impose it on other competitive industries. But it actually has an anticompetitive impact which ultimately harms consumers.

Phone companies have to file a tariff in advance of the introduction of a new or improved offering. The utility commission reviews the tariff and decides whether it is in the public interest. Meanwhile, competitors are free to inspect the tariff and beat the incumbent to market with a competitive offering of their own. ${ }^{61}$ The problem with this is that the rival never has to worry about losing sales because it failed to anticipate what the incumbent will do. The rival need not strive to offer the best value proposition from one day to the next because the rival will always have advance notice of an incumbent's intentions. When informed of an incumbent's plans, the rival merely needs to offer a value proposition which is slightly better than the incumbent's to avoid losing sales. This is a cat and mouse game which reduces the incentives both for the incumbent and the rival to innovate.

Illinois has scrapped the requirement for incumbent phone companies to file tariffs - and wait for commission approval to implement them - beginning next year. Instead, incumbent phone companies will file a schedule of charges like all utilities and wait 45 days for the schedule to take effect. The 45day lag provides plenty of lead time for competitors to make the minimum adjustments - at the last possible moment - that would be necessary to blunt the competitive impact of the new or improved offering of the incumbent phone company. The Illinois commission may also shorten the 45 -day waiting period if it chooses. Currently, when a new entrant files a tariff in Illinois the tariff takes effect immediately. The commission could also choose to waive the 45 -day waiting period when new entrants file schedules of charges.

Tariffs, or a schedule of charges, inhibit competition, even if all market participants are subject to the same rules. For example, when airlines were deregulated they were allowed to publish tariffs even though airline tariffs don't now require approval by regulators and take effect immediately. Even this streamlined, competitively-neutral approach led to problems, and it illustrates how tariffs - of schedules of charges - can harm the consumers they were intended to protect. The U.S. Department of Justice sued eight of the largest U.S. airlines and the Airline Tariff Publishing Co. in 1992 for using tariffs to communicate and negotiate unlawful pricing agreements. ${ }^{62}$ If, for example, an airline wanted to eliminate

[^12]an unwanted discount fare, it could tell ATP that the fare would terminate at a future date. The other airlines could follow along or, if they didn't, the change could be withdrawn before there was there was a risk of losing sales to a lower-priced rival. Fare increases would not take effect until the airline proposing the change could see whether it was matched. A consent decree prohibits airlines from using tariffs to communicate without risk. Airlines can now only publish currently-available fares or sale fares for which travel can only begin in the future, such as offering fares in the summer for travel in the winter.

Perhaps it may be possible to design a tariff regime for a competitive market which is impervious to manipulation, but more likely it is not. In a competitive market all competitors are forced to anticipate their rivals' moves and plan their own moves without the benefit of information which a rival has not chosen to disclose for a valid business purpose.

The FCC concluded in 1996 that it would be pro-competitive to neither require nor allow longdistance carriers to file tariffs because it would increase incentives for innovation, make it easier to offer discounts and customized service arrangements as a way of retaining lucrative customers who contribute to the joint and common costs of maintaining the network and reduce the possibility of tacit coordination in price-setting. ${ }^{63}$

Illinois and Wisconsin still require incumbents to file tariffs covering all services. Ohio has detariffed advanced and toll services, as well as basic local exchange services provided to business customers who have four or more access lines. Michigan has detariffed everything except primary basic residential service. Indiana has detariffed all services.

Tariffs were appropriate in a monopoly environment where there was no need to worry about information sharing between competitors because there weren't any competitors. Neither tariffs nor similar filings are helpful to consumers because they inhibit rapid competitive responses needed to constantly improve the value proposition of a product or service, and they should be eliminated.

## Pricing Flexibility

The requirement to offer similar terms to all customers is the essence of common carrier regulation, but it prevents incumbents from developing customized offerings, such as volume and term discounts necessary to meet or beat the competition. Precluding incumbents from negotiating with individual customers and offering customized terms creates another pricing umbrella for competitors, depriving the public of vigorous competition.

In 1999, the FCC adopted a pricing flexibility policy which allows incumbents to raise or lower

[^13]prices when certain competitive triggers are met. ${ }^{64}$ Commissioner Susan Ness commented,
During the past decade, exchange access competition has increased significantly. I am optimistic that the investment and infrastructure deployment that has occurred demonstrates a strong and irreversible trend toward a multiplicity of carriers in the marketplace. We must ensure that our regulations do not impede this progress.

Part of the calculus is to determine not just when to regulate, but when to deregulate. ${ }^{65}$
There is pricing flexibility for all but primary basic residential service in Michigan, Ohio and in the 17 largest exchanges in Wisconsin. In Illinois there is pricing flexibility for business services statewide and for residential services in the Chicago area. There is full pricing flexibility in Indiana.

There is scant dissent whether phone services should be deregulated when there is competition. There are, however, wide differences of opinion as to what a competitive phone market would look like and, thus, when the occasion for regulatory reform is at hand. Opponents of deregulation have previously proposed that a market is not competitive until every consumer has a choice of providers or the incumbent loses significant market share. The FCC rejected both of these ideas in its 1999 order.

As to waiting until competitors are in a position to serve every consumer, the FCC concluded that 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. ${ }^{66}$ 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. ${ }^{67}$

A market share analysis is also problematic as a practical matter, as the FCC confirms, because such analyses "require considerable time and expense, and they generate considerable controversy that is difficult to resolve., ${ }^{68}$

Aside from these well-considered observations, fact-intensive inquiries are also unnecessary because there are other ways to predict whether competitive forces are adequate and effective to protect consumers. Contestability theory posits that a competitive market may consist either of large or miniscule firms, and that a market is competitive anytime there is an absence of barriers to entry - such as exclusive franchises or prohibitive investment costs - and where actual and/or potential competitors can offer
${ }^{64}$ Pricing Flexibility Order (Pricing flexibility is triggered incrementally beginning when an incumbent phone company can demonstrate that competitors have made irreversible, sunk investments in the facilities needed to provide services within a particular metropolitan area.).
${ }^{65}$ "Statement of Commissioner Susan Ness," Federal Communications Commission (Aug. 5, 1999).
${ }^{66}$ Pricing Flexibility Order at 75-76.
${ }^{67}$ Pricing Flexibility Order at 76 ("because regulation is not an exact science, we cannot time the grant of regulatory relief to coincide precisely with the advent of competitive alternatives for access to each individual end user." [footnote omitted]).
${ }^{68}$ Pricing Flexibility Order at 50. The FCC also considered a "competitive checklist" like the one Congress wrote into the 1996 law to govern entry by the Regional Bell Operating Companies into what was then a highly profitable long-distance market ( 47 U.S.C. $\S 271$ ) and concluded that the benefits weren't worth the administrative burden ("As a result of our review of several BOC 271 applications, the Commission has found that ascertaining whether the BOC adequately has demonstrated that it is providing these checklist items on a nondiscriminatory basis is not administratively simple or easily verifiable. These applications produce voluminous records in which the parties hotly contest BOC compliance with the checklist, and resolution of these disputes within the ninety days permitted by the statute imposes considerable burdens on both industry and the Commission.") at 47 .
reasonable substitute products or services. ${ }^{69}$ This theory clearly describes the phone market, since incumbent phone companies, wireless providers and cable VoIP operators are all providing voice services that large numbers of consumers consider substitutable in many circumstances. A dissatisfied consumer can take their business elsewhere.

## Jurisdiction to Regulate Competitive Services

One way to reform regulation of competitive communications services is to direct the agency with jurisdiction to consider the matter. This is the approach Congress took in the 1996 law. Congress even included a provision authorizing regulated entities to petition for regulatory relief and provided that the petition will be "deemed" granted if the FCC fails to issue an appealable

| Competitive Services <br> Expressly Free <br> From Utility Regulation |  |  |
| :--- | :---: | :---: |
|  | VoIP | Wireless |
| Illinois |  |  |
| Indiana | $\checkmark$ | $\checkmark$ |
| Michigan | $\checkmark$ | $\checkmark$ |
| Ohio | $\checkmark$ |  |
| Wisconsin |  | $\checkmark$ | written decision within 15 months explaining why it is denying the petition. ${ }^{70}$

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

Wireless and VoIP services share many of the same basic characteristics as traditional landline telephone service and in many states the public utility commission retains jurisdiction to regulate competitive communications.

It has been argued that if regulatory objectives are valid, some services should not be permitted to escape regulation just because they rely on different technology. Others argue that regulation of the incumbent phone companies could be threatened unless regulation is expanded to cover their competitors.

The latter argument recognizes the fact that regulation imposes burdens such as subsidy obligations. If the same burdens apply to all competitors no system of regulation-based competitive advantages and

If a utility commission may have jurisdiction to regulate competitive services it is a target for commercial rivals seeking a regulatory advantage, activists seeking to promote a policy agenda or even a formerly regulated entity seeking protection.
disadvantages will distort competition. But if regulation applies to some but not others, it could limit the regulated entity's ability to compete unless regulators decide to give it advantages which limit the ability of others to compete.

There is no reason for a utility commission to assume jurisdiction to intervene in a competitive marketplace because the market will take care of most regulatory objectives. Partial regulation is unsustainable, and the solution is to phase out the regulation. To the extent that competitive services are not expressly exempted from utility regulation, a state commission is a target for commercial rivals seeking a regulatory advantage, activists

[^14]seeking to promote a policy agenda or even a formerly regulated entity seeking protection.
The Ohio utility commission retains authority to regulate wireless services to the extent permitted under federal law. ${ }^{71}$ In Illinois the legislature authorized the utility commission exclude wireless services from "active regulatory oversight," which it did. Indiana, Michigan and Wisconsin have enacted statutes expressly exempting wireless services from state commission jurisdiction.

VoIP services are expressly not subject to state commission jurisdiction in Indiana, Michigan and Ohio. There is no express exemption in Illinois or Wisconsin of VoIP services from state commission jurisdiction. 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. But the FCC has already ruled that for jurisdictional purposes, certain VoIP services are interstate and therefore may not be subject to utility-type regulation by the states. ${ }^{72}$ This conclusion is currently being tested in the courts. ${ }^{73}$ The FCC has also warned that this preemption will likely be expanded in the future to cover similar VoIP services. ${ }^{74}$

From a business perspective, a law which expressly provides that competitive communications services are not subject to the jurisdiction of an agency which practices utility regulation would make it easier to plan massive investments in network upgrades. Even though the Illinois commission deregulated wireless from active regulatory oversight, commission decisions do less to reduce regulatory uncertainty than statutes. It is subject to litigation, it is subject to the FCC and the commission itself can either change it anytime it wants or merely threaten to change it when the commission wants something. Investment flows not only to the arena with the least regulation but also the lowest threat of regulation.

Thus 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 nonbasic landline services) from state commission jurisdiction.

[^15]
## Provider of Last Resort

Another way to help achieve the policy goal of providing high-quality, affordable telecommunications to all consumers in a monopoly environment included awarding an exclusive franchise giving one service provider a legal monopoly and requiring it to extend service to all consumers at similar rates. The monopoly made it easy for the service provider to subsidize high-cost customers, as previously noted, through rate averaging. The 1996 law prohibited exclusive franchises, but the obligation to provide service throughout the existing service territory at similar rates remains.

The problem is that low-cost customers no longer have to subsidize high-cost customers. They can now sign up with a competing service provider who can offer lower rates by choosing to serve only low-cost customers. The incumbent, as the provider of last resort, is still required to serve everyone else. But there are fewer low-cost customers to generate a subsidy for the high-cost customers, and the incumbent incurs costs which either should be recovered from the customers receiving the service or should be borne equitably by all competitors.

The rate averaging requirement should be eliminated. It can be replaced with a competitivelyneutral subsidy mechanism - in which all providers participate - if the goal is to maintain retail rates at their current levels.

Next, an incumbent should not be required to act as a provider of last resort where the market is competitive and consumers can choose between multiple providers. In a competitive market rivals sometimes sign exclusive deals with property developers or landlords. There is nothing wrong with this. However, if the incumbent has a provider of last resort obligation, it may be required build costly facilities to serve a single customer in an office park, shopping mall or housing development. ${ }^{75}$ The revenue may not be adequate to cover the cost without rate averaging. Regulation which imposes costs on some providers but not others is anticompetitive.

The Indiana law addresses this problem in part by protecting an incumbent from having to provide communications service to occupants of multitenant 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. ${ }^{76}$

Also, in high-cost areas where a provider 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, which relieves the provider of having to offer costly service using outmoded network facilities and then find a way subsidize it.

[^16]Finally, it is anticompetitive to deny competitors the opportunity to become providers of last resort. They ought to be allowed to receive adequate and equitable support from an explicit funding mechanism to serve high-cost areas, if they wish.

## Broadband Deployment

Economists have found higher residential property values and more jobs and businesses in communities with broadband, particularly in smaller, more rural and economically distressed areas. ${ }^{77}$ They also point to staggering potential savings in the cost of health care as a result of broadband. ${ }^{78}$ The economic impact of accelerating

## Many providers have deployed broadband networks throughout much of rural America without receiving subsidies.

 broadband access and use in the Midwest is at least \$21 billion, according to one study (see Appendix II). ${ }^{79}$No one disputes the importance of broadband, but here has been debate for years whether current subsidies for traditional phone service should be expanded to cover not only basic but also advanced services.

As previously noted, cross subsidies have spawned the now-urgent need for lower intrastate access charges, pricing flexibility and detariffing we describe.

If lawmakers want to subsidize broadband they should employ an explicit, competitively-neutral funding mechanism. But beware. The Universal Service Fund administered by the FCC which subsidizes basic phone service has been criticized for years as wasteful and inefficient. A recent report by the U.S. Government Accountability Office (GAO) notes that Congress anticipated that competition and new technologies would eliminate the need for universal service support mechanisms, but the explicit fund grew nearly $153 \%$ between 1998 and 2007. ${ }^{80}$ Reform of the subsidy mechanisms has been seriously considered on many occasions but has proven to be politically problematic every time.

Many providers have deployed broadband networks throughout much of rural America without receiving subsidies. ${ }^{81}$ There are some areas where broadband service remains uneconomical with today's technology, but the technology is continually improving.

[^17]In Kentucky, where there is pricing flexibility for all but primary basic services and where the state utility commission expressly does not have jurisdiction to regulate wireless or VoIP, an innovative public-private partnership in Kentucky has shown how broadband deployment can be deployed nearly ubiquitously without a universal service subsidy mechanism.
"When we began, 60 percent of the households in Kentucky had the ability to subscribe. Today it's about 95 percent," says Brian Mefford, executive director of Connected Nation. "That means about 600,000 new households have been able to subscribe to broadband who could not before." The number of people actually using broadband jumped from 22 percent to 44 percent. ${ }^{82}$

ConnectKentucky identified and addressed a number of factors affecting both supply (e.g., availability of market research) as well as demand.

For example, our research indicated that while industry assumed that the monthly fee was a primary barrier to the adoption of household broadband the lack of a computer at home ranked even higher. We developed No Child Left Offline as a partnership based solution. No Child Left Offline has facilitated cooperation among private partners, corporate foundations and state governments to place computers and printers into the homes and schools of disadvantaged children. ${ }^{83}$

Ohio has implemented the ConnectKentucky model ${ }^{84}$ and Connected Nation was recently formed to foster the creation of other partnerships between the public and private sectors. State officials are leveraging a wide number of opportunities to promote private investment in broadband.

To make sure broadband is available to everyone, lawmakers are creating incentives for providers through grants, loans and tax credits, streamlining regulatory structures and improving access to public rights-of-way. To help create demand for broadband services, legislators are promoting technology literacy among citizens by funding or encouraging distance education programs and telemedicine or health care initiatives. More and more government and public safety services are available through high-speed broadband networks. ${ }^{85}$

This experience clearly suggests that direct subsidies are not necessary for broadband.
Another lesson is that state economic development and education departments can play a valuable role promoting broadband deployment and that the goal of broadband deployment does not provide a justification for the state utility commission to retain jurisdiction of competitive telecommunications

[^18]services. The Indiana legislation provided that the state's finance authority shall determine underserved areas within Indiana for purposes the state's broadband development program.

## Consumer Protection

Cramming, identity theft, noncompliance with the do-not-call registry, fraud, privacy, spamming, telemarketing scams, unauthorized charges, etc., are all examples of real problems consumers face in cyberspace. Although utility regulation and consumer protection are related, a utility commission's expertise in network architecture, utility cost allocation or the principles of common carriage doesn't make it better suited to protect consumers than a state attorney general.

In fact, a utility commission typically acquires less expertise due to its narrow jurisdiction. This fact was evident 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 and that it has not set measurable enforcement goals, developed a well-defined enforcement strategy, or established performance measures that are linked to the enforcement goals. ${ }^{86}$ The GAO found that the Federal Trade Commission (FTC), which has primary responsibility for consumer protection throughout the economy as a whole and which shares responsibility with the FCC for consumer protection against violations of the do-not-call list request and telemarketing fraud, has set specific goals and performance measures which allows it to target its enforcement activities and efficiently use its limited resources. ${ }^{87}$ In short, consumer protection doesn't furnish a compelling reason for maintaining state utility commission jurisdiction over phone services.

In fact, states should want to ensure that consumer protection rules do not vary according to the type of service or provider, which tends to occur when multiple agencies share jurisdiction.

Consumers who are dissatisfied with their provider's service quality are now mostly free to take their business elsewhere. Consumer dissatisfaction with early termination fees (ETFs) in the wireless industry demonstrates how consumer preferences ultimately prevail in a competitive market in the absence of regulation. Sensing an opportunity for competitive advantage, Verizon Wireless voluntarily replaced its flat early termination fee with a pro-rated fee for customers who cancel their service early. ${ }^{88}$ The rest of the wireless industry voluntarily followed suit, and today every national wireless carrier has announced they will pro-rate early termination fees. ${ }^{89}$

Although the Indiana law withdraws state commission jurisdiction to regulate telephone services, the commission may continue to require communications service providers - other than commercial mobile service providers - to report annually on service quality when basic phone service is deregulated after June 30, 2008. The commission will not have jurisdiction over quality of service aside from mandating reports, however. Although state utility commissions do have expertise for service quality
${ }^{86}$ "FCC Has Made Some Progress in the Management of Its Enforcement Program but Faces Limitations, and Additional Actions Are Needed," (GAO 08-125), U.S. Government Accountability Office (Feb. 2008).
${ }^{87} \mathrm{GAO}$ at 29.
${ }^{88}$ Testimony of Lowell C. McAdam, President and CEO, Verizon Wireless, before the Committee on Commerce, Science and Transportation, United States Senate (Oct. 17, 2007).
89 "How to Keep Wireless Innovation Moving Forward in Arizona-Avoid State Regulation," by Steve Largent, Arizona Capitol Times (Jan. 18, 2008) ("The wireless industry also abides by a voluntary Consumer Code. Followed in all 50 states, the Code requires wireless carriers to make extensive disclosures to consumers at the point of sale, provide detailed coverage maps, and itemized billing distinguishing monthly charges from taxes and fees.").
issues, regulatory reform will address service quality by increasing the incentives for service providers to invest in their networks. ${ }^{90}$

States should assign a single agency with 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.

[^19]
## CONCLUSION

Cross subsidies, utility regulation of competitive services, pricing inflexibility, anticompetitive tariffs, redundant consumer protection oversight and broadband deployment in the hands of bureaucrats whose specialty is regulation are not in the public interest. These things prevent phone companies from offering more competitive services and generating revenues for broadband expansion. They serve chiefly as obstacles to investment that reduce asset values of all telecom suppliers

Legacy regulation restricts service strategy flexibility and creativity needed for real competition in the Internet age, even when pursued in the name of "competition." By embracing regulatory reform, legislators will expand customer choice, decrease prices, and ignite the broadband expansion necessary to economic growth and technological progress. We recommend that state legislators give urgent consideration to the following specific regulatory reforms:

- Reduce intrastate access charges for smaller rural providers and new entrants at least to the same level as interstate access charges to improve the competitiveness of traditional phone services and promote the deployment of broadband.
- Eliminate tariff filing requirements, which hurt not help consumers by inhibiting rapid competitive responses needed to constantly improve the value proposition of a product or service.
- Allow freedom to set prices so incumbents may develop customized offerings - such as volume and term discounts - necessary to meet or beat the competition; and so they can recover the actual cost of providing services - plus earn an appropriate return, which is necessary to attract investment capital.
- Expressly exempt competitive services - which include basic and nonbasic wireline service, wireless, VoIP and any other telecommunications or information service - from state utility commission jurisdiction so the state commission isn't a target for competitors or other suitors seeking regulatory favors.
- Eliminate the provider of last resort obligation wherever the market is competitive and consumers can choose between multiple providers, because imposing this costly burden on one market participant but not on its rivals is anticompetitive.
- Don't allow the state utility commission to intervene in the marketplace to promote broadband deployment, because economic development and public education expertise can do more good than experience in managing inefficient subsidy regimes.
- Assign a single agency with responsibility for enforcing consumer protection laws to ensure uniform treatment of all commercial entities.

These proposals all rest on the principle that all providers of voice services should be subject to minimum regulation which does not discriminate on the basis of technology or history, just like in any competitive market.

The favorite argument of opponents of regulatory reform is that the timing is not ripe because there are still some consumers who have fewer competitive choices than other consumers. But 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. Today consumers are virtual regulators.

It would be wrong to withhold regulatory relief until a certain number of 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 and are nearly impossible to administer.

This is a golden opportunity for Midwestern states facing contraction of their traditional manufacturing industries. By removing the "statewide cobwebs" of regulations that afflict telecom, they can open up new technological opportunities and economic efficiencies that promise a direct economic stimulus of at least $\$ 20$ billion over the next five years. By simple reforms of outmoded laws, they can ignite a new spiral of innovation and revival based on new technologies and services tapping into new worldwide webs of glass and light and air.

## APPENDIX I

|  | Total Annual Economic Impact | Jobs Created or <br> Saved <br> Annually | Direct Annual Income Growth from the Increase in Broadband | Average Annual Healthcare Costs Saved | Average <br> Annual <br> Mileage <br> Costs Saved | Average Annual Hours Saved | Annual Value of Hours Saved | Average Annual lbs of CO2 Emissions Cut | Value of Carbon Offsets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Illinois | \$6,207,888,316 | 105,622 | \$4,321,003,997 | \$28,425,487 | \$273,919,566 | 161,036,091 | \$1,583,789,952 | 138,748,261 | \$749,314 |
| Indiana | \$2,679,847,808 | 52,863 | \$1,860,248,442 | \$13,985,762 | \$134,940,477 | 79,232,151 | \$670,303,994 | 68,351,293 | \$369,133 |
| Michigan | \$4,637,508,875 | 76,200 | \$3,141,722,166 | \$22,363,953 | \$217,268,265 | 126,696,281 | \$1,255,560,149 | 110,052,723 | \$594,343 |
| Ohio | \$5,165,789,104 | 96,312 | \$3,598,197,715 | \$25,426,175 | \$247,968,322 | 144,044,384 | \$1,293,518,569 | 125,603,198 | \$678,323 |
| Wisconsin | \$2,613,219,462 | 50,748 | \$1,863,975,895 | \$12,308,818 | \$120,871,181 | 69,731,928 | \$615,732,922 | 61,224,784 | \$330,646 |
| Total | \$21,304,253,565.00 | 381,745 | \$14,785,148,215.00 | \$102,510,195.00 | \$994,967,811.00 | 580,740,835 | \$5,418,905,586.00 | 503,980,259 | \$2,721,759.00 |

Source: Connected Nation.

## APPENDIX II

|  | Illinois | Indiana | Michigan | Ohio | Wisconsin |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reduce Intrastate access chrarges | Reduce intrastate access charges. | No action needed. | Reduce intrastate access charges. | Reduce intrastate access charges. | Reduce intrastate access charges. |
| Eliminate Tariffs | All services require detariffing. | No action needed. | Primary basic residential service requires detariffing. | Basic local exchange services to businesses with less than 4 lines and to residential consumers require detariffing | All services require detariffing |
| Extend Pricing Flexibility | Primary basic residential service outside Chicago LATA requires pricing flexibility. | No action needed. | Primary basic residential service requires pricing flexibility. | Primary basic residential service requires pricing flexibility. | Primary basic residential service outside 17 largest exchanges requires pricing flexibility. |
| Protect Against VolP Regulation | Commission jurisdiction to impose utility regulation on VoIP services should be eliminated. | No action needed. | No action needed. | No action needed. | Commission jurisdiction to impose utility regulation on VoIP services should be eliminated. |
| Protect Against Wireless Regulation | Commission jurisdiction to impose utility regulation on wireless services should be eliminated. | No action needed. | No action needed. | Commission jurisdiction to impose utility regulation on VoIP services should be eliminated. | No action needed. |
| Reform Provider of Last Resort Standard Obligation | - Eliminate POLR requirement in competitive markets. <br> - Allow providers of last resort flexibility to utilize most efficient technology. <br> - Allow option for provider to become POLR in high cost markets and receive support from explicit funding mechanism, if necessary. | - Eliminate POLR requirement in competitive markets other than multitenant nonresidential settings. <br> - Allow option for provider to become POLR in high cost markets and receive support from explicit funding mechanism, if necessary. | - Eliminate POLR requirement in competitive markets. <br> - Allow providers of last resort flexibility to utilize most efficient technology. <br> - Allow option for provider to become POLR in high cost markets and receive support from explicit funding mechanism, if necessary. | - Eliminate POLR requirement in competitive markets. <br> - Allow providers of last resort flexibility to utilize most efficient technology. <br> - Allow option for provider to become POLR in high cost markets and receive support from explicit funding mechanism, if necessary. | - Eliminate POLR requirement in competitive markets. <br> - Allow providers of last resort flexibility to utilize most efficient technology. <br> - Allow option for provider to become POLR in high cost markets and receive support from explicit funding mechanism, if necessary. |
| Broadband Deployment | Assign primary responsibility for assisting broadband deployment to entity with economic development expertise. | No action needed. | Assign primary responsibility for assisting broadband deployment to entity with economic development expertise. | No action needed. | Assign primary responsibility for assisting broadband deployment to entity with economic development expertise. |
| Consumer Protection | Assign sole jurisdiction for consumer protection to attorney general or agency with responsibility for consumer protection in competitive industries. | No action needed. | Assign sole jurisdiction for consumer protection to agency with responsibility for consumer protection in competitive industries. | Assign sole jurisdiction for consumer protection to agency with responsibility for consumer protection in competitive industries. | Assign sole jurisdiction for consumer protection to agency with responsibility for consumer protection in competitive industries. |


[^0]:    ${ }^{1}$ Hance Haney is Director and a senior fellow of the Technology \& Democracy Project at the Discovery Institute. He advised the chairman of the Subcommittee on Communications of the United States Senate during the deliberations leading to the Telecommunications Act of 1996. He subsequently held various positions with the United States Telecom Association, U S WEST, Inc. and Qwest Communications.
    ${ }^{2}$ George Gilder is a senior fellow at the Discovery Institute and the founder of Discovery's Technology \& Democracy Project. He is also chairman of George Gilder Fund Management, LLC and moderator of the Gilder Telecosm Forum. His best-selling book, Microcosm (1989), explored the quantum roots of new electronic technologies. A subsequent book, Life After Television (1990), was a prophecy of the future of computers and telecommunications and a prelude to his book on the future of telecommunications, Telecosm (2000).

[^1]:    ${ }^{7}$ See, e.g., "Tangled phone lines - Service complaints mount at Ameritech," by Jason W. Gingerich, South Bend Tribune (Sept. 10, 2000) ("Mike Mullett, an Indianapolis attorney who represents consumer groups in regulatory matters, said the troubles go back three years, when Ameritech management decided to sell the company. He said the company cut costs and deferred maintenance to make Ameritech more attractive to prospective suitors .... 'What you want to do is build a dowry that is going to make that daughter an attractive marriage partner,' he said .... SBC spokesman Selim Bingol, quoted in the Akron Beacon Journal, recently confirmed that Ameritech 'let a lot of people go' prior to the merger, and to an extent that SBC wasn't fully aware."). But Ameritech's former CEO disagrees. See, e.g., "Now The Honeymoon's Over - Dick Notebaert pulled Qwest back from the the brink of bankruptcy. Here comes the hard part," by Stephanie N. Mehta, Fortune (Jan. 20, 2003) ("Critics have suggested Notebaert stopped investing in the network after [SBC and Ameritech] announced the transaction, creating the service woes. Notebaert bristles at that. 'I feel like the car had a full tank of gas. It was washed and waxed,' he says crisply. 'It was in great shape.'").
    ${ }^{8}$ Id.

[^2]:    9 "AT\&T Gets Wireless, Data Lift," by Roger Cheng and Andrew Lavallee, Wall Street Journal (Apr. 23, 2008) ("AT\&T, along with Verizon Communications Inc., has encountered strong challenges from cable companies while suffering ongoing losses in traditional phone lines. The carrier lost 1.2 million net access lines in the [last quarter].") 10 "Earnings Rose at AT\&T, but Revenue Misses Forecast ," ASSOCIATED PRESS (Jul. 24, 2008) ("The company ended the quarter with 58.9 million phone lines in service, down 2.6 percent from 60.42 million three months earlier.").
    ${ }^{11}$ "Who Needs Wirelines? Bernstein Says Verizon, AT\&T Seeing Accelerating Residential Line Losses," by Eric Savitz, Tech Trader Daily (Feb. 7, 2008).
    ${ }^{12}$ "Verizon Profit Increases On Wireless Strength," by Andrew Lavallee and Roger Cheng, Wall Street Journal (Jul. 29,2008 ) ("Verizon reported that the number of land lines it operates fell $8.5 \%$ to 38.3 million in the second quarter, compared with a $7.8 \%$ drop-off a year earlier. The weaker economy appears to be accelerating the number of people disconnecting land-line phone services, either in favor of cellphone services or cheaper Internet-phone services."); "Comcast Reports Strong Results in Web Services," by Vishesh Kumar, Wall Street Journal (Jul. 31, 2008) ("Comcast's performance affirmed the bullish view on the cable industry held by some analysts. "Comcast's solid results -- particularly in the wake of such weak wireline results from the telcos -- reinforce our long-held view that the battle on the ground is cable's to lose," wrote Craig Moffett, an analyst at Sanford C. Bernstein in a report.") and "AT\&T Net Rises 30\% Despite Weaknesses," by Roger Cheng and Andrew Lavallee, Wall Street Journal (Jul. 24, 2008) ("AT\&T said the number of access lines it operates dropped $8.1 \%$ to 58.9 million compared with the yearearlier quarter. The rate of decline was up from $7.7 \%$ in the first quarter.").
    ${ }^{13}$ "Digital Phone / Cable Telephony - Full Brief ," National Cable and Telecommunications Association (NCTA) available at http://www.ncta.com/IssueBrief.aspx?contentId=3023\&view=2
    14 "Digital Phone / Cable Telephony (VoIP - Voice over Internet Protocol)," NCTA, available at http://www.ncta.com/IssueBrief.aspx?contentId=3023.

[^3]:    ${ }^{15}$ Testimony of Kyle McSlarrow, CEO, National Cable \& Telecommunications Association before the Committee on Commerce, Science \& Transportation, United States Senate (Apr. 22, 2008) ("Cable operators have invested $\$ 130$ billion in private capital since the passage of the Telecommunications Act of 1996 to build broadband networks across the United States. Today $92 \%$ of American households, or about 117 million homes, have access to cable broadband service, including $96 \%$ of American homes to which cable television service is available." [footnotes omitted.]).
    ${ }^{16}$ See, e.g., "Sprint makes 'triple play' with cable companies to bid for PCS licenses; group plans to offer wireless local loop services, Mobile Phone News, (Oct. 31, 1994).
    ${ }^{17}$ "AT\&T-TCI: Telecom Unbound," Business Week (Jul. 6, 1998).
    ${ }^{18}$ Most new entrants who embraced UNE-P as a substitute for investment in new facilities have failed, notes Robert W. Crandall. See, Crandall, Robert W. Competition and Chaos (Brookings Inst. 2005) at 157 ("In the post-1996 era of telecom regulation, considerable effort was put into creating an environment conducive to the entry of new carriers into the fixed-wire local markets. The entrants this attracted offered little in the way of innovation or new services. They were mainly interested in exploiting the arbitrage opportunities created through the regulation of wholesale and retail rates, and most of them failed with a vengeance when the telecom stock market bubble burst in 2000-02 .... these policies simply transferred billions of dollars from incumbent telephone companies to fund marketing campaigns required to sell the same service under a different name. Instead, competition has developed in ways totally unanticipated by regulators, namely through unregulated wireless providers and cable broadband platforms.").
    ${ }^{19}$ The 1996 law allowed new entrants to purchase phone service from incumbent providers and resell it to consumers. Congress specified that the wholesale rate should equal the retail rate minus any costs which would be avoided by the incumbent, such as the cost of marketing, billing and collections (47 U.S.C. §252(d)(3)). The FCC's pro-competition strategy allowed new entrants to pay far less than the wholesale rates Congress envisioned by forcing the incumbents to sell a combined set of network elements (referred to as UNE-P) according to a pricing methodology which was criticized for substantially understating true costs. See, e.g., "7 $7^{\text {th }}$ Circuit Rules in Illinois

[^4]:    UNE Case," Tech Law Journal (Nov. 12, 2003) ("in 1997, the Illinois Commerce Commission (ICC) set a price of about $\$ 5$ per month per UNE-P in Chicago, and about $\$ 12$ on average statewide. Retail customers pay an average of about $\$ 36$ per month for the service one UNE-P creates .... SBC argues that it costs it $\$ 29$ per month to supply the UNE-P that fetches $\$ 36$ from a retail customer but only $\$ 12$ on average from AT\&T or MCI.").
    ${ }^{20}$ "Consumer Benefits from Cable-Telco Competition," by Michael D. Pelcovits, Ph.D. and Daniel E. Haar (Nov. 2007) at $10,24$.
    ${ }^{21}$ Id., at 12 .
    ${ }^{22}$ Id., at 25 .
    ${ }^{23}$ Id., at 27.
    ${ }^{24}$ Id., at 29.

[^5]:    ${ }^{25}$ Remarks of Alexandra Wilson, Vice President, Public Policy and Regulatory Affairs, Cox Enterprises, Inc. at the 2007 Telecommunications Symposium:Voice, Video and Broadband: The Changing Competitive Landscape and Its Impact on Consumers (Nov. 29, 2007) sponsored by the Antitrust Division of the U.S. Department of Justice.
    ${ }^{26}$ "Move Over Bells: Comcast Corporation Becomes The Fourth-Largest Phone Service Provider In The U.S." (Comcast press release) Jan. 8, 2008.
    27 "When Is the Cable 'Buy' Set to Come?" by Vishesh Kumar, Wall Street Journal (Apr. 3, 2008) ("Comcast, for instance, has a profit margin of $55 \%$ in video but $70 \%$ in phone and $80 \%$ for broadband, estimates Bernstein's Mr. Moffett.").
    ${ }^{28}$ Nuechterlein, Jonathan E. and Weiser, Philip J. Digital Crossroads: American Telecommunications Policy for the Digital Age (MIT 2005) at 194.
    ${ }^{29}$ "Local Telephone Competition: Status as of June 30, 2007," Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission.
    30 "Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2007," by Stephen J. Blumberg, Ph.D., and Julian V. Luke, Division of Health Interview Statistics, National Center for Health Statistics (May 13, 2008).
    ${ }^{31}$ Aside from the young, CDC reports that renters, the poor and Hispanic adults are also more likely to live in households without wireline service. Adults renting their home (30.9\%) were more likely than adults owning their home ( $7.3 \%$ ) to be living in households with only wireless telephones, adults living in poverty ( $27.4 \%$ ) were more likely than higher income adults to be living in households with only wireless telephones and non-Hispanic white adults ( $12.9 \%$ ) were less likely than Hispanic adults ( $19.3 \%$ ) or non-Hispanic black adults ( $18.3 \%$ ) to be living in households with only wireless telephones.

[^6]:    ${ }^{44}$ Richard A. Posner, "Effects of Deregulation on Competition: The Experience of the United States," 23 Fordham Int'l. L.J. 7 (2000).
    ${ }^{45}$ Kahn, see note 3 ("The industry is obviously no longer a natural monopoly, and wherever there is effective competition-typically and most powerfully, between competing platforms-land-line telephony, cable and wireless-regulation of the historical variety is both unnecessary and likely to be anticompetitive-in particular, to discourage the heavy investment in both the development and competitive offerings of new platforms, and to increase the capacity of the Internet to handle the likely astronomical increase in demands on it for such uses as online medical diagnoses and gaming.").
    ${ }^{46}$ "An Interim Report on the Economic Impact of Telecommunications Reform in Indiana: A White Paper by the Digital Policy Institute/Ball State University," (Feb. 15, 2008) (Executive Summary) (Full Report).
    ${ }^{47}$ Id.
    ${ }^{48}$ Crandall at 166.

[^7]:    ${ }^{49}$ "Consumers are the winners as wireless plans get cheaper," by Leslie Cauley, USA TODAY (Jun. 13, 2008) ("Piecyk says carriers with big landline businesses - such as Verizon and AT\&T - are basically stuck. If they make it easy and financially attractive to dump landlines, they help speed up erosion of that 100 -year-old business. 'But if they don't, they just lose customers,' he says."). See also: "Verizon to give discounts for landline-less bundles," by Peter Svensson, Associated Press (Jun. 13, 2008).
    ${ }^{50}$ Hundt, Reed E. You Say You Want a Revolution: A Story of Information Age Politics (Yale Univ. 2000) at 15 ("in the Omnibus Budget Reconciliation Act, passed by Al Gore's tie-breaking Senate vote, the Democratic Congress gave the FCC authority to dissolve this oligopoly by auctioning new licenses") and 98 ("by auctioning spectrum with no rules attached and preempting all state regulation, we had totally deregulated the wireless industry.")
    ${ }^{51}$ Hundt at 170 ("Our intent was to communicate our great support for cable's investment in renovating its systems. The 1996 law had repealed rate regulation, effective in two years. That topic was behind us. Now cable had to take on the telephone industry.").
    52 "Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming (Second Annual Report)," Federal Communications Commission (Dec. 11, 1995) ("We conclude that cable television systems remain the primary distributors of multichannel video programming services and continue to enjoy market power in local markets, although some progress has begun toward a competitive marketplace for the distribution of video programming. In the last year, DBS systems have attracted many subscribers to newly available services ... In sum, while subscribership for distributors using alternative technologies has generally increased over the last year, overall subscribership for all distributors using alternative technologies is just $9 \%$ of total multichannel video programming distributor ("MVPD") subscribership, whereas cable systems account for $91 \%$ of the total.").
    ${ }^{53}$ President Carter's message to Congress on his proposals to deregulate the nation's freight rail industry (Mar. 23, 1979) ("Deregulation presents the only viable option to either massive increases in federal subsidies to the railroads or increased government intervention in their operation - both of which are highly undesirable .... Without the changes I am recommending, we will face a catastrophic series of rail bankruptcies, sharply declining service and massive federal expenditures."). Congress's efforts to revitalize the railroads in the 1970s included the preemption state and local taxes which discriminated against railroad property (49 U.S.C. §11501(b)). Incumbent phone companies remain subject to similar special tax rates.

[^8]:    ${ }^{54}$ Huber, Peter W.; Kellogg, Michael K. and Thorne, John. Federal Telecommunications Law (Aspen 2d ed. 1999) at 214-220.
    55 "The Economic Impact of Stimulating Broadband Nationally" (Report from Connected Nation) Feb. 21, 2008.

[^9]:    ${ }^{56}$ "Trends in Telephone Service," Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission (Feb. 2007) at 1-4, 13.

[^10]:    ${ }^{57}$ Huber, Kellogg and Thorne, see note 54, at 163-166.
    ${ }^{58}$ In the Matter of Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, First Report and Order, CC Docket No. 95-185 (rel. Aug. 8, 1996) at paragraphs 1034-1036 (Instead of applying state-defined local service areas - of which there are thousands - to wireless traffic, the FCC defined the largest FCC-authorized license territories ("Major Trading Areas" or MTAs) - of which there are only 51 - as the

[^11]:    local service areas for wireless traffic. Since MTAs are very large, a significant portion of wireless calls originate and terminate within a single MTA. Access charges to not apply to these calls, because they are deemed "local."). ${ }^{59}$ In the Matter of Madison River Communications, LLC and affiliated companies, File No. EB-05-IH-0110, Consent Decree (Mar. 3, 2005).

[^12]:    ${ }^{60}$ Keogh v. Chicago \& N. W. R. Co., 260 U.S. 156 (1922) ("The legal rights of shipper as against carrier in respect to a rate are measured by the published tariff ... The rights as defined by the tariff cannot be varied or enlarged by either contract or tort of the carrier ... This stringent rule prevails, because otherwise the paramount purpose of Congress-prevention of unjust discrimination-might be defeated.")
    ${ }^{61}$ In the Matter of Access Charge Reform, Fifth Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-262 (rel. Aug. 27, 1999) ("Pricing Flexibility Order") at 20 ("[New entrants] that have notice of a price cap [provider]'s Section $69.4(\mathrm{~g})$ petition may be able to begin offering the service before the incumbent [phone company] has been granted permission to establish new rate elements for the new service, thus diminishing the incumbent's incentives to develop and offer new services." [footnote omitted]).
    ${ }^{62}$ See, e.g., "Roundtable on Facilitating Practices in Oligopolies - Note by the United States," Directorate for Financial and Enterprise Affairs, Competition Committee, Organization for Economic Co-operation and Development (OECD), DAF/COMP/WD(2007)112 (Oct. 4, 2007) at 11-14.

[^13]:    ${ }^{63}$ In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace, Second Report and Order, (rel. Oct. 31, 1996) at paragraph 53 ("The record in this proceeding supports our tentative conclusion that not permitting nondominant interexchange carriers to file tariffs for interstate, domestic, interexchange services will promote competition in the market for such services. Even under existing streamlined tariff filing procedures, requiring nondominant interexchange carriers to file tariffs for interstate, domestic, interexchange services impedes vigorous competition in the market for such services by: (1) removing incentives for competitive price discounting; (2) reducing or taking away carriers' ability to make rapid, efficient responses to changes in demand and cost; (3) imposing costs on carriers that attempt to make new offerings; and (4) preventing consumers from seeking out or obtaining service arrangements specifically tailored to their needs. Moreover, we believe that tacit coordination of prices for interstate, domestic, interexchange services, to the extent it exists, will be more difficult if we eliminate tariffs, because price and service information about such services provided by nondominant interexchange carriers would no longer be collected and available in one central location.")

[^14]:    ${ }^{69}$ Baumol, William J. and Sidak, J. Gregory. Toward Competition in Local Telephony (MIT and AEI 1994) at 4245.
    ${ }^{70} 47$ U.S.C. §160.

[^15]:    ${ }^{71} 47$ U.S.C. $\S 332(\mathrm{c})(3)$ prevents state regulation of entry or the rates charged by wireless providers in most cases, but does not prohibit a state from regulating other terms and conditions.
    ${ }^{72}$ In the Matter of Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission, WC Docket No. 03-211, Memorandum Opinion and Order (rel. Nov. 12, 2004) ("Vonage Order") ("We express no opinion here on the applicability to Vonage of Minnesota's general laws governing entities conducting business within the state, such as laws concerning taxation; fraud; general commercial dealings; and marketing, advertising, and other business practices. We expect, however, that as we move forward in establishing policy and rules for DigitalVoice and other IP-enabled services, states will continue to play their vital role in protecting consumers from fraud, enforcing fair business practices, for example, in advertising and billing, and generally responding to consumer inquiries and complaints.").
    ${ }^{73}$ The U.S. Court of Appeals for the $8^{\text {th }}$ Circuit affirmed the FCC's decision preempting state regulation of certain VoIP services in Minnesota Public Utilities Com'n v. F.C.C., 483 F.3d 570 (8 ${ }^{\text {th }}$ Cir. 2007). The New York Public Service Commission argued that fixed VoIP telephony typically provided by cable operators and telephone providers "is no different from traditional landline telephony" but the Court declined to rule on New York's claim since the FCC preempted only the nomadic VoIP services of non-facilities based competitors like Vonage and not the fixed VoIP offerings of facilities based competitors like cable operators and telephone providers. Id. at 581. In Clark v. Time Warner Cable, 523 F.3D 1110 ( $9^{\text {th }}$ Cir. 2008), the U.S. Court of Appeals for the $9^{\text {th }}$ Circuit declined to rule whether VoIP service provided by a cable operator qualifies as a telecommunications service which can be regulated by states, holding that the FCC has primary jurisdiction to decide this question.
    ${ }^{74}$ Vonage Order at paragraph 1 ("Similarly, to the extent that other VoIP services are not the same as Vonage's but share similar basic characteristics, we believe it highly unlikely that the Commission would fail to preempt state regulation of those services to the same extent.").

[^16]:    ${ }^{75}$ See, e.g., "BELLSOUTH unplugged: No more last resort? Utility wants to make service unavailable to developments that cut deals with rivals," by Scott Leith, Atlanta Journal-Constitution (Jul. 11, 2006).
    ${ }^{76}$ Florida automatically relieves a carrier of last resort of its obligation to provide basic local telecommunications service to any customer in a multitenant 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. See: Fla. Stat. §364.025(6)(b). We support this approach, which is more comprehensive than Indiana's.

[^17]:    77 "Measuring Broadband's Economic Impact," by Sharon Gillett, William H. Lehr, Carlos A. Osorio and Marvin A. Sirbu (Report Prepared for the U.S. Dept. of Commerce, Economic Development Admin.) Feb. 28, 2006.
    ${ }^{78}$ Robert E. Litan, "Great Expectations: Potential Economic Benefits to the Nation From Accelerated Broadband Deployment to Older Americans and Americans with Disabilities," (Dec. 2005) (""Three types of benefits from broadband deployment and use are addressed: lower medical costs; lower costs of institutionalized living; and additional output generated by more seniors and individuals with disabilities 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).").
    ${ }^{79}$ Report from Connected Nation, note 52.
    ${ }^{80}$ "FCC Needs to Improve Performance, Management and Strengthen Oversight of the High-Cost Program," U.S. Government Accountability Office, GAO-08-633 (Jun. 2008) at 2-3 ("While considering legislation codifying universal service, the Senate Committee on Commerce, Science, and Transportation anticipated that competition and new technologies would reduce or eliminate the need for universal service support mechanisms. However, rather than decreasing, the cost of the high-cost program has grown substantially to $\$ 4.3$ billion in 2007, increasing nearly 153 percent between calendar years 1998 and 2007.
    ${ }^{81}$ Testimony of Kyle McSlarrow, note 15 (" $92 \%$ of American households, or about 117 million homes, have access

[^18]:    to cable broadband service, including $96 \%$ of American homes to which cable television service is available. This investment and expansion took place without any government subsidies." [footnotes omitted.])
    ${ }^{82}$ "High speed to the Hinterlands: Getting high-speed Internet to the remaining 6 percent of the population that lacks it takes a concerted effort," by Gary Boulard, State Legislatures Magazine (Jan. 2008). See also, "Faster and Stronger," by Ann Carrns, Wall Street Journal (Jul. 28, 2008).
    ${ }^{83}$ Testimony of Brian R. Mefford, CEO of Connected Nation, before the Committee on Small Business of the U.S. House of Representatives (May 9, 2007).
    ${ }^{84}$ "'Governor Launches Connect Ohio Initiative (press release), Dec. 17, 2007.
    ${ }^{85}$ High speed to the Hinterlands, note 72.

[^19]:    90 "Principles for Texas Communications Law," by Raymond L. Gifford and Adam Peters, Progress on Point (Dec. 2005) at 14 ("Regulation is what creates the need for quality of service in the first instance, because a 'firm forbidden to raise rates or ordered to reduce them may react by reducing the quality of its product or service."" [citation omitted]).

